

VITOR HENRIQUE PINTO IDO

**Intellectual Property 'with Chinese Characteristics':
The Global Politics of China's Development Plans**

PhD Thesis

Supervisor: Full Professor Calixto Salomão Filho

UNIVERSIDADE DE SÃO PAULO

FACULDADE DE DIREITO

São Paulo – SP

2021

VITOR HENRIQUE PINTO IDO

**Intellectual Property 'with Chinese Characteristics':
The Global Politics of China's Development Plans**

PhD Thesis presented to the Examiners' Panel of the Post-Graduate Program in Law, Faculty of Law, University of São Paulo – concentration area Human Rights (DHU), under supervision of Full Professor Calixto Salomão Filho.

UNIVERSIDADE DE SÃO PAULO

FACULDADE DE DIREITO

São Paulo – SP

2021

Intellectual Property 'with Chinese Characteristics': The Global Politics of China's Development Plans

Preface

1. Introduction

- 1.1. Methodological Considerations: A Legal Anthropology Approach to IP
- 1.2. Towards a global and critical approach to Chinese IP law
- 1.3. On 'Chinese characteristics' and IP: A thematic overview
- 1.4. Summary of the Main Arguments and Structure of the Thesis

2. From 'Made in China' to Made in China 2025 and beyond

- 2.1. Origins and Clashes of Intellectual Property in China
- 2.2. The Contemporary Conundrum: Between endogenous IP policies and Foreign US Pressure
 - 2.2.1. The US-China Phase One Agreement (2020)
 - 2.2.2. Distilling the Rhetoric of 'IP Theft' and 'Forced Technology Transfer' as Morally Charged Categories
- 2.3. Contemporary Trends in the 'IP with Chinese Characteristics'
 - 2.3.1. Consequences of Governance by Numbers: Quantification and the Problems of IP as Indicators of Innovation
 - 2.3.2.1. The Maximalist Trend: TRIPS-Plus Provisions vs. Flexibilities
 - 2.3.2.2. The Prominent Role of Judicial Authorities and Specialized IP Courts
 - 2.3.2.3. Public Interest Exceptions, National Security and the State
- 2.4. Promoting a 'Culture' of IP in Contemporary China

3. Internationalizing the IP 'with Chinese Characteristics'

- 3.1. China goes global: China at the WTO and WIPO
 - 3.1.1. An Observer Participant in Geneva: Between Palaces of Hope and Paper Tiger Bureaucracy
 - 3.1.2. China at the World Trade Organization (WTO)
 - 3.1.3. China at the World Intellectual Property Organization (WIPO)
- 3.2. Regional and Bilateral Paths
 - 3.2.1. IP in the Regional Comprehensive Economic Partnership (RCEP)
 - 3.2.2. IP along the Belt and Road Initiative
 - 3.2.3. Some Implications for Latin America
- 3.3. Preliminary Conclusion: A Global Chinese Standard in the Making?

4. I 'am no medicine god': The politics of pharmaceutical patents in China

- 4.1. IP and Access to Medicines: the global debate and the role of China
- 4.2. The Chinese pharmaceutical industry and current regulatory issues
- 4.3. Patents and Geopolitics: The Chinese Covid-19 Vaccines
- 4.4. The Temporary TRIPS Waiver Proposal and the Position of China
- 4.5. Vaccine diplomacy and patent nationalism: two correlated issues

5. Intellectual Properties, Modernities and Nationalisms

- 5.1. Nationalism and state-building as elements of the contemporary Chinese IP system

- 5.2. The figure of the pirate and the undervaluation of the ‘backwards’
- 5.2.1. Tianducheng, the Sky City: copy, authenticity and reimagination in contemporary China
- 5.3. Intellectual Property and the ‘Specter of Modernity’

6. Concluding Remarks

- 6.2. IP ‘with Chinese characteristics’ offers inputs for a broader discussion on the role of law in developmental processes.
- 6.3. The IP ‘with Chinese characteristics’ is an exemplary use of policy space under international law but is not a case of technodiversity.
- 6.4. IP ‘with Chinese characteristics’ elicits how IP is a techno-futuristic dream, a mythology of progress, and strategic nationalism.
- 6.5. IP ‘with Chinese characteristics’ is an artifact of, and an entry point towards, IP as a cornerstone of the contemporary global economy.

Afterword: Dreams of Modernity, Dreams of Intellectual Property: Back-and-forth between China and Brazil

Bibliographical Sheet

Autorizo a reprodução e divulgação total ou parcial deste trabalho, por qualquer meio convencional ou eletrônico, para fins de estudo e pesquisa, desde que citada a fonte.

I authorize the full or partial reproduction and disclosure of this work, by any conventional or electronic means, for study and research purposes, provided the source is quoted.

Catálogo na publicação
Biblioteca
Faculdade de Direito do Largo de São Francisco, FDUSP

Ido, Vitor Henrique Pinto

Intellectual Property ‘with Chinese Characteristics’: The Global Politics of China’s Development Plans / Vitor Henrique Pinto Ido; Orientador, Calixto Salomão Filho. São Paulo: Faculdade de Direito do Largo de São Francisco, Universidade de São Paulo, 2021.

350f

Tese (Doutorado em Direito) – Programa de Pós-Graduação em Direito, Faculdade de Direito do Largo de São Francisco, Universidade de São Paulo, São Paulo, 2021.

1. Propriedade Intelectual. 2. China. 3. Inovação Tecnológica. 4. Direito Internacional e Comparado. 5. Antropologia Jurídica. 6. Economia Política Internacional. I. Salomão Filho, Calixto, orient. II. Intellectual Property ‘with Chinese Characteristics’: The Global Politics of China’s Development Plans

Evaluation Sheet

IDO, Vitor Henrique Pinto. **Intellectual Property ‘with Chinese Characteristics’: The Global Politics of China’s Development Plans. Thesis (PhD in Law) - Faculty of Law, University of São Paulo (FDUSP), São Paulo, 2021**

Approved on

Defense Panel:

Supervisor

Calixto Salomão Filho
Faculty of Law, University of São Paulo (FDUSP), Brazil

Evaluator 1

Juliana Krueger Pela
Faculty of Law, University of São Paulo (FDUSP), Brazil

Evaluator 2

Hyo-Yoon Kang
University of Kent, United Kingdom

Evaluator 3

Carlos M. Correa
South Centre, Switzerland; University of Buenos Aires, Argentina

Evaluator 4

Rosana Pinheiro-Machado
University of Bath, United Kingdom

Evaluator 5

Peter Yu
Texas A&M University, United States of America

Abstract

This thesis takes the expression intellectual property (IP) ‘with Chinese characteristics’ as a departure point to reflect on the interplay between IP, industrial and innovation policies in contemporary China. Inspired by legal anthropology and political economy, it aims at highlighting what is concealed and what is elicited by the expression. In around 40 years, China went from a nearly non-existent to a very stringent IP system. It is the largest applicant of patents in the world, and actively engages at the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO). Persistent counterfeiting, access to medicines, artificial intelligence, and reduced freedom to operate are main issues at stake. In this context, the thesis compares the ‘Made in China’ and the ‘Made in China 2025’, which represent the shift from an economic model based on relatively cheap manufacturing with little IP protection to the pursuits of China’s technological dominance with high-technology and strong IP protection. It provides a historical overview and assesses the recent amendments in the period 2019-2021, which are based on foreign pressure by the US-China trade war and the interests of domestic firms in IP protection. It also conducts an analysis of some of the main contemporary aspects of the Chinese IP system, including the expansion in IP applications, the use of national security, the creation of specialized courts, policies to create a ‘culture of IP’ in schools and universities, and ostensive anti-counterfeiting policies. Subsequently, the research deals with how the IP ‘with Chinese characteristics’ reverberates internationally. To that aim, it conducts an analysis of China’s stances at the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO), where the country tends to adopt ‘intermediary’ positions. This section is partly based on a series of interviews and an ethnographic experience as participant observer in Geneva (2018-2021). It also develops China’s IP stances in the Regional Comprehensive Economic Partnership (RCEP) and its Belt and Road Initiative (BRI), as examples of its increased role in regional and bilateral IP. China conducts procedural harmonization and cooperation-based activities but does not push its own Chinese legal standards. Therefore, it concludes that there is no Chinese standard in IP, but its role as norm-maker will invariably continue to grow. This may offer opportunities for Latin America. In the following chapter, the research addresses the politics of pharmaceutical patents and Covid-19 vaccines. It provides an analysis of IP and access to medicines in China, and its adoption of multiple TRIPS-Plus norms, which largely reduces the policy space of the country to ensure affordable access to medicines. The non-IP regulatory scope of tools available to the Chinese State can limit the detrimental impacts in China but may not be enough. The chapter then assesses the pharmaceutical sector in the country, noting how Chinese companies aim at becoming global big pharma, which this is in line with China’s aspirations to achieve technological dominance. At the World Health Organization (WHO), China has committed to treating vaccines as ‘global public goods’. At the same time, it has incentivized patenting of all technologies via fast-track policies, and heavily invested and coordinated the Covid-19 R&D research. China has been the main provider of Covid-19 vaccines in the global south but uses it to advance its geopolitical interests. The Sinovac-Butantan partnership highlights some interactions and a transnational public-private regulation between China and Brazil. The chapter presents the debates on the WTO TRIPS waiver proposal and the mostly cautious, background role of China – despite its key position in the access to Covid-19 vaccines. It concludes with a parallel between the idea of ‘vaccine diplomacy’ and ‘IP nationalism’ are correlated issues. The next chapter argues that IP is part of a nation-building process and surrounded by a ‘specter’ of modernity. In contemporary China, this is associated to a forward-looking and futuristic ideal that positively values the ‘high-tech’. For this reason, the figure of the IP ‘pirate’ is a public enemy to be combatted since it represents the backwards and the illicit. However, categories of ‘copy’ and ‘authenticity’ are not pre-existing, but constructed – something which Tianducheng, a Chinese ‘copy’ of Paris with its own aura, elucidates. The concluding remarks argue that China offers a lesson for countries to use their policy space to conduct IP and innovation policies differently from the expectations of Western countries. However, it does not present a techno-diverse, critical alternative: instead, it reinforces existing structures. At the very end, drawing a comparison with Brazil, the thesis concludes with the need to envision alternative intellectual properties, which should not be based on exclusionary concepts of ‘nationalisms’ and the ‘private’, but rather on inclusionary ideas of ‘global’ and the ‘public’.

Resumo

Esta tese toma a expressão propriedade intelectual (PI) "com características chinesas" como ponto de partida para refletir sobre a interação entre PI, políticas industriais e de inovação na China contemporânea. Inspirada por antropologia jurídica e economia política, visa destacar o que se esconde e o que é suscitado pela expressão. Em cerca de 40 anos, a China passou de um sistema de PI quase inexistente para um sistema muito robusto. É o maior requerente de patentes do mundo e participa ativamente na Organização Mundial do Comércio (OMC) e na Organização Mundial da Propriedade Intelectual (OMPI). A persistência de contrafações, o acesso a medicamentos, a inteligência artificial e a reduzida liberdade de operar são grandes questões em jogo. Neste contexto, a tese compara o "Made in China" e o "Made in China 2025", que representam a mudança de um modelo econômico baseado em produção barata com pouca proteção de PI para a ambição de domínio tecnológico da China com alta tecnologia e forte proteção de PI. A tese fornece uma visão histórica e avalia as recentes alterações no período 2019-2021, que se baseiam na pressão estrangeira da guerra comercial EUA-China e nos interesses das empresas nacionais na proteção de PI. Conduz também uma análise de alguns dos principais aspectos contemporâneos do sistema chinês de PI, incluindo a expansão dos pedidos de PI, o uso de argumentos de segurança nacional, a criação de tribunais especializados, políticas para criar uma "cultura de PI" nas escolas e universidades e políticas anti-falsificação ostensivas. Em seguida, a pesquisa aborda a forma como a PI "com características chinesas" reverbera internacionalmente. Para tanto, realiza uma análise das posições da China na Organização Mundial do Comércio (OMC) e na Organização Mundial da Propriedade Intelectual (OMPI), onde o país tende a adotar posições "intermediárias". Esta seção baseia-se em parte numa série de entrevistas e numa experiência etnográfica como participante observador em Genebra (2018-2021). Também desenvolve as posições da China em matéria de PI na Parceria Regional Econômica Abrangente (RCEP) e na sua Iniciativa Cinturão e Rota (BRI), como exemplos do seu crescente papel na regional e bilateral em PI. A China conduz atividades baseadas na harmonização de procedimentos e na cooperação, mas não pressiona pela adoção de suas próprias normas jurídicas chinesas. Portanto, conclui-se que não existe um standard internacional chinês em PI, mas seu papel como criadora de normas continuará invariavelmente a crescer. Isto pode oferecer oportunidades para a América Latina. No capítulo seguinte, a investigação aborda a política de patentes farmacêuticas e vacinas contra Covid-19. Ele fornece uma análise sobre PI e acesso a medicamentos na China, e a sua adoção de múltiplas normas TRIPS-Plus, o que reduz largamente o âmbito de políticas públicas do país para assegurar o acesso a medicamentos a preços acessíveis. Outros instrumentos regulatórios de que dispõe para o Estado chinês podem limitar os impactos negativos na PI na China, mas que podem não ser suficientes. O capítulo avalia então o setor farmacêutico no país, observando como as empresas chinesas têm como objetivo tornar-se grandes empresas globais, o que está de acordo com as aspirações da China de alcançar o domínio tecnológico mundial. Na Organização Mundial de Saúde (OMS), a China comprometeu-se a tratar as vacinas como "bens públicos globais". Ao mesmo tempo, incentivou o patenteamento de todas as tecnologias através de políticas de *fast-track*, e investiu e coordenou fortemente a pesquisa de P&D em Covid-19. A China tem sido a principal fornecedora de vacinas contra Covid-19 no Sul global, mas o faz para fazer avançar os seus interesses geopolíticos. A parceria entre Sinovac e Instituto Butantan destaca algumas interações desse processo e sinaliza para uma regulamentação transnacional público-privada entre a China e o Brasil. O capítulo apresenta igualmente os debates sobre a proposta de suspensão temporária de certas regras do TRIPS na OMC, bem como o papel cauteloso da China – apesar de sua centralidade no acesso às vacinas Covid-19. Conclui-se que a ideia de "diplomacia de vacinas" e "nacionalismo de PI" são questões correlacionadas. O capítulo seguinte argumenta que a PI faz parte de um processo de construção da nação, o qual está rodeado por um "espectro" de modernidade. Na China contemporânea, isto está associado a um ideal futurista que valoriza positivamente a "alta tecnologia". Por esta razão, a figura do "pirata" da PI é um inimigo público a ser combatido, uma vez que representa o atrasado e o ilícito. Contudo, as categorias de 'cópia' e 'autenticidade' não são pré-existentes, mas construídas - algo que Tianducheng, uma 'cópia' chinesa de Paris com a sua própria aura, elucida. As observações finais argumentam que a China oferece uma lição para os países utilizarem o seu espaço político para conduzir políticas de PI e inovação de forma diferente das expectativas dos países ocidentais. No entanto, não apresenta uma alternativa tecno-diversa e crítica: em vez disso, reforça as estruturas existentes. No final, fazendo uma comparação com o Brasil, a tese conclui com a necessidade de vislumbrar propriedades intelectuais alternativas, que não devem ser baseadas em conceitos exclusionários de "nacionalismos" e "privados", mas sim em ideias inclusivas de "global" e "público".

Resumé

Cette thèse prend l'expression "propriété intellectuelle avec des caractéristiques chinoises" comme point de départ pour réfléchir sur l'interaction entre la propriété intellectuelle et les politiques industrielles et d'innovation dans la Chine contemporaine. Inspirée par l'anthropologie juridique et l'économie politique, elle vise à mettre en évidence ce qui est caché et ce qui est suscité par cette expression. En une quarantaine d'années, la Chine est passée d'un système de PI quasi inexistant à un système très rigoureux. Elle est le plus grand déposant de brevets au monde et participe activement à l'Organisation mondiale du commerce (OMC) et à l'Organisation Mondiale de la Propriété Intellectuelle (OMPI). La persistance de la contrefaçon, l'accès aux médicaments, l'intelligence artificielle et la réduction de la liberté d'exploitation sont les principaux enjeux. Dans ce contexte, la thèse compare le "Made in China" et le "Made in China 2025", qui représentent le passage d'un modèle économique basé sur une fabrication relativement bon marché avec une faible protection de la PI à la poursuite de la domination technologique de la Chine avec des technologies de pointe et une forte protection de la PI. Il fournit un aperçu historique et évalue les modifications récentes de la période 2019-2021, qui sont fondées sur la pression étrangère exercée par la guerre commerciale entre les États-Unis et la Chine et les intérêts des entreprises nationales en matière de protection de la PI. Elle procède également à une analyse de certains des principaux aspects contemporains du système chinois de PI, notamment l'expansion des demandes de PI, le recours à la sécurité nationale, la création de tribunaux spécialisés, les politiques visant à créer une "culture de la PI" dans les écoles et les universités, et les politiques ostensives de lutte contre la contrefaçon. Ensuite, l'étude porte sur la manière dont la PI "aux caractéristiques chinoises" se répercute au niveau international. À cette fin, elle analyse les positions de la Chine à l'Organisation mondiale du commerce (OMC) et à l'Organisation mondiale de la propriété intellectuelle (OMPI), où le pays tend à adopter des positions "intermédiaires". Cette section s'appuie en partie sur une série d'entretiens et une expérience ethnographique en tant que participant observateur à Genève (2018-2021). Elle développe également les positions de la Chine en matière de PI dans le cadre du Partenariat Régional Économique Global (RCEP) et de son initiative "la Ceinture et la Route" (BRI), comme exemples de son rôle accru aux niveaux régionale et bilatérale de la PI. La Chine mène des activités d'harmonisation des procédures et de coopération, mais ne pousse pas ses propres normes juridiques chinoises. Elle conclut donc qu'il n'existe pas un 'standard' chinoise en matière de PI, mais que son rôle de créateur de normes continuera invariablement à se développer. Cela peut offrir des opportunités à l'Amérique Latine. Dans le chapitre suivant, la recherche aborde la politique des brevets pharmaceutiques et des vaccins Covid-19. Elle fournit une analyse de PI et l'accès aux médicaments en Chine, et de l'adoption par ce pays de multiples normes ADPIC-Plus, qui réduisent largement la marge de manœuvre politique du pays pour garantir un accès abordable aux médicaments. Des outils régulateurs non liés à la PI dont dispose l'État chinois peuvent limiter les effets néfastes de la PI en Chine, mais pourraient ne pas suffire. Le chapitre évalue ensuite le secteur pharmaceutique dans le pays, en notant comment les entreprises chinoises visent à devenir des grandes entreprises pharmaceutiques mondiales, ce qui est conforme aux aspirations de la Chine à atteindre une dominance technologique. Au sein de l'Organisation Mondiale de la Santé (OMS), la Chine s'est engagée à traiter les vaccins comme des "biens publics mondiaux". Parallèlement, elle a encouragé le brevetage de toutes les technologies par de politiques accélérées, et a fortement investi et coordonné la recherche et le développement sur la Covid-19. La Chine a été le principal fournisseur de vaccins Covid-19 dans le sud global, même si elle l'utilise pour faire avancer ses intérêts géopolitiques. Le partenariat Sinovac-Butantan met en évidence certaines interactions et une régulation publique-privée transnationale entre la Chine et le Brésil. Le chapitre présente les débats sur la proposition de dérogation temporaire aux ADPIC de l'OMC et le rôle plutôt prudent de la Chine - malgré sa position clé dans l'accès aux vaccins Covid-19. Il conclut en établissant un parallèle entre l'idée de "diplomatie des vaccins" et le "nationalisme de la PI", qui sont des questions corrélées. Le chapitre suivant soutient que la PI fait partie d'un processus de construction nationale et est entourée d'un "spectre" de modernité. Dans la Chine contemporaine, ce spectre est associé à un idéal prospectif et futuriste qui valorise la "haute technologie". Pour cette raison, la figure du "pirate" de la PI est un ennemi public à combattre, car elle représente l'arriéré et l'illicite. Cependant, les catégories de "copie" et d'"authenticité" ne sont pas préexistantes, mais construites - ce qu'élucide Tianducheng, une "copie" chinoise de Paris dotée de sa propre aura. Dans les remarques finales, la thèse défend que la Chine offre une leçon aux pays en ce qui concerne l'utilisation de leur espace politique pour mener des politiques de PI et d'innovation différentes des attentes des pays occidentaux. Toutefois, elle ne présente pas une alternative critique et techno-diversifiée, mais renforce plutôt les structures existantes. À la fin, en établissant une comparaison avec le Brésil, la thèse conclut à la nécessité d'envisager des propriétés intellectuelles alternatives, qui ne devraient pas être fondées sur des concepts d'exclusion de « nationalismes » et de « privé », mais plutôt sur des idées d'inclusion de « global » et le « public ».

摘要

本论文以 "有中国特色的知识产权 "这一表述为出发点,对当代中国的知识产权、产业和创新政策之间的相互作用进行思考。在法律人类学和政治经济学的启发下,本论文旨在强调这一表述所掩盖的内容和所引发的问题。在大约 40 年的时间里,中国从一个几乎不存在的知识产权制度变成了一个非常严格的知识产权制度。它是世界上最大的专利申请国,并积极参加世界贸易组织(WTO)和世界知识产权组织(WIPO)的工作。持续的假冒伪劣、药品的获取、人工智能和经营自由的减少是主要的关键词。在此背景下,论文对 "中国制造 "和 "中国制造 2025 "进行了比较,它们代表了从基于相对廉价的制造业和很少的知识产权保护的经济模式向追求中国在高科技和强大的知识产权保护下的技术主导地位的转变。它提供了一个历史概述,并评估了最近在 2019-2021 年期间的修订,这些修订是基于中美贸易战的外国压力和国内企业在知识产权保护方面的利益。它还对中国知识产权制度的一些主要当代方面进行了分析,包括知识产权申请的扩大、国家安全的利用、专门法院的设立、在学校和大学创造 "知识产权文化 "的政策以及密集的反假冒政策。随后,研究涉及 "中国特色 "的知识产权如何在国际上引起反响。为此,它对中国在世界贸易组织(WTO)和世界知识产权组织(WIPO)的立场进行了分析,中国在这些组织中往往采取 "中间 "立场。本节部分内容基于一系列访谈和在日内瓦作为参与观察员的人种学经验(2018-2021)。本节还阐述了中国在区域全面经济伙伴关系(RCEP)和 "一带一路 "倡议(BRI)中的知识产权立场,作为中国在区域和双边知识产权中作用增强的例子。中国开展了程序上的协调和基于合作的活动,但没有推动自己的中国法律标准。因此,它的结论是,在知识产权方面没有中国标准,但它作为规范制定者的作用将不可避免地继续增长。这可能会给拉美地区带来机会。在下一章中,本研究讨论了药品专利和 Covid-19 疫苗的政治问题。它对中国的知识产权和药品获取进行了分析,并对中国采用多个 TRIPS-Plus 规范进行了分析,这在很大程度上减少了中国确保可负担的药品获取的政策空间。中国国家可用的非知识产权监管工具范围可以限制中国的不利影响,但可能还不够。本章接着评估了中国的制药业,指出中国公司如何以成为全球大制药商为目标,这与中国实现技术主导地位的愿望是一致的。在世界卫生组织(WHO),中国承诺将疫苗作为 "全球公共产品 "对待。同时,中国通过快速通道政策激励所有技术的专利申请,并大量投资和协调 Covid-19 研发研究。中国一直是全球南方 Covid-19 疫苗的主要提供者,但却利用它来推进其地缘政治利益。科兴-Butantan 的合作关系凸显了中国和巴西之间的一些互动和跨国的公私监管。本章介绍了关于世贸组织与贸易有关的知识产权豁免提案的辩论,以及中国大多谨慎的背景作用--尽管它在获得 Covid-19 疫苗方面处于关键地位。它的结论是,"疫苗外交 "的想法和 "知识产权民族主义 "之间是相互关联的问题。下一章认为,知识产权是国家建设过程的一部分,被现代性的 "幽灵 "所包围。在当代中国,这与一种前瞻性和未来主义的理想有关,它积极评价 "高科技 "。因此,知识产权 "盗版 "的形象是一个需要打击的公敌,因为它代表着落后和非法。然而,"复制 "和 "真实性 "的类别并不是预先存在的,而是建构的--天都城,一个具有自己光环的中国 "复制 "的巴黎,阐明了这一点。结语认为,中国为各国提供了一个教训,即利用其政策空间,以不同于西方国家的期望的方式实施知识产权和创新政策。然而,它并没有提出一个技术多元化的、批判性的替代方案:相反,它强化了现有的结构。在最后,通过与巴西的比较,本论文的结论是需要设想替代性的知识产权,它不应该建立在 "民族主义 "和 "私人 "的排斥性概念上,而应该建立在 "全球 "和 "公共 "的包容性概念上。

Acknowledgements

Writing a thesis during a global pandemic was extremely challenging. Perhaps even more so since intellectual property, a legal technique of appropriation and the main topic of the research ahead, is directly involved in the unequal global allocation of power, wealth, and vaccines. For this reason, my gratitude to the network of people who supported me during these years is enormous. This outcome is dependent on many relations and multiple occasions – from long online conversations to writing workshops, from kind empathetic words to philosophical late-night discussions, from love to anger and discontent. This conjoint journey concretizes the fundamental reasons that justified this thesis in the first place: a belief in sharing, tolerance, and the possibility of common goals collectively constructed. There is a lot of gratitude, and although lengthy, this is also my way to highlight how co-constructed and shared this process really was. All errors and mistakes remain my own, nonetheless. Firstly, I would like to thank my parents, Rosana and Carlos, for their constant support, love, and care, and especially for their open-minded and compassionate view of the world. They opened me the doors for everything that followed. I also thank my grandmother, Sizuia, for looking forward, constantly reminding me that she is a woman ahead of her time, and my grandfather Akio (*in memoriam*) and grandmother Dinair (*in memoriam*), whose lessons and love remain in me. I extend my profound gratitude to my supervisor, Prof. Calixto Salomão Filho, the professor who 10 years ago convinced me that law, even if always limited, can be transformative if one does not dismiss the pursuit of fairness and the need to counter structures of power. Coinciding with the PhD journey, my experience at the South Centre, in Geneva, has been extraordinary. It concretized an explicit mission to contribute to the development and articulation of the global south, this very real abstraction – with all its caveats, and allowed me to work and learn from people who I highly respect. I also had the opportunity to gain insights and learn what truly means to seek a cross-cultural experience. Both these aspects were highly influential for the approach and the concretization of this thesis. In particular, I thank those who I have worked as a team and who provided support in difficult times: Mirza Alas, Viviana Muñoz, Nirmalya Syam, Nakshatra Pachauri, Germán Velásquez, Carlos Correa, Caroline Ngome Eneme, Thamara Romero, Anna Bernardo, and all others, for insightful conversations and various inputs for the thesis as well. I also heartedly thank prof. Álvaro Comin and prof. Rosana Pinheiro-Machado for excellent comments that shaped the thesis after the mid-term examination process. I must also thank the commentators during the presentation of drafts and early ideas of the thesis, including: IGLP Writing Workshop in January 2019 – Harvard Law School, in Bangkok; IP Researchers Europe Conference (IPRE), organized by WTO, WIPO and University of Geneva, in June 2019; International Economic Law (IEL) Collective Inaugural Conference, Warwick, November 2019; Seminário Pensar China Contemporânea – Unicamp, November 2020; the Third Intellectual Property & Innovation Researchers of Asia – IPIRA, March 2021; CELA – Center for Asian Legal Studies, University of São Paulo, June 2021; GEDAI – UFPR June 2021. I have also benefited from direct inputs and opportunities provided by professors who knew little or nothing about me, and who were still encouraging my work and research. Professors Peer Zumbansen, Serena Natile, Luis Eslava, Hyo Yoon Kang, and Amaka Vanni contributed with outstanding discussions and many indirect spillovers, which include the King's College Transnational Law Summit, April 2018, London; Inclusionary Practices Seminar by Kent Law School in September 2018; Digital Humanitarianism Workshop, King's College London, January 2019, the PASSIM – Patents as Scientific Information, Linköping, and the NEF/DEF at Warwick. In July 2018, a scholarship to attend the Xiamen University IP Summer School allowed me to go to China and experience some of the most enriching conversations about intellectual property, the expectations of colleagues for the future of the country and gain much knowledge. I thank prof. Prof. Lin Xiuqin on behalf of all the others and my friend Jianyi (JY) Nie for welcoming me in Beijing and for sharing so much. A second scholarship for a summer school on Critical Theory by the Kent Law School, in 2019, with prof. Alain Pottage, was equally important for this work – as well as a stellar group of new friends. I am also extremely grateful for discussions and interviews with several experts, including prof. Peter Yu, prof. Mark Cohen, prof. Irene Calboli, prof. Duncan Matthews, prof. Juliana Kruger Pela, prof. Sheila Neder Cerezetti, and others, whose contributions shaped and reshaped the content of the research. Unfortunately, many of other subsequent projects were stalled or cancelled, including a research stay in China. As much as the very difficult moments of the pandemic proved to be a massive challenge for myself, the constant interaction with different groups of friends were pivotal to keep myself strong and, once again, remember that humans are (fortunately) not islands. Narratives of success and achievements are only a part of this process of ups and downs, and for this I am grateful for those who supported and were at my side virtually and physically, starting with Manolo Caviezel, who gave intense support and care during this whole period. I am also grateful for the support of a vast number of great friends such as Matheus Falcão, Marcela Vieira, Bruna Trevelin, Karina Shiroma, Larissa Barreto, Mariana Oliveira, Lívia Batista, Karine Carvas, Ivan Lavander, Caio Caly, Marília Traversim, Ana Camelo, Luísa Valentini, Ricardo Mil-Homens, Taís Chartouni, Wendel Moreira, Yana Chang, PH Merotti, Daniel Caseiro, Otto Bernardelli, Guilherme Bozzo, André Bergamaschi, Raissa Belintani, Igor Denisard, Max Heringer, Caroline Aschenberger, Roxanne Le Fayer, Inés Algormin, Kelseny Pinho, Flávia Amaral, Alma Quintero, Tra Tran, Kruti Suchde, Leonardo Costa, Victor Vigil, Gabriel Galil, Bruno Mader, Ana Lia Angeli, Bianca Brandão, Carla Barbosa, Lais Vazami, Daniel Blanc, and many others. In addition, I need to thank my friend Pedro Schilling, who not only debated many ideas but directly helped me with materials and suggestions, and Vinícius Mendes, who spent years discussing essentially the whole thesis, as well as being as fascinated as myself when discussing our respective topics. I thank so much the support of Marlyna Nalbandian, Jana Plananska, Giovana Teodoro, and Julia Chao for the revisions and encouragement at the very last moment, not to mention the friendship. I thank the University of São Paulo, a public, free, and high-quality institution which not only provided me innumerable opportunities, but gave me the certainty that education is our only antidote to obscurantism and part of the fight against the structural inequalities that permeate the paradoxes of our *tristes tropiques*. My appreciation goes to the university as an institution, but also to its members: the cleaners, the security staff, the secretaries, the administrative staff, the librarians, and often hidden workers who are at the core of the university and therefore of this thesis. Finally, gratitude to health workers around the world, and the Brazilian public health system, who, in the most adverse conditions, has proven its resilience and strength in vaccination campaign. Viva o SUS.

There's nothing new
under the sun,
but there are new suns.

Octavia Butler

Preface

‘Once, when he told a colleague recruitment fair that he was from Pinduoduo, the audience laughed at him disdainfully. At the time, Pinduoduo’s stock price was stagnating. **“We were synonymous with fake products, just like China’s early manufacturing industry,”** he remembers. “It was tied up with notions of poor quality. Nobody thought [joining Pinduoduo] was very glorious.” Still, Li felt angry and asked the amassed students how many of them earned enough to live independently from their parents. He said: “I didn’t think they were qualified to laugh at Pinduoduo.” (Chen, a former young employee of e-commerce company Pinduoduo, fired after complaining online about the extreme work conditions.)¹

Pinduoduo is a hugely successful e-commerce platform that is one of the symbols of contemporary China. It seems curious, if not perplexing, that working there may be a factor of shame. However, if this means being associated to ‘fake products’, this might be the case. The anecdotal case of Mr. Chen highlights how the negative moral connotations attached to the idea of ‘fake products’ are extensive to peoples and companies. Accordingly, the association between China as a nation and counterfeits/pirated goods is perhaps what the country wishes to supersede with its innovation and high-tech development plans. The urges to achieve ‘innovation’ and ‘progress’, two notions that are embedded in intellectual property (IP) law, have treated non-industrial and non-modern forms of production as backwards. Cheap, ‘fake products’ are also against this goal of ‘progress’. Interpreted along these lines, this case illustrates the overlapping dimensions that compose the self-perception and the aspirations of contemporary China, as well as the individual dreams that are part of its contemporary development process. At the same time, it stresses a fundamental paradox: how the hopes of ‘innovation’ are constructed on the shoulders of those who are now being hidden and even criminalized for working in value chains associated to ‘fake products’.²

In this sense, as a metonym, Mr. Chen offers a critical tale of the embedded principles of IP. In its premises, the intellectual property regime separates the ‘tangible’ from the ‘intangible’, the ‘modern’ from the ‘traditional’, and the ‘creator/inventor’ from the ‘pirate’. It therefore carries economic and symbolic values at the same time, which become embodied in material forms that have very real consequences. As such, this thesis draws a parallel between the level of ideas and their material repercussions: how ideas construct

¹ CAI, Jiaxin; SHENGLIN, Yin; LI, Xiaofang. **Finally, I don’t have to work tomorrow**. Chinanarrative, March 2021, originally published by Media Fox (极昼工作室).

² PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018.

realities, including the ideas and promises of IP, but also how reality co-constructs the ideas of ‘progress’, ‘innovation’, and ‘authenticity’.

‘Las cosas tienen vida propia’.
(García Marquez, Gabriel. *Cien Años de Soledad*.)

The Chinese Communist Party (CPP) celebrated its 100 years in July 2021. Foreign investment in China grew 40% to over 800 billion USD in 2020 alone.³ The US and the EU set up a Trade and Technology Council (TTC) and adopted new policies to strengthen artificial intelligence (AI) and data governance, both aimed at countering China’s strong development and technological dominance. They also attack the country for alleged cases of cybersecurity breaches. Meanwhile, during the century’s largest health and social crisis, caused by Covid-19, access to vaccines remains extremely unequal around the world. The IP-based system of pharmaceutical innovation has been responsible for impeding ampler manufacturing and access in the global south. Vaccines manufactured by Chinese companies account for most of the doses inoculated in developing countries as of July 2021, placing the country in a crucial position in the debate on IP and access to medicines. All these elements highlight the necessity to consider China in order to think more broadly about current processes of the global economy – IP is, in this context, both a metaphor and a metonym.

In a topic so marred by polarized positions, this research seeks a fair, if critical, assessment of China’s contemporary IP policies, how they relate to industrial and innovation policies, and their international implications (how China influences global IP discussions and how these influence China). Ultimately, the research ahead reflects on how much power ideas may have in shaping legal regulations, determining collective futures, or shattering numerous other dreams.

³ LOCKETT, Hudson. **Global Investor’s Exposure to Chinese Assets surge to \$800bn**. Financial Times, 14 July 2021, Available at: <https://www.ft.com/content/f0c71c66-b386-4f3c-8796-4384e7378a56>

**Intellectual Property 'with Chinese Characteristics':
The Global Politics of China's Development Plans**



Wang Dongling (2015)

王冬玲

Intellectual Property 'with Chinese Characteristics': The Global Politics of China's Development Plans

我国知识产权事业不断发展，走出了一条中国特色知识产权发展之路”

‘My country’s intellectual property business has continued to develop and has embarked on a path of **intellectual property development with Chinese characteristics.**’ (Xi Jinping, 2021)⁴

3. Introduction

This research deals with the political economy and the global implications of a rather specific expression deployed by Chinese officials:⁵ the idea that the People’s Republic of China (PRC) is building an intellectual property (IP) system ‘with Chinese

⁴ 中国特色知识产，Zhōngguó tè sè zhī shì chǎn. See: XI, Jinping. **Comprehensively strengthen the protection of intellectual property rights, stimulate innovation and promote the construction of a new development pattern.** 31 January 2021. Available at: http://www.xinhuanet.com/politics/2021-01/31/c_1127046994.htm

⁵ For a couple of other examples of the use of the expression, see the article by Tao Kaiyuan, Vice-President of the People’s Supreme Court of the People’s Republic of China: “Over the past 40 years, China has established, and continued to improve, a modern IP system with Chinese characteristics. It has made remarkable progress and secured historic achievements in various areas, including legislation, enforcement, and international exchanges and cooperation. Today, strengthening the protection of IP rights is widely recognized in China as the most important element for improving rights protection and a fundamental incentive for enhancing the country’s economic competitiveness” TAO, Kaiyuan. **China’s commitment to strengthening IP judicial protection and creating a bright future for IP rights.** WIPO Magazine, June 2019, Available at: https://www.wipo.int/wipo_magazine/en/2019/03/article_0004.html; and the statement (originally published at high-level Quishi magazine, and also published in English) by Shen Changyu, Secretary of Party Committee and Commissioner of the China National Intellectual Property Administration (CNIPA): “General Secretary Xi Jinping looked back on the extraordinary journey IP protection in China took from the founding of the People's Republic of China to reform and opening up, and to the 18th CPC National Congress. He pointed out that IP protection in China has blazed a trail of Chinese characteristics in its attainment of historic progress. In just several decades, China accomplished what it took developed countries several hundred years to do in IP protection, growing into a veritable IP powerhouse from scratch. This hard-won achievement offers an abundant source of valuable lessons”. SHEN, Changyu. **Upholding Development of Intellectual Property with Chinese Characteristics.** 19 February 2021, Available at: https://english.cnipa.gov.cn/art/2021/2/19/art_1340_156782.html

characteristics’.⁶ Such statement is often viewed with skepticism, sometimes perplexity, and maybe as a sign of the beginning of a global IP order highly influenced by the ‘rise of China’.

The intention of this thesis is not to interrogate whether these ‘Chinese characteristics’ exist or not, but to take the expression as a starting point for a discussion on the contemporary interface between industrial and innovation policies in China and intellectual property rights (IPRs).⁷

With such framing, it discusses the international impacts and influences of the development of IP in the PRC – both how China asserts its role across multilateral institutions, regional and bilateral bodies, and how other countries may engage with it. Unavoidably, given the increased economic and geopolitical role of China, the global IP system will be affected by what it does and how it positions itself.⁸

Accordingly, one key objective of this thesis is to inquiry whether this will represent a substantial shift to the global IP order, or a further reproduction of its main foundations. In its broader sense, the research conducts a reflection on the status of IP, a key

⁶ The use of quotation marks is not part of the official narrative but will be utilized throughout this thesis to both highlight and lift up/suspend (*aufheben*) the exact meaning of the expression. This is inspired by Manuela Carneiro da Cunha’s investigation on indigenous knowledge practices, their claims of intellectual rights, and her discussion on the notion of culture, which entails two different dimensions: the ‘culture’ (with quotation marks) and the culture. While ‘culture’ means the objectified dimension that refers to the set of practices and values that are usually identified as characteristics of a certain social group (which is only rendered visible when contrasted with another set of elements, another ‘culture’), the culture refers to the elements themselves. This does not reflect an essentialist view of culture and identity, but rather a contrastive and changing approach to the topics, which will also be useful for assessing IP in contemporary China. For this reason, the IP ‘with Chinese characteristics’ (with quotation marks) is the set of norms, practices and discourses which are embedded in the *de facto* operation of IP. This is therefore slightly distinct from a separation between law on the books and law in action, for both are simultaneously on the books *and* in action. See CARNEIRO DA CUNHA, Manuela. **“Culture” and Culture: Traditional Knowledge and Intellectual Rights**. Chicago: Chicago University Press, 2009.

⁷ Intellectual property refers broadly to a set of temporary legal monopolies which take the form of exclusivity rights to prevent third parties from using, commercializing and/or accessing what is protected. Patents, trademarks, and copyrights are usually considered to be the main forms of IP, but many other legal categories fall under the scope of IP, such as industrial designs, geographical indications, plant variety protection, software, unfair competition, and trade secrets – although variations exist according to national and regional laws. Recent areas of intersection include competition law, data protection, e-commerce and the law of artificial intelligence – all of them also implicated in IP-related aspects in contemporary China.

⁸ This is in intimate relation with Abbott, Correa & Drahos’ (2013) argument on the rise of a new world patent order based on the increased role of developing countries, particularly Brazil, India and China, as key players across international arenas and with different policy experimentations at the domestic levels. But as of 2021, questions whether such prognostic will really be fulfilled have arisen. See: ABBOTT, Frederick M; CORREA, Carlos; DRAHOS, Peter. **Emerging Markets and the World Patent Order**. Cheltenham: Edward Elgar Publishing, 2013, p. 3-33.

topic for the current global economy⁹, in relation to the processes of constructing nation states¹⁰ and ideas of ‘catching-up’.¹¹

For this reason, the issue addressed does not refer to an ‘essence’ of Chinese characteristics or the existence of a Chinese standard in international law; it is instead focused on its effects, avoiding homogenizing the quite varied processes pertaining to China’s socio-economic transformations. The research conducts therefore a socio-legal analysis on the co-construction of IP law, socio-economic development, ideological narratives, and their material implications.¹² This may offer a different approach from most of the vast existing scholarship on Chinese IP, which has focused on an assessment of the status of IP protection in China¹³, Chinese cultural caveats that may limit an IP system¹⁴, and/or the processes of IP legal reform in the PRC.¹⁵

⁹ The growth in importance of IP as a prominent matter for the contemporary global economy is usually associated to the strong increase in the role of ‘intangible’ assets in the knowledge-based global economy, and where countries are expected to lead the ‘4th industrial revolution’ if they can reap benefits and control core technologies. These are for their turn associated to the protection of IP, although not all ‘intangible’ can be protectable by IP laws. This is of course also a particular narrative related to a distinct framing of the global economy, which for some may be limiting and problematic in the way IP is treated as an ‘asset’. Characterizing IP as an asset means commodification, i.e. intellectual property rights may be traded away in markets, become a baseline for financial assets. As such, it is not only a valuable good for the knowledge economy, but *also as a financial unit*. For a general positive prognostic, see: WORLD INTELLECTUAL PROPERTY ORGANIZATION. **Intangible Capital in Global Value Chains**. Geneva: WIPO Report 2017, Available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf ; for a critical view, see BIRCH, Kean; MUNIESA, Fabian. **Assetization: Turning Things into Assets in Technoscientific Capitalism**. Cambridge, MA: MIT University Press, 2020, Available at: <https://direct.mit.edu/books/book/4848/AssetizationTurning-Things-into-Assets-in>

¹⁰ See also Chapter 5 for reflections on the idea of nationalism, nation building and nation branding with respect to IP. For an unavoidable and crucial reference, see: ANDERSON, Benedict. **Imagined Communities: Reflections on the Origins and Spread of Nationalism**. London: Verso Books, 1983.

¹¹ For general references that are at the basis of this research, see in particular: CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in a Historical Perspective**. London: Anthem Press, 2002; NAYYAR, Deepak. **Catch-Up: Developing Countries in the Global Economy**. Oxford: Oxford University Press, 2016; AMSDEN, Alice. **The Rise of “The Rest”: Challenges to the West from Late-Industrializing Economies**. Oxford: Oxford University Press, 2003; FURTADO, Celso. **Desenvolvimento e Subdesenvolvimento**. Rio de Janeiro: Contraponto, 2003 [1961].

¹² In this sense, the thesis shares the concerns of other research about China concerning attempts to categorize the country in certain ways, such as: “is China a socialist or a capitalist country?”, “what is the socialism ‘with Chinese characteristics’?”. Instead, it focuses on processes have effects and material implications, asking what does the expression IP ‘with Chinese characteristics’ entail for the Chinese State, and how does it influence or open space for a reflection on the development of IP law in the contemporary PRC.

¹³ See, for an illustrative example: DEVOONSHIRE-ELLIS, Chris; SCOTT, Andy; WOOLLARD, Sam. **Intellectual Property Rights in China – Second Edition**. Munich: Springer, 2nd ed, 2011. Some studies also conduct comparative analysis between the legal norms applicable to mainland China, Hong Kong, and Taiwan, among others. See: MERCURIO, Bryan. **Drugs, Patents and Policy: A Contextual Study of Hong Kong**. Cambridge: Cambridge University Press, 2019; LI, Yahong. **Patents and Innovation in Mainland China and Hong Kong: Two Systems in One Country Compared**. Cambridge: Cambridge University Press, 2017.

¹⁴ This argument has been famously developed by ALFORD, William. **To Steal a Book is an Elegant Offense: Intellectual Property Law in the Chinese Civilization**. Stanford: Stanford University Press, 1995. The arguments set forth by Alford have also been widely read and cited by Chinese scholars.

¹⁵ See, for an up-to-date and thorough analysis of China’s ongoing IP reforms and policies, see the China IPR blog by Mark Cohen: <https://chinaipr.com/>

In a matter of around 40 years, accompanying the enormous socio-economic transformations in the country, the PRC created a fully operational IP regime.¹⁶ Since the IP Strategy of 2008, such process accelerated dramatically. The country is the host of the largest number of patents applications at the World Intellectual Property Organization (WIPO)-administered Patent Cooperation Treaty (PCT) System¹⁷, has amended with stringent standards of protection almost all of its IP legislations in recent years¹⁸, has created numerous specialized IP courts – which even tend to favor foreign applicants in comparison with their own home jurisdictions¹⁹, and acknowledges in multiple official statements and documents the importance of IP to its economic development and innovation. This represents a clear trend towards a ‘maximalist’ or ‘expansionist’ approach to IP, usually defended and implemented by high-income countries such as the United States of America (USA), the European Union (EU), Japan, and Switzerland.²⁰ In fact, this trend emulates what these countries also did in the past, who had protectionist trade rules and low IP protection to change such policies after the consolidation of their technological parks, then ‘kicking away the ladder’.²¹ This is also relevant to the extent which China has crafted, in other areas, legal-institutional systems that more explicitly depart from the standards and institutional arrangements of global north countries²²; however, the abovementioned facts tend to preliminarily suggest a closer proximity to Western IP legal standards.

On the other hand, some elements of IP protection and enforcement do entail a different set of policies from what is most seen in other jurisdictions. For some commentators, a key aspect of this is the idea that China upholds large degrees of control and public management of the IP system in comparison with Western legal systems of IP,

¹⁶ YU, Peter K., **The Rise of China in the International Intellectual Property Regime** (August 1, 2018). HANDBOOK ON THE INTERNATIONAL POLITICAL ECONOMY OF CHINA, Zeng Ka, ed., Edward Elgar Publishing, pp. 424-43, 2019.

¹⁷ In 2018, China overtook the United States as the largest country in terms of origin of PCT applications.

¹⁸ In the period 2019-2021, all major IP laws were amended in China, including the Patent Law and the Copyright Law. See Chapter 2.

¹⁹ See COHEN, Mark. **Weaponization of Intellectual Property Against China**. Presentation at UC San Diego, 25 February 2021.

²⁰ On the idea that IP systems can and should be tailored according to national specificities, and how the tendency to maximize IP protection is more prominently identified among high-income countries, see: CORREA, Carlos. **Trade Related Aspects of Intellectual Property Rights – A Commentary on the TRIPS Agreement**. Oxford: Oxford University Press, 2nd ed, 2020; DRAHOS, Peter; MAYNE, Ruth. **Global Intellectual Property Rights: Knowledge Access and Development**. UK: Palgrave Macmillan, 2002; DUTFIELD, Graham; SUTHERSON, Uma. **Dutfield & Suthersanen on Global Intellectual Property Law**. Cheltenham: Edward Elgar, 2nd ed, 2020.

²¹ CHANG, Ha-Joon, 2012, *op cit*.

²² See, for example, the case of antitrust – both in terms of how China regulates and how it is regulated abroad, which makes it ‘exceptional’ with respect to antitrust law and policy: ZHANG, Angela. **Chinese Antitrust Exceptionalism: How the Rise of China Challenges Global Regulation**. Oxford: Oxford University Press, 2021.

which alters the logic of IP as a bundle of private rights.²³ In practice, this means the presence of forms of administrative enforcement, active state intervention in planning and cooperation with IP on national plans and IP strategies, subsidies for IP applications, among others. For others, these elements are not sufficient to describe a real different ‘model’, for China is often in a middle-ground position (i.e., neither maximalist nor minimalist) between developed countries and the global south in IP issues, and because there is no single, harmonized IP model at the international level.²⁴

For example, China has expressed support to the inclusion of a mandatory disclosure requirement regarding the origin of genetic resources and traditional knowledge in patent applications in a treaty negotiation at WIPO’s IGC, a demand associated to developing countries and opposed by industrialized nations. It also contains such a provision in the national Patent Law.²⁵ On the other hand, some more recent positions are clearly ‘maximalist’, such as the decision of the country to adopt a standard of 12 years of protection of data exclusivity for biologicals – the TRIPS Agreement does not oblige countries to adopt any data exclusivity, and only the USA has an equivalent protection.²⁶ Its position with respect to digital economy and e-commerce, including IP-related aspects on software, algorithms and source codes disclosures, and data governance issues (such as free flow of data and national security exceptions) are distinct from both developed countries and some developing ones such as South Africa and India.²⁷ In any case, it is agreed that the socio-economic prominence of China is invariably bringing its impacts to the global IP order, even if the idea of ‘uniqueness’ does not fit reality at all times.

Moreover, the variations of Chinese IP from what is commonly understood be a ‘global standard’ can precisely be a salutary use of the policy space that countries enjoy in crafting IP policies in accordance with their national specificities, socio-economic conditions, and development priorities.²⁸ This is even more relevant to the extent which, during the same period, most jurisdictions around the world have strongly strengthened the levels of protection of IP not based on their national objectives, but due to the adoption of the TRIPS Agreement in 1994 and subsequent pressures to maximize it at the global,

²³ See, COHEN, Mark. Interview, June 2021.

²⁴ For instance, YU, Peter. Interview, June 2021.

²⁵ PEOPLE’S REPUBLIC OF CHINA. Patent Law, 2021.

²⁶ PEOPLE’S REPUBLIC OF CHINA. Patent Law, 2021.

²⁷ JONES, Emily; KIRA, Beatriz; ALVES, Danilo B. Garrido; SANDS, Anna. **The UK and Digital Trade: Which Way Forward?** Blavatnik School of Government Working Paper Series 038/2021. Available at: https://www.bsg.ox.ac.uk/sites/default/files/2021-02/BSG-WP-2021-038_0.pdf

²⁸ See CORREA, Carlos. *Op cit*, 2020.

regional, and bilateral levels, respectively via the World Trade Organization and the WIPO, and via free trade agreements (FTAs).²⁹ Much of the legal and political effort in recent decades against such trends has been to reaffirm the right of countries to craft IP policies with flexibility in accordance with public interest goals such as public health, industrialization and education.³⁰ With respect to at least some of these objectives, China shows the possibility to undertake different policies from most foreign expectations.

From a process of industrialization started in the late 1970s during the reform and opening up period³¹, based on manufacturing of goods with very favorable conditions to foreign companies (low wages, low environmental standards, relative reliance on contracts' compliance, low costs in the value chain), the PRC's economy has increasingly transformed itself into a capital-based and innovation-oriented system, aimed at high-technology products. Digital platforms and artificial intelligence (AI) are perhaps the most illustrative examples of China's technological revolution.³² This has not been a complete shift, and very drastic variations exist between Chinese provinces, but this context underscores a completely distinct political economy for the potential contemporary role of IP and innovation in the country. Accordingly, the issues at stake, the reasons for IP protection (or its limitations), and the cost-benefit of IP rights in China have also changed. From a global perspective, few other developing countries experienced similar paths of economic growth and technological upscaling during this period – instead, the period is more commonly associated to austere neoliberal reforms in the 1980s-1990s, systemic crises and de-industrialization.³³ Therefore, the expansion of IP in China and in other countries takes place against very distinct backgrounds and bringing very different consequences.

²⁹ CORREA, Carlos; *Op cit*, 2020, DRAHOS, Peter, *Op cit*, 2002.

³⁰ CORREA, Carlos. *Op cit*, 2021; for a comparison between Brazil, India and Nigeria with the use of a critical theoretical background, see VANNI, Amaka. **Patent Games in the Global South: Pharmaceutical Patent Law-Making in Brazil, India and Nigeria**. Oxford, UK: Hart Publishing, 2020.

³¹ See, for a famous argument on the experimentalism in policy reforms (but subsequent coherence) NAUGHTON, Barry. **Growing Out of the Plan: Chinese Economic Reform, 1978–1993**. Cambridge: Cambridge University Press, 1995; on the focus on economic growth as the core issue of Chinese policies under Deng Xiaoping's government, and the role of foreign economists in influencing them: GEWIRTZ, Julian. **Unlikely Partners: Chinese Reformers, Western Economists, and the Making of Global China**. Cambridge: Harvard University Press, 2017.

³² It also includes the fast developments in quantum computing, applied uses of big data (including for public policies), and advanced manufacturing facilities. See generally: LI, Daitian; TONG, Tony W.; XIAO, Yangao. **Is China Emerging as the Global Leader in AI?** Harvard Business Review. 18 February 2021. Available at: <https://hbr.org/2021/02/is-china-emerging-as-the-global-leader-in-ai>; for a comparison from the perspective of industrial policies, see ARBIX, Glauco; MIRANDA, Zil; TOLEDO, Demétrio Cirne de; ZANCUL, Eduardo de Senzi. **Made in China 2025 e Indústria 4.0: a difícil transição chinesa do catching up à economia puxada pela inovação**. *Tempo Social*, 30(3), 2018. 143-170.

³³ For the historical development of the reform debate without the adoption of shock therapy sets of neoliberal policies such as those in the former Soviet Union, see WEBER, Isabella. **How China Escaped Shock Therapy: The Market Reform Debate**. Abingdon: Routledge, 2021.

At the same time, this rapid development of the IP system in the PRC highlights two core streams of concerns. The first stems from the perspective of foreign rightsholders and high-income countries, which considers that enforcement and *de facto* protection under the IP ‘with Chinese characteristics’ remains limited. Counterfeit trademark products and pirated copyright goods continue to be domestically accessible and exported, many of them now via China’s giant e-commerce platforms, and claims of ‘forced technology transfer’, ‘industrial espionage’ and ‘IP theft’ are at the core of (often convoluted) claims against the country’s innovation policies – although they mainly take place under a contractual and voluntary basis with Chinese companies. Increasingly, the identified problems have moved from exclusively being ordinary issues with IP enforcement such as counterfeit markets to geopolitical considerations of China’s potential technological dominance, which means that technology transfer should, for these stakeholders, be restricted. Because many technologies are of ‘dual-use’ (for military and civil purposes)³⁴, arguments of national security are also deployed in this regard. At the same time, new issues and topics have emerged in IP, including a prominence of trade secrets protection, data exclusivity rights for biological drugs, artificial intelligence and patents, and standard essential patents (SEPs) global litigations. This creates new forms of pressure and demands against China, often with the impression that no matter what is done, there will always be some form of foreign discontent.

In a directly opposite sense, the second stream relates to those mindful of the detrimental consequences of unbalanced IP regimes for access to different goods and for the consolidation of monopolistic power.³⁵ This is best represented by the position of certain developing countries, civil society organizations, and some international organizations.³⁶ Intellectual property rights are bundles of exclusivity rights that restrict competition. They are in this sense legal monopolies,³⁷ which are supposed to strike a balance between public

³⁴ See CAPRI, Alex. **Techno-nationalism: the US-China tech innovation race – new challenges for markets, business and academia**. Hinrich Foundation White Paper, July 2020. Available at: <https://www.hinrichfoundation.com/research/wp/tech/us-china-tech-innovation-race/>

³⁵ See: SHADLEN, Kenneth C; BHAVEN, Sampat; KAPCZYSNKI, Amy. **Patents, trade and medicines: past, present and future**. *Review of International Political Economy*, 27:1, 2020, p. 75-97; ALESSANDRINI, Donatella; DAVITTI, Daria; ESLAVA, Luis; GAMMAGE, Claire; LA CHIMIA, Annamaria; NATILE, Serena; LIMA, Karina Patricia Ferreira; TAN, Celine; VAN HO, Tara; VANNI, Amaka; VARGIU, Paolo; YILMAZ, Anil Vastardis. **International Economic Law and Covid-19**. *Critical Legal Thinking*. 27 March 2020. Available at: <https://criticallegalthinking.com/2020/03/27/international-economic-law-covid-19/>.

³⁶ For some representative examples, see: Médecins Sans Frontiers – Access Campaign, the South Centre, Third World Network (TWN), Knowledge Ecology International, HAI International.

³⁷ It is acknowledged that the legal concept of intellectual property remains a contested debate: legal monopolies and rights are two prominent descriptions. As noted by BIAGIOLI, JASZI & WOODMANSEE (2011), the historical shift from monopolies to rights is a crucial part of IP history. See: BIAGIOLI, Mario;

and private interests. Their protection inevitably creates hurdles to access: access to essential medicines, access to books and works for educational and research purposes, access to information and knowledge more broadly.³⁸ For competitors, they restrict the freedom to operate, generating risks of infringement and legal uncertainty as to what would be considered a lawful conduct.³⁹ In this context, the ‘maximalist’ trends in Chinese IP policy are a matter of strong concern, especially since they are for the most part TRIPS-Plus provisions which China is not legally bound to adopt at the domestic level. Raising the bar of IP protection in China may also lead to spillovers and a race-to-the-bottom in developing countries at its direct zone of influence: companies in countries that operate in/with Chinese partners are likely expected to harmonize standards to ensure trade and investment.⁴⁰ WTO’s most favorable nation (MFN) and national treatment clauses may also require parties to adopt standards in accordance with the PRC’s understandings.

Many of these detrimental consequences have already been identified in contemporary China. Bad-faith trademarking, abusive patenting patterns and vexatious litigations, for example, have been reported as a result of lax standards adopted as to what is considered original/distinctive for a trademark and what meets the patentability criteria for a patent. As such, some individuals or companies pre-emptively register and later request financial compensation to transfer trademarks to those who originally created them, for instance. An expansionist approach to IP lowers the standards for a protection to be granted, allowing more subject matters to be protected, adopting more streamlined, easy procedures, and lower requirements for applicants to meet. With more ‘low quality’ IP rights being granted, less access and less freedom to operate exists. It is not a surprise, in this sense, that recent concerns by the Chinese government refer to the explicit need to enhance the quality

JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective**. Chicago: University of Chicago Press, 2011. These categories are also famously part of a long discussion – with policy and legal consequences – on the foundations of IP rights, including labor, personality, utility, and social welfare. In a critical manner, Mark Lemley has posited the idea of ‘faith-based IP’. Without dismissing these relevant debates, the use of ‘legal monopolies’ in this text merely signals to the fact that even if IP are ‘rights’, they still are ‘legal’ (i.e. legally created) monopolies (i.e. which impede competition), regardless of the justification/foundation theory applied.

³⁸ See KRIKORIAN, Gaëlle; KAPCYNski, Amy. **Access to knowledge in the age of intellectual property**, Zone Books, 2010.

³⁹ HELLER, Michael. **The Tragedy of the Anticommons: Property in the Transition from Marx to Markets**. Harvard Law Review, Vol. 111, 1998; HELLER, Michael, **The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Lives**. New York: Basic Books, 2008.

⁴⁰ YU, Peter. Interview, June 2021.

of patent examination⁴¹ – an issue of longstanding debate among developed countries at WIPO as well.⁴²

In terms of access, the issue is whether the recent inclusion of very heightened standards of protection, such as for pharmaceuticals, will compromise access to medicines and medical products in a country where access has already been historically insufficient and unequal, also for countries that rely on exports of Chinese products. This revamped IP protection will likely elevate prices, limit the manufacturing of generics, and expand the economic power of originator Chinese pharmaceutical companies, which are now increasingly innovating and not only producing generics. On the other hand, other policy tools by the Chinese State, including price controls, anti-monopoly laws and regulations may at least partly counter this trend – also distinctively from most developing countries with less financial and regulatory autonomy for undertaking such policies, given the bigger pressure suffered exerted by foreign countries and companies, and macroeconomic commitments under financial loans such as those from the World Bank and the IMF.

In the digital economy, maximalist IP protection in software, source codes and algorithms may prevent the use of free and open-source software.⁴³ One trend in that sense has been the expansion of trade secret provisions to explicitly include algorithms and source codes in such category, and proposals at the World Trade Organization (WTO) attempt to create obligations against disclosure of source codes or ‘proprietary algorithms’.⁴⁴ If approved, some policies by China with respect to technology transfer – even if conducted in a voluntary contractual basis to fulfill an administrative requirement – would be deemed unlawful. Those concerned with access to knowledge and freedom to operate for companies, particularly nascent and start-up ones, highlight the problems with policies that restrain availability and the use of non-proprietary technologies, and which allow their appropriation via IPRs. As noted above, China adopts a middle-ground position in this issue, which further complexifies its general stance on IP. This area is directly related to the core areas of digital platforms and AI, meaning that the intersection between IP and data governance is pivotal to grasp the full picture of the issues involved. One explanatory difficulty is to assess whether

⁴¹ See XI, Jinping, 2021, *op cit*.

⁴² See WIPO SCT. It is also important to note how the issue of ‘quality of patents’ may conceal and undermine more substantial debates on the problems associated to patents in the first place, even when strictly meet patentability criteria: a patent (in fact, the various patents) associated to a medical technology restrict access and limits the attainment of the right to health. Trade-offs exist but are to a certain extent concealed in the pursuit of better quality patents.

⁴³ JONES, Emily; KIRA, Beatriz; ALVES, Danilo B. Garrido; SANDS, Anna, *op cit*.

⁴⁴ See IDO, Vitor Henrique Pinto. **E-Commerce Proposals at the WTO**. Policy Brief 69, Geneva: South Centre, 2019.

not agreeing to adopt the most stringent standards of IP protection represent a lack of commitment to IP or, instead, it means a more balanced approach for China.

At the international multilateral level, many developing countries such as Brazil and India were historically reticent to maximalist approaches to IP and expressed their opposition to the inclusion of IP during the Uruguay Round, which led to the creation of the WTO. Ultimately, they would later craft policies and legislations to implement the TRIPS Agreement flexibilities as to ensure pro-development, pro-competitive and pro-public health IP policies, limiting the impacts of IP to access, at least in broader terms. While their role as leaders of the ‘developing world’ has been widely acknowledged, any expectation of China – given its growing economic and political importance – as the one assuming the most prominent role in conceiving and defending ‘alternative’ IP regimes did not materialize.

Importantly, the topic cannot be addressed with a China-only focus. From a relatively niche issue, IP grew in prominence everywhere: i.e., not only, but also in China. Across both global north and south, there has been a stark expansion of IP scope of protection, enforcement and the numerical growth of IP applications. Intangible assets have become the crucial feature for contemporary firms in the global economy, and as IP has been used as the main legal tool to ensure protection for such business models. In this sense, the strengthening of IP protection is not unique to China; its attempts to craft distinct elements in some specific IP areas may be so, but not for the most part. In any case, the massive transformations of its domestic economy, which have radically changed its own industrial and innovation landscape, and the history of specific bilateral engagements with the United States of America (USA), provide historical differences from the experience of most developing countries.⁴⁵

In parallel, among other things, the narrative (turned legal argument) that ‘IP is conducive to innovation’⁴⁶ has been strongly consolidated in international policy discussions, displacing developmental discussions on innovation, technological catch-up, and technological transfer almost entirely to the realm and framing of intellectual property

⁴⁵ YU, Peter K. **China's Innovative Turn and the Changing Pharmaceutical Landscape**. University of the Pacific Law Review, Vol. 51, pp. 593-620, 2020; MERCURIO, Bryan, *op cit*.

⁴⁶ See VON HIPPEL, Eric. **The Sources of Innovation**. Oxford: Oxford University Press, 1988. See, for a critique: ‘One trend notable in this new discursive setting is the remarkable visibility and value now attached to the notion of “innovation”. It is not easy to criticize innovation, a concept put forward as being about the new but without the ideological baggage of more traditional terms like “progress”. Cast as a process of emergence, innovation attaches value to the new but does not posit what shape the new should assume or in what direction it should be pursued. [...] Innovation is presented as politically neutral and, unlike the equally broad notion of the “knowledge economy”, it does not explicitly frame the new within a monetary economy’. BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective**. Chicago: University of Chicago Press, 2011, p. 6.

– accordingly, to the WIPO and later the WTO as central institutions.⁴⁷ The IP scholarship has also been changing due to the digital economy, particularly the rise of the issue of data and artificial intelligence, challenging multiple conventional assumptions of the field.⁴⁸ Concerns about the detrimental impacts of IP protection in developing countries also rose: the crisis of HIV/AIDS, the persistent lack of medical products for neglected diseases and the current Covid-19 pandemic highlight, in the worst and most unfortunate, concrete way, the interlinkages between IP and public health.⁴⁹ On the other hand, renewed opportunities arise from the strategic use of IP by historically excluded communities and individuals, such as indigenous peoples⁵⁰, and by an expansion in the overall number of stakeholders and States which are parts of the global IP system. This all also requires attention to how seemingly ‘theoretical’ or foundational arguments on IP have very direct policy implications, shaping norms and legal decisions.⁵¹

Within this broad context, this research proposes that the interpretation of the IP ‘with Chinese characteristics’ (in other words, the analysis of the contemporary IP regime) requires a constant reflection on its material infrastructures, the broader development plans of the PRC, the unintended policy consequences, and the ideological-discursive dimension

⁴⁷ See SAMPATH, Padmashree; ROFFE, Pedro. **Unpacking the International Technology Transfer Debate: Fifty Years and Beyond** ICTSD, Issue Paper 36, November 2012; IDO, Vitor Henrique Pinto; NEDER CERZETTI, Sheila C.; PELA, Juliana K. **Technology Transfer**. In: DE FEYTER, Koen; ERDEM TÜRKELLI, Gamze; DE MOERLOOSE, Stéphanie. *Encyclopedia of Law and Development*, London: Edward Elgar, 2021.

⁴⁸ See, for example: NOTO LA DIEGA, Guido. **Against the Dehumanisation of Decision-Making-Algorithmic Decisions at the Crossroads of Intellectual Property, Data Protection, and Freedom of Information**. *JIPITEC - Journal of Intellectual Property, Information Technology and E-Commerce Law*, 9 (1), 2018.

⁴⁹ For an overview based on a selected bibliography on the issue of IP and access to medicines, see CORREA, Carlos; VELÁSQUEZ, Germán; IDO, Vitor H. P. **Intellectual Property and Access to Medicines: A Selected and Annotated Bibliography**. South Centre, 2020.

⁵⁰ See, for example: IDO, Vitor H. P. **Conhecimentos Tradicionais na Economia Global**. Master’s Dissertation, Faculty of Law, University of São Paulo, 2017.

⁵¹ While such ‘foundational’ legal discussions matter in every field, they do matter much more prominently in the ordinary ways IP arguments are deployed. Notions such as incentivizing innovation, ensuring access to medicines, and promoting social welfare are at the core of legal doctrinal debates and policies on IP. The pharmaceutical industry continuously argues that without IP incentives, new products (including vaccines and treatments) will not be invented, given the high costs of R&D and fierce competition. This serves as a justification for ever-more stringent standards of protection for pharmaceuticals via IPRs, having the TRIPS Agreement as its biggest manifestation. Conversely, software activists at the origins of the digital era considered copyrights and other forms of IP over digital technologies and creations to be intrinsically illegitimate and detrimental to the flourishing of an emancipatory network of humans rendered possible by the Internet. These are just a few examples of how foundational debates are often referred to and used as an important framework for the adoption of new norms and policies. Given such reality, it is key to address how such arguments are deployed in contemporary China. For an example of how these discussions lead to specific framings of IP in courts, see SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Courts and Pharmaceutical Patents: From Formal Positivism to the Emergence of Global Law**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

that jointly operate in the very crafting of such an expression. In line with what was expressed above, the thesis adopts a legal anthropological approach by taking the expression seriously: it reflects on how and under which conditions this idea of IP characterized by a certain ‘Chineseness’ has functional roles in the construction of the contemporary Chinese nation-state, how it may be utilized as a source of understanding for certain mythologies⁵² of innovation⁵³ and progress/modernity with respect to the role of IP in the global economy, and finally how it reverberates in geopolitical power clashes between China and other countries, which includes how international economic law and IP obligations are interpreted.

The thesis argues that consolidating the idea that the PRC is a country committed to multilateralism, and that it actively promoted IPRs, is instrumental in seeking an ampler reconceptualization of the country’s geopolitical position; at the same time, IP ‘with Chinese characteristics’ insists on the argument that it abides by international rules (although with some particularities), despite constant claims of violations of various sorts. This justifies the consistency of the ‘with Chinese characteristics’ rhetoric, which contains therefore both legal and ideological implications. But by doing so, China reinforces the foundations of the current IP system, based on appropriation techniques – instead of sharing and access mechanisms –, fostering economic power (both public or private) and paradoxical nationalistic aspirations to the detriment of global public goods.

By assessing what is concealed in and elicited by the idea of IP ‘with Chinese characteristics’, this research aims at contributing to the analysis of China’s innovation and development plans, and for the *role* of law, rather than the ‘rule of law’, in such processes.⁵⁴ It gives a more balanced basis for the interpretation of the Chinese IP beyond the stereotypes of ‘full violation of IP’, the over-explanation based on Confucianism, and to clarify the country’s position with respect to compliance with and co-construction of international law. This ‘external’ and critical legal perspective clarifies some of the reasons that lead China to adopt certain IP standards and be reticent in some other areas.

Ultimately, this thesis may provide inputs not only for those concerned about the development of IP policies in China, but also to the interpretation of the current global IP

⁵² As it will be clarified in the Concluding Remarks and the Afterword, the idea of ‘mythology’ is not used lightly, but as a reference to Peter Fitzpatrick’s use of the term with regards to the constitutive elements of modern law in Western societies, and as a novel entry point for a society’s ‘cosmology’. In the present case, the thesis speculates on the embedded mythologies of law in the contemporary global economy.

⁵³ For how Chinese stakeholders in Shenzhen are in the process of crafting new (contested) forms of innovation LINDTNER, Silvia M. **Prototype Nation: China and the Contested Promise of Innovation**. Princeton: Princeton University Press, 2020.

⁵⁴ For a critical view on the idea of ‘rule of law’ in the global south, see NADER, Laura & MATTEI, Ugo. **Plunder: When the Rule of Law is Illegal**. Hoboken: Wiley- Blackwell, 2008.

order⁵⁵ and to theoretical reflections on the premises and values which are embedded in IP law everywhere. Along these lines, the research concludes that the IP ‘with Chinese characteristics’ is an artifact of its own time and geography, and thus as an exemplary case of the constant and intrinsic entanglements between intellectual properties, nationalisms and modernities (all in plural forms).

The next sections will (i) develop the methodological foundations of the thesis, (ii) discuss how to assess the issue of IP from a global, integrated and critical perspective, (iii) offer a thematic overview of IP in the global economy as per relevant to the idea of ‘Chinese characteristics’, and (iv) provide a summary of the main arguments and the structure of the thesis.

3.1. Methodological Considerations: A Legal Anthropology Approach to IP

The research proposes a socio-legal approach to intellectual property, inspired by anthropological scholarship on IP and property, a growing critical body of international economic law and comparative law traditions, and a declared epistemological caution with respect to the existing sources on China. It thus adopts a critical stance on IP,⁵⁶ with the assumption that while IPRs *should* attempt to strike a balance between public and private interests,⁵⁷ they rarely manage to achieve so, based on empirical evidence and critical

⁵⁵ Since China is poised to transform global governance, international law, and international political economy in virtually every aspect, understanding its IP ‘with Chinese characteristics’ is also understanding an increasingly ingrained part of IP everywhere.

⁵⁶ Critical IP scholarship has been similarly fruitful in using IP as a site of inquiry for broader social processes, including the general commodification of things (from land to manufactured goods to now ideas and their expressions). Patents on plants and cases of misappropriation of genetic resources, often referred to as biopiracy, have brought attention to the increasing power of global agriculture powerhouses and the imbalances enabled by the IP system. Attempts to patent genes and biological entities force a reassessment of the moral and ethical limits of owning ‘nature’, and more strongly what should/could be deemed as natural in the first place and what is part of a body. Indigenous knowledges, for their part, provide yet another case of challenging the conventional assumptions of the IP system – centered around the individual figure of a Western inventor/creator and of also how IPRs serve as instruments for neocolonialism and dispossession. Some have described the global IP system in terms of a neoliberal governmentality, while others have noted its prominent role in the new form of global capitalism, where the privatization of knowledge is the new crucial frontier for primitive accumulation. For some explorations on the idea of critique with regards to IP law, see BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective**. Chicago: University of Chicago Press, 2011.

⁵⁷ It would serve therefore as an incentive based on a trade-off between public and private, whereby the public interest is manifested in the (future) access to a certain technology, generating general social welfare via the advancement of science and its results (the ‘patent bargain’), and the private is defined by the interest of the inventor/creator in receiving a temporary legal monopoly to benefit from it. This framing is also historically contingent, which may enable the reflection of whether this balance pursuit is even possible in the first place, or ever. See POTTAGE, Alain; SHERMAN, Brad. **Figures of Invention: A History of Modern Patent Law**. Oxford: Oxford University Press, 2010.

reviews in various economic sectors.⁵⁸ For this reason, the protection of IP ought to be assessed in terms of its detrimental consequences and its monopolization potential that strongly enhances economic power: IP protection is not always positive and conducive to innovation,⁵⁹ nor is it always necessary to that aim.⁶⁰ This is perhaps why many famous neoliberal authors were in fact at odds with the logic of IP protection.⁶¹ Inequality, discrimination and redress are topics that should be integrated into an IP research.⁶² This is also the case in/for contemporary China.

The investigation is also mindful of the historical imbalances associated to the adoption and globalization of IP in the global south.⁶³ The now ubiquitous associations between IP and innovation, and IP and development,⁶⁴ which are more often than not

⁵⁸ See, for example: BURK, Dan; LEMLEY, Mark. **The Patent Crisis and how the Courts Can Solve It**. University of Chicago Press, 2013.

⁵⁹ See also: JUKES, John. **The Sources of Invention**. 1958. BOLDRIN, Michele; LEVINE, D.K. **Against Intellectual Monopoly**, Cambridge University Press, 2010, Chapter 9: The Pharmaceutical Industry, 243-245; MASKUS, K.E; REICHMAN, J., “**The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods**”, *Journal of International Economic Law*, 2004, 7(2), 288.

⁶⁰ WIPO acknowledges the association is not direct nor necessary. See FINK, Carsten; RAFFO, Julio D., **What Role for Intellectual Property in Industrial Development**, in CORREA, Carlos; SEUBA, Xavier (eds.), *Intellectual Property and Development: Understanding the Interfaces*, Springer, 2019.

⁶¹ ‘Yet, upon looking closer, we are confronted with a puzzle: these blanket statements elide the fact that IP rights were highly controversial within the neoliberal intellectual movement itself. The free market intellectuals that organized around the Mont Pèlerin Society (MPS) have debated over many decades about how, and even *if* ideas can be treated as property. If maximal IP rights are neoliberal, what should we make, for example, of the signatures of MPS members Milton Friedman, James Buchanan, and Ronald Coase on a friend-of-the-court brief *opposing* the Copyright Extension Act of 1998? How to explain the fact that Richard Posner, the leading figure of the Law and Economics movement and a member of MPS, has not only suggested that there are “too many patents in America” but cites Hayek in his authoritative work on IP law to the effect that “a slavish application of the concept of property as it has been developed for material things has done a great deal to foster the growth of monopoly and...here drastic reforms may be required if competition is to be made to work.” The text from Hayek is hardly marginal—it comes from one of his addresses at the founding Mont Pelerin Society meeting in 1947. Neoliberals, in other words, were far from IP fundamentalists. The case of IP shows a range of diversity within the MPS cohort and, thus, within neoliberal thought itself.’ SLOBODIAN, Quinn. **Are Intellectual Property Rights Neoliberal? Yes and No**. Promarket (Stigler Center for the Study of the Economy and the State), 18 April 2021. Available at: <https://promarket.org/2021/04/18/intellectual-property-rights-neoliberal-hayek-history/>

⁶² For some contemporary examples in such regard, see: BENOLIEL, Daniel; GURRY, Francis; LEE, Keun; YU, Peter K. (eds.) *Intellectual Property, Innovation, and Global Inequality*. Cambridge: Cambridge University Press, 2021.; VATS, Anjali. **The Color of Creatorship: Intellectual Property, Race and the Making of Americans**. Stanford: Stanford University Press, 2020

⁶³ DEERE, Carolyn. **The Implementation Game: The TRIPS Agreement and the Global Politics of Intellectual Property Reform in Developing Countries**. Oxford: Oxford University Press, 2008. By taking this approach, this thesis also acknowledges the fact that both the north/south divide continues to be an important analytical perspective, and that definitions such as ‘third world’ are crucial to the framing of IP law in a global perspective. It also acknowledges that ‘there are now many Souths in the North’, a reference to the sheering inequality, lack of basic services, structural violence, institutional racism, sexism, and xenophobia, among others, that characterize the current world and the global economy. See also: WAISBICH, Laura Trajber; ROYCHOUDHURY, Supriya; HAUG, Sebastian. **Beyond the Single Story: ‘Global South’ polyphonies**. *Third World Quarterly*, 2021.

⁶⁴ For a critical assessment, Ruth Okediji argues that three narratives are found in relation to IP and developing countries: the human rights, the cultural, and the welfare enhancing/doctrinal narratives. The author notes

deployed in IP scholarship and policymaking, should be assessed critically in view of their problematic historicity: IP has historically limited development conditions and restrained innovation potentials in developing countries. IP should also be assessed in terms of their embedded premises, which positively value ‘development’ and ‘modernity’,⁶⁵ while taking an alleged – but untrue – neutral position with respect to ‘technology’ and techno-scientific processes.⁶⁶ In this regard, one dimension explored by this thesis is whether contemporary China could prove these views wrong, or if instead it reinforces this history.

In particular, the research draws on the growing legal anthropological scholarship on IP, which has offered contributions on the dissemination of IPRs across different parts of the world, its negative impacts to health, culture and social welfare, its implicit biases in terms of race, gender, ethnicity, and sexuality, and the political struggles associated to the concrete operations of IP.⁶⁷ Specifically, it departs from Marilyn Strathern’s considerations on IP, persons and things in Melanesia,⁶⁸ Alain Pottage and Brad Sherman’s

however that: ‘[a] measured approach to these narratives is warranted notwithstanding the widespread embrace of their presumptive utility to developing countries. I suggest that **the narratives paradoxically provide significant benefit to arguments that support, rather than question, the current international intellectual property system.** I therefore urge care and caution in the uncritical deployment of discourses that ultimately constitute means by which expansionist intellectual property rights (or intellectual rights at all) are justified with respect to developing countries. To the extent that the narratives are intended as countervailing norms or other tools for developing countries to deploy against the pervasive reach of intellectual property rights in developing countries, there is a need to consider how these narratives might instead affirm the very premise of the global system.’ OKEDIJI, Ruth. **The International Relations of Intellectual Property: Narratives of Developing Country Participation in the Global Intellectual Property System.** Singapore Journal of International & Comparative Law, Vol. 7, 2003, p. 315-385; SYAM, Nirmalya. **Mainstreaming or Dilution? Intellectual Property and Development in WIPO.** Research Paper, Geneva: South Centre, 2019; also: NETANEL, Neil Weinstock. **The Development Agenda: Global Intellectual Property and Developing Countries,** Oxford: Oxford University Press, 2008

⁶⁵ For a fundamental critique of the notion of development, see ESCOBAR, Arturo. **Encountering Development: The Making and Unmaking of the Third World.** Princeton: Princeton University Press, 1995. Despite the worldview based on economic ‘progress’, development continues to be an aspiration for the global south, and has been a fundamental interpretative tool for contemporary China, usually associated to the benefits of economic growth and ‘prosperity’, despite their negative consequences.

⁶⁶ See BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective.** Chicago: University of Chicago Press, 2011.

⁶⁷ For an overview of the current scholarship, see COOMBE, Rosemary; CHAPMAN, S. **Ethnographic Explorations of Intellectual Property.** *Oxford Research Encyclopedia of Anthropology*, 27 August 2020, Available at: <https://oxfordre.com/anthropology/view/10.1093/acrefore/9780190854584.001.0001/acrefore-9780190854584-e-115>

⁶⁸ STRATHERN, Marilyn; HIRSCH, Eric. **Transactions and Creations: Property Debates and the Stimulus of Melanesia.** Oxford: Berghahn Books, 2006. Marilyn Strathern notes that property may refer to three distinct features: (i) the ownership – “this is my property”, (ii) the thing in itself – “a house is a property”, (iii) a characteristic – “liquid is a property of water”. Marilyn Strathern and Eric Hirsch’s work on IP in Melanesia as influential on the scholarship regarding the notions and reverberations of ‘property’ and the ‘persons’ to which they are implicated. In Melanesia, persons present themselves not as ‘individuals’ but rather as ‘dividuals’, i.e. not as a monolithic *a priori* existing entity. In this sense, IP is part of processes of very specific and historically embedded notions of attachments between ‘persons’ and ‘things’, creativity and

critical assessment of the history of patent law in the industrial age,⁶⁹ Rosana Pinheiro-Machado's ethnography on the circulation of counterfeits and its human consequences in China and Brazil,⁷⁰ and Hyo-Yoon Kang's evaluation of patent's material mediations via documents and how patents are forms of capital.⁷¹

When this theoretical framework is 'applied' to – or at least described in contrast with – the development of IP in contemporary China, it is possible to scrutinize topics beyond the effectiveness of legislative reforms in the PRC or how Chinese 'cultural' elements may affect or be affected by IP. Instead, it is possible to assess what implicit premises are embedded in the construction of a 'modern' IP system in China (revolving around the pursuit of high-tech innovation as a political justification, for example), the processes of co-creation⁷² of identities and individuals through the specific forms adopted by such IP laws and policies, as well as those who are criminalized and undervalued by these processes (e.g. the creation of a valuable innovator subject which seeks IP protection, in opposition to the 'counterfeiter' merchant who violates the law⁷³), and how they are turned into substantive valuation procedures that can become financial assets.⁷⁴ It seeks to describe the interwoven layers of ideology, political and economic pressures, and legal normative underpinnings, that constitute the contemporary Chinese IP system. As such, it also treats IP as an (imperfect) proxy for the current global political economy, increasingly based on 'intangible assets' and determined by the control of value chains and technology by certain countries, but also as a departing point for the overarching process of 'inventing' traditions, a nation state and a certain idea of what 'being modern' means – which is applicable to China and to other countries, with caveats.

conceptions of possession and ownership. See: POTTAGE, Alain; MUNDY, Martha. **Law, Anthropology, and the Constitution of the Social: Making Persons and Things**. Cambridge: Cambridge University Press, 2004.

⁶⁹ POTTAGE, Alain & SHERMAN, Brad. **Figures of Invention: A History of Modern Patent Law**. Oxford: Oxford University Press, 2010

⁷⁰ PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018.

⁷¹ KANG, Hyo Yoon. **Ghosts of Inventions: Patent Law's Digital Mediations**. *History of Science* 57, no. 1 (March 2019), p.38–61.

⁷² The idea of co-creation is also very explicitly related to Sheila Jasanoff's use of the term. See JASANOFF, Sheila. **States of Knowledge: The Co-Production of Science and the Social Order**. Abingdon: Routledge, 2004.

⁷³ See: LIANG, Lawrence. **Beyond Representation: The Figure of the Pirate**. In: BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. *Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective*. Chicago: University of Chicago Press, 2011, p. 167-180.

⁷⁴ See: KANG, Hyo Yoon. **Patents as Assets: Intellectual Property Rights as Market Subjects and Objects**. In: BIRCH, Kean; MUNIESA, Fabian (eds.). *Assetization: Turning Things into Assets in Technoscientific Capitalism*. Cambridge, MA: MIT University Press, 2020.

This is a dimension that is rendered visible more prominently in China's relation to foreign actors. As chapter 1 will scrutinize, the development of IP in China has been historically related to a logic of concerted responses to foreign political and economic pressures. This was the case in the introduction of the first IP laws and has been the tone of the last 40 years of legal reform. Such pressure is particularly exerted by the United States of America, which explicitly associates China with a counterfeit paradise and deploys a morally charged discourse of IP theft. This is intertwined with a subsequent negative effect in China's self-perception, perhaps well described in the notion of 'China dream', to which the aforementioned characteristics should not be part of, if contemporary China is expected to assume its role as a global economic and political leader. In this sense, the rhetorical arguments that portray China as backwards, technologically disadvantaged, and particularly the moral logic of 'theft' of IP, have such a negative resonance in China that assist explaining why, in the country, IP and this very particular sense of modernity may be deeply entangled.

By adopting the abovementioned framework, this thesis explicitly avoids the use of Confucianism and other philosophical/cultural elements for the explanation of the contemporary Chinese legal system, and particularly its IP regime. While these approaches have been crucial in nuancing the development of laws and policies that emulate Western standards in China, proposing the need for careful consideration of the 'cultural' particularities, historical and socio-economic differences (which would also be important in the legal transplants and legal pluralism literatures), they contain in present times the risk of overemphasizing societal characteristics and limiting the scope of structural economic and political underpinnings of IP. In other words, if everything can be explained by 'collective Confucianist' values, other issues, such as the transformation of the Chinese economy and the nation-building pursuits by the CPP, would not be so relevant for the present analysis.

The research does not dismiss the role of 'culture' in shaping laws and policies but considers its status to be quite distinct from most of the scholarship on Chinese IP. For example, the tension between traditional Chinese law traditions of Legalism and Confucianism, and their reverberations to the contemporary legal system, which was also based on the choice of adopting a civil law model, are unquestionable.⁷⁵ Neo-Confucianism,

⁷⁵ Early divisions of legal families/traditions considered Chinese law as a distinct, unique case. Pursuant to the 1949 Revolution and the creation of the People's Republic of China, the new government decided to adopt a 'civil law' model of law, influenced by socialist law but with deep complexities that led to numerous studies on its status. The point made in this thesis is that these histories should be also interpreted critically, as they are presented in the context of broader discussions in Chinese law and politics, of which the tension between Legalism and Confucianism is one very prominent example.

on its turn, has been utilized as a political nation-building tool by the contemporary Chinese State and some intellectuals.⁷⁶ In this sense, ‘culture’ evidently matters. But it matters even more from an external and critical view of how culturalist arguments are deployed both by foreign critics of China and Chinese stakeholders: the idea of Confucianism applied to Chinese legal system has been used to legitimize certain political projects and has similarly been simplified as to argue that China would not be able to consolidate a ‘real’ IP system.

William Alford’s primordial book draws attention to the limitations of legal transplants and provides reasons for the unsuccessful original law and development projects in the 1970s and 1980s in other regions in the world.⁷⁷ It does not place China as intrinsically incompatible with contemporary, capitalist IP systems, but highlights the difficulties for its adaptation under different ‘cultural’ regimes. Confucianism is one example out of potentially many, therefore. What cannot be dismissed, on the other hand, is the role of Confucianism in shaping a certain trend of political discourses in contemporary China, which justify certain policies and justifications. In this sense, it is necessary to distinguish between a ‘cultural’ analysis of Chinese IP, which draws on Confucianism, and the use of Confucianism for certain political purposes, including those of forging long-term narratives of nationalism and Chineseness. While the first seems to progressively evade as the IP ‘with Chinese characteristics’ is further developed, the second grows in importance.

Furthermore, culture is not an immutable, pre-rendered set of practices and values to be contrasted with law: it is also co-constructed in opposition with other social groups and constantly transformed. From this point of view, it is of little accuracy to seek culture as an explanatory tool for contemporary IP policies in China.⁷⁸ In other words, the IP ‘with Chinese characteristics’ certainly refers to a certain Chinese ‘culture’ (however debatable and problematic the concept may be), but it is also co-constructed by the formalization, implementation, and dissemination of legal norms – which, on their own turn,

⁷⁶ See HUBBERT, Jennifer. **China in the World: An Anthropology of Confucius Institutes, Soft Power, and Globalization.** Honolulu: University of Hawai’i Press, 2019. Aspects associated to Confucianism such as authority respect (perhaps authoritarianism), deep hierarchy, profound respect and reverence towards ancients and family cohesion are highlighted as traits that permeate and define Chinese society. But the ideological use of Confucianism by the Chinese Communist Party to justify several policies, including aspects of its foreign policy, is another crucial dimension to understanding the role Confucius has in contemporary China. See generally, for multiple discussions and translations of contemporary political commentaries in China: OWNBY, David. **Reading the China Dream Blog.** Available at: <https://www.readingthechinadream.com/>

⁷⁷ ALFORD, William. **To Steal a Book is an Elegant Offense: Intellectual Property Law in the Chinese Civilization.** Stanford: Stanford University Press, 1995.

⁷⁸ To stress again the distinction adopted by Manuela Carneiro da Cunha, it is more relevant for this research to focus on the ‘culture’ (with quotation marks, the one that is objectified and seen in contrast with other systems) rather than the culture (without quotation marks).

embed values and notions such as the immorality of piracy and the importance of ‘innovation’.

To clarify this approach, it is relevant to highlight what the thesis does not do: firstly, it is not a formalist or positivist interpretation of Chinese norms and policies, which would be limited and misleading from an explanatory point of view, particularly given the need to understand what lies beyond their face value. Secondly, it is not a discourse analysis of the IP ‘with Chinese characteristics’⁷⁹: as already stressed earlier, the expression is a starting point for a discussion on IP and innovation/industrial policies in contemporary China, which is both ‘law on the books’ and ‘law in action’. Because the focus is not on its existence or not, the intent is to describe its functions and consequences. Thirdly, it is not an ethnography of IP construction in China: although it draws on legal anthropology, the methodology does not revolve around a period of fieldwork (for example, in relation to the practices of IP enforcement, propaganda and education in contemporary China, a gap which could be filled in the future⁸⁰), but on literature review. Fourthly, it is not an exercise of international political economy or political science, for the research does not focus on the analyses of China’s innovation plans or a discussion of its international development plans – accordingly, the methodology does not resemble analyses from such fields⁸¹, including the use of economic statistics, and lays in comparison a more prominent role to legal infrastructures, materialities, and norms: ultimately, the thesis remains an inquiry on IP law, which uses these various inputs for advancing legal interpretation and analysis.

Very importantly, it should be acknowledged that this methodological framework carries epistemological consequences, some of them unintended. Conducting the current analysis on China and IP cannot fail to recognize that positions regarding China are

⁷⁹ For an exemplary deployment of critical discourse analysis in law, and to acknowledge how this research goes in another direction, see: STOPPIONI, Edoardo. **Rethinking the Structures of the Hegemonic Discourse of the WTO Judge and Investment Arbitrator: a Gramscian Analysis**. Legal Form: A Forum for Marxist Analysis and Critique. 26 October 2018, Available at: <https://legalform.blog/2018/10/26/rethinking-the-structures-of-the-hegemonic-discourse-of-the-wto-judge-and-investment-arbitrator-a-gramscian-analysis-edoardo-stoppioni/>

⁸⁰ Although not an ethnography, but a historical investigation, a formidable example of such an approach can be found in ALTEHENGER, Jennifer. **Legal Lessons: Popularizing laws in the People’s Republic of China 1949-1989**. Cambridge: Harvard University Press, 2018.

For a paradigmatic investigation on the relation between construction of law, material implications and bureaucratic daily operation of legal norms, see MATHUR, Nayanika. **Paper Tiger Law, Bureaucracy and the Developmental State in Himalayan India**, Oxford University Press, 2015.

⁸¹ For a prime example of political economy in the IP field, see SHADLEN, Kenneth. **Coalitions and Compliance: The Political Economy of Pharmaceutical Patents in Latin America**. Oxford: Oxford University Press, 2017.

highly contested and constantly politicized.⁸² The attempt to situate China in a global perspective may partly avoid this (see the next sub-section) but cannot disregard the effects of the political economy regarding the way through which ideas circulate and are advanced.⁸³ This leads the research to adopt an ‘epistemological vigilance’ to better interpret the different sources in terms of their origin and political circumscription, and to be wary of the standpoint of each author;⁸⁴ while this approach is not immune to potential criticism, it remains preferable than dismissing the very existence of such a condition.

The goal of this thesis is to provide better informed and more balanced views on the PRC legal system – noting that most critical arguments in the topic are often misleading, since they rely on a generalizing preconception or *ex ante* analysis about China. To stay with one example, the ‘IP theft’ argument, a morally charged discourse, conflates real issues that could be subject to criticism with moral implications that enable, in response, a counterargument based on formalism (‘there is no IP theft’). It is therefore of little value to argue along the lines of ‘China does not respect the international trade system’. The objective of this analysis, therefore, explicitly demands a meta-critical position towards most arguments and references utilized for the research itself.⁸⁵

In more concrete terms, the research used a variety of methods and sources that characterize it as a socio-legal research, therefore not focused exclusively on legal sources nor in the interpretation of legal provisions. The thesis relied on multiple sources, including, when applicable, news outlets and opinion papers, *op eds*, shorter blog posts and other

⁸² For example, on the one hand, many of the voices from the perspective of China fail to express criticism against national policies and the government; on the other hand, Western commentators often exaggerate and fail to acknowledge successes on the way the PRC adopts IP laws and policies. The same problem also occurs with views that treat China as a communist State which presents a challenge and an alternative to the current neoliberal world order, disregarding intense competition in the current economy and a much more complex relation to how the State intervenes in the economy.

⁸³ The concept of ideascapes by Arjun Appadurai is applicable to this discussion. APPADURAI, Arjun. **Disjuncture and Difference in the Global Economy**. *Theory, Culture & Society* 7, 1990, 295–310.

⁸⁴ To that aim, the research draws on the ideas of situated epistemologies, a constant vigilance towards the risks of Orientalism and Sinophobia, and the knowledge gathered by Black Feminists and Indigenous Ontologies.

⁸⁵ Interestingly, this position may not prevent the very problems with the ‘ethos of innovation’ imbued in academic theory itself. See: ‘The ethos of innovation also imbues academic theory: what is critique if not the parasitic creation of new knowledge out of old? But what is interesting here is the sense in which so many of the innovative moves of contemporary theory are effects of the transubstantiation of a mechanical machine into a conceptual machine. The story of feedback tells of a specific mode of technological enchantment; the capacity of the cybernetic imaginary to ‘enchant’ contemporary theory, and to produce accounts of the world in which observers, subjects, or actants are always-already immersed in networks, assemblages, *dispositifs*, and media, and in which agency is an operation of emergence, *agencement*, or self-organization. Traces of this imaginary are of course evident in my own argument here.’ POTTAGE, Alain. **An Apocalyptic Patent**. *Law and Critique*, Vol. 31, 239–252, 2020.

documents at the frontier of academic and non-academic publications.⁸⁶ For the first chapter, political economy literature and legal scholarship on Chinese legal system have been utilized, alongside some interviews. For the second chapter, literature review and policy papers on China's role across international organizations served as the basis, supported by interviews and observant participation (as opposed to participant observation), which was conducted physically and online during the period 2018-2021. For the third chapter, the literature on IP and public health served as the foundation of the analysis, and various non-academic sources have been also utilized, particularly in contemporary issues which have not been fully integrated into existing scholarly sources, such as articles and books. This includes most references pertaining to Covid-19 vaccines. For the fourth chapter, critical IP and technology scholarship served as the basis for the discussion therein undertaken. The annex, which draws a comparison with Brazil, is inspired by speculative thinking and critical forms of comparison, which justified a less formal and more open-ended writing practice.

To ensure the confidentiality of interviewees, their names and designations have not been disclosed unless explicitly authorized. Given the potential sensitivity of the topic, the thesis opted to refer to unspecific references ('Interview number X') instead of abstract references ('Interview with policymaker X').

3.2. Towards a global and critical approach to Chinese IP law

As a direct consequence of the considerations above, the departure from culture-specific explanations on Chinese IP means a focus towards structural-oriented analyses.⁸⁷ Rather than focusing on China *in itself*, this approach aims to situate the issue of the development of the Chinese IP system in a global and critical perspective. These two words may often be overused. This sub-section clarifies what they mean in the context of this thesis.

⁸⁶ Although the research prioritizes academic pieces, this is not always possible. This is an explicit decision for two main reasons: first, as a consequence of the object of this thesis, which deals with the knowledge ecology of IP in China and the global IP regime, therefore justifying a wider diversity of views of authors on these subjects than purely peer-reviewed journals and books; second, given the contemporary nature of the topic, in particular the impacts of Covid-19 to IP, the development of vaccines and the politics enmeshed in those processes, many expert commentators have published valuable materials in pre-print or non-academic platforms. Many of these will only be available in the future and removing such kind of information would negatively affect the research.

⁸⁷ For another experimentation with the idea of 'structural' as an alternative to 'institutional', 'moral', 'cultural' or 'individualistic' approaches (without disregarding such elements, when applicable); SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Global Corruption and Economic Power**. In: MUIR-WATT, Horatia; ARROYO, Diego; BÍZIKOVÁ, Lucia; OLIVEIRA, Agatha Brandão de. *Adjudication without Frontiers: The Global Turn in Private International Law*. Edward Elgar: London, 2019.

Although it does not affiliate itself to any theoretical trend or movement explicitly, the thesis relates clearly with the critical inputs of Third World Approaches to International Law (TWAIL)⁸⁸, law and political economy (LPE),⁸⁹ transnational law⁹⁰, a long heterodox international political economy tradition⁹¹, and a neo-structuralist approach to economic law.⁹² The conjunction of these approaches avoids ‘interdisciplinary’ perspectives which are actually a reduced application of one ‘discipline’ to another, such as the bulk of ‘law and economics’ research which apply microeconomic orthodox tools to understand IP as ‘incentives’ that reduce a ‘market failure’. Given the author’s proximity with Latin America, it also draws on CELAC Structuralism, notably the work of Celso Furtado on innovation⁹³, to re-embed such notion into historical and social practices, and not as a neutral, indeterminate, and open-ended practice. As odd as these various references may seem to a research about China, they provide a foundation for the goal of conducting a critique of IP policies without disregarding the pivotal role of legal norms, integrating them in broader political and socio-economic contexts, and acknowledging the inter-relation between different instances and fora. This is also an attempt to ‘deprovincialize’ Chinese legal scholarship.⁹⁴

⁸⁸ CHIMNI, B.S. **Third World Approaches to International Law: A Manifesto**. International Community Law Review 8, 2006, p. 3–27. Furthermore, IP studies that draw from TWAIL have already led to important forms of internal critiques of the system. For example, see VANNI, Amaka. **Patent Games in the Global South: Pharmaceutical Patent Law-Making in Brazil, India and Nigeria**. Oxford, UK: Hart Publishing, 2020.

⁸⁹ This approach in particular BRITTON-PURDY, Jedediah S; GREWAL, David Singh; KAPCYZNSKI, Amy; RAHMAN, K. Sabeel, **Building a Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis**. Yale Law Journal, Vol 129, N.6, 2020; see also: KJAER, Poul. (ed.). **The Law of Political Economy. Transformation in the Function of Law**. Cambridge: Cambridge University Press, 2020.

⁹⁰ ZUMBANSEN, Peer. **Transnational Law: Evolving**. In: SMITS, Jan (ed.), *Encyclopedia of Comparative Law*. Cheltenham: Edward Elgar 2nd ed., 2012, p. 899-925.

⁹¹ ARRIGHI, Giovanni. **Adam Smith in Beijing: Lineages of the 21st Century**. London: Verso, 2007. WALLERSTEIN; Immanuel. **The Modern World-system I. Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century**. Berkeley: University of California Press, 2011 [1974]. AMSDEN, Alice. **The Rise of “The Rest”: Challenges to the West from Late-Industrializing Economies**. Oxford: Oxford University Press, 2003; CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in a Historical Perspective**. London: Anthem Press, 2002.

⁹² SALOMÃO FILHO, Calixto. **Teoria Crítico-Estruturalista do Direito Comercial**. São Paulo: Marcial Pons, 2015; see also: ZUMBANSEN, Peer. **What is Economic Law?** TLI Think! Paper 20/2020, King's College London Law School Research Paper No. 2021/1

⁹³ FURTADO, Celso. **Criatividade e Dependência na Civilização Industrial**. São Paulo: Companhia das Letras, 2008 [1978] Furthermore, Furtado was a proponent of the national state as the prime unit of analysis for the processes of development and underdevelopment, but not in a formalistic and legalistic way. Rather, the economist wanted to highlight an international concertation of states that is intrinsically hierarchical.

⁹⁴ A key methodological contribution proposed by the research are the benefits of situating China in a global perspective. Charlotte Bruckermann and Stephan Feuchtwang propose that anthropology on China should be more comparative and consider influences of ethnographies of other parts of the world. In ‘The Anthropology of China’, they argue that sinologist anthropologists would benefit from turning the usually self-centered anthropology of China into a more ‘global’ and comparative work. Similarly, Ping Song (2017) argues that

Furthermore, in a global IP perspective, it is possible to emphasize that the trend towards maximization of IP protection and enforcement is not unique to China – rather, it is an exemplary case of IP ‘globalization’. The shift in political and legal positions regarding IP is also not exclusive to Chinese contemporary history: this has taken place in basically all high-income countries, such as South Korea, Japan, USA, and Germany; it fits the pattern of a shift from imitation to endogenous innovation. The potential clashes between national cultures and the implementation of IP protection are also not unique to Chinese civilization’s affiliation to Confucianism: in fact, it has been observed – with important ethnographic description and variations – in most of the world. Therefore, this methodological approach enables fruitful comparisons⁹⁵ and a certain caution towards ideas of ‘exceptionalism’ that may be associated to anything ‘with Chinese characteristics’.⁹⁶ It is important not to dismiss the idea of clashes and cultural particularities, but they do not per se give rise to a sense of uniqueness, which can often be (and has effectively been) transformed into a form of exotification, Orientalism, and Sinophobia.⁹⁷

The risk of treating China as an exotified object may be reduced via the adoption of other perspectives, as part of a project of decentering and even decolonizing the analysis. For example, Fabio Costa Morosini and Michelle Ratton Sanchez-Badin note that Chinese investment contracts are often assessed in terms of their uniqueness and differences vis-à-vis European and US investment practices. Nonetheless, from the perspective of Brazilian international law and the country’s recent experience with investment agreements in other countries, such as Brazil’s operations in Angola, highlight something different: that China’s investment contracts and policies contain similarities with the Brazilian approach in this

‘Anthropologists of other Eastern Asian countries have been conscious of the structure of world anthropology, and have reflected on their peripheral position within it, but Chinese anthropologists seem trapped in China’s particular circumstances, encountering different challenges from those of other East Asian societies’. See: BRUCKERMANN, Charlotte; FEUCHTWANG, Stephan. **The Anthropology of China. China as Ethnographic and Theoretical Critique**. London: Imperial College Press, 2016; SONG, Ping. **Anthropology in China today**. Asian Anthropology, Vol 16, Issue 3, 2017.

⁹⁵ See Afterword, for the proposal of a critical comparative law loosely inspired by suggestion by Günther Frankenberg. See: FRANKENBERG, Günter. **Comparative Law as Critique**. Cheltenham: Edward Elgar, 2019.

⁹⁶ It should be stressed that, in many ways, China does presents itself as both an ‘exceptional’ case and as an ‘exception’ to the global order – but this should not become a catch-all phrase that encompasses everything. The ‘exceptionality’ of China, for instance, has been an interesting approach against the idea that a market economy would be the most efficient way to achieve economic development and industrial capacity, diverging from the promises of decades of international policies by the IMF and the World Bank.

⁹⁷ The problematic connotation becomes evident when ‘exception’ or ‘unique’ is synonymous with ‘exotic’. As argued by Liya Yu, this dehumanizes Chinese subjects and is part of a cognitive dissonance that impedes observers from detaching Chinese people from general notions such as ‘Yellow Peril’ or ‘Confucian culture’. See: YU, Liya. **Vulnerable Brains: The Neuropolitics of Divided Societies**. New York City: Columbia University Press, forthcoming in 2021.

field, and therefore is not as ‘unique’ or ‘exceptional’ as most Western scholars usually consider it to be.⁹⁸

This thesis therefore presents itself in the complex position of assessing a variety of arguments that are often associated to either Western or Chinese viewpoints on China. This seeming duality is not only problematic but also restrictive in terms of achieving a more balanced and nuanced approach to Chinese law and society. By acknowledging the specific position from which the research has been conducted – a foreign from both points of view and affiliated to a Brazilian academic institution –, both limitations and new potentials may arise. On the one hand, it must be acknowledged that the inability to engage more directly with Chinese stakeholders working on IP (also a consequence of the Covid-19 pandemic) does limit certain analytical possibilities; on the other hand, this relative distancing from highly situated positions such as those for US-based or China-based scholars and practitioners may enable less provincialized regards of the topic. In this sense, this thesis deals with the challenges associated to global south researchers, who are constantly ‘running to catch-up with Western international lawyers’.⁹⁹

For the same reasons as those exposed above, there is a problem with the ‘global’ as an analytical scale, if it is seen as an indistinct generalizing category that can foreshadow local struggles, and individual experiences. The ‘global’ as a site of inquiry is thus not a synonymous with the end of nation states, strict economic globalization and/or an opposition to the local/national instances: it should instead be regarded as an interwoven multi-scalar order of multiple actors, and the possibility within legal scholarship to enable a real consideration of often dismissed and marginalized viewpoints.¹⁰⁰ International law contains a daily operation, for example, expressed in numerous concrete ways, as explored by Luis

⁹⁸ See: SANCHEZ-BADIN, Michelle Rattón; MOROSINI, Fabio. **International Economic Law by Other Means: a three-level matrix of Chinese investments in Brazil’s Electric Power Sector**. Harvard International Law Journal, Vol. 62, Special Issue, 2021; see generally: MOROSINI, Fabio; SANCHEZ-BADIN, Michelle Rattón. **Reconceptualizing International Investment Law from Global South**. Cambridge: Cambridge University Press, 2017.

⁹⁹ EMTSEVA, Julia. **Practicing Reflexivity in International Law: Running a NeverEnding Race to Catch Up with the Western International Lawyers** (April 30, 2021). Max Planck Institute for Comparative Public Law & International Law (MPIL) Research Paper No. 2021-11.

¹⁰⁰ It would be possible to focus a defense of this methodological position along the lines of long legal realist traditions such as that of Eugen Ehrlich and/or critical legal studies such as Duncan Kennedy. But it is both more effective and thoughtful to quote the following testimonial by Osmair Cândido, a Brazilian philosopher and gravedigger working at the Penha cemetery, São Paulo: ‘But I’m still a gravedigger because here I’ve learned a lot about the human being. **When you’re at the top of the social pyramid, everything you look at is the same. It’s like when you’re on the plane and all the dots down there look the same. But from where I am, down here, I can see the detail. As a gravedigger, I see pain and death life-size.** And it was during the pandemic that I saw the darkest things in my career, in the more than thirty years I’ve done this.’ (free translation) CÂNDIDO, Osmair. **A História do Coveiro Filósofo**. Piauí, 18 June 2021, Available at: <https://piaui.folha.uol.com.br/historia-do-coveiro-filosofo/> (Access on 19 June 2021).

Eslava in an ethnography of Bogotá's 'development'-related projects¹⁰¹; oftentimes, the struggles 'from below' shape and influence international law across international organizations¹⁰², but are nonetheless usually marked by economic power and its presence in policymaking.¹⁰³ Moreover, the impacts of regulatory governance in one jurisdiction reverberate in others directly and indirectly.¹⁰⁴ This is the kind of 'global' this research makes reference to: not a dismissal of what is particular and local about Chinese IP (including the sub-national scales), but an integration of these various instances. The goal is to avoid over-generalizations that are often ingrained in international law, a contested discipline embedded in a long history of political struggles.¹⁰⁵ This is what makes the approach both global and critical.

Although in a different discipline and with a distinct object (the analysis of China's contemporary art), Hentyle Yapp (2021) proposes the idea of *minor* as a methodological category, drawing from both French metaphysical thought and Black feminist theory (p.30) – also two non-obvious references. According to Yapp:

“Although it is important to contend with China's current political significance and its imperial and authoritarian tendencies, a perpetual focus on relevance and contemporary concerns eclipses other ways of knowing and theorizing a space. China should not simply be further included into discourse nor be deployed as an example that paves the way for other nations to become central to empire and capitalist modernity. **As such, the method of the minor approaches China and Chineseness as concepts in order to examine the political and theoretical possibilities of differently engaging the subject, state, and social structures as affective entities, rather than solid facts.** Through the molecular and relational, affect offers an important mechanism to track the production of sites, the state, and other objects presumed to be transparent, absolute, and fully knowable.” (YAPP, 2021, p. 15)

These considerations can be also applicable to the enunciation of the global and critical in the perspective posited in this research: a sort of *minor* within the global needs to be accounted for. This opening to different sources, the possibility of unexpected comparisons, a reduction of the hierarchy between formal and non-formal legal

¹⁰¹ ESLAVA, Luis. **Local Space, Global Life: The Everyday Operation of International Law and Development.** Cambridge: Cambridge University Press, 2015

¹⁰² RAJAGOPAL, Balakrishnan. **International Law from Below.** Cambridge: Cambridge University Press, 2003.

¹⁰³ SELL, Susan. **Private Power, Public Law: The globalization of intellectual property rights.** Cambridge: Cambridge University Press, 2003.

¹⁰⁴ ZUMBANSEN, Peer. **Transnational Law: Evolving.** In: SMITS, Jan (ed.), *Encyclopedia of Comparative Law.* Cheltenham: Edward Elgar 2nd ed., 2012, p. 899-925; MUIR-WATT, Horatia. **Private International Law Beyond the Schism.** *Transnational Legal Theory*, Vol 2, 3, 2011, p. 347–427.

¹⁰⁵ PAHUJA, Sundhya. **Decolonising International Law: Development, Economic Growth and the Politics of Universality.** Cambridge: Cambridge University Press, 2011; TZOUVALA, Ntina. **Capitalism as Civilization: A History of International Law.** Cambridge: Cambridge University Press, 2020.

manifestations, a multi-scalar analysis from the local to the ‘international’, and a limitation of the uniqueness argument on Chinese IP may also enable a reflection on the ongoing transformations of the global IP system and its possible futures, which will inevitably be characterized by the consequences and the influence of Chinese legal order.

In this sense, this inquiry is not relevant exclusively for those interested in China as such, but more broadly in how law fits and is embedded in specific development policies, in ideas of modernity and dreams of progress, and of course all its discontents: from changing lifestyles to the impacts of increased exclusivities based on intellectual property, to those displeased with continuous economic globalization and also those who remarkably dislike the nationalist approaches seen in recent years.

3.3. On ‘Chinese characteristics’ and IP: A thematic overview

Since Deng Xiaoping’s first deployed the notion of ‘socialism with Chinese characteristics’ during the reform and opening up period,¹⁰⁶ the expression has been applied to multiple contexts and topics: capitalism ‘with Chinese characteristics’,¹⁰⁷ political economy ‘with Chinese characteristics’,¹⁰⁸ development ‘with Chinese characteristics’, human rights ‘with Chinese characteristics’, foreign investment ‘with Chinese characteristics’, law ‘with Chinese characteristics’, brand customer relations ‘with Chinese characteristics’ are a few examples among many others.¹⁰⁹ It usually refers to the idea that there are unique aspects in China that depart from most other experiences, drawing attention

¹⁰⁶ The idea that certain Western concepts and institutional settings could be adapted or transformed to be Sinicized is not new. Apart from the notion of ‘Socialism with Chinese characteristic’, some argue that this process was integral to Mao Zedong’s own implementation of a Communist Chinese State with the founding of the RPC in 1949. Prior to that, in the 19th Century, Self-Strengthening Movement after the Opium Wars brought a ‘modernization’ drive to import and implement Western technology, seen as a matter of national security. In the post-Cultural Revolution era, academic disciplines (including law, economy, sociology and anthropology) needed to be fully re-inaugurated, and the process of adopting and transforming foreign concepts was paramount (including sending individuals to study abroad). For example, Ren Jiantao, one of the country’s most famous scholars, proposed to localize ideals of Chinese social sciences: “Chinese social sciences need to establish the universal principle of obedience to scientific logic between the localized universal social science paradigm and the localized absolute experience description, and the falsifiable social science based on Chinese experience”. (free translation) REN, Jiantao. **Rethinking the localization ideals of Chinese social sciences**. Available at: <http://www.aisixiang.com/data/121317.html>

¹⁰⁷ HUANG, Yasheng, **Capitalism with Chinese Characteristics: Entrepreneurship and the State**. Cambridge: Cambridge University Press, 2008.

¹⁰⁸ KENNEDY, David; STIGLITZ, Joseph. **Law and Economics with Chinese Characteristics, Institutions for Promoting Development in the Twenty-First Century**, Oxford: Oxford University Press, 2013.

¹⁰⁹ It is interesting to highlight that some other concepts are not described in the same manner. For example, there is no reference to ‘medicines with Chinese characteristics’: instead, there is ‘traditional Chinese medicine’, amply used and of great economic importance in contemporary China.

to the fact that concepts used in other contexts need to be revisited or renewed in China. However, the overuse of ‘with Chinese characteristics’ questions what it really means (if anything) and even led to ironic Internet memes, which are telling of how the expression may often be seen as void of any content and significance.

In a different perspective, ‘with Chinese characteristics’ is a clear demarcation of the idea that there is something specific in China’s implementation of foreign concepts, against the expectations of Western countries.¹¹⁰ In this sense, it suggests something politically significant: a reaffirmation of national sovereignty and ‘policy space’. But this is not necessarily a decolonial critique, as it does not draw parallels with other countries in the global south, focusing instead on China and its comparison with Western nations. It has also a legal dimension: China is required to abide by international economic law rules, including those of IP and the TRIPS Agreement. IP ‘with Chinese characteristics’ is a way to legally frame its own system as similar enough to be fully compliant with TRIPS, but distinct enough to attract criticism from other countries. For the exact same reason, those opposing China’s IP and innovation policies likely consider the use of the expression as a smokescreen to disguise the *de facto* implementation of IP in China.¹¹¹

In this ‘cunning’ sense¹¹², such widespread use of ‘with Chinese characteristics’ is a form of ‘nation branding’ that associates distinct elements to the nation state. Not surprisingly, it is part of official PRC statements and not only an academic motto. As other nation states, contemporary China is an ‘invented community’ in the sense proposed by

¹¹⁰ They are sufficiently ‘similar’ to use the same words as their Western counterparts, and yet allegedly distinct enough to be Chinese. But there is also the other dimension of the same discussion: whether Chinese concepts can transform the international concepts and categories. For example, the concept of *tianxia* (all under heaven) has been one prominent example in international relations, especially by the work of philosopher Zhao Tinyang. It is important to highlight how this project of ‘Sinicizing’ Western concepts is also not politically neutral. *Tianxia*, for example, was ‘the cosmotechnics of the Chinese government, connecting morality and the cosmos, legitimizing laws and practices (as well as the government itself). The emperor was called *tianzi*, the son of Heaven. As such, he had the legitimacy to be at the center of the political sovereignty, and to govern the people, including the fringe “barbarians.”’, as put by philosopher Yuk Hui. See: DUNKER, Anders. **On Technodiversity: A Conversation with Yuk Hui**. 9 June 2021, Los Angeles Review of Books, Available at: <https://lareviewofbooks.org/article/on-technodiversity-a-conversation-with-yuk-hui/>

¹¹¹ This position highlights the risk of reifying IP ‘with Chinese characteristics’, enabling it to become an ideological performance that bears no relation to the material world. Without dismissing the idea that such a discourse has ideological implications and uses, this thesis, inspired by works on legal materiality reflects on its material implications. This is an attempt to experiment with the caveats of the IP implicit premises of material/immaterial (or tangible/intangible), or the law on the books/law in action dichotomy. Following this approach, a formally adopted narrative such as IP with Chinese characteristics should be investigated in light of its governmental goals as a State rhetoric, but equally as a component that co-creates certain languages, documents, and even social figures. See subsection 3.2.

¹¹² See CHANDRA, Rajshree. **The Cunning of Rights**, Delhi: Oxford University Press, 2016.

Benedict Anderson,¹¹³ and its specific contours often trace back to the late Chinese Empire and the early 20th century Republic.¹¹⁴ These rhetorical exercises involving ‘with Chinese characteristics’ are part of such process. As noted by Henrietta Harrison at the conclusion of ‘China – Inventing the Nation’ (2001):

‘Nationalism has never been merely a simple allegiance to nation or nation state. Ever since the late nineteenth century Chinese nationalism has been a means by which people made claims for political power at both the lowest and the highest levels of Chinese politics. The complaints of a Beijing taxi driver that the ceremonies had been a waste of money and the shouts of the protestors on the streets of Hong Kong reflect the ways in which ordinary people have used the rhetoric and occasions of nationalism to make their own political demands. A few days after the handover the South China Morning Post announced that the clock used to count down the seconds to the handover in Tiananmen Square was to be moved to the Great Wall, where it would stand beside a statue of Lin Zexu, whose dramatic attempt to suppress the opium trade was the cause of the first Opium War. This would bring together the Great Wall, a symbol of China's imperial rule and ancient culture, with Lin Zexu, a symbol of the narrative of politicised nationalism and the clock with its resonances of the success of the contemporary national leadership in its negotiations with Britain and effective orchestration of the handover. The combination suggests the many ways in which China's leaders too have continued to make use of the symbols of nationalism for their own political ends.’

In this sense, the purpose of this inquiry is to look for more nuanced views, but also that try to reach the ‘middle’ of this network of socialities¹¹⁵ – which is not necessarily the middle point between the two main views. However, as already exposed, this research is neither an interrogation about the origins of such an expression nor about its content (‘essence’), but it also does not take the idea for granted, which justifies using it as a starting point despite its own caveats. Because it is not a concern whether such ‘Chinese characteristics’ in the realm of IP ‘really’ exist or whether it refers to a purely political rhetorical exercise, what matters is that the expression has both material and ideological consequences, and hence influences the form and the policies that construct and (re)make IP in China.¹¹⁶ In other words, the thesis does not attempt to discuss what they are/could be/ought to be, but rather what do the ‘Chinese characteristics’ *elicit and conceal*. Paradoxically, they often do both,¹¹⁷ as the next chapters will highlight.

¹¹³ ANDERSON, Benedict. **Imagined Communities: Reflections on the Origins and Spread of Nationalism**. London: Verso Books, 1983. It is important to acknowledge that the literature on nationalisms and their historical construction processes is not exclusive to Anderson's argument.

¹¹⁴ HARRISON, Henrietta. **China: Inventing the Nation**. London: Bloomsbury, 2001.

¹¹⁵ STRATHERN, Marilyn. **Cutting the Network**. *The Journal of Royal Anthropological Institute*, Vol. 2, N. 3, p. 517-535, 1996.

¹¹⁶ BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective**. Chicago: University of Chicago Press, 2011

¹¹⁷ For an analysis of how China bears an intimate relation with a culture of public secrecy, see HILLENBRAND, Margaret. **Negative Exposures – Knowing What not to Know in Contemporary China**. Durham, Duke University Press: 2020.

The next step is to conceive how are ‘Chinese characteristics’ associated to an IP regime. In its contemporary mainstream discourse, IP is a legal technique to protect inventors and creators from anywhere around the world¹¹⁸, also related to the fact that ideas and their expressions ‘circulate’ despite and beyond borders. Since the TRIPS Agreement, it is also clearly associated to international trade and a generalizing definition of knowledge as a potential ‘asset’. As such, there is a seemingly foundational paradox: a system which is expected to be applicable ‘anywhere’ and to ‘anyone’, designed to harmonize and expand cross-border rules, but which is distinctively associated to *national* characteristics.¹¹⁹ IPRs are territorial rights, whose protection is dependent on a country’s recognition (which, by default, entails national variations): there is not, for example, a ‘global’ patent directly enforceable anywhere.¹²⁰ In this sense, all IP would be marked by some ‘national characteristics’, i.e. legal specificities related to the territorial nature of IP, such as what patentability criteria are adopted and what is the scope of protection for copyrights. If this is what IP ‘with Chinese characteristics’ mean, it is purely a reference to norms that are different from those of Western countries, and to the use of the country’s ‘policy space’.¹²¹

¹¹⁸ The expansion of IP protection to more jurisdictions and the attempts to promote the use of IP by ‘new’ stakeholders, such as indigenous peoples, local communities, the youth, and women, are part of the discursive possibility of IP as able to comprise a myriad of different individuals, cultures, nations, economic systems, diversity of interests, etc. Even when these promises and policies are ‘progressive’ in its contours (for example, providing legal tools for indigenous peoples against misappropriation of their traditional knowledge), they are necessarily reliant on the premise of IP – even with twists and specificities – being applicable anywhere.

¹¹⁹ Ideas and their expressions circulate around the world beyond and despite the existence of borders. Still, the IP global system is also fundamentally territorial and based on numerous tensions between attempts to harmonize provisions, regulations, and enforcement policies, on the one hand, and multiple reaffirmations of the sovereign status of IP regulation, on the other hand. The notion of “TRIPS flexibilities” as incorporated in-built provisions of the TRIPS Agreement itself, and “regulatory sovereignty”, are examples of the tensions regarding how the globalization of IP is permanently attached to the territorial implication of its protection and the safeguard of some national particularities.

¹²⁰ This is the case even if regional experiences such as those from the European Patent Office (EPO) and the Organisation Africaine de la Propriété Intellectuelle (OAPI) go in that direction (countries need to firstly decide to join regional agreements). In the EPO, for example, an ‘European patent’ is valid across all jurisdictions that are part of EPO but are nonetheless still subject to invalidity claims and other forms of national control. At the WIPO, ‘global’ IP systems such as the Patent Cooperation Treaty (PCT) and the Madrid System do not create global rights but facilitated and streamlined procedures for filing and recognition between jurisdictions – which are also dependent on the national decision to join them in the first place.

¹²¹ The idea of ‘policy space’ has been longstanding and very important in contemporary IP and economic law scholarship. It stresses the fact that despite the adoption of international instruments such as the TRIPS Agreement, IP remains utterly related to a country’s delineation of its norms, able therefore to regulate measures in accordance with national goals that may be distinct from the pressures and interests that led to the creation of such norms in the first place. The notion of ‘TRIPS flexibilities’ applicable to public health is the best and most evident example of the notion of ‘policy space’: countries are free to adopt measures to protect and safeguard the public interest, as per designed in the architecture of the TRIPS itself, with respect to their IP. In this sense, the use of ‘policy space’ is very important. See CORREA, Carlos; HILTY, Reto. **Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law**. South Centre and Max Planck Institute for Innovation and Competition. Munich: Springer, forthcoming in 2021.

However, the use of the expression, for the purposes of this thesis, is distinct: it is an entry point on how the broader developmental project of contemporary China also contains elements of ‘nationalism’, and this is where the role of IP in such process becomes more interesting. In this sense, it contains a different specific set of socio-economic rules, principles, values, and institutions. The next chapters elucidate that IP ‘with Chinese characteristics’ not only stresses the idea of national variations, but also includes specific elements of nation-state building and nationalism into IP. In so doing, the thesis distils the attachments between intellectual property, nationalism(s) and a project of ‘modernity’ everywhere, and not only in China, as proposed in Chapter 5.

There is yet another reason IP is an interesting case for reflection on the use of ‘with Chinese characteristics’: with some remarkable exceptions, the legal discourse in China is very clearly in line with the mainstream paradigms of IP scholarship,¹²² including the following ideas: IP is a necessary tool for innovation, strengthening IP is necessary for legal certainty and for market investments, and there should be a balance between private and public interests. Fundamentally, it does not challenge, but rather reinforces, the very basis of an understanding of society as ‘having an inexhaustible capacity for innovation, for endless self-renewal’.¹²³ This conformity with the most fundamental paradigms in IP law (and in patent law more particularly) offers the conditions for an analysis which concludes that China’s development plans are not even remotely transformative of the economic model that brought the world to its current brink of climate and social collapse.

3.4. Summary of the Main Arguments and Structure of the Thesis

The thesis is divided in this Introduction, four Chapters, and Concluding Remarks. It also contains one Afterword. The **main arguments of the thesis** can be anticipated as the following:

¹²² This should not be seen as a lack of divergent views among Chinese scholars. Despite well-known constraints, there are important debates which take place in China. For example, part of what is called ‘the New Left’, are critical of the intensive competition and capitalist features of the Chinese economy, which pushes workers to its limits under a logic of collective outperformance and individual worth and incentive. The ‘966 policy’ is a prime example thereof, and critics of the social consequences of an overworking population are rising. Others have focused on the need and opportunities to enhance democratic tools and governance in China, many perceived to be mainly conservative reformists. While many scholars may present their arguments in distinct, less direct ways in comparison with their Western counterparts, the diversity of views is notable to the extent which it does not match the perceived stereotype of China being a single-minded country. Nonetheless, these perceptible different viewpoints are rarer in the country’s contemporary academic set.

¹²³ See POTTAGE, Alain. **An Apocalyptic Patent**. Law and Critique, Vol. 31, 239–252, 2020.

1. IP ‘with Chinese characteristics’ can be interpreted as an experiment of implementing and reshaping international law, which argues that China fully complies with international obligations such as the TRIPS Agreement, while also explicitly departing from the expectations of Western countries in how national policies are to be shaped and adopted. For the most part, however, the effective functioning of the IP ‘with Chinese characteristics’ mirrors the IP systems of the global north (high-level of IP protection, low consideration of public interest); still, in areas considered to be of national interest, and its conjunction with national industrial policies and public enforcement, the system is remarkably distinct.
2. More broadly, it renders explicit the fact that the global IP system is increasingly being informed by what China and its courts do and Chinese geopolitical influence; however, the rise of a ‘Chinese standard’ in IP is inconclusive at best, given recent trends and forms of engagement by the country across international arenas. The politics of pharmaceutical patents under Covid-19 are extremely representative of this assessment.
3. Notably, and perhaps more interestingly, the IP ‘with Chinese characteristics’ reaffirms the fact that any IP system is deeply embedded, as much as it participates, in the construction of ‘modernities’ and the ‘national’ (Nation State, nationalism and nationality). The appalling extent to which ideas of innovation have become ingrained in the global operations of IP is elicited in the Chinese experience but is far from being a unique case. National security and public interest issues, which are at the core of how IP is portrayed in the context of China’s development plans, will likely become increasingly globally.
4. The IP ‘with Chinese characteristics’ is nor a full replication of international standards and neither the creation of subversive or alternative IP regimes. Issues of access, justice, equity, redistribution, and redress are largely absent from this regime – as much as they also have been and are in others around the world. Akin to how the origins of the modern patent system devalued the role of non-industrial modes of production, the consolidation of IP in contemporary China produces a devaluation of all those who contributed to the economic growth that enabled the country to shift its positions: workers, manufacturers, merchants, etc. They are all concealed in what the IP with

Chinese characteristics decides to elicit. This suggests that the global IP system will likely continue to be unbalanced and excessively pro-economic power, although China highlights to other countries, particularly from the global south, that they have the capacity to conduct policies autonomously in accordance with their ‘policy space’.

After this introduction and first chapter, the **Second Chapter** describes from a political economy perspective the reasons for the transformations of the IP system, based on a model-type comparison between two different economic models: the ‘Made in China’ and the ‘Made in China 2025’, which represent respectively the relatively cheap, low-technology and low-waged manufacturing with little IP protection and enforcement, which was at the core of China’s industrialization since the reform and opening up, and the pursuits of China’s technological dominance with high-technology, skilled professionals and strong IP protection, which is part of the industrial and development plans of the country. The chapter provides an overview of the narratives associated to the creation of IP in China: from the early modernization of the self-strengthening period in the 19th century to the increased IP protection since the reform and opening up period, culminating in the recent amendments and institutions in the period 2019-2021. The chapter presents how this is constantly dependent on an interface between foreign pressure (particularly by the United States, rendered visible by the US-China 1st Phase Agreement in 2020) and emerging domestic interests. It also conducts an analysis of some of the main contemporary aspects of the Chinese IP system, briefly addressing some of the normative, administrative, and judicial elements of the development of IP in China. Rather than a pure reliance on the adoption of stringent IP norms, policies to create a ‘culture of IP’ in schools and universities, ostensive anti-counterfeiting policies, attempts to harmonize judicial proceedings, policies to enhance the quality of IP applications, strengthening criminal enforcement, and on-the-ground enforcement officials routinize and implement – with local variations – IP in contemporary China. By doing so, they also qualify, value, and criminalize practices, places and people: inventors who protect IP and vendors in counterfeit markets represent the two ‘models’ and are accordingly viewed by ‘the law’. The chapter concludes by assessing the paradoxes in the IP ‘with Chinese characteristics’, noting in particular how the transformations in IP are a continuum, rather than a rupture, with China’s development paths since the reform and opening up.

In the **Third Chapter**, the research deals with how the IP ‘with Chinese

characteristics’ reverberates internationally, particularly in terms of China’s rise in multilateral affairs and global geopolitics. It develops the possibility that China may be reshaping the global IP order¹²⁴ and questions whether a ‘Chinese standard’ is already part of international IP policymaking. To that aim, it conducts an analysis of China’s stances at the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO), where the country tends to adopt ‘middle-ground’ positions with respect to IP between developed and developing countries, but with important differences according to the topic. Overall, the importance given by China to multilateral economic organizations is growing and clear. This section is partly based on a series of interviews and a limited ethnographic experience as participant observer (2018-2021). It also develops China’s participation with respect to intellectual property in the Regional Comprehensive Economic Partnership (RCEP) and its Belt and Road Initiative (BRI), as examples of its increased role in regional and bilateral IP. These fields are also on the rise for China’s geopolitical aspirations. The conclusion is that the internationalization of the IP ‘with Chinese characteristics’ adopts, for the time being, a focus on domestic affairs, a growing preparation to face demands and potential litigation with the United States and the European Union, and increased interest in expanding its standards via procedural and cooperation-based activities, but not as a push towards the adoption of its own Chinese legal standards into other countries’ IP systems. In other words, there is no Chinese standard in IP, at least not for the time being, but its role as norm-maker will invariably continue to grow.

The **Fourth Chapter** addresses the politics of pharmaceutical patents and access to medicines in China, with a focus on the context of Covid-19. It starts by providing an analysis of the issue of IP and access to medicines in China, and its adoption of multiple TRIPS-Plus norms with respect to pharmaceutical patents, which largely reduce the policy space of the country to ensure affordable access to medicines. The non-IP regulatory scope of tools available to the Chinese State – via competition law, price and distribution controls, direct engagement with private companies, and conditionalities related to financing mechanisms, can limit the detrimental impacts in China, but may not be enough. The chapter then proceeds with considerations on the status of the pharmaceutical sector in the country, noting how Chinese companies seek to compete with global *big pharma*, and not become a sort of ‘pharmacy of the developing world’ such as India – this is in line with China’s aspirations to achieve technological dominance in the biotechnology sector more than

¹²⁴ ABBOTT, Frederick M; CORREA, Carlos; DRAHOS, Peter. **Emerging Markets and the World Patent Order**. Cheltenham: Edward Elgar Publishing, 2013.

expand its diplomatic influence via, for instance, providing affordable medicines to the world. This directly impacts the patenting and trademarking trends in the pharmaceutical sector, as domestic firms have an interest in securing their own monopolies, and so has the Chinese government. Against this backdrop, the chapter focuses on Covid-19 vaccines. At the World Health Organization, China has committed to treating all medical products to Covid-19 as ‘global public goods’. At the same time, China has allowed and incentivized ample patenting of all such technologies via CNIPA fast-track policies, potentially undermining access. On the other hand, it had a clear association between the industrial policy development of its pharmaceutical sector and Covid-19 R&D research. China has been the main provider of Covid-19 vaccines in the world, and exported proportionately more than any other country or region; yet, it clearly conducts ‘vaccine diplomacy’ (which all others also do), and its companies charge high prices for the vaccines nonetheless. There are therefore various contradictions and paradoxes, as well as the multi-scaled interdependence of the topic. As such, the chapter presents the debates of the WTO TRIPS waiver proposal and the mostly cautious, background role of China – despite its key position in the access to Covid-19 vaccines. This analysis has potential to allow an exemplary discussion on the present and the future of pharmaceutical patents in and beyond China. The direct entanglement between national aspirations at international diplomacy and the coordinated behavior with Chinese vaccine manufacturers highlights that the larger discussions on IP ‘with Chinese characteristics’ bind national and international issues at the same time, they are moreover all part of processes of nation-building and broader geopolitical schemes, with repercussions also at the scale of individuals and institutions. The chapter concludes with a parallel between the idea of ‘vaccine nationalism’, criticized for countries that hoarded vaccines and impeded others from manufacturing them via protection of IP (including trade secrets), and ‘IP nationalisms’, the elements of IP that are related to nations, nationalisms and the nation-state.

The **Fifth Chapter** proposes that intellectual property, both in China and elsewhere, is intrinsically and necessarily conditioned to certain paradigms of nationalism(s) and a specter of modernity, which contains an ideological valuation of the idea of ‘innovation’ and high technology. While these are not exclusive features of the IP ‘with Chinese characteristics’, they are certainly elicited in more direct ways. These elements do not fully explain the trends towards maximalist IP policies, but contribute to understanding some specific caveats to explanations that fail to situate IP policies and practices in accordance with its innovation policies, including the logic of promotion of a

‘technologically advanced’ country, which is also a part of the craftsmanship of a certain set of ideas regarding the ‘national’ – nationalism in a nation state, nation as opposed to international, and nationalism as a prioritization of the domestic. It thus clarifies and deepens the meaning of IP ‘with Chinese characteristics’: a system in the way the idea of ‘nationalism’ is deployed more explicitly for its implementation, and deeply integrated in China’s innovation and development plans, but not an alternative to the global IP system as per conformed since the TRIPS Agreement. As such, the ‘rise’ of the IP ‘with Chinese characteristics’ elicits how countries may well deploy their policy space to craft intellectual property policies that are conducive to their own objectives of development, particularly in relation to competition law, industrial and innovation policies. However, it does not enunciate the rise of an alternative, techno-diverse¹²⁵ paradigm for the global IP order but rather its own reinforcement as a technique of appropriability and financialization of the intangible, marked by a lack of considerations of equity and redistribution. It may thus reiterate and exacerbate the existing problems with the global IP order, namely its prioritization of the private interest, the robustness of monopolies, and the logic of exclusion and restriction (according also to a nation and a certain sense of modernity).

The **Concluding Remarks** summarizes and systematizes the previous chapters, and proposes four main arguments regarding the IP ‘with Chinese characteristics’: (i) it offers inputs for a broader discussion on the role of law in developmental processes; (ii) it is an exemplary use of policy space under international law but is not a case of technodiversity; (iii) it elicits how IP is a techno-futuristic dream, a mythology of progress, and strategic nationalism; and (iv) it is an artifact of, and an entry point towards, IP as a cornerstone of the contemporary global economy.

The **Annex** turns the ‘particular into general’ and concludes with critical reflections on the foundations of IP. This is done by conducting a parallel between China and Brazil, not as a direct comparison in the ‘functionalist’ method of comparative law, but in terms of the different intersections and backs-and-forth between the two sites. The analysis is a departure in form and substance from the rest of the thesis but nonetheless based on the preceding analysis, which provides a path for a more general, if open-ended, conclusion: there is a paramount necessity to envision, explore and advocate for alternative intellectual properties, which should not be based on exclusionary concepts of ‘nationalisms’ and the ‘private’, but rather on inclusionary ideas of ‘global’ and the ‘public’.

¹²⁵ HUI, Yuk. **Technodiversidade**. São Paulo: Ubu, 2020. Also see: Concluding Remarks.

Chapter 2

From 'Made in China' to 'Made in China 2025' and beyond



曹斐 (Cao Fei)

Whose Utopia, 2006

(Video, 20', Tate Liverpool)

我们的未来不是梦

Our future is not a dream.

Chapter 2

From 'Made in China' to Made in China 2025 and beyond

Whose Utopia? is a colour video that is approximately twenty minutes long and is shown in a darkened room, projected onto a wall of two and a half square metres or larger. The film is set in a light bulb factory in China and consists of three parts. The first, titled 'Imagination of Product', begins with a series of close-ups showing light bulb components being produced and assembled by automated machines, followed by scenes of people working very quickly at workstations that are arranged into a grid formation. The second part, 'Factory Fairytale', shows individuals dancing and playing electric guitars inside the factory, often with staff working around them. Some of these performers wear labourers' uniforms, but one is dressed in a ballerina's outfit and another in a long white dress. This section of the film ends with footage of a woman going to bed, while the factory can be seen outside her window. The third part – 'My Future is Not a Dream' – shows individuals inside the factory, standing or sitting completely still and facing the camera, and in many of these scenes the operations of the factory continue around them. The film finishes with shots of people wearing white t-shirts bearing Cantonese characters that collectively spell out the phrase 'My Future is Not a Dream' (the English translation for which is provided using subtitles). The first two sections of the work are accompanied by ambient music including electronic sounds and bells, while the third part features a song that sounds like a kitsch version of American country music. This is performed in English by a man who sounds from his accent as if he is from China or elsewhere in the Far East. (TATE MODERN)¹²⁶

To understand China's contemporary IP policies, an analysis of its rapidly changing innovation and industrial paradigms is required. A formalist assessment of IP legislations would be both insufficient and misleading, for there is a strong link between development goals and the legal infrastructure of technology and innovation in the PRC. The economic transformations redefined the interests of the Chinese government and domestic stakeholders with respect to IP: as Chinese companies innovate, they demand protection of their own IP, which reverberates in the government's interest to provide more IP protection; on its turn, a more robust system of IP protection and enforcement is a nod to the fact that China takes measures to stop being associated to 'counterfeits' and IP 'theft' (both in terms of creating incentives for investment, combatting the moral connotation of such accusations, and avoiding international economic law claims against its policies).

Given this context, this chapter draws on the intersection between political economy and law to propose that one framework to interpret the IP 'with Chinese

¹²⁶ See: TATE MODERN, Liverpool. Available at: <https://www.tate.org.uk/art/artworks/cao-whose-utopia-t12754>

characteristics’ is based on how it fits within the shift from one economic model to another¹²⁷: from the ‘Made in China’ to the ‘Made in China 2025’. This has only a heuristic goal to create two standpoints for adequate comparison but is not an extensive assessment of economic structures per se.¹²⁸ Moreover, the alleged shift is not a final nor finalized process, which means that in the future new paradigms may emerge. In fact, there is a coexistence of the two models in contemporary China¹²⁹ – another crucial feature to think about what remains concealed and what is actively elicited by IP discourses and legal tools. Therefore, the proposed framework is relatively open-ended, and includes a period ‘beyond’ Made in China 2025 which is not definitive nor certain.

The reason for this methodology is related to the thesis’ goals.¹³⁰ Most analyses of China’s economic structure focus on macroeconomic transformations, or questions such as what the best description of its economy is (socialism with Chinese characteristics, capitalism of state, developmental state, etc. – and all their respective caveats). Instead, this chapter will focus on the interlinkages between IP laws and policies, the economic

¹²⁷ The use of the word ‘model’ in this context does not refer to econometric modelling, but rather to the notion of ‘ideal types’, inspired by Weberian sociology but used in wider contexts. Instead of a perfect description of reality, the ‘ideal types’ of Made in China and Made in China 2025 highlight some of the stronger elements that define their characterization, which enables a clearer comparison. This is not based, however, on an ethnography of China and, being an ‘ideal type’, does not aim to depict reality with exactitude; it draws on the literature that assesses the transformation of the Chinese economy over the last four decades, and extracts the ideological underpinnings and implicit ideas that come with their description. In other words, it is a way to put at the forefront the realm of ideas that sustain the very description of China’s current economy: the idea of a rapid industrialization from the low-tech to the high-tech, from the bad quality copy to the overwhelming innovation.

¹²⁸ On the caveats of the very idea of ‘relations’, a core of contemporary anthropology, see: ‘The relation has a definitive presence in anthropological work, including the positive tenor it generally carries, the privileged place it holds both in structures of argumentation and in what are understood as prime objects for study, and especially the way it is often introduced into discussion to signal a critical (in the sense of probing and questioning) move. Yet it is honored with no special, or specialist, definition. Indeed, Viveiros de Castro (2015: 16, emphasis omitted) observes that anthropology distinguishes itself (from other discourses on human sociality) “by maintaining only a vague initial idea of what a relation might be,” precisely because its distinctive problematic consists less in determining which social relations constitute its object than in asking what its object constitutes as a social relation. [...] The kind of description at which anthropology excels is expository; exposition entails setting forth information in a way that might encompass interpretation, explanation, and other analytical moves, but all with the aim of elucidation. Anthropological notions of analysis and theory, and above all that special trademark, the comparative method, take for granted that this implies showing relations between phenomena. [...] The commitment of twentieth-century anthropology to holistic concepts of “society” and “culture” presented the world with what were above all sets of relations’. STRATHERN, Marilyn. **Relations: An Anthropological Account**. Durham: Duke University Press, 2020, p. 3.

¹²⁹ PINHEIRO-MACHADO, Rosana. *Op cit*, 2018, 2020. In fact, this chapter attempts to undertake a continuation of Rosana Pinheiro-Machado’s transnational ethnography academic project, but with an ‘inversion’ of its focus of attention. Instead of the practices of markets and small business players (mostly informal and many based on counterfeit products), the starting point of the narrative adopted by the Chinese Communist Party and its repercussions. From that point on, it is possible to assess the local implementation of norms in China, which is not an ‘incomplete’ process, but rather an accommodation and co-production of the more general and abstract official discourse in different localized ways.

¹³⁰ See also Introduction Sub-Sections 1.1 and 1.2.

infrastructure, and the ideological-discursive implications regarding the ideas of ‘innovation’ and ‘technological dominance’ in Chinese IP policies. It concludes that the general objectives of promoting endogenous Chinese innovation and technological dominance are the continuum that explains the structural changes in IP policies – from null to low enforcement to a contemporary ‘super’-enforcement approach, although a coexistence of the two models and ‘two’ IP systems remains for the time being. The idea of ‘progress’¹³¹ is embedded in both periods. This provides a novel framing for the assessment of IP policies and their material effects on contemporary Chinese law and society, focusing on the interplay between the ideological-ideal dimensions and their materialization¹³²; it provides additional subsidies for other approaches to the issue (e.g. economic history or legislative processes of IP laws), while not exacerbating the role of ideas and rhetoric in shaping policies: as such, it should be acknowledged from the start that ‘ideas matter’¹³³, but are not always necessarily pivotal.

The ‘Made in China’ model refers to the description of the economic model of the PRC since the reform and opening up period: an extremely rapid industrialization based on manufactured goods, low added industrial technology, cheap and relatively precarious labor conditions, strong role of coordination by the Chinese public sector (at the central and local levels), ample to almost entire participation of SOEs in the economy, and a general low enforcement of foreign IPRs, particularly trademarks, copyrights and patents, associated with policies to promote technology transfer to domestic firms via contracts and administrative provisions, as well as favorable conditions for market entry. The model was

¹³¹ For a discussion on the Western concept of ‘progress’ integrated into Chinese history, see WANG, Gungwu. **Renewal: The Chinese State and the New Global History**. Hong Kong: The Chinese University of Hong Kong Press, 2013. The use of the concept herein is intentional and acknowledges the obvious pitfalls of ‘progress’, a deterministic idea that accompanies the notion of ‘development’, of a never-ending process of accumulation, and which has been widely used to justify and become part of colonial projects by Western nations. See: ESCOBAR, Arturo. **Encountering Development: The Making and Unmaking of the Third World**. Princeton: Princeton University Press, 1995.

¹³² What matters, in this sense, is not the existence of links between ideas and their concrete manifestations/expressions (which, by the way, are also at the core of IP philosophical premise of the distinction between intangible ideas and their tangible expressions), but *how* and *to what extent* these ideas become material expressions and are themselves co-constructed in these processes. See “Legal materiality is concerned with the conditions of possibility in and through which law arises, rather than taking law’s materiality to be self-evident, as when it is regarded as a form of material culture or when objects are taken as symbols of law. It distinguishes between matters and materials: if matters are problematizations or “matters of concern” to law, materials are the attributes or properties that are enlisted in acts of interpretation. Rather than addressing materials as inert physical elements that are acted upon by law, legal materiality is concerned with how materials *come to matter* by being engaged in the production of legal meaning through interpretive and representational practices.” KANG, Hyo-Yoon; KENDALL, Sarah. **Legal Materiality**. In: DelMar, M, Meyler, B. & Stern, S. (eds). *Oxford Handbook for Law and the Humanities*, Oxford University Press, 2020.

¹³³ This is a clear pun with the longstanding and well-known phrase ‘institutions matter’, particularly prominent in institutionalist economy and institutional-focused development studies.

at the core of China's enormous economic growth and the globalization of its goods worldwide.

The 'Made in China 2025' is the name of a wide-encompassing policy by the Chinese government launched in 2015 that aims at achieving technological dominance and/or technological upscaling in key economic sectors such as biotechnology, civil aviation, and robotics by 2025.¹³⁴ The plan is based on creating the conditions for the country to be a leading innovator of cross-cutting and frontier technologies, with both self-sufficiency and prominence abroad. As such, an economic model represented by this plan (but based on a myriad of various policies set forth by its Five-Year Plans and other major policy tools¹³⁵) entails, among other aspects, a transition towards a capital-based or technology-based economy, a robust participation of the digital economy including e-commerce, AI and social media platforms, the presence of high-skilled workers, high levels of automation, larger participation of the private sector (although with continued presence of the State as

¹³⁴ PEOPLE'S REPUBLIC OF CHINA – STATE COUNCIL. **Made in China 2025 (中国制造 2025)**, 19 May 2015; for a comprehensive analysis, with a focus on smart manufacturing, see: "China's industrial masterplan "Made in China 2025" aims to turn the country into a "manufacturing superpower" over the coming decades. This industrial policy will challenge the economic primacy of the current leading economies and international corporations. The strategy targets virtually all high-tech industries that strongly contribute to economic growth in advanced economies: automotive, aviation, machinery, robotics, high-tech maritime and railway equipment, energy-saving vehicles, medical devices, and information technology to name only a few. [...] The strategy stresses terms like "indigenous innovations" and "self-sufficiency". It intends to increase the domestic market share of Chinese suppliers for "basic core components and important basic materials" to 70 per cent by the year 2025. [...] Made in China 2025 also has an outward-looking dimension: the accelerating acquisition of international high-tech companies by Chinese investors. To speed up China's technological catch-up and to leapfrog stages of technological development, Chinese companies are acquiring core technologies through investment abroad". WÜBBEKE, Jost; MEISSNER, Mirjam; ZENGLIN, Max. J.; IVES, Jaqueline; CONRAD, Björn. *Made in China 2025 – The making of a high-tech superpower and consequences for industrial countries*. Mercator Institute for China Studies (Merics) Papers on China, No. 2, December 2016. Available at: <https://merics.org/sites/default/files/2020-04/Made%20in%20China%202025.pdf>. See also: 'Made in China 2025' has clear principles, goals, tools, and sector focus. Its guiding principles are to have manufacturing be innovation-driven, emphasize quality over quantity, achieve green development, optimize the structure of Chinese industry, and nurture human talent. The goal is to comprehensively upgrade Chinese industry, making it more efficient and integrated so that it can occupy the highest parts of global production chains. The plan identifies the goal of raising domestic content of core components and materials to 40% by 2020 and 70% by 2025. Although there is a significant role for the state in providing an overall framework, utilizing financial and fiscal tools, and supporting the creation of manufacturing innovation centers (15 by 2020 and 40 by 2025), the plan also calls for relying on market institutions, strengthening intellectual property rights protection for small and medium-sized enterprises (SMEs) and the more effective use of intellectual property (IP) in business strategy, and allowing firms to self-declare their own technology standards and help them better participate in international standards setting. Although the goal is to upgrade industry writ large, the plan highlights 10 priority sectors: 1) New advanced information technology; 2) Automated machine tools & robotics; 3) Aerospace and aeronautical equipment; 4) Maritime equipment and high-tech shipping; 5) Modern rail transport equipment; 6) New-energy vehicles and equipment; 7) Power equipment; 8) Agricultural equipment; 9) New materials; and 10) Biopharma and advanced medical products.' KENNEDY, Scott. **Made in China 2025**. Center for Strategic and International Studies (CSIS), 1 June 2015, Available at: <https://www.csis.org/analysis/made-china-2025>.

¹³⁵ The most recent 14th Five-Year Plan for the period 2021-2025, approved in 2021, is a good example: it continues very prominently the set of policies to foster self-reliance, promote the dual circulation strategy, invest in basic science, and focus on sectors such as AI and quantum computing.

coordinator – also via investments, competition enforcement and policy regulation), and a very robust protection of IP (both for domestic stakeholders and foreign rightsholders alike).

Despite their major differences, the shift from Made in China to Made in China 2025 consolidates and retains a similar goal (which carries an ideological valuation of what is sought as ideal): achieving Chinese endogenous ‘innovation’ and technological dominance. Importantly, this is not illegal under international law and has been the basis for some of the most-successful economic development paths elsewhere, including Japan, South Korea, and the United States.¹³⁶ Economic growth and prosperity were at the core of Deng Xiaoping’s pragmatic opening policies, and liberalization of the economy to foreign investment and exportation of goods manufactured in China were crucial to that aim. However, as recalled by Isabella Weber, ‘shock therapy’ liberalization and the Washington Consensus playbook, including rapid privatization and macroeconomic austerity measures, were never implemented in China:¹³⁷ there was early on a robust understanding of the need for domestic innovation and not merely a Ricardian development strategy based on reproducing comparative advantages, which means that low enforcement of foreign IP was instrumental as to not impede domestic firms from operating at that point. Instead, there was the creation of a ‘government-steered market economy’, and an innovation-driven development strategy since 2015, as pointed out by Barry Naughton¹³⁸, or a highly competitive but government-structured model, a ‘China Inc’, as described by Mark Wu.¹³⁹

For a similar reason, the promises of IP as a promoter of technology transfer to developing countries were not integrated in Chinese development plans, i.e., the policies did not shift towards strong IP protection as the channel to promote a certain form of technology transfer, but rather providing such protection *after* technology transfer from industrialized countries took place through other means. Therefore, the set of policies to ensure the mandatory creation of joint ventures with domestic firms, ensuring deep tech transfer to

¹³⁶ CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in a Historical Perspective**. London: Anthem Press, 2002. In this regard, it should be stressed that technology policy was combined with numerous other policies, including education promotion, land reform and distribution. As such, instead of an abstract project of developing ‘education’ or ‘technology’, these development processes were strongly materialized by reorganizing structural elements of the economy, the relation between capital and labor, and the issue of ownership. The literature on the specific case of China is extremely vast and divergent on the details of these particular processes, but it agrees on the fact that the role of the State is very obviously at the center of the developmental plans of the PRC.

¹³⁷ WEBER, Isabella. *Op cit*, 2021.

¹³⁸ NAUGHTON, Barry. **The Rise of China’s Industrial Policy, 1978 to 2020**. Boulder: Lynne Rienner Publishers, 2021.

¹³⁹ WU, Mark. **The ‘China, Inc.’ Challenge to Global Trade Governance**. Harvard International Law Journal, 57, 261, 2016.

China, was a key element to the development plans, instead of promoting IP protection. The policies that condition the participation of foreign firms in the Chinese territory to their partnership with domestic partners and technology transfer have indeed changed in recent times: many sectors are now largely ‘liberalized’ in that sense, but some requirements continue to exist. Hence, even if IP norms continue to be strengthened, and technology transfer policies are limited accordingly, China only does this to the extent which domestic companies can innovate sufficiently (which is true in many sectors), and very importantly, IP continues to be directly associated to a policy cohesion with industrial and innovation policies.¹⁴⁰ For this reason, despite all the changes in Chinese IP policies in recent times, leading to an ever-stronger protection of IP, the general understanding regarding domestic innovation and technological upscaling did not significantly change. In other words, the strengthening of IP is explained under the logic of promotion of domestic innovation (having reach a point where the protection is justified and sought after by innovators), and not as a promise through which IP would bring innovation.

Indeed, the impacts of IP protection to national companies, universities, and institutions to innovate are felt quite differently in contemporary China from what they would have some decades before. In many cases, Chinese companies and institutions are also in equal footing to innovate in partnership with foreign entities, and not as subsidiary. In 2021, for example, BioNTech, the German firm who developed the first approved Covid-19 vaccine and who globally partnered with Pfizer, signed a deal for the creation of a joint venture with Shanghai-based Fosun Pharmaceuticals in the field of mRNA vaccines and technologies.¹⁴¹ Many such operations now contain stronger IP licensing agreements, but the implicit need for technology upscaling remains. In other areas, the status of Chinese innovation is reportedly limited in comparison with foreign players, which have led to policies to ensure more self-reliance and domestic innovation, such as in the strategically

¹⁴⁰ Albeit seemingly obvious, this statement is relevant in the context of IP expansion in developing countries, which also took place amidst broader processes of strict liberalization: in these cases, the rapid adoption of TRIPS-compliant IP laws and policies was for the most part conducted without the use of TRIPS flexibilities and without integration of IP with industrial, innovation, taxation, and other policies. In a sense, the expectation – supported by most academic accounts of IP and its role in innovation – was and continues to be that IP alone would be sufficient to conduce to technology transfer and technological development. In this context, highlighting that trend towards expansion of IP protection and enforcement did not completely prevent China from conducting specific innovation policies, and that such process took place without a ‘shock therapy’ logic, is an important comparative lesson for the history of IP.

¹⁴¹ See Sections 4.3 and 4.4.

crucial sector of semiconductors (see more below).¹⁴² But in others, Chinese innovation is already at the forefront of global innovation, artificial intelligence (AI) being perhaps the most referred to example.¹⁴³

In this context, IP has also been strongly promoted by Chinese policies at various levels, entailing both: (i) policies to promote IP ‘awareness’, thus enhancing enforcement on the ground at schools, universities, markets, airports, borders, etc., and (ii) initiatives to stimulate individuals, students, and businesses to apply for IP protection, including subsidies, tax incentives and prizes. Such policies have been part of WIPO’s main initiatives for decades (the most recent focus being on the ‘youth’¹⁴⁴) and are also a key piece of China’s IP policies. This is related to a quantification approach that associates number of IP as proxies for innovation and enforcement commitments; and incentives for science and research based primarily on the use of IP, which are associated to a certain understanding of how scientific innovation should take place.¹⁴⁵ But looking at these elements alone gives the wrong impression that the current developmental strategy of contemporary China is now solely or largely based on IP protection, which is not the case. Furthermore, although patenting trends are rapidly expanding, they are not necessarily synonymous with neither more innovation *per se* nor capitalization or financialization prospects for such technologies,

¹⁴² Semiconductors are crucial for computing technologies. See: LEE, John; KLEINHANS, Jan-Peter. **Mapping China’s Semiconductor Ecosystem in Global Context: strategic dimensions and conclusions.** Merics & Stiftung Neue Verantwortung Policy Brief, June 2021, Available at: https://merics.org/sites/default/files/2021-06/China%E2%80%99s%20Semiconductor%20Ecosystem_0.pdf;

¹⁴³ AI is a key component of China’s innovation policies, such as the New Generation Artificial Intelligence Development Plan (新一代人工智能发展规划) of 2017. Given the dependency of AI development on robust sets of data, China’s wide encompassing uses of big data and investments in AI development are intertwined. AI should also not be generalized since it entails multiple uses and various very distinct notions. China is often considered to have a key advantage in the size and comprehensiveness of its datasets (e.g., data on an individual is vast and contains multiple economic potentials) but limited in terms of variety of data, for instance. The impacts of AI to the IP system in China should thus not be scrutinized exclusively in terms of the direct implications for the IP system such as patentability criteria for an AI-assisted patent application (although this should *also* be analyzed), but rather in this broader scope of policies and innovation pursuits.

¹⁴⁴ See, for example: WORLD INTELLECTUAL PROPERTY ORGANIZATION. **IP4Youth and Teachers.** Available at: <https://welc.wipo.int/ipedu/>

¹⁴⁵ See: KEVLES, Daniel J. **The National Science Foundation and the Debate over Postwar Research Policy, 1942-1945: A Political Interpretation of Science--The Endless Frontier.** *Isis*, vol. 68, no. 1, 1977, pp. 5–26; for its implications to the pharmaceutical sector, with the direct consequences of Vannevar Bush’s model over Harley Kilgore’s proposal for ownership and IP of publicly-funded inventions, see: ‘The Bush-Kilgore debates are typically remembered for the protagonists’ differences on such matters as the appropriate roles for scientists and politicians in determining research priorities, the types of research that should be funded, and whether funds should go to the best scientists or be broadly geographically distributed. Equally contentious, but perhaps less well known, was the question of taxpayer rights in patents arising from government-funded research. Kilgore complained about government-funded ideas being given away, a perspective that foreshadows many of today’s criticisms of the model for pharmaceutical research, development, and commercialization. Bush worried that government control of such patents would reduce commercialization incentives and public-private interaction.’ SAMPAT, Bhavan. **Whose Drugs are These? ISSUES In Science and Technology.** Vol. XXXIV, No. 4, Summer 2020. Available at: <https://issues.org/drug-pricing-and-taxpayer-funded-research/>

since patents, although instruments of valuation, are not necessarily representative of an economic value.¹⁴⁶

This discussion is also directly attached to geopolitics. Under the ‘Made in China’ period, Western stakeholders, particularly the US government, were concerned about rampant counterfeits and pirated goods for exports – this included both the general interest of IP owners and public regulatory issues of safety and low quality of many such products. This legitimized numerous policies to criminalize Chinese businesses, individuals and create an immediate association between Chinese products and low-quality, cheap products (‘Made in China’ as a shorthand for such characteristics). Yet, these products revolutionized access to goods around the world, particularly in the global south, and established economically and socially important global value chains of informal merchants and operators that are often dismissed by the canonical interpretations.¹⁴⁷ Under the ‘Made in China 2025’ model, all these concerns remain, but have given space to anxieties about the geopolitical implications of the technological ‘rise’ of China.¹⁴⁸ While the ‘older’ issues remain, the new ‘threat’ posed by the PCR’s development is pivotal. At the same time, the IP enforcement global debate was also transformed by the Internet, with ample sharing of digital content and therefore new means of consuming, producing, and distributing content – which have also transformed the main lines of copyright protection. This also presented new priorities and challenges for IP in China from the perspective of Western stakeholders.

Semiconductors, a key strategic sector for frontier technologies, is perhaps the most illustrative example. It remains one of the few areas where China has no self-sufficiency, and the country imports more than 300 billion USD yearly, with a strong dependency towards the United States.¹⁴⁹ Semiconductors are covered by the 10 key areas listed by the Made in China 2025, after continued decades of direct investment in the sector in China. Despite an impressive growth in the number of semiconductor firms in the country,

¹⁴⁶ See KANG, Hyo Yoon. *Op cit*, 2020.

¹⁴⁷ See PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018.

¹⁴⁸ The idea of ‘China Dream’, proposed by Xi Jinping, is not based on China’s hardline military dominance around the world, but rather an economic and global prominence, which makes innovation and technology crucial. Still, the intersection between technology and military purposes is important, and issues of national security and risks of ‘dual use technologies’ (civil and military) are at the forefront of contemporary international trade issues, particularly those between China and the USA, and China and the EU or Japan. See generally: CAPRI, Alex. **Techno-nationalism: the US-China tech innovation race – new challenges for markets, business and academia**. Hinrich Foundation White Paper, July 2020. Available at: <https://www.hinrichfoundation.com/research/wp/tech/us-china-tech-innovation-race/>

¹⁴⁹ See: BAO, Anniek; LUI, Peilin. **China’s Stumbling Sprint to Semiconductor Self-Sufficiency**. Caixin, 20 November 2020. Available at: <https://www.caixinglobal.com/2020-11-20/chinas-stumbling-sprint-to-semiconductor-self-sufficiency-101630701.html>

it is consensual that this remains an area where Chinese companies are not in position to compete at the global level.¹⁵⁰ IP protection is one relevant regulatory aspect in this sector, with strong protection of topographies of integrated circuits, and potentially under other IP laws (e.g. patents, trade secrets and even industrial designs or copyrights in some cases). But because the access and control of such technologies is pivotal to the control of frontier technologies such as quantum computing, there are various legal limitations to the transfer of ownership and semiconductors' technology to other countries. This is a field where industrial policies and national security exceptions are widely used: the USA, for example, has several limitations to the acquisition of semiconductor's companies and technologies by foreign entities (targeting China in particular).¹⁵¹ It is also an area where the limitations of technology transfer based on what is disclosed in patent applications becomes very evident: many of semiconductors are IP protected, but without know-how, specific manufacturing knowledge, it is not possible to replicate cutting-edge semiconductor technologies.

Unveiling these geopolitical interfaces allows a better understanding of the allegations of 'forced technology transfer' which are deployed by Western stakeholders, since they are for the most part attempts to limit the transfer of 'core' technologies to China, rather than exclusively a way to seek stronger IP protection. The crucial point is that, from the discursive point of view, the recent US accusations against China seemingly focus on ordinary disrespect of IP enforcement and traditional industries, as they once did, but are in fact mainly concerned about the risks of losing technological dominance.¹⁵² It is thus necessary to differentiate between 'general' IP enforcement and the issue of protection of

¹⁵⁰ See: 'To counter its dependence on foreign suppliers of semiconductors, China announced a major new semiconductor policy in 2014. The "Made in China" policy, which launched the following year, included core technologies to semiconductors. The new semiconductor national policy contained two major innovations to previous industrial policy efforts: The first was to acquire technology from overseas via M&A; the second was to bring in "smart money" via private investors, such as private equity funds, to take the lead on investments. Over time, that policy has shifted toward a more traditional industrial policy model, with large manufacturing and R&D subsidies delivered to designated national champions. But with more than 50,000 Chinese entities registered as "semiconductor companies," that investment is at risk of fragmentation.' THOMAS, Christopher A. **Lagging but Motivated: The state of China's semiconductor industry**. Brookings Institution – Tech Streams, 7 January 2021. Available at: <https://www.brookings.edu/techstream/lagging-but-motivated-the-state-of-chinas-semiconductor-industry/>

¹⁵¹ SWANSON, Ana; ZHONG, Raymond. **U.S. Places Restrictions on China's Leading Chip Maker**. New York Times, 26 September 2020. Available at: <https://www.nytimes.com/2020/09/26/technology/trump-china-smic-blacklist.html>

¹⁵² In this sense, it is not a surprise that most debates and public statements on the topic of IP in China, by both US officials, business representatives and academics, discuss how to maintain US leadership, and whether the best approach – from the US perspective – is to be confrontational or collaborative (with a critical view) towards China. This has also enabled a renewed interest in discussions about the role of the State in innovations and industrial policies, topics dismissed by mainstream economists for many decades. For example: IP, Greg. **'Industrial Policy' Is Back: The West Dusts Off Old Idea to Counter China**. Wall Street Journal, 29 July 2021. Available at: <https://www.wsj.com/articles/subsidies-chips-china-state-aid-biden-11627565906>

trade secrets and industrial espionage. There are overlapping elements, but these are different issues which also require distinct set of policies and laws. In other words, the legal and regulatory instruments, and the policies needed to address issues of counterfeited trademarked and pirated goods, are different from those related to claims of industrial espionage, which are on their turn unlike those from legitimate industrial and innovation policies under international economic law that may involve technology transfer and certain IP protection. The conflation of these dimensions as one single narrative, such as the United States Trade Representative (USTR) does and the US Trump Administration did, is problematic but likely intentional, as it is persuasive in its effects.

For this reason, when the United States adopted in 2018 unilateral measures against China due to the alleged ‘theft of American IP’, the claims were not exclusively based on legal interpretation of the WTO rules, nor on agreed principles of international economic law, but on a geopolitical strategy consisting of also moral grounds that go much beyond the IP field. As analyzed by Mark Cohen, the use of ‘theft of American IP’ in the context of USTR and the Trump Administration’s claims is loose and misses technicality: many of the issues pointed out as problems with Chinese IP are in fact not under the realm of IP.¹⁵³ The rhetoric of ‘theft’, furthermore, carries an extremely strong moral connotation, which has been similarly deployed in the context of pharmaceuticals to pressurize developing countries not to use legitimate instruments such as compulsory licensing, treating them as ‘theft’ of companies’ investments.¹⁵⁴ Consistent historical evidence in the field of access to medicines shows very clearly the persuasive and unfortunate effects of undue theft accusations in chilling the use of legitimate TRIPS flexibilities.¹⁵⁵ This also entangles formal legal issues with political and socio-economic aspects that are inevitably also part of IP protection and its interpretation.¹⁵⁶ Therefore, the fact that IP has been at the forefront of

¹⁵³ See COHEN, Mark. **China's Emerging Intellectual Property Edge: Challenges and Opportunities. Presentation.** Duke University, 22 February 2021.

¹⁵⁴ This has been assessed at length by Margo Bagley, who notes that the use of the ‘theft’ narrative is part of a Judeo-Christian theological base of Western legal thinking, which treats the idea of theft as a pivotal sin under morality standards. Adopting precisely an interpretation based on Christian piety principles, Bagley provocatively concludes that preventing the poor from standards of justice, in the case of IP and pharmaceuticals being the restriction on accessing essential medicines, is in fact what falls under the immorality category of ‘theft’. See BAGLEY, Margo A. **The Morality of Compulsory Licensing as an Access to Medicines Tool.** *Minnesota Law Review.* 133, 2018. <https://scholarship.law.umn.edu/mlr/133>.

¹⁵⁵ See: UNITED NATIONS SECRETARY-GENERAL HIGH-LEVEL PANEL ON ACCESS TO MEDICINES. **Report – Promoting Innovation and Access to Health Technologies,** 2016.

¹⁵⁶ Also see 4.4 on the TRIPS Waiver Proposal at the WTO, for the need to assess IP issues in the broader political contexts and potential spill-off effects; for a defense along these lines, including issues of legitimacy, see: THAMBISETTY, Siva; McMAHON, Aisling; McDONAGH, Luke; KANG, Hyo Yoon; DUTFIELD, Graham. **The TRIPS Intellectual Property Waiver Proposal: Creating the Right Incentives in Patent Law and Politics to end the COVID-19 Pandemic.** LSE Legal Studies Working Paper No. 06, 24 May 2021.

critical discourses against China's economic model over the past decades can be an evidence of how the links between representation of China as a nation, of a certain ethos of Chinese people, and IP protection are more relevant for explaining the development of IP in China than usually recognized.

In this sense, the economic structure shift also reflects fundamental changes in the rhetorical political foundations regarding contemporary China: the 'Made in China' model conceals implicit biases of low quality and misuse of IP via copies, and therefore also foster the stereotype of a backward, exotic, rural, and poor nation. Such view negatively qualifies not only products, but also individuals coming from the People's Republic of China, which is a starting point to a general representation of 'theft' and 'immorality' as part of Chinese culture and society – paving the way for Sinophobia and anxieties related to the economic and political 'rise' of China in the global order. In other words, the economic model described along these lines associates not only economic processes, but China as a *nation* and Chinese *people* to such characteristics.¹⁵⁷ Hence the attempt to move away from this set of ideas.

This is the context against which the reconceptualization conducted by the 'Made in China 2025' model should be assessed: the new model alters the main aspects of China's self-perception and of the foreign gaze, shifting it towards ideas of 'high-tech' and a topos of technological and political dominance.¹⁵⁸ This is where the role of IP gains a different meaning, since enhancing the protection of IP is also a way to convert the assumption of 'Chinese fake goods' into something else: 'made in China' products that respect IP, are of good quality, and added technology. This creates a distinct set of ideas that are most associated to Chinese economic outputs. As such, IP-protected products may also redesign the circulating ideas on the notion of China as a whole; enhancing protection of foreign IP in China is a way to assert that the country is committed to free trade and is a

¹⁵⁷ The extent of the negative consequences of this sense of *Otherness* is ample and goes much beyond the Chinese territory and nationals. Recent extremely unfortunate Sinophobic events around the world can therefore be part of the issue to which the creation of China as the exotic thief is also partly responsible. The 'yellow fever' stereotype is not new and is part of the history of exclusion against people of Asian descent in Western countries such as the United States (but not only – similar experiences have taken place in countries such as Brazil and South Africa); at the geopolitical level, a similar narrative has been deployed post-WW2 Japan. Although not directly implicated in the histories of IP and geopolitical representation, its reverberations are part of the discursive dimensions of IP.

¹⁵⁸ The logic of criminalization and how such perceptions are applied to individuals via the consolidation of the IP discourse was already extensively detailed and ethnographically highlighted by Pinheiro-Machado. The present analysis departs from such considerations to add a meta-dimension applicable to the very dimension of law in contemporary China, as a co-constructive element of society. See: PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018.

predictable, ‘rule of law’ jurisdiction, despite all the potential caveats. Very importantly, IP is not necessarily the central piece of this process¹⁵⁹, however, it is instrumental in the reshaping of China’s innovation system. It also changes the conditions of valuation of products produced in China, which is part of both nation branding and business branding strategies.¹⁶⁰

The contemporary IP ‘with Chinese characteristics’ therefore elicits and conceal these two models at once. If the Made in China 2025 plan *elicits* a certain objective of a new China, the Made in China model *conceals* certain industrial characteristics that continues to exist in contemporary China. Based on ethnographic accounts of the effect of the economic changes in the country, Rosana Pinheiro-Machado argues that there is a coexistence of these two models in contemporary China, which is crucial to understanding the politics of piracy and counterfeiting in the country, particularly the criminalization of small merchants and operators of such value chains.¹⁶¹ The copiers become illegal; counterfeits continue to be produced and circulate globally, but are increasingly less visible across city markets, medias, etc. The diagnostic of a coexistence, rather than a substitution, is also crucial to how the protection of IP is formally seen as a necessity by the Chinese government in terms of its current innovation policies, which focus on the interest of promoting sectors of cross-cutting technology, but largely disregarding the necessary continuation of large-scale manufacturers

¹⁵⁹ China’s development plans are not and have never been focused solely on IP policies, neither were they exactly at the core of its strategies, at least not disentangled from other issues such as innovation and R&D financing, macroeconomic policies, financial mechanisms via Chinese banks, labor conditions, etc. For a famous interpretations on China’s economic development since the late 1970s, see: NAUGHTON, Barry. **The Chinese Economy: Transitions and Growth**. Cambridge: MIT University Press, 2005.

¹⁶⁰ See: KANEVA, Nadia. **Nation Branding: Towards and Agenda for Critical Research**. *International Journal of Communication* 5, 2011, 117–141; ARONCZYK, Melissa. **Branding the Nation: The Global Business of National Identity**. Oxford: Oxford University Press, 2013. In this regard, perhaps the best example of this form of juncture between implicit notions of good quality and a nation is found in Switzerland, which contains a specific law for the protection of national signs with deep connection with the ‘made in Switzerland’ brand.

¹⁶¹ ‘There is no doubt that a change in the central government’s posture is emerging. However, local authorities’ incorporation of this new discourse is not automatic, and so protection of entrepreneurs and small factory owners is – and should continue being – a phenomena of contemporary China. From Xinhua discourse to the practices of ordinary people there is still a long road to follow. As I mentioned before, this path will not necessarily be progressive or linear. On my last field visit to China in 2012, the markets selling replicas were slightly more hidden in Beijing and Shenzhen and people demonstrated greater caution when speaking on the subject with an unknown foreigner. On the other hand, when I spoke with my former informants and acquaintances, they were unanimous – never before have so many copies been made, and in such a specialized and creative way, as they are today in China. **It seems both models – the production of cheap branded and unbranded manufactured goods and the production of high technology – coexist in China at the beginning of the twenty-first century.** This chapter has demonstrated that there is a gap between the central government’s narrative and the practice on the ground. The latter is anchored in elite alliances, which have formed on a daily basis through interest affinities that respond to personal and national interests. Whether this gap will be narrowed or enlarged is still a question to be answered in the first decades of the twenty first century.’ PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018, p. 148.

around the country (particularly less urban and industrialized provinces). These new policies implicitly devalue all the actors and practices under the ‘Made in China’ model, largely understood as something that needs to be ‘overcome’. Yet, the presence of these two systems at the same time – which could otherwise be identified as an unsurmountable paradox – fits China’s development plans and is a step away from the ‘flying geese’ model¹⁶² for Asian development.¹⁶³

Thus, instead of purely focusing on the multiple recent transformations in the IP ‘with Chinese characteristics’, which very rapidly adopt very stringent standards of protection, the chapter posits that there are perhaps two systems with respect to IP laws and policies, which are both instrumental to the current configuration of the Chinese economy. Still, they signal jointly to the future of IP in China: the more visible IP system is that of the major companies and sectors comprised in the innovation and industrial policies that are part of the ‘China Dream’, representing the country’s technological dominance – these market players typically enforce and protect their IP to the maximum possible extent. Huawei, for example, is the world’s largest patent filer for many years, and such companies IP portfolio effectively is a major basis for seeking capital and profit-making. But the other one, composed of the traditional manufacturers of mostly cheap products, many of them still relying on counterfeiting, continue to exist, but will continue to be combatted, criminalized, and rendered invisible by both Chinese policies and foreign aspirations. Yet, they still represent an important part of China’s contemporary economy and especially for the lives of those directly and indirectly working on them. This is also a paradox to the extent which the same lax protection of IP was a core element to the industrial policy that led to China’s prosperity – as much as low IP standards were also crucial to most countries which are now high-income, industrialized countries.¹⁶⁴

Summary of the Chapter

After the brief introduction above, this chapter conducts a historical overview of the antecedents and the legal reforms since the 1980s that led to the creation of the

¹⁶² AKAMATSU, Kaname. **A historical pattern of economic growth in developing countries.** *Journal of Developing Economies.* 1 (1): 3–25, 1962.

¹⁶³ MILANOVIC, Branko. **The Social and Geopolitics of China’s rise. Review of The China boom: Why China will not rule the world” by Ho-fung Hung.** 22 May 2019, Available at: <https://glineq.blogspot.com/2019/05/the-social-and-geopolitical-origins-of.html>

¹⁶⁴ See CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in a Historical Perspective.** London: Anthem Press, 2002.

contemporary IP ‘with Chinese characteristics’ system – importantly, this is not a piece of legal history but mainly an assessment of how the protection of IP, and particularly the *lack* of ample IP protection for foreign companies, has been at the core of China’s developmental policies for decades, until it started to change rapidly as endogenous innovation accelerates. This highlights the intertwinement between IP and techno-industrial structures, and how IP consolidation in China has been historically associated to foreign pressure and international trade liberalization.

Subsequently, it analyzes the impact and the political underpinnings of the US-China trade war initiated in 2018. This led to the acknowledgment that the most recent IP reforms are not exclusively based on Chinese endogenous interests, but a continued pressure exercised by the United States. But at the same time, it elicits how the issue of IP has gained new political contours which are now based on a geopolitical dispute of technological and economic dominance between the two countries. Simultaneously, the discursive implications of the morally charged ‘IP theft’ narrative are important in the way they reverberate among Chinese stakeholders and create a stimulus to counter that narrative, even if it lacks technicality and conflates several different things (IP and trade secrets, industrial espionage, lawful innovation policies, geopolitics related to the rise of China).

The Chapter then assesses some contemporary trends of IP in China, noting the steep patenting and trademarking growth rates over the last few years, and how they cannot be seen as evidence of a more robust IP system. The chapter then conducts an evaluation of the most recent and extremely fast legal reforms in Chinese IP laws and policies, noting three points in particular: (i) the trend towards a maximalist view of IP protection in almost all topics, which includes numerous TRIPS-Plus provisions and very few exceptions; (ii) the strong role of judicial authorities, including harmonization of legal interpretation and the creation of specialized IP courts around the country; (iii) the carving out of specific public interest exceptions, both explicitly and implicitly, with respect to core technologies.

Drawing on specific literature on the popularization of law in the People’s Republic in China and the general (misconceived) idea of promoting a ‘culture’ of IP protection, the chapter notes how a mismatch between the trend towards stringent protection of IP and the limitations with widespread enforcement are not anomalies but rather elements that allow for the coexistence and stability of the current China Inc model. For these purposes, the rhetoric of maximalist IP protection and the importance of IP for innovation is at least partly countered by the fact that innovation under contemporary China is not based solely on IP, but on a range of wide industrial policies. There is no guarantee that this will

continue to be the case in the future, but it is more likely that the coordinating role of the Chinese public sector will remain present whatever the conformities of IP policies are to be.

2.1. Origins and Clashes of Intellectual Property in China

"[T]he history of Chinese legal reforms over the past century cannot be reduced to a set of neat dichotomies between tradition and modernity, China and the West, success and failure or conservative and progressive. The late Qing Chinese resorted to various strategies to appropriate new ideas and discourses in developing their own vision of what modern Chinese law and the modern Chinese nation should be like. The so-called 'conservatives' and 'reformers' actually had more common ground than has been recognised in earlier historiography. Influenced by the dominant foreign discourses of modernity and China, both sides made essentialising characterisations of Chinese, Western and modern laws and societies. **The history of Chinese legal modernity since the late Qing period should also be understood as a constant struggle among the Chinese for balance between anxiety about cultural identity and a yearning for international recognition by the dominant powers. Until that subtle or illusive balance can be achieved, the Chinese legal system will continue to appear too foreign to the Chinese and too Chinese to foreigners.** To understand modern Chinese law better, it is important to keep in mind the tensions, ambivalence and intercultural politics that have shaped its trajectory over the past century." (CHEN, 2017)¹⁶⁵

The first acknowledgement in China of the need to achieve control of technology as an issue of national interest and self-defense is found in the 1840s 'self-strengthening movement' at the end of the Second Opium War. The movement was tied to a discussion on a certain 'modernization' project, and part of the historical ethos of a nation seeking to re-establish itself after the dismal period of foreign occupation, pondered for the first time the idea of 'going West' to achieve such modernity.¹⁶⁶ This narrative can be situated along broader global historical processes, which, with distinct implications, also bound the formation of nation states within the idea of modernity, at least partly related to the assumption of Western values and principles: Japan under the Meiji Reforms, Brazil under

¹⁶⁵ CHEN, Li. **Traditionalising Chinese Law Symbolic Epistemic Violence in the Discourse of Legal Reform and Modernity in Late Qing China.** in: NG, Michael; ZHAO, Yun. *Chinese Legal Reform and the Global Legal Order: Adoption and Adaptation.* Cambridge: Cambridge University Press, 2017, p, 181-210.

¹⁶⁶ As recalled by Wang Gungwu, the very idea of the beginning of 'modernity' situated in the 1840s was agreed by historians across both Republicans and Communists during the 20th century. It would later lead to the need for more contemporary discussions in Chinese history with respect to the need to ascertain a certain logic of continuity from that period up until recent times. Without delving further into the argument, this section acknowledges the challenges of the historiographic debates in China, including the tensions between the very notion of 'history' in China, its inclusion in a broader logic of 'global history', and the debates regarding the periods and moments cited herein. For this very reason, it is paramount to stress how the section does not aim at providing a historical legal overview, but to situate the development of IP within a specific narrative of creation and consolidation of IP in the PRC. See generally: FAIRBANK CENTER FOR CHINESE STUDIES **How Political Heritage and Future Progress Shape the China Challenge with Wang Gungwu.** 26 October 2020, Available at: https://www.youtube.com/watch?v=kMcGx_Wr7rU

the Second Empire in the 19th century, Mexico's Republic in 1917, among others.¹⁶⁷

It is commonly assumed that the self-strengthening movement of the 19th century is the precursor of 20th and 21st centuries Chinese aspirations of technological dominance and the necessity of industrialization.¹⁶⁸ This also enables a continuation narrative despite the obvious political changes in the country during the period. For example, the creation by Mao Zedong of a commission on technology with Soviet scientists after the foundation of the People's Republic of China in 1949 can be then understood as part of this grand narrative. Similarly, because industrializing and planning the economy were at the core of the unsuccessful policies over the first decades of the PRC, they can similarly be placed as elements of a continuous thread, despite questions of whether this should really be the case.

Against this background, some Chinese commentators synthesize the history of IP in China as an ongoing path of four waves of legal reform.¹⁶⁹ IP laws were firstly enacted under the Republican Period in the early 20th Century, after the fall of the last great Chinese empire and as part of the direct influence of European colonizers. IP laws were among the various other legal instruments adopted during the period, with an aim at modernizing the country. This was legal transplantation in its most evident form, reproducing the laws of Europe without any or little adaptation to local realities. There was also an early engagement with the US with the signing of the Treaty as to Commercial Relations of 1903; subsequent negotiations aimed at excluding Americans and Europeans from responding under Chinese

¹⁶⁷ See also, for the particular experience in Northern China that could be referred to as a modern State, stemming out of its lower integration in the global economy and its relative abandonment by the central government: POMERANZ, Kenneth. **The Making of a Hinterland: State, Society, and Economy in Inland North**. Los Angeles: University of California Press, 1993.

¹⁶⁸ See: 'The Self-Strengthening Movement and its supporters envisioned a reborn China, a China that could interact with the West on its own terms. Yet, rather than envisioning a China that would adapt to a new world order as one among many sovereign states, the reformists envisioned a China that would return to its former position in the world as a hegemon, with all other foreign entities mere vassals and "barbarians". Through the emulation of the West and the adoption of Western ways, the Qing hoped to one day take up again this role. Such a hope never manifested itself. The Qing Empire would succumb to foreign conflicts, internal rebellions, famines, Han nationalism, and foreign spheres of interest infringing on its sovereignty. Whether or not the Self-strengthening Movement could ever have saved the Qing as an entity, the Qing's inability to adapt and assimilate itself into a new world order was both a cause of the Dynasty's demise and a result of its conservative mindset. The Self-strengthening Movement was certainly a victim of such a mindset. After the collapse of the Qing in 1911, China would transit through many shifts in political and economic philosophies in an attempt to become a stronger state, from Confucianism to Republicanism and from Capitalism to Communism. Nearly a hundred years after the end of the Self-strengthening Movement, China would begin to rise again as a major economic and political power. Such would be the result of a radical change in mindset, although this time, it would be from China's willingness to set aside its communist dogma and adopt market-style economic policies. While China's past and culture are still deeply imbedded within its national conscience, its society and technological knowledge have transformed and facilitated its smooth integration into the global age.' QU, Jason. **Self-Strengthening Movement of Late Qing China: an Intermediate Reform Doomed to Failure**. Asian Culture and History; Vol. 8, No. 2; 2016.

¹⁶⁹ See: LI, Mingde. Presentation at Xiamen University IP Summer School, July 2018. Xiamen.

law, and many cases of IP violation by Westerners were reported. This also stalled further commitments in IP on the Chinese side.¹⁷⁰ For these reasons, these legislations are sometimes not seen as the founding of the contemporary IP system. The ‘pre-modern’ (in the Western illuminist sense) features of Chinese society, particularly the influence of Confucianism, were reported as collective-oriented elements that created difficulties to the adoption of any IP or any regime that included individual exclusivity over certain ideas and their expressions. The potential opposition was famously detailed by Alford’s ‘To Steal a Book is an Elegant Offence’, which has been widely read by Chinese academics.¹⁷¹ While the first international IP treaties, the Paris Convention of 1886 and the Bern Convention of 1888 had some signatories from outside of the ‘Western world’, China was largely absent from such negotiations and early adoption of IP.

During the long war periods of the first half of the 20th century, which culminated with the victory of the communists and the creation of the People’s Republic in 1949, China had virtually no IP protection whatsoever. The period between the foundation of the People’s Republic in 1949 until the 1980s also had almost no *de facto* forms of exclusive rights on works and inventions, despite, for example, the adoption in 1950 of the Interim Regulations on the Protection of Invention Rights and Patent Rights and the Interim Regulations on Trademark Registration. This is unsurprising, given the political transformations of the country since the Communist Revolution largely positioned itself against private property. Furthermore, IP is essentially an industrial modern creation, applied and presupposing industrial techniques as opposed to handicrafts and pre-industrial modes of creating and reproducing knowledge¹⁷²; given the characteristics of an extremely poor, rural, and non-

¹⁷⁰ SOFFE, Raphaëlle P. **The Treaty as to Commercial Relations of 1903: China and Extraterritoriality.** *The Chinese Journal of Comparative Law*, Volume 8, Issue 2, September 2020, Pages 435–449.

¹⁷¹ This affirmation, as noted before, needs to be read with caution as to avoid a pure ‘culturalist’ argument, since the Confucianism argument is not neutral: it has been deployed among certain political and intellectual circles in contemporary China to a trend associated to the ‘New Confucianists’, and represents a reinterpretation of what the philosophy entails, including a new usage for the contemporary ‘China Dream’ and Xi Jinping’s Thought. See, for an illustrative example: ‘When I say that Xi Jinping’s “China Dream” transcends left and right, this is because he takes modern history and the great revival of the Chinese nation as the basis for his theoretical reflection and the goal of his political search. But if he is setting his sights on building things, this also implies a certain destruction. What is to be destroyed? The two meta-narratives established by the May Fourth. National salvation is the will of a people to survive in times of crisis and the expression of their desire. National salvation and reconstruction are two sides of the same coin. [...] But in the case of China, national salvation requires that we construct a sovereign nation that can enter the modern world, that can participate in the games of international politics, because in today’s world it is nation-states that engage in competition and are judged on their competitiveness’ MING, Chen. **Transcend Left and Right, Unite the Three Traditions, Renew the Party-State: A Confucian Interpretation of the China Dream.** 17 March 2015, Introduction and translation by David Ownby. Available at: <https://www.readingthechinadream.com/chen-ming-transcend-left-and-right.html>

¹⁷² See POTTAGE, Alain; SHERMAN, Brad. **Figures of Invention: A History of Modern Patent Law.** Oxford: Oxford University Press, 2010.

industrialized country, IP laws did not match most creations from the period. IP is also a Western legal technique which fails to fully address non-Western epistemologies and ontologies, and largely related to capitalist modes of production.¹⁷³ These elements altogether were not conducive to a strong IP protection system. It is relevant to highlight that the level of IP protection, even in developed countries, was also substantially lower during the same period. Most of them contained various forms of differentiation between nationals and foreigners, and most did not have, for example, protection for patents on pharmaceutical products and processes.¹⁷⁴

In this context, the ‘first wave’ marks the origins of the contemporary IP system in the People’s Republic of China: the adoption of the first laws on intellectual property in the 1980s, as part of the reform and opening up of China under President Deng Xiaoping. These laws fit into the political economy of the ‘Made in China’ model in the sense that the enforcement was extremely lax, often inexistent. In fact, their adoption was related to foreign pressure, particularly by the United States. At that stage, the full implementation of IP laws would almost exclusively benefit foreign companies and largely undermine the developmental plans of China. In this sense, the divergence between IP protection conferred by the ‘law in the books’ and its real implementation (the ‘law in action’) was a necessary requisite for the success of the economic liberalization policies. In political economy terms, China went through a deep convergence with the West towards market liberalization but did not go through an institutional assimilation – unlike, for instance, the former Soviet Union.¹⁷⁵ Economic prosperity was at the core of the national project and was also seen as a political issue. As noted in the Introduction, this gave rise to the pragmatism embedded in Deng Xiaoping’s crafting of the ‘socialism with Chinese characteristics’.

But precisely because this lax enforcement and restricted protection of IP had a functional role in the economic and industrial plans of China during that period, it is imprecise to argue that it was only a ‘formal’ IP system that did not exist in reality. In fact, until the enactment of the TRIPS Agreement in 1994, most developing countries also did have much more flexible IP regimes. Decolonization posed a challenge for colonial

¹⁷³ On the other hand, however, policies for technology upstreaming were part of the nascent Republic under Mao Zedong. Among others, Soviet scientists participated in various projects and were based in China. See: WANG, Zuoyue. **The Chinese Developmental State during the Cold War: the making of the 1956 twelve-year science and technology**. History and Technology, Vol. 31, n. 3, 2015, p. 180-205.

¹⁷⁴ See, for a reflection on how the pharmaceutical industry has also gone through substantive changes: DUTFIELD, Graham. **That High Design of Purest Gold: A Critical History of the Pharmaceutical Industry, 1880-2020**. London: World Scientific Publishing Co, 2020.

¹⁷⁵ WEBER, Isabella. **How China Escaped Shock Therapy: The Market Reform Debate**. Abingdon: Routledge, 2021.

companies, which would now have to compete with governments seeking nationalization, industrial substitution policies and in some cases explicit ‘developmental’ states. Moreover, high-income countries had similar lax policies, particularly towards foreign IP, during their own industrialization processes and as an incentive for domestic industries. Historically, low levels of IP protection were part of the industrialization processes of these countries, associated to other policies to promote domestic industries. To set out only a few famous examples, Japan did not grant ample protection for foreign IP in its extremely fast post-WW2 industrialization; pharmaceutical patents were only granted in Switzerland in 1972; the United States did not grant protection for foreign copyrights until the end of the 19th Century; and in what was perhaps the most incisive case, the Netherlands abolished patents altogether for a period of over 30 years in the 19th Century.¹⁷⁶ In this broader context, it would be perhaps more precise to argue that Chinese IP during the period was strongly development-oriented in accordance with its economic policy, hence its extremely low enforcement and the general lack strengthening measures as key, intentional characteristics.

In China, IP reform during the reform and opening up period should also be placed as part of the broader legal changes to promote foreign investments, to reconceive the role of the State in shaping, coordinating, and participating in markets, allowing henceforth increased participation of the private sector – but with a prominent role of SOEs, which nonetheless start to compete against each other. In this sense, IP, investment protection laws, commercial contracts, administrative regulations, among others were all part of the creation of a framework conducive to foreign investors and reorganizing the domestic economy. New regulatory agencies were created since then, in areas such as labor protection, health and sanitary regulation, environmental protection, and others – although this process has been varied and often inconsistent. Largely speaking, however, the economy was still strongly planned, based on the various Five-Year and other plans that included quotas for economic output by companies and rural communities. This is, however, also the context where the special economic zones (SEZs) were created, such as Shenzhen and Shanghai’s Pudong district, later replicated with some changes in areas such as Chengdu and Xiamen. In the SEZs, rules were decisively more favorable to foreign investors and companies, and although exceptional from the rest of the country, they constituted the *de facto* standard for foreign capital in the opening Chinese economy.

In this context, the issue of IP only became a problem for foreign companies

¹⁷⁶ SCHIFF, Eric. **Industrialization Without National Patents: The Netherlands, 1869-1912; Switzerland, 1850-1907**, Princeton, Princeton University Press, 1971.

after industrialization took place and when multiple factories around China – many of them concentrated in the Southern Guangdong province – started manufacturing counterfeit trademarked products to be exported abroad, as well as rough copies of the original products. Many of them were even produced in the same factories responsible for manufacturing the ‘brand’ goods, blurring distinctions between original/counterfeit.¹⁷⁷ Importantly, the period also very actively promoted technology transfer to Chinese companies, but this was never state sponsored ‘theft’ or misappropriation of foreign IP, but rather a contractual and administrative set of requirements for foreign companies to enter the Chinese market, mandating the creation of joint ventures with a domestic partner, associated to robust investments in national R&D and educational policies. This has been a key legal-industrial technique that ensured that multinationals would be willing to enter the Chinese market given its enormous potentials, despite being required to abide by certain regulations such as the transfer of technology: extremely low costs of manufacturing vis-à-vis other countries, low levels of regulations – including environmental and administrative protection, and relative assuredness by the country that contracts would be fulfilled and respected.

This whole period of reforms dialogues with the traditional ‘law and development’ literature proposition whereby the creation of market rules, strong property rights and ‘rule of law’ would be conditions for developing countries to achieve economic development – largely based on modernization theories in the economy.¹⁷⁸ Western scholars and policymakers were promoting such forms of reform not only in China, but in most of the global south. To a certain extent, the SEZs could be understood as an acknowledgement of this proposal but this does not provide at all the full picture of Chinese development plans.¹⁷⁹ Unlike countries that adopted strict liberalization of their economies, such as post-

¹⁷⁷ See PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018.

¹⁷⁸ See, for a historical overview and reappraisal of the role of law in developmental processes (and especially of the responsibility of jurists in legitimizing certain processes): TRUBEK, David. **Law and Development 50 years on**. University of Wisconsin Law School, Legal Studies Research Paper Series Paper No. 1212, 2012.

¹⁷⁹ For the “developmental state” literature, the importance of the legal norms to any development project are watered down in light of politics. In summary, legal norms may be less relevant than the real usefulness and applicability of broader policies. A strong State that supports national companies, promotes industrial policies and is targeted towards industrialization may utilize different laws, regulations and policies, as long as the overarching goals are clear and the instruments are effective. The Japanese Developmental State, described in a paramount study by Chalmers Johnson, was based on a strong coordination of different governmental bodies with a central focus of MITI, a massive support to a group of certain companies that would become ‘national champions’, and ample financial mechanisms. At that point, the protection of IP drastically favored national inventors while simultaneously enables technological upgrading through copying of foreign technologies. The South Korean experience was similar in many regards, equally noted in length by scholars such as Alice Amsden and Ha-Joon Chang, to which IP protection was a clear limitation to the prospects of emerging economic conglomerates (*chaebols*) such as current Samsung, LG and Lotte. The political economy literature

Soviet and Latin American countries, China retained an enormous policy space and a deep participation of the State in the economy, including in IP management issues. The practice of how foreign companies entered China via joint ventures, coupled with the analysis of domestic rules and policies, including less reliance on formal contract binds and robust need for *guanxi* relations for the success of a business operation, highlight that the industrialization of China was not reliant on the formula of property rights and liberalization, but on a more careful opening that did not signify full, prompt transformations.

As noted, educational policies were pivotal: a whole generation of Chinese intellectuals trained in the USA and Europe were bringing various new perspectives to national policies. For example, authors such as Hayek and Friedman were well-known, and many Chinese defended strict neoliberal ideas based on their contribution. This divergence in terms of where the liberalization paths should head is important as to avoid representing the views of different stakeholders and the Chinese central government as a fully aligned and consensual block. Economic views on IP, and patents in particular, are more contested than often acknowledged – many neoliberal authors, including Hayek, are/have been skeptical of patents.¹⁸⁰ It is uncertain whether the broader economic debates with this foreign-trained generation influenced China's IP policies, but the exposure to foreign institutions was certainly responsible for the introduction in China of the mainstream paradigms of IP. What is certain is that a good degree of experimentalism and flexibility in economic policies also characterized this period, which is also applicable to the politics of IP during this period and somehow beyond. Furthermore, these varied views, often conflictive, were not seen as necessarily a fundamental contradiction under the pragmatism

on innovation has steadily highlighted the pivotal role of the State, and how it is consistent with the existence of enough policy space for industrial policies and early innovation based on imitation to be turned in later stages into the development of foreign technology. It integrates and necessarily binds the various elements to a mission-oriented innovation (Mazzucato). In historical analyses, the level of protection of intellectual property rights in countries in the process of 'catching-up' is largely limited, precisely for they limit the ability to imitate and to the extent which they favor foreign companies that can legally restrict the use of technologies. China under its first decades of the reform and opening up period perfectly fits this trend. Whether China would characterize a new developmental state of its own is a major discussion in scholarship, which will not be addressed in details in this research. For some references: AMSDEN, Alice. **The Rise of "The Rest": Challenges to the West from Late-Industrializing Economies**. Oxford: Oxford University Press, 2003; CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in a Historical Perspective**. London: Anthem Press, 2002; JOHNSON, Chalmers. **MITI and the Japanese Miracle**. Stanford: Stanford University Press, 1982; MAZZUCATO, Mariana. **The Entrepreneurial State: Debunking public vs. private sector myths**, London: Anthem Press, 2013. For one exploration with respect to China, see: BURLAMAQUI, Leonardo. **Schumpeter, the entrepreneurial state and China**. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2020-15). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2020-15>

¹⁸⁰ See SLOBODIAN, Quinn. SLOBODIAN, Quinn. **Are Intellectual Property Rights Neoliberal? Yes and No**. Promarket (Stigler Center for the Study of the Economy and the State), 18 April 2021. Available at: <https://promarket.org/2021/04/18/intellectual-property-rights-neoliberal-hayek-history/>

of the reform and opening up process.

The second subsequent wave can be identified with the bilateral memorandum of understanding between US and China in 1992, pursuant to ample negotiations by the USTR against allegations of rampant IP violation in the country. The Chinese State accepted to introduce several reforms in its laws and in enforcement policies, which included, among others, the amendment to its Patent Law. One such inclusion referred to the inclusion of pharmaceutical patents, which until the TRIPS Agreement and its implementation post 1994 until the transition period in 2001, was virtually non-existing in most developing countries. The overall impact for the Chinese pharmaceutical industry was less prominent than in countries such as India and Brazil, large generics producers. The pharmaceutical industry was essentially based on low technology generic products, Chinese traditional medicines (mainly not protected by patent rights) and active pharmaceutical ingredients (APIs) to be turned into finalized products by other companies abroad (see chapter 4).

The 1990s emerge as a defining transition period for the Chinese economy. The end of the Cold War, with the rapid insertion in global capitalism of former socialist countries, brought the wide expectation that China would eventually follow a similar path towards a liberal democracy model. The crackdown of student's movements for political and social reforms in 1989 at Tiananmen Square was hardly criticized abroad but seen as a sign of an inevitable trend of a world which was expected to see the 'end of history' – an expectation that would prove to be incorrect. 1994 also saw, as noted above, the adoption of the TRIPS Agreement, radically transforming the global IP system. Chinese IP laws, despite the reforms pursuant to the bilateral negotiations with the United States, remained non-compliant with the TRIPS, i.e., contained provisions that did not contemplate the minimum threshold established by the treaty, including border and provisional measures for IP enforcement. But at that stage, it would no longer be accurate to argue that IP protection in China was purely 'formal' or bureaucratic, and the first relevant judicial litigations involving IP took place in the 1990s. Some national economic sectors started to benefit from their own IP protection: Huawei, founded in 1987, filed its first patent in China in 1995 (and in the United States in 1999).¹⁸¹ More and more global companies continued to operate in China via the joint venture partnership model, and issues of trademark counterfeits and copyright

¹⁸¹ HUAWEI. **Respecting and Protecting Intellectual Property: The Foundation of Innovation.** Huawei White Paper on Innovation and Intellectual Property 2020. Available at: <https://www.huawei.com/en/technology-insights/industry-insights/innovation/huawei-white-paper-on-innovation-and-intellectual-property>

pirated goods became much more prominent.

At this point, Chinese economy was decisively based on manufacturing. Although a Chinese domestic consumer's market quickly emerged, the focus of manufacturing was fundamentally targeted for exports. Chinese domestic companies and universities consolidate their activities and set up innovation policies, but were also essentially replicators of foreign technologies, techniques, and products, operating as part of the outsourcing for global value chains in industries such as textiles and mining commodities. These aspects are important to the extent which they highlight a relative disincentive for the Chinese State to actively pursue more stringent IP protection, since the possibility of internalizing foreign know-how and transfer of technology would be partly hampered by intellectual property rights.

In summary, despite the trends towards ampler protection and enforcement of IP, the second wave of IP legal reform continued to be largely driven by foreign pressure in the interest of their own companies. The lack of strong protection of IP also avoided the need to deal with the consequences of the system, namely the restriction on competition, particularly with a reduced freedom to operate by national companies (especially at a time where some companies started to innovate, such as those in the tech sector in Shenzhen), and subsequent restrictions on access to essential goods, such as pharmaceuticals and educational books. Furthermore, given the continental size of China and the inexistence of IP enforcement in the precedent decades, the creation of a whole system from scratch invariably required vast resources, societal, and industrial changes.

The 'third wave' of IP legal reform marks a crucial turning point in China's international trade status. After years of negotiations, the PRC joined the World Trade Organization on 1 January 2001, which required amendment of over 10.000 legal instruments and various commitments.¹⁸² In view of the export-oriented macroeconomic model of China, joining an intergovernmental body dedicated to liberalizing trade and removing tariffs and other trade barriers was of key strategic consideration. The Chinese accession took place years after the WTO creation in 1994, the main outcome of the Doha Round. From a symbolic point of view, China's accession to the WTO demarks the country's commitment to the integration in international trade, and its growing recognition of

¹⁸² See generally: FENG, Hui. **The Politics of China's Accession to the World Trade Organization: The Dragon goes Global**. Abingdon: Routledge, 2006.

multilateral instances.¹⁸³

By joining the WTO, the PRC was mandated to abide by the standards of the TRIPS Agreement, which required substantive revision of basically all its IP-related regimes. But the TRIPS Agreement is not a harmonizing treaty, but rather an instrument which stipulates a minimum standard of IP protection for all parties, providing leeway for countries to craft their IP laws and policies in accordance with their own national objectives in areas not covered by it or in what stands beyond the ‘minimum threshold’. This has been well-known as the TRIPS flexibilities, which are in-built and part of the architecture of the agreement.¹⁸⁴ Countries implemented the TRIPS requirement in remarkably different ways. Brazil, for example, adopted an Industrial Property Code as early as 1996, despite having until 2001 to amend its national laws, and included some TRIPS-Plus (i.e. beyond the requirement of the agreement) that benefit foreign applicants and negatively impact public health. India, however, decided to fully use the flexibility of amending its national law until the very last day, and revised its Patent Act in 2005 only. Many other developing countries also adopted stringent IP commitments related to free trade agreements (FTAs), while subsequent guidelines and policies were instrumental in crafting more balanced, pro-development and pro-public health IP policies, such as Argentina in the 2010s.

With respect to China, it is interesting to point out how it already contained certain TRIPS-Plus provision as a result of the 1992 amendment process, but it did implement new laws in a way that did not undermine the general structure of its industrial policies. Enforcement provisions continued to be relatively balanced in terms of its norms but very difficult to obtain judicial relief in practice, with low compensation and no punitive damages in cases of infringement, certain difficulty to achieve a preliminary injunction to restrain or apprehend circulation of potentially violating goods, among others. The level of IP protection continued to be reportedly limited from the point of view of foreign entities promoting IP enforcement, but China took various steps to implement the new system. Importantly, the administrative requirements for joint ventures with domestic partners, which included deep technology transfer into the country (via a contractual and consensual mechanism), continued to exist.

However, the underlying economic and technological structure of China has

¹⁸³ Hong Kong, Macau and Taiwan (as Chinese Taipei) have been full members of the WTO since its inception in 1995. Also see section 3.1.2.

¹⁸⁴ CORREA, Carlos. **Trade Related Aspects of Intellectual Property Rights – A Commentary on the TRIPS Agreement**. Oxford: Oxford University Press, 2nd ed, 2020.

indeed gone through impressive changes from 2001 to 2018.¹⁸⁵ Apart from overcoming Japan as the second largest economy in the world measured by GDP, the ‘rise of China’ became a reality. China went through the 2008 world financial crises relatively smoothly, and macroeconomic discussions on China moved away from purely economic growth to sustainability, rising inequalities, and overcoming the middle-income trap. Economically, increased liberalization of markets was coupled with much broader participation of Chinese companies and investors abroad¹⁸⁶, including the launch of the Belt and Road Initiative in 2013.¹⁸⁷ These two axes (domestic and international) compose the 2020 announced ‘Dual Circulation’ strategy.¹⁸⁸ In this context, many Chinese companies became multinationals exporting innovative products and services, including various big tech platforms, automobiles, and telecommunication devices, with strong use of their own (‘Chinese’) IP and a clear interest towards the strengthening of such protection. Chinese investors also have ownership and shares of various companies that hold core technologies, creating another form of ensuring technology to be transferred and integrated in Chinese value chains. Policies to promote awareness of IP and to expand the use of IP by stakeholders started to be implemented and domestic patenting and trademarking soared in the 2000s onwards. Enforcement policies at the local level, with officials working on the ground to seek counterfeit manufacturing facilities and restrict/apprehend the circulation of goods, expanded massively.

Accordingly, the pluriannual plans of China increasingly focused on innovation and technological upscaling: the ‘Made in China 2025’ strategy is, in that sense, only a

¹⁸⁵ For an assessment of recent changes in China’s economy, see generally: GARRICK, John; BENNETT, Yan Chang. **“Xi Jinping Thought”: Realisation of the Chinese Dream of National Rejuvenation?** China Perspectives, New Approaches to the Political Regime Under Xi Jinping. 2018, p. 99-105. It is also relevant to stress that the appointment of Xi Jinping in 2013 also transformed Chinese politics, particularly with respect to foreign affairs, with the idea of ‘wolf warrior diplomacy’, and much more political centralization, including the consolidation of the Chinese ‘Great Firewall’ in its Internet governance.

¹⁸⁶ In an article noting the prospects of Chinese-Brazilian investments, Lia Baker Valls Pereira notes a few examples: ‘No processo de transformação da manufatura, a internacionalização é ressaltada como um veículo essencial para que o país assegure internamente e no contexto internacional um papel entre as nações líderes na inovação tecnológica. “Ir para o Mundo” ou “Go Global” passa a ser uma estratégia privilegiada nas novas diretrizes chinesas. Compras de empresas em países desenvolvidos passam a constituir uma estratégia de aquisição de tecnologia. Alguns exemplos são: compra pela empresa ChemChina de cerca de 60% da companhia italiana de pneus Pirelli (2015); Fosun compra participação no Club Mediterranee francês (valor € 939 milhões, 2015); e ChemChina compra participação na companhia suíça Syngenta de agronegócios (US\$ 43 bilhões, 2016). Além de compras de empresas de serviços, finanças e entretenimento.’ PEREIRA, Lia Baker Valls. **Brasil-China: A Agenda de Investimentos**. Revista Conjuntura Econômica, December 2016, p. 62-65.

¹⁸⁷ See: XINHUA. **Cronology of China’s Belt and Road**. 24 June 2016. Available at: <http://en.people.cn/n3/2016/0624/c90883-9077342.html>

¹⁸⁸ See: HOFMAN, Bert. **China’s Economic Policy of Dual Circulation**. Hinrich Foundation, 08 June 2021. Available at: <https://www.hinrichfoundation.com/research/article/sustainable/china-economic-policy-of-dual-circulation/>

formalization and continuation of decades-long R&D policies. By mid-2010s, China was already the country which invested the most in technological R&D in the world by a good margin.¹⁸⁹ Policies that focused on Chinese students and scholars receiving formal training and experience abroad, and later returning to China, were and continue to be widely developed. Even in lower aggregate technology sectors, such as more traditional consumption goods that rely on trademarks, etc., domestic companies now had the world's largest consumer's market in China to explore, also augmenting the importance of strong brands and avoiding unfair and unlawful competition.

In this context, the 'fourth wave' of reforms in China, in this narrative of IP consolidation along contemporary history, refers to the moment when the strengthening and consolidation of the IP framework in China would be based on the country's new economic structure, its commitment to free trade and international economic law, and the domestic demands towards a more robust protection. 2008 is often referred to as a paradigmatic year, as it is when China adopted its first IP Strategy, clearly delineating IP as a matter of increased importance.¹⁹⁰ It explicitly had the goal of turning China into "a nation with an internationally top level of creating, using, protecting and managing IPRs by 2020."¹⁹¹ In this context, this contemporary IP system would be finally driven by the demands and reflection of the country and its interests, and not a transplantation motivated by other countries or institutions' political and economic pushes. The period was also characterized by more awareness and knowledge of Chinese institutions, including SIPO, with respect to the impact of IP provisions. It would be, in that sense, distinctively national, which would demarcate the beginning of the IP 'with Chinese characteristics' as a system designed by and to the benefit of the Chinese nation. This argument also fits well into the broader notion of 'China Dream' crafted under Xi Jinping's presidency, which denotes the 'rise' of the country as a re-establishment of its ancient glory and the assertion of a strong nation that has an autonomous, prominent political and economic role in the world.

To summarize, given the new economic and technological reality of China, the country's position sees different forms of trade-offs regarding the protection of IP, since it now (i) also serves the interest of many of its domestic companies, (ii) is aligned with China's

¹⁸⁹ UNCTAD. **Globalization of R&D and Developing Countries**. 2006.

¹⁹⁰ PEOPLE'S REPUBLIC OF CHINA – STATE COUNCIL. **National Intellectual Property Strategy**. 5 June 2008.

¹⁹¹ See: JIA, Hepeng. **China's New National IP Rights Strategy Puts IP on its Political Agenda**. IP Watch, 26 June 2008. Available at: www.ip-watch.org/2008/06/26/chinas-new-national-ip-rights-strategy-puts-ip-on-its-political-agenda/ (Accessed 26 June 2021).

contemporary innovation and industrial policies, and (iii) can also be integrated into broader discussions of international trade, of which IP is one element out of many. For example, adopting standards of protection aligned with those of Western jurisdictions also diminishes pressures against China and limits the success of claims against it at the WTO. These elements suggest the idea of an endogenous-led process of IP strengthening.

This grand narrative, however, was directly challenged by the fact that the latest round of IP reforms was also deeply determined by the negotiations with the USA, particularly the continued demands by the country via the USTR Section 301 reports,¹⁹² and the Sino-American trade war launched in 2018, which resulted in the US-China Trade Agreement – Phase 1 in January 2020, which contained a long and robust IP chapter. The next subsection aims at analyzing this contradiction.

2.2. The Contemporary Conundrum: Between endogenous IP policies and Foreign US Pressure

As noted in the previous section, the 2000s and 2010s completely reoriented the Chinese IP legal system. China quickly became the host of the largest number of patent applications in the world, overtaking the United States in 2018.¹⁹³ But between 2018 and 2020, the legal changes were accelerated, as almost all legal instrument on IP were amended in the PCR. Inclusions of punitive damages, 12 years of data exclusivity protection for biological products, inversion of burden of proof in infringement litigations, and automatic enforcement mechanisms are a few examples of the changes. After the creation of the three first specialized IP courts in Beijing, Shanghai, and Guangzhou, and of the world's first IP court at a Supreme Court (the IP Division at the People's Supreme Court), various regional

¹⁹² See SYAM, Nirmalya; CORREA, Carlos. **US Claims under Special Section 301 against China Undermine the Credibility of the WTO**. South Centre Policy Brief 51, September 2018.

¹⁹³ See: FINK, Carsten; RAFFO, Julio D., **What Role for Intellectual Property in Industrial Development**, in CORREA, Carlos; SEUBA, Xavier (eds.), *Intellectual Property and Development: Understanding the Interfaces*, Springer, 2019. Patents do not equate innovation, even though they are conventionally used as proxies to measure technological innovation. Furthermore, the number of patents is not necessarily representative of the strength of an IP system, but likely a problem with the lax patentability criteria applied which led to numerous 'low-quality' patents (e.g., patents granted for applications without substantive inventive step or obvious, which were already part of the public domain, or without industrial application). See generally. CORREA, Carlos. **Innovation and the Global Expansion of Intellectual Property Rights: Unfulfilled Promises**. South Centre Research Paper 70, 2016; also see section below on the problems with the use of quantitative indicators in China (2.3.1). Nonetheless, when China became the largest host for patent applications at the WIPO PCT system, it was an inevitably symbolic moment on the 'rise' of the country as a key player in the global IP field, whatever the underlying conditions are.

courts were created around the country.¹⁹⁴ The average duration for the appreciation of an infringement claim is of around 5 months, much less than traditional jurisdictions such as Germany, the UK, and the USA; public statistics even report that foreign IP holders have more success in their claims than in their home jurisdictions – also bringing the possibility of forum shopping in global litigations to China. The SIPO has been renamed CNIPA, having received an expansion of its mandate beyond a formal administration of IP applications to an ‘innovation agency’.¹⁹⁵ All these elements are major changes in the Chinese IP legal system towards a maximalist system of protection in this latest cycle of legal reforms, which go beyond the adoption of new norms.

But the explanation for the adoption of such stringent requirements based on China’s self-interest is only part of the story. Many of the legal-policy changes above are a direct outcome of the US-China Phase 1 Trade Agreement signed in 2020, pursuant to the Sino-American trade war launched by the US government under Donald Trump in early 2018.¹⁹⁶ Therefore, the history of pressure exerted by the US continues to be a major part of IP politics in China. The influence is not restricted to the formal agreement: in fact, after the 1992 MoU, bilateral talks between China and the USA continued to take place in very formal discussions between the Parties and have been influential in shaping some of the positions with respect to IP in China. In the United States Trade Representative (USTR), experts on China, including those who are fluent in Mandarin, comprise an increasingly important contingent among high level officials. From the Chinese side, expertise on the US is reportedly a common feature of negotiators. These processes have been highly influential in the construction of IP policies in China. As such, it is relevant to ponder whether these latest transformations are yet another reiteration of foreign pressures or a cunning result of China’s policy and developmental plans implementation.

Another crucial form of US pressure has been using the USTR Section 301 reports, the unilateral mechanism whereby the US evaluates – according to its own standards

¹⁹⁴ See MATTHEWS, Duncan. **Intellectual Property Courts in China**. In: MANIATIS, Spyros; KOKKORIS, Ioannis; WANG, Xiaoye. *Competition Law and Intellectual Property in China and the ASEAN*. Oxford: Oxford University Press, 2017.

¹⁹⁵ The European Patent Office has similarly developed this notion throughout the last few decades (see *The Future of Patent Offices*). WIPO’s current director-general and former head of Singapore’s IP office, Darren Tang, has been lauded for efforts to turn their national office into an ‘innovation agency’. Maximiliano Arrienzo, former head of the Chile IP office, provided specific inputs along those lines while also noting the need to ensure certain safeguards in terms of public health and other developmental goals. See: SANTA CRUZ, Maximiliano; OLIVOS, Catalina. **The Twenty-First Century Intellectual Property Office**. In: CORREA, Carlos; SEUBA, Xavier. **Intellectual Property and Development: Understanding the Interfaces**. Munich: Springer, 2019, p. 181-198.

¹⁹⁶ See specific subsection below.

– the status of IP protection in other countries, with the possibility to invoke unilateral sanctions, such as excluding a country from the generalized system of preferences (GSP) that benefits developing countries with reduced tariffs. The reports have been a recurrent and unfortunate pressure against most developing countries in various occasions. As the Introduction noted, this has been the case against the use of lawful and legitimate (and confirmed by the WTO Doha Declaration on IP and Public Health and numerous other international legal instruments) TRIPS flexibilities such as compulsory licensing (CL) and robust patentability criteria. But the Section 301 reports have also consistently characterized what is perceived as insufficient levels of enforcement, copyright protection, among others, as violations of what the US expects other countries to follow. China has been a direct – perhaps the biggest – target of Section 301 reports since its inception and this continues to be the case. This is the context where the USTR started to refer to ‘rampant IP theft’ and ‘forced technology transfer’ in China, based on the dissatisfaction with the levels of trade secret protection and the administrative requirements to operate in China in partnership with Chinese companies.

In the context of US-China IP relations, the instrument (the USTR Section 301 reports) is perhaps more important than its content itself, since the claims against China have been updated and can be constantly amended to keep on demanding new commitments from China. The fact that the US government claims against China are different and much broader from what the US has filed at the WTO against China highlight that the US understandings are way above the requirements under WTO rules. In fact, many have argued that the claims are unfounded, since China’s largely in accordance with the WTO rules.¹⁹⁷ From the perspective of Chinese officials and policymakers, this also gives rise to the sense of an always unattainable set of demands, since no matter what is done, regardless how much effort and investments, strengthening IP enforcement and policies will continue to take place via renewed demands.¹⁹⁸ Accordingly, one of the effects of the trade war was the substantial diminishing in the use of ‘Made in China 2025’ by Chinese officials, as well as reduced transparency and publication of some judicial decisions and provisions.

Although the focus of this section is on the pressure exerted by the US, it is not possible to ignore the pressures by other high-income countries, particularly the European

¹⁹⁷ See SYAM, Nirmalya; CORREA, Carlos. **US Claims under Special Section 301 against China Undermine the Credibility of the WTO**. South Centre Policy Brief 51, September 2018.

¹⁹⁸ YU, Peter. Interview June 2021.

Union (EU).¹⁹⁹ The EU has consistently proposed the inclusion of TRIPS-Plus provisions in its free trade agreements (FTAs) negotiations. Since 2019, the EU has also introduced an unilateral mechanism to pinpoint what it considers to be examples of low enforcement of IP, which target numerous Chinese marketplaces for example.²⁰⁰ The EU has also had a history of engagement with China on IP matters, which include the recognition and protection of European geographical indications (GI) in China – many of them exported as luxury goods in China, such as champagne and French cheeses –, and very prominently the enforcement of brands and copyrighted materials.²⁰¹ Contemporarily, it is not only the issue of counterfeiting in Chinese factories, but also the assertion of trademarks in China considering its position as the world’s largest market for luxury brands – which required them to adapt and create products targeted to the Chinese market and taste. At a broader geopolitical level, the EU typically is perceived to adopt a pragmatic relation with China.²⁰² The Comprehensive Agreement on Investment (CAI), whose negotiation was launched in 2013 and completed in December 2020²⁰³, is a good example of this engagement, which has

¹⁹⁹ In addition to the USA and the EU, tensions that involve at least to some degree IP protection have also risen with other key trade partners, including Japan and South Korea. Such countries have also expressed discontent about specific levels of IP protection in China, and have also pursued TRIPS-Plus provisions in their FTAs. IP-related issues directly affect Japanese and Korean companies that operate in the country, many of whom have outsourced manufacturing as part of their global value chains. However, no other country has been as prominent as the US in exerting pressure against other countries via unilateral instruments. For a better overview of the Asian implications of China’s IP and international trade relations, see chapter 3.2.

²⁰⁰ See the latest report: EUROPEAN COMMISSION. **Counterfeit and Piracy Watch List**. Commission Staff Working Document, 14 December 2020. Available at: https://trade.ec.europa.eu/doclib/docs/2020/december/tradoc_159183.pdf

²⁰¹ EUROPEAN COMMISSION. **Commission Report on the Protection and Enforcement of IPR in Third Countries**. Brussels, 28 April 2021, Available at: <https://trade.ec.europa.eu/doclib/press/index.cfm?id=2266>

²⁰² EU’s most powerful country, Germany, has been consistently supportive of the need to have good ties with China and to address specific areas where economic potential could be harnessed, while criticizing points of divergence, including human rights. A study by Mercator Institute, a German think tank focused on Chinese issues (and later sanctioned in March 2021 by the Chinese Foreign Ministry), notes for instance the potential in the field of Internet of Things (IoT) platforms proposing as policy recommendations the following, which serve as a good overview of the dualities and pragmatism of the stance: ‘1. **Learning from China’s strengths**. This requires, among other things, a solid understanding of China’s overall innovation capacity, going beyond showcase projects. A realistic assessment of the overall impact of China’s digital platform economy needs more research on regional specifications and development stages. 2. **Conditional cooperation with China to leverage German strengths**. China is highly dependent on foreign IoT stack components and services. German actors can use this to demand greater transparency in the application of cybersecurity regulations and equal access to the market for foreign companies. At the same time, maintaining a high level of cooperation on Industry 4.0 is in Germany’s interest. 3. **Mitigate risks arising from China’s idiosyncratic policy environment**. China’s drive to achieve self-reliance in every layer of the industrial internet creates challenges for German partners. Joint research needs to be conditionalized and IP protection needs to be a key priority in setting up cooperation frameworks.’ ARCESATI, Rebecca; HOLZMANN, Anna; MAO, Yishu; NYAMDORJ, Manlai; SHI-KUPFER, Kristin; VON CARNAP, Kai; WESSLING, Claudia. **China’s Digital Platform Economy: Assessing Developments Towards Industry 4.0**. MERICS Report, June 2020. Available at: <https://merics.org/sites/default/files/2020-06/MERICSReportDigitalPlatformEconomyEN02.pdf>

²⁰³ The CAI ratification has been indefinitely suspended by the EU Parliament after sanctions imposed by China against European institutes and parliamentarians who are critical of some of the country’s stances and policies, particularly the accusations of persecution and genocide of Uighur minorities in Xinjiang.

various intersections with the IP regime, and limits the scope of technology transfer rules in China.²⁰⁴ However, far from being a simple adoption of standards proposed by the EU, the negotiating power and the leverage of China is now completely distinct, and unlike developing countries expecting to export commodities and agriculture products to the EU, China is actually a major international investor in Europe.

Hence, Western countries' pressures continue to be influential in the shaping of IP in China, but there are two very important differences: (i) China is also able to exert its own pressure against other countries, and Chinese investors and companies operating abroad have the interest to seek opened conditions for investment and trade, even if this represents as a trade-off the need to alter some policies (including IP) in China ; (ii) although Western pressure against China may seem to be a continuation of the original complaints since the 1980s, the concerns about China's technological dominance and larger self-reliance in value chains and the economy are in equal footing, if not more prominent, than conventional concerns about counterfeiting and pirated goods.

There is also yet another important aspect to consider with respect to the origins and the reasons for the most recent amendments in the IP 'with Chinese characteristics': the growing number of Chinese officials and scholars trained in foreign departments – jurists, economists, political scientists, as well as STEM scientists –, which also generated a myriad of new views of IP in China.²⁰⁵ In the legal field, most of them follow very legalist and dogmatic views on IP, including the mainstream assumption that IP is an intrinsic and indispensable instrument for innovation and a country's socio-economic development. This is also a result the globalization of ideas and the impact of a certain hegemony in the daily operations of the IP system on the hands of 'experts', which provide legitimacy to policy choices.²⁰⁶ It is hard to assess the precise extent to which conventional IP legal arguments have influenced the outcomes of the recent legislation amendments, but it would be wrong to dismiss them entirely.

²⁰⁴ See: COHEN, Mark. **Phase 1 and CAT: A Tale of Two Agreements**, 26 January 2021. Available at: <https://chinaipr.com/2021/01/26/phase-1-and-cai-a-tale-of-two-agreements/>

²⁰⁵ The post-Cultural Revolution China required to recreate institutional university departments, which had been shut down around the country. In economics, many of those trained abroad returned to China with a strong appreciation of the economists debated and followed in Western countries, such as Hayek and Friedman. In what may seem surprising, many in China defended reforms based on neoliberal economic theory. The period is defined by heterogeneity and experimentalism in policy experimentation, rather than rigid defense of ideas. For an overview, see generally: WEBER, Isabella. **How China Escaped Shock Therapy: The Market Reform Debate**. Abingdon: Routledge, 2021.

²⁰⁶ See: TAN, Celine. **Audit as Accountability: Technical Authority and Expertise in the Governance of Private Financing for Development**. *Social & Legal Studies*. February 2021.

2.2.1. The US-China Phase One Agreement (2020)

On 15 January 2020, the US and the PRC signed the Economic and Trade Agreement between the United States of America and the People's Republic of China, which would be known as the US-China Phase 1 Agreement (henceforth Agreement). The announcement stalled the Sino-American trade war launched by the US in 2018, when tariffs were unilaterally imposed against China.²⁰⁷

The Agreement includes the following: Chapter 1 – Intellectual Property, Chapter 2 – Technology Transfer, Chapter 3 – Trade in Food and Agricultural Products, Chapter 4 – Financial Services, Chapter 5 – Macroeconomic Policies and Exchange Rate Matters and Transparency, Chapter 6 – Expanding Trade, Chapter 7 – Bilateral Evaluation and Dispute Resolution, Annex 7-A – Working Procedures of the Bilateral Evaluation and Dispute Resolution Arrangement, and Chapter 8 – Final Provisions.

Although the agreement constitutes bilateral obligations to both Parties, they in practice essentially affect China, which is forced to amend laws and policies with numerous TRIPS-Plus provisions. Various provisions contain a mention to the fact that the current US legal regime is sufficient to comply with the obligations set forth by the Agreement. Importantly, China has also committed to the purchase of goods and services from the US and therefore reduce the existing trade deficit.²⁰⁸ The agreement departs from other conventional treaties since both Parties may denounce it with a relatively short time notice. The geopolitical aspect of the agreement is therefore quite prominent.

Very notably, the first two chapters of the Agreement refer to IP and technology transfer. Chapter 1 begins with the following statement, which stands out in terms of China's acknowledgement of the importance of IP for itself:

Chapter 1. Section A: General Obligations. The United States recognizes the importance of intellectual property protection. **China recognizes the importance of establishing and implementing a comprehensive legal system of intellectual property protection and enforcement as it transforms from a major intellectual property consumer to a major intellectual property producer. China believes that enhancing intellectual property protection and enforcement is in the interest of building an innovative country, growing innovation-driven enterprises, and promoting high quality economic growth** (ECONOMIC AND TRADE AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA, 2020).

²⁰⁷ For a critique based on international trade law, see: KWA, Aileen; LUNENBORG, Peter. **US' Section 301 Actions: Why They Are Illegitimate and Misguided**. Research Paper 86, Geneva: South Centre, September 2018.

²⁰⁸ See: BOWN, Chad. **US-China phase one tracker: China's purchases of US goods**. Peterson Institute for International Economics. 29 June 2021, Available at: <https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods>

Another notable reference is to the topic of trade secrets and confidential business information:

Section B: Trade Secrets and Confidential Business Information. The United States emphasizes trade secret protection. **China regards trade secret protection as a core element of optimizing the business environment.** The Parties agree to ensure effective protection for trade secrets and confidential business information and effective enforcement against the misappropriation of such information (*op cit*, 2020).

In a footnote, the broad concept of confidential business information, which includes trade secrets but is not restricted to it, is clarified:

The Parties agree that the term “confidential business information” concerns or relates to the trade secrets, processes, operations, style of works, or apparatus, or to the production, business transactions, or logistics, customer information, inventories, or amount or source of any income, profits, losses, or expenditures of any person, natural or legal, or other information of commercial value, the disclosure of which is likely to have the effect of causing substantial harm to the competitive position of such person from which the information was obtained (*op cit*, 2020).

For comparison, Article 39.2 of the TRIPS Agreement states:

Article 39. 2. Natural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as such information:

- (a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question;
- (b) has commercial value because it is secret; and
- (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret.

Section B of the Agreement thus crafts a concept of confidential business information that is extremely broad, including “information of commercial value, the disclosure of which is likely to have the effect of causing substantial harm to the competitive position of such person” (without the requirement of the reasonable steps to keep it secret, for example). The articles under Section B mandate the following: that all natural or legal persons can be subject to liability for trade secret misappropriation (Article 1.3), that full coverage for methods of trade secret theft are to be included in the scope of prohibited acts which constitute trade secret misappropriation (Article 1.4), the shift of the burden of proof in civil judicial proceedings to the accused party, in the benefit of the trade secret holder (Article 1.5), that provisional measures should be available to prevent the use of trade secrets (Article 1.6), the elimination of the threshold of actual losses as prerequisite to initiate a criminal investigation (Article 1.7), and the expansion of criminal procedures and penalties

to include ‘theft, fraud, physical or electronic intrusion for an unlawful purpose, and the unauthorized or improper use of a computer system in the scope of prohibited acts.’ (Article 1.8).

In furtherance, Article 1.9 deals with the prohibition of unauthorized ‘disclosure of undisclosed information, trade secrets, or confidential business information by government personnel or third-party experts or advisors in any criminal, civil, administrative, or regulatory proceedings 1-5 conducted at either the central or sub-central levels of government in which such information is submitted.’ China commits to adopt various measures with respect to its administrative agencies and other authorities ‘at all levels’, including limiting access to information to the strictly necessary for a regulatory authority, protect the security and protection of data, and provide criminal, civil and administration penalties for deterrence. This article is particularly relevant as it refers to specific practices that are reportedly conducted by Chinese government officials of various levels. In addition, it denotes a regulatory approach based on the criminalization of IP infringements and misappropriation – something which China seems to fully agree with.

Both the US and China approved new trade secret legislations (in 2018 and 2019, respectively), which substantially strengthened their respective regimes by adopting TRIPS-Plus requirements in the scope of protection and by setting up robust mechanisms for enforcement. As such, no specific amendment in such laws were needed. However, China did approve an amendment to the Criminal Law Code at the end of 2020 to include the commitments of the Agreement, and some interpretative provisions from the People’s Supreme Court were enacted to clarify some jurisdictional queries.²⁰⁹ Also, it should be recalled that the Agreement also creates a Dispute Resolution mechanism between the Parties, not relying on arbitration or the WTO.

Apart from that, the chapter includes provisions on the following:

- a) a relatively reduced Section C: Pharmaceutical-Related Intellectual Property (see Chapter 4) focusing on allowing supplemental data for patent applications (Article 1.10) and a mechanism for early resolution of patent disputes (Article 1.11).
- b) Section D: Patents, with a very clear TRIPS-Plus provision for the creation of patent term extensions in case of delays in pharmaceutical regulatory

²⁰⁹ See, on the trade secrets regime in China: GUO, Xiaojun. **A Stronger Trade Secret Protection in China**. Mondaq, 02 April 2021, Available at: <https://www.mondaq.com/china/trade-secrets/1053568/a-stronger-protection-of-trade-secret-in-china>

- approval delays (Article 1.12).
- c) Section E: Piracy and Counterfeiting on E-Commerce Platforms, with measures for China to make enforcement prompt and more effective (i.e. smoother processes for takedowns of potential infringements) (Article 1.13), and measures to even revoke operating licenses of e-commerce platforms that are recurrent infringers (Article 1.14).
 - d) Section F: Geographical Indications (GIs) – ensuring means for the US-based approach consistent of the use of trademarks and no *sui generis* rights for GIs to counter in particular EU and Chinese GIs, with a focus on facilitating a GI to become generic (therefore not protectable) (Articles 1.15, 1.16 and 1.17);
 - e) Section G: Manufacture and Export of Pirated and Counterfeit Goods – with sections to improve enforcement against counterfeit medicines (including sharing and publishing of information, Article 1.18), measures against counterfeit goods with health and safety risks (including increasing number of enforcement actions and publishing data online, Article 1.19), augment possibilities to destroy counterfeit goods (Article 1.20), strengthen border measures, including number of trained personnel in China and very detailed specifications (Article 1.21), increased enforcement at physical markets (Article 1.22), and measures to impede the use of unlicensed software by government entities (Article 1.23).
 - f) Section H: Bad-Faith Trademarks, with a general provision on the protection and enforcement of trademarks, ‘particularly against bad faith trademark registrations’ (Article 1.24).
 - g) Section I: Judicial Enforcement and Procedure in Intellectual Property Cases – with various commitments: the possibility for administrative authorities to transmit cases to criminal authorities (Article 1.26), the inclusion of punitive damages and criminal penalties to deter further infringements (Article 1.27), ensuring expeditious enforcement of fine, penalties, payment of monetary damages, injunction or other remedies by a final judgment (Article 1.28), creation of presumption of authorship and shifting the burden of proof in copyright and related rights cases (Article 1.29), not asking for formalities to authenticate documents (including ‘consularization’, Article 1.30), and the possibility to have witnesses or experts in the case (Article 1.31).

- h) Section J: Bilateral Cooperation on Intellectual Property Protection – with general cooperation activities intended (Article 1.32) and the discussion of biennial cooperation work plans on IP between CNIPA and the USPTO (Article 1.33).
- i) Section K: Implementation – noting that the implementation shall be determined by each Party ‘within its own system and practice’ (Article 1.34), and that China had 30 days to create an Action Plan to strengthen IP (Article 1.35).

Chapter 2 begins by asserting that:

‘The Parties affirm the importance of ensuring that the transfer of technology occurs on **voluntary, market-based terms and recognize that forced technology transfer is a significant concern**. The Parties further recognize the importance of undertaking steps to address these issues, in light of the profound impact of technology and technological change on the world economy.’ (*op cit*, 2020)

The Chapter’s provisions drastically limit the continuation of most, if not all, technology transfer policies undertaken by China over the last decades. For example, article 2.1.3 (under General Obligations) is focused on restricting policies under the scope of industrial policies such as semiconductors under 2025, where lawful acquisition of foreign technology had been a part of the development strategy:

2.1.3. A Party shall not support or direct the outbound foreign direct investment activities of its persons aimed at acquiring foreign technology with respect to sectors and industries targeted by its industrial plans that create distortion. (*op cit*, 2020)

The broad language aims at including both formal and informal mechanisms, direct and indirect, in the forms of ‘support’, ‘direction’ or [legal/administrative] ‘requirements’ for technology transfer. They include requirements to operate domestically in China, administrative measures that lead to the disclosure of certain business information (noted in Section A of the Agreement, but which can also be part of undisclosed confidential information as per Article 39.2 of TRIPS), favoring the use of certain technologies and/or oblige the transfer of technology. Furthermore, it seeks to strengthen transparency and due process measures on these policies and operations, including the necessity to publish all administrative proceedings, laws, and regulations (Article 2.4). The chapter contains a final cooperation clause which is nonetheless both broad and limiting: “*The Parties agree to carry out scientific and technological cooperation **where appropriate***” (Article 2.5). In practice, this is evidence of the lack of consensus regarding the ongoing tensions in scientific cooperation between the two countries, particularly on the accusations and tensions targeting Chinese students, researchers and professors in US universities and companies.

The US-China Phase One Agreement therefore solidly restricts China's policy space on IP, innovation, and industrial policies. In this sense, it seems more a renewed form of US exertion of pressure, more along the lines of the 1992 US-China MoU, than China's recent negotiations with the EU towards the CAI or with Asia-Pacific countries towards RCEP, cases in which the trade-offs between China concessions and what it gains in terms of market access are more visible. Nonetheless, two aspects should be mentioned:

- (i) The commitments of the Agreement do not entail the end of all technology transfer policies: they are measures that turn them into more transparent and better targeted practices, and overall ensuring less burdensome administrative requirements for operating in China. In terms of the interpretation of the technology transfer clauses, there is no prohibition of industrial policies such as (but not restricted to) Made in China 2025, which means that they are expected to continue in the future. Furthermore, many of the investment facilitation processes in China may also be in the interest of Chinese companies towards a more liberalized business environment. The broad language therefore allows compliance without much change in the existing laws and norms, something which China has had success in doing in the previous periods, including during the accession to the WTO.²¹⁰
- (ii) The US economy has also suffered vastly from the trade war, creating difficulties for certain trade sectors apart from severally hampering conditions for more economic and scientific cooperation with China. While the new US president Joe Biden has not fully changed the confrontational stance towards China, more multilateral avenues and consensus-building seem to be being sought as part of the new strategy. Since the US and Chinese economies are deeply interdependent in many aspects,²¹¹ the leverage between the Parties may be more balanced than

²¹⁰ Two examples of this successful, yet unsatisfiable (for the US), implementation was the patent linkage and the data exclusivity provisions that China accepted to adopt as early as 1992 until the latest amendment.

²¹¹ Yuen Yuen Ang argues that the 'tech race' between China and the USA is in reality a myth, as they have complementary competitive advantages that could mutually benefit each other and the global economy as a whole. While the United States has a strong basic science system, China has a much better commercialization capacity, for example. ANG, Yuen Yuen. **The Myth of the Tech Race**. Project Syndicate, 28 April 2020. Available at: <https://www.project-syndicate.org/onpoint/us-china-tech-race-unnecessary-by-yuen-yuen-ang-2020-04>.

the commitments of the Phase One Agreement may hint at.²¹²

Finally, the comprehensive and detailed measures in specific enforcement areas contrast with the general claims of the US government on IP theft, which suggests the paradox enunciated in the previous sections: the rhetoric of forced technology transfer and American IP theft is politically persuasive and morally charged. Although provisions on the protection of trade secrets and technology transfer refer to the identified issue of misappropriation of trade secrets, many of the remaining norms are relevant for specific business sectors (e.g. the US attempt to undermine the protection of European and Chinese GIs, which is particularly relevant for food and agricultural products), and relate to longstanding debates of counterfeiting and piracy. It is not possible to ascertain with precision whether the absence of certain provisions has been the fruit of successful negotiations by the Chinese side as to avoid restrictions to its policy space, or whether the lack of clarity on the US claims in the first place were responsible for the failure in achieving commitments in this area, but both aspects seem plausible. The next section will delve further into the problems with the use of morally charged categories for the purposes of international IP law negotiations.

2.2.2. Distilling the Rhetoric of ‘IP Theft’ and ‘Forced Technology Transfer’ as Morally Charged Categories

When former US president Donald Trump decided to adopt unilateral measures against China in 2018, leading to what would be known as a ‘trade war’ between the two countries, a core element for the initiative was justified in terms of China’s ‘rampant theft of American IP’. As already noted, although this argument places IP at the center of the accusations, the definition of IP theft was broad and all-encompassing, mainly lying strictly

²¹² In addition, the new Biden administration has clearly signed towards the need for a different economic model and a clearer, more robust participation of the State in R&D and in key areas, as well as important changes in the regulatory and competition environment, such as the appointment of Lina Khan to the Chair of the Federal Trade Commission (FTC). Fostering the American industry to counter China’s rise continues to be a clear part of the justification of such plans, however. In March 2021, the US president launched the Americans Job Plan, a comprehensive, massive set of investments and all-encompassing economic policies that notes, according to its fact sheet released on 31 March: “The American Jobs Plan is an investment in America that will create millions of good jobs, rebuild our country’s infrastructure, and **position the United States to out-compete China**.”, also noting that “Like great projects of the past, the President’s plan will unify and mobilize the country to meet the great challenges of our time: the climate crisis and **the ambitions of an autocratic China**.” See: UNITED STATES, **Fact Sheet – American Jobs Plan**, 31 March 2021, Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>

outside the IP system as such. There are perhaps three possible interpretations to this mismatch: (i) the US authorities use an extremely comprehensive concept of IP that includes all forms of commercial and technological disputes, including liability rules, contractual provisions, corporate governance structures, sectoral regulations, competition rules, etc.; (ii) there was a lack of technical IP expertise among high-level officials that took action against China; (iii) or the presumed lack of technicality has another concealed objective. This subsection explores the third interpretative avenue.

In its strongest form, the semantics and the rhetoric of ‘IP theft’ are legitimizing elements for the unilateral action and measures adopted by the US, while also reiterating a longstanding exotifying image of China as the rising ‘danger’ (the ‘yellow peril’²¹³), which is extended to Chinese people – researchers, academics, businesspeople, but also ordinary people – as tricky enemies. Establishing an enemy is also simultaneously a means for a certain self-affirmation of American nationalism. Even if attempts to measure are challenging, it can be said that these accusations have an impact to China’s positions across multilateral institutions, and in the way Chinese stakeholders involved in IP and innovation perceive themselves, since it creates a starting point whereby there is the burden of justify that they are *not* ‘counterfeiters’ or ‘IP thieves’.

Accusations of ‘theft’ adopt a moral connotation that is at least partly at odds with what contemporary Chinese companies, IP attorneys and policymakers aim at in their daily work, who generally fully embrace the logic and the paradigms of the global IP system. From virtually all available sources on IP in China and from the interviews conducted for this thesis, all stakeholders highlighted how the contemporary IP system in China is ‘no different from those in the US or the EU’, how ‘China firmly understands IP to be a key element for innovation’, and that ‘things are different from what they once were’.²¹⁴ This fits the official Chinese narrative²¹⁵, but is shared among others as well.

²¹³ The anti-Chinese sentiment has been historically part of American society since the first immigrants which arrived in the US for the construction of railways. The yellow peril rhetoric has also been exerted against Japan until the 1980s, prior to its financial bubble, when the country was expected to overcome US economy – similarly to what now China is expected to do.

²¹⁴ Interviews conducted from August 2018-July 2021. Also see Introduction for a comment on why there was the decision not to quote interviewees directly, unless explicitly authorized.

²¹⁵ For example, the Chinese Ambassador Zhang Ming to the EU noted in a 2018 interview that: ‘On IPR protection, I would say that the Chinese government holds a firm stance on that. If China is to become more innovative, the first thing to do would be to put in place a rigorous IPR protection regime. We have further improved the legal system along that line, and have introduced a set of rules for administrative and judicial enforcement. Forced transfer of technology is strictly prohibited. Definitely, we will continue to do more to strengthen IPR protection. We hope that our European friends could see our endeavour as an evolving and constant process, instead of a static one. Together, China and Europe stand to find more opportunities for

Even though an IP infringement is considered illegal, it is problematic to outright and automatically associate this to a morally charged category such as ‘theft’. In criminal justice and criminal law, the creation of an ‘enemy’ has served the purpose of justifying exceptional measures that suppress fundamental defense rights of individuals,²¹⁶ and for the reiteration of class and race-based profiling and structural inequalities.²¹⁷ The expansion of IP matters to the criminal system has consequences that are often not sufficiently taken into account, such as the role and unintended consequences of ‘deterrence’ which is part of the US-China Phase One Agreement. Moreover, IP infringements are ordinarily committed around the world, often unintentionally, as the expansion of IP rights makes navigating the ‘freedom to operate’ increasingly difficult: in other words, it is very hard for any company not to potentially infringe an IPR if the IP system is too broad and all-encompassing to the point it creates a situation of ‘anti-commons’²¹⁸ and with the presence of ‘patent trolls’ and abusive patent assertion entities.²¹⁹

These are only some of the reasons why the adoption of a rhetoric of ‘theft’ is inadequate, for it reinforces prejudices, xenophobia (particularly Sinophobia) and is misleading in terms of the rules governing global IP. These ties have similarly been exposed by Margo Bagley in terms of how the narrative of ‘IP theft’ is instrumental in impeding and pressurizing countries to adopt compulsory licensing of pharmaceuticals, which are legitimate and much needed instruments to ensure access to medicines, particularly in the global south.²²⁰ As described by Bagley:

cooperation’. VALERO, Jorge. **Ambassador Zhang: China will do more to strengthen IP protection.** EURACTIV, 12 October 2018, Available at: <https://www.euractiv.com/section/economy-jobs/interview/ambassador-zhang-china-will-do-more-to-strengthen-ip-protection/>

²¹⁶ See, for a famous enunciation to justify a criminal law of the enemy as opposed to the criminal law of the citizen, JAKOBS, Günther. **Bürgerstrafrecht und Feindstrafrecht.** HRRS 3/2004, p. 88–95 Available at: <https://www.hrr-strafrecht.de/hrr/archiv/04-03/index.php3?seite=6>

²¹⁷ For an analysis of the interlinkages between race, capitalism, and criminal justice, see: DAVIS, Angela Y. **Are Prisons Obsolete?** New York: Seven Stories Press, 2003. Evidently, the issue has reached global discussions with the uprise of the Black Lives Matter movement in 2020, pursuant to the assassination of George Perry Floyd Jr. In an interesting relation with contemporary China, the BLM movement has been framed as an example of the persisting human rights problem in the USA, but also, in a more conservative perspective, as example of the lack of stability promoted by the contemporary American system.

²¹⁸ For the famous definition, see: HELLER, Michael. **The Tragedy of the Anticommons: Property in the Transition from Marx to Markets.** Harvard Law Review, Vol. 111, 1998/

²¹⁹ See generally, for a provocative take: LEMLEY, Mark A. **Are Universities Patent Trolls?** 18 Fordham Intellectual Property, Media and Entertainment Law Journal 611, 2008. Furthermore, on the intersections between IP and competition law applied to the pharmaceutical sector, see: IDO, Vitor Henrique Pinto. **Designing Pro-Health Competition Policies in Developing Countries.** South Centre Research Paper 125, December 2020; MATTHEWS, Duncan; GURGULA, Olga. **Patent Strategies and Competition Law in the Pharmaceutical Sector: Implications for Access to Medicines,** Queen Mary School of Law Legal Studies Research Paper No. 233/2016.

²²⁰ BAGLEY, Margo A. **The Morality of Compulsory Licensing as an Access to Medicines Tool.** Minnesota Law Review. 133, 2018. <https://scholarship.law.umn.edu/mlr/133>.

Nevertheless, the moral “rightness” of countries in the global south issuing compulsory licenses for pharmaceuticals seems very much in question, with such tools often being labeled as theft and otherwise mischaracterized as expropriation.¹⁴ Theft rhetoric in patent law is not new but has a particularly pernicious effect in this context. Theft rhetoric tends to constrain policy choices and government actions, overly extending the boundaries of the patent grant beyond the social bargain for products that can mean life or death to millions of individuals, especially those in LMICs. (BAGLEY, 2018, p. 2467)

Importantly, she also highlights how the ‘theft’ rhetoric derives, at least in part, to a Judeo-Christian theology of ‘thou shalt not steal’ (p. 2468).

When using this theft rhetoric or framing, commentators generally send two related but distinct messages: (1) compulsory licenses are morally wrong because stealing is morally wrong; and (2) compulsory licenses will harm innovation and society will not get the new drugs it needs. (*op cit*, p. 2474)

Issuing a compulsory license in accordance with TRIPS is not a morally culpable action, and is far removed from theft. It is not even defined as stealing under international law and involves compensation to the patent owner. Yet it is too often characterized as theft in a way that appears to give pharmaceutical companies the moral high ground and allows them to play the victim in terms of public relations and inciting governmental action against offending countries. In fact, it may be more appropriate to turn the tables and label, from a moral perspective, the pharmaceutical companies trying to keep needed drugs from the poor as thieves. (*op cit*, p. 2493)

The WTO rules, including the 2001 Doha Declaration on IP and Public Health, and its own case law, have consistently reiterated the lawfulness and importance of adopting public health measures with respect to intellectual property.²²¹ Compulsory licenses are *integrated* and part of the IP system, a way to operationalize the objectives and principles (Articles 7 and 8, TRIPS Agreement) including public health and technological development.²²² As such, they are not exceptions nor threats to the system, but calibrating tools to structurally deal with hurdles such as excessive burdens to public health systems. The political economy of IP and public health does not fully contemplate the issues related to the competition and geopolitical technological dominance ‘race’ between USA and China, but it does render clear that the use of a rhetoric of theft is quite intentional in the sense that it enables the inclusion of non-legal aspects into the discussion of IP in contemporary China.

These considerations do not preempt the acknowledgement that the intersection between IP and industrial espionage has become a prominent issue. State-sponsored or

²²¹ See CORREA, Carlos. **Interpreting the Flexibilities under the TRIPS Agreement**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*, South Centre and Max Planck Institute for Innovation and Competition. Munich: Springer, forthcoming in 2021.

²²² For an interpretation of articles 7 and 8, TRIPS, see: ROMERO, Tamara. **Articles 7 and 8 as the basis for interpretation of the TRIPS Agreement**. Policy Brief 79, Geneva: South Centre, June 2020.

private espionage was part of what many countries did in the 19th and 20th century for their own industrial development, including at the origins of the Industrial Revolution.²²³ *DuPont deNemours & Company v. Christopher*, one of the most famous cases of trade secret protection in the world, which took place in the USA, can be clearly understood to be industrial espionage.²²⁴ The fact that such practices took place in the past does not mean that they should be justified or accepted in the present, but once again limits the idea that the debate exclusively refers to China,²²⁵ since they continue to potentially occur everywhere, and not only by State entities.²²⁶

Furthermore, trade secret protection is not synonymous with espionage: there are violations to trade secrets which do not entail any form of structured espionage (e.g., a former employee who violates a non-disclosure agreement), and there are industrial espionage practices that do not relate to trade secrets misappropriation (e.g., sabotage or obtaining other kinds of information, such as military intelligence).

Still, the issue of industrial espionage is reportedly a key area of counterintelligence for the US Federal Bureau of Investigations (FBI), and some cases have been publicized with strong material claims – although it might be questionable whether such cases necessarily deal with national security issues or are mainly private commercial interests.²²⁷ Many other cases have generated anxieties and justified exceptional measures

²²³ See: BEN-ATAR, Doron S. **Trade Secrets: Intellectual Piracy and the Origins of American Industrial Power**. New Haven: Yale University Press, 2004.

²²⁴ See: US COURT OF APPEALS, 5TH CIRCUIT. **EI DuPont deNemours & Company v. Christopher**, 431 F. 2d 1012 (1970)

²²⁵ As exposed in this introduction, the idea of China as ‘exceptional’ is a constant feature of accounts of how law and politics are shaped in China, how the relation between the ‘market’ and the ‘state’ is conformed, and how these elements reiterate the premise of China as always unique, distinct, and exceptional. This, however, may also reinforce problematic exoticizing notions of China and its legal system, which therefore are elements of co-construction of a sense of Otherness that is at the core of xenophobia and politically instrumentalized in geopolitical conflicts such as the ‘US-China trade war’.

²²⁶ See, for example: ‘Thus far, Western fears—and attempts by countries and companies to protect themselves—have largely focused on China, with claims of hardware backdoors and worries about the 5G giant Huawei. **Yet every country involved in a company’s supply chain poses a potential risk. While a government may have no malign intent, local terrorists or criminals often do.** According to the British Standards Institution, the country’s certification body, terrorists target supply chains at least once every seven days; the most frequent victims are Egypt, India, Thailand, and Colombia” [...] Given the thoroughly globalized nature of today’s economy, companies can’t protect themselves from every disruption. Trying to create an iron dome around any Western country’s economy in the name of national security would be foolish. But assuming that supply chains will survive hybrid warfare unscathed is an even greater folly.’ BRAW, Elisabeth. **The Manufacturer’s Dilemma**. Foreign Policy, 27 April 2019. Available at: <https://foreignpolicy.com/2019/04/27/the-manufacturers-dilemma-industrial-espionage-manufacturing-iphone/>

²²⁷ For example, see HVISTENDAHL, Mara. **The Scientist and the Spy: A True Story of China, the FBI, and Industrial Espionage**. NYC: Penguin Random House, 2020. In the book, Mara Hvistendahl describes the case of large-scale secret military operations by the US FBI to investigate the industrial espionage by a Chinese-born scientist in the state of Iowa, who allegedly transmitted crucial information to a Chinese company. The

against researchers and employees of Chinese origin or nationality in the United States, with unfounded accusations of espionage. In the first high-level meeting between China and the USA under President Joe Biden, the delegation of China adopted a provocative stance and noted that in fact the ‘USA is the largest cybersecurity breacher in the world’.

Indeed, the backdrop against which this discussion takes place is marred by direct clashes.²²⁸ The case of Huawei’s 5G operations abroad seems to be the most evident, since it entangles concerns about national security (based on accusations of the potential surveillance by the Chinese government, although not proven), technological dominance (the US does not have 5G ‘champions’ such as Huawei or South Korea’s Samsung), global IP litigations in the field of telecommunications (see *Apple v. Samsung*, and *Huawei v. ZTE*), and the arrests of Huawei’s CFO Meng Wanzhou in Canada (followed by the arrest of Canadian citizens in China), which have largely escalated tensions.²²⁹

Therefore, two separations should be made. The first is to segregate the purely morally charged rhetoric of ‘IP theft’, which have the purpose of conflating various practices into a generalizing representation of China as the enemy, and real instances of trade secret misappropriation – also acknowledging the need to better define in reasonable terms what should be covered under the scope of trade secrets. The second is between issues of IP counterfeiting and technology transfer, even if they entail certain interfaces.

One of the main reasons for this apparent mismatch is the convolution and conflation of IP and innovation, which is a historical construct: the global south demanded technology transfer as a necessary means for development, taking the issue to the core of

FBI has conducted counterintelligence against China since the foundation of the PRC in 1949. The book also reflects, however, on the influence of businesses into turning their commercial interests into matters of national security to be protected by the FBA, pondering critically on the extent of such allegations.

²²⁸ See generally, for the sector which perhaps best describes the clashes in terms of technological dominance, semiconductors: PARK, June. **Why are Semiconductors so Relevant for Global Manufacturing?** 07 June 2021. Available at: <https://www.ispionline.it/en/publicazione/why-are-semiconductors-so-relevant-global-manufacturing-30705>; see also: HILLE, Kathrin. **TSMC: How a Taiwanese chipmaker became a linchpin of the global economy.** Financial Times, 24 March 2021, Available at: <https://www.ft.com/content/05206915-fd73-4a3a-92a5-6760ce965bd9>

²²⁹ As posited by Yangyang Cheng (2021), the ties between nationalism, capitalism and racism that are the foundation of scientific policies in USA and likely China alike. See: ‘To rank nations by technological prowess is to accept artificial boundaries, to assign knowledge with a passport, to assume progress moves in a single direction—that of capital accumulation—and growth is always benign. The narrative of great power competition in the sciences has obscured urgent issues of ethics. The Chinese government’s abuse of emerging technologies raises alarms in the U.S., not as the need to examine similar practices here or call for transnational governance of these industries, but as another reason to demonize the Chinese people and scientists of Chinese descent. We hear about the red menace from those who have little concern with the state of American democracy, and still less with human rights elsewhere, but who simply want to perpetuate a system that justifies their sense of superiority.’ CHENG, Yangyang. **The US is Building Walls Around Science, and We’re All Poorer for It.** Vice World News, 12 March 2021. Available at: <https://www.vice.com/en/article/xgzbbq/us-china-relations-science-rivalry-gang-chen-mit>

international economic debates in the 1960s and 1970s, including the proposal of a Code of Conduct at UNCTAD.²³⁰ In political economy terms, technology transfer was understood more broadly in terms of a developmental policy, possibly coordinated by a State and inter-States.²³¹ With the consolidation of the idea that IP should be the fundamental instrument towards technology transfer and innovation, the context remarkably shifted: based on the assumption that the technology becomes part of the public domain once patents expire, contractual licensing practices involving ‘IP’ became the basis for voluntary technology transfers between entities (mainly individual companies and universities). This culminates in the TRIPS Agreement in 1994, whose general promise was such that developing countries would be obliged to provide strong IP protection but would receive technology transfer in return. In practice, this broader promise did not materialize. Meanwhile, China, which would only join the WTO in 2001, continued to be successful in ensuring technology transfer to advance its national technology. In many senses, China being successful in its own technology policies, it troubled the traditional technological dominant players in the global north, highlighting therefore how the promise of the TRIPS was essentially void from the beginning and how IP cannot be the only instrument to promote technology transfer. But to the extent which IP starts being understood as a tool for innovation, there is also the nascent rhetoric whereby any forms of IP violation – which are varied – impede innovation and explain how contractual policies that require technology transfer are seen as forms of hampering IP rights.

As such, having segregated the issue of IP violation from the issue of technology transfer, the following can be concluded: from the point of view of this innovation and industrial policies, despite the differences in IP policies, China has in fact maintained its focus on actively promoting innovation and technological transfer/development in both the Made in China and the Made in China 2025 models. Hence, what has changed is the narratively status of ‘IP and innovation’ (which took place globally and not solely in the PRC), and the interest of domestic firms and institutions, which now innovate autonomously, to secure their IP rights. However, the continuation of technology transfer provisions, although watered down and more limited in the present, continues to be important in this

²³⁰ See: SAMPATH, Padmashree Gehl; ROFFE, Pedro. **Unpacking the International Technology Transfer Debate: Fifty Years and Beyond**. ICTSD, Issue Paper 36, November 2012.

²³¹ See: IDO, Vitor Henrique Pinto; NEDER CERZETTI, Sheila C.; PELA, Juliana K. **Technology Transfer**. In: DE FEYTER, Koen; ERDEM TÜRKELLI, Gamze; DE MOERLOOSE, Stéphanie. *Encyclopedia of Law and Development*, London: Edward Elgar, 2021.

larger framework, which is also significantly more robust and standardized.²³²

2.3. Contemporary Trends in the ‘IP with Chinese Characteristics’

This section provides an overview of some contemporary trends in the Chinese IP system that illustrate both how it contains aspects of unique ‘Chinese characteristics’ and aspects that reiterate the logic of enhancing IP protection found in most jurisdictions. For this reason, the section does not address nor conducts a formal analysis of each IP law in China, but rather situates them along the lines of the historical complexity presented in the previous sections. It starts with a discussion on the quantitative number in IP filings in China, which are now being reassessed to ensure more ‘quality’. It then proceeds with the analysis of three aspects of the contemporary Chinese IP system: (i) the stringent standards of protection (TRIPS-Plus), with some degree of TRIPS flexibilities safeguarded; (ii) the ample strengthening of judicial authorities around China, including efforts to harmonize and speed-up decisions; and (iii) the tendency to interpret the public interest as synonymous with the Chinese State’s interest, intersection IP with national security. At the end, it discusses the policies to create a ‘culture of IP’, both at the national level, the ‘on the ground’ level, and across digital platforms.

2.3.1. Consequences of Governance by Numbers: Quantification and the Problems of IP as Indicators of Innovation

The rise of China as a global IP leader is commonly assessed in quantitative terms, both by the Chinese government and by those who see this rise as a possible ‘threat’ to the once Western dominated IP system: the largest number of patent applications at the WIPO-administered Patent Cooperation Treaty (PCT) system, the largest number of trademark filings in the world, numerous companies in the top 10 patent applicants in the world, such as Huawei and ZTE. In a context where China was associated to rampant infringement of IP, these metrics are the most publicly perceptible sign of change and have also been widely promoted by the Chinese government domestically.²³³ This growth matches

²³² PUSCEDDU, Piergiuseppe. *Hic sunt dracones? Mapping the Legal Framework of China’s Innovation Policy: Standardization and IPRs*. *International Review of Intellectual Property and Competition Law*, 51, 2020, p. 559–593.

²³³ It is again important to clarify that this is not a Chinese particularity: most IP offices around the world also

China's population and R&D spending. It is however unique for a middle-income country:

‘Clearly, successful industrial development and growth in local patent filings in the Republic of Korea and China have both been rooted in rapidly rising investments in R&D and education, as well as an overall supportive environment for technological learning. The maturing technological capability and growing patent portfolios of local firms then also prompted greater interest on the part of foreign patent holders to seek protection in those two economies. As a final point, the rapid growth and extraordinary levels of patenting in China are unprecedented in economic history, raising the question whether there is anything special about China's experience. We do not pretend to have an easy answer, but from a pure statistical perspective, it is worth pointing out that China's patenting figures do not seem extraordinary when expressed relative to population and R&D spending (Fig. 6). **What rather stands out is the fact that China experienced rapid take-up in patenting while still being a middle-income country. Whether this is due to the large size of China's economy and to what extent this holds any policy lesson remains open questions, however**’. (FINK, Carsten; RAFFO, J., **What Role for Intellectual Property in Industrial Development**, in CORREA, Carlos; SEUBA, Xavier (eds.), *Intellectual Property and Development: Understanding the Interfaces*, Springer, 2019)

However, this numerical growth has also received its share of criticism regarding the lax approach of Chinese CNIPA (former SIPO) and the various policies to expand the number of IP filings, including subsidies and tax benefits. The result is many frivolously granted patents which do not entail real inventiveness and are very similar to what is in the state of the art, which were already in the public domain, or which were filed by bad-faith applicants. In the trademark area, the low standards applied to verify the existence of distinctiveness and originality, and to assess the application in contrast with existing trademarks, has led to a surge in bad-faith applications – i.e., the practice of preemptively applying for trademarks with the intent to later blackmail or oblige the legitimate creator/owner to pay to get it back. Similar bad-faith registrations in domain names have also been verified, with the added concern of cybersquatting, illegal means to take control of an existing domain name.

Furthermore, domain names and trademarks require a translation into Chinese,

monitor and consider the growth in IP applications as evidence of an evolving IP system. In multiple ways, these assumptions started to be challenged. For instance, the gender disparity in patent applications has been identified as a major issue, and efforts have been mobilized, even at WIPO, to promote more women as IP applicants. Other WIPO policies attempted to bring more diversity in those who use the IP system, such as indigenous peoples and local communities. However, these still rely on the assumption that augmenting uses of the IP system is the gap to be solved. Against such trend, evidence of the detrimental consequences of over-patenting, abusive patenting trends and anti-competitiveness has equally led to strong criticism against policies based on expanding the number of IP applications. See, for example: BURK, Dan; LEMLEY, Mark. **The Patent Crisis and how the Courts Can Solve It**. University of Chicago Press, 2013; BAKER, Dean; JAYADEV, Arjun; STIGLITZ, Joseph, **Innovation, Intellectual Property and Development: A Better Set of Approaches for the 21st Century**, July 2017, available at: <http://ip-unit.org/wp-content/uploads/2017/07/IP-for-21st-Century-EN.pdf>; SALOMÃO FILHO, Calixto. **Direito Concorrencial**. São Paulo: Forense, 2021.

using ideograms and often creating a whole new brand or domain name.²³⁴ For example, US shoes and garment company New Balance filed and registered its trademark in China, but did not apply early enough for the Xinbailu trademark. Xinbailu is a mix of direct translation and Chinese version of a foreign name (*Xin* means new; *bailu* is a loose reference to Balance).²³⁵ However, it managed to win a lawsuit in 2016. However, in a 2021 decision, New Balance lost a lawsuit against Guangzhou New Balance (with the direct alliteration for the brand, and not Xinbailu). Cases like this highlight the intrinsic challenges of trademarking in China. With respect to domain names, ICANN has approved in 2020 new regulations on the registration of domain names using Chinese ideograms, reflecting the growth in importance of Chinese Internet and its implications elsewhere in the world.²³⁶ One practice is that of preemptively filing for registration of Chinese versions of well-known domain names (not to confuse with high-level domain names) to later force a negotiation and payment for acquisition of the registered domain name.

The above examples are not exclusively a matter of unlawful entities nor inconsistencies vis-à-vis Chinese culture and language. They represent a feature of how the system has been designed to facilitate IP protection and expand its scope and duration. China, for example, grants three kinds of patents: invention, utility models and design patents. The latter is similar to the US model - but not found in most jurisdictions – and requires a very low threshold to be granted.

The focus on quantification and the number of granted and filed IP denotes an intrinsic problem with the policy approach which assumes that the number of IPRs is a good

²³⁴ Brands in China have an additional challenge vis-à-vis protection in countries that use solely the Latin alphabet: since brand's names need to be translated into Chinese characters (*hanzi*), finding the best suitable translation is an important marketing strategy. A careful translation requires thinking about the meaning of the individual *hanzi*, their sounds and the proximity with the original name. This may bring new values and reshape customer-brand relationships: the 'same' brand may relate to different publics, different customers and references in China and abroad, and given the size of Chinese middle class and high-end markets, such corporate policies draw particular attention. For example, Coca-Cola is known as *kě-kǒu-kě-lè* (可口可樂), whose ideograms also express positive connotations. From a business and trademarking perspective, this poses a challenge related to what trademarks should be registered, and whether certain defensive strategies would be acceptable, such as registering a similar literal translation (Coca-Cola was originally translated as *kē-kē-kěn-là* - 蝌蚪啃蠟, whose meaning is however bad) to avoid their use by 'free-riders'.

²³⁵ It is interesting to note that, as recalled by Matej Michalec: 'The famous Chinese writer **Lu Xun** is said to have expressed the view that "either the Chinese characters are abolished, or China perishes"'. Lu Xun had thought that Chinese characters are by nature difficult and thus not particularly helpful when one wishes to modernize the nation and decrease the illiteracy present in China of his day (1920/30's). One of the measures he had considered viable for this purpose was Latinization of the Chinese script.' MICHALEC, Matej. **Bad Faith Grounds for Invalidating EUTM containing Chinese characters**. IPKat, 20 May 2020, Available at: <https://ipkitten.blogspot.com/2020/05/bad-faith-grounds-for-invalidating-eutm.html> (Accessed 26 June 2021).

²³⁶

proxy for innovation. Such view is both inaccurate and misleading,²³⁷ although it has indeed been widely utilized by metrics and innovation indexes.²³⁸ This specific valuation process whereby more patents, trademarks, and others IPRs are seen as intrinsically positive features creates a stimulus for patent offices and countries to maximize the number of granted IPRs. This can be understood to be a misconception of what an IP office stands for, i.e. the public objective of assessing what deserves the exceptional monopoly rights, and targeting the public interest, and not amplifying the interest of applicants *per se*.²³⁹ Unsurprisingly, this trend has created incentives for local authorities in China to promote and exacerbate the number of IP filings to achieve better evaluation of their performance, even if the outcome of such policies was in fact unrelated to innovation levels.

The use of quantitative indicators has been identified as a much broader problem for policy and governance than the IP system.²⁴⁰ This includes the oversimplification of complex matters into seemingly neutral numbers, the insistence on ‘evidence-based’ data as opposed to qualitative studies,²⁴¹ and a hegemony of expertise and auditing as modes of authority that legitimizes certain policies,²⁴² at the expense of non-economic values and

²³⁷ For a critique, see KANG, Hyo Yoon. **Patents as Assets: Intellectual Property Rights as Market Subjects and Objects**. In: BIRCH, Kean; MUNIESA, Fabian (eds.). *Assetization: Turning Things into Assets in Technoscientific Capitalism*. Cambridge, MA: MIT University Press, 2020.

²³⁸ For a prominent example, see the WIPO Global Innovation Index – in which China rose very fast over the last decade. Such index, co-written by WIPO, INSEAD and Cornell University, uses the number of patents as one of the indicators for innovation. In economics and social sciences, patents have been used as proxies for innovation more directly, especially in topics not focused on IP.

²³⁹ For a discussion on the contemporary role of patent offices, see SANTA CRUZ, Maximiliano; OLIVOS, Catalina. **The Twenty-First Century Intellectual Property Office**. In: CORREA, Carlos; SEUBA, Xavier. **Intellectual Property and Development: Understanding the Interfaces**. Munich: Springer, 2019, p. 181-198.

²⁴⁰ See: SUPIOT, Alain. **SUPIOT, Alain. Governance by Numbers: The Making of a Legal Model of Allegiance**. London: Hart Publishing, 2017; for one insightful reflection on the area of university rankings, and how they create hierarchies, need an appearance of being factual, and how deploying them is a contributed to their legitimacy and self-reproduction, see: BRANCOVIC, Jelena. **The Absurdity of University Rankings**. LSE Impact Blog, 22 March 2021. Available at: <https://blogs.lse.ac.uk/impactofsocialsciences/2021/03/22/the-absurdity-of-university-rankings/>

²⁴¹ ‘Indicators are rapidly multiplying as tools for assessing and promoting a variety of social justice and reform strategies around the world. [...] There are increasing demands for “evidence-based” funding for nongovernmental organizations and for the results of civil society organizations to be quantifiable and measurable. The reliance on simplified numerical representations of complex phenomena began in strategies of national governance and economic analysis and has recently migrated to the regulation of nongovernmental organizations and human rights. The turn to indicators in the field of global governance introduces a new form of knowledge production with implications for relations of power between rich and poor nations and between governments and civil society. **The deployment of statistical measures tends to replace political debate with technical expertise**. The growing reliance on indicators provides an example of the dissemination of the corporate form of thinking and governance into broader social spheres.’ MERRY, Sally Engle. **Measuring the World: Indicators, Human Rights, and Global Governance**. *Current Anthropology*, Vol. 52, No. S3, 2011, pp. S92-S93.

²⁴² See, for an assessment of the private turn in international development finance: TAN, Celine. **Audit as Accountability: Technical Authority and Expertise in the Governance of Private Financing for**

interests.²⁴³ As posited by Sally Engle Merry:

‘Indicators produce readily understandable and convenient forms of knowledge about the world that shape the way policy makers and the general public understand the world. [...] The use of these statistical techniques, with their aura of certainty, is producing new knowledge of the social world and new opportunities for governance through self-governance. The expansion of indicator technology into new domains and spaces of governance is another way the corporate form is reshaping contemporary social life. [...] **As forms of knowledge, indicators rely on the magic of numbers and the appearance of certainty and objectivity that they convey.** A key dimension of the power of indicators is **their capacity to convert complicated contextually variable phenomena into unambiguous, clear, and impersonal measures.** They represent a **technology of producing readily accessible and standardized forms of knowledge.** [...] Indicators submerge local particularities and idiosyncrasies into **universal categories, thus generating knowledge that is standardized and comparable across nations and regions.** (MERRY, Sally Engle. *Measuring the World: Indicators, Human Rights, and Global Governance.* Current Anthropology, Vol. 52, No. S3, 2011, pp. S92-S93).

The abovementioned trend in China has clearly ascertained the quantification of IP as a measurement for innovation. As such, the huge growth in the number of patents has been utilized as evidence of the institutional development of the Chinese IP system, which has been clear in most official speeches on this area. All the elements pointed out by Sally Engle Merry can thus be identified: the aura of certainty, the conversion of the difficult issue of innovation into a simplified and readily available category, the creation of a generalizing universal category that can be compared across nations and regions.

The pitfalls of this quantitative evaluation mechanism have already been recognized by Chinese authorities. On 30 November 2020, president Xi Jinping delivered a speech at the 25th collective study session of the 19th Politburo, which dealt with the paths undertaken by China towards the consolidation of a robust IP system. It was published in early 2021 by Qiúshì Magazine (求是, ‘seeking truth’), an official journal for the CPP focusing on ‘theoretical’ articles. Entitled ‘Comprehensively strengthen the protection of intellectual property rights, stimulate innovation and promote the construction of a new development pattern’, the piece refers to innovation and the pivotal role of IP, as well as the need for China to strengthen its IP system as it becomes a creator of innovation and IP. In this context, it noted the following:

‘The quality and efficiency are not high enough, high-quality and high-value intellectual property rights are insufficient; the coordination between administrative law enforcement agencies and judicial agencies needs to be strengthened; intellectual property rights are still prone to infringement, easy to infringe, and difficult to protect rights, and violations

Development. *Social & Legal Studies.* February 2021.; for broader implications to the global economy, see: SASKEN, Saskia. **Expulsions: Brutality and Complexity in the Global Economy.** Cambridge: Harvard University Press, 2014.

²⁴³ PERRY-KESSARIS, Amanda. **Prepare your indicators: economics imperialism on the shores of law and development.** *International Journal of Law in Context*, Volume 7, Issue 4, December 2011, pp. 401-421.

of intellectual property rights appear. The characteristics of new-type, complexity, and high-tech; some companies use system loopholes to abuse intellectual property protection; market entities are obviously insufficient to deal with overseas intellectual property disputes, and Chinese companies' overseas intellectual property protection is not in place, and so on. [...] At present, my country is transforming from a big country in the introduction of intellectual property rights to a big country in intellectual property creation, and intellectual property work is shifting from the pursuit of quantity to the improvement of quality. We must proceed from the height of the national strategy and the requirements of entering a new stage of development, comprehensively strengthen the protection of intellectual property rights, promote the construction of a modern economic system, stimulate the innovative vitality of the whole society, and promote the construction of a new development pattern.' (XI, Jinping, 2020).

In view of this context, the CNIPA and the Chinese government have quickly moved away from the focus on the number of IP filings as a positive sign of development and the strength of the IP 'with Chinese characteristics' system and started implementing measures based on promoting and ensuring 'high-quality' IP. The idea of differentiating good from bad patent applications also conceals a certain (moral) value to it, but perhaps different from the general rhetoric of 'theft' and 'bad-faith' usually applied to China, as it can be found in other countries as well. The need to promote 'better quality' IP is a long-time concern for most IP offices and part of the official agenda item of WIPO's Standing Committee on the Law of Patents (SCP). It directly refers to the problems with the large number of IPRs that excessively block competition and impede innovation, uses by individuals and institutions, and largely harms the economy.

In order to curb the exponential surge in the number of patent and trademark applications, China has reoriented many of its policies to enhance the quality of patents. On 27 January 2021, CNIPA launched measures to end incentives for bad quality applications and others to also promote a more robust IP system in the quality sense, justified along the following lines:

Notice of the State Intellectual Property Office on Further Strictly Regulating Patent Application Behavior

[...] In order to thoroughly study and implement Xi Jinping's thoughts on socialism with Chinese characteristics in the new era, earnestly implement the decisions and deployments of the Party Central Committee and the State Council, and **earnestly promote our country's transformation from a major country in the introduction of intellectual property rights to a major country of creation, from the pursuit of quantity to quality improvement, in recent years, the whole system has been intensified.** The patent quality improvement project, local intellectual property departments at all levels strengthened the regulation of relevant support policies for patent applications, severely cracked down on irregular patent applications-related behaviors, and played an important role in stimulating and protecting innovation and promoting the high-quality development of intellectual property rights. However, **there are still some places where insufficient attention is paid to the requirements for high-quality patent development, poor implementation, and blind pursuit of quantitative indicators. Irregular patent applications that do not aim at protecting innovation still exist, seriously disrupting administrative order and harming public interests,**

obstructing enterprise innovation, wasting public resources, and undermining the patent system. In order to strictly implement the requirements for high-quality development, further regulate patent application behaviors, improve the quality of patent applications, and eliminate abnormal patent application behaviors that are not intended to protect innovation, the relevant matters are hereby notified as follows: [...] (CNIPA, 2021).

The document lists several concrete measures based on the following (although very general) points: (i) clear work objectives, (ii) grasp the work focus, (iii) strengthen work measures, (iv) strengthen collaborative governance, (v) improve working mechanisms, and (vi) promote the implementation of work. In practice, the elements set forth in the notice include incentives for local authorities to disclose irregularities, avoid measuring their performance via quantitative data (number of filed patents) and identify actors that misuse the patent system such by frivolously submitting patent applications, among others.

For example, under the topic ‘grasp the focus of work, the CNIPA notice refers to divisional patent applications, applications that are inconsistent with the applicant’s capabilities, filings by entities that resell patent applications ‘abnormally’ (suggesting abusive conducts like bad-faith trademarking), and even frivolous applications that clearly do not match the inventive step requirement, as well as general violations of good faith, as quoted:

2. Grasp the focus of work Those who implement the following irregular patent applications (hereinafter referred to as such applications) that are not for the purpose of protecting innovation shall be severely cracked down and dealt with in accordance with relevant laws, regulations and policies. (1) The six situations stipulated in Article 3 of the "Several Provisions Regarding the Regulation of Patent Application Behaviors" (Bureau Order No. 75 of the State Intellectual Property Office); (2) Units or individuals deliberately submit related patent applications in a scattered manner; (3) Units or individuals submit patent applications that are obviously inconsistent with their research and development capabilities; (4) Units or individuals resell patent applications abnormally; (5) Patent applications submitted by entities or individuals have technical solutions that implement simple functions with complex structures, use conventional or simple features to combine or stack, and other behaviors that are obviously not in line with the common sense of technological improvement; (6) Other acts that violate the principles of good faith stipulated in the Civil Code, do not comply with the relevant provisions of the Patent Law, and disrupt the order of patent application management. The above "units and individuals" include the same natural person, legal person, other organization and the same actual controller. (CNIPA, 2021).

Referring to these topics is important as similar issues have been faced by Western IP systems, particularly in terms of its anti-competitive implications. Recent scrutiny in conducts such as vexatious/sham litigation and abusive patent filing practices, such as evergreening, have also been addressed in other jurisdictions. The fact that China is actively pursuing a contention of such practices denotes something that is not exclusive to the IP ‘with Chinese characteristics’, but rather a trait that, as exposed, comes as a result of

IP policies that are purposely lax and permissive in the first place.

Other references in the CNIPA Notice, however, underpin two important aspects: firstly, the decentralized governance that is part of most, if not all, policies in China, which require leveraging and calibrating the behavior of local authorities, and secondly, a clear acknowledgement by the Chinese central government on the need to curb the administrative self-evaluation of its IP system on quantitative measurements. Consequently, some of the measures entail limitations to the use by certain departments to rely on quantitative data to assess their performance, in a way that it deters incentives to more patent applications without inventiveness.²⁴⁴ Another notable point is the oversight by local IP departments of all IP transactions, including contracts and licensing between entities.²⁴⁵ This does not necessarily mean a State intervention in technology transfer agreements or licensing of any kind, but is an example of the objective to have a degree of supervision over private transactions involving technology.²⁴⁶

In addition, all subsidies related to patent applications have been or are being terminated in China.²⁴⁷ Interestingly, this was also a longstanding demand by the USA and

²⁴⁴ See: '(1) Improve the scientific nature of assessment indicators. Local intellectual property departments at all levels must firmly establish the concept of high-quality development, actively coordinate relevant departments to further improve and improve the evaluation index system related to patent work, improve the scientific and effective evaluation, and verify and eliminate the evaluation indicators that are not in line with the actual growth rate. **To avoid using the number of patent applications as the main basis for departmental work evaluation. It is not allowed to set binding evaluation indicators for the number of patent applications, and it is not allowed to apportion the number of patent applications to localities, enterprises, agencies, etc. by means of administrative orders or administrative guidance.** The number of patent applications (including patent applications through the Patent Cooperation Treaty (PCT)) shall not be compared with each other. Once the above behavior is discovered, various titles and preferential policies, such as the qualifications for application of national intellectual property operation projects, the model cities granted by the State Intellectual Property Office, etc., shall be cancelled as appropriate.' CHINA NATIONAL INTELLECTUAL PROPERTY ADMINISTRATION (CNIPA). **Notice of the State Intellectual Property Office on Further Strictly Regulating Patent Application Behavior.** 27 January 2021. Available at: https://www.cnipa.gov.cn/art/2021/1/27/art_545_156433.html

²⁴⁵ See: '(5) Strengthen the regulation and supervision of patent transactions. Local intellectual property departments at all levels should implement the territorial supervision responsibility for regulating intellectual property transactions, resolutely curb patent application rights and patent rights transfers that are obviously not for the purpose of technological innovation and implementation, and provide support for the construction of intellectual property rights (patents) by government departments at all levels'. CHINA NATIONAL INTELLECTUAL PROPERTY ADMINISTRATION (CNIPA), *op cit*.

²⁴⁶ This is also not a Chinese exceptionalism, since many countries adopted similar policies with distinct regulatory tools. Brazil, for example, continues to require the registration of all technology transfer contracts, although with limited benefits. See generally: IDO, Vitor Henrique Pinto; NEDER CERZETTI, Sheila C.; PELA, Juliana K. **Technology Transfer.** In: DE FEYTER, Koen; ERDEM TÜRKELLI, Gamze; DE MOERLOOSE, Stéphanie. *Encyclopedia of Law and Development*, London: Edward Elgar, 2021.

²⁴⁷ See: '(2) **Adjust the patent funding policy. Before the end of June 2021, all levels of funding for patent application stages should be completely cancelled.** All localities shall not provide financial support for patent applications in any form such as subsidies, rewards, subsidies, etc. [...] **During the "14th Five-Year Plan" period, all localities will gradually reduce various types of financial assistance for patent authorization and cancel them all by 2025.** All localities should focus on optimizing the use and management of patent

the Chinese announcement of the subsidies' end took place a few weeks after a USPTO publication on the issue.²⁴⁸ This interplay, although not in a cause-consequence path, does denote the relevance of US pressure towards China policymaking in the field of IP. The persuasive role of American reports and arguments cannot be understated. Even if the interests of US businesses and States do not lead to an immediate adoption in China of such demands through legal norms and institutions, it is very clear that policymakers, academics, and the business environment in China constantly pay due attention to Western views. Regulating via strengthening IP legal institutions and implementing highly visible anti-counterfeit policies are at least partly an effort to counter these assumptions.

2.3.1. Consequences of Governance by Numbers: Quantification and the Problems of IP as Indicators of Innovation

Xi Jinping's 'Comprehensively strengthen the protection of intellectual property rights, stimulate innovation and promote the construction of a new development pattern', as noted in the previous subsection, marks a transformation of the Chinese approach to IP by focusing on the idea of 'quality' (in various ways, including securing the public interest and improving the examination of IP applications) rather than 'quantity'. The results are yet to be seen as of the conclusion of this thesis in July 2021, but the article proposes the following six main points which set forth the main ambitions for the contemporary and future 'IP with Chinese characteristics' – they are reproduced fully despite their length, given their

funding-related financial funds, strengthen the use of patent protection, and focus on increasing support for subsequent transformation and use, administrative protection, and public services.' CHINA NATIONAL INTELLECTUAL PROPERTY ADMINISTRATION (CNIPA), *op cit*. The termination of subsidies has also been reported in the specialized media. See, for example: WININGER, Aaron. **China to Cancel all Patent Subsidies.** China IP Law Update. 27 January 2021, Available at: <https://www.chinaiplawupdate.com/2021/01/china-to-cancel-all-patent-subsidies/>

²⁴⁸ The volume of trademark and patent applications filed in China has outpaced that of global competitors in recent years. Some observers view a country's trademark and patent application volume as a proxy for the intensity of its brand creation and innovation. Although numerical comparisons involving China may relate in some measure to its intensity in these areas, conclusions in this regard should not be reached without additional context. In China, nonmarket factors, including subsidies, government mandates, bad-faith trademark applications, and resulting countermeasures, substantially contribute to trademark and patent application activity. Absent consideration of the role of non-market factors, cross-border comparisons based on the raw number of trademark and patent applications risk overstating brand creation and innovation activity in China. These non-market factors are also undermining domestic and foreign registries, stretching the capacity of China's patent and trademark examiners and review authorities, and narrowing the scope of available protection for legitimate rights holders'. UNITED STATES PATENTS AND TRADEMARKS OFFICE (USPTO). **Trademarks and Patents in China: The Impact of Non-Market Factors on Filing Trends and IP Systems.** January 2021, Available at: <https://www.uspto.gov/sites/default/files/documents/USPTO-TrademarkPatentsInChina.pdf>

elucidative content:

1. **First, strengthen the top-level design of intellectual property protection.** It is necessary to accurately judge the new characteristics of the domestic and international situation and plan the protection of intellectual property rights. The purpose of protecting intellectual property rights is to encourage innovation, serve and promote high-quality development, and meet the needs of the people for a better life. We must promptly formulate a strategy for building a strong country with intellectual property rights, study and formulate national intellectual property protection and utilization plans during the "14th Five-Year Plan" period, and clarify goals, tasks, measures and implementation blueprints. **We must adhere to the principle of self-centeredness, the people's interests first, and fair and reasonable protection, which not only strictly protects intellectual property rights, but also prevents the excessive expansion of individual and corporate rights, so as to ensure both public interest and incentives for innovation.** It is necessary to strengthen the creation and reserve of independent intellectual property rights in key areas, and deploy a number of major reform measures, important policies, and key projects.
2. **Second, improve the level of legalization of intellectual property protection work.** A complete intellectual property law and regulation system and an efficient law enforcement judicial system are important guarantees for strengthening the protection of intellectual property rights. While strictly implementing the relevant provisions of the Civil Code, it is **necessary to speed up the improvement of relevant laws and regulations, coordinate and promote the revision of the patent law, trademark law, copyright law, antitrust law, and science and technology progress law to enhance the consistency between laws.** Legislation in areas such as geographical indications and commercial secrets must be strengthened. It is necessary to strengthen civil judicial protection and study and formulate litigation norms that conform to the laws of intellectual property cases. **It is necessary to improve the quality and efficiency of intellectual property trials and increase credibility.** It is necessary to promote the unification of intellectual property administrative law enforcement standards and judicial judgment standards, and improve administrative law enforcement and judicial linkage mechanisms. It is necessary to improve criminal laws and judicial interpretations and intensify criminal crackdowns. It is necessary to increase administrative law enforcement, and to address key areas and areas where public opinion is concerned, and infringements and counterfeiting are frequent. It is necessary to attack, rectify, and deter to the end.
3. **Third, strengthen the protection of the entire chain of intellectual property rights.** Intellectual property protection is a systematic project that covers a wide range of areas and involves many aspects. It requires comprehensive use of legal, administrative, economic, technical, and social governance, from **review authorization, administrative law enforcement, judicial protection, arbitration and mediation, industry self-discipline,** Improve the protection system in links such as citizen integrity, strengthen coordination and cooperation, and build a large-scale protection work pattern. It is necessary to open up the entire chain of intellectual property creation, use, protection, management, and service, improve the comprehensive management system of intellectual property rights, and enhance the ability of system protection. It is necessary to coordinate the work of intellectual property protection, anti-monopoly, and fair competition review, and promote the independent and orderly flow and efficient allocation of innovative elements. It is necessary to form an intellectual property public service system that is convenient for the people, build a national intellectual property big data center and public service platform, and disseminate intellectual property information in a timely manner, so that the innovation results can better benefit the people. It is necessary to strengthen the construction of intellectual property informatization and intelligent infrastructure, **strengthen the application of information technologies such as artificial intelligence and big data in the field of intellectual property review and protection,** and promote the integrated development of intellectual property protection online and offline. It is necessary to encourage the establishment of a self-discipline mechanism for intellectual property protection and promote the establishment of a credit system. **It is necessary to strengthen the publicity and education of intellectual property protection, and enhance the awareness of the whole society to respect and protect intellectual property rights.**
4. **Fourth, deepen the reform of the intellectual property protection work system and**

mechanism. Since the 18th National Congress of the Communist Party of China, we have deployed and promoted a series of reforms in the field of intellectual property rights. We must continue to implement them well to achieve system integration and coordinated advancement. It is necessary to study the implementation of differentiated industrial and regional intellectual property policies, and improve the intellectual property review system. It is necessary to improve the intellectual property protection system in new fields and business forms such as big data, artificial intelligence, and genetic technology, and timely study and formulate protection methods for traditional culture, traditional knowledge and other fields. It is necessary to deepen the reform and innovation in the field of intellectual property adjudication, improve the intellectual property litigation system, improve technical intellectual property adjudication, and implement the punitive compensation system for intellectual property infringement. It is necessary to improve the intellectual property evaluation system, improve the intellectual property ownership system, and study and formulate related systems to prevent the abuse of intellectual property rights.

5. **Fifth, coordinate the promotion of international cooperation and competition in the field of intellectual property rights.** Intellectual property rights are the core element of international competitiveness and the focus of international disputes. We must dare to fight, be good at fighting, never give up our legitimate rights and interests, and never sacrifice the core national interests. We must uphold the concept of a community with a shared future for mankind, adhere to the principles of openness, inclusiveness, and balanced inclusiveness, deeply participate in global intellectual property governance under the framework of the World Intellectual Property Organization, promote the improvement of intellectual property and related international trade, international investment and other international rules and standards, and promote The intellectual property governance system is developing in a more fair and reasonable direction. **It is necessary to expand channels and methods of influencing international public opinion on intellectual property rights, tell the story of Chinese intellectual property rights, and showcase the image of a civilized and responsible country.** It is necessary to deepen cooperation with countries and regions along the "Belt and Road" in the joint construction of intellectual property rights and promote knowledge sharing.
6. **Sixth, safeguard national security in the field of intellectual property rights.** As I said, **external transfer of intellectual property rights must adhere to the overall national security concept.** It is necessary to strengthen independent research and development and protection of key core technologies related to national security, and to manage the transfer of intellectual property rights related to national security in accordance with the law. It is necessary to improve laws, regulations, and policy measures related to intellectual property anti-monopoly and fair competition, and form legitimate and powerful restraints. It is necessary to promote the extraterritorial application of my country's intellectual property laws and regulations, and improve cross-border judicial coordination arrangements. It is necessary to form an efficient early warning and emergency response mechanism for international intellectual property risks, build a system for the prevention and control of foreign intellectual property risks, and increase assistance for overseas intellectual property rights protection of Chinese enterprises. (Emphases added; XI, Jinping, 2021)

This section focuses on the analysis of three aspects that are the most relevant to reflect on the content and scope of this new approach, that highlight some of the key legal and policy challenges.

2.3.2.1. The Maximalist Trend: TRIPS-Plus Provisions vs. Flexibilities

China has amended virtually all legal instruments pertaining to IP between 2018-2021: Patent Law, Copyright Law, Trademarks Law, Industrial Designs Law, Plant Varieties

Protection Law, Unfair Competition and Trade Secrets Law, Anti-Monopoly (Competition) Law, Contracts and Torts (under the new Chinese Civil Code of 2020, substituting the ‘general civil law provisions’), as well as other legislations which have IP implications, including the Cybersecurity Law (2017), the E-Commerce Law (2020), the Export Control Law (2020), the Anti-Foreign Sanctions Law (2021), and the Data Security Law (2021).²⁴⁹ A Personal Information Protection Law is expected to be approved until the end of 2021.²⁵⁰

These reforms largely adopt TRIPS-Plus measures of all sorts, including:

- a) data exclusivity rights for pharmaceuticals in addition to patent rights (including 12 years of exclusivity for biological products),
- b) patent linkage between regulatory market approval and a patent term,
- c) patent term extension/compensation for delays in patent application procedures,
- d) vast neighboring rights for copyrights and presumption of authorship,
- e) stringent enforcement and border measures such as the swift destruction of counterfeited goods via streamlined judicial and administrative proceedings,
- f) the shift of the burden of proof to the defendant in IP infringement claims,
- g) a comprehensive scope of protection under the concept of trade secrets,
- h) protection of non-traditional trademarks, such as sound marks,
- i) protection for unregistered designs under industrial design laws,
- j) protection of plant variety protections under UPOV 1991.

TRIPS-Plus provisions have been a consistent push by countries/regional blocs such as the USA, the EU, and the European Free Trade Association (EFTA, comprising Switzerland, Norway, Iceland, and Liechtenstein) in free trade agreement (FTA) negotiations, which impose the adoption of standards beyond those agreed by the TRIPS

²⁴⁹ For the most up-to-date and thorough analysis of such recent changes, see COHEN, Mark. **China IPR Blog**. Available at: <https://chinaipr.com/>

²⁵⁰ See: ‘In late April, China unveiled the second draft of the country's privacy law, the Personal Information Protection Law, for public comment. The law is expected to pass by the end of the year, and would shield Chinese internet users from excessive data collection and misuse of personal data by tech companies — and even, to some extent, by the government. The new law, similar to the European Union's General Data Protection Regulation, will give individuals the power to know how their personal data is being used and to consent to it. "It's a good law," Jeremy Daum, a senior fellow of the Yale Law School Paul Tsai China Center, told Protocol. "We tend to think of China as not being overly concerned with privacy, and that's just wrong ... There's a growing expectation of privacy in the Chinese public, and the government is responding to it by passing high-level authority to try and ensure some protections.’ SHEN, Lu. **China Could Soon Have Stronger Privacy Laws than the US**. Protocol, 8 May 2021. Available at: <https://www.protocol.com/china/china-privacy-laws-surpass-usa>

Agreement.²⁵¹ Their constraining and negative impacts, particularly to access to medicines, have been well-documented and empirically verified in other countries over the last decades. As the previous sections elucidated, in the case of China, the most recent TRIPS-Plus provisions are a direct outcome of the US-China Phase One Agreement and China's new interest in adopting very stringent IP requirements for its own economy, which means they have been a 'double-edged sword' for China, as noted by Han Bing.²⁵²

At the same time, some important TRIPS flexibilities have been retained in these new legislations, such as compulsory licensing, research exceptions for patent rights (which enable companies and research institutes to conduct research prior to the expiry of a patent),²⁵³ the legality of parallel imports – although oppositions based on trademarks are allowed – which improve competition,²⁵⁴ as well as copyrights exceptions and limitations for educational and research purposes. Importantly, these had been included in the 2009 Amendment to the Patent Law and the 2010 Amendment to Copyright Law; they were not part of Chinese domestic law prior. The compulsory licensing regime of 2009 is robust and attuned to public health needs;²⁵⁵ it was based on a thorough study on other countries

²⁵¹ Among them, see generally: SELL, Susan. **TRIPS-Plus Free Trade Agreements and Access to Medicines**. *Liverpool Law Review*, 28, 2007, p. 41-75; MORIN, Jean-Frédéric; THÉRIAULT, Dimitri. **How Trade Deals Extend the Frontiers of International Patent Law**. CIGI Papers No. 199, November 2018.

²⁵² BING, Han, **TRIPS-plus Rules in International Trade Agreements and Access to Medicines Chinese Perspectives and Practices**. Boston University Global Economy Governance Initiative Working Paper 049, 04/2021

²⁵³ From a critical perspective to the broad scope of China's bolar exception, see: COHEN, Mark. **China's 'Naked' Bolar Exception and the Tapering Momentum to Protect Innovative Pharmaceuticals**. *China IPR*. 17 September 2019. Available at: <https://chinaipr.com/2019/09/17/chinas-naked-bolar-and-the-tapering-momentum-to-protect-innovative-pharmaceuticals/>; for a comparative counterpoint that considers the necessity to maintain safeguards and an open bolar exception, see: MUÑOZ-TELLEZ, Viviana. **Bolar Exception**. In: CORREA, Carlos; HILTY, Reto (eds), *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

²⁵⁴ See: 'In China, Article 69 of the Chinese Patent Law provides that the following shall not be deemed to be patent right infringement "(1) after a patented product or a product directly obtained by using the patented method is sold by the patentee or sold by any unit or individual with the permission of the patentee, any other person uses, offers to sell, sells or imports that product."⁸⁰ Previously, under the rule of the Patent Law of China of 1985, the applicable rule was national patent exhaustion. This was changed, however, with the entry into force of new 2008 Patent Law, which provides for international patent exhaustion. [...] Notably, under the rule of several national trademark laws—the U.S., Canada, India, China, Korea, Singapore, amongst others—IP holders can oppose parallel imports under a regime of international exhaustion when the quality of the imported products is different of those sold nationally, even if the products are genuine and were first marketed by IP holders in foreign markets.' CALBOLI, Irene. **Intellectual Property Exhaustion and Parallel Imports of Pharmaceuticals: A Comparative and Critical Review**. In: CORREA, Carlos; HILTY, Reto (eds), *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

²⁵⁵ For an analysis of the criteria of prior negotiation for a CL, and how this was subject to changes and discussions in China, see: LIN, Xiuqin. **Prior Negotiation and Remuneration for Patent Compulsory Licensing: Practice, Problem, and Proposal**. In: HILTY, Reto M.; LIU, Kung-Chung. *Compulsory Licensing: Practical Experiences and Ways Forward*, MPI Studies on IP and Competition Law. Berlin: Springer, 2015, p. 166-190.

legislations by the State Intellectual Property Office (SIPO, now CNIPA) – on the other hand, the provision was never implemented.²⁵⁶ Such flexibilities are in fact still not part of many developing countries’ domestic laws, which highlights the gaps in the way countries effectively implement TRIPS flexibilities. Chapter 4 will delve more specifically into the issue of TRIPS flexibilities for public health and its impacts to access to medicines.

Moreover, within this framing, China presents other forms of ‘flexibilities’, not in the strict sense of how the term has been conventionally used, but in the way IP intersects with innovation and industrial policies. Forms of regulation of copyright management societies, price and distribution regulation for pharmaceuticals, and specific financial incentives for certain industries such as quantum computing technologies may be interpreted as manners to balance the protection of IP with other policies and advance the objectives of the TRIPS Agreement:

‘Article 7. The protection and enforcement of intellectual property rights should contribute to the **promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.**’ (emphasis added; TRIPS, 1994)

In a similar regard, Angela Zhang has carefully described how the use of antitrust in China can be defined as ‘exceptional’, while instruments such as media shaming are used as part of antitrust policy.²⁵⁷ The anti-monopoly system has also been reformed in 2018 to unify different agencies in one comprehensive body, and its role has steadily increased over the last years.²⁵⁸ Contemporarily, firms in China compete fiercely, including SOEs between each other. There is a specific coordination between the State and the market in China which makes the economic system indeed particular in comparison with Western economies. However, this refers to a system which cannot be generalized neither as pure direct State control over firms nor a pure market economy.²⁵⁹ Failing to understand such particularities may impede a thorough assessment of the real impact of the aforementioned TRIPS-Plus measures and the implementation of flexibilities in China, given such specificities.

Beyond the issue of public health, there are a few notable aspects of the contemporary IP ‘with Chinese characteristics’. For example, the approach on the issue of traditional knowledge and genetic resources is remarkably divergent from the position of

²⁵⁶ Interview, June 2021.

²⁵⁷ ZHANG, Angela. **Chinese Antitrust Exceptionalism: How the rise of China challenges global regulation.** Oxford: Oxford University Press, 2021.

²⁵⁸ ZHANG, Angela. *Op cit.*

²⁵⁹ See generally: WU, Mark. **The ‘China, Inc.’ Challenge to Global Trade Governance.** Harvard International Law Journal, 57, 261, 2016.

developed countries.²⁶⁰ Chinese Patent Law accommodates a protection for GRs and TKs based on the mandatory disclosure requirement in patent applications which make use of them, with a particular aim to protect Chinese traditional medicine. In close relation to the topic, China has longstanding provisions with respect to the patentability of traditional Chinese medicine (TCM), which is focused both on the protection against foreign misappropriation but also on promoting patents in the sector as a way to achieve economic development of the sector.²⁶¹ In this regard, patents on formulations and combinations based on TCM are usually allowed under Chinese law and practice – although they often clash with some of the very principles of TCM, since the formulation varies according to each patient and is constantly shifting.

The notion of TRIPS flexibilities stresses the fact that countries have policy space to carve out policies in accordance with their national objectives. This is a freedom which is safeguarded under the minimal standards imposed by the TRIPS. In this sense, it does not entail uniformization but rather the possibility of diversity in approaches. It also means that although countries may adopt stringent commitments in IP law via FTAs and other agreements (the US-China Phase One Agreement being one prominent example), the exact implementation continues to be subject to national decisions and policies. In such sense, the most recent IP policies in China that aim at fostering more quality IP may have the potential to curb the overexpansion of the TRIPS-Plus commitments in various ways. Concretely, this may entail, among others, a more stringent control of patent and trademark applications to avoid granting rights to abusive entities and/or applications without real inventiveness/originality (for example, via robust patentability criteria), and to safeguard the public interest by combatting illegal and anticompetitive practices (for example, via increased scrutiny of antitrust authorities). These attempts also limit, at least to a certain extent, the impact of certain TRIPS-Plus provisions. Xi Jinping's 2020 speech, mentioned above, is elucidative in this regard when it refers to:

‘We must adhere to the principle of self-centeredness, the people's interests first, and fair and reasonable protection, which not only strictly protects intellectual property rights, but also prevents the excessive expansion of individual and corporate rights, so as to ensure both public interest and incentives for innovation.’ (XI, Jinping, *op cit*, 2021 [2020]).

²⁶⁰ For an overview of the IP issues on TK, see: CORREA, Carlos. **Protection and Promotion of Traditional medicine: Implications for Public Health in Developing Countries**. South Centre, 2002.

²⁶¹ CHEN, Yifu. **Traditional Chinese Medicines and Patent Law**. In: LI, Yahong. *Patents and Innovation in Mainland China and Hong Kong: Two Systems in One Country Compared*. Cambridge: Cambridge University Press, 2017, p. 106-126; JIANG, Jessie. **Patents: Protecting China's National Treasure**. Nature: 480, S93, 2011.

That said, the continued maximalist view expressed by judicial authorities, IP scholars and most of the other stakeholders in China, offers little expectation of such policies to be fully implemented. For example, China's position with regards to pharmaceutical patents is relatively lax and the CNIPA (confirmed by the Supreme People's Courts judicial interpretation) generally grants various secondary patents such as for combinations, salts, second uses of known substances, and Markush claims, among others.²⁶² In this sense, there is yet no concrete evidence that the announced policies will substantially limit the impact of TRIPS-Plus provisions.

The proliferation of patents substantially reduces the freedom to operate (FOT) for competitors, which are under constant risk of infringing – even if laterally and indirectly – existing patents. The more patents, and the more patents with wide scope of protection, the more legal risks there are for competitors. Making a real assessment of a patent landscape regarding certain technologies is a complex and costly task, which requires comprehensive databases that are often neither in the public domain, nor complete. Patents are filed and their procedures are kept secret for up to 18 months, patent claims do not reflect names or exact uses applied in industries, and the scope of a patent may end up being much broader than originally intended. A medicine, for example, is not protected by *one* single patent, but multiple potential patents, which may cover, among others, the active ingredient, the various processes for its manufacturing, raw materials, devices to be utilized, and 'base' technological platforms. Patent litigations are often highly complex and dependent on interpretations regarding the exact scope of existing patents. If in addition to this difficulty there is a high imposition of damages in case of infringement, lawful generic competition is drastically restrained.

In many jurisdictions, the degree of specialization for such cases has required specific exams and licenses for attorneys to undertake patent litigation – e.g., USA, EU and Japan, usually requiring 'technical' background in areas such as engineering and/or chemistry. In other countries, there is no specific 'career' for patent litigations, but inevitably the support of experts from non-legal areas is needed for patent cases. In parallel, this leads to a discussion on the adequacy of specialized IP courts, administrative appeal proceedings within IP offices, and even separate legal and administrative systems for IP enforcement and

²⁶² For a thorough analysis of patentability criteria in the pharmaceutical sector, see: CORREA, Carlos. **Guide for the Examination of Patent Applications Relating to Pharmaceuticals: Examining Patents from a Public Health Perspective**. United Nations Development Programme (UNDP), 2016.

adjudication.²⁶³ The maximalist trend in IP, and patent matters more specifically, tends to reinforce these highly specialized and technical – and also costly – model for Chinese stakeholders.

In addition, the adoption of TRIPS-Plus provisions in the recent legislation reforms may benefit rightsholders to such an extent that it may not be possible for any such other policies to overcome their potential negative consequences. To give one prominent example: the Chinese Patent Law was firstly enacted in 1985, and subsequently amended in 1992, 2000, 2008, and in October 2020. The latest amendment came into force in June 2021, and it was the first time the Patent Law included a provision setting punitive damages for patent infringement:

Patent Law (as amended in 2020), Article 71: The damages for a patent infringement shall be determined according to the actual loss suffered by the right holder due to the infringement or the benefits obtained by the infringer from the infringement. [...] **For intentional infringement of patent rights, if the circumstances are serious, the amount of compensation may be determined at more than one time and less than five times the amount determined according to the above method.** (emphasis added, PEOPLE’S REPUBLIC OF CHINA, 2020).

A longstanding criticism from the perspective of foreign patent holders has been the low amount for compensations in the case of infringements in China. Statutory damages defined pre-set amounts which were considerably lower than in Western jurisdictions and even in some developing countries such as Brazil. Although never explicitly acknowledged by the Chinese government, this created incentives for national competitors to have more freedom in using technologies potentially protected by patents for their own products and processes. For the critics, this was a protectionist measure that *de facto* hampered the validity of patents and legitimized illegal copies. Adopting punitive damages is one response to this perceived issue but may also, in the context of patent proliferation and technical expertise mentioned above, be excessively restraining for smaller companies and start-ups, for instance, who may not borne costs of expensive litigation.

There is also another crucial element to the newly amended Patent Law, which refers to the stringency of protection for biologicals. For the past decades, provisions of ‘data exclusivity’ requirements have been pushed in particular by the United States and the

²⁶³ See DE WERRA, Jacques, **Specialised Intellectual Property Courts - Issues and Challenges**, in: CEIPI-ICTSD. *Specialised Intellectual Property Courts - Issues and Challenges, Global Perspectives for the Intellectual Property System*, Issue Number 2: 2016, p. 15-41; for a critical appraisal of the recent IPAB experience in India, see: SRIDEVAN, Prabha. **Is the Right to Exclusivity a Hamlet Question?** SouthViews, No. 207, 28 September 2020. Available at: <https://www.southcentre.int/wp-content/uploads/2020/09/SouthViews-Sridevan.pdf>

European Union.²⁶⁴ China has had them since the 1992 amendment (therefore even prior to TRIPS). But with this latest amendment, the country now grants 12 years of data exclusivity protection for biological products – a maximalist standard that only finds equivalent in the US domestic legislation, putting it at the highest stringent global level found on this matter. For comparison, this is higher than what is found in the EU law (5 years) and even above the standard contained in the recent USMCA (also known as CUSMA in Canada) between US, Canada, and Mexico.

At the same time, to insist on a key point of this chapter, the introduction of such a provision can no longer be explained only in terms of foreign pressure. In China, the biotechnological sector is – as noted before – one of the key areas for industrial policies and for the broader development strategy of the Central Government. Chinese biotech firms increase their market share at an extremely fast pace and the overall investment in biotechnology research and development (R&D), with strong governmental public support, is extremely high. Chinese biotech firms do not aim at overcoming India as the ‘pharmacy of the developing world’; they aim at competing with Western and Japanese Big Pharma, and many large groups such as Shanghai Pharmaceuticals, Fosun Pharmaceuticals and Kangmei Pharmaceuticals have had steady increase over the last decades in size and R&D.

The assumption would therefore be that the benefits to such companies would offset the detrimental consequences by the monopolies of foreign companies. However, the current level of biotechnology in China is not yet ‘at the same level’ as that of Western countries.²⁶⁵ For example, Sinovac, Sinopharm and Cansino were at the forefront of vaccine development for Covid-19 with Chinese-developed technologies, but with the use of traditional and well-known technology platforms of inactivated viruses – unlike Oxford/Astrazeneca and Novavax’s adenovirus vectors, or Pfizer/BioNTech and Moderna’s mRNA, which are ‘newer’ technology platforms. All the Chinese companies will largely benefit from the exclusivities of 12 years for biologicals (vaccines, for example, are biological products) but will also be affected by it. No matter what policies are implemented and what interpretations are adopted in future litigations, this provision may prove to be very restrictive to Chinese companies. Furthermore, from the point of view of access to medicines, this raises growing concerns about the impact on affordability and availability.

²⁶⁴ CORREA, Carlos. **Mitigating the Regulatory Constraints Imposed by Intellectual Property Rules under Free Trade Agreements**. Research Paper No. 74, Geneva: South Centre, February 2017.

²⁶⁵ For a critical analysis, see YU, Peter K. **China's Innovative Turn and the Changing Pharmaceutical Landscape**. University of the Pacific Law Review, Vol. 51, pp. 593-620, 2020

With respect to copyright law, as noted above, China contains provisions of copyrights exceptions and limitations that comprise educational and research purposes. One economic and industrial dimension of these norms is how crucial they are to the development of the AI industry and other frontier technologies, based on the applicability of such exceptions and limitations for the use of text and data mining (TDM).²⁶⁶ Since AI is highly dependent on large sets of data for training, testing, and benchmarking, access to data is essential. The EU 2019 Directive on Copyrights for the Digital Single Markets included a TDM as a core exception precisely in view of such need. Similar provisions also exist in the USA and Japan, other countries with highly developed AI industries. This is a clear example of a pro-development copyright policy that is attuned to certain industrial policies.²⁶⁷ Furthermore, data is often found across various forms of databases, which may be copyrighted. While the EU has a specific *sui generis* rights for databases, China and other countries have not followed such an approach.

Another pivotal area is trademarks. It relates to most of the early complaints against China²⁶⁸ but also some nuances that are directly related to how the IP system was historically unfit to address particularities of non-Western countries, such as the translation of brands into Chinese. The 2019 revision of the Trademark Law included an amendment to curb the already-mentioned bad faith trademarking practices: Article 4 stipulates that applications not for the purpose of their use are not to be granted. In one ongoing landmark case, multiple trademarks from American cosmetics brand Victoria's Secret were filed by a single Chinese firm, subsequently selling them online.²⁶⁹ The lax standards for trademarking by the CNIPA have been a window of opportunity for business models entirely based on filing trademarks and later selling them.²⁷⁰ This trend finds a parallel with cybersquatting

²⁶⁶ See generally: FLYNN, Sean; GEIGER, Christophe; QUINTAIS, João Pedro; MARGONI, THOMAS; SAG, Matthew; GUIBAULT, Lucie; CARROLL, Michael W. **Implementing User Rights for Research in the Field of Artificial Intelligence: A Call for International Action**. Joint PIJIP/TLS Research Paper Series 48, 2020.

²⁶⁷ See, for a critical analysis of the EU Directive, arguing for a 'more ambitious reform' acknowledging the importance of TDM for the age of big data: GEIGER, Christophe; FROSIO, Giancarlo; BULAYENKO, Oleksandr. **Text and Data Mining in the Proposed Copyright Reform: Making the EU Ready for an Age of Big Data?** 48 IIC - International Review of Intellectual Property and Competition Law, 2018.

²⁶⁸ Under the 'Made in China' model, the issue of counterfeiting has been at the core of IP policies in the country. However, this goes beyond the trademark system in the PCR, since the majority of the products was aimed at exports to other countries, engendering complex issues of international trade, border, and customs measures to enforce IP, and the possibility to recur to courts based on infringement claims.

²⁶⁹ See: MAK, Toby. **China: Victoria's Secret Service Mark**. Mondaq, 30 May 2018. Available at: <https://www.mondaq.com/china/trademark/706040/victoria39s-secret-service-mark>

²⁷⁰ For a summary of practical issues with bad-faith trademarking in China from the perspective of rightsholders, dividing into the 'extortionist', the counterfeiter, the competitor, the 'helpful' supplier, and the 'coincidental copycat', see: ROCAFORT, Fred. **How to Fight Back Against China Trademark Squatters**. 5

and domain name registrations by abusive entities which later request payments for having access to the DNS ‘back’. These practices have not exclusively originated in China, but rather come as a result of IP policies which grant unmerited applications protection.

It should be stressed however that cases of bad faith trademarking have been a longstanding problem for other IP systems as well. They are not exclusive to Chinese entities with explicitly illicit practices. Global luxury brand Louboutin, famous for its red solaced shoes (and the attempts to trademark the color in various jurisdictions, which have led to numerous litigations and divergent outcomes), has registered trademarks for lipsticks and other cosmetics, which are outside of its business practices. Trademarking on pills and packages may hinder access to medicines, and aggressive enforcement tactics create barriers for lawful competitors.²⁷¹ This has also been deemed a bad faith trademarking practice in China.

Although the inclusion of Article 4 in the amended Chinese Trademark Law is positive to countering such trend, it does not fully solve the problem of trademarks without real added originality and distinctiveness if it is not associated to changes in the administrative guidelines and policies. To draw a parallel with patent policies, if the standards of patentability are rigorous, then frivolous and undeserving applications are not granted a patent protection. If they are lax, or if the procedures do not give examiners enough time for a rigorous assessment, the tendency is for many unworthy applications to receive exclusivity rights that block competition and restrict access. In the case of trademarks, it would also be suitable to enhance the standards of how the standards of originality and distinctiveness are evaluated by the CNIPA, which comes from policies and regulations that are not yet there.

Another aspect of this policy is the strong reliance on criminalization of counterfeiting practices as a policy. This is based on the potential of deterring and preventive effects of criminal sanctions, a very clear policy that China also adopts with respect to combatting high-level corruption and drugs, but also criticized for its political use against opponents, its little *de facto* efficacy in comparison with other forms of measures for criminal

October 2020, Available at: <https://harrisbricken.com/chinalawblog/how-to-fight-back-against-china-trademark-squatters/>; for a broader perspective on how the US-China dispute may lead to changes in the Chinese IP system that - again, from the point of view of applicants and rightsholders - may include good faith provisions, see: COHEN, Mark. **The Good Faith Elephant in the IP Trade War**. China IPR, 21 January 2019, Available at: <https://chinaipr.com/2019/01/21/the-good-faith-elephant-in-the-ip-trade-war/>

²⁷¹ See: CALBOLI, Irene. **Intellectual Property Exhaustion and Parallel Imports of Pharmaceuticals: A Comparative and Critical Review**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

prevention, and a more fundamental criticism on the use of criminal law and justice to achieving certain goals. Chinese criminal law continues to contain very little basic safeguards such as presumption of innocence and transparency for most decisions. The tendency to strengthen IP enforcement via increased criminalization is a matter of concern to the extent which amply prioritizes the symbolic and general deterrence to justify criminal law.²⁷² For this reason, the Chinese State routinely refers to the strengthening of criminal prosecution rates and sanctions to highlight its commitment against counterfeit trademarked products, and these are also reflected in the legislative amendments.

Overall, it can be argued that Chinese policymakers expect that TRIPS-Plus provisions such as the ones listed above be in line with the country's current technological capacity and in the general interest of its companies. By protecting IP to such extent, they will also promote innovation and socio-economic welfare; it also expects that the TRIPS flexibilities and other regulatory tools available to the Chinese State, some of them unique to China, may be sufficient to counter detrimental consequences of stringent IP norms but also continue existing industrial policies to a large extent.²⁷³ This expectation is however aligned with the assumption that more stringent IP will be always conducive to innovation, which is inaccurate. This is an underpinning issue that justified the logic of TRIPS-Plus in the first place, a premise that is at odds with the needs to ensure public interest and competition. In fact, these IP norms, even if they benefit certain companies, do not consider other relevant interests such as those of communities and the issue of how to ensure access.²⁷⁴ Even the announced policies for improving 'quality' of IP are insufficient and limited to that aim. Although China never wished to portray itself as a leader of developing countries or the global south, the new maximalist trend found across its different IP laws and policies may be a 'missed opportunity' for reshaping the global IP order.

²⁷² As recalled by Rosana Pinheiro-Machado, the criminalization of piracy and of certain subjects in the 'informal' economy has been steadily growing as the IP as a discourse establishes itself: 'Consequently, while much has been achieved toward a positive agenda of copyrights and patents, low-income groups who produce or trade commodities that are targeted by trademark associations remain invisible to the activists' gaze, and they tend to suffer the worst consequences of the global enforcement against piracy endorsed by nation-states'. In addition, she notes how anthropology has widely contested the criminalization of counterfeits and their alleged association, among others, with criminal gangs or networks. PINHEIRO-MACHADO, Rosana, **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018, p. 12-13.

²⁷³ See also Chapter 4 on the politics of pharmaceutical patents in China.

²⁷⁴ For a distilled analysis of the issue, see: VAWDA, Yousuf A.; BAKER, Brook. **Achieving social justice in the human rights/intellectual property debate realizing the goal of access to medicines**. African Human Rights Law Journal, Vol. 13, N. 1, 1 January 2013; see also KAPCYZNSKI, Amy. **The Right to Medicines in an Age of Neoliberalism**. Humanity: An International Journal of Human Rights, Humanitarianism, and Development. University of Pennsylvania Press, Vol. 10, N. 1, Spring 2019, p. 79-107;

2.3.2.2. The Prominent Role of Judicial Authorities and Specialized IP Courts

‘Since the 18th National Congress of the Communist Party of China, the CPC Central Committee has put the protection of intellectual property rights in a more prominent position, and issued the "In-depth Implementation of the National Intellectual Property Strategy Action Plan (2014-2020)" and the "State Council's Regarding Accelerating Intellectual Property Power in the New Situation A series of decision-making deployments such as "Several Opinions on Construction", "Thirteenth Five-Year Plan for National Intellectual Property Protection and Application" In this reform of the party and state institutions, we established the State Administration for Market Supervision and reorganized the State Intellectual Property Office to achieve centralized and unified management of intellectual property categories such as patents, trademarks, and geographical indications of origin. **We have established intellectual property courts in Beijing, Shanghai, and Guangzhou, and the Supreme People's Court has established intellectual property courts to hear patent and other technical intellectual property appeals across the country, and establish a professional intellectual property trial system.**’ (XI, Jinping, 2021).

The role of courts in IP law has increased over the last decades. Courts delineate the exact contours of IP during its implementation, including the validity of patentability criteria and its exclusions from subject matter (e.g., patenting of life forms), the conditions for the granting of injunctions and other judicial relief measures (e.g., if an infringement claim may lead to an automatic injunction to apprehend goods or if a more careful analysis should be undertaken), what constitutes abusive/anti-competitive conducts (e.g., pay-for-delay agreements, sham litigations, abusive patent filings such as evergreening and divisional patents), among others. These are also subject to the scrutiny of other institutions, especially IP offices, administrative border and enforcement authorities, and competition authorities, but courts play a key role in reviewing or sometimes replacing them. As such, even if courts do not acknowledge such a role, they shape markets when deciding or refraining from adjudicating; they are simultaneously influenced by various economic interests, directly and indirectly.²⁷⁵

In some jurisdictions, such as the US, this role has been paramount: the US Supreme Court routinely adjudicate IP and patent cases, and specialized courts are a crucial part of shaping IP law. US IP law also enables courts to assess both the validity of a patent and its enforcement during a same proceeding – in many other jurisdictions, enforcement

²⁷⁵ SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Courts and Pharmaceutical Patents: From Formal Positivism to the Emergence of Global Law.** In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law.* Munich: Springer, forthcoming in 2021.

courts and those which may decide upon validity of patents are distinct. Apart from the precedential value under common law, the idea of specialized courts is to provide better results in addressing highly technical cases such as chemical and pharmaceutical disputes. On the other hand, there are concerns about regulatory capture, a pro-IP bias by courts which were designed to enhance IP protection,²⁷⁶ and risks of forum shopping to the detriment of other jurisdictions. For example, since 2020 and due to the nomination of one specific judge, the Waco Division of the Western District in Texas accounts for a hugely disproportionate amount of patent cases filed in the US, raising concerns of extreme forum shopping and calls for reforms of the system.

From the perspective of rightsholders, it is usually perceived that the more streamlined, affordable, and fast the procedures to seek judicial relief, the better. The creation of specialized IP courts, especially in developing countries, often responds to demands of rightsholders, with the assumption that such institutions are supposed to be more technically precise but also fast and responsive to private rights, and that by so doing they contribute to the promotion of ‘rule of law’ and institutional building of the IP system.²⁷⁷ For this reason, they are also criticized for a biased pro-private rights structure and ideology, although this is not always the case. Specialized IP courts may also be more prone to regulatory capture and revolving doors, although they may also be necessary improvements in a context where general courts do not have any expertise in IP matters at all.

But in addition, if decisions are excessively accessible and accelerated, ‘IP wars’ between entities are stimulated, which directly harms competition, and abusive practices such as sham litigation are incentivized. Furthermore, enforcement and judicial systems designed to protect the interest of rightsholders without public interest consideration have led to decisions which unduly restricted circulation and transiting of legitimate generic drugs,²⁷⁸ while copyright enforcement decisions on the Internet have also removed lawful

²⁷⁶ This is also related to the hegemony of law and economics as a methodology for assessing IP law in the US, a trend which would later be replicated globally and also influential in China. For an empirical evidence of the correlation between the use of economic tools and pro-business decisions in US antitrust, see: CAO, Siying. **Quantifying Economic Reasoning in Court: Judge Economic Sophistication and Pro-Business Orientation.** 2020. Available at: https://www.econ.cuhk.edu.hk/econ/images/content/news_event/seminars/2020-21_2ndTerm/JMP_CaoSiying.pdf

²⁷⁷ See generally: CORREA, Carlos. **The Push for Stronger Enforcement Rules: Implications for Developing Countries.** In: *The Global Debate on the Enforcement of Intellectual Property Rights and Developing Countries*, Programme on IPRs and Sustainable Development, Issue Paper No. 22, International Centre for Trade and Sustainable Development (ICTSD), Geneva, Switzerland, 2009.

²⁷⁸ See: WORLD TRADE ORGANIZATION. Consultation by India. European Union and a Member State – Seizure of Generic, Drugs in Transit, DS408, 2010, available at

content – impairing access to knowledge and free speech.²⁷⁹

This is the backdrop against which the very prominent role laid out in contemporary China to specialized IP courts should be understood, including the world's first IP division at a Supreme Court, known as the IP Division of the Supreme People's Court (SPC), created in 2019 in a separate building. This followed the creation of the first three specialized IP courts in Beijing, Shanghai, and Guangzhou in 2014 – justified in terms of their economic importance and the companies with headquarters in such cities. According to Duncan Matthews, this can also be traced back to a longer history of IP in contemporary China:

‘When establishing specialised IP courts in 2014, China drew on its previous experience of setting up intellectual property tribunals in general jurisdiction courts. [...] This process began in the late 1980s, as US-China IP disputes came to the fore, and China faced pressure to improve the protection and enforcement of intellectual property rights within its territory. As a result, China began to explore innovative ways of dealing with IP litigation. On 5 August 1993 intellectual property tribunals, the earliest specialised IP trial fora in China, were set up within the Beijing Intermediate and High People's Court. The following year, the Shanghai Pudong New Area People's Court established its own IP tribunal, the first to be established within the Chinese lower court system. By 1996 an IP tribunal had also been established within the Supreme People's Court, symbolising the extent of China's intention to build an independent system of adjudication with respect to IP issues into its 4-tier court system. By 2012, according to statistics presented in the 2012 Work Report of the Supreme People's Court on Intellectual Property Trials, a total of 420 IP tribunals had been set up within China's general court system.’²⁸⁰

More recently, the number has increased to dozens of courts around the country, most of them created to ensure a swift implementation of enforcement of IP litigation. The overall number of judges working in such courts is already of a few hundreds. The fast pace of these judicial reforms are certainly impressive, but are largely a continuation of this general vision.

China also created three Internet courts based in Beijing, Hangzhou and Guangzhou. They hear cases that include IP issues, particularly those on online copyright infringements, infringements of third-party property rights in e-commerce platforms, and

http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds408_e.htm ; WORLD TRADE ORGANIZATION. *Consultation by Brazil European Union and a Member State – Seizure of Generic Drugs in Transit*, DS409, 2010, available at http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds409_e.htm; GUISE ROSINA, Mônica Steffen; SHAVER, Lea. **Why are Generic Drugs Being Held in Transit? Intellectual Property Rights, International Trade, and the Right to Health in Brazil and Beyond.** *Journal of Law, Medicine & Ethics*, Vol. 40, Issue 2, 2012, p. 197-205.

²⁷⁹ For an overview, see: OKEDIJI, Ruth. **The International Copyright System: Limitations, Exceptions and Public Interest Considerations in Developing Countries.** UNCTAD-ICTSD, Issue Paper 15, 2006; VALENTE, Mariana Giorgetti. **Digital technologies and copyright: international trends and implications for developing countries.** Digital Pathways at Oxford Paper Series; no. 1, Oxford, 2020.

²⁸⁰ MATTHEWS, Duncan. **Intellectual Property Courts in China.** In: MANIATIS, Spyros; KOKKORIS, Ioannis; WANG, Xiaoye. *Competition Law and Intellectual Property in China and the ASEAN.* Oxford: Oxford University Press, 2017.

domain name disputes.²⁸¹ The first such Internet court was created in 2017 in the city of Hangzhou, which is particularly strategic as it headquarters giant e-commerce company Alibaba. The company also finances and supports the Hangzhou Internet Court, including a training system for judges and clerks, which has raised concerns on regulatory capture and conflict of interests.

Another important landmark was the creation of the China International Commercial Court in 2018, with operations starting in May 2019, with the objective to promote a ‘Chinese solution’ for commercial disputes and ‘operate from a strategically advantageous position’. The court may become a preferred forum for investment-related disputes that include a Chinese party, as an alternative to other jurisdictions usually selected for commercial disputes, such as the International Chamber of Arbitration administered by the International Chamber of Commerce (ICC) in Paris or the Hong Kong International Arbitration Center (HKIAC).²⁸²

In the context of this fast development, and the SPC issued on 21 April 2020 its ‘Opinions on Comprehensively Strengthening Judicial Protection of Intellectual Property Rights’, noting the following general objectives of the judicial system:

Strengthening the protection of intellectual property rights is the most important part of improving the property rights protection system, and also the biggest incentive to improve China's economic competitiveness. Judicial protection of intellectual property is an important force in the intellectual property protection system and plays an irreplaceable key role. **Comprehensively strengthening judicial protection of intellectual property rights is not only an objective requirement for China to abide by international rules and fulfill international commitments, but also an intrinsic requirement for China to promote high-quality economic development and build a new level of open economic new system.** It is necessary to fully understand the great significance of comprehensively strengthening judicial protection of intellectual property rights, accurately grasp the starting point and goal positioning of the overall service of judicial protection of intellectual property rights, and provide powerful justice for the construction of an innovative country, the construction of a socialist modernized and powerful country, and the modernization of national governance systems and governance capabilities Service and guarantee.²⁸³

Although the Chinese legal system is based on civil law, various recent judicial decisions aim at being utilized as a precedent around the country, with the aim at providing

²⁸¹ See: <https://www.chinajusticeobserver.com/insights/china-establishes-three-internet-courts-to-try-internet-related-cases-online.html>

²⁸² See: TINGMEI, Liu. **The China International Commercial Court (CICC) 2018**. Available at: <http://cicc.court.gov.cn/html/1/219/208/209/1316.html>

²⁸³ Free translation. SUPREME PEOPLE'S COURT OF THE PEOPLE'S REPUBLIC OF CHINA. **Opinions on Comprehensively Strengthening Judicial Protection of Intellectual Property Rights**. 21 April 2020, Available at: <http://www.court.gov.cn/fabu-xiangqing-226491.html>

more legal certainty. The SPC issues specific ‘judicial opinions’ or ‘judicial interpretations’ which, although not binding from a legal point of view, serve as the *de facto* norm for lower courts to apply certain understandings in IP law. They are a method of harmonization and are a policy to ensure more consistency in rulings, a long demand by foreign rightsholders. Examples have included punitive damages and the scope of Markush claims in pharmaceutical patents, which have been also published in English and are available on the court’s public webpage.²⁸⁴ Markush claims are a contentious matter in IP law, given that such claims tend to expand the scope of patentability of pharmaceuticals and have little disclosure, bringing criticism on whether it meets the novelty and inventive step requirements for a patent to be granted or not. Patentability criteria are not decided by all IP courts in China – the focus is on Beijing courts – but this judicial opinion has a similar role of an administrative regulation or patentability criteria guideline. In this sense, the role of courts in shaping IP policies is clearer in contemporary China than they might be in other countries.

Along similar lines, China introduced what is called a ‘three-in-one’ system in such courts, merging administrative, civil, and criminal procedures. As noted, most judicial systems around the world have separate institutions and procedures for each, and even under civil matters, litigation on the validity of IP rights (e.g., the challenge of an adopted patentability criteria) is usually separate from the enforcement of IP (the US being a global exception by merging these two dimensions). In 2017, a decision by the IP Division of the SPC in practice allowed courts to analyze both infringement and the validity of a patent, moving the Chinese IP model closer to the existing practice of the US. But by including virtually all potential claims in one single procedure, China massively streamlines IP procedures and goes even further, conflating all instances in one single procedure – something that is well-regarded from the perspective of rightsholders, but deeply problematic from the point of view of the public interest and ensuring the differentiation between particularly civil and criminal matters: an IP infringement is not always an IP criminal offence; heightening criminal prosecution is not always the best alternative for deterrence and solution of IP violations.

In reality, China had experiences with ‘three-in-one’ court systems. As noted by

²⁸⁴ See: PEOPLE’S SUPREME COURT OF THE PEOPLE’S REPUBLIC OF CHINA. **Typical Cases – The Nature of the Markush claim, the amendment to it in the invalidation proceeding and the method for the inventive step judgment.** 13 December 2018. Available at: <http://ipc.court.gov.cn/en-us/news/view-15.html>

Duncan Matthews:

‘[a] “three-in-one” adjudication model was devised and initially adopted by the Shanghai Pudong New Area People’s Court in 1996. By the end of 2013, the “three-in-one” adjudication model, incorporating civil, administrative and criminal matters within the same court proceedings, had been adopted by seven High People’s Courts, 79 Intermediate People’s Courts and 71 Basic People’s Courts across China.’²⁸⁵ (MATTHEWS, 2014).

Another realm of these policies has been the urge to accelerate the delivery of final decisions in IP litigation. Statistics show that, as of 2021, the average duration of a patent litigation in China is substantially lower than in other jurisdictions, such as Germany and even the USA. The creation of various specialized courts around the country is also part of this endeavor. One of the most prominent consequences of China’s new extremely rapid period to deliver judicial IP decisions is the inclusion of China as a jurisdiction of choice for global SEPs, FRAND and anti-suit injunctions. Some cases have already been reported:

More recently, courts in China have entered antisuit injunctions in three decisions. First, in *Huawei v. Conversant*, the Supreme People’s Court entered an ex parte order forbidding Conversant from enforcing an injunction against Huawei in Germany, on the basis of factors substantially similar to those employed by the U.S. court in *Microsoft v. Motorola*, pending the resolution of claims involving Conversant’s Chinese SEPs. Second, in *Xiaomi v. InterDigital*, the Wuhan Intermediate People’s Court entered an ex parte order forbidding InterDigital from asserting claims against Xiaomi relating to InterDigital SEPs anywhere in the world, pending the Wuhan’s court determination of a global FRAND rate.²⁸⁶

If one country grants an antisuit injunction, its repercussions are extraterritorial and not exclusive to the jurisdiction where it has been granted. This is also not surprising given that most FRAND and SEP cases deal with telecommunications and related sectors, with an already strong participation of Chinese companies. For instance, one of the most important global cases on SEPs is the 2015 decision between *Huawei v. ZTE* (two Chinese companies) at the European Court of Justice (ECJ) – Case C-170/13, providing criteria for the granting of injunction relief in a manner that balances free competition with the safeguard of existing intellectual property rights.²⁸⁷ Now, Chinese courts are also deciding and formulating global precedents.

²⁸⁵ MATTHEWS, Duncan. **Intellectual Property Courts in China**. In: MANIATIS, Spyros; KOKKORIS, Ioannis; WANG, Xiaoye. *Competition Law and Intellectual Property in China and the ASEAN*. Oxford: Oxford University Press, 2017.

²⁸⁶ COTTER, Thomas F. **Is Global FRAND Litigation Spinning Out of Control?** *Patently-O Patent Law Journal* 1 (2021). Available at: <https://patentlyo.com/media/2021/01/Cotter-Global-FRAND-Litigation-2021.pdf>

²⁸⁷ See, for example: MAUME, Philipp. **Huawei/ZET, or, how the CJEU closed the Orange Book**. *Queen Mary Journal of Intellectual Property*, Vol. 6, N. 2, p. 207-226, 2016.

The role of courts is also rendered more prominent via a process of education and engagement with certain stakeholders. Chinese judges and staff increasingly being part of international networks of IP adjudicators, trained in reputed Western universities such as the Queen Mary University Intellectual Property Research Institute (QMIPRI) and exposed to the ideas set forth by international organizations such as WIPO and its training activities²⁸⁸, as well as private-led INTA and IFPMA, which represent the interests of trademark owners and pharmaceutical companies, respectively. There is, at least in comparison with most jurisdictions, enormous funding and active pursuit by Chinese authorities to train those involved in IP along these lines, which suggests a trend towards a certain degree of harmonization of legal thinking of future Chinese rulings.

Finally, Chinese courts are at the forefront in experimenting with and implementing the use of new technologies such as blockchain and AI in judicial adjudication. Frontier technologies are widely regarded in this context as factors to ensure speedy and predictable outcomes and are used also for a swifter enforcement of IP.²⁸⁹ However, the use of AI for patent application processes and more broadly in AI administration is not neutral nor consensual. They also raise important concerns of reiteration of inequality and biases, but also of the lack of human-based judicial reviews and the lack of consideration of the public interest in adjudicating processes. Furthermore, AI has multiple potential consequences for IP law.²⁹⁰ IP offices around the world are all struggling to address those

²⁸⁸ That is why the Supreme People's Court is committed to fully implementing the Memorandum of Understanding on Judicial Exchanges and Cooperation signed with WIPO, the world's most authoritative and influential international organization in the field of IP. In doing so, we will continue to expand areas of cooperation and actively support and deeply engage in WIPO's reform initiatives in the field of judicial protection. The Supreme People's Court welcomes WIPO's pioneering work in the area of judicial administration of IP. I am greatly honored to be a member of the WIPO Advisory Group of Judges. Organized as a collaborative effort between the Supreme People's Court and WIPO, the inaugural "Master Class on IP Adjudication" was held in August 2018 at the National Judges College in Beijing. The event, which was a great success, proved an enriching opportunity to deepen international cooperation and to further enhance judicial protection of IP rights. See: TAO, Kaiyuan. **China's commitment to strengthening IP judicial protection and creating a bright future for IP rights.** WIPO Magazine, June 2019. Available at: https://www.wipo.int/wipo_magazine/en/2019/03/article_0004.html

²⁸⁹ For a positive assessment of the use of blockchain in judicial rulings, including its utilization for the enforcement of IP, see: HUNTER, Sophie. **China's innovative Internet Courts and their use of blockchain backed evidence.** Conflict of Laws, 28 May 2019. Available at: <https://conflictoflaws.net/2019/chinas-innovative-internet-courts-and-their-use-of-blockchain-backed-evidence/>.

²⁹⁰ See, for instance: HARTMANN, Christian; ALLAN, Jacqueline E. M.; HUGENHOLTZ, Bernt; QUINTAIS, João P.; GERVAIS, Daniel. **Trends and Developments in Artificial Intelligence Challenges to the Intellectual Property Rights Framework.** European Commission, 2020, available at: <https://ec.europa.eu/digital-single-market/en/news/trends-and-developments-artificial-intelligence-challenges-intellectual-property-rights-0>

issues.²⁹¹ In the broader context presented in this subsection, these concerns seem to be mostly dismissed by contemporary Chinese IP policies.

As a conclusion, these elements denote the clear trend in contemporary China to focus on the institutional development of courts, which are expected to deliver predictable, fast, and largely pro-rightsholder decisions. The role of the SPC's judicial interpretation in particular is to be a *de facto* harmonization tool, which means it has a strong policy character. The focus on swiftness and automatization may nonetheless reinforce problematic biases, and the maximalist approach recently found in the broader policies may be extended to the content of such judicial decisions.

2.3.2.3. Public Interest Exceptions, National Security and the State

'Intellectual property protection work is related to national security. Only by strictly protecting intellectual property rights can we effectively protect the key core technologies independently developed by our country and prevent and resolve major risks.' (XI, Jinping, 2021)

A third characteristic of the contemporary IP system refers to its entanglement with the issue of national security, also associated to the interpretation of the public interest as an almost synonymous with State interest. Promoting the public interest is a legitimate and important way to achieve a balance in the protection and enforcement of IP, avoiding its overreliance on strictly private interests and economic power. However, it is necessary to delve deeper into the understanding of 'public' in this context since it entails more than the State alone.

Firstly, although often disregarded, the 'public interest' and 'national security' are important ingrained elements of IP laws and present in most legislations: under the '*ordre*

²⁹¹ See: WORLD INTELLECTUAL PROPERTY ORGANIZATION. **WIPO Conversation on IP and AI.** Available at: https://www.wipo.int/about-ip/en/artificial_intelligence/conversation.html; see also: SOUTH CENTRE. **South Centre Statement for the Third Session of the WIPO Conversation on AI and IP.** 4 November 2020, Available at: https://www.southcentre.int/wp-content/uploads/2020/11/South-Centre-Statement-3rd-Session-AI-IP-Nov-2020_finalrev.pdf: 'An IP policy in relation to AI must be oriented towards at least the following principles: (i) real inclusivity, (ii) balance between protection of rights and access, (iii) development-oriented, (iv) human-rights based. [...] For countries that are in the process of consolidation of their IP norms and institutions, this debate should also include consideration of their situation and potential needs. All countries should partake in international discussions on IP and AI. More attention should be given to the needs of developing countries and the risks attached to the ample utilization of AI tools in patent offices, and to the possible consequences of AI-assisted and possibly AI-generated patent applications to the patentability criteria currently in place in each jurisdiction. Finally, digital rights, access to knowledge, information and science as human rights, data governance (and data sovereignty), internet regulation, ICANN domain names, and transfer of technology are all elements that need to be further discussed. Although WIPO does not and should not deal directly with these issues, they all affect the outcomes of any AI and IP policy and could be the focus of further debates.'

publique’ and ‘morality’ exceptions, an invention that runs counter to the public order may be legitimately refused protection. This is integrated in Article 27.2 of the TRIPS Agreement, which mandates:

‘2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.’ (TRIPS, 1994).

This is also reiterated under Article 8.1, TRIPS, on Principles:

‘8.1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.’

The WTO jurisprudence under *Canada – Patent Protection for Pharmaceuticals* also further clarified that carving out exceptions based on national policies should not be considered to be technological discrimination under the TRIPS.²⁹² The idea of protecting public health as a legitimate goal has been further solidified under *Australia – Tobacco Plain Packaging*.²⁹³ This is therefore a TRIPS flexibility for countries to pursue exceptions from subject matter and the use of public order/morality exceptions to refuse protection if it is based on a broader policy goal such as public health, nutrition, and the environment.²⁹⁴

Although such provisions are rarely utilized, some exceptions exist: India, for example, has denied protection to ‘scandalous’ market products such as sexual toys²⁹⁵; many countries that follow Islamic law have advocated for the non-protection of inventions that

²⁹² ‘The scope of Article 8.1 was elaborated on by the WTO Dispute Settlement Panel Report in *Canada – Patent Protection of Pharmaceutical Products*, whereby the prohibition on discrimination as to the field of technology contained in Article 27.1 of TRIPS “does not limit the ability to target certain products in dealing with certain of the important national policies referred to [in Article 8.1].” The Panel therefore confirmed that there is considerable scope for WTO Members to include in national legislation exclusions based on measures necessary to protect health and to promote the public interest as set out in the permissible *ordre public* or morality exceptions set out in Article 27.2 of TRIPS.’ MATTHEWS, Duncan. **Access to CRISPR Genome Editing Technologies: Patents, Human Rights and the Public Interest**. Queen Mary University of London, School of Law Legal Studies Research Paper No. 332/2020.

²⁹³ ROMERO, Thamara. **Public Health and Plain Packaging of Tobacco: An Intellectual Property Perspective**. South Centre Research Paper 108, May 2020.

²⁹⁴ See generally: CORREA, Carlos. **Interpreting the flexibilities under the TRIPS Agreement**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

²⁹⁵ For a critical assessment, see: BASHEER, Shamnad. **Sexual Pleasure is Immoral: So Says the Indian Patent Office!** Spicy IP, 11 August 2018, Available at: <https://spicyip.com/2018/08/sexual-pleasure-is-immoral-so-says-the-indian-patent-office.html>

are against the sharia.²⁹⁶ These cases raise issues of the improper use of exceptions in IP law to curb free speech and religious freedom, if the public order is interpreted as a moralistic argument to justify other forms of restriction to fundamental rights.²⁹⁷ But the idea of public order exceptions has also been applied for the issues such as gene editing. It is understood that exceptions along these lines can be extracted from the EU's legal framework:

'The meaning of ordre public in the context of Article 53(a) EPC has since been elaborated by the EPO Technical Board of Appeal in the T356/93 decision as follows: "**It is generally accepted that the concept of 'ordre public' covers the protection of public security and the physical integrity of individuals as part of society.** This concept encompasses also the protection of the environment. Accordingly, under Article 53(a) EPC, inventions the exploitation of which is likely to breach public peace or social order (for example, through acts of terrorism) or to seriously prejudice the environment are to be excluded from patentability as being contrary to 'ordre public'." In the same T 356/93 decision, the EPO Technical Board of Appeal elaborated on the meaning of "morality" under Article 53(a) EPC as follows: "The concept of morality is related to the belief that some behaviour is right and acceptable whereas other behaviour is wrong, this belief being founded on the totality of the accepted norms which are deeply rooted in a particular culture. For the purposes of the EPC the culture in question is the culture inherent in European society and civilisation. Accordingly, under Article 53(a) EPC, inventions the exploitation of which is not in conformity with the conventionally accepted standards of conduct pertaining to this culture are to be excluded from patentability as being contrary to morality.'" (MATTHEWS, Duncan, 2020).

In this sense, beyond the idea that such exceptions are exclusive to moralistic uses of the IP system, or implicit attempts to adopt protectionist measures, the 'public order' exception can be used as corrective instruments in the benefit of society, including national security, environment and other human rights. For example, patents on Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) are a major contemporary issue at the intersection of ethical concerns on gene editing technologies, the adequacy of patenting them, the need for incentives to research that may be extremely beneficial from the health point of view, and the utmost necessity to ensure that such technologies will be accessible

²⁹⁶ This exception could also be applicable to a potential immorality with respect, *inter alia*, to pharmaceutical patents that restrain access to medicines, as a dimension that can be extracted from religious law principles of solidarity and equality. See: EL-SAID, Mohammed. **Intellectual Property, Islamic Values, and the Patenting of Genes.** In: BERG, Thomas C.; CHOLIJ, Roman; RAVENSCROFT, Simon. *Patents on Life: Religious, Moral, and Social Justice Aspects of Biotechnology and Intellectual Property.* Cambridge: Cambridge University Press, 2019.

²⁹⁷ These examples highlight that a single definition of public interest would probably be detrimental to the IP system as a whole, as it would unduly harmonize legislations regardless of local specificities. Countries also have different priorities, economic and industrial policies, and judgments concerning the limits of morality and speech. This is not to say they are morally irrelevant or equally acceptable (they are not), but to highlight that instead of a substantive decision on the definition of public interest, seeking more procedural forms of limitation can be much more suitable, and that such decisions, although related to the IP system, should likely not be taken by the demands nor the logic of IP, but rather outside of it.

and affordable to all.²⁹⁸

China was at the core of such debate when two babies, known as Lulu and Nana, were born pursuant to genetic engineering. The announcement in a Hong Kong conference was met with outcry internationally, highlighting the lack of global regulation on the ethics of genetic engineering technology researches.²⁹⁹ The chief scientist He Jiankui, from Shenzhen, was hardly sanctioned. The WHO created a committee to discuss the issue and launched a report in July 2021.

As noted by Duncan Matthews:

‘The risks, benefits and ethical reasoning for exclusions to patentability need to be considered carefully by the policy community, based on inputs from all stakeholders, including patient groups, the scientific community and also those engaged in patent law and policy. As has been argued convincingly, it is only through public policy engaging multiple stakeholders and the interdisciplinary academic community that dialog proceeds in a manner that is conducive to the future development of this ground-breaking technology. This imperative applies to the patent system as much as it does to other levers of governance and regulation. [...] The patent system can, and should, play an important role in this process. As we have seen in this paper, Article 27.2 of the TRIPS Agreement establishes a “necessity test” and encompasses the TRIPS flexibility that WTO Members may exclude from patentability within their territory inventions, the commercial exploitation of which could be considered contrary to ordre public and morality, including to protect human animal or plant life or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.’ (MATTHEWS, Duncan, *op cit*, 2020, p. 33)

In this regard, Justine Pila argues, for example, for the necessity at the EU level, of a robust public order exception associated to new institutional mechanisms during patentability criteria examinations.³⁰⁰ Amid this context, China’s latest guidelines to the Patent Law Amendment of 2020 included a new interpretation on the beginning of ‘life’ for the purposes of exception to subject matter and expanded the possibility of granting patents related to research conducted with embryos. This suggests that such expansion was targeted to create additional incentives for research in this area, given that patents may be granted in a period of strong technological and economic potential. The notable thing, however, is that European countries and the US also announced new research in the area, and the UPSTO and the EPO have granted several patents on CRISPR.³⁰¹ Given the extreme potential of gene

²⁹⁸ For a comprehensive and comparative overview, see: MATTHEWS, Duncan. **Access to CRISPR Genome Editing Technologies: Patents, Human Rights and the Public Interest**. Queen Mary University of London, School of Law Legal Studies Research Paper No. 332/2020.

²⁹⁹ CYRANOSKI, David; LEDFORD, Heidi. **Genome-edited baby claim provokes international outcry**, *Nature*, Vol. 563, pp. 607-608, 26 November 2018. Available at: <https://www.nature.com/articles/d41586-018-07545-0>.

³⁰⁰ PILA, Justine. **Adapting the ordre public and morality exclusion of European patent law to accommodate emerging technologies**. *Nature Biotechnology*, Volume 38, 2020, p. 555–557.

³⁰¹ Interview, July 2021; MATTHEWS, Duncan, *op cit*, 2020, p. 13-14.

editing technologies such as CRISPR, there is little sign of the issue being reduced or largely regulated for the time being.

In addition, many IP laws, especially patents, contain specific confidentiality procedures for patent applications which are of national interest, particularly for military uses or from applicants which are military institutions. This is a clear example of an exceptional norm to accommodate specific interests related to the idea of ‘national security’, and also exemplify the queries mentioned in the previous sections regarding the protection of trade secrets, measures against industrial and cyber-espionage, and the risks of dual use technologies for civil and military purposes. In this case, the disclosure that is at the premise of a patent is exempted to avoid the sharing of the technology in early moments.

Moreover, international trade rules have been crafted as to ensure the possibility to adopt precautions and caveats to general fluxes of trade based on national security provisions. This is neither new nor unique to contemporary China – and were not designed to protect it. The TRIPS contains, for example, a ‘security exception’ under Article 73:

‘Article 73. Security Exceptions. Nothing in this Agreement shall be construed:
(a) to require a Member to furnish any information the disclosure of which it considers contrary to its essential security interests; or
(b) to prevent a Member from taking any action which it considers necessary for the protection of its essential security interests;
(i) to prevent a Member from taking any action which it considers necessary for the protection of its essential security interests;
(ii) to prevent a Member from taking any action which it considers necessary for the protection of its essential security interests;
(iii) to prevent a Member from taking any action which it considers necessary for the protection of its essential security interests;
(c) to prevent a Member from taking any action in pursuance of its obligations under the United Nations Charter for the maintenance of international peace and security.’

Such provision replicates similar provisions under the other WTO Agreements, a general safeguard to the idea of trade liberalization. Its interpretation has also been challenged: the US unilateral measures against China and other countries, imposing tariffs of products, was justified under ‘national security’, which was interpreted for purely protectionist purposes. Article 73 of TRIPS, on the other hand, has been proposed as an alternative to address the Covid-19 pandemic and exceptionally waive IP protection for countries to scale up manufacturing capacity and ensure universal access to Covid-19 vaccines and other essential products.³⁰² China has not used such provisions per se, but does explicitly refer to the importance of national security, including the need of developing national core technologies as a matter of national security.

³⁰² See: ABBOTT, Frederick. **The TRIPS Agreement Article 73 Security Exceptions and the Covid-19 Pandemic.** South Centre Research Paper 116, August 2020.

In fact, as Mariana Mazzucato describes, technologies amply utilized in civil commercial purposes originated in the US Military, such as Apple's iPhone technologies.³⁰³ The role of innovation agency BARDA is one example of the strong participation of the American State in innovation policies, debunking the myth of private-only innovation and that the State does not have an active, and often crucial, role in innovation.³⁰⁴ China is evidently no exception to the strong role of the State, given its multiple state-owned enterprises and high-level investments and innovation policies. In this broader sense, US and China are more similar than one might expect at first. As such, the technological competition and the 'techno-nationalism'³⁰⁵ that is often imbued to China has been replicated and sustained by the US and countries such as Germany for decades.

These examples highlights that the issues of public interest, national security and technological and economic interests are necessarily intertwined. China may render some interlinkages more explicit, but they are present everywhere. In this sense, national security can be comprised within the notion of public order, but the concepts are not interchangeable. It also elicits that, similar to the different dimensions of the 'IP theft' narrative and the persuasive effects of IP 'with Chinese characteristics', the rhetorical and legal usages of public interest and national security are also modulable and used when referring to different things.

In many senses, China prioritizes a notion of the 'public interest' that practically equates public and State interests, thereby conflating security with public, and State with public. But this may take various forms, which are sometimes even conflicting with each other. Xi Jinping's remarks that '*Intellectual property protection work is related to national security*' can be interpreted as an example of this understanding: the framing of this discourse is on how IP needs to be protected to 'protect the key core technologies independently developed by our country', denoting the need to foster IP protection to protect technologies which are relevant from the point of view of national security. In this sense, national security is promoted by fostering more IP protection. Along these lines, the innovation policies and the now abolished subsidies for patent applications in certain core areas could be framed as

³⁰³ MAZZUCATO, Mariana. **The Entrepreneurial State: Debunking public vs. private sector myths**, London: Anthem Press, 2013.

³⁰⁴ MAZZUCATO, Mariana. **The Value of Everything: Making and Taking in the Global Economy**. New York: Public Affairs, 2018.

³⁰⁵ See: CAPRI, Alex. **Techno-nationalism: the US-China tech innovation race – new challenges for markets, business and academia**. Hinrich Foundation White Paper, July 2020. Available at: <https://www.hinrichfoundation.com/research/wp/tech/us-china-tech-innovation-race/>

part of national security aspirations but also as nationalist or protectionist policies.

But it also refers to the need to protect ‘core technologies independently developed by our country’, which reflects in the restrictions to foreign takeover of national technologies or restrictions, among others, on investments. For example, in July 2021, tech company DiDi, which was supposed to launch its IPO at the New York Stock Exchange, was impeded from doing so under a new cybersecurity regulation in China which mandates specific requisites for foreign investments in case of companies that hold data of over 1 million people in the country. In this sense, the IP protection is also a way to impede others from using Chinese technology (therefore ensuring that such technology remains in China or at least that it remains controlled by Chinese stakeholders), which means that national security is a limitation to the free trade logic of global IP licensing and contracts.

Another dimension is found in what is selected to be published and available under judicial transparency measures, particularly court rulings, and what remains confidential or unavailable – thus impeding foreign scrutiny. Over the last years, China has steadily published courts decisions, which enables a deeper analysis of the legal landscape for foreign applicants. WIPO and the Supreme People’s Court of China even published a compendium of Chinese decisions for global reference. Based on disclosed cases, statistics show higher successful rates for foreign parties than Chinese parties in IP litigations, which reduces longstanding anxieties related to the idea that the system is ‘nationalist’ in the sense that it protects domestic firms against foreign stakeholders. Yet, as pointed out by Mark Cohen, there are concerns about the fact that litigation referring to core technologies or issues more closely related to matters of national security – either explicitly or not – are not published in the same manner, or perhaps not even published at all. In this third sense, the public interest that may justify the decision not to publish a decision is entangled with considerations of national security and promotion/preservation of certain technologies.

On the other hand, China has not widely deployed the abovementioned *ordre publique* or morality exceptions in patent law to explicitly refuse patents – in fact, China has been more permissive in the patenting of living organisms, among others, than most jurisdictions, which clearly denote the preference towards incentivizing emerging industrial sectors such as biotechnology than taking a more precautionary approach. This has also been accompanied by relatively flexible regulation in areas such as clinical trials and research authorization for living organisms, although the regulatory landscape has significantly become more stringent in recent years. It would nonetheless be incorrect to argue that bioethics and biosecurity are not important to Chinese policymakers – these are actually

highly debated and contentious areas –, but it does reflect the fact that considerations of national security and public interest are more diluted and perceptible across various instances of the IP system, and not only in the narrow patent examination process.

The elements above have raised the criticism that the Chinese IP system is thereby ‘nationalist’ in a manner that may be contrary to WTO rules, with unfair treatment of foreign players. However, such ‘nationalism’ may be – although not necessarily – a lawful use of TRIPS flexibilities to define what is an invention, what should fall under the scope of the public order and morality exceptions, what is comprised by a national security matter of concern to justify a legitimate limiting matter, among others. Some differentiations for public health, nutrition, or technological development, as already noted, are allowed under TRIPS. There is also no Chinese uniqueness in this: US Patent Law, for example, adopts a concept of ‘novelty’ which differentiates nationals from foreigners; IP systems in both high-income countries and the global south, including patentability criteria guidelines and systems of registration and administrative appeals, which typically favor national applicants and their interests. For this reason, it is not possible to affirm that China’s recent policies are non-compliant with TRIPS for the elements of public interest and national security.³⁰⁶

In such context, a more notable aspect lies in how the interpretation of the idea of public interest is constantly related to the idea of the Chinese nation and therefore national security as the State. Within this framework, there is a strong identity between the public, the State and the nation. The concept of public interest has been utilized in IP and economic law to refer to diffuse, collective interests that are often at odds with the State (a public interest *against* the State interest), including but not restricted to the interest of patients with respect to access to medicines and how patents and trade secrets limit them, or the interest of indigenous communities with respect to the protection of their traditional knowledge and how patents may misappropriate them. The public-private interest balancing is often considered to be at the core of dogmatic discussions on IP law, whereby the public interest may comprise these various ‘sub-interests’. In most countries, the main critical issue is how the private interest (especially of a company with large economic power) is often privileged to the detriment of the public (i.e. collectivity, specific communities and groups, also the State). In China, although these issues may equally arise, the ‘upper hand’ of this balancing

³⁰⁶ This is precisely one of the reasons why Western stakeholders may feel that the TRIPS and the WTO are insufficient to address their concerns, calling for their reform or bilateral alternatives. From the perspective of developing countries, however, the safeguard of the policy space is a crucial feature of the international trade and IP system. The experiences of contemporary China may be a sign of the use of policy space to craft IP policies that may be more suitable to their socio-economic developmental goals.

seems to be in the public (i.e. State) power. Therefore, another issue becomes how to ensure that other interests, such as those of specific groups such as patients or minorities, are also addressed in IP law, apart from the efforts to combat abusive conducts from the private power.

In a comparative perspective, one crucial contribution may come from Brazilian commercial law tradition. Article 116, Sole Paragraph of Brazilian Corporations Law is explicit in determining that the controlling shareholder has specific duties towards the minority shareholders, workers and the community where it is situated. As noted by Calixto Salomão Filho, this is reflective of the idea that there are specific duties, and not only rights, to the legal entity which detains economic power based on its controlling position; it also clarifies that the notion of public is broader than purely responding to the interest of the State. But in a country like China, the concern about power concentration, at least from this perspective of critical economic law, may be shifted towards the prevailing role of the State and how by automatically associating the public interest with the State, there may be concerns about how certain other interests (not only private, but of communities and more diffuse public interests such as those related to the environment and public health) may be curtailed.³⁰⁷

The description above concludes that China has deployed, both explicitly and implicitly, ‘national security’ and ‘national interest’ arguments to conduct its policies, including in the field of IP – and that these are conflated with the notion of public interest, which is limiting of all the involved interests that compose the ‘public’. Frontier technologies and dual use technologies such as artificial intelligence and 5G are at the core of such preoccupations. Still, these are not per se illegal under international trade rules. Despite the caveats, the discussion on national security and public interest reapproximates what the literature on IP tends to segregate: most of the times, national security is only recognized with reference to the trade secrets regime (national security being the protection of trade secrets against espionage, for example). By enlarging this interlinkage, the legal discussion

³⁰⁷ In a discussion between prof. Angela Zhang and prof. Calixto Salomão Filho on antitrust laws in China and Brazil, this comparison between economic and political power – with the common thread of the concern and pervasive effects of monopolies – was addressed. In the field of IP law, the automatic association between the public and the State in China may limit opposition to, for instance, expansionist IP policies that hamper competition and the public interest. Could the legitimate interest of patient groups to have access to medicines be disregarded as part of the public if the State focuses on innovation and technological upgrading of the domestic biotechnology industry? This is an example of how the issue deserves better consideration, and how there is a need for the concept of public to be disentangled from the State and from the national dimension. See also the Conclusion of this research, for a defense of the public interest in a global perspective; see: CENTRO DE ESTUDOS LEGAIS ASIÁTICOS – CELA, FDUSP (Center for Asian Legal Studies, Faculty of Law, University of São Paulo). **Competition Law in Developing Countries**. Webinar discussion, 21 June 2021.

on IP and trade secrets is re-embedded into the broader political economy landscape of countries' global competition and their national security strategies.

2.4. Promoting a 'Culture' of IP in Contemporary China

'(4) Positive guidance mechanism. Actively carry out various forms of publicity reports to improve the quality of patent applications, strengthen the incentives for enterprises and individuals that actively invest in innovation, scientific and rational layout of patents, further enhance the strategic layout and **quality awareness of patent applications in the whole society**, and effectively improve the quality of patent applications.' (Emphasis added, CNIPA, January 2021)

'It is necessary to **strengthen the publicity and education of intellectual property protection, and enhance the awareness of the whole society to respect and protect intellectual property rights.**' (Emphasis added, XI, Jinping, op cit, 2021 [2020])

The development of IP in China is also based on a wider range of policies that aim at creating economic incentives at institutions, changing behaviors in people's lives, and setting up physical and digital infrastructures. In short, this can be framed as the objective of promoting a certain 'culture' of IP³⁰⁸ across governmental institutions, private companies, universities, research institutes, schools, and 'ordinary' people. A 'culture' of IP does not mean a specific set of values and norms that are socially shared,³⁰⁹ but rather a shorthand to policies of awareness and active pursuit and expansion of the use of IP, as well as routinizing the fact that certain practices should be combatted.³¹⁰ In this sense, it entails both a positive and a negative aspect (in the legal sense of positive and negative conducts, but also in the moral sense of what is desirable and what is not desirable): on the one hand, educating individuals, companies and institutions to both use IPRs in their favor by depositing and requesting IP protection for their inventions and creations; on the other hand, refraining from adopting conducts which infringe or potentially infringe existing IP of third-parties.

There are multiple unexplored issues regarding the impacts of such policies to the reality and ordinary perspective of Chinese individuals and to the daily operations of institutions and bureaucratic agencies. This research does not explore them in depth but

³⁰⁸ See: BUDDE-SUNG, Amanda. **The Invisible Meets the Intangible: Culture's Impact on Intellectual Property Protection.** *Journal of Business Ethics* 117, 2013, p. 345–359.

³⁰⁹ The word culture to refer to practices from a certain environment had been used in various cases, such as 'culture of competition' and 'culture of IP'. These are largely adopting the concept of business organizations when referring to culture (a 'company's culture', with reference to practices adopted within a business entity and its expressed values), which is a very different meaning from the most commonly used in anthropology.

³¹⁰ For an example of how companies may be interested in robust 'culture' of IP, see: YANG, Deli. **Culture matters to multinationals' intellectual property businesses.** *Journal of World Business*, 40, 2005, p 281–301.

opens avenues that hint at the fact that there are unintended consequences related to such ‘culture of IP’ policies, and that they go beyond the mere level of IP protection in China: instead, they have the potential to at least partly reconfigure some social relations, including how individuals regard intellectual creations and share knowledge, how they portray and value goods according to trademarks and the origin of a product, among others.³¹¹

2.4.1. Promoting a ‘Culture’ of IP at the level of State policies

IP offices, WIPO and IP holders’ representatives often use the expression ‘culture of IP’ and dedicate a good part of their activities to such goal. WIPO’s new Director General, Darren Tang, has explicitly posited in the new proposed Mid-Term WIPO Strategy Programme and Budget that the organization should focus on expanding the reach of its activities to achieve more stakeholders and promote more actively the use of IP.³¹² Associations such as INTA promote activities for better respect of existing trademarks and work with various stakeholders to expand the protection of brands around the world.³¹³ IP offices also craft policies along similar lines, which becomes even more important if a given country is identified as prone to counterfeiting and piracy, which has been the case of China for various decades. It is not a surprise that these are also part of CNIPA and other Chinese authorities’ policies, which included the creation of regional/provincial IP offices, the adoption of various enforcement plans to better control borders, specific markets and factories, and promote IP awareness campaigns in schools and universities.

In practice, such policies may include, for example, a capacity-building program conducted by the IP office with university engineering students to explain different opportunities regarding their research: they may have the option to file a patent for an invention and enjoy subsequent exclusivity rights; publish it in a publication which will give a certain academic prestige but placing it in the public domain; or keep them in trade secrets as commercial value not to be disclosed. These alternatives, although generally framed as ‘neutral’ from the point of view of the inventors/creators, actually profoundly affect the distribution of resources, the extent of the public domain and the IP and innovation policies

³¹¹ Also see the reflections in Chapter 5 and Concluding Remarks.

³¹² See: WORLD INTELLECTUAL PROPERTY ORGANIZATION – PROGRAM AND BUDGET COMMITTEE (WO/PBC/32/3), **Medium-Term Strategic Plan (MTSP) 2022-2026**.

³¹³ For example, see: WORLD INTELLECTUAL PROPERTY ORGANIZATION – ADVISORY COMMITTEE ON ENFORCEMENT (WIPO/ACE/3/4), **Education and Awareness-Building Initiatives on International Trademark Association (INTA) on Trademark Protection and Enforcement**, 2006.

in a given country. Policies to create a ‘culture’ of IP are invariably targeted to promote the exclusivity-based options rather than the public domain, commons-based alternatives in research, and are thus not neutral.

Interestingly, the focus of these policies in China has never been on explaining the ‘foreign’ concept of IP – which could be expected if Chinese culture is effectively so fundamentally incompatible with the notion of individual, private IPRs. On the other hand, this may also be a sign of how most IP awareness and promotion policies are homogenizing, based on general guidelines that disregard for the most part cultural characteristics. For this reason, in China, the promotion of a ‘culture of IP’ largely follows this logic of maximizing knowledge about the IP system and creating incentives for its utilization, similar to what is found in other jurisdictions. In a sense, it reproduces the main discourses adopted by the main IP stakeholders around the world, i.e., that the IP system is intrinsically good and should be expanded. Consequently, among other things, IP departments in Chinese universities promote more usage of the IP system and generally defend the strengthening of the IP system, the CNIPA conducts policies to capacitate and enhance use of the existing filing procedures for individuals, researchers and companies, and the Chinese government contained until 2021 a series of different forms of financial incentives for the filing of IP.

These IP awareness and promotion policies are also part of the dynamic and continued interplay between foreign pressure to change norms and policies in China and the domestic response. Foreign calls for the seizure, apprehension, and destruction of counterfeit goods in China have been a key demand for decades. Creating and reporting on IP compliance policies is one way to respond to this demand as well, alongside periodic monitoring of markets and producers around China, and a great expansion of the country’s number of IP enforcement officials. These efforts cannot be understated: by a large margin, China has the largest number of individuals working on the ground to ensure enforcement of IP, and this continues to grow steadily. One element of constant frustration from the point of view of Chinese stakeholders, of course, is how this drains resources from other key policy areas, and how the efforts are in a sense ‘never enough’, as the pressure continues to rise.³¹⁴

Finally, there is great variation in how these broader policies are implemented at the local level. Governance in China contains multiple and crucial differences between the central and local governments,³¹⁵ between the public sector and the private sector, and

³¹⁴ Interview with Peter K. Yu, 4 June 2021.

³¹⁵ For a prominent example, see the Chongqing Model of governance and the subsequent fall of Bo Xilai. See

whether they relate only national institutions or also foreign investors/companies. For example, the rise inside the Communist Chinese Party is arguably related to personal ties and confidence relations based on traditional *guanxi* rather than delivery of positive economic results.³¹⁶ Specific local-based ties may be relevant in ensuring or not the efficacy of certain IP awareness and promotion policies.

2.4.2. Promoting a ‘culture’ of IP at the level of ordinary life

Apart from the macro-structural policies at the Central government level with an aim to incentivize ampler usage of IP by Chinese stakeholders – a process also mediated by international organizations, IP-holder representatives, and selected companies –, there is also a crucial, perhaps highly contingent and context-specific, process of promoting a ‘culture of IP’ at the level of ordinary life. Much of these efforts go along the lines of combatting the circulation and selling of counterfeit trademark goods in markets via anti-counterfeit raids, associated to general campaigns for the public and educational policies for schools and universities. While the first seek a deterrence effect, the remaining aim at changing the behavior of individuals, build ‘respect’ for IP and in a sense internalize IP protection in people’s mindsets. Once again, despite their appearance of neutrality, they are necessarily oriented towards a certain predetermined predilection of positive values regarding IP.

These policies integrate at least two processes related to the socio-construction of IP law: on the one hand, how abstract legal concepts are turned into vernacular, daily terms,³¹⁷ and how international law itself is routinized and operationalized at the scale of daily lives³¹⁸; on the other hand, how the People’s Republic of China has a long history of policies to popularize its own laws to ordinary citizens, which may now be seen as a manifestation of this trajectory.

generally: ZHANG, Yueran. **The Chongqing Model One Decade On**. *Made in China Journal*, 11 January 2021. Available at: <https://madeinchinajournal.com/2021/01/11/the-chongqing-model-one-decade-on/>

³¹⁶ See: SHIH, Victor; ADOLPH, Christopher; LIU, Mingxing. **Getting Ahead in the Communist Party: Explaining the Advancement of Central Committee Members in China**. *American Political Science Review*: Vol. 106, Issue 1, February 2021, p. 166-187.

³¹⁷ See, in the context of human rights, MERRY, Sally Engle. **Transnational Human Rights and Local Activism: Mapping the Middle**. *American Anthropologist*, Vol. 108, Issue 1, pp. 38–51, 2006.

³¹⁸ Luis Eslava’s socio-legal inquiry on notions of development in daily life operations in Bogotá highlight one crucial feature of how international law gains concreteness and is routinized into the local space of a city in the name of an abstract international development project. This approach, if extended to the processes of creation of a ‘culture of IP’ in China also means a sort of routinization of international development aspirations - not particularly distinctively Chinese, but global - that include the notion of ‘rule of law’ in daily lives. ESLAVA, Luis, **Local Space, Global Life: The Everyday Operation of International Law and Development**. Cambridge: Cambridge University Press, 2015.

Importantly, the role of the State cannot be seen as an abstract, totalizing entity, but as a collection of hierarchical and organized bureaucratic procedures and practices, material documents, apparatuses of coercion and sanction, as well as other characteristics that were famously described in terms of Max Weber's rationalization process which led European countries to modernity. The IP 'with Chinese characteristics' depends not only on high-level political rhetoric by the Chinese Communist Party, but also from the ordinary and daily practices of law enforcers in customs, legal practitioners, judges and their clerks, but also documents, banners (a particularly relevant tool for Chinese society, both for propaganda, public campaigning and even as imagines of a common sociality), and digital patent databases, among many others.

For example, general awareness campaigns that are rendered visible via banners and ads in public spaces, flyers and pamphlets, and ostensive enforcement raids, which are based on highlighting the illegality of trademark counterfeit, the risks associated to bad-quality products, and the threat of criminal sanctions and apprehension of goods for those who violate rules. A great example are signs in airports before customs against counterfeits. As noted above, this should also be analyzed in conjunction with the fact that the Chinese governance structure is remarkably decentralized. Local and regional variations are therefore very important and cannot be understated in the reflection about these processes. But overall, these collective campaigns have broader objectives related to political processes to create unity and simultaneously exerting coercive power.³¹⁹

Since the inception of the People's Republic of China in 1949, large political efforts to widespread laws across the country have been implemented, often with unintended consequences and local adaptability in terms of how this effectively took place. Jennifer Altehenger argues that 'legal knowledge was made to fit political categories, some of which were newly devised and not suited to the complex manner in which people across the country actually understood laws'. (p. 247, 2018). East German documents from the 1980s, the author reports, show Chinese party leaders arguing that Western law was to a certain extent unfit for the needs of socialist China (p. 248-9, 2018). However, everything changes in 1989.

Could it echo the law propaganda policies during the first decades of the PRC until 1989? At least in its procedures, the more likely response is yes. Jennifer Altehenger

³¹⁹ 'Slogans in China are an important way to carry out a function that all states must engage with: to encourage and teach people to see themselves as 'co-citizens' in the state. At the same, this function also and always links to important ideological goals and intersects with the state as a source of coercive power.' See: SONG, Jianlin, GEE, James Paul. **Slogans with Chinese Characteristics: The Political Functions of a Discourse Form**. *Discourse & Society* 31, no. 2, March 2020, p. 201–17.

conducts a historical analysis of policies in the PRC to popularizing laws among ordinary citizens since its foundation to the paradigmatic year of 1989, deeply intertwining various aspects of society, and a process which did not start with the period of Reform and Opening Up:

“Seeing law propaganda not solely as a post-1978 invention suggests that tensions between law propaganda, enforcement of laws, social morality, and people’s concept of justice developed not only as a result of market liberalization or the breakdown of a Maoist order. They are anchored more deeply in the basic premises of socialist governance”. (p. 259, 2018).

Altehenger clearly notes that 1989 ‘changes everything’ in relation to law propaganda. Yet, she argues the following with respect to *contemporary* China:

“In contemporary China, meanwhile, the call to ‘abide by law’ remains omnipresent. To abide by laws is to be patriotic. In Beijing’s and Shanghai’s streets and alleyways, cardboard signs stuck in flowerpots, on patches of grass on sidewalks, or on the outer walls of residential compounds and houses remind passers-by to be civilized (*wenming*), abide by laws, and pay attention to the rule of law (*fazhi*). On public transport and at stations, posters and short movies instruct passengers in orderly and law-abiding behavior. In bookstores, the sections on law offer customers a range of legal self-help books, little red pocket-sized books that contain the full text of different laws, and other educational materials. Many people read and buy them. Many people ridicule them. Most have become accustomed to this kind of legal information as part of their daily lives. No matter how individuals engage with law propaganda, its continued presence is a reminder of a legal dilemma that the Chinese government is still grappling with today” (ALTEHENDER, p. 259, 2018).³²⁰

In this context, it is still possible to argue more generally that China’s contemporary relation with propaganda posters and banners is unquestionably strong. During the Covid-19 pandemic, Wuhan and other cities were full of different banners that have been used for decades to express political ideals, community information and motivation phrases. Old-fashioned and slightly authoritarian for most Western gazes, they are generally seen as an important communication tool and bonding mechanism within Chinese society that generates a sense of community and collectiveness. The use of banners with similar language and aesthetics for anti-counterfeit and IP awareness purposes is therefore not irrelevant.

It would be impossible to generalize, in this research, whether the implementation of IP enforcement rules in famous markets used to selling counterfeit trademark products is a continuum from the law propaganda of the PCR in its early years, or more a direct consequence of the broader policy policies to implement a ‘culture of IP’

³²⁰ ALTEHENDER, Jennifer. **Legal Lessons: Popularizing laws in the People’s Republic of China 1949-1989**. Cambridge: Harvard University Press, 2018.

among institutions and the Chinese State, or any variation thereof. But there are sufficient elements to present how they are nonetheless important in the understanding of the *de facto* operations of IP law in China today. In this sense, these policies that are rendered visible in posters and banners also solidify certain views of IP and criminalize those who do not comply with its premises (i.e., the counterfeiters and the pirates).

In addition to the markets and public spaces' artifacts, there are various policies to promote awareness of IP in primary schools and high-school students since at least 2015.³²¹ For instance, a video entitled 'I am also an inventor', was launched in April 2020 during China's IP Education Week and shared across Chinese schools. At the level of universities, this goes further and contains policies to actively promote filings of IP across different departments, with incentives for filing of patents and evaluation of bureaucratic agencies and universities based on such statistics. To incentivize IP filings, China had various policies with multiple direct and indirect mechanisms. This included tax benefits³²² and direct subsidies. The CNIPA also promoted different prizes for innovation and for patents that have been granted, creating additional incentives for the utilization of the IP system, and placing them under a logic of public honor and nationalism.

Importantly, these policies need to be constantly rendered visible – in some cases, their visibility is even more important than their effectiveness. Because many of them are used as a response to international pressure demanding enhancements of IP protection in China, they need to be not only put in place but actively registered and publicized. This creates a second scale of imagistic construction of social relations: the first dimension found in the anti-counterfeit and IP awareness materials (banners, posters, flyers, small manuals for schools, educational videos, etc.); the second in the ways the first ones are registered by pictures, videos, reports, documents, and subsequently included as 'evidence' of commitment towards compliance and enforcement of IP, to be used in bilateral discussions with foreign countries and widely shared by domestic news outlets.

This section does not mean to exhaust the efforts to widespread and mainstream IP issues at the level of ordinary people, but rather stress that they are multiple and

³²¹ CGTN. **China Emphasizes IPR Education from Elementary School Onwards**. 3 March 2020, Available at: <https://news.cgtn.com/news/2020-03-03/China-emphasizes-IPR-education-from-elementary-school-onwards-Oy7eCbdO6Y/index.html>

³²² For example, China's High and New Technology Enterprise (HNTE) program required ownership of IP in China (by a Chinese entity) for a tax credit benefit. This had been long criticized by the US diplomacy on the grounds of discriminatory treatment towards foreign investors. For an analysis, see: COHEN, Mark. **The NTE Report On Chinese IP And Its Relationships To Chinese Legal Developments**. China IPR, 05 April 2021, Available at: <https://chinaipr.com/2021/04/05/the-nte-report-on-chinese-ip-and-its-relationships-to-chinese-legal-developments/>

increasing, and that it is paramount to look at the specificities of Chinese IP policies to change people's behaviors, by situating them in broader processes of popularizing laws and using slogans politically in the country since its inception.

2.4.3. IP Enforcement on the Internet: e-commerce and tech platforms

Apart from the macro-policies to promote a 'culture' of IP, on the one hand, and the local level policies across schools, public spaces and local market enforcement, on the other hand, there is another level of policies that re-shape contemporary IP in China, which are the different mechanisms, measures, and policies at the digital level. The most perceptible of them are anti-counterfeit AI tools across e-commerce platforms and tech platforms, and streamlined processes for automatic notice and take down, which have been adopted by most big platforms.³²³ Alibaba has for instance set up in 2017 an Intellectual Property Protection platform that responds to claims in up to 24 hours.

China's Internet system has been since its inception characterized by a direct intervention by the State, which directly moderates and censors content under the justification of national security. It departs very prominently from the more generally unrestricted model of most other countries. More recently, the expression 'Chinese Great Firewall' was coined to describe the technological efforts to ensure that it remains distinct from the systems in other countries, and that no bypasses such as VPNs are available. Economically, this also enabled the creation of national private big techs which benefit from the huge domestic markets, which are aligned with longstanding requirements to store certain data in local data centers, among others. These big tech platforms are considered to be highly innovative and integrate various functions in one, collective vast amounts of data. Some of them, such as online payments via apps such as Alipay and WeChat, would be later replicated in Western-based apps such as Whatsapp. In parallel, the Chinese State implemented various policies based on the use of AI, including the controversial use of facial recognition, and based on integrated sets of big data, such as the equally controversial – although not nearly exclusive to China – social credit scoring.³²⁴

³²³ See: IPKEY (EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE). **Study on Online Counterfeit in China: Could the EU Memoranda of Understanding Approach Help, and If So – How?** November 2019, Available at: https://ipkey.eu/sites/default/files/ipkey-docs/2020/IPKeyChina_nov2019_Lessons-from-the-EU-experience-with-memoranda-of-understanding-in-tackling-the-online-sale-of-counterfeit-goods.pdf

³²⁴ For example, individuals may have their credit reduced due to political activities, the health certificate amid

This wide array of digital policies in China cannot be underestimated as a socio-technical device that impacts IP policies in China, such as those related to the enforcement of IP in the digital environment. The automatization and the comprehensive synergic use and sharing of data between private companies and public policies – although privacy individual rights are expected to be importantly enhanced with a new legislation expected by the end of 2021, as noted prior – make this dimension particularly important to be highlighted.

As reminded by Hyo Yoon Kang, the digital mediations in patent law are not purely a neutral digitizing process: they rather transform the ‘inventive essence’ and pose challenges to the established paradigms in patents, particularly (but not restricted to) the patent *document*, which is now written and read alongside electronic tabs, fields, and graphic user interfaces.³²⁵ As a consequence, an invention now ‘matters’ as digital data.³²⁶ These lessons can be transposed to reflect on how policies that mediate the idea of enforcement to users, platforms and digital relations with the enforcement of IP are not only the same as physical policies but new mediations and forms of being online, and also potentially reshaping the meanings of IP in the digital environment.

the Covid-19 crisis, and other markers have all been integrated into these various tools. This does not preempt, of course, the necessary disclosure that most such policies are equally under way in most Western countries, and that the very idea of credit score was created by US insurance companies and widely used to date, being at the basis of the business model of most insurances around the world.

³²⁵ ‘The different enunciation of an invention in patent law’s increasingly digital materiality weaves an inherently multiple, interconnected presence of the patented invention. This means that its multiple re-inscriptions across different electronic platforms make it more difficult to maintain a unified picture of its inventive essence. Within the digitized environment of patent administration, the meaning of inventive essence arises relationally in-between the different material media practices of digital forms, electronic images, their organization and linkages across a web of patent information databases, platforms, and software. The hitherto dominant form of diagrammatic writing, the patent document, is complemented by electronic tabs, fields, and forms emerging on computational graphical user interfaces. In the latter, the document as a frame disintegrates into a formal relationship of categories. This raises significant questions about the reality of patent inventions and how they will be perceived and understood: how ought the invention be *sensed* and *read* in such multiple, distributed semiotic environments? Should or will the writing practice change as a result? The core of the patent right used to be the claims; but will the abstracts play a larger role in the sense of giving a literal snapshot of the inventive contents of a patent on the screen? Flatscreens are diagrammatically less sophisticated than the three-dimensional written objects, which have implications on reading and writing of the patent document. Most poignantly, the represented object, the invention, seems to have moved to a second order ghostliness, as patent documents, as their symbolic references, have also been virtualized.’ See: KANG, Hyo Yoon. **Ghosts of Inventions: Patent Law’s Digital Mediations.** *History of Science* 57, no. 1, March 2019, p.60.

³²⁶ ‘Despite the feeling of ghostliness of the invention and its decomposition and ghost-like presence across different digital technological platforms, the feeling of immateriality and the appearance of a virtual reality of inventions in database networks should not be overestimated. The previous discussion has tried to hint at the scale of the data infrastructure which underpins patents’ electronic textuality in terms of storage hardware, software, and networks of people and information.⁵¹ They deserve closer study as history of the present. However, physical matter is not identical to materiality.⁵² In the patent law context, materiality is law’s articulation of its meaning which is shaped and molded by concrete matters and through mediation. Legal materiality is a semiotic relation of how physical things come to matter to law as being meaningful. So how does an invention matter now? In the legal context, the answer is: as digital data.’ KANG, Hyo Yoon. *Op cit*, P.61.

The ‘digital’ is not merely an extension of the ‘physical’ world; it is also not unrelated to people’s identities and forms of being and engaging with others. Platform and the Internet infrastructures also define certain limits and contours to behaviors of users, and the policies related to IP, such as notify and take-down policies for copyright protection, and limitations to avoid commercialization of counterfeiting products, as well as campaigns to improve awareness of IP, are all part of this another realm of promotion of an IP ‘culture’ in China, directly mediated by the use of technological tools. If IP policies are clearly not neutral, as posited above, technology is even less so.³²⁷ In this context, the digital policies may be scrutinized in terms of their unintended impacts.

For example, the new e-commerce law of China establishes severally and jointly liability for IP infringements by digital platforms.³²⁸ The same law, however, does not provide the same as a general torts rule, despite intense legislative debates, which means that IP protection was prioritized over other civil matters. Instead, it only refers to ‘proportional liability’ for e-commerce platforms. The reasons why a strict liability system has been enacted about intellectual property protection, but not, for instance, a joint liability for crimes committed through/in relation to services of an e-commerce platform, denote the intention of the Chinese government to greatly expand the protection and enforcement of IP in the country. However, it creates a highly unbalanced framework for IP rightsholders with respect to other civil matters.

On its turn, the promises of the use of AI for adjudication, law enforcement and patent application processes all fit digitization policies at the highest political level in China, and also may be seen as elements of a super-reliance on the potential of new technologies for better governance. The direct consequence for law and legal theory of the automatization generated by AI in IP is an increased reliance on a model of governance by codes.³²⁹ Given the prominence given by China to the role of big data and frontier technologies towards its socio-economic development and innovation landscape, and as a crucial tool for urban governance, credit score systems, State security, upscaling of e-commerce platforms, etc., it

³²⁷ SAMPATH, Padmashree Gehl. **Technology and Inequality: Can we decolonize the digital world?** Southviews N. 215, Geneva, 6 April 2021. Available at: <https://www.southcentre.int/wp-content/uploads/2021/04/SouthViews-Sampath.pdf>

³²⁸ For an overview of the new e-commerce law, which includes several and joint liability for the platforms in case of infringement of IP in their platforms, see: ZHOU, Yuexin. **Proteção Cibernética de Informações Pessoais em um Sistema Multidimensional.** (translated by YI, Liu; SAEZ, Talitha) *Revista Internet e Sociedade*, Vol. 1, n. 2, dez 2020. Available at: <https://revista.internetlab.org.br/protecao-cibernetica-de-informacoes-pessoais-em-um-sistema-multidimensional/>

³²⁹ To paraphrase Lawrence Lessig’s famous idea of ‘code is law’. See: LESSIG, Lawrence. **Code: Version 2.0.** NYC: Basic Books, 2006.

is not surprising that the use of AI brings high expectations and strong support for its rapid implementation also in the IP field. Although such uses may be problematic in many senses, it is simplistic to consider that such utilizations are purely tools for autocratic implementation of the current CPP's political projects.

A more thorough analysis of these topics is outside of the scope of this research, but considering its sensitivity and multiple issues arising from it – from Western prejudice in the regard of China to the need to also do not omit evidences of paradigms that are detrimental to human rights-based implementation of AI-assisted policies in legal system –, the main take away from this section does not come in the form of a particular critique nor defense of Chinese policies. Instead, they are exemplary in showing the high political commitment and expectations of legal governance models that fully integrate, as much as possible, AI and other frontier technologies. The reasons thereof are not exclusively based on the prospects of crafting a nation that is distinctively ‘modern’ or even ‘futuristic’ by the Chinese central government but are also related to it.

Preliminary Conclusion

This chapter conducted an analysis of the IP ‘with Chinese characteristics’ by situating the plexus of norms, legal discourses, and materialities in the broader political economy of China's development plans. The changes from a minimalist, almost non-existent towards a maximalist, stringent IP system can be explained as a continuation of China's innovation and industrial plans, whereby the country may shift its position regarding the role of IP once it can produce endogenous innovation. But this process is also dramatically motivated by foreign pressure, especially by the US, which continues to exert its influence even after the Phase One Agreement between China and the US in 2019. This research also explored the argument that there is a coexistence of two economic, but also socio-technical, models in contemporary China (‘Made in China’ and ‘Made in China 2025’).

It described how the focus was for over a decade on drastically expanding the IP system, based on quantitative indicators which nonetheless bring detrimental consequences and are often void of significance; the recent turn in late 2020 towards ‘quality’ of IP is in this sense an acknowledgment of the changing needs. The chapter also presented an overview of three main trends in the current IP system in China: the maximalist approach in most recent legislative amendments and policies, which include many TRIPS-Plus provisions but also safeguarding some flexibilities, the strong focus on judicial authorities

to promote better and more stringent enforcement, but also to harmonize certain views of IP across the country, and the tendency to interpret the public interest and the national security as almost synonymous, which is elicited in various fields, although sometimes in indirect ways. It also presented the multi-scalar and comprehensive efforts to promote a ‘culture’ of IP in China (at the macro-policy, local and digital levels). These are all part of a certain view that China is supposed to strengthen its IP protection.

But this acknowledgement should not be immediately translated into a critique of contemporary China’s IP legal system. In many ways, this is similarly the case for Western jurisdictions. The US domestic law, for example, contains a dual standard for ‘novelty’ in patent law, which favors domestic applicants. This is one legal avenue that justifies the misappropriation of genetic resources and traditional knowledge in the United States, for example. In the European Union, standards of protection tend to also favor European technologies and firms, and non-IP regulations such as GDPR have extraterritorial implications that *de facto* serve as restricting operations for non-European firms and institutions. In this sense, instead of highlighting a certain exceptionalism of the IP ‘with Chinese characteristics’ system, despite the face value differences, this system in many ways mirrors the broadest logic that is embedded in the contemporary global IP order, based on increased appropriation of knowledge and a strong identification between protection of IP and incentives to ‘innovation’, but always related to national objectives and priorities.

In this ampler context, the Chinese IP system is already more favorable to IP applicants in many instances. For example, while the EU refused copyrights for the famous ‘monkey selfie’ case (focusing on the idea that an author needs to be a human being), and jurisdictions also refuse to grant a patent for DABUS (a patent application whose declared inventor is an artificial intelligence), China recognized copyrights for works created by an AI-assisted tool which took photos automatically.³³⁰ It also enables patenting living organisms without the limitations imposed by cases such as the US Supreme Court *Myriad Genetics* (2013), and there are lesser limitations for gene editing research patents. The fast judicial relief has already turned China into one jurisdiction for global SEPs and FRAND litigation, and these trends are expected to continue.

With all these elements in mind, it is possible to analyze with a critical, but less exotified, lens some elements that inevitably shock the foreign gaze: the impressive rise of China as the biggest applicant of IP in the world, the rapidness of its institutional and legal

³³⁰ See: BEIJING INTELLECTUAL PROPERTY COURT. (2017) **Jing 73 Min Zhong No. 797 Civil Judgment**. April 2, 2020.

development, and the extremely fast-paced process of full-fledge legal reform over the past few years: all in all, they fit the broader developmental plans set forth and planned by the CPP, even if some of these elements may be paradoxical, subject to criticism, and even if they lead to the need of amendments in the future.

Chapter 3

Internationalizing the IP ‘with Chinese Characteristics’



Saudade - Irretrievable Place in Time, 2018

Shi Yong (施勇)

Chapter 3

Internationalizing the IP ‘with Chinese Characteristics’

“Shi Yong’s shining neon light in the dark seems to be a symbolized beacon, yet pointing out a direction within infinite nothingness. The color appears warm and inviting, but the nature of the device as an inhuman electrical equipment demonstrates a sober calmness, coinciding with the beauty of Saudade - whereas the future is undetermined, thus perhaps terrifying, the saudade-wise past is tender and comforting, but we are never able to revisit it again. This work reminds us of Shi Yong’s “A bunch of happy fantasies”, only this time there is no more metaphoric narrative or intimate touch on personal emotions, only dispassionate understanding of the reality of time or a collective melancholy.”³³¹

Saudade from what? Can one have a feeling of *saudade* for a future that never existed?

The previous chapter argued that an assessment of contemporary’s IP and innovation policies in China are situated in a paradoxical logic of two coexisting models: the ‘Made in China’ and the ‘Made in China 2025’. This analysis established the broader developmental and legal processes that surround the construction of the IP ‘with Chinese characteristics’, which also originates from a duality: China’s internal plans and politics, as well as its relationship with foreign actors, such as the United State. This context is paramount to delineate the reasons, the consequences, and the effective operation of IP policies in the PRC.

However, this process is not exclusively related to China. This chapter examines the internationalization of China’s policies and norms, and how this affects the understanding of IP in the rest of the world. The idea of a ‘Chinese standard’ in international law has permeated multiple recent discussions on the growing status of China as a norm-maker, rather than norm-taker,³³² especially for the countries under its direct area of influence, referring to those in Southeast Asia, Central Asia, and Africa – mainly, but not exclusively, under the Belt and Road Initiative (BRI). This scenario is a byproduct of the new geopolitical scenario brought about by the ‘rise of China’ as an economic and political powerhouse, for which IP is one area among many. Other areas include international investment regimes, e-

³³¹ SHANGHAI ART GALLERY. **Shi Yong – Saudade, 2018.** Available at: <https://www.shanghartgallery.com/galleryarchive/work.htm?workId=102041>

³³² See generally: ERIE, Matthew S. **China and the International Legal Order.** 46 Yale Journal of International Law & 62 Harvard International Law Journal. Joint Special Issue, 2021.

commerce and big tech platforms, and sustainable development financing.³³³ In this chapter, exploring the IP system means exploring institutional and normative changes caused by the increased participation of China in world affairs.

In 2013, Frederik Abbott, Carlos Correa and Peter Drahos argued that the growth of ‘emerging economies’ would likely produce a dramatic change to international IP policy, China being the most notable and influential one.³³⁴ Such growth would impact not only individual countries’ national IP systems, but potentially the global patent system.³³⁵ Since then, Chinese applicants have become the top nationality of PCT applications and WIPO’s main source of income. The participation of China at the WIPO and WTO has clearly increased – although, as this chapter will elucidate, not necessarily as a strong norm-setter. China continues to not be at the forefront of international IP proposals of almost any kind, neither expansionist proposals such as the norms included in ACTA and CPTPP, nor ‘pro-development’ and ‘pro-health’ proposals such as the TRIPS waiver proposal at the WTO (proposed by India and South Africa in October 2020). In this regard, Ivo Krizic and Omar Serrano note the difference between China and other large developing countries:

‘Unlike Brazil and India, China has not openly contested the IP regime and has substantively modernized its domestic IP legislation over the years. This is partly explained by conditionalities linked to China’s WTO accession process, which for some

³³³ For an analysis of how China’s investment patterns as an investor, which had raised concerns about ‘debt trap diplomacy’, can also bring renewed opportunities for developing countries and leverage against traditional investors and lenders, such as the World Bank and the USA, see: SINGH, Ajit. **The Myth of ‘Debt-Trap Diplomacy’ and Realities of Chinese Development Finance**. Third World Quarterly, Vol. 42, Issue 2, 2021.

³³⁴ ABBOTT, Frederick M; CORREA, Carlos; DRAHOS, Peter. **Emerging Markets and the World Patent Order**. Cheltenham: Edward Elgar Publishing, 2013, p. 3-33.

³³⁵ In particular, the authors voiced the potential of BRICS, the group composed of Brazil, Russia, India, China, and South Africa, to transform the international IP system. BRICS in a sense summarized the expectations of a post-Western world not characterized anymore by the hegemonic political and economic power of the United States. Indeed, the approval of the WIPO Development Agenda under the active leadership of Brazil and Argentina was widely seen as an institutional transformation in IP governance coming from the demands and needs of developing countries. The general argument set forth in the book evokes ampler considerations from the international relations scholarship on the decentralization of the world’s power hegemony, shifting away from the United States of America towards Asia. In this sense, the specific discussion on IP may also serve as a reflection, even if imperfect, on changes in global leadership. In terms of the specific legal consequences such a possibility, the authors highlight many examples, such as (i) Brazil’s pioneer introduction of the health regulatory agency ANVISA into the patent application process of pharmaceuticals through a legal amendment in 2001, a model later replicated by neighboring Paraguay and Bolivia and that aimed at enhancing the quality of the scrutiny to grant a patent, (ii) India’s Section 3(d) of its Patent Law amended in 2005 to comply with the TRIPS Agreement, which maintains a rigorous standard of patent examination by deeming non-patentable the second uses of a given invention, except if proven therapeutic gain (a relatively high threshold). Similar articles in national laws would later be adopted in the Philippines and Indonesia, at least, showing the international influence of some of these provisions, and (iii) provisions on the protection of traditional knowledge (TK) – Brazil was one of the earliest jurisdictions to enact any sort of binding legal provision including access and benefit sharing in 2001, India included similar provisions in the future but remarkably created the Indian Traditional Knowledge Digital Library (TKDL), a database of TK identified in the country to counter misappropriation, China also contains similar disclosure, as well as access and benefit sharing mechanisms in its national law, aiming at the protection of Chinese traditional medicine. See: ABBOTT, Frederick M; CORREA, Carlos; DRAHOS, Peter. *Op cit*.

elite fractions represented foreign norm imposition, but for other, reform-oriented circles an opportunity to cement a stringent regulatory framework against entrenched vested interests.³³⁶

In general terms, this may be interpreted as a manifestation of the country's general stance of sovereignty affirmation (of both itself and other countries). In terms of geopolitical aspirations, China has decidedly positioned itself along the lines of non-interventionism in domestic affairs, but has equally adopted a 'wolf warrior diplomacy' based on more direct confrontation in defense of China's positions.³³⁷ Despite the country's consistent strengthening of its IP norms, the *de facto* implementation and domestic position is less clear, as described in the previous chapter. The reluctance to take a more prominent role may be interpreted as uncertainties regarding a changing IP system in the country. China's increasing presence and influence across multilateral institutions such as WIPO (since 1980)³³⁸ and WTO (since its 'latecomer' accession in 2001) equally pave the way for prospects of Chinese leadership in international IP policy. The experimentalism of Chinese industrial policies and its unique coordination between the 'market' and the 'State'³³⁹ pose challenges to theoretical understandings of the developmental state, but also require other 'big players' such as the United States and the European Union to constantly reflect on how best to address, counter or partially adopt what China has done. For example, the signing of the Regional Comprehensive Economic Partnership (RCEP) has been portrayed as a victory of China's influence, although its exact interpretation remains contested.³⁴⁰

The rise of China in the global economy entails a shift of the global economy's core from the United States to Asia, and perhaps an alternative to Western dominance.³⁴¹ This may also provide different alternatives to IEL, giving space to a 'New Chinese Economic Order', characterized, according to Gregory Shafer and Henry Gao, by decentralizing investment, contractual, and financial mechanisms, and creating a hub and spoke model where China is the hub.³⁴² In many senses, these prognostics match the idea

³³⁶ KRIZIC, Ivo; SERRANO, Omar. 'Exporting Intellectual Property Rights to Emerging Countries: EU and US Approaches Compared'. *European Foreign Affairs Review* 22, no. 1 (2017): 57–76.

³³⁷ See: ZHU, Zhiqun. *Interpreting China's "Wolf Warrior Diplomacy"*. Honolulu: Pacific Forum, PacNet 14 May 2020.

³³⁸ For an analysis, see: WIPO MAGAZINE. *China's IP Journey*. December 2010, Available at: https://www.wipo.int/wipo_magazine/en/2010/06/article_0010.html

³³⁹ WU, Mark. *The 'China, Inc.' Challenge to Global Trade Governance*. *Harvard International Law Journal*, 57, 261, 2016.

³⁴⁰ In many fields, this already has perceptible case studies, although a standard based on distinct Chinese norms and practices is often understood to be also (yet) unclear.

³⁴¹ See: ARRIGHI, Giovanni. *Adam Smith in Beijing: Lineages of the 21st Century*. London: Verso, 2007.

³⁴² SHAFFER, Gregory; GAO, Henry. *A New Chinese Economic Order?*, *Journal of International Economic*

that China is merely retaking the central position it has long held, apart from the ‘century of humiliation’ (1839-1949). The ‘rise’ of China is in this sense not equivalent to the ‘rise of the Rest’, as famously described by Alice Amsden in relation to developing countries’ industrialization in the mid-20th century onwards.³⁴³ Decentering the analysis of history (methodology) to consider ‘global history with Chinese characteristics’ provides a shift in perspective that views China as the centerpiece.³⁴⁴

At the same time, as discussed in the previous chapter, norms and legal-political commitments continue to be introduced via bilateral agreements such as the US-China Phase One Agreement (January 2020) and the EU-China Comprehensive Investment Agreement (CAI, December 2020; currently suspended after China’s sanctions against European individuals and institutions³⁴⁵). There are therefore three different dimensions: (i) bilateral-regional with developed and developing countries, including in the Asia-Pacific region, (ii) multilateral at the UN international economic organizations, and (iii) bilateral-trilateral with the US and the EU. They present points of tension amongst each other, and what they represent to China for global economic order and international economic law is unclear.

Peter Yu (2019) argues that, apart from its general growth in its assertiveness in the international arena, the following reasons explain China’s increased prominence in IP international affairs:

1. ‘The Chinese leadership has become increasingly aware of the economic and strategic importance of a well-functioning IP system;
2. A greater focus on international IP norm setting will help China fight off external pressure from the European Union and the United States;
3. China has significant internal needs, and a well-functioning IP system will help the country meet those needs. At the micro level, such a system will promote the development of indigenous industries. [...] At the macro level, a well-functioning IP system can help attract foreign direct investment;
4. China is now in a much better position to assume greater leadership in the international IP regime than a decade ago;
5. A more assertive role in the international IP regime can help China develop international norms that benefit the country in either its negotiation of future international IP treaties or resolution of IP-related WTO disputes.’³⁴⁶

Law, Volume 23, Issue 3, September 2020, Pages 607–635, <https://doi.org/10.1093/jiel/jgaa013>. Furthermore, the realm of private law instruments is a pivotal part of IP, which heavily depends on licensing agreements and contracts. On the importance of private ordering mechanisms, see: DUSSOLLIER, Séverine. **Sharing Access to Intellectual Property through Private Ordering**. Chicago Kent Law Review 1391, 2007.

³⁴³ AMSDEN, Alice. **The Rise of “The Rest”**: Challenges to the West from Late-Industrializing Economies. Oxford: Oxford University Press, 2003.

³⁴⁴ PÉREZ-GARCIA, Manuel. **Global History with Chinese Characteristics: Autocratic States along the Silk Road in the Decline of the Spanish and Qing Empires 1680-1796**. London: Palgrave Macmillan, 2021.

³⁴⁵ DEVONSHIRE-ELLIS, Chris. **The EU Suspends Ratification of the CAI Investment Agreement with China: Business and Trade Implications**. China Briefing, 5 May 2021. Available at: <https://www.china-briefing.com/news/the-eu-suspends-ratification-of-cai-investment-agreement-with-china-business-and-trade-implications/>

³⁴⁶ YU, Peter K. **China, ‘Belt and Road’ and Intellectual Property Cooperation**. Global Trade and Customs Journal, Vol. 14, 2019.

Therefore, the interplay between domestic and international affairs is a constant feature of the process of internationalizing the IP ‘with Chinese characteristics’. On the one hand, as discussed in the previous chapter, China responds to the concerns and demands of international counterparts (particularly the USA and the EU). On the other hand, it considers that a robust, endogenous, and domestic IP system is a matter of its own economic interest, with military, industrial, economic, and social importance. This process invariably shifts the geopolitical and legal conditions for other countries’ IP governance. For example, jurisdictions that are receivers of Chinese investments need to engage with its contractual models and requirements, and be mindful of the legal norms conditioned by Chinese investors and firms. If Chinese IPRs are involved, their protection may become an issue – this is not always the case given the existing portfolio of Chinese investments in most developing countries.³⁴⁷

China’s increasing attention to international organization also means that it will continue to attract attention and scrutiny to its own national policies, legislations, and case law. For example, WIPO’s Judicial Academy launched, in partnership with the Supreme People’s Court of China, a compilation of its main IP-related case law, all translated into English. This selective transparency provides an avenue to assess judicial decisions in the country, although it has also been generally criticized for not including certain crucial cases.³⁴⁸ With more availability and stronger relevance to China’s judicial decisions, it is possible that future Chinese decisions may impact other jurisdictions, similar to landmark case rulings in the US (e.g. *Myriad Genetics*³⁴⁹, *eBay v. MerckExchange*³⁵⁰), or India’s *Novartis Case* in 2013.³⁵¹ Such decisions can be deemed part of a forming ‘global law’ that

³⁴⁷ In this regard, it seems clear that the technology transfer policies to internalize foreign technology, which have been amply discussed and undertaken by China, are not being translated into technology transfer towards other countries where China is investing. See, for an assessment with a focus on Africa: ‘On the one hand, China – as a host country – is forcing foreign investors to transfer their technology, while, on the other, China – as investor – is not requiring its firms to transfer their technology to African host countries. While China is forced in some circumstances to clarify its technology transfer provisions (especially with trade partners in the West), for the most part its trade relations with the developing world (particularly Africa) are not governed by any specific technology transfer provisions, which opens the door to exploitation.’ MONSENEPWO JOOST, Justin. **Technology Transfer in China–Africa Trade Relations**. Oxford China, Law and Development Research Brief 15, 2020. Available at: <https://cld.web.ox.ac.uk/files/finalmonsenepwotechtransferpdf>

³⁴⁸ As highlighted by Mark Cohen in a series of presentations on the status of IP in China, the country stopped publishing data and the rate of foreign applicants winning cases in 2020, pursuant to the US-China trade war.

³⁴⁹ US SUPREME COURT. **Association for Molecular Pathology v. Myriad Genetics, Inc.**, 569 U.S. 576 (2013)

³⁵⁰ US SUPREME COURT. **eBay Inc. v. MercExchange, L.L.C.**, 547 U.S. 388 (2006).

³⁵¹ SUPREME COURT OF INDIA. **Novartis v. Union of India & Others** (2012). The case deals with the validity of Section 3(d) of the Indian Patent Act, which adopts rigorous patentability criteria, with direct

relies on dialogue between courts and transnational effects of national decisions.³⁵²

Therefore, the internationalization of IP ‘with Chinese characteristics’ refers to three distinct processes: (i) the influence of China in global IP policymaking at WIPO and WTO; (ii) the inclusion of Chinese IP-related norms, standards, regulations and/or procedures in trade and investment agreements such as RCEP, (iii) the adoption of Chinese IP norms standards, regulations and/or procedures by other countries, which could emerge from engagements such as the Belt and Road Initiative or, more generally, contracts with Chinese firms. This chapter aims at investigating some of these processes and their respective implications.

Summary of the Chapter

Firstly, this chapter presents an account of China’s participation in multilateral negotiations in Geneva, particularly at the WTO and WIPO. Supporting evidence includes a literature review, a series of interviews and a ethnographic experience via the author’s own observing participation (as opposed to participant observation). This chapter draws on the assumption that the interpretation of international economic law could benefit from an often-dismissed dimension: that of ordinary lives, bureaucratic meetings, and ‘technical’ sectors. These subsections provide insights into China’s role and the daily operations of those involved.

Secondly, it examines the hypothesis that Chinese global aspirations turn the IP ‘with Chinese characteristics’ into a potential ‘Chinese standard’ to be adopted, replicated and influenced by other jurisdictions. To do so, it assesses the RCEP Agreement and IP-related activities along BRI projects. To demonstrate these impacts, challenges and opportunities for Latin America will be examined. Although examples already exist, which is in line with findings regarding the formation of a ‘Chinese standard’ in international law across various sub-fields, a Chinese IP standard seems far from reality. This is supported by the middle-ground and reticent position of China, with the notable exception of procedural

implications for access to medicines. Because the case further stresses the legitimacy and legality of such measure, it received global attention.

³⁵² For broader reflection on the crucial role of Judiciaries to implement or not TRIPS flexibilities, see SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Courts and Pharmaceutical Patents: From Formal Positivism to the Emergence of Global Law**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. See also generally: GEIGER, Christophe; NARD, Craig Allen; SEUBA Xavier. **Intellectual Property and the Judiciary**. Edward Elgar, 2018.

harmonization policies.

The preliminary conclusion of the chapter, apart from summarizing the tensions between the different instances, provides a reflection on whether these processes simply replicate the existing international economic law system with all its caveats and structural inequalities, or whether the internationalized IP ‘with Chinese characteristics’ presents an alternative. It concludes that pitfalls within the international system are limited, and while China presents an excellent lesson in terms of the use of its ‘policy space’, it does not present a fairer economic order.

3.1. China goes global: China at the WTO and WIPO

The reform and expansion lent not only market restructuring, but also to reframing of China’s position in global affairs. Its stance towards international trade unsurprisingly assumed a pro-liberalization stance in terms of tariffs and regulatory barriers, given the increasing role of Chinese exports and the deep integration of China into global value chains. The country nonetheless continued to sustain the need for protection of certain market sectors and for China to continue to be treated as a developing country – which means preferential tariffs and more flexibility in adopting certain rules under the WTO (special and differential treatment – S&D, rules under GATT 1947). China joined WIPO in 1980³⁵³ and the WTO in 2001 – the latter following years of difficult negotiations.

Although important institutional and political changes have occurred since the rise of Xi Jinping to presidency, China’s increasing role across multilateral institutions is a continuum. Importantly, China has overtly become a defender of ‘multilateralism’ and of sovereign states-based organizations, particularly the United Nations system. This further indicates, to an extent, reticence towards ‘multi-stakeholder’ arenas which multiplied over the last few decades as a new form of global governance, led by the Internet Governance Forum, ICANN and other bodies that include both the participation of private companies and civil society organizations. In the Internet regulation field, for example, China was one of the biggest proponents of a States-only regulatory body at the UN (alongside Saudi

³⁵³ See: WORLD INTELLECTUAL PROPERTY ORGANIZATION. **Notification Number 110. Accession by the People’s Republic of China.** Available at: https://www.wipo.int/treaties/en/notifications/convention/treaty_convention_110.html

Arabia, Russia, Cuba and other countries), an endeavor which ultimately failed.³⁵⁴

The topic of China's participation in multilateral institutions, as well as the increase of its foreign activities, has been subject of a vast scholarship in international relations across multiple nuances. The focus of this chapter is to contribute to the existing literature by furthering the specific argument of this thesis regarding the 'internationalization' of the IP 'with Chinese characteristics'. For this reason, it will summarize and draw comments based on China's participation at the World Trade Organization (WTO) and the World Intellectual Property Organization (WIPO) as key case studies of how the promises of globalization and support to multilateralism may be concretized, or not.

The reach of China's participation in other multilateral institutions cannot be underestimated. Chinese nationals are at the top leading position at the Food and Agriculture Organization (FAO), the United Nations Industrial Development Organization (UNIDO) and the International Air Transport Association (IATA) – although the number of Chinese officials in UN agencies is significantly lower than American citizens, for example. Meng Hongwei, a Chinese national, was also the former head of Interpol, until he was arrested in China following corruption charges.³⁵⁵ At the WHO, China was the 14th largest contributor to the organization's budget in 2019 – greatly distanced from its biggest donors, the USA (15.9%), the Gates Foundation (9.4%), and the UK (7.7%), but nonetheless contributing with 1.5% of the overall budget.³⁵⁶ China's relation to the WHO has been particularly relevant in respect to the Covid-19 pandemic, pursuant to disputes over the investigations undertaken by the organization over the origins of Sars-Cov-2, the consequences for the reporting mechanisms, and its implications for the 'Pandemic Treaty' currently under negotiations.³⁵⁷

One important takeaway from China's current experiences in multilateral organizations is that it does not suffer from the 'capacity conundrum', defined by Obijiofor Aginam as:

³⁵⁴ See: COMMISSION FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD). **Draft Report of the Working Group on Enhanced Cooperation (WGEC), Fifth Meeting, 29-31 January 2018.** Available at: https://unctad.org/system/files/official-document/WGEC2016-18_m5_SecondDraftReport_en.pdf

³⁵⁵ See: BBC. **Meng Hongwei: China sentences ex-Interpol chief to 13 years in jail. 21 January 2021.** Available at: <https://www.bbc.com/news/world-asia-china-51185838>

³⁵⁶ See: WORLD HEALTH ORGANIZATION. **WHO Results Report – Programme Budget 2018-2019.** Available at: https://www.who.int/about/finances-accountability/reports/results_report_18-19_high_res.pdf?ua=1

³⁵⁷ See: VELÁSQUEZ, Germán; SYAM, Nirmalya. **A New WHO International Treaty on Pandemic Preparedness and Response: Can it Address the Needs of the Global South?** Policy Brief 93. Geneva: South Centre, May 2021.

“a perennial and structural impediment in an asymmetrical international system. If there is one hard lesson from the negotiation of multilateral treaties and regulatory frameworks in the 1990s including health related agreements under the auspices of the World Trade Organization (WTO) like the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Agreement on the Application of Sanitary and Phyto-Sanitary Measures (SPS), General Agreement on Trade in Services (GATS), Agreement on Technical Barriers to Trade (TBT), and treaties on climate change, disarmament and arms control, migration, and many others, it is the fact that most of the Global South lacked the capacity to effectively negotiate these treaties as equal partners with the industrialized countries of the Global North. Capacity conundrum is manifest both in **the diminutive size of delegates of developing and least-developed countries in treaty negotiating forums, and the relative lack of expertise and technical knowledge by these delegates vis-a-vis those of the industrialized countries.**” (AGINAM, 2021)³⁵⁸

Given the sheer size of the People’s Republic of China and its status as the second world’s economy, this is not exactly a surprise. But it is worth mentioning the extent to which expert discourses are embedded into China’s participation and engagement. Chinese delegations participating in WTO and WIPO discussions are numerically high, and often have the presence of ‘technical’ experts from the ‘capitals’ (primarily Beijing). This requires a lot of investment and an acknowledgement that these negotiations cannot be construed exclusively by general trade diplomats based in Geneva, but rather via a direct interaction with governmental agencies and policy think tanks such as the Chinese Academy of Social Sciences (CASS).

Unlike other countries, China does not caucus with other delegations in regional or specific interest groups for most trade-related proposals. At WIPO, for example, high-income countries caucus in the informal group known as Group B, a *de facto* Western transatlantic group composed of the USA, Canada, Japan, South Korea, European Union, UK, Switzerland, Norway, Iceland, Australia, and New Zealand. Other countries caucus under regional groups, including the African Group, the Group of Latin America and the Caribbean Countries (GRULAC), and the Asia-Pacific Group (APG). China is a standalone ‘regional group’.³⁵⁹ Similarly, the ‘G77 and China’, a group that stemmed out of the processes of decolonization and the creation of the non-aligned movement (NAM), contains this particular name defined by a single group that paradoxically highlights China in a separate category. This relative independence suggests that China prioritizes a diplomatic

³⁵⁸ AGINAM, Obijiofor. **The Proposed Pandemic Treaty and the Challenge of the South for a Robust Diplomacy.** South Centre, South Views, No., 218, 19 May 2021. Available at: <https://www.southcentre.int/wp-content/uploads/2021/05/SouthViews-Aginam.pdf>.

³⁵⁹ It should be mentioned that other countries with similar statistics – economically, populationally, etc. – such as the United States and India are respectively part of the Group B (the group of developed countries) and the Asia-Pacific Group – ACP. Countries often adopt national positions that diverge from their general group statements, but it is again noteworthy that in organizational terms, which reflects a political consideration that China remains and should remain as a single, independent entity.

strategy in which its own national interests (a pursuit of any country) are better addressed by behaving individually and independently rather than seeking partners for caucuses, co-sponsored proposals, among others – although it should be noted that exceptions exist.

One aspect that is less clear in China's position with respect to IP is the role of private sector lobbying. The US foreign policy on IP matters has been historically responsive, if not determined, by the influence of the business sectors' interests. The private sector has been prominent in the globalization of IP³⁶⁰ and economic law more generally, both internationally and domestically. In China, the coordination between private companies and the State is remarkably different from Western countries, and the upper hand of the public sector is clear. At the same time, fierce competition exists, and the economy cannot be described as an aggregate of State-controlled entities.³⁶¹ This suggests that China's positions, if not entirely independent from direct pushes by the private sector, are nonetheless oriented by other stronger influences, mainly from discussions with groups within the central government. As such, the growth in the participation of China at the WTO and WIPO are in the interest of certain Chinese economic stakeholders as much as they are in Western countries, but perhaps with less direct participation of lobbying and interest groups, where such influence has been clear-and criticized. Whether this translates into different forms of engagement is however something to be assessed with more caution.

This subsection, although not an ethnographic piece, proposes a short analysis of some of the issues at stake for China at the WTO and WIPO, how the institutions respond to the role of China, and what is concealed and elicited in China's formal positions.

3.1.1. An Observer Participant in Geneva: Between Palaces of Hope and Paper Tiger Bureaucracy

'In a much more concrete way, literally millions of Dollars (and Swiss Francs, and Euros, and Japanese Yens, and Chinese Yuan, and Indian Rupees, and Brazilian Reais...) are spent in order to achieve a certain choice of words in certain documents. I have seen first-

³⁶⁰ For example, as extensively noted, the TRIPS Agreement was strongly influenced by the lobbying of a handful companies, particularly in the United States. Pfizer, which has invested more in developing countries than its counterparts, acknowledged the economic threat of Indian generic companies and advocated very harshly for the approval of the TRIPS. As posited by Drahos & Braithwaite, Pfizer's then CEO and numerous high-tier executives proposed the idea of linking IP and trade across the 1980s in national and international trade associations. Pfizer also actively pursued coordination between various networks in order to push for the project of an IP system based on trade rules. The creation of the Intellectual Property Committee (IPC) in 1986, which included the leadership of Pfizer's CEO Edmund Pratt and IBM's Chairman John Opel, represented this perfected link. See: DRAHOS, Peter; BRAITHWART, John. **Information Feudalism: Who Owns the Knowledge Economy**. Abingdon: Routledge, 2002.

³⁶¹ See: WU, Mark. **The 'China, Inc.' Challenge to Global Trade Governance**. Harvard International Law Journal, 57, 261, 2016.

hand how at least part of these processes take place, both in and out of formal institutions. Entire lives, careers, and institutions are constituted to do this. This also means the formation and perpetuation of a whole economic-social network which comprises travel agencies, airplane destinations, as well as the deployment of the idea of Switzerland as neutral and centrally located inside Europe.’ (From the author’s fieldnotes, 2018)

International negotiations on IP are not exclusively explained by geopolitics and States’ engagements with one another, but also ‘corridor talks’ and the ordinary daily operations of international organizations, including the role of diplomats and other stakeholders that participate and position themselves as individuals with their respective aspirations.³⁶² This includes a specific transnational elite composed of WIPO and WTO officials, international law firms, industry representatives and civil society organizations, other international organizations and their Secretariat staff, and scholars around the world.³⁶³ Every actor or institution do not have the same status nor political capital, and structural asymmetries are evident in the manner IP-related discussions are constructed and take place. Still, those involved in these negotiations, either explicitly or implicitly, are *personally* implicated in their future.³⁶⁴ Until the paradigm change during the Covid-19 pandemic, they were also *physically* implicated, generating particular forms of performing gender, identity, class, and other social markers during international negotiations and fora.³⁶⁵

IP offices and their officials have, for example, a particular interest in the development of the IP regime. In most countries, more patent and trademark applications equal more revenue and therefore better work conditions and prestige of the institution and its officials. For diplomats, a successful negotiation which results in a legal instrument is a direct sign of prestige – for example, a WIPO treaty, a WTO declaration, a technical assistance ‘project’ or an initiative championed by certain delegations. In loose comparison,

³⁶² See, for a parallel with respect to the consolidation of international arbitration as an epistemic community and their different interests, DEZALAY, Yves; GARTH, Bryant G. **International Commercial Arbitration and the Construction of a Transnational Legal Order**. Chicago: University of Chicago Press, 1996.

³⁶³ See, for a parallel with the role and behavior of patent offices: Peter Drahos, **The Global Governance of Knowledge: patent offices and their clients**. Cambridge University Press, Cambridge, 2010

³⁶⁴ This can be explained both in rational economic terms, based on a pursuit of self-interest, or in the anthropological sense of participating in a community and following a certain set of rituals – such as those of international organizations’ diplomacy and formalism. See generally: TURNER, Victor. **Liminality and Communitas**. In: *The Ritual Process: Structure and Anti-Structure*. Chicago: Aldine Publishing, 1969; for a specific account of organization’s relations, see RILES, Annelise. **The Network Inside Out**. Ann Arbor: University of Michigan Press, 2001.

³⁶⁵ For a relation between bodies and performativity, see generally: BUTLER, Judith. **Bodies that Matter: On the Discursive Limits of "Sex"**. New York: Routledge, 1993; for an analysis of the role of performance and identities in international organizations, with a focus on indigenous peoples and their claims based on rights and self-determination, See: SAPIGNOLI, Maria. **A kaleidoscopic institutional form: expertise and transformation in the UN Permanent Forum on Indigenous Issues**. In: NIEZEN, Ronald; SAPIGNOLI, Maria (eds.). *Palaces of hope: the anthropology of global organizations*. 1. ed. Cambridge Studies in Law and Society. Cambridge: Cambridge University Press, 2017, pp. 78–105.

as much as the idea that patents serve as forms of valuation, which creates certain forms of scientific prestige for inventors – although other forms of recognition exist beyond patents, the consolidation of the international IP field is in the interest of those working on it, regardless of individuals’ evaluation of the IP system itself.³⁶⁶ In other words, an IP negotiator may well be individually contrary or indifferent to the consequences of the global IP regime, but is nonetheless implicated in the need to foster the very system it participates in – either for self-interest, prestige, personal capital development, or routinization (boredom) along bureaucratic terms.³⁶⁷ Evidently, these actors operate within a pre-determined set of policies and positions that are decided by the respective ‘capitals’ or ‘managers’, but there is still a certain amount of maneuver space in their more daily operations.

In this sense, international IP negotiations are not exclusively explained under a logic of States’ clashing interests, bargaining and reciprocal demands whose interests are, of course, motivated by interest groups, political and economic structures, but also by the individuals’ dreams and shared notions regarding the role of IP in the global economy. This is defined by the ideology which mandates that IP is generally positive to all countries, even if they may require specific contours and sometimes exceptions. In this framing, IP becomes a symbol of ‘modernity’, to the extent which officials and young professionals from LDC countries where IPRs are economically irrelevant, clearly refer to the promotion of IP in their discourses. This is perhaps better exemplified by discourses at WIPO’s General Assemblies of countries with deep political instability, including civil wars, referring to their efforts to improve and foster the domestic IP system – rather than utilizing the forum to insist on the need for flexibility to developing countries and robust support by developed countries. From

³⁶⁶ See, for a parallel with the individuals operating in the financial system in Japan, and how their personal dreams and aspirations may have mismatched with the system they support and sustain, see: MIYAZAKI, Hirokazu. **Arbitraging Japan: Dreams of Capitalism at the End of Finance**. Berkeley: University of California Press, 2013.

³⁶⁷ See: ‘Perhaps it is not boredom or an absence of things to say, as much as the difficulty in the crafting of a language to capture the banality and to express the everyday operations of bureaucracies. Indeed, such representational acts seem to be possible in their putatively fictionalised form. Thus, Kafka’s writings gave birth to an adjective – Kafkaesque – on the basis of his singular capacity to turn ‘bureaucracy into a political grotesque – a grotesquerie that is abysmally comic’ (Corngold 2009: 8). Orwell, another superb observer of bureaucracies, invented a whole new vocabulary to describe its characteristics: newspeak, think police, thoughtcrime, etc. What is required then is the crafting of a new language, one that can ethnographically capture the banality of bureaucracy (Mathur 2016). As this entry has argued, the benefits of such a new ethnographic language and practice are potentially enormous: ranging from understanding the functioning of postcolonial welfare states to a new perspective on contemporary global public goods of transparency and accountability to the very meaning of a university in Britain or the United States.’ MATHUR, Nayanika. **Bureaucracy**. The Cambridge Encyclopedia of Anthropology. 9 November 2017. Available at: <https://www.anthroencyclopedia.com/entry/bureaucracy>

an outsider perspective, these speeches seem completely detached from ‘reality’ or even ‘cynical’, but are themselves producing a specific ‘reality’ and self-affirmation at the moment they performed in the setting of an international IP organization such as WIPO. As such, the ‘international’ category may be subject to a Bourdieu-inspired sociological inquiry, in which being international becomes part of a network of struggles for symbolic capital which the very category of IP is part of.³⁶⁸ In this other sense, the discourses are fully understandable, and as detached from material local conditions they may be, they have a persuasive effect of their own.

For the purposes and the scope of the research undertaken in this thesis, it is not possible to theorize how international negotiations take place nor how international law is constructed. The discussions below require further elaboration in order to be generalized in that sense. However, the author’s observatory participation in Geneva, first as intern and subsequently as researcher at the intergovernmental organization South Centre, particularly at WIPO 2018-2021, may be used as the basis for comments on the need for a material and grounded explanation of multilateral IP negotiations, which lay attention to the role of bureaucratic endeavors and the respective behavior of those involved.³⁶⁹ Within this context, it is possible to situate China’s participation at the WTO and WIPO from two different lenses: the idea of ‘palaces of hope’, on the one hand, and ‘paper tiger’ bureaucracy, on the other.

The first refers to a 2017 collection edited by Ronald Niezen and Maria Sapignoli entitled ‘Palaces of Hope – The Anthropology of Global Institutions’, a series of ethnographic accounts of international organizations in Geneva, the main hub of intergovernmental institutions and international non-profit organizations in the world.³⁷⁰

The history of global negotiations of IP is different from the expectations that usually surround human rights bodies to which the collection refers to. In human rights law,

³⁶⁸ ‘The ‘international’ can be conceived of as a highly sought after symbolic capital. People seek to internationalise their curriculum vitae or resumes, study international subjects, get international diplomas, travel internationally, obtain international jobs. As symbolic capital the ‘international’ can be converted into ‘profit’ complementing other forms of capital (economic, cultural and social capital), deployed in struggles for social domination. It is used as a strategy of social positioning and social domination quasi-globally, but it is not recognised everywhere in the same way. We are particularly interested in the unequal distribution of this symbolic capital, the way differential conversion rates and social boundaries operate in the generation of social inequalities.’ BASARAN, Tugba; OLSSON, Christian Olsson. **Becoming International: On Symbolic Capital, Conversion and Privilege.** *Millennium* 46, no. 2, January 2018, p. 96–118. Available at: <http://journals.sagepub.com/doi/pdf/10.1177/0305829817739636>

³⁶⁹ Very importantly, given the fact that this was an observation conducted along a direct participation, as well as the sensitivities and the fact that these activities were not academically-oriented, the description below is based on publicly available facts only.

³⁷⁰ NIEZEN, Ronald; SAPIGNOLI, Maria. **Palaces of Hope – Anthropology of Global Institutions.** Cambridge: Cambridge University Press, 2017.

the promises of an emancipatory body of norms are contrasted with the caveats and limitations of the very system they are part of; in the case of international trade norms, and IP having become part of the global trade regime, the promises of free trade were from the outset accompanied by reticence and marked by various critical voices against globalization and the dire consequences of liberalization and shock therapy. Still, they are also characterized by a contrast between expectations of ‘better’ trade systems and the reality imposed of the existing constraints – both in terms of power imbalances, the unbalanced elements in trade negotiations, and the gap between experiences of negotiators in Geneva and the real life of individuals around the world.

In 2002, Peter Drahos & Braithwart published a foundational critical book on the trajectories of IP and the negotiations in Geneva (and elsewhere) that eventually led to the creation of the WTO system and the TRIPS Agreement.³⁷¹ It provides an internal account of the importance of understanding negotiating processes to comprehend the shaping of embedded values in the construction of international law. As posited by Susan Sell, this is a logic of private power ascertaining its priority over the public interest.³⁷² Negotiations of the Doha Round and the Doha Declaration on IP and Public Health at the WTO, in 2001, and those related to the enactment of the Development Agenda at the WIPO, in 2007, are seen as moments of developing countries’ coalitions and a stronger, if limited, recognition of the public interest in the broader architecture of the IP system.³⁷³ The current discussion regarding a temporary WTO TRIPS waiver for ensuring broader access to Covid-19 products, especially vaccines, is a new dimension of this trajectory. The particularity of this new phase, a result of the crisis it seeks to address, has necessitated virtual meetings regarding public health as opposed to conventional corridor talks and face-to-face engagements.

The second lens refers to Nayanika Mathur’s ethnography in a small, remote village in the Indian Himalayan state of Uttarakhand, which notes the role of bureaucracy in the daily operation of law from the mocking phrase that ‘The Indian State is nothing but a paper tiger’ applied to a case where a tiger threatened the village but environmental rules

³⁷¹ DRAHOS, Peter; BRAITHWART, John. **Information Feudalism: Who Owns the Knowledge Economy.** Abingdon: Routledge, 2002.

³⁷² SELL, Susan. **Private Power, Public Law: The globalization of intellectual property rights.** Cambridge: Cambridge University Press, 2003.

³⁷³ NETANEL, Neil Weinstock. **The Development Agenda: Global Intellectual Property and Developing Countries,** Oxford: Oxford University Press, 2008; DEERE, Carolyn. **The Implementation Game: The TRIPS Agreement and the Global Politics of Intellectual Property Reform in Developing Countries.** Oxford: Oxford University Press, 2008; SYAM, Nirmalya. **Mainstreaming or Dilution? Intellectual Property and Development in WIPO.** Research Paper, Geneva: South Centre, 2019.

and bureaucracy made a response to the situation difficult:

“An ethnography of law and bureaucracy allows me, instead, to spell out the difficulties experienced in getting the law off the ground in the first place, and to express a caution against a historic overattachment to those papery artefacts that are believed to make-transparent the state, its actions, and its intentions. At the same time, I refrain from a wholehearted rejection of state documents and statistics as sheer artifice. Instead, I have tried to show the complexities and layers of entanglement between the sarkari and the real, and the sheer vexedness of implementing utopian plans and deeply desired reforms. In lieu of reproach, quantitative analyses, or theoretical exegeses, I have chosen to ethnographically work through a mocking phrase – ‘paper tiger’ – that is believed to be a particularly apt descriptor of the regularly reported and much puzzled-over peculiarities of the faltering Indian state. By highlighting the logic, practice, and materiality of contemporary state bureaucracy in India, emerging as it does from its particular historically sedimented system of rule, I hope to have shown this phrase’s capacity to acquire popular currency but also its inherent inadequacy to function, in and of itself, as an instrument of critique.” (MATHUR, Nayanika. **Paper Tiger Law, Bureaucracy and the Developmental State in Himalayan India**, Oxford University Press 2015).

It should be reminded that ‘paper tiger’ is also a Chinese expression to denote powerful, threatening figures that are, in reality, irrelevant and weak. Albeit threatening, the paper tiger lacks teeth and real power, as was expressed by Mao Zedong in a famous speech against US imperialism.³⁷⁴ Mathur’s book is a reminder that while documents are not the sole practice that defines bureaucracy, they contain importance on their own. The reflections on an international organization based in Switzerland require distancing from Himalayan India, particularly in a nation state where the bureaucracy is characterized by a certain ethos of quality, impartiality, and precision (in some ways, the opposite of the stereotypes applied

³⁷⁴ “Now U.S. imperialism is quite powerful, but in reality it isn't. It is very weak politically because it is divorced from the masses of the people and is disliked by everybody and by the American people too. In appearance it is very powerful but in reality it is nothing to be afraid of, it is a paper tiger. Outwardly a tiger, it is made of paper, unable to withstand the wind and the rain. I believe the United States is nothing but a paper tiger. History as a whole, the history of class society for thousands of years, has proved this point: the strong must give way to the weak. This holds true for the Americas as well. Only when imperialism is eliminated can peace prevail. The day will come when the paper tigers will be wiped out. But they won't become extinct of their own accord, they need to be battered by the wind and the rain. **When we say U.S. imperialism is a paper tiger, we are speaking in terms of strategy. Regarding it as a whole, we must despise it. But regarding each part, we must take it seriously.** It has claws and fangs. We have to destroy it piecemeal. For instance, if it has ten fangs, knock off one the first time, and there will be nine left, knock off another, and there will be eight left. When all the fangs are gone, it will still have claws. If we deal with it step by step and in earnest, we will certainly succeed in the end. Strategically, we must utterly despise U.S. imperialism. Tactically, we must take it seriously. In struggling against it, we must take each battle, each encounter, seriously. At present, the United States is powerful, but when looked at in a broader perspective, as a whole and from a long-term viewpoint, it has no popular support, its policies are disliked by the people, because it oppresses and exploits them. For this reason, the tiger is doomed. Therefore, it is nothing to be afraid of and can be despised. But today the United States still has strength, turning out more than 100 million tons of steel a year and hitting out everywhere. That is why we must continue to wage struggles against it, fight it with all our might and wrest one position after another from it. And that takes time. It seems that the countries of the Americas, Asia and Africa will have to go on quarrelling with the United States till the very end, till the paper tiger is destroyed by the wind and the rain.” MAO, Zedong. **U.S. Imperialism is a Paper Tiger**. 14 July 1956. Available at: https://www.marxists.org/reference/archive/mao/selected-works/volume-5/mswv5_52.htm.

to the Indian state) – also turned into the ‘Made in Switzerland’ nation branding that associated Swissness with high quality. This is not a description of reality, but rather a set of ideas that carry a strong ideological connotation that differentiates the ‘developed’ from the ‘underdeveloped’, the modern and precise from the ancient and corrupt, and have lent to the reinforcement of a colonial history which is paradoxically also hidden by these discourses. Even though the ‘international Geneva’ is set apart from a legal and narrational point of view from Switzerland, it remains imbued in a value of ‘neutrality’ and precision that has justified its choice as the headquarter of international organizations. In this sense, there is a need to move away from the ideology of Swiss and international ‘neutrality’ and ‘efficiency’ to be able to assess other interwoven layers that compose international trade negotiations, which are anything but neutral.

This anthropological approach reminds one of the possibility of reiterating practices that are based purely on a continuation of a bureaucratic apparatus. Bureaucratic and state apparatuses reinforce certain logics of power and domination,³⁷⁵ inscribing certain values into ordinary practices but also redefining them in the process. International organizations, although not States, are situated within this structure, of international law, marked by resonances of imperialism and capitalist goals.³⁷⁶ In this sense, the appearance of neutrality and efficiency extended to the WTO and WIPO serves as a concealment of their nature as necessarily pro-free trade institutions, with a predetermined set of views, rather than an all-encompassing and neutral position.

In this broader context, it is possible to assess China’s stance at WTO and WIPO with a slightly different starting point than merely an understanding of how it advances its own interests in each organization throughout committees, information negotiations and formal treaty proposal, in the sense that participating in such organizations is in itself a commitment to both a regime of hope towards international organizations and multilateralism, on the one hand, and a certain concealment of paradigms of efficiency, neutrality and free trade via seemingly technocratic discourses, on the other hand. The next subsections will distil some topics with this background being taken into account.

³⁷⁵ For a classic, see FERGUSON, James; GUPTA, Akhil. **Spatializing States: Toward and Ethnography of Neoliberal Governmentality**. *American Ethnologist*, Vol. 20, N. 4, 2002, p. 981-1001.

³⁷⁶ For a few references, see: CHIMNI, B.S. **Third World Approaches to International Law: A Manifesto**. *International Community Law Review* 8, 2006, p. 3–27; MARKS, Susan. **International Law on the Left: Re-Examining Marxist Legacies**. Cambridge: Cambridge University Press, 2008; TSOUVALA, Ntina. **Capitalism as Civilization: A History of International Law**. Cambridge: Cambridge University Press, 2020.

3.1.2. China at the World Trade Organization (WTO)

The WTO was created in 1994 following the Uruguay Round negotiations, with a focus on trade liberalization in a post-Cold War world and a clear mandate towards free trade and reduction of tariffs. Its importance to the global IP system is unquestionable as it led to the inclusion of IP as a matter of international trade, which was achieved via the TRIPS Agreement, Marrakesh Treaty's Annex C.³⁷⁷ The creation of the organization was a contentious debate that included in particular divergences between developing and developed countries, and the topic of IP was among the most complex matters to be addressed.³⁷⁸ China did not join the WTO at its inception, which required it to go through a specific accession protocol afterwards.

To accede to the WTO, China went through a lengthy process of negotiations that included a number of commitments to liberalizing its economy. Various legal changes were required, with over 10.000 laws being amended. The compliance with the TRIPS Agreement in intellectual property domestic laws was a prominent issue, given the background provided in the previous chapters, but the discussion went much further, including agriculture, subsidies, the role of SOEs, industrial policies, tariffs, labor and environmental standards, among others. The Chinese development model, focused on exports and integration into global value chains, had much to gain from market accession to other countries, which justified at least some of the commitments accepted by the country.

At that time, Western countries were largely of the view that China's increased tendency towards market economy would accordingly lead to the adoption of political reforms towards liberal democracies. Such expectations largely vanished over the subsequent decades: instead, it became clear that a Chinese alternative governance and political model were being consolidated as an alternative to Western paradigms, merging conventional market economy principles, including fierce competition, with a political system with some degree of autonomy at the local level but strong centralization at the national one. This, of course, posed challenges to the applicability of WTO rules to China, and foreign countries' expectations of the country.

³⁷⁷ SHADLEN, Kenneth. **Patents and Pills, Power and Procedure: The North-South Politics of Public Health in the WHO**. LSE Development Studies Institute Working Paper Series, N. 03-42, January 2003; GALLAGHER, Kevin. **Understanding developing country resistance to the Doha Round**. Review of International Political Economy, Vol., 15, 2007, p. 62-85.

³⁷⁸ CORREA, Carlos. **Trade Related Aspects of Intellectual Property Rights – A Commentary on the TRIPS Agreement**. Oxford: Oxford University Press, 2nd ed, 2020.

China's accession in 2001 is one of the most important moments for the WTO, given its sheer market potential and its role in international trade. As of 2021, China converted itself into the biggest trade partner for most countries in the world, a remarkable difference from 20 years prior. It also started to support many trade initiatives at the WTO, being more than a spectator and more than a rule-taker. For example, in 2015, China was the 16th country to join the Trade Facilitation Agreement (TFA). As of 2018, it had donated over 4.6 million USD to the WTO trust funds,³⁷⁹ which is deployed, among other things, to capacity-building activities to developing and LDCs undertaken by the Secretariat. These elements alone cannot ascertain China's shift into becoming a norm-maker, but do hint at its commitment to the organization.

It is also important to highlight that 'Hong Kong, China' (since 1995)³⁸⁰, 'Macau, China' (since 1995)³⁸¹ and the 'Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu - Chinese Taipei' (Taiwan, since 2002)³⁸² are separate, full Member States of the organization. They adopt separate trade policies and contain separate legal systems with respect to IP.³⁸³ As it is well known, the PRC does not acknowledge Taiwan as a sovereign country, which has prevented it from participating, among others, from the WHO and other organizations, but not from the WTO, since the organization does not require its members to be States.³⁸⁴

Pursuant to its accession to the WTO, China could be sued under the Dispute Settlement Understandings (DSU) system. From the point of view of international economic law and IP, this is one of the key issues related to China's accession to the organization. Many developing countries crafted expertise and managed to get balanced and often positive results out of the system,³⁸⁵ while many other continued to consider that the system would

³⁷⁹ See WORLD TRADE ORGANIZATION. **China donates USD 1 million to support implementation of Trade Facilitation Agreement.** Press/816: Technical Assistance, 2 February 2018. Available at: https://www.wto.org/english/news_e/pres18_e/pr816_e.htm

³⁸⁰ See WORLD TRADE ORGANIZATION. **Hong Kong - Member Information.** Available at: https://www.wto.org/english/thewto_e/countries_e/hong_kong_china_e.htm

³⁸¹ See WORLD TRADE ORGANIZATION, - **Macao - Member Information.** Available at: https://www.wto.org/english/thewto_e/countries_e/macao_china_e.htm

³⁸² See WORLD TRADE ORGANIZATION, **Chinese Taipei - Member Information.** Available at: https://www.wto.org/english/thewto_e/countries_e/chinese_taipei_e.htm

³⁸³ For an example of the differences between Hong Kong and Mainland China on IP matters, see: LI, Yahong. **Patents and Innovation in Mainland China and Hong Kong: Two Systems in One Country Compared.** Cambridge: Cambridge University Press, 2017.

³⁸⁴ For an analysis of Taiwan's participation at the WTO, and how it does not entail a shift in China's perspective on the legal sovereignty of Taiwan, see: CHARNOVITZ, Steve. **Taiwan's WTO Membership and its International Implications**, 1 Asian J. of WTO & Int'l Health L. & Pol'Y 401, 2006.

³⁸⁵ See: RATTON, Michelle Sanchez-Badin. **Demandas por um novo arcabouço sociojurídico na Organização Mundial de Comércio e o caso do Brasil.** PhD Thesis, São Paulo: University of São Paulo, 2004.

inevitably be unbalanced towards developing countries.

China – Measures Affecting the Protection and Enforcement of Intellectual Property Rights (DS362, 2008) was one of the very few TRIPS-related cases of the DSU against any Member States.³⁸⁶ This remained the only case filed against the Chinese IP system until the 2018 request for consultations by the United States amid the launch of unilateral measures against China.³⁸⁷ The overall number of DSU claims against the PRC is now much higher: 23 claims from the US alone. The *China – Intellectual Property Rights* case in 2008 related to a relative lack of criminal remedies for infringement, selling of trademark infringing goods after the trademark is removed, and the protection of copyrights for prohibited work. It decided the following, as per a WTO case summary:

“1. MEASURE AND INTELLECTUAL PROPERTY RIGHTS AT ISSUE • Measure at issue: (i) China's Criminal Law and related Supreme People's Court Interpretations which establish thresholds for criminal procedures and penalties for infringements of intellectual property rights; (ii) China's Regulations for Customs Protection of Intellectual Property Rights and related Implementing Measures that govern the disposal of infringing goods confiscated by customs authorities; and (iii) Art. 4 of China's Copyright Law which denies protection and enforcement to works that have not been authorized for publication or distribution within China. • IP at issue: Copyright and trademarks.

2. SUMMARY OF KEY PANEL FINDINGS

• TRIPS Art. 61 (border measures – remedies): The Panel found that while China's criminal measures exclude some copyright and trademark infringements from criminal liability where the infringement falls below numerical thresholds fixed in terms of the amount of turnover, profit, sales or copies of infringing goods, this fact alone was not enough to find a violation because Art. 61 does not require Members to criminalize all copyright and trademark infringement. The Panel found that the term “commercial scale” in Art. 61 meant “the magnitude or extent of typical or usual commercial activity with respect to a given product in a given market”. The Panel did not endorse China's thresholds but concluded that the factual evidence presented by the United States was inadequate to show whether or not the cases excluded from criminal liability met the TRIPS standard of “commercial scale” when that standard is applied to China's marketplace.

• TRIPS Art. 59 (remedies): The Panel found that the customs measures were not subject to Trips Agreement Arts. 51 to 60 to the extent that they apply to exports. With respect to imports, although auctioning of goods is not prohibited by Art. 59, the Panel concluded that the way in which China's customs auctions these goods was inconsistent with Art. 59, because it permits the sale of goods after the simple removal of the trademark in more than just exceptional cases.

• TRIPS Art. 9.1 (Berne Convention – Arts. 5(1) and 17) and TRIPS Art. 41.1 (enforcement – general obligations): The Panel found that while China has the right to prohibit the circulation and exhibition of works, as acknowledged in Art. 17 of the Berne Convention, this does not justify the denial of all copyright protection in any work. China's failure to protect copyright in prohibited works (i.e. that are banned because of their illegal content) is therefore inconsistent with Art. 5(1) of the Berne Convention as

³⁸⁶ CORREA, Carlos. **Interpreting the flexibilities under the TRIPS Agreement**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

³⁸⁷ Request for Consultations by the United States, China – Certain Measures Concerning the Protection of Intellectual Property Rights, WTO Doc. WT/DS542/1 (23 Mar. 2018).

incorporated in Art. 9.1, as well as with Art. 41.1, as the copyright in such prohibited works cannot be enforced. (WORLD TRADE ORGANIZATION³⁸⁸)

The 2018 case, directly related to the US-China trade war and accusations of technology transfer and protection of IP in the country, did not move forward given the paralysis of the WTO system pursuant to US' veto to the nomination of new judges of the dispute settlement system. In July 2021, the maximum deadline for the establishment of a panel preempted. The claims contained a more limited scope than the USTR claims against China, but nonetheless created a leverage for other countries and regions, such as the EU, Japan and the UK, to join the proceedings and support the accusations against China.

China has also used the DSU system in its favor, evidenced by their cases proposed against other countries. The most recent is dated July 2021 and calls for consultations with Australia regarding its restrictions on Chinese investments. Western countries, particularly the US, have criticized the WTO system for its relative ineffectiveness and the stalemate in advancing broad liberalization commitments. There is also increasing dissatisfaction by developed countries with respect to how the current IP system, the WTO in particular, are ill-equipped and unsuitable for addressing the economic activities of/in China. The country itself shared discontent towards other countries and the WTO, but, nonetheless, continued to advocate for the strengthening of the organization and multilateralism, as opposed to the applicability of unilateral measures such as the USTR's Section 301-related sanctions. China has been advocating for a WTO Reform process alongside most developed countries, agreeing with the need for change so that the organization may be more effective in its endeavor of liberalizing trade, even if it may disagree on the exact details. This position has been disapproved by most developing countries, who promote that the WTO's main problems are its insufficient adequacy to developing countries' particularities and needs.

One area of disagreement is in e-commerce negotiations. WTO Members have discussed the topic under a work program on e-commerce since 1998.³⁸⁹ China did not have a prominent role after its accession in 2001. There is a longstanding Moratorium on Customs Tariffs on Electronic Transmission, which, in practice, means that countries have not agreed

³⁸⁸ WORLD TRADE ORGANIZATION, **China – Intellectual Property Rights (DS362)**. Available at: https://www.wto.org/english/tratop_e/dispu_e/cases_e/1pagesum_e/ds362sum_e.pdf.

³⁸⁹ For a history of communications and an analysis of the priorities set in this regard, see: AARONSON, Susan Ariel; STRUETT, Thomas. **Data is Divisive: A History of Public Communications on E-Commerce, 1998-2020**. CIGI Papers N. 247, December 2020, Available at: <https://www.cigionline.org/publications/data-divisive-history-public-communications-e-commerce-1998-2020>

to liberalize (reduce or eliminate tariffs and other trade barriers) electronic commerce, and, consequently, jurisdictions are free to impose duties and tariffs on e-commerce. China, whose companies became dominant market players in digital trade over the last decade, alongside developed countries with strong e-commerce companies, advocates for these barriers to be lifted, which is in their direct interest. For other developing countries, however, this would create an impossibility to develop national e-commerce industries given the fierce competition with giants such as Amazon, Alibaba, Taobao and Pinduoduo. Others are of the view that liberalization would, however, contribute to the overall development of international trade and could still benefit companies and developing countries. The e-commerce moratorium is informally attached, from a political point of view in negotiations, to the so-called non-violation moratorium. It is generally understood that if one is to be lifted, the other should also be. The non-violation moratorium relates to a specific waiver of non-violation claims under TRIPS, which are nonetheless permissible under other WTO Agreements; in short, a non-violation means a situation where, although not a direct violation of a WTO rule, the effect is impeditive to trade so that it can give rise to a trade claim. If this is applicable to TRIPS rules, lawful and legitimate initiatives such as the use of a compulsory licensing or rigorous patentability criteria could be subject to a WTO dispute, generating uncertainties.

Since 2019, however, a Plurilateral Initiative on E-Commerce was launched with the support of China (although not as an early sponsor). A plurilateral means a group of countries negotiating rules that would, in theory, be applicable only to those participants, but which are in fact applicable more broadly given WTO principles of most favorable nation and national treatment. As such, plurilateral as a negotiation model has been criticized for not being representative of all interested stakeholders, but celebrated as a solution to stalemates that impeded agreements under the organization. Furthermore, amid the rise of the digital economy, e-commerce has become a proxy for digital trade more broadly and there is the perception that such rules will govern the majority of international trade in the upcoming decades. Along these lines, as noted by Jane Kelsey, John Bush, Manuel Montes and Joy Ndubai:³⁹⁰

‘Today, developing countries are under intense pressure to participate in a Joint Statement Initiative on Electronic Commerce in the WTO, even though those negotiations lack a formal mandate. First-mover developed countries began pushing for formal negotiations

³⁹⁰ KELSEY, Jane; BUSH, John; MONTES, Manuel; NDUBAI, Joy. **How ‘Digital Trade’ Rules Would Impede Taxation of the Digitalised Economy in the Global South Peer.** Penang: Third World Network, 2020.

in mid-2016. Their attempt to secure a mandate at the 11th Ministerial Conference in November 2017 was rebuffed by a number of developing countries. A group of Members then announced they would begin exploratory work on electronic commerce, with a view to launching negotiations. In 2019 that exploratory work morphed into negotiations at the WTO, still without a mandate but with support from the Director-General. In an attempt to enhance the legitimacy of the breakaway process, these negotiations have been depicted as a pro-development initiative. However, as of March 2020, just over half the WTO Members have attended meetings. Those 84 countries included all 37 OECD Members and just four least developed countries. South Africa and India, among many other developing countries, continue to reject the process as illegitimate. **China has participated actively, to the US's displeasure, and has advocated measures broadly consistent with the RCEP.** Many proposals in the Joint Statement Initiative mirror the main elements from recent FTAs. (p. 22)

It is also relevant to point out that China's development of the digital industry would not have happened without specific industrializing policies aimed at the sector.³⁹¹ Generally, China supports liberalization of e-commerce rules, including the possible end of the e-commerce moratorium (which allows countries to impose tariffs and duties on e-commerce), rules on transparency, trust and facilitated online payments, digital certification, etc. These are also generally defended by most developed countries, including the USA, the European Union and Japan. Middle-income countries that participate in the negotiations have also adopted similar proposals, including Brazil. However, key opposition comes from India, South Africa and countries which do not participate in negotiations on e-commerce, arguing that they are not part of the current mandate of the WTO, that this mandate is short-sighted in its implications for developing countries, and contain a liberalizing approach that reduces countries' policy space on issues such as data governance, particularly data localization requirements (i.e. obligations to store certain data in specific local servers). China's position on this subject is nuanced with respect to data, as it is also a large utilizer of various forms of data localization, including for both national security purposes and industrial policy.

As noted by Henry Gao (2021):

'In contrast with the European Union and the United States, China has traditionally taken a cautious approach to data regulation in trade agreements. Until very recently, it has not even included e-commerce chapters in its RTAs. This only changed with its FTAs with Australia and Korea, which were both signed in 2015. Moreover, the provisions in these two FTAs are rather modest, as they mainly address trade facilitation related issues, such

³⁹¹ 'The digitalised economy has the potential to provide new opportunities for the Global South to achieve these outcomes, but they will not materialise without clear and effective digital industrialisation strategies. The McKinsey Global Institute observed in 2017 that China's development and adoption of digital technology using conventional measures was 'only in the middle of the global pack', rated at 59 of 139 on the World Economic Forum's Networked Readiness Index. Yet, this ranking disguised China's role as a leading force in several areas, such as the rapid rise in electronic commerce transactions and mobile payments.⁹ These results would not have been possible without the state prioritising these sectors as part of its industrial policy over several decades'. KELSEY, Jane; BUSH, John; MONTES, Manuel; NDUBAI, Joy. *Op cit*, 2021, p. 11.

as a moratorium on customs duties on electronic transmission, recognition of electronic authentication and electronic signature, protection of personal information in e-commerce, paperless trading, domestic legal frameworks governing electronic transactions, and the need to provide consumers using electronic commerce a level of protection equivalent to that in traditional forms of commerce.’ (p. 329)

‘With the revival of e-commerce discussions in the WTO in 2016, many members have made new submissions. Most of these largely reiterate their existing positions in RTAs and other plurilateral agreements. [...] The Chinese submission in November 2016, on the other hand, focused more on trade facilitation measures such as simplified border measures and customs clearance, paperless trade and single window, and the establishment of platforms for cross-border e-commerce transactions such as the electronic World Trade Platform (eWTP), an idea first proposed by Alibaba Chairman Jack Ma. These positions have largely been carried over in their submissions in the Joint Statement Initiatives, which as of 10 February 2020 has received 52 submissions from the 77 participants. (p. 331-332).’³⁹²

As noted by the author, (i) countries generally agree on free cross-border data flow in principle, but there are exceptions (e.g. for personal information protection or specific sectors such as finance) and some developing countries oppose it; (ii) countries agree with some degree of privacy or personal information protection but disagree on the standards; (iii) developed countries oppose data localization requirements, while others continue to consider them to be positive – although, for the author, the measure is inefficient.³⁹³

There are also various IP-related implications of e-commerce.³⁹⁴ Some of the current proposals include specific protection for algorithms themselves (defended by Japan and the United States), as well as measures against forced disclosure of an algorithm (implicitly targeting China). There are also issues related to the liability of platforms in e-commerce operations for trademark and copyright violation, something that, as the previous chapter exposed, has already been included in the most recent e-commerce law of China. Other issues are not part of current negotiations but raise concerns in terms of technological dependency and the role of IP in further monopolizing access to software and products for developing countries. China generally adopts TRIPS-Plus measures in IP applied to digital trade but has, for the time being, not attempted to include them in such negotiations, unlike the US and Japan. In this sense, it is, again, difficult to scrutinize as there is both a push towards a certain shaping of international digital trade rules and less pressure on the adoption of standards.

³⁹² GAO, Henry. **Data regulation in trade agreements: different models and options ahead.** In: SMEETS, Maarten (ed.). *Adapting to the digital trade era: challenges and opportunities*, WTO Chairs Programme, 2021, p. 329-331.

³⁹³ GAO, Henry. *Op cit*, p. 331-332.

³⁹⁴ For an overview, see: IDO, Vitor Henrique Pinto. **Intellectual Property and E-commerce: Proposals at the WTO.** Policy Brief 69, Geneva: South Centre, 2019.

For this reason, as argued by former WTO official Alan Wolff in a Berkeley Law School event in April 2021, China does not situate itself in the pole of defenders of IP nor in the pole of its critics, which mainly constitutes developing countries.³⁹⁵ The increased interaction of IP issues with data governance, including privacy, cybersecurity and trade-related aspects of data, make these distinctions more complex than ever. It should also be noted that China's protection of privacy has been substantially strengthened in the past few years. A new privacy law with protection akin to the European Union's General Data Protection Regulation (GDPR) is expected to be approved in late 2021.³⁹⁶

China's positions on data governance are reflective of the interplay between digital trade liberalization, Internet regulation and its 'Great Chinese Firewall', use of big data for public policies, including national security, and industrial and technological policies to achieve the upscaling of high-tech sectors.³⁹⁷ With respect to digital trade, China has a particular focus on e-commerce for the selling of tangible goods on online platforms and financial modes of payment (two sectors that, while still focused on the Chinese domestic market, now increasingly operate abroad). Unlike the United States, which has various companies offering digital services, such as Google and Facebook, most Chinese companies abroad are e-commerce platforms selling traditional goods. In this sense, e-commerce is mainly the digital commercialization of tangible goods, instead of new markets. However,

³⁹⁵ WOLFF, Alan. **The Role of the WTO and International Organizations in IP and Technology.** Presentation. Tech, Trade and China – The Future of Multilateral Approaches to China Tech Policy. Berkeley Law School – Asia IP & Technology Law Project. 27 April 2021. Available at: https://www.kaltura.com/index.php/extwidget/preview/partner_id/1368891/uiconf_id/41443412/entry_id/1_r1ydz6y0/embed/iframe?

³⁹⁶ 'In late April, China unveiled the second draft of the country's privacy law, the Personal Information Protection Law, for public comment. The law is expected to pass by the end of the year, and would shield Chinese internet users from excessive data collection and misuse of personal data by tech companies — and even, to some extent, by the government. The new law, similar to the European Union's General Data Protection Regulation, will give individuals the power to know how their personal data is being used and to consent to it.' LU, Shen. **China could soon have stronger privacy laws than the U.S.** Protocol Alert, 10 May 2021. Available at: <https://mailchi.mp/protocol/j5pa1d6aiz?e=e7563a7ab5>.

³⁹⁷ Strongly echoing debates dating back to the 60s and 70s about "information sovereignty" or "cyber sovereignty" driven mainly by Russia and China, expressions appending sovereignty to other notions have proliferated recently. Examples range from the broader terms, often evoked by governments, such as "technological sovereignty", "data sovereignty" or "digital sovereignty", to the more technology-specific, invoked by corporate actors, such as "cloud sovereignty", "operational sovereignty", or even "software sovereignty". Other related terms include "data localization" or "data residency" and also "digital autonomy" and "digital self-determination". In this competition of buzzwords and expressions, Data sovereignty is clearly gaining traction, albeit more as a political concept than one addressing the concrete legal implications of the exercise of sovereignty in the digital age. Although vague and undefined, it has been used to anchor a variety of technical and non-technical measures for greater ownership and autonomy regarding data. DE LA CHAPELLE, Bertrand; PORCIUNCULA, Lorraine. **We Need to Talk About Data: Framing the Debate Around Free Flow of Data and Data Sovereignty.** Internet and Jurisdiction Policy Network, 2021, p. 39. Available at: <https://www.internetjurisdiction.net/uploads/pdfs/We-Need-to-Talk-About-Data-Framing-the-Debate-Around-the-Free-Flow-of-Data-and-Data-Sovereignty-Report-2021.pdf>

things are developing rapidly as financial operators in China internationalize and being to accordingly require facilitated paths for such endeavors. The expansion of the country's influence towards Southeast Asia, Central Asia, Africa and others have also already paved the way for new operation of Chinese digital companies, such as Alibaba and Huawei.

As summarized by De la Chapelle and Porciuncula:

'Given the difficulty of reaching a broad agreement on e-commerce and digital trade, several regional, multilateral and bilateral Free Trade Agreements (FTA) have emerged. E-commerce chapters appear in FTAs by Australia, Canada, the European Union and the United States, some of which have been progressively renamed digital trade chapters. [...] These agreements address broad digital issues such as AI, distributed ledger technology, smart cities, digital identities, e-payments, e-invoicing, IoT, data protection and privacy, data portability, data innovation and regulatory sandboxes for cross-border data transfers. Despite advances in a select number of FTAs, important divergences continue to exist among major state powers. **The United States and the European Union continue to have sharply different regimes, not necessarily interoperable, while China does not bind itself by any rules regarding Free Flow of Data.** These contrasts were prominently on display at the Osaka 2019 G-20 meeting, both on substance, regarding data localization measures, and on process, regarding whether the sole negotiation venue should be the WTO or not, given the abundance of parallel regimes (e.g. privacy, taxation, law enforcement, content moderation and platform regulation). In this regard, **developing countries are still lagging behind in understanding how to position themselves in the digital trade debate,** given the substantive information asymmetries and lack of an established framework for measuring the value of data'.³⁹⁸:

These are issues that clearly demarcate, on the other hand, a new chapter in trade relations of China, whereby its prominence in the global digital trade inevitably places it as a key actor although it continues to avoid excessive visibility at most other discussions.

Another important area is the status of China as a developing country for the purposes of special and differential treatment (S&D). The United States has been adamant in criticizing China for benefitting from such category, which provides flexibility in trade policies, given its economic size and the recent changes in its socio-economic structure. While this may be true, China argues that purchase power and overall levels of development in the country remain typical of developing countries, which would justify the continuation of such category. What is interesting, on the other hand, is that the flexibility which China necessitates in most trade areas is distinct from its own policies in IP, which, as noted in the previous chapter, are essentially TRIPS-Plus and highly stringent for the time being. Usually, more flexible IP regimes are necessary for countries with lower technological capacity and more difficulties in ensuring access to products; this does not prevent China from the right to use them, but the specific adoption of TRIPS-Plus while also considering the necessity of

³⁹⁸ DE LA CHAPELLE, Bertrand; PORCIUNCULA, Lorraine, 2021, *Op cit*, p. 26.

other flexibilities in the trade system is noteworthy.

Finally, another crucial area for the analysis of China's stance at the WTO is its position on the topic of IP and public health. Historically, China has sided with other developing countries in defending the use of TRIPS flexibilities and internal discussions in the country were consistent, despite the pressure to adopt TRIPS-Plus provisions since the 1992 amendment of laws after negotiations with the US. China has not been at the forefront of the Doha Declaration of 2001 nor at the contemporary discussion on the TRIPS waiver proposed in October 2020 by South Africa and India, but has expressed support and highlighted the need to render compatible the protection of IP with the public interest. In a South Centre organized event at the WTO Public Forum in 2018 on the topic of TRIPS flexibilities, the ambassadors of China, India and Brazil expressed their full support to countries' right to adopt such measures and to promote access to medical products. In other events conducted at the WTO in which the author participated, Chinese delegates' remarks were clear on the idea that China seeks a balance between the public and the private interests in IP matters, acknowledging the great importance of access to medicines while also sustaining the need to foster IP protection to ensure innovation.

At the WTO TRIPS Council, for example, China proposed with South Africa, India, and Brazil in 2018 a discussion on the use of competition law to address anti-competitive practices in the IP sector. The discussion would later be continued by the delegations of South Africa and India only, but reinforced the openness of China towards broader discussions that require thinking about the detrimental consequences of the IP system, *inter alia*, to access and competition. In remarks at the TRIPS Council, China advocates for the importance of balancing the public and the private interest, which is a big departure from most developed countries' statements, which focus on the need to safeguard IP rights as a channel to innovation. In various informal discussions and open events, China has also adopted a similar approach.

Recently, China's stance on IP and public health has had two important developments. Firstly, the most recent amendments to its patent law and trade secrets substantially increased IP protection to include topics that were previously rejected, including a strong patent linkage system – as described in the previous chapter. Secondly, the TRIPS waiver discussions for Covid-19 medical products, especially vaccines, which have been one of the main focuses of the WTO since October 2020. The next chapter will further explore this development, sufficing to argue for the time being that if China's stance remains a middle-ground position which duly acknowledges the public interest, its

prominent role as a vaccine supplier also substantially shifts the geopolitical impact of its decisions and the domestic trade-offs that the country faces.

Still, China's position at the WTO has largely increased since its accession in 2001, reflecting the changes of the international trade system and China's growth. It continues to adopt positions with respect to IP that cannot be fully sided with developed countries nor with developing countries, with a trend more along the lines of enhancing trade liberalization than pushing for flexibility for developing countries. What remains consistent, is the framing of Chinese officials and diplomatic sources' speeches to highlight the country's commitment to a free multilateral international trade regime, while safeguarding national particularities. Among the differences across specific topics, this general narrative is perceptible – which, from an anthropological point of view, suggests a similar functional use of eliciting and concealing certain values and premises as the ones found in the IP 'with Chinese characteristics'. They are also part of the process of reaffirming the country and the individuals' commitments towards the system they partake in.

As a concluding remark, it should be acknowledged that most contemporary issues with prominent geopolitical implication, remain outside of the WTO. The unilateral tariffs between USA and China, their 1st Phase Agreement to settle the 'trade war', and the China-EU Comprehensive Investment Agreement (CAI) – later halted in April 2021 – were representative of different fora. China's 'talks', reported in May 2021, signal the country's likelihood to join the Comprehensive and Progressive Transatlantic Partnership (CPTPP). Regional agreements such as the Regional Comprehensive Economic Partnership (RCEP) are equally relevant, as noted below.

3.1.3. China at the World Intellectual Property Organization (WIPO)

WIPO is a specialized UN agency dedicated to the promotion and protection of intellectual property rights globally. Created in 1967, it continues the work and mandate of the previous United International Bureaux for the Protection of Intellectual Property (BIRPI) set up in 1893. It administers dozens of IP treaties, including the Paris Convention and the Bern Convention, the two foundational treaties of the late 19th century, and various other substantive (such as the Internet Copyright Treaties of 1998 – the WIPO Copyright Treaty, WCT and the WIPO Performances and Phonograms Treaty, WPPT – and the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled of 2013) and procedural treaties (such as the Madrid

Protocol for Trademarks, the Lisbon System for the International Registration of Appellation of Origins and Geographical Indications). WIPO also administers the Patent Cooperation Treaty (PCT), which was created in 1978, facilitating the filing of patents around the world by avoiding duplication of applications – although it does not create a ‘global’ patent, it drastically streamlines the procedures by centralizing under a single filing procedure.

China ranked 14th worldwide in WIPO Global Innovation Index in 2020, a joint publication by WIPO, Cornell University and INSEAD, which is often regarded as a standard for measuring innovation. This is a remarkable rise in the ranking since its creation. The country joined WIPO in 1980; and in the 1980s also joined numerous other ~~main~~ IP agreements during the first wave of legislative reforms that introduced a full IP system into the country. Almost 69,000 Chinese patent applications passed through the PCT system in 2020, becoming the biggest applicant source in the world, having surpassed the United States in 2019. Huawei is the single top applicant in the PCT System worldwide. As noted by Mark Cohen, there is also a prominence of individual inventors in such applications, much beyond the number of the United States, which can also be measured as a sign of innovation which takes place outside of companies³⁹⁹ – or at least entities with the intent to file numerous patents. WIPO publicly praises the development of the Chinese IP system and mainly uses data regarding Chinese participation as applicants to highlight such understanding; the Chinese delegation also expresses content with its impressive numbers.⁴⁰⁰ The organization has a few regional bureaus around the world, and the Beijing regional office is considered to be one of the most relevant among them, given the prominent role of China’s economy. As anticipated in the previous chapter, WIPO is paramount and explicit in its role of creating a global ‘culture of IP’, in which all could benefit from the IP system by becoming ‘users’.

It is a self-funded organization due to the fees related to the PCT and other treaties’ operations, which diminishes its reliance on Member States’ contributions but also heightens dependency towards applications. From an economic point of view, it creates an interminable incentive to augment the quantity of IP filings around the world, which has been criticized by some as an inevitable bias.

³⁹⁹ COHEN, Mark. **Fact and Fiction in the U.S.-China Intellectual Property Trade War**. Presentation at Asia Society. **13 October 2020**. Available at: <https://www.youtube.com/watch?v=F3lsIS2EbyU>

⁴⁰⁰ ‘The State Intellectual Property Office of China has also taken a series of measures to provide the applicants with relief measures and facilitation services. From January to July this year, CNIPA has accepted a total of 818,000 invention patent applications and 5.171 million trademark registration applications, 36,000 PCT international patent applications, under the Madrid International, there were 4551 trademark applications’ (free translation). SHEN, Changyu. **The Chinese Government Delegation Statement at the 61st WIPO Assemblies**. 21-25 September 2020. Available at: https://www.wipo.int/edocs/mdocs/govbody/zh/a_61/a_61_stmt_china.pdf

Although WIPO is a Member States-driven institution, it has strong outreach to other stakeholders, especially IP applicants (mainly companies, universities and individuals) and IP offices. In this sense, it conducts various activities of technical assistance (TA) – including legislative amendment supports and capacity-building for patent examiners and policymakers, research and statistics on IP, and administers an arbitration and mediation center for disputes regarding domain names. It also hosts an educational program with various multi-lingual e-learning courses. These activities have also been criticized for their adopted approach which fails to consider the limitations of the IP system and the cases in which IP may be detrimental to innovation, access, and competition.

The Secretariat has also taken the initiative to address policy areas with specific divisions, including a new Frontier Technologies division to address, inter alia, AI, and topic such as climate change, health, and traditional knowledge. In this regard, it undertakes specific collaborations with other stakeholders to address ‘global challenges’, including initiatives with the private sector, such as WIPO GREEN, the ABC Consortium and a ‘Patentscope’ for patent landscapes with IFPMA. These have also been subject to criticism of their lack of consultation with civil society organizations and the general approach based on promoting IP. In theory, Member States have the capacity to require changes and reorient the functioning and vision of WIPO, especially via its General Assemblies (GA), the Coordination Committee (Coco) and the Program and Budget Committee (PBC), but, for the most part, countries, including China, are actively supportive of the organization’s activities as they are now.

WIPO also has several standing committees on various areas of IP law that aim at advancing substantive or procedural matters, including patents (SCP), copyrights and related rights (SCCR), trademarks, industrial designs, and geographical indications (SCT), traditional knowledge, genetic resources and traditional cultural expressions (IGC), a committee on development and intellectual property (CDIP), an advisory committee on enforcement (ACE), and a committee on WIPO Standards (CWS). These are key fora of discussion as developments in a specific committee may lead to diplomatic conferences and the enactment of new treaties, adopt guidelines or joint recommendations, share information, create specific technical assistance projects of activities, or set new norms and standards. The dynamics of such committees are determined by the political economy that lies behind its internal organization. This means that while a treaty (or treaties) creates mechanisms, such as a mandatory disclosure requirement for patent applications that include the use of a genetic resource, which have been negotiated for over 20 years with little success at the IGC

(as they are generally opposed by developed countries), the SCCR was able to finalize various copyright agreements that expand the scope of protection in the interest of various business sectors (while a potential treaty on exceptions and limitations for educational and research purposes is generally stalled). Perhaps the only exception is the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled, adopted in 2013, aimed at expanding access rather than creating new exclusivity rights.⁴⁰¹

During the period of physical negotiations for the IGC's treaties, it was assumed that most delegations would leave the room during the one-hour indigenous experts' session on the first day, a session aimed at sharing experiences and views from indigenous experts from around the world on the issues of traditional knowledge (TK), traditional cultural expressions (TCEs), and TK associated to genetic resources (GRs). In the author's observations, between 30-40% of overall attendees would remain in the room and pay attention. Notwithstanding this relative lack of interest, many countries' delegates opposing the negotiations would require, among other things, more 'information sharing' and 'fact findings' to inform the ongoing discussions. What these examples highlight is that China is not an outlier or an exception, at least with respect to existing power imbalances and the leaning trend towards maximization of IP rights rather than crafting instruments for a more balanced IP system for developing countries and 'marginalized' groups. In fact, in many ways, the country has supported, if not actively nor taking the lead, many initiatives that focus on the public interest, as per below.

These elements are relevant to understand a country's stance at the organization, by situating not only its internal operations but what is effectively at stake in these various instances. In fact, most WIPO discussions are surrounded by an aura of alleged technicality and neutrality, perhaps more so than at the WTO, partly justified by the specific and restricted body of knowledge required to engage with IP discussions. Anthropologist Marilyn Strathern identified what she ironically called 'audit cultures',⁴⁰² which are partly applicable to this perception of technicality and self-evaluation inside the organization. Across WIPO committees, China has for the past years actively engaged in virtually all discussions, remaining largely independent from grouping with other Member States, and

⁴⁰¹ See: HELFER, Laurence; LAND, Molly; OKEDIJI, Ruth; REICHMANN, Jerome. **The World Blind Union Guide to the Marrakesh Treaty – Facilitating Access to Books for Print-Disabled Individuals**. Oxford: Oxford University Press, 2017.

⁴⁰² STRATHERN, Marilyn. **From Improvement to Enhancement: An Anthropological Comment on the Audit Culture**. *Cambridge Anthropology* 19, no. 3, 1996, p. 1-21.

usually adopting a clear stance in most relevant issues. Officials from national agencies, particularly the CNIPA and the Copyright Office regularly partake in WIPO discussions providing an expert account which often seems indistinct in form and content from most other countries – an aspect which may challenge the ideational uniqueness of the IP ‘with Chinese characteristics’. China therefore actively engages in topics such as the creation of standards and the administration of the PCT, which are often perceived to be bureaucratic and technical, but which have strong impact to the IP system.

At WIPO’s epistemic community, it is more important to highlight what countries have in common rather than what they disagree with the IP system – e.g., arguing that the country an official is representing is ‘committed to IP’ and ‘commends WIPO work’. This is not a judgment of the efficiency of the organization, but rather an intrinsic element that is perhaps related to its very mandate to protect and promote IP – and not to engage in broader discussions about its potential role and mishaps. Along these lines, it is unsurprising that in comparison with other fora, such as the Human Rights Council, where China’s positions are both critical and highly criticized, the explicit political connotations are usually not present at WIPO.

In this context, China did not participate in the Development Agenda (DA) process (2004-2007), which was considered a victory of developing countries by setting up a series of recommendations to mainstream development into the practices, activities, and guidance of WIPO. In other words, clearly delineating the need for a pro-development perspective on IP that acknowledges countries’ different priorities and needs – therefore, distinct flexibilities in IP as well. The DA adoption process was led by a group of developing countries under the leadership of Brazil and Argentina. The ‘Group of the Friends of Development’ was composed of 20 countries: Algeria, Argentina, Brazil, Cuba, Djibouti, Ecuador, Egypt, Guatemala, India, Indonesia, Iran, Malaysia, Pakistan, Philippines, South Africa, Sri Lanka, Sudan, Syria, Uruguay, and Yemen. Although domestically Chinese policymakers would deal with development-related implications of IP, the Chinese mission in Geneva did not actively partake in the proposals of the DA, which would be later approved by consensus, implying support by all delegations. The Committee on Development and Intellectual Property (CDIP) was created, replacing other committees on technical assistance.

On other occasions, China has taken a more proactive approach in WIPO. For example, China pushed for a discussion on standard essential patents (SEPs) at the Standing Committee on the Law of Patents (SCP), particularly for the so-called green technologies,

when the country started to develop such technologies and noticed the limitations on their ample use given the lack of access to foreign, patented technologies. SEPs and FRAND licensing, as noted in the previous chapter, have become a prominent issue for IP litigation in China, a jurisdiction that now also has norms and caselaw on the topic. They also ensure more access and more competition in the patent field, enabling competitors to utilize technologies which are essential to a technical operation in a specific area. Given the WIPO DA recommendations and the mandate to all UN agencies to pursue the Sustainable Development Goals (SDGs), access to green technologies is an important element to combat climate change and improve resilience – although this is insufficient and compensatory in matters which require structural changes and policies.

At the Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore (IGC), China maintains a position that strongly differs from developed countries. The IGC has been negotiating, for over 20 years, a treaty (or treaties) for the protection of genetic resources (GR), traditional cultural expressions (TCEs) and traditional knowledge (TK) whether associated or not to GR in relation to the IP system. The core of the negotiations revolves around the inclusion of a disclosure requirement in patent applications in cases of the use of genetic resources. This discussion is related to the legal regulation by the Convention on Biological Diversity (CBD, 1992) and its Nagoya Protocol on Access and Benefit-Sharing (2010).

China's domestic legislation contains a provision with regards to Chinese genetic resources and aims at the protection of Chinese traditional knowledge, including, but not limited to, Chinese traditional medicine. This is an important departure from the focus of other developing countries' legislations, such as those from Latin America, which aim at protecting the specific rights of indigenous peoples and local communities. In this case, the protection mainly falls on the protection of widely shared knowledge that, although traditional, is not necessarily part of a minority's 'culture', but rather the majoritarian ethnic group of China which is at the basis of its nationalism.

China hosted the diplomatic conference that conducted the final negotiations of the Beijing Treaty on Audiovisual Performances in 2012, which went into force in 2020 after sufficient Member States joined. The treaty creates the following new neighboring/related copyrights that go beyond the standards of the TRIPS Agreement and the Bern Convention: (i) the right of reproduction; (ii) the right of distribution; (iii) the right of rental; and (iv) the right of making available. It continues to integrate the so-called three-step test for copyrights exceptions and limitations, although recent interpretations of the Bern Convention adopt a

less restrictive approach to copyrights which would include a mandatory fair use provision.⁴⁰³ These TRIPS-Plus provisions have been integrated into Chinese domestic laws and, in accordance, a maximalist approach to IP on this matter in WIPO discussions is generally adopted by the country.

In some other cases, China's current understanding does not match expansionist IP jurisdictions such as in US and Japan. For example, on graphic user interfaces (GUIs) discussed at the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT), China answered to a survey in 2018 noting that:

'What concerns China is the relationship between a GUI and the physical product it applies to. [...] China does not grant patent protection to typeface/type font designs, but it has done some research in that regard and wishes to discuss with other national offices the following issues by way of case studies: the scope of protection of typeface/type font designs, the specific formality of application documents, methods for determining novelty and inventiveness, as well as criteria for determining infringement of typefaces/type fonts. 2. It is proposed that countries and organizations providing double protection through both copyright and design laws to typefaces/type fonts be invited to WIPO-organized meetings to introduce their respective legal systems and practices, including criteria for determining infringement and relevant cases.'⁴⁰⁴

China has also had an intense engagement in activities related to WIPO Judicial Academy. For example, in partnership with the Supreme People's Court, it has published a compendium of decisions by Chinese courts on IP in 2020, the first of a kind. As WIPO conducts more activities and workshops for judges, the efforts to translate and bring domestic law discussions into a global arena are not only a sharing experience, but a whole performative engagement which aims at eliciting the development of the IP system in China. In a WIPO Magazine article, Justice Tao Kaiyun, Vice-President of the Supreme People's Court of the People's Republic of China, provides an illustrative example:

Over the past 40 years, China has established, and continued to improve, a modern IP system with Chinese characteristics. It has made remarkable progress and secured historic achievements in various areas, including legislation, enforcement, and international exchanges and cooperation. Today, strengthening the protection of IP rights is widely recognized in China as the most important element for improving rights protection and a fundamental incentive for enhancing the country's economic competitiveness. [...] In this new era, we welcome opportunities to work with WIPO, to strengthen multilateral and bilateral exchanges and cooperation with other countries, and to play a more active and constructive role in international protection of IP rights and associated rulemaking. Such engagement is an effective way to promote the modernization of global IP governance,

⁴⁰³ APLIN, Tanya; BENTLY, Lionel. **Global Mandatory Fair Use: The Nature and Scope of the Right to Quote Copyright Works**. Cambridge: Cambridge University Press, 2021.

⁴⁰⁴ See: PEOPLE'S REPUBLIC OF CHINA. **Comments on Future Work Regarding Graphical User Interface (GUI), Icon, and Typeface/Type Font Designs to WIPO SCT 39/2018**. Available at: <https://www.wipo.int/export/sites/www/sct/en/comments/pdf/sct39/china.pdf>

to create a bright future for IP rights and their protection.⁴⁰⁵

In recent discussions on AI and IP, the CNIPA provided inputs based on the experience of using blockchain and AI in patent application processes, with an ‘expert’ discourse that considers the use of frontier technologies in the IP system to be positive. As also exposed in the previous chapter, this is an area where China has indeed become a clear frontrunner and policy innovator – although concerns have also been accordingly raised.

What these examples highlight is, on the one hand, a continued and increased participation of China at WIPO in various ways, contributing with technical arguments, via bilateral projects, and constantly reinforcing the importance of the organization and the role of IP to a modern global economy; on the other hand, a difficulty to delineate a clear trend in China’s positions, which are not always maximalist nor always development-oriented, and related to specificities of the country. As already expressed, these considerations are not exclusive to China, as many other countries perceive WIPO as an alleged technical forum for the promotion of IP, concealing the political connotations of the global IP debate, given the fact that there is no single global IP standard anyway (the US and the EU have long debated the protection of geographical indications, for instance, with colliding approaches). What is remarkable, however, is how much this ‘technical’ but experimentalist approach to IP fits the broader development narrative of IP ‘with Chinese characteristics’.

But there is perhaps another feature which is even more telling: something which the narrative of indistinctiveness and neutrality aims at eliciting but fails to do so. This is better reflected in the polarized and political views of the role of Chinese officials, and the assumption that a Chinese national would be intrinsically biased to favor the government. The most evident recent case is the Brands and Design Sector Deputy Director General, Ms. Wang Binying. She was a contender for the top position as director-general in 2020, before the election of Mr. Darren Tang, from Singapore was decided. During this time, Western voices, particularly from the US, expressed concern about ‘yet another Chinese national’ reaching the upper echelons of a UN agency.⁴⁰⁶

China actively advocated for the election of Wang Binying as Director General in 2020, an effort that was explicitly criticized by Western stakeholders –particularly the

⁴⁰⁵ TAO, Kaiyuan. **China’s commitment to strengthening IP judicial protection and creating a bright future for IP rights.** WIPO Magazine, June 2019. Available at: https://www.wipo.int/wipo_magazine/en/2019/03/article_0004.html

⁴⁰⁶ It should be noted that this comes from the assumption that a Chinese official would inevitably represent and have direct engagements with the Chinese government, a narrow and rather xenophobic view.

Americans. The Washington Post, for instance, published an article whose author argues that the appointment of a Chinese national to command WIPO would be a major risk for all countries, as the new DG would certainly contribute towards the ‘recurrent theft of IP’ deployed by China. In an opinion article published by the National Review on 12 February 2020 entitled ‘Why is the U.S. Surrendering the Global IP System to China?’, Tom Giovanetti, president of the Institute for Policy Innovation (IPI), a think tank known for its views on the importance of IP protection and against market intervention, argues the following:

‘Under a Wang directorship, would China have improper access to pending patent applications during the critical 18 months while WIPO conducts an international patent search? During that period, secret information is now held securely in Switzerland, but where will pending PCT patent applications be stored under Binying’s directorship? In a Chinese cloud? Will the servers be moved to China “to reduce costs”? Will they be connected to equipment from Huawei? As WIPO advises developing countries on equipping their patent offices, will Huawei be a recommended supplier? And will U.S. companies such as Intel, Qualcomm, Pfizer, and Boeing be able to trust their most secret inventions to such a system? You’re kidding yourself if you think China will not take full advantage of having control over the organization that stewards the global IP system.’

This association between a highly respected professional and the likelihood of misappropriation and cybertheft using the institutional apparatus of WIPO is telling of the pervasive effects of the political anxieties that surround the dispute between the US and China. This hostility is not perceptible in the ordinary days of WIPO committees and negotiations, where the atmosphere is indeed more ‘diplomatic’ and reserved, where words are pondered and individuals are not a mere instrument of their government, but rather subjects with their own personal projects, values, and aspirations.

Regardless, the fierce opposition against Ms. Wang shows that beyond the face value of neutrality and technicity that composes the numerous activities and standard committees’ discussions at WIPO, these processes remain highly contentious and political. This is again another instance where there is a particular interest by China to reiterate its commitment to the IP system and to engage in a discreet and ‘technical’ manner at WIPO, although it could, in theory, adopt a more active and directive approach.

In summary, from China’s positions at WIPO, it is not possible to derive that China is to export its own standards (internationalize the IP ‘with Chinese characteristics’); in many substantive areas, the country is not at the forefront of proponents nor critics. Nonetheless, it has supported pushes for procedural harmonization such as in the PCT System. It rarely, if ever, remains silent in negotiations. Streamlined procedures facilitate both IP filings and applications in China and of Chinese stakeholders abroad; the country

also needs to adopt – at least partly – many standards given its national law and the continued coordination between CNIPA and the other IP5 offices (USPTO, EPO, JPO, and KIPO), making it reasonable to support the expansion of rules to which it already committed to. The cooperation between the PRC and WIPO is robust, and various joint activities have been conducted throughout the years. WIPO’s regional office in Beijing has had an instrumental role in the pursuit of such collaboration.

Furthermore, the perception that China adopts a ‘middle-ground’ position is largely accurate, but in practice does not mean that the country adopts intermediate positions in every aspect. China’s position at WIPO is largely defined by its independence: it is therefore treated as a standalone regional group, while other countries usually caucus in regional groups. The PRC also has an overall maximalist approach to IP, which acknowledges the objective to develop IP as the main goal of WIPO – although development concerns and public interest are presented in some discourses, and exceptions are made, such as the protection of genetic resources and Chinese traditional knowledge at the IGC, China’s position is closer overall to those of developed countries.

The most relevant point is perhaps the importance allocated to WIPO itself: by treating the organization as the core of global IP policymaking, China further legitimizes the multilateral role that WIPO is supposed to deliver and stems away, at least to a certain degree, from bilateral engagements. Chinese IP applicants are increasingly becoming users of the WIPO-administered PCT and Madrid Systems – accordingly, so is the system dependent on its Chinese users. The benchmarks set by WIPO, including the activities of its regional office in Beijing, may also be taken as a basis for what an IP system ‘should’ look like. Given foreign anxieties and accusations against the IP ‘with Chinese characteristics’, approximating itself to the legitimacy conferred by global institutions is certainly a way to redirect and redefine the way Chinese institutions present themselves. Thus, there are mutual interests in the co-development of IP in China and WIPO; notably, this section aimed at highlighting that this is not exclusively based on the number of patents, of regimes of visibility and aspirations related to the idea of IP in the global economy. Finally, this is also relevant for the diplomats, policymakers, bureaucrats, and technical experts which participate of these discussions, each with their distinct goals, values and dreams.

3.2. Regional and Bilateral Paths

After having presented some issues related to China’s participation at the WTO

and WIPO, with a focus on their multilateral trade regimes and remarks on non-trade aspects that affect the daily operation of organizations, this subsection analyzes the Regional Comprehensive Economic Partnership (RCEP), which China is part of, and IP along the Belt and Road Initiative. It also briefly addresses some issues for Latin America's relation with China in this area, which, although underexplored for the time being, may have added contours in the future.

3.2.1. IP in the Regional Comprehensive Economic Partnership (RCEP)

The Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement signed in November 2020 between ASEAN countries (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam), Australia, New Zealand, Japan, South Korea, and China, creating the largest free trade area in the world. Notably, it does not have the participation of the US nor the EU. After the conclusion was announced after eight years of negotiations, India decided to opt out of the mega-treaty, citing its concerns regarding how trade liberalization would impact its agriculture sector. China and India have long held divergent views on several topics, and Sino-Indian relations have been historically turbulent, which includes divergences on IP issues. Although the reasons for India not to join the treaty are not reduced to the expansion of Chinese companies in India, this variable cannot be underestimated.

Generally, China has been negotiating, and signed multiple FTAs in recent years. The Ministry of Commerce of the PRC's website explicitly refers to the following:

'The Chinese Government deems Free Trade Agreements (FTAs) as a new platform to further opening up to the outside and speeding up domestic reforms, an effective approach to integrate into global economy and strengthen economic cooperation with other economies, as well as particularly an important supplement to the multilateral trading system. Currently, China has 24 FTAs under construction, among which 16 Agreements have been signed and implemented already.' (MOFCOM, PEOPLE'S REPUBLIC OF CHINA).⁴⁰⁷

The rationale for FTAs under China's economic and development model is akin to its interest in joining and promoting the WTO, as further integration into global value chains and exports of Chinese goods largely benefit the country's economic development. However, FTAs entail a distinct power play between negotiating parties, and usually smaller countries with lower industrialization levels have accordingly lower leverage to make

⁴⁰⁷ See: PEOPLE'S REPUBLIC OF CHINA - MINISTRY OF COMMERCE. **China FTA Network**. Available at: <http://fta.mofcom.gov.cn/english/index.shtml>

requests and resist concessions. Apart from RCEP, whose parties range from Japan to Lao DRP, and various middle high-income countries such as Thailand and Malaysia, China also has FTAs with both industrialized (Australia, South Korea, Switzerland, Iceland, Singapore, New Zealand) and developing countries (such as Cambodia, Mauritius, Maldives, Costa Rica, Peru, and Pakistan). FTAs under negotiation or consideration equally entail different profiles of countries. Some of them are also geopolitical partners whose governments have strong ties to the PRC, such as Cambodia. Others are countries with relatively neutral stances, such as Switzerland, and others are now countries with whom bilateral relations with China are marred by tensions and clashes, such as Australia.

RCEP has been assessed in different manners: some consider it to be a manifestation of the rise of China and the Asia-Pacific as the center of the global economy; others highlight that its commitments are reduced and most were already contemplated in previous agreements, particularly the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), providing limited changes to current international trade. The conflicting interpretations regarding RCEP – a ‘victory’ for Chinese trade diplomacy, a mega-treaty with reduced impact, or any variation thereof – should not overshadow the reality that, ultimately, trade agreements are crafted with the intention to liberalize trade and, with respect to IP, expand and strengthen its protection and enforcement. This has impacts on the way the agreements are interpreted, particularly considering the trend to include ‘non-trade’ and human rights matters in FTAs. As recalled by Carlos Correa:

‘FTAs have as a clear objective the expansion and strengthening of IPRs, thereby providing an inherently biased context for interpretation of substantive and enforcement obligations. Although this may favour commercial over public interests considerations, FTAs dispute settlement bodies would in any case be bound by the Preamble and articles 7 and 8 of the TRIPS Agreement, as well as by other specific provisions contained in the FTAs requiring a balance of rights and obligations. Although these provisions may help to attenuate the negative impact of those FTAs obligations likely to increase inequalities, they would not be sufficient to redress the imbalance created by the high standards of IP protection embedded in those agreements’ (CORREA, 2017).⁴⁰⁸

This is the reason why analyses of IP in FTAs are usually conducted in terms of what commitments in IP create obligations to adopt TRIPS-Plus provisions and limit a country’s autonomy to craft IP policies that might be better suited to their development. As this author noted in a South Centre research paper on TRIPS flexibilities and the remaining policy space in RCEP’s IP chapter, the agreement does not contain, especially in comparison with other previous agreements such as the CTPPP and USMCA, many TRIPS-Plus

⁴⁰⁸ CORREA, Carlos. **Mitigating the Regulatory Constraints Imposed by Intellectual Property Rules under Free Trade Agreements**. Research Paper No. 74, Geneva: South Centre, February 2017.

provisions in pharmaceuticals, which would affect public health. However, it does contain various TRIPS-Plus provisions overall, especially in the fields of copyrights and related rights, non-traditional trademarks, Internet domain names dispute settlement mechanisms, and border and enforcement measures.⁴⁰⁹ One relative novelty of the RCEP IP Chapter is its inclusion of the topic of protection of TK, GRs and TCEs, although in limited terms and without strong binding provisions.⁴¹⁰ The RCEP IP Chapter also contains a robust reaffirmation of the language of the Doha Declaration on IP and Public Health,⁴¹¹ and also a reference to fair use in copyrights exceptions and limitations without restricting its use,⁴¹² which are both provisions that may lead to more public-oriented interpretations of the treaty. In general, the Chinese domestic system was already compliant with the standards imposed by RCEP.

Beyond the IP chapter, one core area for China is that of data governance measures, which do include some new rules committed to liberalizing the flow of data between jurisdictions, but which also retains China's position with respect to data localization requirements and national security exceptions to adopt restrictions on free data flows.⁴¹³ As already elucidated, e-commerce, big data and AI are at the core of China's current development plans, and therefore so is ensuring free flow of data for companies while safeguarding control over sensitive data and creating conditions for the data value

⁴⁰⁹ See IDO, Vitor Henrique Pinto. **TRIPS Flexibilities and TRIPS-Plus Provisions in the RCEP Chapter on Intellectual Property: How much policy space has been retained?** Research Paper 131, Geneva: South Centre, June 2021.

⁴¹⁰ At the WIPO, Japan is a staunch opponent of the treaty proposal based on including a mandatory disclosure requirement for patent applications that include the use of GRs, and South Korea, Australia and New Zealand are also of the preference towards 'voluntary' mechanisms to ensure its protection. All other countries in RCEP are generally favorable to the issue, particularly countries such as Indonesia, which has robust domestic law provisions in that sense. As noted in the previous chapter, China is also supportive of instruments to the protection of TK under the patent system, with a focus on the protection of Chinese traditional medicine against misappropriation in other countries.

⁴¹¹ RUSE-KHAN, Henning Grosse; TEEMU, Alexander Puutio. **A Handbook on Negotiating Development Oriented Intellectual Property Provisions in Trade and Investment Agreements**, UN ESCAP & ARTNet. 2017.

⁴¹² CALLO-MÜLLER, María Vásquez; UPRETI, Pratyush Nath. **RCEP IP Chapter: Another TRIPS-Plus Agreement?** GRUR International 70 (7). Oxford: Oxford University Press, 2021, p. 10.

⁴¹³ GAO, Henry. **Data regulation in trade agreements: different models and options ahead.** In: SMEETS, Maarten (ed.). *Adapting to the digital trade era: challenges and opportunities*, WTO Chairs Programme, 2021, p. 329-331; see also: "The treaty language on data governance that RCEP pioneered is likely to appear in future agreements whenever countries seek to combine a principal commitment to data mobility with largely unconstrained regulatory freedom. Whether this balance or abstaining from data governance provisions in international economic agreements altogether is desirable, depends on each country's economic, social, and political calculus. Sound policy making is greatly inhibited by the dearth of data about data control, data flows, and data value, a problem that various International Organizations are trying hard to address. Smaller countries, in particular, might be better off by banding together instead of crafting independent data governance policies." Streinz, Thomas. *RCEP's Global Contribution to Global Data Governance*, 19 February 2021, Available at: <https://www.afronomicslaw.org/category/analysis/rceps-contribution-global-data-governance-0>

chain in China to be comprehensive. There are some potential IP-related implications of data governance,⁴¹⁴ but these are not clearly perceptible in the data governance provisions of RCEP. As far as they go, they do not limit the policy space of China to continue enacting policies and restrictions such as those related to prior authorization by various agencies for foreign investments in cases where a company holds large amounts of data collected in China, low transparency on some big data uses for public policies, among others.

RCEP's negotiations were marked by a deep secrecy. The last 'leaked' IP chapter dated October 2015,⁴¹⁵ for example, rendered effective scrutiny by civil society organizations essentially impossible. For this reason, it is not possible to undertake an analysis with publicly available sources of the negotiating procedures and the differing positions of countries such as China in IP matters. RCEP is not the first treaty negotiation that substantially diminished public accountability, particularly by those who are not represented in such negotiations but nonetheless directly feel their impacts. The strict secrecy in practice limits not only the analysis, but also the consideration of the interest of those who express criticism of some of the provisions therein, such as consumer and patient groups, labor organizations, small farmers, and indigenous peoples' associations, among others.

On limited occasions, public consultations with stakeholders took place. For example, during the 26th round of RCEP negotiations, which took place in Melbourne, Australia, a 'public stakeholder consultation' took place on 30 June 2019 '*with representatives of the business sector, civil society organisations and other relevant stakeholders*'.⁴¹⁶ These events reportedly took place in the form of very short remarks by different entities, of up to 5 minutes, without access to the text under negotiation, and with little to no participation of the negotiating Parties. As such, this model of public consultation may be paradoxically deployed as a legitimizing tool for negotiations, claiming that due participation of various stakeholders was taken into account, without any real meaningful engagement. This is a case of a formal inclusion which does little to addressing an effective consideration of various interests.⁴¹⁷ As noted, China has a limited civil society and typically

⁴¹⁴ IDO, Vitor Henrique Pinto. **E-Commerce Proposals at the WTO**. Policy Brief 69, Geneva: South Centre, May 2019.

⁴¹⁵ See: KNOWLEDGE ECOLOGY INTERNATIONAL (KEI). **2015 Oct 15 version: RCEP IP Chapter**. 19 April 2016, Available at: <https://www.keionline.org/23060>

⁴¹⁶ DEPARTMENT OF FOREIGN AFFAIRES AND TRADE, AUSTRALIA. **Twenty-sixth Round of Negotiations, 22 June – 3 July 2019, Melbourne, Australia**. Available at: <https://www.dfat.gov.au/trade/agreements/negotiations/rcep/news/Pages/twenty-sixth-round-of-negotiations-22-june-3-july-2019-melbourne-australia>

⁴¹⁷ For a critique of void models of inclusion in the context of financial inclusion and gender, see: NATILE, Serena. **The Exclusionary Politics of Digital Financial Inclusion: mobile money, gendered walls**. Abingdon: Routledge, 2020.

does not accept robust scrutinization of the central government's policies, which also suggests accordance with this view at the international level.

Although specific details on the negotiations are not available, it has been reported that TRIPS-Plus measures had been proposed by Japan and South Korea, but these were later removed in 2019 due to opposition by India (then still a potential Party to RCEP) and ASEAN as a bloc.⁴¹⁸ Although a direct textual analysis was not possible, the strong public opposition by civil society organizations such as Médecins sans Frontières (MSF)⁴¹⁹ and Third World Network (TWN), entities which have had active positions in challenging TRIPS-Plus provisions in various trade negotiations, were paramount in informing the debates and shaping public health-oriented views.⁴²⁰ The fact that many such provisions were already part of CTPPP or integrated in national domestic laws (in the case of China) also made the interest to prioritize the inclusion of such provisions substantially diminished by the proponents.

In comparison with the internal discussions at WTO and WIPO, which, ~~as exposed,~~ are surrounded by a certain aura of 'neutrality' and 'technicity', and represent multilateral organizations with numerous Members and the mediation of a Secretariat, FTA negotiations do not create the same leverage nor the same baseline conditions for trade negotiators. The various influences – on the one hand, by business sectors interested in the agreement and, on the other hand, the counterinfluence by CSOs against certain provisions – are the backdrop against which direct negotiations between Parties take place, under broader pressure than 'technical' committees at WIPO, for instance.

Under this diverse framework, China's position with respect to IP in FTAs and 'mega-treaties' such as RCEP is quite distinct from the Western counterparts and Japan or South Korea. As such, even though its domestic system now contains multiple TRIPS-Plus

⁴¹⁸ On the role of ASEAN as a negotiating entity, and its counter-pressure to avoid certain provisions, see: 'In the later stages, there was growing recognition that TPPA-style e-commerce rules could prevent countries from regulating Big Tech companies, including their control over data, anti-competitive practices and taxation. That saw provisions on source code omitted, the inclusion of a self-judging security exception for the obligation to allow data transfer, and the chapter was unenforceable. Undoubtedly China played an important role in that outcome, but countries like Indonesia, India and Vietnam were already facing challenges over moves to regulate the digital domain.' KELSEY, Jane. **RCEP: Nothing to See and Everything to See**. *Afronomics Law*, 15 February 2021, Available at: <https://www.afronomicslaw.org/index.php/category/analysis/rcep-nothing-see-and-everything-see>

⁴¹⁹ See: MÉDECINS SANS FRONTIÈRES. **MSF update on 26th round of RCEP negotiations in Melbourne, Australia**. 01 July 2019. Available at: <https://msfaccess.org/msf-update-26th-round-rcep-negotiations-melbourne-australia>

⁴²⁰ See: TOWNSEND, Belinda. **Defending access to medicines in regional trade agreements: lessons from the Regional Comprehensive Economic Partnership – a qualitative study of policy actors' views**. *Global Health* 17, 78, 2021.

provisions, it does not exert as much pressure towards other countries to directly adopt similar legal substantive standards, something which the US and EU have historically undertaken. This may be related to the investment portfolio of China abroad, focused on infrastructure, development financing mechanisms, and other cooperation mechanisms that have a relatively reduced role for IP, at least if compared to intense technology sectors. These engagements also do not usually assume the form of an FTA but rather contracts, bilateral memoranda of understanding (MoU), bilateral investment treaties (BITs) without IP provisions, among others. Future negotiations will therefore be an opportunity to assess whether its position will be maintained, or whether China will start requiring TRIPS-Plus provisions in new prospective treaties.

It may also suggest, more optimistically, a different engagement of China with other countries during FTA negotiations and IP, mirroring, to a certain extent, other areas such as investment agreements and South-South cooperation, in which China decides to adopt a less interventionist approach to other countries' domestic affairs, securing more policy space for trade partners. This both enables a pragmatic engagement with new governments which acceded to power via coup d'états (such as Myanmar in 2021) or countries with low records on human rights protection (such as Hungary); on the other hand, it also provides less constraints to countries that were accustomed to numerous demands by Western countries.⁴²¹

RCEP provides another lesson for future interpretations of FTAs regarding the issue of IP: on the one hand, it departs from the perceptible trend of including non-trade issues in FTAs, particularly those related to human rights obligations in labor, gender, and environment issues.⁴²² Some of them include *ex ante* and/or *ex post* reporting mechanisms that meant to promote human rights in some parties; they have also been criticized for opening the path to protectionist measures of developed countries disguised as human rights commitments, and for their low efficacy.⁴²³ RCEP simply does not include any such provisions. This may continue to create increased silos with respect to FTAs that include

⁴²¹ In this sense, it could provide the conditions for South-South cooperation based on the promotion of TRIPS flexibilities for public health. See generally: MUSUNGU, Sisule; VILLANUEVA, Susan; BLASETTI, Roxana Carmen. **Utilizing TRIPS Flexibilities for Public Health Protection Through South-South Regional Frameworks**. Geneva: South Centre, 2004.

⁴²² See, for an empirical analysis of EU labor standards in its FTAs, see: HARRISON, James; BARBU, Mirela; CAMPLING, Liam; RICHARDSON, Ben; SMITH, Adrian. **Governing Labour Standards through Free Trade Agreements: Limits of the European Union's Trade and Sustainable Development Chapters**. *Journal of Common Market Studies*, Vol. 57, Issue 2, p. 260-277.

⁴²³ See: ZERK, Jennifer. **Advancing Human Rights through Trade – Why stronger human rights monitoring is needed and how to make it work**. 26 May 2021. Research Paper, Chatham House. Available at: <https://www.chathamhouse.org/2021/05/advancing-human-rights-through-trade>

China and those negotiated by the European Union in particular, which have provisions on gender, environment, and labor standards. On the other hand, the indirect effects of industrial and technological policies, data governance, competition, and non-tariff barriers to trade, including foreign sanctions and investment restrictions, increasingly become part of the shape of IP laws and commitments. The current analytical framework based on the assessment of IP issues in FTAS based exclusively on IP chapters may become increasingly limited, as new intersections will likely be developed.

3.2.2. IP along the Belt and Road Initiative

The Belt and Road Initiative (BRI, previously known as One Belt, One Road) was formally launched in 2013. It comprises a wide-encompassing set of development and investment projects, many of them focused on infrastructure, that evokes the past of the ancient Silk Road. At its inception, it referred to the maritime route (the belt) and the railway routes (the road) through Central Asia to Europe. The BRI entails various partnerships between China and over 100 countries with whom memoranda of understandings or informal agreements have been concluded. Some paradigmatic examples include Kenya's railway between Nairobi and Mombasa, Sri Lanka's Hambantota port 99-year lease, Myanmar and Pakistan routes and port 'corridors' for China, Kazakhstan Khorgos dry port at the middle of China-Europe railway network, and partnerships in technology and 5G with European countries such as Italy, Hungary, and Lithuania. Countries formally decide to 'participate' in such forms of cooperation/investment agreements, but many Chinese investments and partnerships are not considered to be part of the BRI. For example, Brazil never formally accepted to join it, but is nonetheless the largest recipient of foreign investment in infrastructure by China in Latin America.

As a proxy for China's increased participation in international affairs, the BRI delivers, from the perspective of the Chinese government, the following: benefits of mutual cooperation, better networks and infrastructure for enhancing trade, and the promotion of an alternative to Western geopolitical influence in the global south and some European countries. For its critics, the BRI is a catch-all expression that contains little to no coherence,

further advances China's 'debt trap diplomacy'⁴²⁴, and enables the expansion of its military presence, such as in its first military base in Djibouti, situated in a very strategic position.

Lin Xiuqin argues that the lack of exact definition of the BRI is not a problem, but rather a characteristic of the open-ended objectives of the initiative, based on the idea of cooperation as its benchmark.⁴²⁵ The Chinese National Development and Reform Commission notes that the BRI 'is a positive endeavor to seek new models of international cooperation and global governance'.⁴²⁶ It is due to this broad scope that IP-related activities might be included in the BRI, although not at the center stage. Peter K. Yu systematized the inclusion of IP matters along the BRI:

'In July 2016, the Chinese government co-organized with WIPO a two-day High Level Conference on Intellectual Property for Countries along the 'Belt and Road' in Beijing. At that conference, State Councillor Wang Yong called on countries to 'work together to prioritize IP as a system to promote innovation and to share the benefits of innovation.' He further noted that the BRI could provide assistance in four areas: 'cooperation in IP-related services, harmonization of IP rules, interoperability of databases, and joint human resources training.' In May 2017, China and WIPO entered into an Agreement on Enhancing 'Belt and Road' Intellectual Property Cooperation. The country also 'signed memorandums of understanding on IP cooperation with a large number of countries including Tajikistan, Vietnam, Laos, the Philippines, Bangladesh, Kyrgyzstan, Kazakhstan, Armenia, Albania, Bulgaria, Latvia, Lithuania and Egypt.' In addition, China 'carried out extensive cooperation with [Belt and Road] countries in terms of IP education, publicity, training and information exchange.' In August 2018, a second high-level conference was held, this time focusing on the BRI's promises and challenges as well as its importance in the IP area' (p.4)

In this context, the author further notes six main areas for activities on IP related to the BRI, namely: (1) substantive standards; (2) procedural arrangements; (3) cross-border enforcement; (4) dispute resolution; (5) technical cooperation; and (6) market aggregation.⁴²⁷

With respect to (1), the author highlights China's reluctance to engage in international substantive standards, based on the recent experience at the BRI and in FTAs such as RCEP. In accordance with the remarks of the previous sub-section, there is not solid evidence, for the time being, that China will be exporting its own national legal IP standards to other countries.

⁴²⁴ See generally: CARRAI, Maria Adele. **China's malleable sovereignty along the Belt and Road Initiative: the case of the 99-year Chinese lease of Hambantota Port.** NYU J Int Law Pol 51, 2019, p. 1061–1099.

⁴²⁵ LIN, Xiuqin. Presentation, Xiamen University IP Summer School, July 2018.

⁴²⁶ Nat'l Dev. & Reform Comm'n et al., *Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road* pts. I, II, V (2015).

⁴²⁷ YU, Peter K. **Building Intellectual Property Infrastructure Along China's Belt and Road**, 14 U. PA. ASIAN L. REV. 275, 2019.

However, with respect to (2), procedural arrangements, China has been very active in engaging with its foreign counterparts to streamline and harmonize IP application procedures. CNIPA has agreed to participate in and expand its network of PPHs, and some collaborations with selected IP offices go further, such as Cambodia. The Southeast Asian country has agreed to recognize Chinese patents in Cambodia in the future, basically giving away its sovereignty to decide upon the granting of patents in the country, relying instead on the decisions by China. The proximity between the two governments is also an element that further justifies such an agreement. For Cambodia, this may save time and costs, especially as there is a particular interest in Chinese investments and firms operating in the country. On the other hand, it creates dependency and largely restricts its autonomy in IP.

In the view of Peter Yu, China has less interest in over-expanding the cross-border enforcement (3), considering its continued limitations in curbing counterfeits and enforcement overall in the country. In this sense, these are not expected to be the core of BRI policies that involve IP. However, policies of cooperation and transparency in enforcement between countries can be envisioned, according to the author.

Regarding dispute resolution mechanisms (4), however, the author notes that a potential for international courts and other existing mechanisms exist. Yu does not mention the potential role of private arbitration by Chinese institutions such as the Shenzhen Court of International Arbitration (SCIA), as well as China International Commercial Courts in 2018, which may become preferred fora for BRI-related disputes, including eventual IP cases. It is also noteworthy that China has signed multiple bilateral investment treaties (BITs), and those completed after 2009 contain Investor State Dispute Settlement (ISDS) mechanisms. However, only a few countries which signed memoranda of understanding under the BRI would be subject to such ISDS in the case of disputes.⁴²⁸

Yu also acknowledges the risks associated to technical cooperation/assistance in matters related to IP (5), which may generate harmonization of IP standards without adequate agreement. He also notes that, however, there is no evidence that China has utilized such tools to expand its standards to other countries. On the other hand, it is also true that most technical cooperation projects between IP offices have been historically focused on accelerating and integrating procedures, rather than supporting smaller and more recent offices in crafting policies that are suitable to their needs. If China is able to create new

⁴²⁸ For a comprehensive analysis of China and ISDS, see: LI, Yuwen; BIAN, Cheng. **China's Stance on Investor-State Dispute Settlement: Evolution, Challenges, and Reform Options**. *Netherlands International Law Review* 67, 503–551 (2020).

policies that depart from this general rule, it will be quite remarkable, but there is also not evidence that this might be the case from current CNIPA's stance.

Finally, in relation to market aggregation (6), the author notes the benefits of:

“Aggregation of markets and the pooled procurement of IP-based goods and services. For small countries along the Belt and Road, the opportunity to connect with other countries, especially larger ones, will greatly enhance their ability to participate in global and regional trade, attract foreign direct investment and develop regulatory solutions to combat cross-border problems. Market aggregation could also empower countries to more effectively demand foreign manufacturers to lower the prices of their IP-based goods, such as pharmaceuticals, textbooks and computer software.”

In conclusion, there is an opportunity for China to craft – without the constraints of the FTA model, which is intrinsically targeted towards trade liberalization – a distinct cooperation model under the BRI. In the IP field, this could mean the creation of coordination between countries on the use of TRIPS Flexibilities for public health, the promotion of open science and collaborative models of innovation (including sharing of data), and technology transfer projects by Chinese entities to other countries. However, the concrete experiences of BRI projects show the same caveats of FTAs, being mainly targeted towards the expansion of markets and investments in key infrastructure. From the point of view of recipient countries, this may still create positive leverage with regards to other traditional lenders, particularly the World Bank and the IMF, which require multiple macroeconomic conditionalities; in this sense, if BRI projects fall short of the broader promise of cooperation, they nonetheless provide new financing sources and relatively less constraints.

In this sense, Yu highlights three common questions regarding the BRI:

- (i) whether it will ‘disrupt the existing multilateral and regional regulatory systems, including the WTO and WIPO.’ (p. 7),
- (ii) whether China will use the BRI to ‘transplant its trade and IP standards abroad’ (p. 8), and
- (iii) whether countries will be receptive of the initiative (p. 9).

It should be noted that, in recent years, the Chinese government has reduced mentions to the BRI. Some commentators noted that this is a result of the criticism against specific projects, which had important impacts on domestic politics. In Malaysia, for instance, the election of a new government immediately led to the halt of the BRI-related investments in the country, arguing for its unbalance. Sri Lanka's election was also marked by opposing views on the role of Chinese investments, among various other contentious

cases. As the expectations regarding the narrative of cooperation are rebuffed by countries, the use of BRI as a motto also fades.

Without attempting to provide definitive answers to the posed questions, it is possible to say that the BRI contemplates measures pertaining to IP which may be a suitable reference point in terms of China's geopolitical influence towards other countries. Again, in bilateral engagements, the dynamics of power play and concerns about China's own interests are presented in a more prominent manner. In addition to that, the G7 launched, in June 2021, the Build Back Better World (BW3), focused on mobilizing private capital to invest in projects related, inter alia, to infrastructure, health, and gender equality around the world, which has been widely regarded as a Western response to the BRI.⁴²⁹ As such, what is clear is that although China does not seem to be intending to directly export its IP norms and rules in the same manner that Western countries are accustomed to (i.e., via FTAs, unilateral sanctions, the WTO and WIPO) it has nonetheless expanded its presence in both direct and indirect ways, including procedural harmonization and path-dependency associated to the contracts and investments by Chinese entities. On the other hand, despite reticence in terms of its reception in other countries, it is a fact that Chinese presence along the BRI has become grown to such an extent that it required a response by the G7. Even if the influence of China and the BRI may be yet unclear, they are evidently not irrelevant.

3.2.3. Some Implications for Latin America

Chinese investments in Latin America have soared over the last few decades, having grown 26-fold between 2000 and 2021. China is now the biggest trade partner for almost all countries in the region, with the notable exception of Mexico due to its economic integration with the US and Canada. After decades of cheap manufactured goods being exported to Latin America and the integration of China into the region's own value chains, Chinese companies and brands gained prominence in multiple higher-value and higher-technology markets, including smartphones and automobiles. While Latin America as a region is not the core of Chinese market expansion policies, it contains huge domestic markets, many industrialized countries, and various natural resources and commodities. The Belt and Road Initiative also did not prioritize the region, but various countries have had

⁴²⁹ HOLLAND, Steve; FAULCONBRIDGE, Guy. **G7 Rivals China with Grand Infrastructure Project**. Reuters, 13 June 2021. Available at: <https://www.reuters.com/world/g7-counter-chinas-belt-road-with-infrastructure-project-senior-us-official-2021-06-12/>

strong bilateral agreements of various sorts with China, including cultural cooperation, infrastructure, and trade agreements.

The portfolio of Chinese investments and trade across the region remains mainly focused on commodities, the energy sector, and exports of manufactured goods. This is the general backdrop against which the issue of IP in Chinese-Latin American relations needs to be addressed. This is not to say that such sectors do not hold relevant IP that would require protection in those countries, but that IP claims are not at the forefront of the determining factors in business relations and diplomatic engagements. When compared to China-US trade relations over the last few decades, this is a major difference. One relative and partial exception can be found in the expansion of 5G networks, particularly the role of Huawei. This is a sector with multiple IP rights and therefore IP licensing plays a prominent role at the intersection of competition authorities and courts' interpretation of FRAND and SEPs (whose caselaw is scarce in Latin America), as previously mentioned. However, the participation of Huawei in domestic markets such as Brazil was deeply marked by political clashes and national security arguments akin to those in the US and Canada, leaving technology dependency and IP as secondary issues.

Alternatively, Chinese patents, trademarks, plant varieties, industrial designs and other forms of IP are filed in Latin American countries in accordance with assessments of business interests, market potential, and, marginally, facility of filing. For example, most countries in the region are part of the PCT Agreement, which means that the filing procedures of patents (including Chinese) are streamlined and thus many of the key companies reliant on IP, such as those in the telecommunication business, could also file them across Latin America. But in practice, this has specific and diversified contours according to each country.

Argentina is a noteworthy exception in that it is not part of the PCT and adopts the most rigorous patent examination procedures in the region. Colombia, Mexico, and Peru are countries that are perceived to have adopted an opposite approach, having approved various Patent Prosecution Highways (PPHs) and TRIPS-Plus provisions due to FTA commitments with the USA, as well as accelerated patent examination procedures with less rigorous standards of patentability.⁴³⁰ Brazil is often perceived to be in a middle-ground position given its historical support to TRIPS flexibilities for public health, conducts a

⁴³⁰ For a comparative analysis of the impact of the PCT in Latin American countries, see: CORREA, Juan Ignacio; CORREA, Carlos. **Impact of the Patent Cooperation Treaty in Latin America**. GRUR Int 69, 8, 2020, p.803 – 822.

relatively robust examination of patents but has also recently shifted positions, introducing new PPHs, new guidelines and a program to accelerate patent examinations. Chile and Costa Rica are other countries with a similar position, having more TRIPS-Plus provisions in their own national laws, also due to FTAs, but perceived to have more nuanced approach to the role of an IP office and the IP system for innovation.⁴³¹

Other countries with less filings, such as Bolivia, Honduras, and Paraguay, may also have a smaller number of Chinese patent filings, if any at all – given that patents are territorial and the decision for their filing is conducted under economic terms. A brief comparison between patent search systems available by the respective IP offices shows that Huawei has, as of 24 July 2021, 317 granted patents in Brazil, 15 in Argentina, and 3 in Colombia. These figures may be misleading given differences in the operational search systems of each IP office; still, they suggest that the patent system in Latin American countries by Chinese companies – taking as a benchmark its top applicant – may be incomplete.

In this context, unlike the BRI or RCEP IP-related discussions which contain a full IP chapter, and also unlike the WTO and WIPO, the engagements between China and Latin American countries on IP is very limited. In fact, protection of Chinese IP is, unsurprisingly, not a priority of trade and diplomatic ties between countries in the region and China. The CNIPA has only one PPH with the Chilean IP Office in the region, for example – although the lack of more PPH agreements may be also related to the overall reluctance and caution of some IP offices, such as those of Brazil and Argentina, to adopt them risks patent sovereignty.⁴³²

Analyzed under this lens, there is little to say about implications for Latin America of the IP ‘with Chinese characteristics’, rather than accompanying the changes in China’s economic structure and the limited influence it currently has to shape the global IP order. But the focus on Latin America may in fact provide inputs on what other countries may do in terms of how they engage with China, including the importance to generate more balanced, informed views on the role of Chinese firms and China abroad. For instance, Michelle Ratton Sánchez-Badin and Fabio Morosini have analyzed Chinese investment

⁴³¹ See, for example, SANTA CRUZ, Maximiliano; OLIVOS, Catalina. **The Twenty-First Century Intellectual Property Office**. In: CORREA, Carlos; SEUBA, Xavier. **Intellectual Property and Development: Understanding the Interfaces**. Munich: Springer, 2019, p. 181-198.

⁴³² SYAM, Nirmalya. **Robust Patent Examination or Deep Harmonization? Cooperation and Work Sharing Between Patent Offices**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing flexibilities under international intellectual property law*. South Centre and Max Planck Institute for Innovation and Competition. Munich: Springer, forthcoming in 2021.

agreements with Brazil on the electric sector by SOE State Grid's acquisition of the Companhia Paulista de Força e Luz, concluding that it to middle-income economies such as Brazil, they have been much less disruptive.⁴³³

In many ways, the role of China is less controversial than most Western accounts tend to provide, and that perhaps the very framework of analysis needs to be changed. Along these lines, the framework for an assessment of IP should also be adapted, thinking less in terms of the number of IP filings by Chinese entities, for instance, and more about what Chinese investments and firms operating in the region fail to do. Within this novel framework, it is possible to reflect on the fact that Chinese companies operating in Latin America do not conduct technology transfer to domestic firms, and often operate alone – which therefore entails a different approach from foreign firms which have operated in China for decades. China also has various forms of investment restrictions, which are generally limited or even nonexistent in Latin American countries. In fact, many countries have accepted stringent investor state dispute settlement (ISDS) systems to benefit foreign investors, causing numerous issues that include IP-related matters, which now benefit Chinese entities.

Furthermore, concerns about environmental implications of Chinese operations in Latin America under low regulatory rules were widely reported, which highlights the interplay between reduced regulatory constraints and decisions regarding investments. Both these elements are not exclusive to the behavior of Chinese entities, both public and private, and mirror the behavior of Western companies over the last few decades, marred by denunciations of little respect for human rights and environmental concerns, often in contradiction with their domestic operations. Most of the current cases do not deal with Chinese entities, but there will inevitably be an increase in the future. As such, these reflections highlight some of the broader issues when dealing with China in Latin America regarding IP.

On the one hand, the non-centrality of IP matters in most commercial and investment transactions between Latin American countries and Chinese entities or the Chinese State may be seen as an opportunity to ensure more domestic technology transfer

⁴³³ SANCHEZ-BADIN, Michelle Ratton; MOROSINI, Fabio. **International Economic Law by Other Means: a three-level matrix of Chinese investments in Brazil's Electric Power Sector.** Harvard International Law Journal, Vol. 62, Special Issue, 2021. According to the authors, the reasons for such investments to be relatively less disruptive include: '(i) the similar legal tools employed to manage the international economic legal order, (ii) an economic and legal environment previously exposed to foreign direct investments in strategic sectors; and (iii) the inexistence of reported direct interference, also known as "shadow administration," of the Chinese Communist Party in the daily operations of the corporation'.

and encourage upgrading policies and sectors where Chinese investments and firms operate. In some cases, there may be lower constraints of existing IPRs and IP licensing rules. As the next chapter will further investigate, for example, a partnership between Sinovac (Beijing, China) and Butantan Institute (São Paulo, Brazil) for clinical trials and development of a successful Covid-19 vaccine (CoronaVac) was based on previous cooperation mechanisms, trade-oriented diplomatic ties, and mutual interest. On the other hand, the practical reality is that because many of the investments and firm operations' focus on sectors such as infrastructure building and commodities' extraction, there are high risks such as those related to environment and de-industrialization, and little opportunity for technological sectors to flourish.

Divergences and regional political shifts also compose a difficult landscape for Latin American countries. For example, China and Mercosul/Mercosur have reportedly launched discussions concerning a potential FTA in 2017; these preliminary discussions did not advance partly due to stalemates within the South American regional group, which is supposed to negotiate FTAs as a bloc. In July 2021, Uruguay announced its intention to pursue bilateral negotiations with China, contradicting the economic bloc's rules (Argentina, Brazil, Paraguay and Uruguay). Paraguay has close ties to Taiwan as the only country in the region to recognize it as a sovereign state, and benefits from Taiwanese cooperation and trade. Argentina's previous neoliberal government under Mauricio Macri was reticent towards China but in favor of FTAs; the current Alberto Fernández administration suggests the opposite. Finally, Brazil, which situated itself historically in a position of independence and as a middle ground between Western powers and China, radically changed its policies under Jair Bolsonaro's mandate, openly opposing and criticizing China and siding with the US government under the Donald Trump administration. Therefore, there is difficulty ensuring coordination between Mercosul/Mercosur Member States, and the bloc's stance towards China is unstable and often politicized under the logic of friend or foe.

However, the latest experience of the Mercosul/Mercosur concerning its FTA with the European Union highlights a successful experiment of ensuring that TRIPS-Plus provisions do not restrict – or at least do so in a limited manner – the policy space of countries in the future. The South American economic bloc has a history of strongly opposing such provisions, especially for pharmaceuticals, such as patent linkage regimes and data exclusivity rights. These were included in most other countries in the region which signed similar FTAs, such as the ones already mentioned above (Chile and Peru via FTA with US and CPTPPP; Colombia via FTA with US, Mexico via NAFTA and USMCA; Costa Rica via

Caricom's FTA with US). This suggests a distinct benchmark for future potential negotiations with China. Although the country has not explicitly included such provisions in its current agreements and negotiations, this might be the case in the future. This may also reorient and focus trade and investment discussions between China and Latin America towards other instruments (not FTAs) with other purposes (similar to the experience of Brazil in investment agreements with, among others, Angola)⁴³⁴.

The takeaway from a focus on Latin America regarding ~~the~~ direct and indirect expansion of the IP 'with Chinese characteristics' is that, given the fact that IP is not central to Chinese-Latin American engagements and agreements, this may be both an opportunity for Latin American countries to use their policy space more prominently (e.g., creating technology transfer policies similar to the ones that China created for itself, learning from its experience when and if applicable) and a manner to ensure a new kind of engagement not based on the conventional trade-offs between TRIPS-Plus provisions and market liberalization. The focus should be on heightening human rights and environmental standards in Latin America by Chinese firms.

3.3. Preliminary Conclusion: A Global Chinese Standard in the Making?

China's economic and political growth have generated intense discussions on Chinese standards in international law and governance.⁴³⁵ This chapter aimed at engaging with this debate by assessing the potential implications of the internationalization of what China refers to as IP 'with Chinese characteristics'. The international IP system is not fully harmonized nor unified: the TRIPS Agreement establishes minimum standards, and no single rules. In this sense, there are no global IP standards per se, and despite the efforts of developed countries to push others towards adopting TRIPS-Plus provisions, this still leaves countries with policy space to craft their own national IP policies. In this sense, the question of a Chinese standard in IP may be reformulated to focus on the direct and indirect impacts to the global IP system brought by the nation's IP laws and policies, the country stances at multilateral, regional and bilateral instances, and private ordering mechanisms such as

⁴³⁴ MOROSINI, Fabio; SANCHEZ-BADIN, Michelle Ratton. **Reconceptualizing International Investment Law from Global South**. Cambridge: Cambridge University Press, 2017.

⁴³⁵ SHAFFER, Gregory; GAO, Henry. **A New Chinese Economic Order?** *Journal of International Economic Law*, Volume 23, Issue 3, September 2020, Pages 607–635; ERIE, Matthew. **Chinese Law and Development**. *Harvard International Law Journal*, Vol. 62, Issue 1, Winter 2021.

contracts and licenses.⁴³⁶

Framed along these lines, although China does not adopt the center stage in international IP discussions, its role in shaping global IP law will continue increasing. The description of some processes at the WTO, the WIPO, the RCEP and BRI projects confirms that the country's influence is set to grow in both multilateral, regional and bilateral instances of international economic law. Countries will also increasingly engage with China, either seeking collaboration, critical cooperation, or confrontation. Companies willing to operate in China need to abide by domestic standards and may themselves need to 'adopt' Chinese characteristics.⁴³⁷ At the same time, China will be also increasingly subject to scrutiny and demands – both by domestic stakeholders abroad and by other countries. This is an outcome of the country's economic growth and geopolitical expansion.

The IP 'with Chinese characteristics' turned into a Chinese standard also increasingly relies on non-traditional modes of governance, which are based not only on international treaties between Member States, but also transnational contracts, non-legal instruments, and arbitral courts.⁴³⁸ Part of the difficulty to assess China's international legal presence may be due to the failure to take the transnational private and non-legal instruments into consideration.

As this chapter underscored, China's stance at the WTO and WIPO has gained

⁴³⁶ In relation to the internationalization of IP and its impacts to developing countries, Ruth Okediji argues that: 'The weltgeist of the international intellectual property system is undoubtedly European, but also increasingly American. The narratives of developing country participation in the global system all seek to redeem the system from its own problematic history by restructuring the terms of engagement between developed and developing countries'. Perhaps, the issue would be whether the international IP system's *Weltgeist* is now becoming also increasingly Chinese. See: OKEDIJI, Ruth. **The International Relations of Intellectual Property: Narratives of Developing Country Participation in the Global Intellectual Property System**. Singapore Journal of International & Comparative Law, Vol. 7, 2003, p. 315-385.

⁴³⁷ 'One implication of the new China shock is that the new rules on data, research and development, and standards will force prominent Western companies to acquire Chinese characteristics, unless they withdraw from China altogether. As one well-placed private-sector observer put it to me, "China's idea is that if companies like Daimler or Volkswagen want to work in China, they will have to move services, R&D, and new products there. Beijing hopes that dual circulation will transform them into Chinese companies." Needless to say, the new China shock demands a different set of responses than the old one did. Rather than trying to transform China or make inroads into the Chinese market, the West's priority must be to transform itself, not least by developing industrial and investment policies to spur innovation and protect its IP. And to ensure that their economic "champions" have access to economies of scale, Western countries must establish shared standards for privacy, data protection, carbon pricing, and other issues. Ideally, this cooperation would formalize new trade agreements, investment packages, financing, and regulations to expand the share of the global economy that is open to non-Chinese technologies and frameworks'. LEONARD, Mark. **The New China Shock**. Project Syndicate, 31 March 2021. Available at: <https://www.project-syndicate.org/commentary/the-new-china-shock-by-mark-leonard-2021-03>

⁴³⁸ See, for example: LI, Ji. **Meeting's Law Demand: Chinese Multinationals as Consumers of US Legal Services**. Yale Journal of International Law Online, Vol. 46, 2021; LIU, Qiao. **COVID-19 in Civil or Commercial Disputes: First Responses from Chinese Courts**. *The Chinese Journal of Comparative Law*, Volume 8, Issue 2, September 2020, p. 485–501.

prominence. It has been a goal of the Chinese central government to increase its presence at the multilateral level and express its commitment to multilateral organizations. It engages with all IP issues across both organizations, but rarely opts to be at the forefront of proposals and discussions, despite a few exceptions. The problem with describing the stance as ‘middle-ground’ between developed and developing countries is that such groups are not unitarian either, and that according to each topic the position of China may be either fully ‘maximalist’ in IP or quite ‘development-oriented’. The average – if any such metric could be drawn – is distinct from the individual but relevant cases.

With respect to WIPO, China generally intervenes with ‘technical’ expertise, reinforcing and further legitimizing the role of the organization as the main international IP policy forum – therefore creating a co-dependency that also further legitimizes the contemporary IP system. Although surrounded by an aura of bureaucratic, ‘boring’ positions, China’s stance is carefully assessed position that can be traced back to the broader developmental goals set forth by its various policies.

In relation to regional and bilateral agreements and cooperation mechanisms, including RCEP and the BRI, China has also increased its participation, with relevant consequences to IP, although not always conclusive or direct. Unlike the practices by the USA and the EU to push for TRIPS-Plus measures in FTAs and enforce unilateral measures against third countries based on their own understanding of IP, the PCR opts to focus on harmonization of procedures, ‘exporting’ institutional arrangements such as patent application procedures via work-sharing.⁴³⁹ It also concentrates efforts in the coordination between the CNIPA and the other IP5 Offices, as well as bilateral and regional partnerships and collaborations with other IP offices, particularly in Southeast and Central Asia.

This has important consequences on countries which, for example, decide to undertake PPH agreements with Chinese CNIPA, potentially reducing their patent sovereignty to decide which patent applications will be granted. For example, an agreement between Cambodia and China is expected to make Chinese patents valid in Cambodia. Oftentimes, work-sharing represents *de facto* harmonization of norms and may therefore limit a country’s policy space to conduct pro-health IP policies.⁴⁴⁰ Economically, however, the interest by countries to export and engage with China couples with their lack of resources

⁴³⁹ On the importance of considering the role of patent offices beyond their understanding as neutral authorities, see: DRAHOS, Peter. “**Trust Me**”: **Patent Offices in Developing Countries**. *American Journal of Law and Medicine*, Vol. 34, 151, 2008.

⁴⁴⁰ SYAM. Nirmalya, 2021 (forthcoming), *Op. cit.*

for investment in full-fledge IP administrative systems, creating incentives to adopt such mechanisms nonetheless.⁴⁴¹ There is, however, no guarantee that this position will continue to be adopted in the future, as China further consolidates its own domestic IP policies and the interests and political stakes related to its companies operating abroad may increase.

At the same time, other forms of engagement with China may present indirect forms of shaping IP laws and policies. One clear example is the now suspended CAI between China and the EU, an agreement focused on investment, but whose implementation could give rise to limiting means to apply IP nationally. Another would be the private regulation by Chinese e-commerce platforms with respect to copyright and trademark infringements, with extraterritorial implications based on Chinese e-commerce law. Thus, new intersections with competition, data governance, e-commerce, etc., will be increasingly important and some of these may become bigger priorities for China in future negotiations.

The consequences on developing countries of these processes are varied. Countries along the BRI, or recipients of Chinese foreign investment, are not mandated to adopt laws or policies to match the Chinese standards. To a large extent, this is because many already have minimal standards of protection that are enough for China's companies and businesses. China may adopt a less interventionist approach while accruing the benefits of stronger IP protection that is pushed by the USTR and the European Commission. This conclusion varies according to geographical region, size of the country, economic status, and its geopolitical alignments. China's main interest in Latin America, for example, does not involve IP issues with centrality. In addition, countries from Mercosul/Mercosur have historically prevented the inclusion of TRIPS-Plus provisions in its negotiations, a contrast to other Latin American countries⁴⁴². At the same time, the trade between the regions revolves around commodities' export and certain manufactured goods, which may also explain a relative lack of centrality on IP issues.

For countries with stronger direct ties with China, particularly Southeast Asia and Central Asia, the economic dependency may create less leverage for negotiations. The lack of commitment regarding IP may be an opportunity to create new partnership models based on technology transfer and cooperation. Notably, in practice, this is unlikely since China does not go in that direction, even using an allegedly cooperative model such as the BRI for mainly economic purposes. In any case, China's presence also shifts conventional

⁴⁴¹ Interview with Peter Yu (3 June 2021); Interview with Irene Calboli (14 June 2021).

⁴⁴² For example, Mexico with regards to UMSCA, CARICOM-US, Peru, Colombia and Ecuador-US FTA, Chile-EU, and Peru and Chile as parties to the CPTPP.

power play dynamics with other actors, which creates more leverage for developing countries in future negotiations.⁴⁴³

Finally, can China's new stances reorient existing international IP rules towards the public interest? In other words, based on the cases mentioned in this chapter, could it be that a Chinese standard in the making, even if limited, proposes a critical alternative to the current IP system? The paradigms that orient the internationalization of Chinese IP standards are largely akin to the ones of Western countries, i.e., based on trade liberalization, integration of developing countries into global value chains, and little to no cooperation mechanisms based on non-trade issues and developmental concerns. Although the different IP systems do not constitute a single standard, they share these general assumptions about the role of IP in the global economy, including its alleged and questioned role in ensuring innovation, and a focus on protecting private rights rather than public interest. They remain part of the international economic law that is deeply entangled with a colonial and imperial history, after all.⁴⁴⁴

It may be too early to draw conclusions regarding China's increased participation in the international system, but there is little indication of a shift towards the development of a more public-oriented IP system. Both China's stances at multilateral organizations (WTO and WIPO), its role in FTA negotiations such as RCEP, and its bilateral engagements under the BRI, as well as the role of private actors and investments, largely reinforce the foundations mentioned above.

The attempts made by China to reinforce the legitimacy of the multilateral institutions and utilize narratives of cooperation and collaboration in trade agreements/mechanisms have specific goals for the country: on the one hand, stress that its

⁴⁴³ In other words, countries now engaging with China may now reduce the influence of other traditional allies, particularly the United States, Russia, and India. While Western countries are critical of political coups d'état or erosion of democracy in El Salvador, Hungary, and Myanmar, China generally adopts a neutral, non-interventionist approach. This also offers economic opportunities – as well as questions as to what this Chinese stance may also end up legitimizing. From the point of view of IP, if China does not impose the adoption of certain norms and regulations, including TRIPS-Plus provisions, and in fact offers cooperation mechanisms such as PPH and facilitated exports and IP management systems, the trade-off for a country might be not between what China demands and what policy space is retained, but a comparison between what China request and what other partners, such as the USA, demand. In this narrow perspective, oftentimes the approach by China may present itself as more favorable. As such, the decision for countries to increasingly engage in commerce and investment-related deals with China may be a fully rational cost-benefit analysis, despite its limitations. This may also push developed countries to be more flexible in negotiations, although this hypothesis would require a more thorough analysis than the one conducted in this chapter.

⁴⁴⁴ See generally: CHIMNI, B.S. **Third World Approaches to International Law: A Manifesto**. *International Community Law Review* 8, 2006, p. 3–27; LINARELLI, John, SALOMON, Margot, SORNARAJAH, Muthucumaraswamy. **The Misery of International Law: Confrontations with Injustice in the Global Economy**. Oxford: Oxford University Press, 2018.

norms and practices are in full accordance with international norms, particularly the TRIPS Agreement; on the other hand, reiterate their distinction and refute expectations based on what other countries did in the past. In practice, these differences are limited; while they may allow leeway for developing countries that engage with China, they do not represent a real alternative to the existing system.

Chapter 4 – ‘I am not a medicine god’:

The politics of pharmaceutical patents in China



Dying to Survive (Film Poster)
Wen Muye (文牧野), Director, 2018

我不是药神

I am not a medicine god.

Chapter 4 – ‘I am not a medicine god’:

The politics of pharmaceutical patents in China

‘Dying to Survive’⁴⁴⁵, a relatively low-budget film, was one of China’s top watched films in 2018. The production is based on the true story of a man who was unable to have access to (the extremely unaffordable) cancer drug Imatinib (Glivec) in China. He then individually imported a generic version from India, which had not yet received the approval by Chinese health authorities for its commercialization. A generic version of the medicine by a Chinese firm would become available in real life China in 2013 and included in its reimbursement list in 2017.⁴⁴⁶ The film raised public awareness and (re)launched a discussion on the ever-important issue of medicines’ access and affordability in the country, and the role of IP monopolies in creating hurdles for patients and the public sector. More broadly, the case dialogues with the longstanding issue of IP and access to medicines, which underpins the expansion of IP around the world, given its socio-economic consequences around the world, especially in the global south.

In an official statement, Premier Li Keqiang even referred to the topic addressed by the film, calling national regulators to ‘speed up price cuts for cancer drugs’ and ‘reduce the burden on families’.⁴⁴⁷ In 2019, a public debate in Beijing involving judges of the IP Division of the Supreme People’s Court, private lawyers, and academics provided interesting discussions on the views of the respective stakeholders:⁴⁴⁸ on the one hand, IP protection should not prevent the fulfilment of the public health goal of ensuring access to medicines, many argued; on the other hand, the idea that IP is needed in order to promote innovation was widespread. The arguments deployed by the participants largely mirror debates in most countries around the world and China’s position at the WTO and WIPO, including the framing of IP as a permanent attempt to strike a balance between the public and the private interests, and the naturalization of the idea of IP as a necessary catalyst of innovation.

This chapter binds the previously conducted analyses to assess the politics of

⁴⁴⁵ 我不是药神 (‘I am not a medicine god’, in the original Chinese).

⁴⁴⁶ See: COHEN, Mark. **“Dying to Survive” and Pharmaceutical IP Reform in China.** *China IPR*, 28 July 2018. Available at: <https://chinaipr.com/2018/07/28/dying-to-survive-and-pharmaceutical-ip-reform-in-china/>

⁴⁴⁷ See REUTERS. **Cancer drug movie strikes nerve in China, becomes box-office hit.** 18 July 2018.

⁴⁴⁸ See: IPHouse (translation by Anjie Law Firm). **Offline Event: How Legal People See "Medicine God" : "Dying to Survive " in the Eyes of IP Professionals.** Available at: <https://chinaipr.com/2018/07/28/dying-to-survive-and-pharmaceutical-ip-reform-in-china/>

pharmaceutical patents in contemporary China, with a focus on the issue of access to essential medical products: the structural economic changes of the Chinese economy towards a capital-intensive and IP protective system, which the IP ‘with Chinese characteristics’ illustrates, and the geopolitical implications of China’s stance across multilateral, regional and bilateral arenas constitute the background against which the issue can be described. It is a prime example to elicit some of the main challenges associated to the consolidation of a stringent IP regime in the PRC; it also offers a preliminary assessment of whether the particularities of the Chinese State’s relation to innovation and market regulation are enough to counter the detrimental consequences of pharmaceutical monopolies generated by IPRs or not.

The analysis of the Chinese government plans regarding IP policies and access to medicines in the last few years seem to attempt a yet unprecedented balancing situation: a stringent protection of patents and other IP for pharmaceuticals, on one hand, and ample (in fact, increased) access to all sorts of pharmaceutical products and health technologies to the Chinese population. In theory, this could be done either by an effective universal health coverage system based on universal public health or strong reimbursement mechanisms, by the elevation of living standards and wages that would enable Chinese families and individuals to purchase more expensive drugs, treatments and equipment, and/or unique price control and distribution mechanisms by the Chinese state that would counter the limitations imposed by the monopolies of IP. These are not mutually excludable, and it is often hard to provide an exact assessment of the impact of each aspect to access to health products.

The chapter starts with a short overview of the issue of IP and access to medicines with a focus on the role of China, which is often dismissed. It then addresses the changes in the Chinese pharmaceutical industry, accentuating that it aspires to compete with global ‘big pharma’ and not to dominate the generics global market. It also underscores how the enormous growth in the market has also led to concerns about degrees of economic concentration and monopolization, which already led to antitrust action in the sector.

In view of this overview, the chapter concludes with an analysis of the Covid-19 pandemic and the role of Chinese pharmaceutical firms in developing and ensuring vaccines to many countries, stressing their strong patenting trend. The Chinese central government argued early on that Covid-19 vaccines should be treated as ‘global public goods’, but did not prevent, but rather incentivized, patenting and strong IP protection for Covid-19 related

products. Still, via a coordination between pharmaceutical and health firms and the Chinese State, the PRC remained the world's largest provider of medical PPEs, equipment, and very crucially Covid-19 vaccines. To elucidate the legal and geopolitical issues currently at stake, this research deals with Chinese position regarding the WTO TRIPS waiver proposal, originally tabled by South Africa and India in October 2020. China became a late supporter of the initiative in May 2021 after the USA expressed its unprecedented support but was never an explicit opponent either. This is in line with the observations of China's relative independence and 'non-interventionism' in foreign affairs, although it also signals its hesitancy towards adopting a clear public health agenda with respect to IP.

Finally, the 'vaccine diplomacy' by China (and its critique of 'vaccine nationalism' of other countries) has a correlate in the 'nationalism of patents', the chapter concludes, after analyzing the parallels between the protection of IP in the pharmaceutical sector for Covid-19 and the tendency of countries to protect their populations first, but also the economic interest of their own companies.

4.1. IP and Access to Medicines: the global debate and the role of China

After the adoption of the TRIPS Agreement, countries were mandated to provide patent protection in all technological fields⁴⁴⁹, which basically required developing countries to start granting patents for pharmaceutical products and processes. While the first treatments for HIV/AIDS started to be available in the 1990s in high-income countries, African countries – many of them with the highest disease burden of HIV/AIDS in the world – only *started* to have access about 10 years later, which led to millions of preventable deaths. In this context, the bold public health stance of countries such as Brazil and Thailand, which created universal systems to access such treatments, also placed them the forefront of the debate on how to ensure that IP does not constitute an impeditive barrier to access to essential treatments, and championed countries to be leaders in advocating for TRIPS flexibilities and consistency at the WHO, WTO, and WIPO. During the same period, India had already become the 'pharmacy of the developing world', and its generic industry, the biggest in the world, was responsible for ensuring affordable and high-quality drugs to the global south. In

⁴⁴⁹ '1. Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application.' Article 27.1, TRIPS Agreement.

1998, the South African government amended its Industrial Property Law to allow for parallel imports of generic medicines from abroad into the country, which was challenged by a coalition of 38 foreign pharmaceutical companies in domestic courts. This led to an unprecedented civil society mobilization that denounced the greed and the negative impact of IP laws to access to medicines. The companies eventually dropped their case and a global access to medicines movement had been created. In 2001, the Doha Declaration on IP and Public Health, a consensual document by all Member States of the WTO, was adopted at that year's Interministerial Conference, which reaffirmed the legitimacy of TRIPS flexibilities and established the par. 6 system (later converted into Article 31*bis*, TRIPS), for compulsory licensing (CL) for exports to countries without manufacturing capacity.

Table 1 - TRIPS Flexibilities on Public Health

Based on a terminology of the South Centre regarding flexibilities related to public health,⁴⁵⁰ the following can be identified:

- (1) 'Flexibility in the choice of patentability criteria, including for chemical entities and biologics – WTO members have considerable policy space to define what an 'invention' is and to apply rigorous standards of patentability to avoid the grant of patents that, without making a genuine technical contribution, may distort market competition.
- (2) Compulsory license – Widely recognized in the legislation of developed and developing countries—and granted since the adoption of the TRIPS Agreement by administrations or courts in countries such as Thailand, Ecuador, Indonesia, India, USA, Italy, and Germany— compulsory licenses may be necessary to correct market distortions (abuses of market power, unfair pricing, refusal to license, etc.).
- (3) Government use – In many cases governments may decide, consistently with the TRIPS Agreement, to use patented inventions for non-commercial purposes, such as for ensuring the supply of essential medicines.
- (4) Compulsory licenses for the supply of medicines to countries with a lack of or insufficient manufacturing capacity – Compulsory licenses exclusively for the export of medicines can be granted under the amendment introduced to the TRIPS Agreement in 2017 and the waiver adopted by WTO in 2003.
- (5) Test data protection – The TRIPS Agreement (Article 39.3) requires WTO members to protect test data against unfair competition, which does not create exclusive rights. The Agreement is complied with if legislation on unfair competition is implemented to protect such data.
- (6) Exemptions for LDCs – LDCs need not grant patents for pharmaceuticals and test data protection at least until 2033 under the extended transition period provided for under Article 66.1 of the TRIPS Agreement.
- (7) Parallel importation – Importing protected medicines from any country where they can be purchased cheaper than locally is consistent with the TRIPS Agreement.
- (8) Pre and post patent grant opposition – Procedures before patent offices provide for the possibility for third parties to contribute to the examination process through 'observations' or 'oppositions,' whether before or after the grant of a patent, or both.
- (9) Use of competition law to address the misuse of IPRs – Competition law may be applied to correct market distortions created through the abuse of IPRs.
- (10) Bolar exception – 'Bolar exceptions' are important to accelerate the entry of generic products and promote a dynamic market for medicines.
- (11) Research or experimentation exception – This exception allows research to be conducted by third parties on patented inventions, for instance, to improve on them or derive new inventions.
- (12) Disclosure requirement, particularly for biologics – The full and precise disclosure of an invention is

⁴⁵⁰ SOUTH CENTRE, **A Public Health Approach to Intellectual Property Rights: Public Health Related Flexibilities in the TRIPS Agreement**. Available at: <https://ipaccessmeds.southcentre.int/wp-content/uploads/2018/12/Public-Health-RelatedFlexibilities-in-the-TRIPS-Agreement.pdf>

- crucial for the patent system to perform its informational function. This is particularly relevant for biologicals, which cannot be described in the same way as medicines produced by chemical synthesis
- (13) Flexibilities in enforcement of IP – Measures to enforce IPRs—such as reversal of the burden of proof, determination of infringement by equivalence and damages, and border measures—if overly broad, may distort competition by discouraging or preventing market entry and the availability of generic medicines. Provisional injunctions need to be cautiously granted so as not to distort the market dynamics, generally after giving the alleged infringer an opportunity to articulate his defense. Permanent injunctions may be denied for public health reasons under certain circumstances.
- (14) Security exception – Compliance with obligations under the TRIPS Agreement can be suspended, *inter alia*, in cases of emergency in international relations, such as in the case of a pandemic (Article 73 (b) of the Agreement).⁴⁵¹

Instead of receding, the debate continued to intensify and remains a contentious contemporary discussion.⁴⁵² At the global level, the WHO, pursuant to the World Health Assembly (WHA) Resolution in 1996, published the document ‘Globalization and Access to Drugs: Implications of the WTO/TRIPS Agreement’ in November 1997. A Commission on Intellectual Property Rights, Innovation and Public Health (CIPRH) was created in 2003, following a UK well-known report on the same issue.⁴⁵³ During that occasion, the idea of promoting alternative models of R&D instead of the current IP-based model was discussed. The Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property was approved by the WHA.⁴⁵⁴ Advances in IP from a public health perspective remained a contentious issue and largely blocked by some developed countries. In 2011, the Consultative Expert Working Group on Research and Development: financing and coordination (CEWG) was established and recommended to the WHO the launch of negotiations on a binding treaty on research and development (R&D), an effort which was ultimately stalled. Since then, access to medicines is also a part of the human right to health became an established feature of human rights documents, and a trilateral cooperation between WHO, WTO and WIPO continues to produce reports on the interface between trade, IP and health, although with limited concrete impacts for the organizations.

In addition, international mechanisms and organizations were created with an aim to expand access to medicines and other medical products. This included the creation of

⁴⁵¹ See: CORREA, Carlos. **Interpreting the Flexibilities under the TRIPS Agreement**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*, South Centre and Max Planck Institute for Innovation and Competition. Munich: Springer, forthcoming in 2021.

⁴⁵² For a historical overview and a critical assessment of recent developments, see: VELÁSQUEZ, Germán. **Access to Medicines and Intellectual Property: The Role of the World Health Organization**. Research Paper 47, South Centre: Geneva, May 2013.

⁴⁵³ UNITED KINGDOM – COMMISSION ON INTELLECTUAL PROPERTY RIGHTS. **Integrating Intellectual Property Rights and Development Policy**. Report. London, September 2002.

⁴⁵⁴ WORLD HEALTH ASSEMBLY. **Resolution WHA 61.21 Global Strategy and Plan of Action on Public Health, Innovation and Intellectual property**. Geneva, 2006.

Gavi, the Vaccine Alliance in 1999, the Global Fund to fight AIDS, Tuberculosis and Malaria in 2002, and the US President's Emergency Plan For AIDS Relief (PEPFAR) in 2003, with a strong focus on procuring and delivering health products to low and lower-middle income countries. This process has been criticized for removing the mandate and work from the WHO; for others, this has created new mechanisms to address the issue of global access to medicines. Other initiatives such as the Medicines Patent Pool (MPP) and the Drugs for Neglected Diseases Initiative (DNDi) aim at resolving the bottlenecks in innovation and subsequent access, by respectively facilitating and pooling patent licensing and promoting new open partnerships for neglected diseases which do not receive investments by traditional pharmaceutical firms. Unitaid, created in 2006, and the Coalition for Epidemic Preparedness Innovations (CEPI), created in 2017, provide financial investments respectively for specific health projects via grantee partners and for R&D in vaccines for infectious diseases.

In parallel, a robust group of civil society organizations and intergovernmental bodies has equally gained expertise and became strongly influential in the global interface of IP and access to medicines. Organizations such as Médecins sans Frontières (MSF) – Access Campaign, Third World Network, ITPC – International Treatment Preparedness Coalition, Oxfam, as well as national entities such as Brazil's ABIA/GTPI (IP Working Group of the Brazilian Interdisciplinary AIDS Association), US' I-MAK and Public Citizen, South Africa's Treatment Action Campaign (TAC) and Health Justice Initiative (HJI, since 2020), India's Lawyer's Collective, as well as intergovernmental organization such as the South Centre, are all examples that have had strong participation in leading cases and in shaping the national and global politics of IP and access to medicines.⁴⁵⁵

At national levels, the geopolitical tensions regarding the use of TRIPS flexibilities and the intersection between IP and access to medicines remains. For example, Thailand was reportedly threatened and unilaterally 'sanctioned' by foreign pharmaceutical companies for the issuance of compulsory licenses in 2007, after Abbott announced it would no longer introduce new medicines in the country.⁴⁵⁶ The threat of reduced direct foreign investment in the country, however, never materialized. In 2014, pursuant to India's issuance of a CL to Nexavar, a cancer medicine, the US government bilaterally pressurized the

⁴⁵⁵ See: MOON, Suerie; HEIN, Wolfgang. **Norms in Global Governance: Human Rights, Intellectual Property and Access to Medicines**. Farnham: Ashgate 2013.

⁴⁵⁶ See: SCHUETTLER, Darren. Angered U.S. firm excludes Thailand from new drugs. Reuters, 14 March 2007. Available at: <https://www.reuters.com/article/us-thailand-drugs-abbott/angered-u-s-firm-excludes-thailand-from-new-drugs-idUSBKK27714620070314>

country to change its policies, and this remains the sole license in India. In 2017, Colombia was pressurized by foreign governments against the issuance of a CL for Gilevec, a high-priced cancer medicine, which arguably could undermine the efforts of the peace agreement with the FARC. In 2021, prior to a landmark decision by the Brazilian Supreme Court that ruled a provision of the national law which granted automatic patent term extensions, a group of ambassadors from countries with strong pharmaceutical companies directed a letter to all 11 Justices noting their concern in case patent rules would be changed by the court's decision. On the other hand, when Germany issued via the Federal Patent Court a compulsory license for Isentress in 2017, no similar reported pressure was recorded; during the Covid-19 pandemic, Israel issued one for Kaletra in 2020, Hungary and Russia for Remdesivir in 2021, and these did not also get the scrutiny of other countries.

In this broader context, the People's Republic of China, however, is often placed in a relatively 'marginal' position, for at least two main reasons. Firstly, it was not at the core of countries advocating for a more flexible and pro-health IP regime, nor was it among those who defended during the period a stringent protection of IP. In fact, China did have generally pro-access positions regarding global IP norms, but its stance was more limited and less active than countries such as Brazil, South Africa, Thailand, and India. The limited civil society in the country, the existence of stigma towards patients with certain diseases such as HIV/AIDS, and lack of accountability for cases such as the infection of thousands of individuals due to contaminated blood in the province of Henan (1991)⁴⁵⁷ further impaired the possibilities of a stronger advocacy for access to medicines in China as compared to other countries. Still, domestic civil society organization has been much more active than usually acknowledged, including a crucial role of the local chapter of MSF – Access Campaign, which operates in Beijing since 2006.⁴⁵⁸

Secondly, it was a period of institutional learning rather than actively promoting its own positions: because the growth in China's presence across multilateral organizations is a more recent trend, it also did not participate actively in the abovementioned discussions at the WHO or in the creation or governance of the global health institutions mentioned above. Because China was not a WTO member until 2001, it also did not directly participate in the first discussions regarding IP and access to medicines at the global level. Moreover,

⁴⁵⁷ THE GUARDIAN. **Chinese government urged to admit responsibility for HIV cases.** 01 December 2010. Available at: <https://www.theguardian.com/world/2010/dec/01/china-blood-selling-scandal-hiv>

⁴⁵⁸ See: HU Yuanqiong. **Resistance and Consistent: Access to Medicines and Patent Law Reforms in India and China.** SOAS Law Working Paper N. 3, 2016. Available at: https://eprints.soas.ac.uk/23118/1/Hu_23188.pdf

the PRC did not headquarter big pharmaceutical companies in the world, which the USA, Japan, Switzerland, and the UK do. China therefore was in a different economic position with respect to the demands for stronger IP protection by its own companies and for strategic reasons, and there were no strong reasons for China to adopt a maximalist approach to IP. More recently, however, China has increasingly pursued bilateral initiatives, including sending healthcare forces to selected countries during pandemics, and the development of a ‘health silk road’, a moniker under the broader BRI projects.⁴⁵⁹

Specifically in the IP field, China started granting pharmaceutical patents in 1992 pursuant to the bilateral negotiations with the United States, which led to a MoU and the reform of the Chinese Patent Law.⁴⁶⁰ Such introduction was therefore earlier than the TRIPS, to which China only acceded in 2001, although with limitations in terms of its effective implementation: for example, the patent linkage regime introduced was said to not be enforced, and hurdles for judicial relief often made its efficacy non-existent. The country has had a persistent problem with access to medicines,⁴⁶¹ particularly in rural areas, and the fact that IP laws that benefited foreign pharmaceutical companies were introduced while multiple economic transformations were also under way makes the assessment of the impact of IP even more complex. For example, imported foreign medicines started being available, as virtually all big pharma companies decided to enter the Chinese market. If prices were high, they reached new markets where no access existed at all. Chinese domestic pharmaceutical firms were exclusively producers of generic medicines, and the main participation of China in pharmaceutical global value chains has been in the production of active pharmaceutical ingredients (APIs). Meanwhile, access to medicines in China was conditioned to the development of the health sector, with an increased participation of private entities, mainly hospitals and clinics.⁴⁶² In this sense, on the one hand, the overall

⁴⁵⁹ LANCASTER, Kirk; RUBIN, Michael; RAPP-HOOPER, Mira. **Mapping China’s Health Silk Road**. Council on Foreign Relations. Available at: <https://www.cfr.org/blog/mapping-chinas-health-silk-road>.

⁴⁶⁰ See Chapter, sections 2.1 and 2.2.

⁴⁶¹ For a comprehensive overview, see: DIAO Yifan; LI, Mingshuang; HUANG, Zhiran; CHEE, Yoke Ling; LIU, Yunali. **Unlocking Access To Novel Medicines In China-A Review From A Health System Perspective**. Risk Manag Healthc Policy. 2019 Dec 18; 12, p. 357-367.

⁴⁶² China has a mixed public-private healthcare. Most Chinese citizens are covered under a public health insurance system, but that covers mostly basic treatments and drugs – under reimbursement policies. However, the bulk of expenses, especially in diseases such as cancer, comes from out-of-pocket expenses (meaning paid directly by patients) or private insurance schemes. In this sense, it is neither a universal healthcare system nor a private insurance-based model. Protection often is attached to specific pension schemes or social protection conferred by certain public organizations. This makes certain groups, particularly rural workers, and migrants, often excluded from healthcare protection. Since the reform and opening up, the participation of the private sector has increased, with a strong role for hospitals as healthcare providers. Prices and distribution mechanisms are also regulated by State, which decreases profit margins in healthcare services and medicines

healthcare situation improved due to economic growth; on the other hand, IP limitations started to become prominent regarding the issue of access.

The Chinese generics industry is the second largest in the world after India, but the government never actively promoted it as a ‘pharmacy of the developing world’ as the Indian government did. In parallel, a strong participation of traditional Chinese medicine in the healthcare system and relevant domestic concerns on fake, falsified or sub-standard medicines have been priorities for the country’s governance. This last issue was particularly addressed by the quick development of the regulatory system. During the 1990s and 2000s, regulation of medical products rapidly expanded from the creation of the State Drug Administration (SDA) in 1998, turned into the China Food and Drugs Administration (CFDA) and now the National Medical Products Administration (NMPA) since 2013. This process has been supported by the WHO, which also provided various forms of technical assistance to China and other countries during the period. While counterfeit medicines remain an issue in China and were a part of the US-China Phase One Agreement (2020)⁴⁶³,

prescriptions by hospitals and clinics. There are specific and strict price control mechanisms, and a decentralized, province-based distribution system. *De facto* policies also depend on local guidelines and other socio-economic factors. As such, commentators have argued that over prescription of drugs in China has been a policy by clinics and hospitals to elevate profit margins in overall underfunded health systems and the limitations imposed by regulation. See: HSIEH, Chee-Ruey. **Pharmaceuticals, Health Policy and Intellectual Property in China**. In: LÖFGREN, Hans; WILLIAMS, Owen David. *The New Political Economy of Pharmaceuticals: Production, Innovation and TRIPS in the Global South*. UK: Palgrave MacMillan, 2013, p. 48-69.

⁴⁶³ ‘Section G: Manufacture and Export of Pirated and Counterfeit Goods Pirated and counterfeit goods severely undermine the interests of the general public and harm right holders in both China and the United States. The Parties shall take sustained and effective action to stop the manufacture and to block the distribution of pirated and counterfeit products, including those with a significant impact on public health or personal safety. Article 1.18: Counterfeit Medicines 1. The Parties shall take effective and expeditious enforcement action against counterfeit pharmaceutical and related products containing active pharmaceutical ingredients, bulk chemicals, or biological substances. 2. Measures China shall take include: (a) taking effective and expeditious enforcement action against the related products of counterfeit medicines and biologics, including active pharmaceutical ingredients, bulk chemicals, and biological substances; (b) sharing with the United States the registration information of pharmaceutical raw material sites that have been inspected by Chinese regulatory authorities and that comply with the requirements of Chinese laws and regulations, as well as any necessary information of relevant enforcement inspections; and (c) publishing online annually, beginning within six months after the date of entry into force of this Agreement, the data on enforcement measures, including seizures, revocations of business licenses, fines, and other actions taken by the National Medical Products Administration, Ministry of Industry and Information Technology, or any successor entity. 3. The United States affirms that existing U.S. measures afford effective and expeditious action against counterfeit pharmaceutical and related products. Article 1.19: Counterfeit Goods with Health and Safety Risks 1. The Parties shall ensure sustained and effective action to stop the manufacture and distribution of counterfeit products with a significant impact on public health or personal safety. 2. Measures China shall take include significantly increasing the number of enforcement actions within three months after the date of entry into force of this Agreement, and publishing data online on the measurable impact of these actions each quarter, beginning within four months after the date of entry into force of this Agreement. 3. The Parties shall endeavor, as appropriate, to strengthen cooperation to combat counterfeit goods that pose health and safety risks.’ (ECONOMIC AND TRADE AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE PEOPLE’S REPUBLIC OF CHINA, 2020)

the concern has been substantially diminished over the last decades. Fake, falsified, and sub-standard medicines are not synonymous with generics, but their approximation is common and has become a challenge for public health, as it creates the perception that generic medicines are either IP infringements or low-quality products, which is inaccurate and misleading, but still common in most Chinese customers' views.

Despite this relatively limited stance on IP and access to medicines and the process of institutional learning over the decades, concerns about the impacts of stringent IP to access to medicines were acknowledged among Chinese health and IP national agencies from the outset of the global debate. In this sense, there are for example reports of in-depth studies by Chinese agencies, including the State Intellectual Property Office (now CNIPA) regarding guidelines, policies, and national legislative amendments to ensure that its IP policies would not excessively harm health policies. For example, a thorough revision of the compulsory licensing regime was undertaken in mid-2010s, largely facilitating the conditions for their granting – the Chinese government has never deployed the mechanism, but has, akin to other countries, used it as leverage to negotiate with companies.

As the previous chapters highlighted, the broader changes in recent China's IP policies point towards a mainly maximalist approach to IP protection with strong safeguards to national interest and security, as the country's innovation and industrial landscape has significantly changed. The issue is therefore to scrutinize whether this has been translated into a shift not only in its domestic laws on IP, but also on its larger stances on IP and access to medicines, both nationally and internationally. On the one hand, a possible expectation of China as a 'developing countries' leader in IP and public health never materialized, despite evident conditions for the country to take such role, given its size and the general affordability of its generic medicines. This is also a position that the PRC never assumed for itself. On the other hand, the country never adopted a position akin to that adopted by Western countries, particularly actions towards other countries to adopt more stringent positions on IP and refusing to debate public health-related issues at the WTO and WIPO. From the analysis conducted in the previous chapter, this continues to be the case, but given the shifts towards IP policies that the first chapter elucidated, it is at least uncertain whether this middle-ground position will continue to be the stance adopted in the future by China.

But again, despite the robust institutional development in China and the recent

legislative amendments⁴⁶⁴, there remains a complex entwinement between pushes for more IP protection and for more flexible IP policies to ensure access to medicines. The country has multiple TRIPS-Plus, including data exclusivity – and 12 years additional protection for biological products such as vaccines –, patent linkages for pharmaceuticals, and a judicial and administrative practice that grants various forms of debatable pharmaceutical patent applications such as second uses and Markush claims, as well as increasingly fast and automatized enforcement of IP. This is not restricted to patents as the laws also provide protection to tridimensional, sound, and other non-traditional trademarks, design patents (which may apply to, inter alia, medicine packages, pill forms, and medical equipment), and stringent protection of trade secrets that limit what generic companies may lawfully do without excessive legal risks. However, it does however include an open bolar/research exception that is conducive to R&D in the country, as well as exceptions and limitations for copyrights for educational and research purposes that may also support innovation policies. In parallel, control of anti-competitive conducts in the pharmaceutical sector and national policies to promote access have also been expanded. This also makes the assessment of China's positions on the matter much more complex.

Therefore, the effect of TRIPS-Plus measures, which typically bring a series of distribution and access problems, including access to medicines and freedom to operate from domestic industries, may be at partly compensated by the legal instruments available to the central Chinese State, which may go beyond the conventional TRIPS flexibilities such as compulsory licensing, and be used alongside the use of competition law, regulatory policies, pricing and distribution controls of medicines, licensing obligations for core technologies, direct coordination with companies, among others. In other words, even in a scenario of very robust IP protection with generally limited provisions on the protection of the public interest in the internal rules of IP 'with Chinese characteristics', other instruments may be deployed as external correctional mechanisms to ensure the attainment of public health goals. Along such lines, Dr. Han Bing from the Chinese Academy of Social Sciences (CASS) notes, with respect to the inclusion of TRIPS-Plus provisions in China, that they remain a 'double-edged

⁴⁶⁴ See: '**Section C: Pharmaceutical-Related Intellectual Property**. Pharmaceuticals are a matter concerning people's life and health, and there continues to be a need for finding new treatments and cures, such as for cancer, diabetes, hypertension, and stroke, among others. To promote innovation and cooperation in the pharmaceutical sector and to better meet the needs of patients, the Parties shall provide for effective protection and enforcement of pharmaceutical-related intellectual property rights, including patents and undisclosed test or other data submitted as a condition of marketing approval.' (ECONOMIC AND TRADE AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA, 2020)

sword’:

‘in China’s practice, **the pharmaceutical TRIPS-plus rules have been a “double-edged sword” for China’s access to medicines**, which has both positive and negative effects. Therefore, while China has further introduced high standard IPR rules for pharmaceuticals, it has also responded by taking full advantage of the “flexibilities” reserved by the rules of international trade agreements, **adding and improving legal provisions to prevent patent abuse, encouraging more patentees to voluntarily implement the patent opening license, improving the regulations of compulsory license system for pharmaceuticals, and promoting domestic pharmaceutical pricing and procurement reform**, in order to reduce the potential negative impact of TRIPS-plus rules on access to medicines in China.’ (Emphases added; BING, 2021)⁴⁶⁵

4.2. The Chinese pharmaceutical industry and current regulatory issues

The Chinese pharmaceutical market has steadily grown over the last decades, having become the second world’s largest and expected to take the global lead soon. Health expenditures in China have risen above income growth rates, which can be explained by an ageing population, more access to healthcare coverage (China undertook massive plans to ensure universal coverage, although not in the form of a public, universal healthcare system) and higher prices of treatments and medicines.⁴⁶⁶ This last point is the one more prominently affected by the politics of the TRIPS implementation and its impacts to access to and affordability of medicines.

Chinese pharmaceutical market may be divided into three different groups of market players: traditional Chinese medicine (TCMs) firms, generic domestic firms, and foreign brand international firms. From a competition and regulatory perspective, there are distinct relevant markets and different norms are required for their regulation. The arrival of foreign firms has also increased the perception that foreign products would be of higher quality, a characteristic which has been identified in Chinese customers’ perceptions.

For decades, the Chinese generics domestic market has been characterized by intense competition between thousands of small manufacturers, without larger groups with the potential to monopolize the sector. Strong competition was a key factor in ensuring that prices of pharmaceuticals remained relatively low in China. Other reasons also explain the relative lower prices: regulatory pricing controls, focus on off-patent products, and lower manufacturing and labor costs. These elements also justified the prominence of Chinese

⁴⁶⁵ BING, Han, **TRIPS-plus Rules in International Trade Agreements and Access to Medicines Chinese Perspectives and Practices**. Boston University Global Economy Governance Initiative Working Paper 049, 04/2021.

⁴⁶⁶ See: HSIEH, Chee-Ruey, 2013. *Op cit*.

active pharmaceutical ingredients (APIs) and manufacturing of simple formulations of pharmaceutical generic products, which were already relevant for global value chains in during the accession to the WTO in 2001. On the other hand, it has also been argued that the smaller size of companies and their profile was an impediment to their capacity to innovate and invest in R&D. Still, the protection of IP required by the TRIPS could limit the operation in the country of generic companies, leading to many of them to be forced out of markets due to international competitions, and ultimately raise prices. This had already been concretely verified in other countries, where the impact of IP and access to medicines was felt by national companies, such as Brazil.

TCM companies did not suffer the same consequences of TRIPS due to the lack of strong international competition. It also plays an important role in Chinese healthcare system as it is widely used in parallel with ‘Western’ medicine. There is also industrial scale manufacturing for such products. As noted in chapter 2, the focus of IP policies in TCM is actually on preventing its misappropriation by patents applied in other countries, especially Japan and South Korea, while also allowing multiple patents for TCM with little thresholds for innovation in China.

In this context, distinct assessments of the impact of TRIPS to Chinese pharmaceutical industries were conducted, and some considered that ultimately the impact would be quite positive for domestic firms, which would innovate more. Such an analysis, however, assumes *ex ante* that higher profit margins for pharmaceutical companies is beneficial for innovation and firms’ R&D. This has been questioned by contemporary health innovation researches: the strong protection of IP has in fact enabled monopolistic and rent-seeking behaviors rather than innovation; in addition, innovation in the pharmaceutical sector is largely dependent on public funding.⁴⁶⁷ Most new molecules in recent years have originated in smaller firms and were subsequently licensed to bigger companies for the expensive clinical trials and the manufacturing of the products. While China has not been a strong innovator of new pharmaceutical products, it would be misleading to assume that the reasons are centered in the competitiveness of small companies, and not in limitations of the broader innovation landscape. It is not a surprise, therefore, that the focus of Chinese policies has been not only on strengthening IP protection (which it certainly is doing), but equally,

⁴⁶⁷ VIEIRA, Marcela.; MOON, Suerie. **Research Synthesis: Public Funding of Pharmaceutical R&D.** Graduate Institute – Global Health Centre, 2019. Available at: <https://www.knowledgeportalia.org/public-funding-of-r-d>

and perhaps more importantly, in innovation policies under Made in China 2025 and beyond to ensure investments, technology transfer, skill learnings and infrastructure for nascent biotech and the consolidation of certain economic groups towards becoming global *big pharma*.⁴⁶⁸ The strong growth in digital medicine via the use of big data and AI also has the potential to position Chinese firms as global leaders.

Contemporarily, global value chains are also heavily dependent on active pharmaceutical ingredients (APIs) produced in China. It is estimated that over 80% of all APIs are manufactured in China, benefitting from lower costs and lower environmental standards which remain. The global share of Chinese medical products is also much higher outside the pharmaceutical sector: as the Covid-19 pandemic rendered clear, China accounted for most of all personal protective equipment (PPEs) in the world. These two sectors are less affected by foreign firms' IP rights given the dependency and rapid industrial adaptability of manufacturing production in China, making outsourcing out of China harder (although not impossible).

The creation and development of the drug regulatory system, now on the hands of the National Medical Products Administration (NMPA), was a cornerstone of the ambitions to export Chinese pharmaceuticals since commercialization is dependent on regulatory approvals by national agencies and quality controls are needed. Following WHO standards and particularly seeking pre-qualification for certain manufacturing facilities is key to ensuring exports to other countries. As in other developing countries, adopting very stringent criteria by regulatory agencies aims at solving the issues of sub-standard quality of products (the health dimension), but also improve screening and quality associated to them (the trade dimension, which is also part of a moral economy and how Chinese products are regarded more generally). The commitment of China to that aim can be elicited by the FDA's rapid creation and consolidation, a process which was supported by the WHO, as exposed in the previous sub-section. This suggests not only the interest and need to ensuring better quality medicines manufacturing in China, but its interest in developing the market for exports.

Approval of medicines by regulatory agencies is complex and often subject to industry pressures and lobbying. In June 2021, a scandal arose in the US FDA regarding the approval of aducanumab, an Alzheimer whose clinical trials revealed poor records and

⁴⁶⁸ NATURE BIOTECHNOLOGY. **The Next Biotech Superpower**. Editorial, 37, 1243, 2019. Available at: <https://www.nature.com/articles/s41587-019-0316-7>

extremely high prices, showing that issues of conflict of interest, revolving doors and public health purpose are at the core of health regulatory agencies' conducts.⁴⁶⁹ These concerns are also present in China, and recent developments in the antitrust sector, associated to commitments to improve the control of anti-competitive and abusive conducts (including IP), may be used as regulatory tools for the pharmaceutical sector as well.⁴⁷⁰ This is even more important as levels of market concentration and medicine prices are on the rise. The NMPA is in fact under the State Administration for Market Regulation (SAMR), created in 2018 as a comprehensive agency that is also in charge of antitrust.⁴⁷¹

The strong regulation of the Chinese domestic market regarding pharmaceuticals also repositions companies' business strategies and how competition takes place between them. It also affects other jurisdictions to the extent which there are controls and regulations associated to export mechanisms. For example, China is the world's biggest manufacturer of vitamin C, which is a heavily regulated sector in the country, including in terms of pricing. Chinese companies therefore exported vitamin C to other countries, including the USA, with a certain limitation with respect to how much they could charge. In the US, this was deemed to be an anti-competitive collusion in the form of an export cartel – illegal agreement between companies to export at a certain price and benefit from profit margins that are above 'normal' and effective competition levels. This was litigated and eventually reached the US Supreme Court.⁴⁷² The decision bypassed the exact legal discussion of vis-à-vis the extraterritorial implication of Chinese domestic regulation by noting that this would be covered under State's immunities under international public law.⁴⁷³

This case exemplifies the complexities of assessing the issue of pharmaceuticals, IP, and public health in China without a regard on its domestic regulations and the status of its markets. It may be the case that Chinese regulators will continue to deploy pricing and distribution control mechanisms, require cooperation between private companies and the central government (including under the use of antitrust instruments), while expanding the

⁴⁶⁹ COHN, Jonathan. **Why the FDA's Approval of a New Alzheimer Drug Should Worry You**. Huffington Post, 16 June 2021, available at: https://www.huffpost.com/entry/fda-aduhelm-alzheimer-drug-price-should-worry_n_60c84f9ee4b02df18f7fed84

⁴⁷⁰ For example, in 2020, the China's State Administration for Market Regulation (SAMR) imposed a record fine for abuse of dominant position, based on excessive pricing and the imposition of unfair trading conditions, against three companies: Shandong Kanghui Medicine ('Kanghui'), Weifang Puyunhui Pharmaceutical ('Puyunhui'), and Weifang Taiyangshen Pharmaceutical ('Taiyangshen'), in April 2020.

⁴⁷¹ See: ZHANG, Angela. **Chinese Antitrust Exceptionalism**. Oxford: Oxford University Press, 2021.

⁴⁷² See: US SUPREME COURT. *Animal Science Products, Inc. v. Hebei Welcome Pharmaceutical Co.* 585 U.S. (2018).

⁴⁷³ See, for a critical discussion: ZHANG, Angela. *Op cit*, p. 181-197.

scope and reach of pharmaceutical patents and others forms of IP protection. Moreover, informal and formal instruments will also continue to be deployed to companies to adequate their behaviors to specific goals set forth by the Chinese government.⁴⁷⁴ Such mechanisms aim at ensuring a balance between the new IP landscape and access to medicines; it remains to be seen whether this will be enough or whether other forms of State intervention in markets will be necessary.

Therefore, in a very short period, the Chinese domestic pharmaceutical sector grew in prominence and experienced key changes: from the multiple decentralized small-scale generic firms to a focus on firms with potential to become global players (*big pharma*) and in-house innovation. To that aim, the Chinese government heavily invests in R&D at universities and research institutions via its various innovation and industrial policies. For this reason, an analysis of TRIPS implementation and the status of Chinese pharmaceutical companies cannot dismiss the fact that biotechnology has been identified as a priority area under China's development plans, such as the Made in China 2025. If the implementation of the TRIPS, on the one hand, did undermine the freedom to operate of smaller generic firms, on the other hand, the entrance of global pharma companies in China to benefit from its market size and the opportunities provided by domestic markets also became a catalyst to domestic firms with whom joint ventures and partnerships were conducted. This legal-institutional environment highly favored the development of these new strong pharmaceutical companies. The TRIPS-plus provisions in pharmaceuticals are therefore now understood not only as protection of foreign entities, but as a channel of securing the rights of these rising domestic firms, which prospectively continue to consolidate as they begin to become lead innovators.

4.3. Patents and Geopolitics: The Chinese Covid-19 Vaccines

The socio-economic consequences by the microscopic SARS-CoV-2, the name of the novel coronavirus first identified in humans in the city of Wuhan, evidently go much beyond the global IP system, but have certainly put the political economy of IP on the

⁴⁷⁴ These may include bilateral informal discussions between business sector and government, the publicization of certain procedures in the media as a pressure tool, the imposition of sanctions to individuals, among others. They often involve multiple agencies, such as the SAMR, the SASAC and the CNIPA. See again: ZHANG, Angela. *Op cit.*

spotlight. The crisis renders explicit the ties between IP protection, international trade, and geopolitics (including national security and national interests) – and particularly the caveats of the global architecture to ensure affordable and equitable access.

China's response to the Covid-19 pandemic was based on a firstly lenient and non-transparent set of measures, followed by an extremely rigid zero-Covid policy. This is related to CPP decisions, responsible for shaping the policies on the ground, but which are also defined by the specificities of local instances.⁴⁷⁵ Massive testing, use of big data for contact tracing, and near total closing of borders were responsible for an almost full control of the pandemic and swift return of economic activities.⁴⁷⁶ It also makes the vaccination priorities in China distinct: on the one hand, the country is expected to only reopen its borders after most of the population is vaccinated; on the other hand, it is in a less urgent and pressing situation to do so than most other countries.

In this context, the changes mentioned in the previous sub-section are already perceptible at the global level. The Covid-19 pandemic highlighted the key innovator role of Chinese companies in ensuring access to vaccines around the world. Although the available Chinese vaccines abroad (Sinovac, Sinopharm and CanSino) are not based on the most recent technological breakthrough of mRNA vaccines, vaccines from Chinese pharmaceutical firms proved crucial to global access. Sinovac alone, which is a domestic private company, is expected to produce as much as 2 billion doses of vaccines by the end of 2021, surpassing any other manufacturer in the world, including the Serum Institute of India (SII), which was widely expected to be the main producer of Covid-19 vaccines. Other vaccines have also been approved in China and others are under clinical trials as of July 2021,⁴⁷⁷ and both Sinovac and Sinopharm vaccines received emergency approval by the WHO, paving their way for their global distribution under the Covax Facility.

⁴⁷⁵ SHIH, Victor C. **China's Leninist Response to Covid-19: From information repression to total mobilization.** In: GREER, Scott L., KING, Elizabeth J., FONSECA, Elize Massard da, PERALTA-SANTOS, André (Ed.) *Coronavirus Politics: The Comparative Politics and Policy of COVID-19.* e-book. Ann Arbor: Michigan University Press, 2021.

⁴⁷⁶ See, for the Chinese response plan in details (June 2020): PEOPLE'S REPUBLIC OF CHINA – STATE COUNCIL. **Fighting Covid-19 China in Action.** 07 June 2020. Available at: http://english.www.gov.cn/news/topnews/202006/07/content_WS5edc559ac6d066592a449030.html

⁴⁷⁷ For example, the fifth vaccine ZF2001 by Anhui Zhifei and the Chinese Academy of Sciences, a sub-unit protein vaccine, was approved for emergency use in China in March 2021, using a different vaccine platform. It was also approved for emergency use in Uzbekistan, and clinical trials being conducted in Indonesia, Pakistan, and Ecuador. Although this is a vaccine that requires three doses, the controlled status of the pandemic in China was perceived to be enough to consider the vaccine to be acceptable and useful for achieving full immunization in the country, as the rush towards vaccination is much less stringent than in other countries where the spread of the virus was rampant.

Although full information is not publicly available, the Chinese State has reportedly engaged with such companies to drastically expand the production of Covid-19 vaccines in the country. For a comparison, in the United States, the use of the Defense Production Act allowed the federal government to scale-up manufacturing capacity for Covid-19 vaccines, which reflects what Amy Kapczynski has named the ‘bell curve of property’, noting how US law does not leave it to the markets to self-regulate on matters which are of too much value, which is the case of Covid-19 vaccines:

‘The broad reach of the DPA, by the way, is not surprising, even in a country that celebrates markets. As one of us has written, US law is characterized by a “bell curve of property.” We do not rely on property law to allocate things that are either of very little value, or of very great value. For the former, it’s just not worth the cost. For the latter, the social implications are simply too grave. Markets predictably fail to meet our collective needs, particularly where essential goods are concerned, and in emergencies. The COVID-19 pandemic offers a vivid example’.⁴⁷⁸

However, the US government could in fact do much more.⁴⁷⁹ In fact, Covid-19 vaccines’ rapid development was crucially based on robust public funding in R&D and large-scale governmental policies such as the US Operation Warp Speed and funding grants by CEPI.⁴⁸⁰ An estimated 2 billion USD were behind the development of Moderna’s vaccine and at least 500 million USD for BioNTech by the German government (later partnering with US Pfizer). Both were also university spin-offs. Oxford/Astrazeneca’s vaccine is estimated to have received up to 97% of public funding. These investments were based on both direct funding for clinical trials, advanced purchases of vaccines, and the basic research for the development of technologies such as the mRNA vaccine platform. The conventional justification for patent protection (to generate incentives for innovation) was clearly not met, resembling much more the notion of ‘mission-oriented innovation’, where State coordination is necessary and conducive towards the innovation goal.⁴⁸¹

This also contrasts with the general science and technology model consolidated in the post-WW2 aftermath under the famous Vannevar Bush’s report in the USA, and the logic of patenting by universities and federal institutions after the 1980 Bayh-Dole Act. This is an innovation framework based on allowing ample patent protection by private entities

⁴⁷⁸ KAPCZYNSKI, Amy. **Order without Intellectual Property Law : Open Science in Influenza**. 102 Cornell L. Rev. 1539, 2017. Available at: <https://scholarship.law.cornell.edu/clr/vol102/iss6/3>

⁴⁷⁹ KAPCZYNSKI, Amy; RAVINTHIRAN, Jishian. **How to Vaccinate the World? Part 2**. 05 April 2021, Available at: <https://lpeproject.org/blog/how-to-vaccinate-the-world-part-2/>

⁴⁸⁰ See: SAMPAT, Bhaven; SHADLEN, Kenneth C. **The COVID-19 innovation system**. Health Affairs, 40 (3), 2021, p. 400 - 409.

⁴⁸¹ MAZZUCATO, Mariana. **The Entrepreneurial State: Debunking public vs. private sector myths**, London: Anthem Press, 2013.

(therefore enabling patent holders to determine licensing and access conditions for the inventions), despite their reliance on public investments and the needs of access to essential goods such as vaccines. As such, despite the way Covid-19 have been developed, countries allowed ample patenting of such technologies and largely refrained from adopting bolder measures that would enable broader manufacturing and access worldwide.

Although exact data is not available regarding the vaccines developed by Chinese companies, a similar approach clearly took place in the country.⁴⁸²This is largely unsurprising given the recent trends in the Chinese IP system, on the one hand, and the instruments of intervention of the State to achieve broader societal goals, on the other hand. For example, in May 2020, Sinovac got governmental investment to secure the development of its vaccine⁴⁸³ and announced that it was constructing a plant for production of up to 100 million doses of vaccines yearly, a figure which would be substantially heightened later on. Sinovac is a private firm⁴⁸⁴, Sinopharm is a public-private firm, and CanSino is an SOE. All have patented their respective technologies and, as noted below, other institutions also filed other Covid-19-related patent applications.

The CNIPA adopted a policy of compiling information on patent filings and granted applications related to Covid-19 since April 2020. It also promoted fast-track application processes, similarly to the USPTO, the EPO, the Brazilian INPI and other IP

⁴⁸² If Chinese manufacturer should be criticized for the lack of information and transparency, their secrecy is not an isolated case. Western manufacturers have a strong contractual secrecy and signed multiple non-disclosure agreements, which reduce public accountability apart from the technology issues. It is important to highlight that calls for more transparency in the pharmaceutical sector have been a consistent part of recent global health negotiations, having led to the landmark transparency resolution in 2019. For an analysis, see IDO, Vitor Henrique Pinto. **Transparency in the Pharmaceutical Sector: A New Dimension in the International Debate Regarding Access to Medicines?** Revista Trabalho, Educação e Saúde, 17 (3), 2019.

⁴⁸³ See: PHARMACEUTICAL TECHNOLOGY. **China's Sinovac Biotech gets funding for Covid-19 vaccine development.** 25 May 2020. Available at: <https://www.pharmaceutical-technology.com/news/sinovac-covid-19-vaccine-funding/>.

⁴⁸⁴ **Company Profile:** Sinovac Biotech Ltd. is a China-based biopharmaceutical company that focuses on the research, development, manufacturing, and commercialization of vaccines that protect against human infectious diseases. Sinovac's product portfolio includes vaccines against hepatitis A and B, seasonal influenza, H5N1 pandemic influenza (avian flu), H1N1 influenza (swine flu), mumps and canine rabies. In 2009, Sinovac was the first company worldwide to receive approval for its H1N1 influenza vaccine, which it has supplied to the Chinese Government's vaccination campaign and stockpiling program. The Company is also the only supplier of the H5N1 pandemic influenza vaccine to the government stockpiling program. Sinovac has filed a new drug application with the China Food & Drug Administration for its proprietary enterovirus 71 vaccine, having been proven effective in preventing hand, foot and mouth disease in infants and children during its Phase III trial. The company is currently developing a number of new products including a Sabin-strain inactivated polio vaccine, pneumococcal polysaccharides vaccine, pneumococcal conjugate vaccine and varicella vaccine. Sinovac primarily sells its vaccines in China, while also exploring growth opportunities in international markets. The Company has exported select vaccines to Mongolia, Nepal, the Philippines and Mexico, and was recently granted a license to commercialize its hepatitis A vaccine in Chile'. SINOVAC, **Company Profile.** Available at: <http://www.sinovac.com/?optionid=749>.

offices, based on the authorities' understanding that fast patenting generates more incentives for innovation in this area and as a means to ensure early disclosure of such technologies via the patent applications' descriptions.⁴⁸⁵ This reflects the general assumption adopted by developed countries' IP scholarship and IP offices that patents are significant instruments of innovation and that there are also the most conducive way of ensuring (voluntary) transfer of technology and improving the public domain.

This position, however, has been contested for at least three main reasons:

- (i) the concrete ineffectiveness of patents as incentives for innovation in Covid-19 vaccines, since the main incentives came from a 'mission-oriented' innovation by States and there was no market failure in this case;
- (ii) the risks associated to granting low-quality patents that only block competition and incentivizing anti-competitive conducts, which further restrain access to the vaccines; and
- (iii) the limited role of patents in ensuring technology transfer to developing countries, particularly as the disclosure requirement in patent applications is so low that it does not sufficiently disclose how an invention can/could be reproduced.⁴⁸⁶

In the case of Covid-19 vaccines, these concerns are even more crucial, given the pivotal role of manufacturing capacity, know-how associated to the technologies and the complex processes for their production, composed of hundreds of different ingredients. Unlike chemical compounds, such as those used for HIV treatments – which therefore can be reverse engineered and a compulsory license is sufficient for most generic competitors in developing countries such as India, Brazil, and China to manufacture it –, vaccines are biological products with highly complex manufacturing processes. Thus, reverse engineering is considered to be almost impossible without access to the specific know-how and, in the case of new platform technologies such as mRNA (e.g. Pfizer/BioNTech and

⁴⁸⁵ For a critical assessment of similar fast-track policies in relation to environmentally sound technologies by the INPI Brazil and at the global level, see BATISTA, Livia Regina. **Mudanças Climáticas e Propriedade Intelectual: transferência internacional de tecnologias**. Curitiba: Juruá, 2007.

⁴⁸⁶ For one cautious approach: 'As the pandemic is not quite 18 months old and patent applications are typically published 18 months after filing, one would have to see which patents are likely to be issued, and then whether they contain *all* the information necessary to produce the vaccines. **Though patent law requires disclosure, patent applicants have many creative ways of not disclosing everything. Hence, a waiver may not be sufficient. This does not mean it is not necessary.** The point is simply that getting the actual know how is a barrier that the waiver may not solve.' GERVAIS, Daniel. **The TRIPS Waiver Debate: Why, and where to from here**. IPKat, 20 May 2021, Available at: <https://ipkitten.blogspot.com/2021/05/guest-post-trips-waiver-debate-why-and.html>

Moderna), such technologies are essentially concentrated in developed countries.

In this sense, analyzing the developments of Chinese vaccines and their IP practices serves as an important input for the global discussion on vaccine equity for Covid-19. Such experience is, in accordance with the previous considerations of this research, both similar to the general rationale of IP protection for pharmaceuticals in Western countries, and yet remarkably distinct, given the role of the Chinese State and its integration with public policies (including vaccine exports).

On 11 August 2020, CanSino received the first patent for a Covid-19 vaccine in China.⁴⁸⁷ The patent application had been filed on 18 March, making the examination timeline extremely fast. As reported by the Chinese government's English website:

'Ma Yide, an intellectual property professor at Zhongnan University of Economics and Law in Wuhan, Hubei province, said: "Patent approval is meant to protect the creativity of a new product or technology. **Winning a patent means the development of the experimental vaccine has achieved substantial progress in terms of innovation.**" **"The move will also help prevent infringement, misuse and imitation of the latest scientific progress in vaccine research under the legal framework, and curb the negative influence of such behavior on battling the epidemic,"** he added. According to Ma, China has been focusing on manufacturing generic drugs for a long time, resulting in fewer patents in the biomedicine sector compared with drug research powerhouses worldwide. "The development of a homegrown vaccine against the novel coronavirus is a landmark action, and this time, the top intellectual property regulator has acted very rapidly and forcefully to offer legal protection," he said.'⁴⁸⁸

It is noteworthy that Professor Ma Yide argues that the granting of a patent 'means the development of the experimental vaccine has achieved substantial progress in terms of innovation'. According to this view, the CNIPA's patent analysis is also an analysis of the scientific merits of the vaccine, perhaps signaling to its quality and efficacy – which are part of a completely distinct process, that of clinical trials. This reflects what Hyo Yoon Kang has critically assessed as an automatic association between patents as instruments for valuation. In this case, not only can the patent hint at a potential financial prospect, but it also suggests a form of 'quality control' over the technology therein. This is a divergence from conventional IP theories' justifications for their very existence, since these are functions that are tautological (a vaccine is likely efficacious because it has a patent and has a patent because it has shown 'substantial progress in terms of innovation').⁴⁸⁹

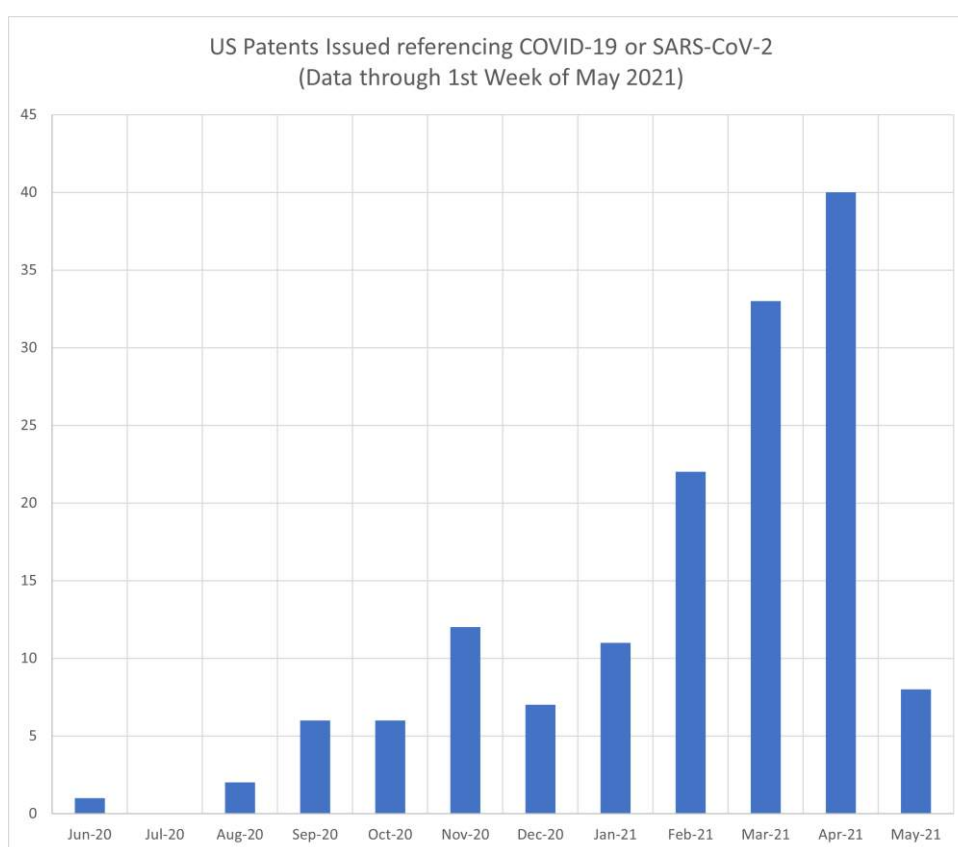
Although public imaginary and political campaigns portray the issue of patents

⁴⁸⁷ WANG, Xiaoyu. **Experimental Covid vaccine gets patent**. State Council of the People's Republic of China, 18 August 2021. Available at: http://english.www.gov.cn/news/topnews/202008/18/content_WS5f3b2c11c6d029c1c2637ff0.html

⁴⁸⁸ WANG, Xiaoyu, *op cit*.

⁴⁸⁹ See chapter 5.

on pharmaceutical products as if there was *one single* patent, the patent portfolio of a medicine is in fact characterized by potentially hundreds or even thousands of different patents, covering different scopes, filed in multiple jurisdictions around the world and via the WIPO PCT System.⁴⁹⁰ For example, Cecilia Martin and Drew Lowery described, as early as August 2020, the complex and multiple patent landscape of the mRNA vaccines.⁴⁹¹ As of 7 May 2021, at least 148 patents explicitly referring to Covid-19 or Sars-CoV-2 had been granted in the United States.⁴⁹²



Source: CROUCH, Dennis. Patently O-Daily Review, 8 May 2021.

Using patents ‘subversively’ against other patent holders may create leverage for the negotiation of better licensing and access conditions. Many patents are held by the public

⁴⁹⁰ In other words, although public discourse largely relies on patents as single entities that encompass the whole technology in one ‘artifact’ (the patent, sometimes almost as an abstract, outer-worldly entity), there is in fact a web of different patents, other exclusivity rights, contractual obligations, which make a much more complex setting.

⁴⁹¹ MARTIN, Cecilia; LOWERY, Drew. **mRNA vaccines: Intellectual Property Landscape**. Nature, Biobusiness Briefs, 27 July 2020. Available at: <https://www.nature.com/articles/d41573-020-00119-8>

⁴⁹² The analysis was conducted by Dennis Crouch’s Patently O-Daily Review on 8 May 2021 (<https://patentlyo.com/>) See: <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fmetahtml%2FPTO%2Fsearch-adv.htm&r=0&f=S&l=50&d=PTXT&Query=COVID-19+or+SARS-CoV-2>

sector, mainly related to early investments in R&D for ‘basic technologies’, whose scope is inevitably comprised by subsequent innovations using them, such as the Covid-19 vaccines. As such, a pharmaceutical company may be infringing a patent owned, for example, by the US National Institutes of Health (NIH). This discussion took place in the US with respect to commercial blockbuster Truvada, used as pre-exposure prophylaxis (PrEP) against HIV. Truvada is a combination of two other existing antiretroviral drugs widely used as HIV treatment: tenofovir, or TDF, and emtricitabine, FTC. Patents for combinations – just like those for second uses mentioned above – are not granted by all jurisdictions, given their lack of novelty and inventive step.⁴⁹³ It was available at substantially lower prices in most other countries where patent barriers did not exist. In this context, the NIH claimed ownership of a patent on Truvada against Gilead, aiming at ensuring better prices. A generic version of PrEP in the USA would only be available in October 2020.

Considering this precedent, the possibility of the enforcement of NIH patents against Moderna has been similarly discussed in 2020 and 2021.

In a press release statement, still in 2020, Moderna announced that it would not enforce its patents during the period of the Covid-19 pandemic and that it would *later on* license its technology for all interested parties (i.e., after the end of the pandemic). While the measure has been lauded, it was equally criticized for avoiding potential litigation regarding its weak patent position, particularly the fact that the NIH could, just as it did for Truvada, request exclusivity rights for itself. This highlights how the existence of pressuring mechanisms may orient and even determine the behavior of other market players.

The use of ‘march-in rights’ – the denomination for the right of the federal government to ‘march’ into patent rights in case they are an outcome of public financed innovations which is a provision of the Bayh-Dole Act – was equally proposed, but not utilized by the US government as of the end of this thesis in July 2021.⁴⁹⁴

Although the legal systems differ, a Chinese institution may have attempted in early 2020, not long after the beginning of the Covid-19 pandemic, an equivalent strategic use of patents to create leverage in relation to the foreign technology for Remdesivir, then still considered to be a potential treatment. In that case, the Wuhan Virology Institute (WVI)

⁴⁹³ See: CORREA, Carlos. **Guide for the Examination of Patent Applications Relating to Pharmaceuticals: Examining Patents from a Public Health Perspective.** United Nations Development Programme (UNDP), 2016.

⁴⁹⁴ See, for example: FANG, Lee. **Last-Minute Trump Rule Would Let Vaccine Makers Hike Prices Unchecked.** The Intercept, 4 April 2021. Available at: <https://theintercept.com/2021/04/02/covid-vaccine-price-hikes/>

filed a patent for a new medical use (second use) of Remdesivir applied to SARS-CoV-2, even before the clinical trials to assess the efficacy of the treatment were published.⁴⁹⁵ Secondary patents are accepted in the majority, if not all, developed countries, and refuted in many developing countries. This is a TRIPS flexibility to decide on what constitutes an invention, including the patentability criteria of novelty, inventive step (or non-obviousness) and industrial applicability. Secondary patents are criticized for constituting evergreening practices, i.e., the attempt by companies to extend their monopolies over certain health technologies beyond the regular of 20 years.

For most critics, this patent application was an attempt by the Chinese government, though a public laboratory, to raise its negotiation power with Gilead, the holder of the main patents on Remdesivir. If the patent on the second use of Remdesivir was to be granted to the WVI, Gilead would not be legally allowed to produce and sell the medicine for the purposes of Covid-19 treatment. Conversely, WVI would not be legally entitled to produce Remdesivir anyway. In this case, this would be a strategic use of a patent held by a public authority against other patent holders. Interestingly, it would only be granted in countries with lax patentability requirements.

The case may be used as a starting point to reflect more broadly on whether the nationality of an applicant may play a specific role in the assessment of the validity of its claims. Would for instance the same kind of argument be deployed, had it been an American university to file the same second use patent application in the USA? Or more importantly, will that affect the outcome of the analysis of patentability criteria? A deeper assessment of the case permits one to obtain evidence that may be more thorough and complex than a narrative of prejudice or bad faith may lead, as well as a great example to understand the multiple layers of the IP ‘with Chinese characteristics’.

It is unclear whether the Chinese government has deployed a similar strategy towards the implementation of a formal or informal control over the technologies of private-owned Sinovac, or the public-private-owned Sinopharm. Such measures could include an instrument akin to Bayh-Dole Act’s march-in rights, CL threats, contractual obligations based on prior R&D funding, administrative requirements to public disclosure, use of public interest provisions or rules to ensure that companies’ behaviors are in line with State’s international aspirations, among others. But even if any or some of these instruments were

⁴⁹⁵ See: TSOU, Leo. **Coronavirus Patents: China Files for Remdesivir Patent, but Gilead Sciences Will Still Come Out a Winner.** InQuartik. 20 February 2020. Available at: <https://www.inquartik.com/inq-china-coronavirus-patents-gilead-portfolio/>

deployed, it would be misleading to consider that this is solely the direct implementation of the central government's policies, especially as Sinovac's business interest is also quite evident in the process of expansion of its production capacity.

In addition, the three Chinese vaccines available abroad as of July 2021 are reported to be among the costliest. Yet, China donated large quantities of vaccines to several strategic partners and delivered doses to countries which otherwise would not have any deliveries at all (since Western countries had hoarded most of the first vaccines being produced). This was therefore a context where timely access, even with lower efficacy rates reported by Chinese vaccines, was much more crucial than the unitary costs of vaccines. Furthermore, despite relatively lower efficacy, the vaccines are reportedly sufficient to largely avoid hospitalizations and deaths. Concrete evidence from Chile and Uruguay precisely suggests such success. Even still, social reticence towards them has been verified in many countries, including Brazil and Thailand, which is also informed by geopolitical clashes between governments and people's perceptions of Chinese products.⁴⁹⁶

It remains nonetheless a paradox that China adopted these various policies to promote the patenting of Covid-19 vaccines and, at the same time, defended the idea that they are 'global public goods', a commitment made by president Xi Jinping at the 73rd World Health Assembly in 2020 alongside many other world leaders. The elements above do highlight, however, the complexities regarding the issue: after all, China has indeed been the main provider of vaccines to most of the global south, despite lower efficacy rates of its vaccines, higher prices, and restricted licensing to other entities (Butantan Institute in São Paulo being one notable exception).

Table 2
Turning the 'Chinese vaccine' CoronaVac into the Brazilian 'Butantan vaccine'

The research and development of Covid-19 vaccines in China led the country to conduct what has been deemed 'vaccine diplomacy', an opportunity to strengthen geopolitical ties through vaccine cooperation (see sub-section below). While the first Covid-19 approved vaccines, Oxford/AstraZeneca, Pfizer/BioNTech, Moderna and Janssen (J&J) were for the most part pre-purchased to the supply developed countries, the vaccines by Chinese laboratories enabled developing countries to consider – or have the expectation of considering – other vaccine candidates to address the pandemic. This issue provides a clear example of the current impact of China to the international global order, including global health governance, IP, and the regulation of pharmaceutical products. Sinovac, a private company incorporated under Chinese law, represents a

⁴⁹⁶ Also see chapter 5 on how views on IP and products are extensive to individuals, institutions, and nations – and vice-versa. The argument was also preliminarily mentioned in the Preface of this thesis. Also see: PINHEIRO-MACHADO, **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil**. Abingdon: Routledge, 2018.

great example of the IP and public health politics in China. Its patenting practices mirror those of American and European companies, and it charged the highest reported prices for vaccines during the pandemic. Still, with the support of the Chinese State via investment and coordination.

Situated in this broader context, CoronaVac, the Covid-19 vaccine developed by Chinese private firm Sinovac, has been negotiated, tested,⁴⁹⁷ licensed, and finally approved in Brazil through Butantan Institute, one of the country's leading public health institutes, which is part of the state of São Paulo.⁴⁹⁸ It remains as of July 2021 the most inoculated vaccine in the country. The history of the partnership was however marred by various political clashes. For this reason, CoronaVac has shifted from being pejoratively portrayed as the 'Chinese vaccine' candidate subject to immense criticism and skepticism by the federal government of Jair Bolsonaro, which attempted in multiple times to impede purchases and the development of the vaccine, to finally becoming the 'Butantan [Brazilian] vaccine', the first accessible vaccine for the country and politically endorsed by all political spectra. This process was based on a complex socio-legal architecture that involves a non-publicly disclosed contractual framework for the technology transfer for Butantan Institute, a political intermediation between the State of São Paulo – whose governor, João Doria, became a direct opponent of the president – and Chinese authorities, an arrangement between Sinovac and the Chinese government, the protection of IP in China, the commercial interests of the company selling its doses, the previous successful experience by the Butantan Institute in producing vaccines for H1N1, the subsequent regulatory hurdles for its emergency approval and demands based on the right to health in the Brazilian side.⁴⁹⁹

While much attention has been laid out to Chinese 'vaccine diplomacy' in smaller African countries and other direct allies – many of which expecting to receive donations of large amounts of vaccines by China, much earlier than the global Covax Facility or Western countries –, the Sinovac-Butantan engagement establishes a different, less-often portrayed case of China's socio-legal and geopolitical relations to Latin America and larger economies such as Brazil, based on partnership and cooperation, but also commercial interest and pragmatic needs. It renders explicit how the changes to the global international economic order brought by China are increasingly constructed via legal mechanisms such as contracts and licensing agreements, which are nonetheless not fully disentangled from broader geopolitical issues. This private ordering with public goals is part of what some authors defined as the rising transnational regulation of which China is part of.⁵⁰⁰

The relations between Sinovac-Butantan (private contracts) and China-São Paulo State (political engagement) produced tensions and changes in the Brazilian legal order both directly and indirectly: for example, an emergency legislation allowed the direct approval of vaccines which had been previously approved in China. They are also part of a properly transnational legal order: Sinovac had contractually the right to centralize and decide upon the publishing of clinical data results – associating Brazil's tests with those conducted in Turkey and Indonesia and creating links between

⁴⁹⁷ Paradoxically, the uncontrolled Covid-19 pandemic in Brazil turned it into an excellent site to conduct clinical trials of potential vaccines, since many people would be unfortunately exposed to the circulation of the virus. The first clinical trials announced in Brazil were between the University of Oxford, who partnered with pharmaceutical company AstraZeneca, and Fiocruz; the second was the agreement between Sinovac Biotech and Butantan Institute. Both also included commitments related to technology transfer and manufacturing capacity.

⁴⁹⁸ SINOVAC BIOTECH. **Sinovac and Butantan Join Efforts to Advance the Clinical Development of An Inactivated Vaccine for COVID-19 to Phase III.** Press Release. Available at: http://www.sinovac.com/?optionid=754&auto_id=903.

⁴⁹⁹ For an overview of some of the issues and the processes, see: SOUTH CENTRE. **Webinar – Manufacturing Capacity for Covid-19: The Experience of Butantan-Sinovac.** 23 May 2021. Available at: <https://www.youtube.com/watch?v=H6dmVvxRiOo&t=9s>

⁵⁰⁰ See: ERIE, Matthew S. **China and the International Legal Order.** 46 *Yale Journal of International Law* & 62 *Harvard International Law Journal*. Joint Special Issue, 2021; SHAFFER, Gregory; GAO, Henry. **A new Chinese economic law order?** *Journal of International Economic Law*. 23, (3), 2020, p. 607-635.

the different agreements. This all required, from the Brazilian perspective, an unprecedented attention to the Chinese regulatory system and its laws as global norm-makers and standard-setters. The Sinovac-Butantan relation also reverberated directly in Chinese-Brazilian foreign diplomacy. Since the manufacture of the vaccines is reliant on active pharmaceutical ingredients (APIs) to be imported from China, the dependency forced the Brazilian federal government of Jair Bolsonaro to tone down its explicit anti-China stance and to signal towards the acceptance of China in the country's 5G network' upcoming bid. This again provides important inputs on how China's sphere of influence and interests are being shaped and deployed in practice, issues that were also discussed in the previous chapter of this thesis.

Finally, the description of this complex web of legal and geopolitical relations also serves the more general intent of reflecting upon the use and implications of ideas of nationalism embedded in legal instruments and narratives, such as describing non-human entities and legal categories as 'Chinese' (vaccines, viruses, intellectual property, contracts, investments, development). It also provides inputs to draw further comparisons between Chinese pharmaceutical companies' behavior and their counterparts from Western countries, increasingly characterized by ampler protection of intellectual property, investments in innovation and profit-seeking. As Chinese biotech and pharmaceutical companies take the global market, as they expect to do in a few decades, initiatives such as the Sinovac-Butantan partnership for the development of the Coronavac vaccine will become likely rarer. Butantan may also seek different forms of partnerships: as of the end of this writing in July 2021, the institution is conducting clinical trials for ButantanVac, a technology under an open licensing model by Mount Sinai Hospital in the USA, also trialed in Thailand and Viet Nam with a traditional manufacturing model using eggs.

4.4. The Temporary TRIPS Waiver Proposal and the Position of China

Reproducing and deepening global inequalities, access to Covid-19 vaccines has been profoundly unequal. Developed countries are said to have purchased in advance doses that account for 50% of all vaccine candidates, despite being no more than 15% of the world's population. The vaccines that have proven more efficacious, such as Pfizer/BioNTech and Moderna's mRNA vaccines, originally required costly storing facilities that are simply not available for the global south. As of July 2021, less than 0.1% of vaccines in the world were inoculated in low-income countries. The expected vaccination in many countries to achieve herd immunity is predicted to take place in 2023 or even 2024, while developed countries now debate 'boost' shots for their populations. Original manufacturing predictions for 2020 and 2021 were largely unmet; despite new voluntary agreements between companies in developed countries, the scenario remains largely insufficient to address the pace of the pandemic, particularly given the implications of the new Delta variant. This means in practice millions of preventable deaths, which has led activists and the South African government to deploy the expression 'vaccine apartheid'.

This inequality had also been the case during the first global wave of the HIV/AIDS pandemic. When the first antiretroviral treatments started being available in

industrialized countries after a major political movement by patient groups and health activities, as early as the 1990s, African countries were largely left without any available medicines at all. The global health institutional setting has since then been reconfigured in an attempt to lower such inequalities in various ways. It included the vast measures and campaigns against the detrimental consequences of patent monopolies greatly expanded by the TRIPS Agreement, and led to multiple new organizations and policies mentioned earlier in this chapter. Still, many of the existing issues remain on the table and access to basic medicines, many of them already in theory off-patent, are still unavailable due to among others patent protection, lack of manufacturing and technology capacity in developing countries (particularly LDCs), and lack of political commitment towards achieving a universal health coverage to all.

In the wake of the Covid-19 pandemic, there were many initiatives to ensure global equitable and affordable access to Covid-19 vaccines, particularly the Covax Facility (a partnership between Gavi, WHO and CEPI) for global procurement and distribution of vaccines, setting 20% of populations as a goal. Covax has been criticized for reinforcing the structures of the system and the excessive influence of private philanthrocapitalists, especially the Bill and Melinda Gates Foundation, famously contrary to IP limitations.⁵⁰¹

Various voluntary mechanisms have been established since the beginning of the pandemic for the sharing of technology and expansion of manufacturing capacity, but were all insufficient or simply ignored. In early March 2020, an Open Covid Pledge by several US-based IP scholars proposed companies to pledge licensing their current and future technologies to address the pandemic. No pharmaceutical company joined it. In May 2020,

⁵⁰¹ ‘The global vaccine distribution problem from a World Economic Forum (WEF) or a Gates Foundation perspective might be described as how to get the COVID vaccine to communities and peoples in the developing world without disrupting the global pharmaceutical market, with a mechanism that circumvents long standing multilateral humanitarian relief systems while steering the vaccines to preferred allies in the developing world. (p.4) Highly technical internet or medical issues, market access matters, and strategic directions for new or expanding sub-sectors can be discussed with minimal public intervention and maximum opportunity to build inter-stakeholder and inter-corporate alliances. (p.9) Multistakeholderism is premised on marginalizing governments, inserting business interests directly into the global decision-making process, and obfuscating accountability. Over the centuries, the legal concepts of state responsibility, state obligation, and state liability have served to underline, for better or worse, Governments legal decision-making affecting their citizen’s health, their over-all care, and the care that needs to be extended to non-citizens. In the corporate world, there are legally explicit standards on responsibilities and liabilities. No such standards of responsibility, obligation or liability exist for participants in multistakeholder bodies. The multiple layers of the four multistakeholder bodies ‘overseeing’ the multistakeholder COVAX program make it truly obscure who even has moral obligations, even when COVAX makes profound life decisions for hundreds of millions.’ GLECKMAN, Harris. **COVAX - A global multistakeholder group that poses political and health risks to developing countries and multilateralism.** Friends of the Earth International & Transnational Institute, March 2021, p. 15.

pursuant to a proposal by the government of Costa Rica, the WHO launched the Covid-19 Technology Access Pool (C-TAP) to:

“[f]acilitate timely, equitable and affordable access of COVID-19 health products by boosting their supply. C-TAP provides a global one-stop shop for developers of COVID-19 therapeutics, diagnostics, vaccines and other health products to share their intellectual property, knowledge, and data, with quality-assured manufacturers through public health-driven voluntary, non-exclusive and transparent licenses. By sharing intellectual property and know-how through the pooling and these voluntary agreements, developers of COVID-19 health products can facilitate scale up production through multiple manufacturers that currently have untapped capacity to scale up production. (WHO, 2020).⁵⁰²

No companies joined it. In April 2021, the WHO launched a ‘COVID-19 mRNA vaccine technology transfer hub to scale up global manufacturing’.⁵⁰³ The expression of interest received multiple requests by companies and laboratories in developing countries but failed to achieve the support of any Covid-19 vaccine maker company. On 19 May 2021, the Medicines Patent Pool (MPP) announced that its board decided to expand its mandate into the ‘licensing of technology with an initial focus on Covid-19 vaccines and pandemic preparedness’.⁵⁰⁴ On 27 May 2021, the WHO relaunched the C-TAP initiative during the 74th World Health Assembly as a renewed effort to seek transfer of technology.

On 21 June 2021, the WHO announced the first mRNA technology hub in South Africa, a collaboration between Biovac, a public-private partnership for vaccines production launched by the South African government a decade earlier, Afrigen Biologics and Vaccines, a private company, a network of universities and the African Centre for Disease Control (CDC). In July 2021, it was announced that Pfizer/BioNTech had reached an agreement with South African Biovac, but exclusively for ‘fill and finish’ of its vaccines, with expected start in 2022⁵⁰⁵ – the collaboration does not entail technology transfer and thus does not create autonomy for South Africa to produce its own vaccines.

China decided not to participate in the Covax Facility until many months after the initiative had been launched. On the other hand, it was also reported that, given the

⁵⁰² WORLD HEALTH ORGANIZATION. **WHO Covid-19 Technology Access Pool. May 2020.** Available at: <https://www.who.int/initiatives/covid-19-technology-access-pool>

⁵⁰³ See WORLD HEALTH ORGANIZATION. **Establishment of a Covid-19 mRNA Vaccine Technology Transfer Hub to Scale Up Global Manufacturing.** 16 April 2021. Available at: <https://www.who.int/news-room/articles-detail/establishment-of-a-covid-19-mrna-vaccine-technology-transfer-hub-to-scale-up-global-manufacturing>

⁵⁰⁴ MEDICINES PATENT POOL. **Governance Board Resolution on expanding MPP’s remit into the licensing of technology transfer with an initial focus on Covid-19 vaccines and pandemic preparedness.** 19 May 2021. Available at: <https://medicinespatentpool.org/who-we-are/governance-team/governance-board-decisions/>

⁵⁰⁵ PFIZER. **Pfizer and BioNTech Announce Collaboration with Biovac to Manufacture and Distribute Covid-19 Vaccines Doses Within Africa.** 21 July 2021. Available at: <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-collaboration-biovac>

origins and governance of the mechanism, the inclusion of Chinese vaccines was also not a priority at the beginning. It was only in mid-2021, after the WHO approved for emergency use Sinopharm and Sinovac vaccines, that these were included in Covax for global distribution. Like all other Western companies, the Chinese entities did not join the C-TAP initiative to voluntarily share their vaccines' technologies – a measure which would concretize the notion of vaccines as 'global public goods'.

In this context, there has been a wide consensus on the need to expand manufacturing capacity and incentivize more collaborations between companies. However, considering the monopolies-based model generated by IP – which, again, includes Chinese vaccines –, the leverage conditions and the ultimate decisions have remained under the discretion of private companies. In a sense, the instruments mentioned above were all designed to fail, since expecting private profit-seeking entities to give away their monopolies is contrafactual and impossible under economic theory. Furthermore, even in case countries decide to make full use of its TRIPS flexibilities and issue a CL, such instrument would not be sufficient to enable the manufacturing of a Covid-19 vaccine, as know-how and manufacturing details that are not under the scope of patents, would also be required. There have been cases of sharing of trade secrets and know-how in the past, including under US antitrust law (e.g., AT&T was mandated to share knowledge in the 1970 to competitors).

This is the general background against which a proposal for a temporary waiver of certain provisions of the TRIPS Agreement⁵⁰⁶ was tabled by India and South Africa in October 2020 at the WTO TRIPS Council. It was later co-sponsored by 62 and supported by over 100 delegations (as of July 2021)⁵⁰⁷, including the formal support by the United States in an unprecedented move since early May.⁵⁰⁸ China was not one of the original co-sponsors but did express some degree of support to the measure from the beginning, although it asked for various clarifications. Most developed countries, including the EU, Norway, and Switzerland, strongly opposed it, as well as Brazil – a notable exception being a global south which explicitly expressed its opposition. On 13 May 2021, China's Commerce Ministry

⁵⁰⁶ WORLD TRADE ORGANIZATION – COUNCIL OF THE TRIPS AGREEMENT. **Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of Covid-19.** Communication from India and South Africa, IP/C/W/669, 2 October 2020, Available at: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:IP/C/W669.pdf&Open=True>

⁵⁰⁷ The co-sponsors are: South Africa, India, Kenya, Eswatini, Mozambique, Pakistan, Bolivia, Venezuela, Mongolia, Zimbabwe, Egypt, the African Group, the Least Developed Countries (LDC) Group, Maldives, Fiji, Namibia, Indonesia and Vanuatu.

⁵⁰⁸ See USTR. **Statement from Ambassador Katherine Tai on the Covid-19 Trips Waiver**, 05 May 2021. Available at: <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/may/statement-ambassador-katherine-tai-covid-19-trips-waiver>

Gao Feng announced that the country was formally supporting the initiative⁵⁰⁹ - a week after the US, in an unprecedented move, also decided to support it.

Apart from industry representatives and statements by developed countries at the TRIPS Council, some scholars also positioned themselves against the proposal of the temporary TRIPS waiver for Covid-19, noting, among others, that it would be inefficient and void as to resolve the problem of lack of vaccines. Bryan Mercurio, for example, argues that:

‘There is no evidence that IPRs are preventing the manufacturing and distribution of vaccines and treatments for COVID-19. Until such evidence is established, it seems unnecessary and potentially harmful to waive all IPRs associated with COVID-19. Instead, efforts should be made to re-enforce supply chains, upgrade infrastructure and ensure distribution can provide the level of access needed to combat the global pandemic.’⁵¹⁰

The same author further notes the following arguments against the TRIPS waiver: (i) an IP waiver would undermine R&D and innovation, (ii) IPRs have not hampered access to Covid-19 access, (iii) voluntary licensing and other initiatives are supporting access to Covid-19 vaccines, (iv) existing mechanisms effectively safeguard public health, (v) a waiver assumes institutional capacity and good governance, and (vi) IP enforcement is of vital importance to maintaining safety standards.

In a related concern, former WTO councilor Jayshree Watal considers that ‘the waiver is a distraction from the pressing issues and there are potentially more effective alternatives’⁵¹¹ Also in a similar sense, Reto Hilty, Director of the Max-Planck Institute for Innovation and Competition (MPI), noted in an interview dated 15 March 2021, that the waiver would affect incentives for future technologies, as many ‘basic patents’ which go beyond Covid-19 vaccines could be affected.⁵¹² In a Position Statement on 7 May 2021

⁵⁰⁹ ‘China supports the WTO’s proposal on IP exemptions for anti-epidemic materials such as the COVID vaccine to enter the text consultation stage,’ Gao said at a regular news conference in Beijing. “China will work with all parties to actively participate in consultations and jointly promote a balanced and effective solution, he said.’ REUTERS. **China backs talks on intellectual property waiver for COVID vaccines.** 13 May 2021. Available at: <https://www.reuters.com/article/us-health-coronavirus-vaccine-china/china-backs-talks-on-intellectual-property-waiver-for-covid-vaccines-idUSKBN2CU0P8>

⁵¹⁰ MERCURIO, Bryan. **WTO Waiver from Intellectual Property Protection for Covid-19 Vaccines and Treatments: A Critical Review.** Virginia Journal of International Law Online, forthcoming in 2021, p. 24-25.

⁵¹¹ GLOBAL HEALTH CENTRE – GRADUATE INSTITUTE. Statement by Jayshree Watal during Webinar “**Getting to Vaccine Equity: TRIPS Waiver and Beyond**”, 17 June 2021. Information and recording available at: <https://www.graduateinstitute.ch/Vaccine-Equity?j=71168033&sfmc>

⁵¹² ‘Ironically, it is not just patents relating to Covid-19 vaccines that are at issue. Although we may assume that such specific patents have been filed by now, we do not yet know what exactly was applied for, because a publication of the application only takes place after 18 months. The examination of whether or not the patent requirements are met takes significantly longer, which is why the first patents for those new vaccines are not

entitled ‘The Covid-19 and the Role of Intellectual Property’, the MPI as an institution argues that:

‘a waiver of all IP rights under the TRIPS Agreement is unlikely to be a necessary and suitable measure towards the pursued objectives. This Position Statement argues that IP rights might so far have played an enabling and facilitating rather than hindering role in overcoming Covid-19, and that the global community might not be better off by waiving IP rights, neither during nor after the pandemic.’ (MPI, 2021, p.1)⁵¹³

It further exposes the following arguments: (i) waiving IP rights will not scale or speed up vaccine manufacturing and distribution, (ii) IP rights are the basis for collaborations and contracts, (iii) a waiver of IP rights will not waive regulatory requirements for vaccine authorization, (iv) it is questionable whether a waiver of IP rights will significantly reduce prices for vaccines, (v) the TRIPS Agreement contains sufficient flexibilities to prevent negative effects of patents, (vi) a comprehensive waiver of IP rights will likely have a detrimental effect on incentives for drug innovation, (vii) concerns regarding profit maximization by IP holders is not a valid reason for a waiver of IP rights, (viii) accountability for the use of public funds invested in vaccine development requires transparency, (ix) the scope of the waiver is not clear, and (x) global governance could provide better support to developing countries.⁵¹⁴

According to the same document, voluntary licenses are the best mechanism for the transfer of technology, and a waiver would remove the incentive for such agreements to be conducted. In addition, the MPI adopts a skeptical position regarding the possibility of mandatory trade secret transfers.⁵¹⁵

expected to be granted for at least three years. [...] The crucial factor, however, is that the modern vaccines, especially those from BioNTech/Pfizer and Moderna and, if authorized, in the future from Curevac, which are all based on messenger RNA and can be readily adapted to mutations, are derived from technologies that are themselves protected by basic patents that have already been granted or are still to be granted. However, these technologies also have other, very promising areas of application, namely in cancer therapy. If the patent protection for vaccines were to be suspended, this would also have to be the case for such basic patents, because they play a role in production. It is unlikely that this would increase incentives for the pharmaceutical industry to continue investing in such future technologies. Those who challenge patent protection at this point are therefore playing with fire’. HILTY, Reto. **Interfering with patent protection means playing with fire**. 14 March 2021. Available at: <https://www.mpg.de/16579491/patent-protection-vaccines-covid-10-reto-hilty>

⁵¹³ MAX PLANCK INSTITUTE FOR INNOVATION AND COMPETITION. **The Covid-19 and the Role of Intellectual Property**. Position Statement, 7 May 2021.

⁵¹⁴ *Op cit.*

⁵¹⁵ ‘Voluntary patent licences are usually accompanied by a contractual transfer of the know-how necessary to exploit a licensed technology. In the course of research and development (R&D), vaccine developers accumulate considerable know-how necessary for vaccine manufacturing. Such know-how is usually not disclosed in patents or patent applications, related scientific publications or assessment reports of drug authorities. When voluntary patent licences are concluded, know-how is transferred under non-disclosure agreements. A patent waiver, however, would remove an incentive of the developers of the original products

On the other hand, the TRIPS waiver proposal was warmly received by health coalitions, civil society organizations, and some international organizations such as the WHO, UNAIDS, Unitaid, and the South Centre.⁵¹⁶ The proposal was also widely debated and supported by multiple academics. For Mariana Mazzucato, Jayati Ghosh and Els Torreale, the exceptional conditions of the pandemic (considering that the IP system was never designed for such situations), the government research funding in R&D, the dismissal by companies of voluntary measures, the fact that a waiver of IP rights does not mean expropriation (reasonable payments are still due), and the ethical global imperatives to target the pandemic also justify the adoption of the TRIPS waiver.⁵¹⁷

In addition, as noted by Matthew Kavanaugh and Madhavi Sunder:

to provide such information to manufacturers of biosimilars. It is highly unlikely that the waiver of trade secret protection could be effectively implemented and enforced to propel companies to disclose all relevant know-how.’ *Op cit*, p. 2.

⁵¹⁶ See, for an overview of the issues: MENEZES, Henrique Zeferino de. **The TRIPS waiver proposal: an urgent measure to expand access to the COVID-19 vaccines**. Research Paper 129. Geneva: South Centre, March 2021.

⁵¹⁷ The pharmaceutical industry argues that tinkering with intellectual property rights will undermine future innovation, and that they need these monopolies on knowledge to reward investments and risks. Yet, in the specific case of covid-19 vaccines, these considerations are immaterial. First, patents erect barriers against competitors when what is needed is technological co-operation, harnessing our global scientific and technological capabilities to fight the virus together. Intellectual-property rights were never designed for use during pandemics. And general exceptions have been created in the past to ensure they are not a barrier for public health, such as the exception for penicillin production during the second world war. Second, epidemic-response R&D has never relied on classic market-based incentives like patents. Instead, government research funding and advance purchase commitments to defray risk have been the main drivers. That was the case with Ebola, where R&D would not have happened without major public investment and leadership—and now again for covid-19, where massive public investments have accelerated and eliminated risk from industry’s efforts. In America alone, six vaccine companies have received an estimated \$12bn of public money. Development of the AstraZeneca/Oxford vaccine is estimated as having been 97% publicly funded. The subsidies and advance-purchases reduced firms’ risk and ensured that successful companies would be amply rewarded. In addition, vaccine development has benefited from prior public research and accelerated approval rules that lowered the costs of clinical testing. Already today, the main vaccine-producers received what could be considered reasonable returns on their investment and more. For example, the estimated sales of the Pfizer-BioNTech vaccine in 2021 is \$15bn with a profit margin as a percentage of revenue “in the high 20s,” according to Pfizer. Those opposing the waiver argue that there is no guarantee that this approach will solve the manufacturing shortage. Yet in a pandemic, it is imperative to remove as many barriers as possible to increase production, and patents are a foundational and far-reaching obstacle. Certainly, the suspension of intellectual-property rights will not be enough. Governments should insist that companies whose R&D they subsidised provide access to the technology and know-how. So far, voluntary knowledge sharing through a dedicated facility in the WHO called the Covid-19 Technology Access Pool has been dismissed by companies and as a result, has not been used since its creation in May 2020. More radical measures are thus warranted. Suspending intellectual property rights does not mean erasing the prospect of profits: waiver requirements can always incorporate reasonable compensation, taking into account the R&D costs and other investments that companies have made. However, keeping such information in private hands is not just unethical, it destroys the very purpose of the public investment that was meant to address the crisis. Covid-19 is a global public health and economic emergency. It will not end unless we have the courage to embrace new solutions for knowledge sharing and co-operation to meet our moment in history—and to affirm our humanity.’ MAZZUCATO, Mariana; GHOSH, Jayati; TORREELE, Els. **To Control the Pandemic, it is essential to suspend intellectual property rights on medical products related to Covid-19**. *The Economist*, 20 April 2021. Available at: <https://www.economist.com/by-invitation/2021/04/20/mariana-mazzucato-jayati-ghosh-and-els-torreale-on-waiving-covid-patents>

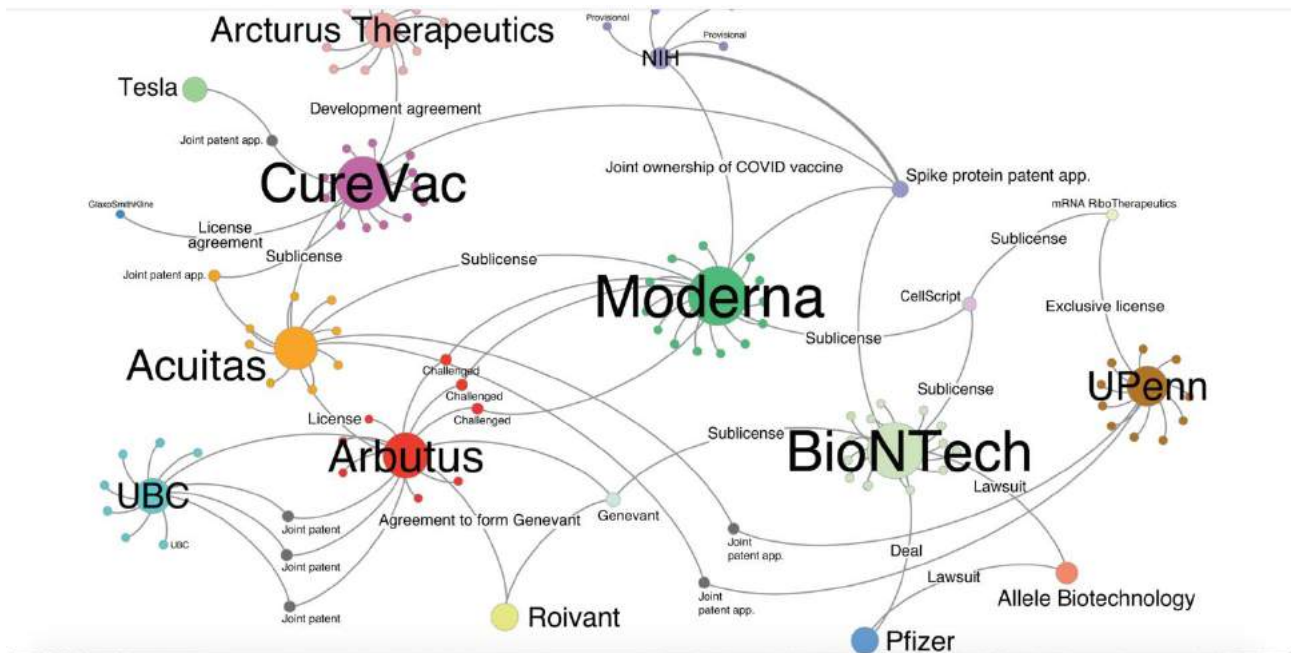
‘If patent rights are waived, companies around the world, such as Biovac in South Africa or Cipla in India, could rapidly retool their manufacturing capacity to make these vaccines, with experts at the ready to help. But they also need the recipe. While a patent is supposed to explain how to make a product, many of today’s pharmaceutical patent filers intentionally obscure this information. Therefore, the companies making these vaccines should share exactly how they make them. Sharing technology with low- and middle-income countries is standard practice for many medicines. Gilead Sciences shared technology to help manufacturers based in Egypt, India and Pakistan to [make and sell remdesivir as a covid-19 treatment](#) last year; a [company](#) co-owned by Pfizer has done the same for HIV drugs. Vaccines are harder to engineer than AIDS drugs, so sharing tech is essential. Having funded key vaccine development, the U.S. government has the leverage to push companies to open up their vaccines to the world. The World Health Organization has already [said](#) it will help with expertise, and companies such as Moderna, Pfizer and Johnson & Johnson could receive royalties on the sales. But what they must not do is block producers in Africa, Asia and Latin America from making lifesaving vaccines and exporting them to their neighbors.’⁵¹⁸

While it is true that IP is not the only issue that impedes ampler access and manufacturing, IP remains a clear barrier. For example, to produce the Moderna vaccine, one single producer has the monopoly of an ingredient which contains multiple patents, as per reported by the coalition PrEP4All.⁵¹⁹

Image 1 – Patent network analysis of mRNA-based vaccine candidates for COVID-19

⁵¹⁸ KAVANAUGH, Matthew; SUNDER, Madhavi. **Poor Countries may not be vaccinated until 2024. Here is how to prevent that.** Washington Post, 10 March 2021. Available at: <https://www.washingtonpost.com/opinions/2021/03/10/dont-let-intellectual-property-rights-get-way-global-vaccination/>; See also: KAVANAUGH, Matthew; PILLINGER, Mara; SINGH, Renu; GINSBACH, Katherine. **To Democratize Vaccine Access, Democratize Production.** Foreign Policy, 1 March 2021. Available at: <https://foreignpolicy.com/2021/03/01/to-democratize-vaccine-access-democratize-production/>.

⁵¹⁹ PrEP4All. **Academics & Activists Urge NIH to Use Government-Owned Patents to Increase Vaccine Access.** 24 March 2021. Available at: <https://www.prep4all.org/news/nih-letter>



Source: GAVIRIA, Mario; KILIC, Burcu. **A network analysis of COVID-19 mRNA vaccine patents.** *Nature Biotechnology* 39, 546–548, 2021. Available at: <https://www.nature.com/articles/s41587-021-00912-9>

In addition, the patenting trends in all countries where originator companies are headquartered in clearly reveal that multiple patents have been filed. Patents have also been explicit barriers for PPEs and other medical products. Copyrights may also be used to impede access to datasets, necessary software related to clinical and medical innovation, and therefore limit research.⁵²⁰ Finally, even if know-how would be accessible, and even with an effective compulsory license or reverse engineering, it would still be illegal to produce such vaccines.⁵²¹

In this sense, while a TRIPS waiver is indeed not sufficient to address all issues, it changes, both legally and politically, the starting point of the discussion. Some have argued, in that sense, that a TRIPS waiver scenario would be conducive to new voluntary licenses and agreements. Since IP rules shape markets, changing IP also changes the incentives therein.

For example, Jocelyn Bosse, Hyo-Yoon Kang and Siva Thambisetty posit that:

‘By covering multiple types of intellectual property in a global measure, the TRIPS

⁵²⁰ FLYNN, Sean. **The Temporary WTO Waiver to Fight Covid Must Include Copyright.** Inside Sources, 08 April 2021. Available at: <https://insidesources.com/the-temporary-wto-waiver-to-fight-covid-must-include-copyright/>

⁵²¹ KANG, Hyo Yoon. **Patent Capital in the Covid-19 Pandemic: Critical Intellectual Property Law.** Critical Legal Thinking, 9 February 2021, Available at: <https://criticallegalthinking.com/2021/02/09/patent-capital-in-the-covid-19-pandemic-critical-intellectual-property-law/>

waiver as originally proposed would provide more freedom to operate for manufacturers and suppliers and to do so in a speedy manner. Companies in many different countries could use the shared knowledge without the need to negotiate country-by-country and product-by-product licence agreements. This would diversify locations of production. It is hoped and expected that the prospect of a waiver will spur efforts to persuade pharmaceutical companies to enter into more voluntary arrangements and non-exclusive licensing to enable the transfer of technology in a controlled and transparent way.” (BOSSE, KANG, THAMBISSETTY, 2021)⁵²²

In the subsequent weeks pursuant to the acceptance by the United States to negotiate the TRIPS waiver, it was reported how pharmaceutical companies enhanced their lobbying in countries such as Germany, Japan, and Switzerland to ensure that they would continue to block and stall negotiations, but also how they increased efforts towards voluntary licensing and donation commitments to developing countries.⁵²³ This suggests that indeed the interplay between the normative legal and the political implications of the TRIPS waiver are of most relevance. These issues have also been described at length by Siva Thambisetty, Aisling McMahon, Luke McDonagh, Hyo-Yoon Kang, and Graham Duffield, who argue that:

‘First, the TRIPS waiver is a necessary and proportionate legal measure for clearing intellectual property (IP) barriers in a direct, consistent and efficient fashion, enabling the freedom to operate for more companies to produce COVID-19 vaccines and other health technologies without the fear of infringing another party’s IP rights and the attendant threat of litigation; and second, the TRIPS waiver acts as an important political, moral and economic lever towards encouraging solutions aimed at global equitable access to vaccines, which is in the wider interest of the global public. [...] In fact, governments can utilise the waiver, and, if necessary, bring into domestic law accompanying measures, to incentivise and mandate the sharing of previously undisclosed information, broadly conceived.¹⁴² Therefore, we argue in favour of using the TRIPS waiver as part of a ‘carrot and stick’ approach. Here, the question of whether and when to use incentives (‘carrots’) for voluntary disclosures, or mandates (‘sticks’) for the disclosure of previously undisclosed information, is pertinent. In practice, incentives may be more palatable, politically, than mandates.’⁵²⁴

⁵²² BOSSE, Jocelyn; KANG, Hyo-Yoon; THAMBISSETTY, Siva. **TRIPS Waiver: there’s more to the story than vaccine patents**, 7 May 2021, Available at: <https://theconversation.com/trips-waiver-theres-more-to-the-story-than-vaccine-patents-160502>

⁵²³ See, for example, ‘The industry lobbyists have told the governments, in meetings and phone calls, that a waiver wouldn’t address shortages any time soon, while straining raw material supplies. [...] Vaccine makers have also rolled out pledges to deliver more doses to developing countries, which have pressed for the waiver. [...] Moderna has spoken with at least one maker of generic drugs with manufacturing capabilities in India to potentially produce some of its vaccines, according to a person familiar with the matter.’ HOPKINS, Jared S.; LOFTUS, Peter. **Covid-19 Vaccine Makers Press Countries to Oppose Patent Waiver**. Wall Street Journal, 26 May 2021, Available at: <https://www.wsj.com/articles/covid-19-vaccine-makers-press-countries-to-oppose-patent-waiver-11622021402>

⁵²⁴ THAMBISSETTY, Siva; McMAHON, Aisling; McDONAGH, Luke; KANG, Hyo Yoon; DUFFIELD, Graham. **The TRIPS Intellectual Property Waiver Proposal: Creating the Right Incentives in Patent Law and Politics to end the COVID-19 Pandemic**. LSE Legal Studies Working Paper No. 06, 24 May 2021.

In July 2021, a letter co-signed by almost 200 IP scholars from around the world, and led by the authors of the abovementioned document⁵²⁵, was published with an aim of focusing on the limitations of formalist interpretations⁵²⁶ and supporting the idea of the TRIPS waiver. This joint letter highlights how the global IP regime cannot be utilized to sustain the moral failure that the extremely unequal access to vaccines has been. It may also be interpreted as an invitation for IP academics regarding their own responsibility in shaping markets, geopolitics, and in the pursuit of global justice.⁵²⁷

For these reasons, the TRIPS waiver is a necessary, although not sufficient, instrument to achieve vaccine equality.⁵²⁸ At the WTO TRIPS Council and in industry representatives' statements, it has been expressed that 'IP is not a barrier', as the main bottleneck would be manufacturing capacity and therefore know-how and technology transfer are needed. In this regard, as many noted, pharmaceutical companies and Western countries opposing the TRIPS waiver adopt a contradictory position: if IP is irrelevant for expanding manufacturing of Covid-19 vaccines, why temporarily restricting IP rights would

⁵²⁵ KANG, Hyo Yoon; McMAHON, Aisling; DUTFIELD, Graham; McDONAGH, Luke; THAMBISETTY, Siva. **Academic Open Letter in Support of the TRIPS Intellectual Property Waiver Proposal**. LSE Law - Policy Briefing Paper No. 46, 13 July 2021.

⁵²⁶ For three different perspectives on the relevance and critical importance of non-formalist approaches to the analysis of economic law, see: SALOMÃO FILHO, Calixto. **Teoria Crítico-Estruturalista do Direito Comercial**. São Paulo: Marcial Pons, 2015. KATELOUZOU, Dionysia; ZUMBANSEN, Peer. **The New Geographies of Corporate Governance**. University of Pennsylvania Journal of International Law 51, Vol. 412, Issue 1, 2020. MUIR-WATT, Horatia. **Private International Law Beyond the Schism**. Transnational Legal Theory, Vol 2, 3, 2011.

⁵²⁷ See Chapter 5.3, on the specter of modernity in IP, as well as the concluding remarks of this thesis. The present position may perhaps be an alternative to the model described therein.

⁵²⁸ 'Much valuable production related information from clinical trials, manufacturing processes and the optimisation of equipment, and the secret recipes which are essential for vaccine production, are all held as trade secrets, in a bid to make reverse engineering based on disclosure from patents difficult. This has been clearly acknowledged by Moderna. Although Article 66.2 of TRIPS does require developed country members to provide incentives to enterprises in their territories for the purpose of promoting and encouraging technology transfer to developing countries to enable them to create a "sound and viable technological base", these provisions have not been prominent points of discussion in current debates. IP waivers will achieve little in the absence of an enforceable commitment to transfer technology. The need to set up additional production capacity relatively quickly suggests that compulsory licensing of patents is the better short-run solution. Licensing obliges the firm to share know-how in return for the license payment. [...] For all varieties of vaccine, current rules governing compulsory IP licensing are very restrictive, as they only favour countries that already have productive capacity, and this might pose specific problems for Africa. Another way forward may be to allow the licensing of a bundle of necessary patents and trade secrets at a fair price (as happens sometimes in the software and semi-conductor sectors). The underlying bundle would be different for different vaccines.' ATHREYE, Suma. **Vaccine platforms and limited global production capacity: what is to be done?** IPKat, 13 May 2021. Available at: <https://ipkitten.blogspot.com/2021/05/vaccine-platforms-and-limited-global.html>

be a problem? In fact, all such measures are needed.⁵²⁹ In particular, Carlos Correa (2021) notes the following:

‘the need to obtain know-how, data, etc. to initiate the production of vaccines [...] is correct, but access to these inputs may be impeded or limited rather than facilitated by the enforcement of intellectual property rights. In addition, there are many manufacturers in developed and developing countries that may produce COVID-19 vaccines, in some cases by repurposing plants used for the production of other biologicals. Access to know-how and data would allow them to move fast, but acquiring the needed skills would not be otherwise impossible if scientific and industrial support is available for the different phases of manufacturing (active ingredient, formulation, fill and finish).’ (CORREA, 2021).

The possibility of a TRIPS waiver, although temporary and limited, arguably had immediate political spill-over impact. Albert Bourla, Pfizer’s CEO, published an open letter arguing that availability of raw materials would be disrupted if the proposal is put forward:

‘Currently, infrastructure is not the bottleneck for us manufacturing faster. The restriction is the scarcity of highly specialized raw materials needed to produce our vaccine. [...] The proposed waiver for COVID-19 vaccines, threatens to disrupt the flow of raw materials. It will unleash a scramble for the critical inputs we require in order to make a safe and effective vaccine. Entities with little or no experience in manufacturing vaccines are likely to chase the very raw materials we require to scale our production, putting the safety and security of all at risk’ (BOURLA, 2021).⁵³⁰

This is a direct contrast with the previous argument that the global south does not have sufficient manufacturing capacity, particularly for mRNA vaccines. This argument had been dismissed by evidence of multiple potential manufacturers in multiple countries (some notable examples include Incepta in Bangladesh, Byolise in Canada, and Teva Pharmaceuticals in Israel), and by the very fact that until 2020 no mRNA manufacturing facilities existed at all.⁵³¹ With deep technology transfer, they were constructed in a

⁵²⁹ CORREA, Carlos. **Expanding the Production of COVID-19 Vaccines to Reach Developing Countries: Lift the barriers to fight the pandemic in the Global South.** Policy Brief 92, Geneva: South Centre, April 2021; also see the comments by Hyo Yoon-Kang: “even if know-how was shared, tech was transferred, and a vaccine was developed, it would be illegal to produce it without a license, if the substance, its parts, or its process of manufacture, remains under patent protection. The patent holder would continue to hold the power to block vaccine production, regardless of existing or shared expertise and capacity. This is not a good way of clearing all barriers for scaling-up vaccine production in a global pandemic. The IP waiver is therefore necessary as an integral part of a concerted effort to share know-how and scale up production. We need the waiver in order to end the pandemic instead of prolonging it through artificial scarcity. Both IP waiver and tech transfer need to go hand in hand” in PATNAIK, Priti. **Q&A: Hyo Yoon Kang on the financialization of intellectual property & its implications in a pandemic**, Geneva Health Files, 20 April 2021, Available at: <https://genevahealthfiles.substack.com/p/india-the-quagmire-for-covax-q-and>

⁵³⁰ BOURLA, Albert. **Today I Sent This Letter To Have a Candid Conversation With Our Colleagues About the Drivers of COVID-19 Access and Availability.** 7 May 2021, Available at: <https://www.linkedin.com/pulse/today-i-sent-letter-have-candid-conversation-our-drivers-bourla/>

⁵³¹ See: GRUPO DIREITO E POBREZA. **Research Report on Access to Covid-19 Vaccines.** São Paulo, 2021. Available at: <https://www.direitoepobreza.org.br/>

timeframe of as little as two months from a previous Kodak factory in the USA. Furthermore, scaling up production of such materials suddenly becomes a discussion due to the previous certainty by the companies currently offering vaccines that supplies would necessarily go to them. This is a typical monopolist/oligopolist behavior.

Similarly to the HIV/AIDS pandemic in the 1990s, arguments pertaining to the alleged incapacity of developing countries' manufacturers to produce safe, quality medical products are now being deployed. Richard Epstein, a famous 'law and economics' scholar, for instance, noted the following:

'Local players – such as doctors, health care officials, pharmacists, transportation officials, and many more – all must be able to efficiently utilize these US technologies for any program to work. **Do they have the capacity to do that?**' [...] Part of the problem lies in a chronic shortage of vaccine supplies, but much of that shortfall is due to the slow and archaic government systems of distribution, which are often broken (if not corrupt) at every level' (emphasis added) (EPSTEIN, 2021).⁵³²

These arguments do bear a direct resemblance of the discussions on generics for HIV/AIDS, which led, among other things, to an intertwining of the agendas of trademark counterfeiting, sub-standard quality drugs and legitimate and lawful generic medicines. It also reproduced neocolonial views regarding an alleged incapacity of developing countries.⁵³³

Furthermore, some industry representatives, such as US PhRMA, have also voiced opposition to international transfer of technology of mRNA vaccines – whose technology was massively funded by prior public investments⁵³⁴ – on the grounds of 'national strategic interests', since the technology could be further utilized by manufacturers to produce crucial technologies in the future.⁵³⁵ This is a manifestation of 'techno-

⁵³² EPSTEIN, Richard A. **Intellectual Property and the Covid-19 Vaccines**. Hoover Institute, 3 May 2021.

⁵³³ Also see chapter 5.2, for a theoretical examination of this issue and how the creation of the figure of the 'pirate' in developing countries may be used to impede technology transfer to the global south.

⁵³⁴ ALLEN, Arthur, **For Billion-Dollar Vaccines, Government-Funded Science Laid the Groundwork**, Kaiser Health News, 18 November 2020, Available at: <https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/>

⁵³⁵ 'Enforcing limits on use of the technology could be very difficult, once handed over, some analysts say. Messenger RNA, used in COVID-19 vaccines by leaders Pfizer/BioNTech and Moderna, is a newly developed biotechnology that holds promise for treatments far beyond vaccines. China and Russia have their own vaccines that do not use this biotechnology. "It took Pfizer and Moderna years and years of research to develop these vaccines," said Gary Locke a former U.S. ambassador to China and U.S. Commerce Secretary. "China, Russia, India, South Africa and others want to gain access. Their intention is to get the underlying know-how so they can use it to develop further vaccines," Locke said. China's Fosun Pharma has struck a deal with BioNTech on COVID-19 vaccine product development, which would potentially give it access to some of the technology. China has high ambitions for its pharma industry and already is developing its own mRNA vaccine." LAWDER, David; SHALAL, Andrea; O'DONNELL, Carl. **US wants Covid vaccine patent waiver to benefit world, not boost China biotech**. 8 May 2021. Available at: <https://www.reuters.com/world/china/us-wants-covid-vaccine-patent-waiver-benefit-world-not-boost-china-biotech-2021-05-08/>

nationalism'⁵³⁶ not from China, but from the US: US IP policies and its 'industrial military complex', its technological dominance endeavors and a specific characterization of American nationalism (epitomized by, but not restricted to, the idea of 'America first').

Such opposition is also not in the financial interest of American companies, which heavily invest in the lobbying of US Congresspeople, for crucial technologies to be available in other countries. But this runs contrary to both the promises of ample technology transfer and mutual development regarding the IP system, which justified the enactment of the TRIPS Agreement in the first place, and moral imperatives in the case of pharmaceutical products. As some have noted, why would the transfer of mRNA technologies that can scale up manufacturing capacity and solve future global health pandemics be a *problem*, rather than a moral imperative? In such sense, this is an instance where laws governing innovation and IP have failed and instruments should be deployed to also promote future alternatives.

The two main actors of concern, from the perspective of American business sectors and the politicians who represent them, are China and Russia. Although generic competition in India is by far and large the biggest in the world ('pharmacy of the developing world'), the innovation landscape in Indian pharmaceutical industry is more limited than the prospects of rapidly emerging Chinese players. Ironically or not, Chinese Fosun Pharmaceuticals, one of the biggest groups in the country, partnered early on with BioNTech (which developed the mRNA vaccine later produced by Pfizer) and announced in early May 2021 the creation of a Chinese joint venture that would be able to produce as much as 1 billion doses of mRNA vaccines by 2023.⁵³⁷ Fosun Pharmaceuticals already has the exclusivity for the BioNTech/Pfizer vaccine in China and its territories since March 2020, but this refers to a new agreement that also implicates a broader collaboration in the mid to long-term. This announced partnership entails the technology transfer to Fosun, which

⁵³⁶ OSTRY, Sylvia; NELSON, Richard. **Techno-Nationalism and Techno-Globalism: Conflict and Cooperation**. Washington DC: Brookings Institution Press, 1995. CAPRI, Alex. **Techno-nationalism: the US-China tech innovation race – new challenges for markets, business and academia**. Hinrich Foundation White Paper, July 2020. Available at: <https://www.hinrichfoundation.com/research/wp/tech/us-china-tech-innovation-race/>;

⁵³⁷ 'Through an update in December, BioNTech agreed to supply Fosun an initial 100 million doses for Chinese mainland this year. It also agreed to let Fosun manufacture onshore, and the JV's meant to execute that deal to localize COVID-19 vaccine production. For the new company, Fosun will contribute up to \$100 million of assets in cash and a manufacturing facility, while BioNTech will pour in another \$100 million but in the form of proprietary manufacturing technology and know-how, Fosun said in its filing. As of early last week, BioNTech's ex-China partner Pfizer had shipped around 430 million Comirnaty doses to different parts of the world. The team will be able to produce nearly 3 billion doses this year, Sahin said last week.' LIU, Angus. **BioNTech, Fosun Pharma eye 1B doses of COVID-19 vaccine capacity with new China JV**. 10 May 2021, Available at: <https://www.fiercepharma.com/manufacturing/biontech-fosun-pharma-eye-1b-doses-covid-19-vaccine-capacity-new-china-jv>.

means, as noted by some commentators, that the BioNTech mRNA technology will already be transmitted, at least to a certain extent, to a Chinese company.

In a voluntary announcement dated 8 May 2021 to the Hong Kong Stock Exchange, Shanghai Fosun Pharmaceutical (Group) Co., Ltd. stated the following:

The Board is pleased to announce that, on 8 May 2021, Fosun Pharmaceutical Industrial and BioNTech entered into a term sheet (the “Term Sheet”) in relation to the proposed **setting up of a joint venture company for manufacturing and commercialisation of the Coronavirus Vaccine Product (the “JV Company”)**, the equity interest of which shall be owned as to 50% by each of Fosun Pharmaceutical Industrial and BioNTech, respectively (the “Formation of JV”). Under the Term Sheet, Fosun Pharmaceutical Industrial agreed to make capital contribution at the value of not more than US\$100 million in cash and/or in tangible or intangible assets (comprising, among others, plants and manufacturing facility), and BioNTech agreed to make capital contribution in intangible assets including, among others, a license of the relevant manufacturing technology and know-how at the value of not more than US\$100 million. The Term Sheet is expressly to be legally binding on each party thereto in relation to the obligation to perform any act as is required for the Formation of JV but it is contemplated under the Term Sheet that the parties shall further enter into the definitive transaction documents in relation to the Formation of JV.

Manufacturing Facility. Under the Term Sheet, Fosun Pharmaceutical Industrial shall provide a manufacturing facility, which has the potential capacity of producing up to 1 billion doses of Coronavirus Vaccine Product per annum (the “Manufacturing Facility”), and shall inject the Manufacturing Facility into the JV Company forming a part of its capital contribution in accordance with the Term Sheet.

Technology licensing and assistance. Under the Term Sheet, BioNTech shall be responsible for conducting technology licensing (through entering into a technology license agreement) and providing technology assistance, and shall ensure sufficient capable personnel in connection therewith. BioNTech shall be reimbursed by the JV Company for all reasonable out-of-pocket expenses in relation to the technology licensing and assistance.

IP Protection. Appropriate IP protection mechanisms shall be adopted by the JV Company so as to protect BioNTech’s IP, know-how and trade secrets.

Miscellaneous. (1) During the term of the JV Company, Fosun Pharmaceutical Industrial and BioNTech may potentially expand collaboration beyond the Coronavirus Vaccine Product into other infectious diseases and other therapeutic areas based on the mRNA platform, subject to the success of the Coronavirus Vaccine Product in China⁵³⁸

This announcement is also related to the contractual agreement between BioNTech and Pfizer regarding the separation of territories for the commercialization of the vaccine. Germany and Turkey were under ‘BioNTech’ territory, and most of the world under ‘Pfizer territory’. ‘Greater China’ was part of the ‘BioNTech’ territory via the agreement already concluded in March 2020, but the de facto effect was limited given the inoculation

⁵³⁸ SHANGHAI FOSUN PHARMACEUTICAL (GROUP) CO. LTD. **Voluntary Announcement. Entering into the Term Sheet in Relation to the Formation of a Joint Venture.** Available at: <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0509/2021050900121.pdf>.

in mainland China of exclusively Chinese vaccines. It did impede Taiwan from directly purchasing the Comirnaty from Pfizer, however, as negotiations in the final stages were stalled in January 2021.⁵³⁹ Very importantly, this joint venture is elucidative of the main way of internalizing foreign technology in China, which, as posited in the previous chapters, was at the core of the innovation policies and broader developmental strategy. Instead of ‘theft’, foreign companies voluntarily agreed to enter the Chinese market via contracts and the creation of joint ventures, as noted in chapter 2.

While some manufacturers are of the view that a TRIPS waiver would likely not benefit their efforts to scale-up capacity to produce Covid-19 vaccines, others have clearly expressed how this could authorize the utilization of various technologies to contribute, among others, to the development of their own vaccine candidates. Dr. Dimas Covas, director of the Butantan Institute in São Paulo (which partnered with Chinese Sinovac) publicly expressed the view that patents may be needed to achieve innovation, and that a waiver would make the Institute feel pressured by companies. On the other hand, Dr. Kiat Ruxrungham from Chulalongkorn University in Bangkok, which is currently in phase 1 trials for its ChulaCov19 national mRNA-based vaccine, and potentially also setting up infrastructure for other licensings, stated that:

‘An agreement to waive patent protections for COVID-19 vaccines in low- and middle-income countries would be wonderful. It would allow us to use technologies that are currently unaffordable or inaccessible to us to make our vaccine even better and cheaper. But waiving patents is only the first step — you also need funding, local manufacturing capacity and access to crucial raw materials.’ (NATURE, 2021)⁵⁴⁰

In parallel, Chinese research institutes are working on a national mRNA platform vaccine and have already announced the domestic production of lipid nanoparticles in the country, a core material for their manufacturing.⁵⁴¹ The developments in China are also part of the reasons that justify the US historical support of the TRIPS waiver on 5 May 2021. The formal support signals towards a different association between US foreign policy and

⁵³⁹ BLOOMBERG. **China’s Fosun Willing to Supply BioNTech Vaccine to Taiwan.** 31 March 2021, Available at: <https://www.bloomberg.com/news/articles/2021-03-31/china-s-fosun-says-willing-to-supply-biontech-vaccine-to-taiwan>.

⁵⁴⁰ MALLAPATY, Smriti. **The COVID vaccine pioneer behind southeast Asia’s first mRNA shot.** Nature Magazine, 26 May 2021, Available at: <https://www.nature.com/articles/d41586-021-01426-9>

⁵⁴¹ See: ‘There is one start-up making mRNA delivery system, and its valuation was pushed to more than 1 billion yuan, and it hasn't even been approved by the investigational new drug (IND) application,” Zhu said. According to Tao, the successful development and application of LNP will be a good addition to the existing vaccines in China, and might have great market potential, but for now China still lags behind the US and Canada in the research and production of LNP, and it would be "very hard" for China to catch up in a year or two, Tao added.’ GLOBAL TIMES. **Core Vaccine Ingredients in Market Spotlight.** 31 March 2021. Available at: <https://www.globaltimes.cn/page/202103/1219977.shtml>

big pharma, which have been so influential in shaping the country's foreign policy for decades and seen as untouchable.⁵⁴² Some were nonetheless cautious with the announcement, arguing that they were a void commitment if not matched with robust action.⁵⁴³⁵⁴⁴ It was also opposed by the European Union, which continues to staunchly oppose the TRIPS waiver. However, the move was mainly regarded as unprecedented, after massive civil society and members of the US Congress demands. At the same time, it was also clearly related to the need to respond to the successes of vaccine diplomacy by China and Russia:

'China's vaccines, which use traditional methods, are not as effective as the mRNA treatments, but they exist. And China is sending its vaccines to more than 80 countries, with Russia also pushing its influence through its own effective vaccine. These countries are, rightfully, making a big deal of how the U.S. isn't doing any exporting, and generating leverage as a reliable partner when the West is absent. As a result, the traditional calculation within the U.S. government changed from pro-pharma to anti-pharma. The people in charge of money and guns took the progressive position, because the progressive position was a way to counter Russian and Chinese vaccine diplomacy, and to keep the economy free from a renewed pandemic threat.' (STOLLER, Matt, 2021).⁵⁴⁵

The US also changed a key stance in its annual USTR Section 301 report, acknowledging the right of countries to issue compulsory licenses on the grounds of public health for the Covid-19 pandemic, another paradigmatic shift in the historical unilateral pressure by the US against developing countries against legitimate trade measures such as CLs. The fact that Joe Biden was historically close to pharma business sectors made the announcement even more unprecedented.⁵⁴⁶

⁵⁴² STOLLER, Matt. **Why Joe Biden Punched Big Pharma in the Nose Over Covid Vaccines**. 9 May 2021, Available at: <https://mattstoller.substack.com/p/why-joe-biden-punched-big-pharma>

⁵⁴³ See: VELÁSQUEZ, Germán. **What's wrong with Biden's promise to waive vaccine patents**. Politico, 6 May 2021. Available at: <https://www.politico.eu/article/jo-biden-coronavirus-vaccine-patents/>

⁵⁴⁴ 'The US has repeatedly used threats of trade action against LICs and LMICs, including South Africa and Thailand, to protect the US pharmaceutical industry. The pharmaceutical lobby is the largest and richest player in Washington, DC. For a US President to stand up to it, as Biden did last week, is rare and should be celebrated. An IP waiver would allow other producers to step in and make raw materials for export for all the current vaccines, industrial parts, and components. It would also simplify agreements for eventual production of more doses. But an IP waiver alone will not solve the covid-19 vaccine access challenge. Two further steps will need to be taken to reach a people's vaccine. Step two is a transfer of technical know-how from vaccine makers in the global north to regional hubs or directly to manufacturers in the global south. Step three is vast subsidization of manufacturing in LICs and LMICs'. GONSALVES, Gregg; YAMEY, Gavin. **The covid-19 vaccine patent waiver: a crucial step towards a "people's vaccine"**. The BMJ Opinion, 10 May 2021. Available at: <https://blogs.bmj.com/bmj/2021/05/10/the-covid-19-vaccine-patent-waiver-a-crucial-step-towards-a-peoples-vaccine/>

⁵⁴⁵ STOLLER, Matt. *Op cit*, 2021.

⁵⁴⁶ Still, the USTR Section 301 report of 2021 also formally included concerns about 'forced technology transfer' of American companies, mirroring some of the rhetorical shift undertaken by the US-China trade war. This has also been integrated in the review of other countries, such as India. This may suggest a change in the priorities of the US government and its stakeholders regarding the issue of IP and technology around the world, a shift which, if continued in the future, will be largely related to China's rise.

However, in the subsequent months, the US remained applying a clear ‘America first’ approach to the vaccination program and only committed to the exports of 80 millions of doses of vaccines in late June 2021 – and yet, the targets were largely not met as of the end of July 2021. The EU, on the other hand, argued that unlike the US or the UK, was exporting large amounts of vaccines produced in its territory, continuously supported the multilateral Covax initiative, and resisted supporting the TRIPS waiver after the US announcement.⁵⁴⁷ The first reaction was, therefore, to reaffirm that the problem lies in the lack of exports and the nationalistic drive. The EU was also concerned about China and Russia’s own ‘vaccine diplomacies’ and was expected to ‘join the race’.⁵⁴⁸ At the end of July 2021, the EU and other TRIPS waiver opponents, such as Switzerland, were instead focusing on securing additional doses for boost shots to their populations, while most of the global south continues not to have access to any vaccine at all.

Meanwhile, criticisms also fell on India, one of the most ardent defenders of the TRIPS waiver and one of its early co-sponsors, whose ICMR co-developed the Covaxin vaccine with private company Bharat Biotech with ample public funding. Multiple calls for its licensing to other manufacturers by the Indian government, either via compulsory licensing or by enforcing its rights in the co-development process, were made.⁵⁴⁹ However, India refrained from adopting such measures, which was criticized for going against its own international position on the matter. Eventually, Bharat Biotech announced its readiness to share the technology with other manufacturers.⁵⁵⁰

This could also be read as a form of ‘nationalistic’ IP policy, to the extent which compulsory measures would affect a national company rather than a foreign entity. In another field, the pandemic response in India has also been criticized for non-IP issues, including underfunding of the healthcare system, the reliance of the vaccination on Serum

⁵⁴⁷ See FINANCIAL TIMES, **Angela Merkel rejects US move to waive patents on vaccines**. 6 May 2021, Available at: <https://www.ft.com/content/76a05a85-b83c-4e36-b04d-7f44f63e57b0>

⁵⁴⁸ WHEATON, Sarah; DEUTSCH, Jillian. **Europe prepares late entry in vaccine diplomacy race**, POLITICO, 6 May 2021, Available at: <https://www.politico.eu/article/eu-europe-excess-coronavirus-vaccine-doses/>

⁵⁴⁹ See, for example: RANJAN, Prabhash, **Voluntary licensing of Covaxin will boost vaccine production**. Hindustan Times, 04 May 2021, Available at: <https://www.hindustantimes.com/opinion/voluntary-licensing-of-covaxin-will-boost-vaccine-production-101620130941033.html>; see also: YADAV, Monika. **ICMR ready to offer Covaxin know-how to other firms**. The Hindu, 7 May 2021, Available at: <https://www.thehindubusinessline.com/news/icmr-ready-to-offer-covaxin-know-how-to-other-firms/article34501232.ece>

⁵⁵⁰ LIVEMINT. **Bharat Biotech ready to share COVAXIN formula with other manufacturers**. 13 May 2021. Available at: <https://www.livemint.com/news/india/bharat-biotech-agrees-to-give-covaxin-formula-to-other-manufacturers-centre-11620906716372.html> (Accessed: 13 May 2021).

Institute of India (SII) and Bharat Biotech to a lesser extent, and the expectation by the Indian government that the pandemic would never hit the country hardly.⁵⁵¹

Ultimately, these examples highlight that such nationalistic approaches to IP in pharmaceuticals are necessarily self-defeating,⁵⁵² no matter the country they come from or what they entail. China has also adopted a very clear nationalistic approach, but different: for the most part, it seems to have adopted a more comprehensive and strategic approach to the development of vaccines, their access, and the contractual obligations. While the EU faced itself with strong criticism for bad negotiations that led to unbalanced contractual provisions and lack of access to vaccines in the early months of 2021, while also reiterating the support for the monopolies and market-based model for pharmaceutical R&D (even after the US decided to change its position), China was apt to export its vaccines massively (using it as a crucial geopolitical tool), retain certain forms of control over production and distribution, make some strategic partnerships such as the Sinovac-Butantan, and was able to express support to measures such as the TRIPS waiver, although not taking the central stage.

China's position regarding the TRIPS waiver therefore is aligned with the ambitions of the country as a global innovator that may also exert its geopolitical power, although not as a leader of the 'global south' nor as a critical opponent of global neoliberal institutions such as maximalist IP policies, in accordance with the analysis of chapter 3. As such, China's position on the TRIPS waiver has been mainly discreet. China did not manifest a full endorsement nor a rebuttal of the proposal by India and South Africa. During the first rounds of negotiations, China posed questions for clarification regarding the consequences and scope of the proposed waiver. Other delegations also expressed similar positions, such as Ecuador and Colombia. On 17 May 2021, however, and a week after the United States'

⁵⁵¹ SCHMALL, Emily; SINGH, Karan Deep. **India and its Vaccine Maker Stumble Over their Pandemic Promises.** The New York Times, 7 May 2021, Available at: <https://www.nytimes.com/2021/05/07/world/india-serum-institute-covid19.html> ; ROY, Arundhati. **'We are witnessing a crime against humanity': Arundhati Roy on India's Covid.** The Guardian, 28 April 2021, Available at: <https://www.theguardian.com/news/2021/apr/28/crime-against-humanity-arundhati-roy-india-covid-catastrophe>

⁵⁵² 'The risks of economic disruption and disease transmission have disproportionately affected people in lower paid service sector jobs, where many already marginalised citizens find their employment. Domestically, the toll of covid-19 has been regressive, meaning that poor and marginalised people have suffered disproportionately more than rich people. Internationally, many countries have adopted a competitive attitude, competing against others for access to supplies or commercial advantage in pharmaceuticals. This nationalistic competition is contrary to global interest and is likely to harm countries and citizens of the global south. The countries most likely to be deprived of vaccines, medicines, and supplies are those with the least economic and political bargaining power.' BUMP, Jesse; BAUM, Fran; SAKORNSIN, Milin; YATES, Robert; HOFMAN, Karen. **Political economy of covid-19: extractive, regressive, competitive** BMJ 2021; 372, n. 73, 2021.

support, China decided to express its formal support to the waiver proposal for the first time. Unlike the US, however, which publicized its renewed position at the highest level with the USTR Ambassador Katherine Tai, China announced it in a public statement by the Foreign Affairs Ministry spokesperson Zhao Lijuan in an ordinary press meeting. During the G20 Global Health Summit in May 2021, president Xi Jinping restated the country's support to the TRIPS waiver proposal, announcing the following:

‘China will provide an additional 3 billion US dollars in international aid over the next three years to support COVID-19 response and economic and social recovery in other developing countries. Having already supplied 300 million doses of vaccines to the world, China will provide still more vaccines to the best of its ability. **China supports its vaccine companies in transferring technologies to other developing countries and carrying out joint production with them.** Having announced support for waiving intellectual property rights on COVID-19 vaccines, China also supports the World Trade Organization and other international institutions in making an early decision on this matter. China proposes setting up an international forum on vaccine cooperation for vaccine-developing and producing countries, companies and other stakeholders to explore ways of promoting fair and equitable distribution of vaccines around the world.’ (XI, 2021)⁵⁵³

Once again, it is convenient for Chinese manufacturers and for the Chinese government not to be involved nor explicitly put at the forefront of these discussions. Generic companies would benefit in the case of positive outcome for the TRIPS waiver – many would have the capacity and support to produce foreign Covid-19 vaccines; originator Chinese companies already have voluntary agreements with most countries, and the Chinese government holds strong leverage for negotiations with respect to the doses already being exported. Chinese vaccines account for most Covid-19 vaccines in multiple developing countries, including Brazil, Chile, Colombia, Indonesia, and Turkey.

At the conclusion of this thesis in late July 2021, the TRIPS waiver proposal has reached the stage of text-based negotiations, with six informal meetings and a fast pace of bilateral dialogues between various delegations during the months of June and July, culminating in a WTO General Council meeting. No consensus was achieved and a recess until September was adopted. The proposal was being negotiated in parallel with the EU alternative proposal for a clarification on compulsory licensing conditions, stimulus for voluntary licenses, and reduction of export barriers. The EU proposal was heavily seen as an attempt to slow down negotiations and a mostly void proposal, since the efforts of enhancing voluntary licenses were largely unsuccessful (C-TAP, WHO Technology Hub, Open Covid Pledge) and the rules of compulsory license after the Doha Declaration, the

⁵⁵³ XI, Jinping. **Working Together to Build a Global Community of Health for All.** G20 Global Health Summit, 17 May 2021, Available at: https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1877666.shtml

TRIPS amendment, and the WTO caselaw recognizing the legitimacy of public health measures with respect to IP are clear. Although negotiations took place in secrecy, reports highlighted the continued disagreement between Parties, the continuation of an active role by India and South Africa, and a push by the United States supporting a waiver for all IP rights, including trade secrets, but exclusively to vaccines. From what has been reported in publicly available sources, China country did not take center stage in such negotiations, although it has asked countries to move to text-based discussions instead of reiterate preceding positions.⁵⁵⁴ This remains in line with the discreet supportive role of the PRC on the matter.

Had China expressed a more incisive support to the TRIPS waiver proposal, given its central role in the allocation of vaccines and being the source of two prequalified WHO vaccines (Sinovac's Coronavac and Sinopharm's Vero Cell, as of July 2021), the geopolitical push towards its adoption would certainly be much higher. Nonetheless, without a real shift in the position of the EU, any agreement would be unlikely. The Chinese reticence is an example of the challenges associated to the rising participation of the PRC in multilateral institutions (as already exposed in chapter 3) but is also a pitfall in its commitment towards global health and universal, equitable and affordable access to Covid-19 vaccines. However, at a broader level, it elucidates the fact that the global governance of health products remains extremely unequal and dependent on modes of charity and little autonomy of multilateral organizations and developing countries.

Finally, in the context of Covid-19, some authors advocated for the use of Article 73 of the TRIPS Agreement, which includes a 'security exception'. No country decided to make use of this article, and surprisingly or not, neither China, the USA, India or South Africa (the two proponents of the TRIPS waiver at the WTO) signaled towards that direction. It remains to be seen whether such instruments might be brought to the table in the future.

4.5. Vaccine diplomacy and patent nationalism: two correlated issues

At the opening of the 73rd Session of the World Health Assembly (WHA), in May 2020, the highest decision-making body of the WHO, president Xi Jinping expressed the need for any vaccines and treatments for Covid-19 to be treated as 'global public goods'.

⁵⁵⁴ PATNAIK, Priti. **The clock is ticking on securing WHO's finances; TRIPS Waiver update.** Geneva Health Files, Newsletter Edition 68, 2 July 2021. Available at: <https://genevahealthfiles.substack.com/p/the-clock-is-ticking-on-securing>

The expression would also be used by various other leaders, including from the EU, France, Germany, South Korea, and Colombia. The notion of ‘global public goods’ would afterwards be criticized for its open-ended meaning, which could or not entail the removal of IP barriers to medical products.⁵⁵⁵ As it would then become clear, most countries interpreted the commitment to a global public good as compatible with IP exclusivities and prioritization of vaccines’ allocation based on national grounds – a ‘vaccine nationalism’ which hoarded vaccines to the detriment of the multilateral Covax. In parallel, the open-ended global public good expression would also be used for the geopolitical use of vaccine donations and partnerships, in what is now called a ‘vaccine diplomacy’.⁵⁵⁶ The sheer inequalities in access have led to a ‘vaccine imperialism’, as coined by Amaka Vanni, since they reflect a geopolitical power play determined by the interest of industrialized countries.⁵⁵⁷

China remains the largest exporter of vaccines to the world and is also expected to vaccinate most of its population by September 2021. In this context, the PRC certainly used the exports of the vaccines produced by Chinese companies to strengthen geopolitical

⁵⁵⁵ Partly, this comes from the possible different uses of the notion of ‘public goods’ as understood by conventional economic theory (non-rival and non-excludable), and not along the lines of commons as conceptualized by Elinor Ostrom. In this sense, as noted by James Love: ‘For COVID-19, what does it mean to treat a biomedical innovation such as a diagnostic test, drug or vaccine as a global public good? As a practical matter, and in the context of this pandemic, it would mean, as proposed by the *Financial Times*, that policies should facilitate a diversity of manufacturers, and the open licensing of intellectual property rights for drugs and vaccines effective against the virus, since the “world has an overwhelming interest in ensuring these will be universally and cheaply available.” We fully expect that in the coming months governments with the most resources will seek preferential access to new drugs or vaccines for the virus, as they already have with regard to personal protective equipment and therapeutics, and through advance purchase commitments with vaccine manufacturers. The hoarding of scarce products is deplorable, but predictable, and policymakers will at best moderate the hoarding. What is completely indefensible is to hoard the intellectual property rights and the know-how necessary to manufacture and ensure quality for an effective therapeutic or vaccine. The non-rival nature of the knowledge necessary to make a product is a compelling reason to treat this as a public good, even though intellectual property rights and secrecy make it possible to be exclusionary’. LOVE, James. **The Use and Abuse of the Phrase “Global Public Good”**. The New School – India China Institute. 9 July 2020. Available at: <https://www.indiachinainstitute.org/2020/07/09/the-use-and-abuse-of-global-public-good/>

⁵⁵⁶ Interestingly, Chinese media and officials refers to ‘vaccine nationalism’ as the opposite of ‘vaccine diplomacy’: while vaccine nationalism would describe the practices of Western countries, which hoarding vaccines and impeded their access to other countries, the Chinese diplomacy would be strengthening ties with international partners and promoting their right to health. ‘Diplomacy’ as the opposite of ‘nationalism’, therefore, although this diplomacy can also be seen as an exercise of China’s national aspirations abroad.

⁵⁵⁷ ‘But perhaps it is time to reorient our sight and call the ongoing practices of buying up global supply of vaccine what it truly is – vaccine imperialism. If we take seriously the argument put forward by Antony Anghie on the colonial origins of international law, particularly how these origins create a set of structures that continually repeat themselves at various stages, we will begin to see COVID-19 vaccine accumulation not only as political, but also as imperial continuities manifesting in the present. [...] these [industrialized] countries will be able to vaccinate their populations twice over, while many developing states, especially in Africa, are left behind. In hoarding vaccines whilst protecting the IP interests of their pharmaceutical multinational corporations, the afterlife of imperialism is playing out in this pandemic.’ VANNI, Amaka. **On Intellectual Property Rights, Access to Medicines and Imperialism**. TWAIL Review, 23 March 2021. Available at: <https://twailr.com/on-intellectual-property-rights-access-to-medicines-and-vaccine-imperialism/>

ties.⁵⁵⁸ The relations between the government and vaccine companies enabled a stronger coordination to decide which partnerships, donations and agreements would be concluded,⁵⁵⁹ and the PRC prioritized existing partners and pressured countries for economic and political purposes:

‘China, India, Israel, and Russia, the four countries that have taken a global approach to vaccine diplomacy—i.e., providing vaccines to at least ten countries on three continents or more—have largely done so in alignment with their national and strategic interests. [...] **Of the 72 countries to which China has pledged doses, all but two are participants in its Belt and Road Initiative**, an ambitious global infrastructure project that aims to increase Chinese influence, develop new investment opportunities, and strengthen economic and trade cooperation across 139 countries. [...] **Another potential motivation for Chinese donations is ensuring or incentivizing support for Beijing's positions** on Hong Kong, Taiwan, Tibet, and Xinjiang. In the Caribbean, after Guyana and Dominica accepted donations they reaffirmed their commitments to the "One China Policy." Meanwhile, several Muslim-majority countries, such as Egypt and Kyrgyzstan, offered support to China's positions on Xinjiang and then received vaccine donations’. (KIERNAN, TOHMEAND, SHANKSAND, ROSENBAUM, 2021)⁵⁶⁰

In addition, the Chinese government was subject to intense scrutiny pursuant to

⁵⁵⁸ ‘But while the United States, Canada, and Europe are still focusing on their own domestic vaccination drives, other vaccine producers are willing to exploit global demand and use their own supplies as a diplomatic instrument. China and Russia have both actively engaged in vaccine diplomacy, linking vaccine exports to policy concessions and favorable geopolitical reconfigurations. [...] China has declared that its Sinovac and Sinopharm vaccines are a “global public good” and has begun supplying them to nearly 100 countries, in many cases at no cost. Some of this seems intended to rapidly undercut and abort deals that states have made with Pfizer through earlier shipments and, potentially, bribery of local officials. Meanwhile, new leaks indicate that China demanded changes to Paraguay’s position on Taiwan and successfully pressured Brazil to open its 5G market to Huawei as preconditions for receiving vaccine shipments.’ See: PRATT, Simon Frankel; LEVIN, Jamie. **Vaccines Will Shape the New Geopolitical Order: The gulf between haves and have-nots is only growing**. Foreign Policy, 29 April 2021. Available at: <https://foreignpolicy.com/2021/04/29/vaccine-geopolitics-diplomacy-israel-russia-china/>; see also LONDOÑO, Ernesto. **Paraguay’s ‘Life and Death’ Covid Crisis Gives China Diplomatic Opening**. The New York Times, 16 April 2021. Access on 20 April 2021. Available at: <https://www.nytimes.com/2021/04/16/world/americas/paraguay-china-vaccine-diplomacy.html>

⁵⁵⁹ ‘Most countries are simply no match for China in terms of concentrating national power to accomplish big things (集中精力办大事). In China, vaccine development and distribution are a highly state-driven process. All three major Chinese vaccine makers—Sinopharm, Sinovac, and CanSino—have been involved in vaccine development and distribution and are playing an active role in China’s vaccine diplomacy. And there is coordination between these pharma companies and the Chinese government in the latest round of “vaccine diplomacy.” For example, Sinopharm has recently partnered with the United Arab Emirates (UAE) to make millions of doses in the UAE for local populations, deepening China’s engagement with countries in the Middle East. Meanwhile, Sinovac has worked with Brazil and Indonesia to produce tens of millions of doses of its vaccine for local use.’ FRAZIER, Mark; ZHU, Zhiqun. **Interview with Zhiqun Zhu: A Discussion on Vaccine Diplomacy by China and India**. The New School - India China Institute, 2 April 2021, Available at: <https://www.indiachinainstitute.org/2021/04/02/interview-with-zhiqun-zhu-a-discussion-on-vaccine-diplomacy-by-china-and-india/>

⁵⁶⁰ See: KIERNAN, Samantha; TOHMEAND, Serena; SHANKSAND, Kailey; ROSENBAUM, Basia. **The Politics of Vaccine Donation and Diplomacy – Is a friend in need a friend indeed?** Think Global Health, 4 June 2021. Available at: <https://www.thinkglobalhealth.org/article/politics-vaccine-donation-and-diplomacy>

the difficulties imposed to a WHO mission searching for the origin of the virus.⁵⁶¹ On the one hand, the Covid-19 pandemic fostered a nationalism impetus domestically.⁵⁶² On the other hand, exporting vaccines to other countries is therefore also a matter of geopolitical influence with an aim at improving perceptions about China.⁵⁶³

As argued by Zhiqun Zhu:

‘China was the first major power to practice “vaccine diplomacy” during the COVID-19 pandemic, built upon its “mask diplomacy” and “PPE diplomacy” earlier. [...] For China, “vaccine diplomacy” is a logical next step in the evolution of the “Health Silk Road” that Xi proposed in March 2020. In addition to increasing its soft-power, China has sought to tie its distribution of vaccines to the advancement of major projects under the Belt and Road Initiative (BRI). As a *Wall Street Journal* op-ed noted, “**vaccine diplomacy** allows China and India to burnish their soft power, showcase their technological prowess, give their firms footholds in new markets, and boast to their domestic audiences that they are major players on the world stage. (FRAZIER; ZHU, 2021).⁵⁶⁴

Chinese vaccines have also been criticized for their lower efficacy rates, despite optimistic real-life prognostics from Chile and Uruguay in countering hospitalizations and

⁵⁶¹ The Independent Panel for Pandemic Preparedness and Response’ Report takes those issues into account and proposes, among others, that the WHO should be mandated with more power, inter alia, to divulge information without prior agreement by a country and to issue alerts more easily and timely. This has led to current discussions on the so-called ‘Pandemic Treaty’ at the WHO. THE INDEPENDENT PANEL FOR PANDEMIC PREPAREDNESS & RESPONSE – WORLD HEALTH ORGANIZATION. **COVID-19: Make it the Last Pandemic.** Report, 2021, Available at: https://theindependentpanel.org/wp-content/uploads/2021/05/COVID-19-Make-it-the-Last-Pandemic_final.pdf

⁵⁶² ‘The relative success of the Chinese authorities in containing the outbreak in China and the mishandling of the pandemic in other countries, especially in Western democracies, have created an opportunity for the Chinese Party-state to change the narrative both domestically and globally – achieving more success with the former than the latter. In fact, when the Chinese government’s efforts to sell its preferred story on the international stage backfired, suspicion and hostility from the West further enhanced nationalism at home. [...] Lastly, although nationalistic sentiments now appear to be prevalent in discussions about Covid-19 in China, the diversity of opinions and the creative expression of criticism despite strict censorship should never be underestimated. Representing the country as a monolithic whole and disregarding the agency of its citizens are key components of the binary thinking critiqued above.’ ZHANG, Chenchen. **Covid-19 in China: From ‘Chernobyl Moment’ to Impetus for Nationalism.** Made in China Journal, 4 May 2020. Available at: <https://madeinchinajournal.com/2020/05/04/covid-19-in-china-from-chernobyl-moment-to-impetus-for-nationalism/>

⁵⁶³ ‘In May 2020, Chinese President Xi Jinping offered to provide Chinese-made vaccines for developing countries as a “public good” at an affordable price. China’s vaccine diplomacy is part of its effort to frame itself as a responsible power during the global health crisis. **Vaccine diplomacy helps improve China’s overseas image tarnished by Beijing’s initial botched handling of the coronavirus.** In early February 2021, China decided to provide 10 million doses of Covid-19 vaccines to COVAX — the global vaccines facility that aims to accelerate development, production, and equitable access to Covid-19 tests, treatments, and vaccines. To meet the urgent needs of LICs and LMICs, three Chinese companies — Sinovac Biotech, China National Pharmaceutical Group (Sinopharm) and CanSino Biologics — have applied to join the global scheme. ZHU, Zhiqun. **Vaccine diplomacy: China and India push ahead to supply vaccines to developing countries.** Think China, 8 February 2021, Available at: <https://www.thinkchina.sg/vaccine-diplomacy-china-and-india-push-ahead-supply-vaccines-developing-countries>.

⁵⁶⁴ FRAZIER, Mark; ZHU, Zhiqun. Interview with Zhiqun Zhu: A Discussion on Vaccine Diplomacy by China and India. **The New School - India China Institute, 2 April 2021, Available at:** <https://www.indiachinainstitute.org/2021/04/02/interview-with-zhiqun-zhu-a-discussion-on-vaccine-diplomacy-by-china-and-india/>

deaths. But in a context of global scarcity, countries in the global south had simple choice: accept such conditions or not have access to any vaccines at all. Meanwhile, the US and the EU were largely blocking exports and had hoarded vaccines via bilateral deals⁵⁶⁵; India, overwhelmed by a ravaging second wave, also cancelled all exports in the first half of 2021. Furthermore, calls for Western countries to join the ‘vaccine diplomacy’ were shared by groups of different political spectra.⁵⁶⁶

This topic reveals that the politics of vaccine allocations are embedded in geopolitics. What may be more interesting for the socio-technical construction of IP in contemporary China, is that vaccines are also imagined along the lines of their ‘nationality’ (a ‘Chinese’ vaccine, an ‘American’ vaccine’, a ‘German vaccine’, the ‘Oxford vaccine’). Accordingly, IP rights are also conceived in terms of their ‘nationality’, not only in the strict legal sense, but as a political construct.⁵⁶⁷

For example, the German media has reported that citizens were unwilling to take the ‘foreign’ Ox/Az vaccine, preferring instead the ‘German’ Pfizer/BioNTech vaccine. In the UK, during the first vaccination months, the media reported exactly the opposite, with a preference towards Ox/Az and a critical tone to the EMA’s decision not to approve such a vaccine for emergency use. Vietnam’s reluctance to Chinese vaccines or Serbia’s willingness to get both Russia’s Sputnik V and China’s Sinopharm reflect geopolitical clashes and affinities more than mere interpretations of technical and scientific facts. Finally, the reticence against ‘Chinese vaccines’ have been perhaps the most divisive issue worldwide, directly tying Chinese animosity to the vaccines produced by Chinese companies. As noted in the analysis of the Sinovac-Butantan partnership⁵⁶⁸, a defining feature of the vaccination success was the need to turn the ‘Chinese vaccine’ into the ‘Butantan vaccine’, but this did

⁵⁶⁵ Under the use of the Defense Production Act, the US Presidency secured that all its manufacturing for Moderna, Pfizer/BioNTech and J&J vaccines would not be exported. Targets for donations were not met as of July 2021. The EU did export vaccines, unlike the USA and the UK patterns, but remained adamant in not allowing a temporary waiver of certain TRIPS provisions and other measures to allow manufacturing in developing countries. The EU was also criticized for its leniency in negotiating contracts with pharmaceutical companies, which led to scarcity of vaccines in the early months of 2021. Rich countries are now expected to inoculate booster shots to their populations, which does not change the current scenario substantively.

⁵⁶⁶ See, for example: ‘The United States should launch a concerted effort to strengthen key U.S. bilateral partner countries in achieving readiness in the equitable distribution, administration, and tracking of vaccines and in the establishment of integrated disease surveillance systems, including genomic sequencing systems. It will be critically important in this regard to leverage U.S. programmatic capacities, such as PEPFAR—especially their existing platforms and networks of health workers—to distribute vaccines and engage hard-to-reach populations’. MORRISON, J. Stephen; BLISS, Katherine; McCaffrey, Anna. **The Time is Now for US Global Leadership on Covid-19 Vaccines**. Center for Strategic & International Studies – Commission on Strengthening America’s Health Security. April 2020, p. 8.

⁵⁶⁷ See Chapter 5.1.

⁵⁶⁸ See Table 3 – Turning the ‘Chinese’ vaccine CoronaVac into the ‘Brazilian’ Butantan vaccine.

not dissipate polarizing views on China, either favorable or not.

The process of creating a nationality for a vaccine means that certain national characteristics are incorporated into a non-human entity. This is of course what a trademark intends to do to a marketed product – signaling to a customer a source and therefore a certain pattern of quality based on a brand –, but this should not necessarily be the case for Covid-19 vaccines. If this is however what happens, there are two important conclusions to be extracted:

- (i) national characteristics are extensive to products, individuals, and institutions, i.e., how a nation translates itself into perceptions and regimes of truth applied to non-humans such as vaccines, and
- (ii) how a logic of commodification and marketing is present even in products that are not being commercialized – in this sense, more than simply converting things into assets to be traded away in markets, this means a brandification of the world.⁵⁶⁹

Consequently, if national characteristics and nationalistic goals by the Chinese government also affect and constitute the IP system, a parallel can be drawn between the geopolitics of vaccines and nationalisms in IP. In other words, the national aspects that are found in an IP regime and the national aspects of vaccine distribution, hesitancy, and diplomacy are correlated topics. They are all instances of co-production of knowledge, law, and power.⁵⁷⁰ ‘Vaccine nationalism’ and ‘vaccine diplomacy’ have been used differently, sometimes as regressive me-first politics approach to impede global access or to create problematic conditionalities; ‘IP nationalisms’ may also signify unjustified protectionism or the protection of national stakeholders by asserting and defending their IP at all circumstances (something which opponents of the TRIPS waiver proposal do). But these categories are not set in stone; they may themselves be legal fictions that can change and be transformed by legal and social re-interpretation.

| |
|--|
| <p>Table 3 – Towards a Global Commons: Rethinking R&D for pharmaceutical products</p> |
|--|

⁵⁶⁹ This could also have parallels with the idea of increased boundaries for commodification, which may include data and even dreams. See: CRARY, Jonathan. **Late Capitalism and the Ends of Sleep**. London: Verso Books, 2013; for how this is also related to a pervasive logic of economic power, see: KAPCZYNSKI, Amy. **The Law of Informational Capitalism**. Yale Law Journal, Vol. 129, 2020, p. 1460-1515.

⁵⁷⁰ JASANOFF, Sheila. **States of Knowledge: The Co-Production of Science and the Social Order**. Abingdon: Routledge, 2004.

In relation to the Covid-19 crisis, the discussion brought by this chapter highlights that the bottlenecks for global vaccine equity allocation are not exclusively found in specific patents, technical manufacturing constraints, in individual firms' behavior, nor specific diplomatic policies by countries. The issue lies in the whole architecture of exclusivities and technological dominance, which involve IP but is not restricted to it. Attention should therefore be given to exclusive and restrictive contracts, restrictive administrative regulations, lack of transparency measures and corporate governance defined by shareholder primacy. Ultimately, a reformulation of the innovation ecosystem is what is really needed. A global, inclusionary model should replace the existing national, exclusionary logic.

In the long-term, rethinking the current R&D model for pharmaceutical innovation (including open science), expanding manufacturing capacity and investments in the global south, ensuring better conditionalities in financing contracts by the public sector, and early use of previously existing rights, such as patents held by public entities, will be evermore important for preparedness of future pandemics and ensuring the right to health to all. This should also include a discussion on the possibility of a binding treaty on R&D, a proposal once tabled at the WHO and ultimately stalled by developed countries.⁵⁷¹

In the field of public health, pharmaceutical innovation requires a full remodeling of its current paradigms. Els Torreale, Mariana Mazzucato and Henry Lishi Li propose the following proposals:

Proposal 1: Future vaccine development, including the design of mission-oriented innovation programmes, needs to be steered towards delivering optimal health technologies for public health and global access, beyond narrow economic and industrial interests.

Proposal 2: To maximise the impact on public health, the innovation ecosystem must govern knowledge for the public interest and use collective intelligence to accelerate advances, making wider use of open science — or as needed, patent pools and compulsory licencing — to ensure equitable access.

Proposal 3: Countries, especially the developing world, must build and buttress manufacturing capabilities in the intervening time, rather than wait until waves of pandemics strike.

*Proposal 4: Conditionalities must be put into place to ensure global, equitable, and affordable access to critical public health innovations, in particular where they have benefitted from public investment from the start of any future development programme for vaccines and treatments.*⁵⁷²

But very importantly, a proposal of commons in the context of IP does not equate, by any means, free appropriation. An essential part of developing a Covid-19 vaccine was the rapid sharing of the genetic sequencing of the SARS-Cov-2 virus by Chinese scientists. This does not provide them direct financial benefits and not even contributes strongly to their personal CVs from the logic of how academia operates. But it has tremendous impacts for combatting a pandemic.

In 2005, amid the H1N1 pandemic, Indonesia shared the genetic sequencing of the virus, but was 'left behind' in accessing the vaccines and Tamiflu, the medicine which, at that time, was considered the best candidate for treatment of the disease. This led to calls of more mechanisms of benefit-sharing in the context of pathogens' sharing, and the WHO PIP Framework was ultimately created. Yet, such concerns continue to exist.⁵⁷³ In other words, researchers in the global south provide

⁵⁷¹ See: VELÁSQUEZ, Germán. **Rethinking R&D for Pharmaceuticals After the Novel Coronavirus COVID-19 Shock**. Policy Brief 75, Geneva: South Centre, April 2020.

⁵⁷² TORREELE, Els; MAZZUCATO, Mariana; LI, Henry Lishi. **Delivering the People's Vaccine: Challenges and Proposals for the Biopharmaceutical Innovation System**. Institute for Innovation and Public Purpose Policy Brief 12, January 2021, Available at: https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp-pb12_delivering-the-peoples-vaccine_final.pdf

⁵⁷³ 'Many researchers — particularly those in resource-limited countries — are pushing back. They tell *Nature* that they see potential for exploitation in this no-strings-attached approach — and that GISAID's

valuable inputs in the form of data to be treated, analyzed, and turned into specific knowledge by global north institutions. Not only are such researchers under-represented or purely dismissed from any form of recognition, but their countries also do not accrue the benefits of scientific endeavors, such as having access to the vaccines which are result of this collaboration. In this sense, this mirrors the longstanding ethical and legal problems concerning clinical trials conducted in the global south, where subjects are testing efficacy and safety for ultimately the financial and health benefits to be accrued only by richer countries and their respective populations. As such, this is also an instance that can be criticized as ‘data colonialism’.

Therefore, the idea of the public interest needs to be reassessed beyond nationalistic paradigms, and be more comprehensive as to include more than generic conceptualizations such as ‘innovation’ or ‘social welfare’. As noted by Hyo Yoon-Kang:

‘Modern intellectual property law has been justified by a rhetoric of individual reward of a monopoly that is supposed to also serve the public good. In light of the transnational nature of intellectual property rights, in particular patent rights, the notion of the public is no longer a national one, but a global one. There is no logical reason why patent law’s grant of monopoly power cannot be curtailed, if its public purpose is not fulfilled. This can happen through national arrangements of compulsory licensing for public emergency use, but also more pragmatically and systematically through a general TRIPS waiver on Covid-19-related know-how and inventions. This would clearly reconceive the ‘public’ in intellectual property law’s narrative as a ‘global public’.’⁵⁷⁴

4.6. Preliminary Conclusions

The Covid-19 global crisis elicited multiple pitfalls of the IP system and the ways through which a monopoly-based innovation system, even in a global emergency and with largely public financing, is structurally unfit to ensure equitable access. The global debate on IP and access to medicines is therefore once again at the center of geopolitical and legal discussions. If China was not a key actor during the rise of the first global health institutions and the response to HIV/AIDS in the 1990s/2000s, it now certainly is in relation to Covid-19 – not only because the pandemic was firstly identified in Wuhan but due to the crucial role of the vaccines produced by Chinese companies to ensure global access.

The economic and industrial transformations of China changed both the status and quality of its healthcare system and the configuration of its pharmaceutical industry, which increasingly invests in R&D and seeks to become part of global ‘big pharma’.

gatekeeping is one of its biggest attractions because it ensures that users who analyse sequences from GISAID acknowledge those who deposited them. The database also requests that users seek to collaborate with the depositors. Fears of inequitable data use are amplified by the fact that only 0.3% of COVID-19 vaccines have gone to low-income countries. “Imagine Africans working so hard to contribute to a database that’s used to make or update vaccines, and then we don’t get access to the vaccines,” says Christian Happi, a microbiologist at the African Centre of Excellence for Genomics of Infectious Diseases in Ede, Nigeria. “It’s very demoralizing”. MAXMEM, Amy. **Why Some Researchers Oppose Unrestricted Sharing of Coronavirus Genome Data**. Nature, 05 May 2021, Available at: <https://www.nature.com/articles/d41586-021-01194-6>

⁵⁷⁴ KANG, Hyo Yoon. **Patent Capital in the Covid-19 Pandemic: Critical Intellectual Property Law**. Critical Legal Thinking, 9 February 2021, Available at: <https://criticallegalthinking.com/2021/02/09/patent-capital-in-the-covid-19-pandemic-critical-intellectual-property-law/>

Regulatory mechanisms of the Chinese state, including antitrust and regulatory laws, in association with innovation and IP laws, are at the core of this scenario. The newly adopted TRIPS-Plus provisions and some TRIPS flexibilities for public health need to be interpreted in this broader context, which differs from developing countries with lower economic and political power.

The development of the Covid-19 vaccines in China was akin to the ones of Western countries: there was strong public financing, robust coordination role of the State, and low transparency. Companies and Chinese institutions also adopted a similar IP strategy, including the fast-tracking and facilitation of patent applications, strong patenting by companies, restricted voluntary licensing with other institutions – and not an open-source model, and relatively high prices. Still, China is the largest manufacturer of vaccines in the world and did not adopt export restrictions such as the ones by the US and the EU.

The landmark partnership between Sinovac and Butantan, in São Paulo, contained a partnership model that can be described as a transnational public-private governance that included contracts, IP, administrative provisions and political negotiations and controversies. It can be seen as an epitome of these various dimensions that both approximate and distance China from its Western counterparts.

In this broader context, China's position regarding the WTO TRIPS waiver proposal originally proposed by South Africa and India in October 2020 is part of this landscape. During the virtual WHO's World Health Assembly in May 2020, Xi Jinping was one of the prominent political leaders who noted that Covid-19 vaccines and other medical products should be considered 'global public goods'. Yet, it did not co-sponsor the proposal at the beginning, and only did so after the unprecedented support by the US. This middle-ground and relatively prudent approach is convenient to the country, which can continue its vaccine diplomacy and knowing that a TRIPS waiver is not directed to its own companies.

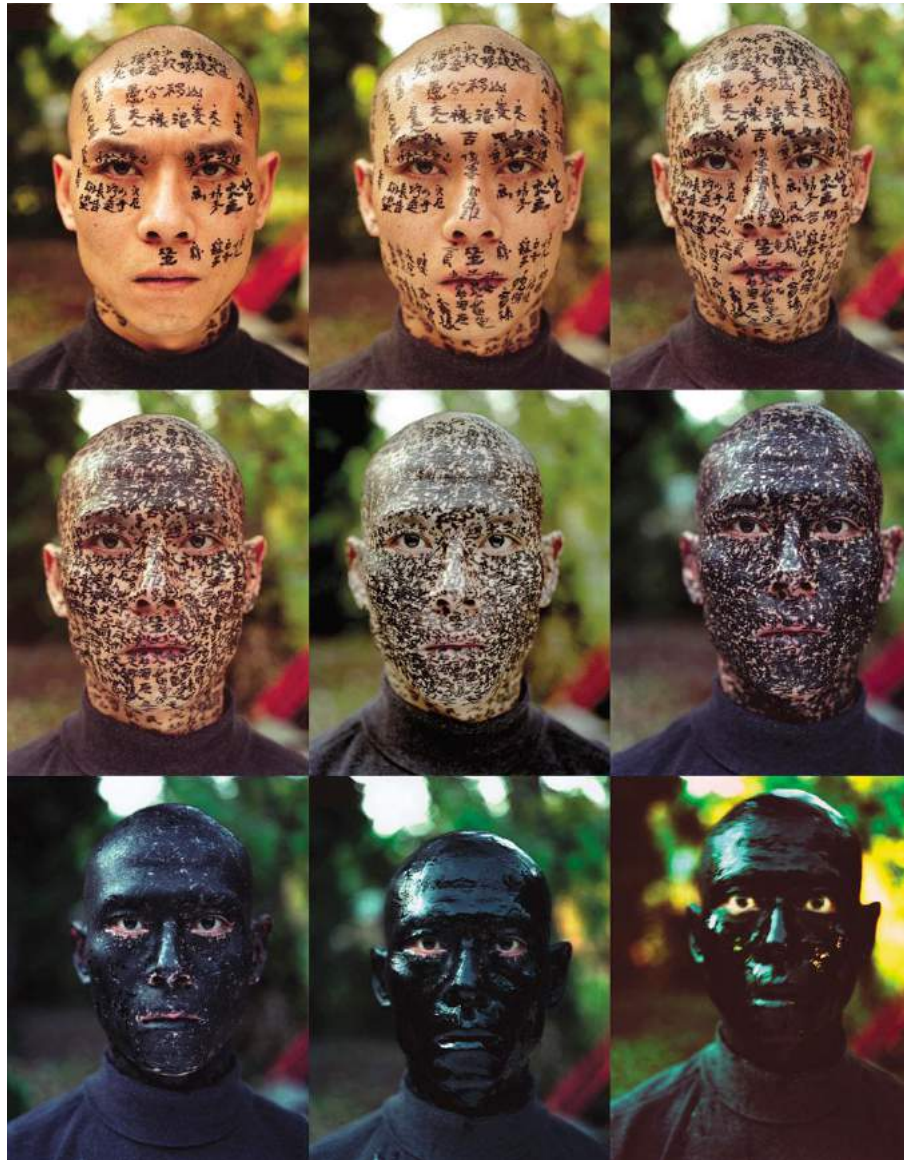
From an industrial policy point of view, China would be the most favored party in the case of an ample sharing of technology of mRNA vaccines. Because they are deemed to be one of the key emerging technologies for future medical and biotechnology, the full access to mRNA would promptly enable Chinese companies – supported by active policies of the State – to internalize and use it for its future innovation endeavors. But such technologies are already being internalized in China via the announced joint venture between BioNTech and Fosun Pharmaceuticals. In parallel, the Chinese government has already announced a short deadline to produce domestic mRNA technology-based vaccines until the end of 2021. Yet, because the political aspect of the TRIPS waiver is paramount, and signals

towards renewed commitments in international policymaking with respect to IP and access to medicines, including Covid-19 vaccines, it is nonetheless remarkable that China, despite the clear tendency to promote ever-more stringent standards of IP protection for pharmaceuticals, has also provided its support to such limitation measure.

As the final part of the chapter illustrated, there is a parallel between the nationalism found in patent law and vaccine nationalism/diplomacy. While the strategic and geopolitical uses of China of vaccines and IP are evident, so are equivalent usages by Western countries. The analysis of the politics of vaccine diplomacy and IP nationalism allows the conclusion that national characteristics can be extended to vaccines and institutions, and that this also reflects a marketization logic as if vaccines were products with brands available in markets. This is one indirect consequence of the expansion of the IP regime to other realms, but the main takeaway should be that a legal reinterpretation is possible.

Chapter 5

Intellectual Properties, Modernities and Nationalisms



Family Tree (2001), Zhang Huan (張洄)

Chapter 5

Intellectual Properties, Modernities and Nationalisms

In the previous chapters, this research dealt with various implications from the notion of IP ‘with Chinese characteristics’ – taking it as a starting point for broader discussions on the country’s role in the global economy. In all of them, there are elements that sustain an entanglement of the IP regime with a certain notion of ‘modernity’ and ‘progress’, as well as a distinct nationalism for contemporary China. These interlinkages will be the focus of this chapter.

For example, the first chapter described that more than pure discourse or political rhetoric, the expression IP ‘with Chinese characteristics’ is embedded in China’s contemporary innovation and development plans. It is also part of the recent history of IP in China and its particular engagement with the United States. The trend towards expanding the protection and enforcement of IP should be seen as a continuum of the developmental processes, although specific interpretations on regarding public interest as national interest and national security, as well as policies aiming at creating a ‘culture of IP’, deserve to be seen as exemplary features of how modernity and nationalism are concealed in this contemporary IP system.

The second chapter exposed how China’s new laws and policies may have consequences not only domestically, but to the international legal order and global IP system, particularly through the country’s participation at multilateral institutions and via bilateral engagement. The chapter sustained how this is related to how China positions itself internationally, and how the legitimacy of organizations such as the WTO and WIPO is cunningly used to further legitimize Chinese trade policies. It also posited how narratives of cooperation and free trade with other countries conceal the broader objectives of the country in expanding its trade routes. If this does not signal a new ‘Chinese standard’ in the making in international IP policy, it does at least signal to the reaffirmation of the existing architecture of the current system.

In the third chapter, the thesis provided an assessment of the issue of IP and access to medicines in China, including the ongoing politics and legal queries on Covid-19 medical products, particularly vaccines. This was conducted under the legal framing of ‘TRIPS Flexibilities’ and from the political economy of these processes. Such dual analysis highlights how patents, vaccines, trademarks, and others are characterized by their

‘nationality’. To provide a concrete example, a patent granted by the CNIPA does not have the same de facto status as a patent granted by the USPTO or the EPO; but it also does not equate a patent granted by INPI-Brazil or CIPC-South Africa, for example. This means that their potential valuation and financialization are different: according to the biases that are associated to certain nations, this will operate differently.

Moreover, it exposed how the legal contentions on Covid-19 vaccines, particularly patents and trade secrets, are defined in terms of national disputes by most, if not all, countries (from the USA to India, from China to Brazil). Similarly, the political discourses on Covid-19 vaccines show that ‘Chinese vaccines’, as much as the others WHO-approved vaccines, do not only carry a techno-scientific assessment of safety and efficacy, but also their origin as an important element in the processes for their approval/rejection by regulatory agencies, and its inoculation in populations. If both a vaccine diplomacy and vaccine nationalisms exist, it is unsurprising that patent nationalisms and IP diplomacies also exist, although they are often disregarded in most accounts of IP histories.

Considering this context, this chapter broadens the analytical scale of the thesis to aim at a theoretical discussion on IP and its relations to modernities and nationalisms. Rather than an exclusivity of China, all intellectual properties are associated to paradigms of modernity and of nationalism – in various senses, as described below. The chapter is structured as follows: it approximates the IP ‘with Chinese characteristics’ to ideas of nationalism and state-building in contemporary China, considering its intent to assert itself positively as an innovative country.⁵⁷⁵ It therefore differentiates the idea of nationalism as the construction of a nation, as protectionism in comparison with foreigners, and as the Nation State as a legal entity. With those elements as a foundation, it re-discusses the creation of the opposition between the futuristic high-tech ‘innovator’ v. the backwards ‘counterfeiter’/‘thief’ that is ingrained in the process of consolidating the contemporary Chinese IP system, based on a reflection on the status of ‘copies’, the idea of ‘authenticity’, and the reverberations of the concrete legal discussions presented in the earlier chapters. Subsequently, it discusses the role of IP as a sign of modernity and nation-building, based on the idea of a ‘specter of modernity’ that accompanies the development of the IP system more generally.

⁵⁷⁵ See generally: LINDTNER, Silvia M. **Prototype Nation: China and the Contested Promise of Innovation**. Princeton: Princeton University Press, 2020.

5.1. Nationalism and state-building as elements of the contemporary Chinese IP system

Because it is integrated into China's development plans, the IP system is also part of the 'China Dream' project, which binds politics, economics, and nationalism. In this sense, these are pieces of a state-building process.⁵⁷⁶ The issue is to identify in what manners they are present in the IP 'with Chinese characteristics', delving deeper into details already announced by the Introduction of this research. When affirming that an IP system is somehow attached to national aspirations, a first difficulty is in how to use and differentiate China as a sovereign state under public international law, China as a nation and as nationalism,⁵⁷⁷ Chinese as a nationality, and Chineseness as an identity. These categories have multiple overlaps but are not synonyms.⁵⁷⁸

The word 'nationalism' may also refer to different ideas in IP law: the nation state as a legal-political category, nationalism as a political identity, or as the line that draws the distinction between the national and the foreign.⁵⁷⁹ The techno-nationalism which permeates technological and IP policies of strategic areas, such as semiconductors and 5G technologies, is one example of the intertwined dimension of IP and nationalism. The interpretation of public order and national security, another feature elucidated in previous chapters, is yet another example. The general idea under WTO rules whereby countries must not discriminate between foreigners and nationals for trade matters – but acknowledging both the possibility of exceptions such as those founded on national security and leaving some leeway under what is contained in a country's policy space – is equally an example of this interlinkage. However, these varied uses may contain or relate to different dimensions

⁵⁷⁶ As such, it is anthropologically related to a history of oppression and the mythical figure of the ruler, which cannot disaggregate cosmology and politics. See: SAHLINS, Marshall; GRAEBER, David. **On Kings**. HAU, 2017.

⁵⁷⁷ For some reflections, see WANG, Gungwu. **Renewal: The Chinese State and the New Global History**. Hong Kong: The Chinese University of Hong Kong Press, 2013.

⁵⁷⁸ 'Our topic, 'What does it mean to be "Chinese" outside of China today?', pushes us to address what we mean by "Chinese", what we mean by "China", and what Chineseness signifies. This is also a question of representation. [...] For now, we are stuck with the proper noun "China", and the adjective "Chinese" to identify people, country, ethnicity and language. These terms are woefully inadequate to describe the complexity behind them, but extremely useful to those who would mask reality. [...] In spatial and societal terms we could start by recognizing the multiplicity and plurality of Chinese identities. Most importantly, the reality of lived, experienced societal and cultural mixity should be admitted and respected, as should the right of the individual to identify themselves as they wish, and not as the beholder imposes.' LEE, Gregory. **What does it mean to be "Chinese" outside of China today?** Oxford China Centre, China Centre Seminar Series: Conversations. The Oxford China Conversations IV, 20 May 2021. Initial Remarks.

⁵⁷⁹ Those who are 'inside' and those who are 'outside', to echo Walker. WALKER, R.B.J. **Inside/Outside – International Relations as Political Theory**. Cambridge: Cambridge University Press, 1992.

of the same concept of nationalism. For example, the USTR Section 301 report of 2021 argues that Chinese courts are ‘nationalist’, and perhaps all three instances are present in such an argument, also posing challenges to a proper legal interpretation.

In China and elsewhere, the histories of modernity and nationalism are intertwined,⁵⁸⁰ as nations are ‘imagined communities’, as famously argued by Benedict Anderson.⁵⁸¹ Their usages in economic law have been varied: they have been used to justify regimes of exception such as fascism,⁵⁸² and were at the core of rich countries hoarding of Covid-19 vaccines’ distribution.⁵⁸³ On the other hand, they enabled national developmental projects⁵⁸⁴ and became claims for safeguard against foreign economic power and political pressure.⁵⁸⁵

In the case of contemporary China, as noted in the previous chapters, the economic growth and prosperity are seen as a matter of national pride and a sign of a strong nation which retakes its center stage, a role which it arguably exerted for centuries. However, this historical background of China’s great past is not a necessary element to explain the ‘Chinese characteristics’ of today; it is nonetheless a powerful recursive tool for the aim of depicting China as the grand power of the world. With respect to the shaping of identity, Manuela Carneiro da Cunha, inspired by Jorge Luis Borges’ critique on Citizen Kane⁵⁸⁶,

⁵⁸⁰ See PARFITT, Rose. **The Process of International Legal Reproduction: Inequality, Historiography, Resistance**. Cambridge: Cambridge University Press, 2019.

⁵⁸¹ ANDERSON, Benedict. **Imagined Communities: Reflections on the Origins and Spread of Nationalism**. London: Verso Books, 1983.

⁵⁸² Economic concentration plays a major role in conducting fascist experiences. See: CRANE, Daniel A. **Fascism and Monopoly**. 118 MICH. L. REV. 1315 (2020). Available at: <https://repository.law.umich.edu/mlr/vol118/iss7/2>.

⁵⁸³ See previous chapter sub-section 4.5.

⁵⁸⁴ From Germany’s List and US’s Hamilton to Japan’s MITI and the developmental state in various global south countries described by Alice Amsden. CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in Historical Perspective**, London: Anthem Press, 2002; AMSDEN, Alice. **The Rise of the Rest: Challenges to the West from Late Industrializing Economies**. Oxford: Oxford University Press, 2003; JOHNSON, Chalmers. **MITI and the Japanese Miracle**. Stanford: Stanford University Press, 1982.

⁵⁸⁵ For an interpretation of economic law along these lines, see: BERCOVICI, Gilberto; **Constituição Econômica e Desenvolvimento: Uma Leitura a partir da Constituição de 1988**. São Paulo: Malheiros, 2005; OCTAVIANI, Alessandro. **Recursos Genéticos e Subdesenvolvimento: Os Desafios Furtadiano e Gramsciano**. São Paulo: Saraiva, 2014.

⁵⁸⁶ Borges interprets the acclaimed film Citizen Kane along the following lines: ‘Citizen Kane (called The Citizen in Argentina) has at least two plots. The first, pointlessly banal, attempts to milk applause from dimwits: a vain millionaire collects statues, gardens, palaces, swimming pools, diamonds, cars, libraries, man and women. Like an earlier collector (whose observations are usually ascribed to the Holy Ghost), he discovers that this cornucopia of miscellany is a vanity of vanities: all is vanity. At the point of death, he yearns for one single thing in the universe, the humble sled he played with as a child! The second plot is far superior. It links the Koheleth to the memory of another nihilist, Franz Kafka. A kind of metaphysical detective story, its subject (both psychological and allegorical) is the investigation of a man’s inner self, through the works he has wrought, the words he has spoken, the many lives he has ruined.’ BORGES, Jorge Luis. **An Overwhelming Film**, Review of Citizen Kane, 1941. Available at: <https://interrelevant.wordpress.com/2013/01/24/borges-reviews-citizen-kane/>.

notes that *'maybe history is not important and identity is a superfluous condition'*.⁵⁸⁷ Rather than a dismissal of history and of the notion of identity, this is a reminder that some of these 'Chinese characteristics' can transform themselves, and so has indeed been the case regarding the shifts in State ideology since the early years of the PRC. For the same reason, the specific forms of nationalism and state-building that are ingrained in IP laws can adopt various forms. As posited by Luis Eslava and Sundhya Pahuja:

'Nation-states as social, cultural, and legal formations that are constantly engaged in reshaping disparate spaces and people into one—national—jurisdiction through administrative procedures; official imaginaries; and shared legal, financial, and affective economies. These are processes underwritten by international law. In other words, the state and its subjects, and the relations between them and the non-human world are, as Rose Parfitt puts it, engaged in an ongoing process of "international legal reproduction". Re-described in this way, the ostensibly "historical" processes that both deliver nation-states into the world and ground the authority of international law in their will, can be seen instead as ceaseless practices of what we might think of as **world-making via state-making**'.⁵⁸⁸

Therefore, if there is 'world-making via state-making', a core objective of reaffirming the 'Chinese characteristics' in an IP system is to shape a particular view of the State. While the official discourses focus on unity and a sense of China's permanence since immemorial times, legitimized by Neoconfucianism, there is in fact a newly created form of State and society in which IP as a technique of appropriation and organizing science and technology is paramount.⁵⁸⁹ The development of the IP system is determined by the central Chinese government and its top bureaucracy as part of its strategies to consolidate China's global development plans, and even though experimentalism takes place, the overarching goal of technological dominance is clear. In this sense, the IP 'with Chinese characteristics' enables the creation of a contemporary China as a country, a nation, and a legal jurisdiction.

This reverberates in how individuals regard the nation, and how these views are

⁵⁸⁷ This affirmation comes at the end of a book on the notion of identity among enslaved individuals in Brazil originally from Africa, who attach themselves to their roots, and of freed former enslaved who 'go back' to Africa and created 'Brazilian' quarters in the Gulf of Benin, including Lagos, Nigeria. 'Back' in Africa, those individuals identified as 'Brazilians'. Carneiro da Cunha's research investigates with historical and ethnographic richness the politics of identity in these two reflective cases, and concludes with general remarks on the very notion of identity and history. Carneiro da Cunha takes this expression to deal with the topic of identity and concludes by once again twisting its reflection, hence the idea that "maybe history is not important and identity is a superfluous condition" (free translation). See: CARNEIRO DA CUNHA, Manuela. **Negros, Estrangeiros – Os Escravos Libertos e sua Volta à África**. São Paulo: Companhia das Letras, 2013 [1985].

⁵⁸⁸ ESLAVA, Luis; PAHUJA, Sundhya. **The State and International Law: A Reading from the Global South**; *Humanity: An International Journal of Human Rights, Humanitarianism, and Development*, Volume 11, Number 1, Spring 2020, pp. 118-138.

⁵⁸⁹ This is not to argue that contemporary IP policies in China are essentially determined by the ideational dimension of China as a country with a robust IP policy. As noted before, they are more directly a result of national innovation and industrial policies, and the structural economic and social transformations in the country, including the domestic interest in adopting more stringent IP protection. However, this is an opportunity to acknowledge the role that ideas may have in shaping the form of states, and therefore also politically relevant.

routinized and performed by those who compose the Chinese contemporary IP system, including patent officials, judicial authorities, border, customs and enforcement police officers, IP management departments inside companies, and IP departments in universities. It is unclear what such IP ‘bureaucratic operators’ think regarding their own individual work: some may consider that by strengthening the protection of IP in China they contribute to the nation; others may see this as purely routine bureaucratic work; others may see these as opportunities to consolidate their own individual prestige.⁵⁹⁰ Regardless, they are implicated in the material processes that are part of consolidating the IP system – not unlike IP scholars, even those who perceive their work to be formalist and detached from politics.⁵⁹¹

In other words, the IP ‘with Chinese characteristics’ refers not only to IPRs that are filed by Chinese applicants or to the IP set of laws and policies in China, but to elements that designate their belonging to the nation. For this reason, this expression re-integrates IP into the cultural realm as an artifact of specific relations in a web of socialities, and no longer IP as a global product of neoliberal capitalism alone, in which nations and territories could vanish and economic forces disintegrate social relations at the local level. At the same time, and perhaps paradoxically, the same discourse reaffirms the contemporary paradigms of global IP in the global economy: it continues to assert that it is a system designed for intangible knowledge assets to be traded away in international trade, which will promote innovation and maximize social welfare, and necessary to the new open and dynamic Chinese economy.

Very importantly, these elements are not distinctively Chinese from a ‘cultural’ point of view. As already noted in the introduction, William Alford’s book ‘To Steal a Book is an Elegant Offense’ provided fundamental questions regarding the challenges of the Western concept of IP in China and the limitations of approaches that fail to acknowledge

⁵⁹⁰ ‘Arendt witnessed in Eichmann not an incomprehensible monster, but something much more terrifying—she saw commonplace thoughtlessness. That is, here was a human being unable to make present to himself what was absent, what was not himself, what the world in its sheer not-one-selfness is and what claims-to-be inhere in not-oneself. Here was someone who could not be a wayfarer, could not entangle, could not track the lines of living and dying, could not cultivate response-ability, could not make present to itself what it is doing, could not live in consequences or with consequence, could not compost. Function mattered, duty mattered, but the world did not matter for Eichmann. The world does not matter in ordinary thoughtlessness. The hollowed-out spaces are all filled with assessing information, determining friends and enemies, and doing busy jobs; negativity, the hollowing out of such positivity, is missed, an astonishing abandonment of thinking. This quality was not an emotional lack, a lack of compassion, although surely that was true of Eichmann, but a deeper surrender to what I would call immateriality, inconsequentiality, or, in Arendt’s and also my idiom, thoughtlessness.’ HARAWAY, Donna. **Staying with the Trouble – Making kin in the Chthulucene**. Durham: Duke University Press, 2016.

⁵⁹¹ See: **Panel Discussion on Intellectual Property Law Scholarship and Pedagogy in Times of Covid-19 Pandemic**, Kent Law School, 1 July 2021. Available at: <https://www.youtube.com/watch?v=hceZly406FI>

cultural differences and impose certain standards. Yet, the main challenges in contemporary China to expand or reshape IP protection are very different from the issues enunciated decades ago. As such, if the assertion of IP with ‘Chinese characteristics’ is indeed a form of re-embedding ‘culture’ and ‘nation’ into IP law, it does not mean that it will be a ‘hybrid’ or recreation of Western law from the perspective of Chinese Confucianism or any variation thereof. Instead, it is reminder that IP is a modern, capitalist figure – itself an invented figure – that may be used in different forms for state-building processes and under different usages of the notion of nationalism, but still largely the same technique of appropriation of the intangible regardless of the context.

In this sense, although the reliance on nationalism as a mechanism for state-building is more clearly elicited in the Chinese contemporary IP system, this has also been a longstanding feature of IP systems more broadly. From industrial policies that were based on excluding protection to foreign applicants in the global south in the mid-20th century to the abolishment of patents in 19th century Netherlands,⁵⁹² from the linkages between cartels and IP protection under Germany’s Weimar Republic to current US biopharma industry representatives concerned about technology transfer of mRNA vaccines to India, China and Russia⁵⁹³, the categories of nationalism, national interest, and national protection are often at the core of the IP system.

For this reason, despite the specificities of China, an equivalent assessment could be undertaken in any other IP system. In the previous chapters, this research provided contemporary examples of how national security arguments have permeated IP-related disputes over 5G, how other countries also praise themselves for the number of patent filings at the early WIPO Assemblies, how jurisdictions aim at fostering their national brands, and how the narrative of IP and innovation is instrumentally deployed to promote the idea of ‘modern’ economies. Given the rising importance of IP as a legal-technological technique of appropriation and arrangement of science and technology, with matching prominence to the global economy, it is inevitable that this issue will continue to become more evident.

⁵⁹² See: SCHIFF, Eric. **Industrialization Without National Patents: The Netherlands, 1869-1912; Switzerland, 1850-1907**, Princeton, Princeton University Press, 1971.

⁵⁹³ See Chapter 4, section 4.3 and 4.4. Kavanaugh & Sunder provocatively point out to how the TRIPS Agreement had been justified in terms of its promise of technology transfer; the unfulfillment of this promise even in the context of a global pandemic for vaccines largely financed by public money highlight the hypocrisy of the very foundations of the international system. See: KAVANAUGH, Matthew; SUNDER, Madhavi. **Poor Countries may not be vaccinated until 2024. Here is how to prevent that.** Washington Post, 10 March 2021. Available at: <https://www.washingtonpost.com/opinions/2021/03/10/dont-let-intellectual-property-rights-get-way-global-vaccination/>;

5.2. The figure of the pirate and the undervaluation of the ‘backwards’

‘Innovation is the first driving force for development, and protecting intellectual property rights means protecting innovation. To build a modern socialist country in an all-round way, we must better promote the protection of intellectual property rights. Intellectual property protection work is related to the modernization of the national governance system and governance capabilities. Only by strictly protecting intellectual property rights can we improve the modern property rights system, deepen the reform of the marketization of factors, and promote the market to play a decisive role in the allocation of resources and better play the role of the government. Intellectual property protection work is related to high-quality development. **Only by strictly protecting intellectual property rights and severely cracking down on market entities and lawbreakers who infringe and counterfeit in accordance with the law can the quality of the supply system be improved and high-quality development can be vigorously promoted. Intellectual property protection is related to the happiness of people’s lives.** Only by strictly protecting intellectual property rights, purifying the consumer market, and safeguarding the rights and interests of consumers can the people be assured of buying, eating, and using with comfort. Intellectual property protection is related to the overall situation of the country’s opening to the outside world.’ (XI, Jinping, 2021)

Xi Jinping’s speech serves as an entry point to the legal aspects of the construction of the pirate/counterfeiter as the enemy to be ‘severely cracked down’. This is not a case of ‘paper tiger’, given the recent increased criminalization and enforcement of illicit conducts under IP law.⁵⁹⁴ Crackdowns in ‘counterfeit’ markets have increased, automatized tools in the Chinese Internet remove content and sanction sellers in e-commerce platforms, and educational IP policies have been introduced in schools. As the preface showed, being associated to fake goods can become a matter of individual shame for at least part of the Chinese population: in other words, perceptions about fake goods are now extensive to peoples, institutions, and even nations. By creating the imagery of an enemy to be combatted, current Chinese IP laws and policies aim at promoting what is supposed to be a diametrical opposition to this other subject: the lawful and innovative IP rightsholder.

In this sense, the creation of the ‘pirate’ goes beyond the direct interest of strengthening IP protection, but rather it crafts a morally charged discourse and indirectly aims at consolidating China’s ‘high-tech’ aspirations. Objects which are in contradiction with IP laws, such as manufactured goods which infringe a foreign duly registered trademark, assume a social life of their own as pirated or counterfeit goods⁵⁹⁵, but also characterize all of those involved along the value chain and their rituals of trade and exchange as pirates and counterfeiters to be equally combatted. Rosana Pinheiro-Machado’s ethnography of the circulation of goods from the Guangdong province in China to Brazil via

⁵⁹⁴ See again Chapter 2, especially sections 2.3.2.1, 2.3.2.2. and 2.4.

⁵⁹⁵ APPADURAI, Arjun. **The Social Life of Things: Commodities in Cultural Perspective**. Cambridge: Cambridge University Press, 2006.

Paraguay elicits such contradictions, and the fact that whole networks of economies, lives, affects, and views are part of this global value chain which are characterized as illegal. The reduction of these complex social relations to a legal-economic definition of ‘informal’ and ‘illegal’ economy fades the moral and political dimensions of such transactions and circuits.⁵⁹⁶

According to such a view, those who copy and infringe IP – the ‘lawbreakers’, as noted by Xi Jinping – are not only legally, but morally wrong. For this reason, defining the boundaries that define the licit and the illicit in IP law is not merely a legal interpretation endeavor. Although formalist and positivist legal theorists insist on the separation between law and morality, this example highlights a direct correlation between what is deemed illegal and what is portrayed as immoral (theft). More importantly, it is immoral *because* it is illegal, and not illegal because it is immoral.

Akin to the boundaries between licit or illicit, the categories of ‘copy’, ‘authentic’, ‘pirate’, and ‘fake’ are not natural pre-existing features, but constructed categories.⁵⁹⁷ For example, trademarks are often justified in terms of how they may signal to consumers the source and therefore quality of a certain product.⁵⁹⁸ The status of a generic product, which does not carry a brand, has been a matter of rhetorical contention and major confusion. Trademarks may also lose their distinctiveness; in which case they fall in the public domain.

The medicines field provides a concrete instance of how implicit approximations between IP and quality may bring socially detrimental consequences, and even limit the realization of human rights. Definitions of counterfeits, pirated, falsified, and sub-standard medicines have been a source of major debate at the WHO: the necessity to distinguish low-quality products from generics which do not have the same brand as the originator pharmaceutical company is paramount to improve access to medicines. This includes increasing confidence by consumers in generic products and avoiding their overlap. In a landmark case, India asked for consultations against the European Union at the WTO

⁵⁹⁶ For a critique, see: ZELIZER, Viviana. **Economic Lives: How Culture Shapes the Economy**. Princeton, NJ: Princeton University Press, 2010.

⁵⁹⁷ For example, the politics of copies and generics of pharmaceutical products in Latin America highlight different uses of the categories in Mexico and Argentina, based on distinct experiences of the IP regime and domestic industries. See: HAYDEN, Corey. **No patent, no generic: Pharmaceutical Access and the Politics of the Copy**. in BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. *Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective*. Chicago: University of Chicago Press, 2011, pp. 285-304.

⁵⁹⁸ For a contemporary critical assessment of trademarks and its increasing conflating interface with copyrights, see: SENFTLEBEN, Martin. **The Copyright/Trademark Interface: How the Expansion of Trademark Protection Is Stifling Cultural Creativity**. Philadelphia: Wolters Kluwer, 2020.

pursuant to instances where generic medicines in transit via European ports were apprehended under EU administrative provisions.⁵⁹⁹ These dismissed the lawfulness of parallel imports between China and the destined countries, and mixed generic medicines with illicit products. An equivalent issue took place in Kenya, where its High Court ruled an anti-counterfeit legislation unconstitutional, since the law's definition of counterfeit restricted access to lawful generic medicines.⁶⁰⁰ What lies behind this discussion are attempts to portray generic products as illegal or immoral. Although this is not what Chinese contemporary policies have recently done, this highlights an added layer of complexity to the debate on anti-counterfeiting policies.

At the level of international law, Tor Krever exposed the ideology of the legal notion of piracy and its entanglement with the imperial project and capitalist expansion.⁶⁰¹ According to the author, the pirate is not a continuum from Antiquity to modern times, but rather a process that culminated in the secularization of the pirate figure as the *'universal enemy of commerce and capital accumulation, to be extirpated no longer in the name of a universal Christian commonwealth, but now on behalf of the universal commercial society of humanity'*, a 16th Century notion that can be extracted from Grotius that placed the Dutch as lawful and the Portuguese as enemies of trade.⁶⁰²

For the purposes of the present discussion, a reflection by Krever could well be extended to what is referred to as pirate in the context of IP law in China:

'If the pirate is the enemy of humanity, how is it that humanity became synonymous with trade and commerce? [...] Today, the violence of the Somali pirate directed against transnational corporate trade is criminalised and cast as inimical to civilisation. The everyday violence produced by that trade, meanwhile, is naturalised, the figure of the pirate, and the international legal thought that reifies its exceptional status, contributing

⁵⁹⁹ See, for a critical analysis on the impacts of trademarks to access to medicines, see: DUTFIELD, Graham. **Not Just Patents and Data Exclusivity: The Role of Trademarks in Integrated IP Strategy – Where Lies the Public Interest?** In: RAGAVAN, Srividhya; VANNI, Amaka. *Intellectual Property Law and Access to Medicines: TRIPS Agreement, Health, and Pharmaceuticals*. Abingdon: Routledge, 2021.

⁶⁰⁰ HIGH COURT OF KENYA. Patricia Asero Ochieng v. Attorney General, Petition No. 409 of 2009 (Kenya, High Court of Kenya at Nairobi, 2012); for a broader critical analysis that includes the case with a focus on the issue of access to medicines, see: KAPCYZNSKI, Amy. **The Right to Medicines in an Age of Neoliberalism**. *Humanity: An International Journal of Human Rights, Humanitarianism, and Development*. University of Pennsylvania Press, Vol. 10, N. 1, Spring 2019, p. 79-107.

⁶⁰¹ KREVER, Tor. **The Ideological Origins of Piracy in International Legal Thought**. PhD Thesis, London School of Economics, May 2018.

⁶⁰² 'On Grotius's telling, the chapter showed, it was not the Dutch who, in attacking Portuguese shipping, should be considered pirates. Rather, reversing the equation, Grotius insisted it was the Iberians who, in restricting access to the Indies, did violence to Dutch rights. Grotius rendered the Portuguese as pirates, secularising the figure's illegitimacy and redefining the pirate as the enemy of trade, now elevated in Grotius's schema to a universal good. The figure of the pirate with which Grotius leaves us, the chapter concluded, was the universal enemy of commerce and capital accumulation, to be extirpated no longer in the name of a universal Christian commonwealth, but now on behalf of the universal commercial society of humanity.' KREVER, Tor, 2018, p. 192.

to an ideological closure. And what then of the pirate's other avatars: the torturer, the génocidaire, the terrorist—but also the native, the savage, the barbarian. **What is lost when we uncritically accept and reproduce their identification as *hostes humani generis*?**' (KREVER, 2018, p. 198-199)

In close relation, as highlighted by Siva Thambisetty, the consequences of the current global IP system go much beyond the strict realm of legal cases: they implicate the way human intellectual labor is understood more generally, and the use of pejorative terms such as free riding, theft, and piracy are deployed to 'ensure compliance with IP rights by most individuals'.⁶⁰³

IP is associated to the rise of industrial manufacturing.⁶⁰⁴ By protecting certain forms of knowledge that are deemed useful from an industrial point of view, the patent system co-constitutes what is desirable and deserving of a specific legal protection, thereby dismissing 'non-modern' (i.e., non-industrial) forms of human creation, such as handicrafts, rural practices, and traditional knowledges of indigenous peoples. But in a context where IP becomes entangled with high-tech innovation goals, the figure of the pirate may also become conflated with these other non-modern figures. Implicit in Chinese policies is the idea that IP pirates harm trade practices and, in addition, represent this backward economy based on copies, making them twice undesirable.⁶⁰⁵

The ironic element, evidently, is that from the perspective of Western claims of IP theft of new technologies, China itself is the 'pirate' of high-tech and innovation. The IP 'theft' discourse has moral connotations that also blur the boundaries between legality and morality.⁶⁰⁶ In general, IP theft claims take the following structural form:

| |
|---|
| IP → Copy/Theft → Fake/Inauthentic Products → IP theft claims |
|---|

⁶⁰³ 'In the aftermath of the 1994 Trade Related Intellectual Property Rights Agreement, the World Bank painted a very mixed picture of welfare resulting from globally harmonised IP rights for developing countries. Since then, we have seen acute controversies over access to medicines, over patents that impact on food security and the disagreements over the best way to incentivise the production of climate-resilient technologies (as if we need an incentive to want to save the human species!). The communicative ideal of imitative learning would allow innovation to, water-like, find its own level if allowed to do so. This would lead to a more equitable version of technology diffusion and use. Global use of pejorative terms such as 'free riding', 'theft' and 'piracy' is designed to ensure compliance with IP rights by most individuals, but they cast a depleting and dark shadow over all of our shared, human intellectual labours.' THAMBISETTY, Siva. **Liza's Bucket: Intellectual Property and the Metamodern Impulse**. LSE Law Working Paper Series 19/2020.

⁶⁰⁴ POTTAGE, Alain; SHERMAN, Brad. **Figures of Invention: A History of Modern Patent Law**. Oxford: Oxford University Press, 2010.

⁶⁰⁵ It might also be that this shift continues to render the work of manual workers such as those in Chinese factories as less valuable, signs of pre-modern societies. To the extent which Chinese nationalism becomes entangled with the idea of technological sovereignty and dominance, the former role of the worker as part of a Communist collective project also fades away.

⁶⁰⁶ See also section 2.2.2.

In this logic chain, an IP is granted by a certain country and later unlawfully copied⁶⁰⁷ or stolen. The copy/theft enables the creation of fake products, which are also inauthentic – two different forms of devaluation. When the copies/counterfeits are identified, a claim that an IP has been stolen is generated, demanding subsequent compensation and measures to cease the illegality. This chain of events also follows the broader logic of civil liabilities in legal theory.

However, the US claims against China adopt a different structure, which assumes that China is *ex ante* a country that violates foreign IP. This shift produces therefore profound consequences:

IP theft claims → Copy/Theft → Fake/Inauthentic Products → IP

In this other logic chain, IP appears as a corrective measure to a preceding problem of thefts and copies; in addition, the IP theft claim is the starting point from which an unlawful copy or theft (and its subsequent illicit products) is assessed, and not the result of an illicit. This creates a specific burden of proof by Chinese entities to prove that they are not counterfeiters or pirates – which also manifests in the ways companies may value their products, and how Chinese IPRs granted by the CNIPA are regarded abroad.

Marilyn Strathern draws attention to how the effects of ideas derive precisely from the form they take, since ideas are not detachable from their own form.⁶⁰⁸ The form of IP thefts that are, at least to a certain extent, detached from the real-life verification of an illicit conduct, creates an elusive and magical legal regime, since it is self-validating. Therefore, the IP theft claim against China, regardless of its validity or not, affects not only the Chinese government's geopolitical aspirations, but various other dimensions. These include: the 'Made in China' as a 'national brand', the investment restrictions for Chinese technologies abroad, the valuation potentials of products by Chinese companies, the 'value' of a patent granted by the CNIPA, and the burdens applied to Chinese market entities to prove they are 'lawful' entities.

This is an example of how the global IP regime operates differently around the

⁶⁰⁷ Some copies are lawful, given the existence of exceptions and limitations to IP rights.

⁶⁰⁸ See: STRATHERN, Marilyn. **Partial Connections**. Lanham: Rowman and Littlefield, 1991; see also: STRATHERN, Marilyn. **Out of Context: The Persuasive Fictions of Anthropology**. *Current Anthropology*, Vol. 28, No. 3, June 1987, pp. 251-281.

world and in different jurisdictions, even for a country like China, which is adopting stringent and highly protective standards. The presupposed incapacity of developing countries to manufacture vaccines has been used as strategy against technology transfer of mRNA Covid-19 vaccines – which reflects a neocolonial logic, since there is manufacturing capacity and technology available in various developing countries. In this sense, structural inequalities in the global economy have multiple consequences, and the reflection on the urges to promote ‘modernization’ via the IP system is one such dimension. Oftentimes, this reaches a psychological dimension and the self-perception of individuals.⁶⁰⁹

The rhetoric of ‘theft’ which is applied to companies, persons, and the nation itself in China produces an equivalent process of valuation/devaluation: the inventor/creator who has an IPR is both desirable and morally respectful; and its opposite, the pirate/counterfeiter, is an undesirable criminal. In a sense, the contrast between the lawful, innovative, future-oriented inventor and the illicit, free rider, backwards pirate is necessary to solidify the persuasive effects of the respective categories. Consequently, the pirates that are found across the country need to be actively persecuted, even if they remain an important part of China’s contemporary economy. In the public sphere, piracy needs to be subject to increasingly stringent criminalization policies and moral shame. This is what the Chinese State has consistently done at the international level and in all public statements related to IP in recent times.

On the ground, however, the ways through which these moral connotations are verified or ignored are much more complex. For instance, an enforcement raid in a Chinese market may not implicate the same politics of shame and concealment among people involved, both those working in the ‘counterfeit market’ and the enforcement agents. Sometimes, a raid may perform a ritual in what anthropologist Victor Turner called *communitas*, the liminality moment of the anti-structure which reinforces the social structure.⁶¹⁰ This therefore is neither pure theatrical performance nor the full assertion of the IP ideology described above either.

As a second example, the educational policies for IP awareness and for the promotion of more use of IP in China also have implications in the way individuals conceive their own aspirations and work.⁶¹¹ For example, researchers and scientists who are educated

⁶⁰⁹ For an analysis of the colonial dimension of psychological suffering, see: FANON, Frantz. **Peau Noire, Masques Blancs**. Paris: Points, 2005 [1952].

⁶¹⁰ TURNER, Victor. **Liminality and Communitas**. In: *The Ritual Process: Structure and Anti-Structure*. Chicago: Aldine Publishing, 1969.

⁶¹¹ Also see the specific analysis under chapter 2.4.

and constantly incentivized to pursue patent protection for the outputs of their work regard scientific research as a potential source of income, individual prestige, and competition – something against the idea of science purely as ‘common good’. It also integrates the category of scientist into the logics of entrepreneurship and competition, which also shape social relations, the politics of cooperation with peers and institutions, among others. For the most part, the consolidation of the IP system in China has conditioned the way the development of R&D in the country takes place, focused on a logic of monopoly and exclusion rather than cooperation and sharing of knowledge.

5.2.1. Tianducheng, the Sky City: copy, authenticity and reimagination in contemporary China



François Prost. **Paris Syndrome**. 2017

(Tianducheng and Paris)⁶¹²

⁶¹² See: PROST, François. **Paris Syndrome**. 2017. Available at: <http://francoisprost.com/portfolio-item/paris-syndrome/>

Tianducheng (天都城, meaning Sky City) is a planned city in the greater Hangzhou area modeled after Paris, the French capital, which contains its own Eiffel Tower replica, buildings in Haussmannian style, and gardens inspired after Versailles. It originally gained international headlines around 2011 for being a ‘ghost town’ without real inhabitants – allegedly a prime example of China’s housing bubble caused by excessive construction beyond demand. It was also used to stress the uncomfortable obsession with European and Western cultures by trying to copy it, and overall a symbol of the lack of authenticity of the ‘new China’. Nowadays, Tianducheng has a metro line connecting it to Hangzhou’s center, has more inhabitants than planned in its original phase, and feels strangely ‘normal’ as a middle-class neighborhood. The city can also be an excellent way to discuss the politics of copy and authenticity in contemporary China.⁶¹³

The photos above, part of a photography series by Paris-based photographer François Prost, draws unsettling comparisons between the two cities. Prost provokingly states that “*The fact that there is not a single French shop or restaurant in sight makes it more authentic*”. Tianducheng is only one urban project out of various other projects in the country which are deeply inspired by iconic cities from around the world.⁶¹⁴

In fact, multiple equivalent projects also exist in other countries, including gated communities in suburban USA. Western architecture was also deeply influenced by classical Greek and Roman architecture and principles, not to mention the plunder of cultural heritage in a handful of Western countries.⁶¹⁵ The politics of global art circulation are also

⁶¹³ For an anthropological reflection on the notions of copy, authenticity, and authority with the description of Dafen, the city which produces large amounts of artwork copies (not necessarily infringing any IPRs), see: PINHEIRO-Machado, Rosana. ***Mona Lisa made in China – Refletindo sobre cópia e propriedade intelectual na sociedade chinesa a partir do caso de Dafen***. Proa – Revista de Antropologia e Arte 1(3), 2011.

⁶¹⁴ ‘China has embarked on a country-wide “duplitecture” binge — constructing massive communities that replicate the cities of Europe and the United States — and I’d gone traveling through the country to understand why so many Chinese families, like the little boy’s, had moved into picture-perfect recreations of Amsterdam, Paris, Orange County, Manhattan and even the White House. Outsiders tend to dismiss these theme-towns as tacky architectural abominations, but for the Chinese homeowners living there, they are like portals to an upgraded lifestyle. These homes are at once isolated havens, enviable status symbols and places to enjoy Western comforts without living abroad. My flashcard session with the discerning little boy was emblematic of a broader Chinese appetite for absorbing the tastes of the global elite — an appetite that helps explain the popularity of China’s theme-towns (though many have also remained empty ghost towns). In some sense, the newly affluent class of Chinese are doing what moneyed people everywhere are wont to do: snap up trophies from far-off places as proof of their sophistication and worldliness. In the American city of Houston, for example, wealthy Texans have constructed a conglomeration of fake Tuscan villas, Versailles-inspired mansions and oversized Tudor manors in the River Oaks neighborhood.’ BOSKER, Bianca. **Why China’s Homeowners Want to Live In Fake Paris**. The Huffington Post, 25 January 2014, Available at: https://www.huffpost.com/entry/china-fake-towns_b_4610715.

⁶¹⁵ MILES, Margaret. **Art as Plunder: The Ancient Origins of Debate about Cultural Property**. Cambridge: Cambridge University Press, 2008.

characterized by a conventional dichotomy between authentic and fake, mediated by market demands of an elite.⁶¹⁶ In the case of Chinese artists in the global art market, a common tension lies between artists deemed to be critics of the political system v. nationalists – both incapable of assessing artists’ own works without generalizing their position with respect to China.⁶¹⁷ Demands of repatriation against Western museums have become a source of political mobilization and self-affirmation claims of communities and nations.⁶¹⁸

Therefore, dealing with notions of copy, authenticity, but also misappropriation, ownership, and belonging are therefore not exclusive to China, raising complex legal and political issues that involve, but are not restricted to IP. As such, issues of cultural heritage, traditional knowledge, nation-building, repatriation and devolution, architectural and urbanistic administrative guidelines, public ownership, trademarks, copyrights, industrial designs are all enmeshed and overlapping.

In this context, if the Chinese ‘copy cities’ such as Tianducheng were a source of curiosity and discontent for foreigners, they are in truth less unique than expected, especially in a global perspective. The exoticizing regard derives from the Eurocentrism that inflicts most gazes on China,⁶¹⁹ often incapable of thinking beyond their own categories and standards.⁶²⁰ As defined by Eric Wolf, this regard characterized non-Westerners as ‘people without history’ which were nonetheless integrated into an expanding global capitalism.⁶²¹ At least in this sense, thinking about Tianducheng not as an example of an inauthentic copy,

⁶¹⁶ MORPHY, Howard; PERKINS, Morgan Perkins (eds.). **The Anthropology of Art: A Reader**. Oxford: Blackwell, 2006.

⁶¹⁷ For a critique of the dichotomy of Chinese contemporary artist as either nationalist or politically critical of an authoritarian government, based on the methodological proposal of ‘minor’ (instead of major) as a form of inquiry on how China circulates transnationally as a discourse and how this produces more nuanced views, see: YAPP, Hentyle. **Minor China: Methods, Materialisms, and the Aesthetic**. Durham: Duke University Press, 2021.

⁶¹⁸ See generally: GEISMAR, Heidi. **Treasured Possessions: Indigenous Interventions into Cultural and Intellectual Property**. Durham: Duke University Press, 2013; FLESSAS, Tatiana. **The Repatriation Debate and the Discourse of the Commons**. LSE Law, Society and Economy Working Paper Series, 2007.

⁶¹⁹ ‘Whereas in conventional anthropology of art, the focus is on the “authenticity” of “primitive” objects, here we have a new global situation where the problem is focused on the “authenticity” of the modern artist, a criterion that does not go with being an “authentic” Chinese subject as well.13 Authentic Artist, Inauthentic Chinese? Such conceptual compartmentalization compels artists to swerve between being framed as genuine avant-garde artists (cosmopolitan) and being framed as authentic Chinese (Chinese patriots)—but not both at the same time. Assumptions about an artist’s distance or closeness to China as motherland enact a moral audit of his or her art. The new twinning of Chinese identity and global capitalist power also contributes to such binary oppositions. The question of what is “Chinese” in CCA is thus viewed as a source of geopolitical apprehensions as well as global market value.’ ONG, Aihwa. **“What Marco Polo Forgot” – Contemporary Chinese Art Reconfigures the Global**. *Cultural Anthropology*, Vol. 53, N. 4, 2012. p. 483.

⁶²⁰ Perhaps the summary of these remarks is found in anthropologist Roy Wagner, who argued that: ‘every time we make others part of a ‘reality’ that we alone invent, denying their creativity by usurping the right to create, we use those people and their way of life and make them subservient to ourselves’. WAGNER, Roy. **The Invention of Culture**. Chicago: Chicago University Press, 1981 [1975], p. 16.

⁶²¹ WOLF, Eric. **Europe and the People Without History**. Berkeley: University of California Press, 1982.

but as the creation of a reimagined accommodation between Western urbanist and cultural references, global capitalism, and distinct cultural elements, may be a form of deprovincializing⁶²² the discussion on IP⁶²³, contributing with inputs to the topic of modernities, nationalisms, and the politics of counterfeiting in China.

In fact, in comparison with many other cases, including cultural appropriation, colonial plunders, and direct plagiarism, these cities are much less problematic from an ethical and legal point of view. It is not illegal for Chinese architects and urban planners to construct cities such as Tianducheng, which do not violate copyrights of third parties on its buildings nor cultural heritage norms. It replicates Paris but does not intend to substitute it; as similar as the buildings may be, they do not deceive viewers to imagine they are elsewhere. On the other hand, the Chinese government has enacted new guidelines whereby '*building plagiarism, imitation, and copycat behavior are strictly prohibited*'.⁶²⁴

In 1935, Walter Benjamin's 'The Work of Art in the Age of Mechanical Reproduction' proposed a critique on the notion of art and authenticity in the context of modern, industrial times, proposing the idea of 'aura' of works of art. The ability for artwork to be reproduced by machines, particularly with the advent of photography, denotes the loss of the work's 'aura'. Consequently, the reproducibility promotes a loss in the authenticity and the cultural authority of the artist. Some of these issues were at the foundations of contemporary copyright law discussions, particularly as digital forms of creating and generating content and prospects of AI-generated content create challenges to the romantic idea of the author. If Tianducheng could be understood as a unitary work, may this 'copy' city contain its own 'aura'?⁶²⁵

⁶²² CHAKRABARTY, Dipesh. **Provincializing Europe: Postcolonial Thought and Historical Difference**. Princeton: Princeton University Press, 2000.

⁶²³ 'But as Bosker documents, this craze for duplication isn't just creative laziness or a willful disregard of intellectual property rights. It grows out of old and venerable Chinese aesthetic traditions, in which copying is valued not only as a learning tool (as it is in the West) but as artistically satisfying in its own right. As early as the fifth century, a Chinese art scholar wrote approvingly about the power of a copy to capture the spirit of an original. A good copy was like "a wild goose that flies along with its companion," as one scholar explained. Replicating a preexisting work was a way to display one's technical virtuosity—and, crucially, to imbibe the best foreign design concepts. As the scholar Wen Fong notes, even outright art forgery in China "has never carried such dark connotations as it does in the West'. THOMPSON, Clive. **Imitation Can Be the Sincerest Form of Innovation**. 27 February 2013. Available at: <https://www.wired.com/2013/02/clive-thompson-imitation/>

⁶²⁴ MINISTRY OF HOUSING AND URBAN-RELATED DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF CHINA. **Notice of the National Development and Reform Commission of the Ministry of Housing and Urban-Rural Development on further strengthening the management of urban and architectural features**. 27 April 2020. Available at: http://www.mohurd.gov.cn/jzjnykj/202004/t20200429_245239.html.

⁶²⁵ In 1961, Jane Jacobs published 'The Life and Death of Great American Cities', a hugely influential book that can be read as a defense of human-scale interactions, a livelihood of cities based on their own dynamism

Tianducheng is not evidence that China can only copy things, or that by default an IP system in the country would be necessarily doomed to fail. If the city can be read as a concretization of a certain ‘obsession’ with notions of authenticity, it is simultaneously a completely new, original set of different buildings, aspirations, materials which come together.⁶²⁶ This also does not seem to be a concern for the ordinary lives of people living in Tianducheng. In a provocative short text, Marshall Sahlins suggests a radical difference in Western mentality on the notion of authenticity of cultures and the Japanese case of the Ise temple, which is rebuilt every 20 years since the 7th century with new materials but using the same technique. While Westerners may feel that these are replicas of the original, authentic temple, for Japanese this *is* the authentic temple – ruins in Europe, in this case, would be accordingly the building which no longer exists.⁶²⁷

A legal response to whether copies may have more ‘aura’ is relevant for the assessment of copyrights in the current global economy and supports arguments to delineate which works should receive legal protection, those that should be deemed illicit/infringements of others’ works, and how cultural and media practices are influenced by these notions. Moreover, this assessment of the notions of ‘copy’ and ‘authenticity’ in contemporary China relativize the idea that copies are intrinsically ‘bad’ from a moral point of view and that Chinese contemporary experiences such as ‘copy cities’ are inauthentic obsessions with Western standards.⁶²⁸ This creates a stronger mismatch with the unidimensional idea on the role of IP, especially as the flexible politics of copy and piracy

rather than top-down urban planning projects that were at the time at the core of New York City’s urban policies under Robert Moses. See: JACOBS, Jane. **The Life and Death of Great American Cities**. New York: Random House, 1961. TAVOLARI, Bianca. **Jane Jacobs: contradictions and tensions**. Revista Brasileira de Estudos Urbanos e Regionais, São Paulo, v. 21, n. 1, p. 13-25, 2019. Chinese rapid urbanization has certainly not been inspired by Jacobs’ proposals, and yet, at least to a certain extent, Tianducheng and other Chinese cities have managed to maintain other vivid forms of human engagement at the level of the city. The answer to the question formulated cannot be responded with this analysis, but it would not be possible to describe the Sky City as a mere inauthentic reproduction of a French city without its own character.

⁶²⁶ PINHEIRO-MACHADO, Rosana, 2011, *op cit*.

⁶²⁷ SAHLINS, Marshall. **Japanese Culture is Always Changing**. In: Waiting Foucault, Still. Chicago: Prickly Paradigm Press, 2002, p. 9-11.

⁶²⁸ As noted by Pinheiro-Machado: ‘a construção histórica da noção chinesa de propriedade intelectual e sua relação com a imitação, é possível perceber que, sob premissas do pensamento confucionista, a imitação em sentido lato é capaz de reforçar a autoridade e o modelo por ela transmitido. As cópias produzidas em massa em Dafen, portanto, não liquidam a tradição, conforme Benjamin pontuava, mas a reforçam. Isso significa que o país possui uma noção diferenciada sobre direitos autorais – o que não implica a recusa da autoria, e sim a reivindicação de se relacionar com ela de forma mais flexível. As lições apreendidas de Dafen vão além do caráter pedagógico das cópias. As obras produzidas naquele vilarejo mostram que a imitação não apenas é fonte de reprodução de um passado estático, que limitaria, assim, a inovação (característica que estaria presente apenas nas sociedades individualistas), como também pode ser um meio de criação. Ao gerar uma cópia, há sempre o processo de ressignificação e, conseqüentemente, da criação do novo.’ PINHEIRO-MACHADO, Rosana, 2011, *op cit*.

not only promoted technological catch-up but also innovation in sectors such as creative industries.⁶²⁹ Chinese subjects instead may reconfigure global politics and be ‘authentically modern global subjects’.⁶³⁰

5.3. Intellectual Property and the ‘Specter of Modernity’

As a technical-industrial artifact, IP is modern in the sense that it dismisses what it reputes as non-modern, archaic, traditional. It is also necessarily attached to the modern legal-political figure of the Nation State. These two aspects were addressed in the previous sections. But it could also be underscored the existence of a relation between IP and a certain ‘specter of modernity’⁶³¹, which is often concealed and manifested in indirect or reduced ways but is nevertheless constantly present in the ways IP is shaped and valued.

This research critically assessed the obsession with the number of patents and trademarks that characterized Chinese IP policies up until the focus on the ‘quality’ of IP in late 2020 implicitly acknowledged the detrimental consequences of quantitative indicators.⁶³² Since high numbers of patents and trademark filings are part of metrics of innovation – sometimes even used as direct proxies for innovation –, and therefore signals of ‘progress’ and economic development, even if they do not promote them concretely. Sally Engle Merry provided a critique of the mode of governance based on indicators, which was referred to in chapter 2, and recalled again here:

‘Indicators are a political technology that can be used for many different purposes, including advocacy, reform, control, and management. **In some ways, indicators are like witchcraft. Witchcraft is the power to guide the flow of supernatural forces for good or harm. It is pervasive in societies that see supernatural forces as powerful actors in the world.** Misfortunes and disease are the result of hostile supernatural forces, but healing and recovery from psychic and physical illness also rely on the mobilization of supernatural powers. Sometimes the same person is both a witch and a healer, because

⁶²⁹ See: SHAO, Ken. **Taobao, WeChat and Xiaomi: How innovation flourishes in China’s ‘fertile land of intellectual property piracy’**. In: GHIDINI, Gustavo; ULLRICH, Hans; DRAHOS, Peter. *Kritika: Essays on Intellectual Property*, Vol 2, 2017, p. 22-43.

⁶³⁰ As rooted cosmopolitans, mobile artists cannot be reduced to stereotypical figures of a global civil society or of a particular culture or state. Poised at the junction of nations, their novel reassemblages of disparate cultural elements are involved in a continuous interrogation of received categories that have long frozen our picture of the world. Conceptual artists are exemplary figures of what cosmopolitan anthropologists can and should be in contemporary times. As anticipatory political actors in the world at large, Chinese artists perform their role as “authentically modern” global subjects. At stake are new ideas that rethink the global. ONG, Aihwa. **“What Marco Polo Forgot” – Contemporary Chinese Art Reconfigures the Global**. *Cultural Anthropology*, Vol. 53, N. 4, 2012, p. 483.

⁶³¹ For a similar use of the idea of ‘specter’ in legal scholarship, see: TZOUVALA, Ntina. **The Spectre of Eurocentrism in International Legal History**. *Yale Journal of Law & the Humanities*, Vol. 31, Issue 2, 2021.

⁶³² See Chapter 2.3.1. See also: SUPIOT, Alain. **Governance by Numbers: The Making of a Legal Model of Allegiance**. London: Hart Publishing, 2017.

both depend on the ability to control these forces. Like witchcraft, indicators are a technology that exercises power but in a variety of ways, depending on who is using it for what purposes. And like witchcraft, indicators presume a system of knowledge and a theory of how things happen that are hegemonic and rarely subjected to scrutiny, despite their critical role in the allocation of power.⁶³³

Based on Merry's provocative analysis, it can be said that the attachments between IP and modernity contain a persuasiveness based on a sort of 'witchcraft' power. Indicators are per excellence a 'modern fact' as a form of knowledge.⁶³⁴ As distinctively modern legal techniques, IPRs contain some of these elements in their own structure – they may themselves be tools of witchcraft and magic of capitalist societies. Apart from their part in capitalization processes in the direct economic sense, they also contain, as shown by Hyo Yoon Kang, different modes of valuation.⁶³⁵ They signal prestige within a scientific community, may be commercialized and traded-away as an asset, consolidating a never-ending and self-contained process where having a patent is a showcase of a successfully inventive activity. Moreover, they are in theory novel and inventive activities lead to the granting of a patent. In the case of China, they also become a source of prestige for the nation – if IP is seen as a metric for innovation, a patent is the high-tech nation in the making.

From the point of view of 'IP management' strategies, an IP portfolio is a crucial asset for a company/institution/individual, which needs to be protected to be converted into financial gains. Start-ups in the tech sector, for example, which do not own relevant tangible assets such as machines and industrial facilities, can highlight ownership of IP (patents, trademarks, know-how protected by trade secrets) to attract investors. This is an example of the financialization of IP and of the self-reproducing process where an entity seeks a patent not for the protection of its invention – oftentimes, the technology protected by a patent will never be used for commercial purposes –, but as part of a portfolio that can attract investors and financing mechanisms.

But even from this point of view, the valuation practices to assess how much a patent is financially 'valuable' is based not exclusively on neutral market practices, but also perceptions, indicators of various sorts (and their magical power), and sometimes prejudices. In this sense, the 'nationality' of a patent matters. In practice, this means that a patent granted

⁶³³ MERRY, Sally Engle. **Measuring the World: Indicators, Human Rights, and Global Governance.** *Current Anthropology*, Vol. 52, No. S3, 2011, p. 92.

⁶³⁴ POOVEY, Mary. **A history of the modern fact: problems of knowledge in the sciences of wealth and society.** Chicago: University of Chicago Press, 1998.

⁶³⁵ KANG, Hyo-Yoon. **Patent as Credit. When Intellectual Property Becomes Speculative.** *Radical Philosophy* 194, 2015, p. 29-37.

by the USPTO or by the European Patent Office (EPO) has, for the purposes of marketization and assetization, a different value and legitimacy as a patent granted by the CNIPA.

In such sense, the pursuit of the IP ‘with Chinese characteristics’ to become a robust, quality system is also an intent to maximize the potentially accruable value of patents granted by the CNIPA. As noted in the previous chapter, the politics of vaccine distribution, hesitancy, and diplomacy are also deeply embedded in the manners through which individuals and institutions such as the WHO and regulatory authorities around the world think in terms of nationality (‘source’) of a vaccine. Because the politics of generic products have been purportedly – although misleadingly – entangled with the logic of IP, equating ‘brand products’ with high quality and ‘generics’ with fake and bad quality, the valuation of IP also extends to other realms such as the quality of other products. And as elicited by Merry’s critique, these factors are not determined by *homo economicus* rational assessments, but rather a view determined by magic and illusive techniques.

For this reason, patents in China are not only symbols of individual prestige nor proxies of financial valuation, but an interconnected mechanism of power and visibility towards a forward-looking sense of modernity. Once established, this contested and multiple modernity⁶³⁶ is also expected to transform the role of IP, what it represents and how such legal monopolies are valued and regarded. In this context, it may even entail a Sino-futuristic

⁶³⁶ See for the idea of Asian countries elaborating multiple modernities and distinct forms of citizenship: ONG, Aihwa. **Flexible Citizenship: The Cultural Logics of Transnationality**. Durham: Duke University Press, 1999. See also, for a theorization along the lines of globalization: ONG, Aihwa; COLLIER, Stephen. **Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems**. Oxford: Blackwell, 2005. I thank my late friend Marina Kohler Harkot (*in memoriam*) for her reference and discussion on Ong’s contribution of Ong to anthropology and the politics of globalization, a relevant issue for both her research on gender and bicycles in urban settings, and the present research alike.

modernity.⁶³⁷ Originated in the arts in the early 2000s,⁶³⁸ Sinofuturism has since then moved to both philosophical and science fiction.⁶³⁹ Gabriele de Seta, drawing on Edward Saïd's concept of Orientalism, argues that Sinofuturism may be a form of 'inverse Orientalism':

'Sinofuturism, like techno-orientalism, operates as a denial of coevalness. In being largely articulated from the outside as an interpretive discourse, it posits some sort of equivalence between China and the future: China is the future, China comes from the future, the future will come from China, and so on. These proclamations are as enticing as they are suspect, for they deploy the future as a way of deferring participation in contemporariness'.⁶⁴⁰

Interpreting the role of IP in China can be an example of a globalized ideascapes, as per proposed by Arjun Appadurai.⁶⁴¹ In this sense, apart from shaping markets and economic behaviors, IP travels as an ideology and as a discourse⁶⁴², carrying with it a whole

⁶³⁷ 'As a mode of global and temporal situatedness, Sinofuturism has largely emerged as a concept applied externally to China by Western observers. By compartmentalizing sociocultural development as a form uniquely tied to the nation-state while also seeking to maintain both distance and otherness, Sinofuturism differs from theorizations such as Afrofuturism (to which it is often compared) through its application *to*, not development *from*, the subjects it takes as object. As a result, the very label of "Sinofuturism" developed out of the same Orientalizing impulses that previously relegated China to a space of backwardness and barbarism (Niu, Huang, Roh 2015) and which now attribute to it a projected futurity. Yet this Western label is one that Chinese authors and artists have appropriated and weaponized for their own creative ends, without necessarily sharing unified goals. While some are supportive, seeing in Sinofuturism an opportunity for alternative epistemologies, others criticize its foreclosure of heterogenous elements and re-centering of global development vis-à-vis the West. What's more, while Sinofuturism is an explicitly temporal projection, it is not necessarily a science fictional one except insofar as any futurist projection is a work of imagination—as a result, some of the essays contained here do not consider science fiction at all, while still engaging with the concept of how to situate the future on a global scale. By questioning who gets to imagine the future alongside who and what contributes to bringing those visions about, these essays incisively demonstrate that the material is never separate from the conceptual and the real-world consequences of imagining such alternatives.' CONN, Virginia. **Sinofuturism and Chinese Science Fiction: An Introduction to Alternative Sinofuturisms.** Science Fiction Research Association Review, vol. 50, n. 2-3, Special Issue: Alternative Sinofuturisms (中华未来主义), 2020.

⁶³⁸ GOODMAN, Steve. **Fei Ch'ien Rinse out: Sino-Futurist Under-Currency.** *Cybernetic Culture Research Unit*, 2003, <http://www.ccr.uconn.edu/archive/rinse.htm>.

⁶³⁹ For one prominent example in literature, see: LIU, Cixin. **The Three-Body Problem** (三体). Chongqing: Chongqing Press, 2008; for an example in contemporary art: FEI, Cao. **RMB City**, 2008. Available at: <http://rmbcity.com/>.

⁶⁴⁰ DE SETA, Gabriele. **Sinofuturism as Inverse Orientalism: China's Future and the Denial of Coevalness.** Science Fiction Research Association Review, vol. 50, n. 2-3, Special Issue: Alternative Sinofuturisms (中华未来主义), 2020.

⁶⁴¹ APPADURAI, Arjun. **Disjuncture and Difference in the Global Economy.** *Theory, Culture & Society* 7, 1990, 295–310.

⁶⁴² 'Intellectual property is here understood as a new discourse of our time, a regime of the truth of "millennial capitalism" that is marked by the triumph of liberalism, hyper-rationalization, the fetishization of law, and the marginalization of new groups (Comaroff and Comaroff 2001). In these circumstances, authorship becomes linked to ownership through a pervasive belief that genuine creations are legally and morally superior to copies (Vann 2006). There is a historical construction resulting in the emergence of new labels that standardize, legislate, criminalize, and punish previously disparate products and economic practices'. PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil.** Abingdon: Routledge, 2018, p. 9.

set of premises, affects, and utopias.⁶⁴³ The self-perception and the perception of others regarding China is also mediated by the role of mass media,⁶⁴⁴ which makes the need to render these instruments visible even stronger, a process which also reshapes regimes of subjectification at the individual level.⁶⁴⁵

The word ‘modernity’ is not utilized here with respect to the process of ‘going West’ associated to China’s ‘self-strengthening’ movement in the 19th century, which is evoked in the country’s history of the 20th and 21st centuries. While acknowledging notions of post-modernism and late modernity, the word herein refers instead to a broader idea of the modern as industrial society, mostly in line with Marshall Berman’s ‘All that is Solid Melts into Air’:

‘To be modern is to live a life of paradox and contradiction. It is to be overpowered by the immense bureaucratic organizations that have the power to control and often to destroy all communities, values, lives; and yet to be undeterred in our determination to face these forces, to fight to change the world and make it our own. It is to be both revolutionary and conservative: alive to new possibilities for experience and adventure, frightened by the nihilistic depths to which so many modern adventures lead, longing to create and to hold on to something real even as everything melts. We might even say that to be fully modern is to be anti-modern: from Marx’s and Dostoevsky’s time to our own, it has been impossible to grasp and embrace the modern world’s potentialities without loathing and fighting against some of its most palpable realities. No wonder then that, as the great modernist and anti-modernist Kierkegaard said, the deepest modern seriousness must express itself through irony.’⁶⁴⁶

As both a troubling and troubled concept, modernity here also evokes a potential anthropology of the moderns along the lines of Bruno Latour’s ‘We Have Never Been Modern’, to whom the very self-appraisal of Western societies as ‘modern’ deserves better scrutiny, and more attention to the non-humans and their interactions should also be laid out.⁶⁴⁷ The politics of IP are therefore not only a reiteration of appropriation tools but a new configuration of relations which integrate these varied images into its legal form.⁶⁴⁸

⁶⁴³ See: MIYAZAKI, Hirokazu. **Arbitraging Japan: Dreams of Capitalism at the End of Finance**. Berkeley: University of California Press, 2013.

⁶⁴⁴ CAO, Qing; WU, Doreen; TOMASELLI, Keyan. **Brand China in the Media: Transformation of Identities**. Abingdon: Routledge, 2019.

⁶⁴⁵ It should be noted that the rise of big data, platforms and social media, and discussions on safeguarding privacy and personal data have enabled parallel debates on the construction of subjects that are seen as owners of their data, digital identities, among others. There are potentially overlaps between the arguments herein proposed, but they are not necessarily always matching. For a comparative ethnographic project of how social media has transformed individuals’ subjectification, see: MILLER, Daniel, COSTA, Elisabetta; HAYNES, Nell; McDONALD, Tom; NICOLESCU, Razvan; SINANAN, Jolynna; SPYER, Juliano; VENKATRAMAN, Shriram; WANG, Xinyuan. *How the World Changed Social Media*. London: UCL Press, 2016.

⁶⁴⁶ BERMAN, Marshall. **All that is Solid Melts in the Air: The Experience of Modernity**. New York City: Random House, 1988.

⁶⁴⁷ LATOUR, Bruno. **We Have Never Been Modern**. Cambridge: Harvard University Press, 1993.

⁶⁴⁸ BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective**. Chicago: University of Chicago Press, 2011.

As such, it gives rise to more fundamental questions regarding the non-explicit roles of IP in shaping contemporary forms of States and legitimacy of certain socio-technical and economic models, which are based on the affirmation of the China Dream as synonymous with a high-tech, innovative country. The previous sections and chapters have underscored instances of how IP shapes social and political relations, as well as the unintended consequences: the insistence on indicators based on number of IP filings, the uses of national interest in adjudication, the allegedly technocratic position at the WIPO, the intersection between innovation policies and IP, the enforcement policies, educational IP policies and prizes, the use of automatized AI tools in e-commerce platform, the use of vaccine diplomacy abroad, among others.

Hence the proposed idea of a ‘specter’ of modernity that surrounds all these examples of IP in China: not a direct attachment, sometimes not even as an implicit argument for a shift in a policy, a legislative amendment, or a legal ruling by a court, but as a specter with a witchcraft-like persuasion. It is part of the interwoven web of forward-looking, techno-scientific, and futuristic views and relations. As such, the ‘specter’ of modernity in IP may not even be always identified but is constantly present, nonetheless. In this sense, it is structural and not individual, although it is also incorporated in subject’s mindsets. This specter of modernity in this techno-scientific sense provides additional rationale to assess the main processes of IP norm and policymaking described in chapter 2, and may reorient the legal interpretation between the lines of Chinese and documents and statements.

5.4. Preliminary Conclusion

As a more general conclusion, the IP ‘with Chinese characteristics’ has a functional tool for the socio-legal construction of contemporary China as a nation in various senses. Fostering IP can in this sense be regarded as a tool of nation-building, a process which, if more evident in the PRC, could also be identified elsewhere. This process requires creating and defeating an enemy, the abstract figure of the ‘pirate’ – the antithesis of the forward-looking, modern, high-tech innovator –, even though the notions of copy and authenticity are tensioned categories for IP. A ‘copy city’ such as Tianducheng, which replicates Paris, illustrates how copies may have their own aura, and be less ethically and legally conflicting from an IP point of view than so many practices of developed countries, such as plunder of cultural heritage. Finally, the whole process of promoting a contemporary

IP system in China can be theorized in terms of how it is surrounded by a specter of modernity that has a witchcraft-like power to persuade individuals and institutions towards a certain way of conceiving social and economic relations.

The question would then be what the consequences of this system are, and what does it leave behind. Firstly, this role derives from a neoliberal mythology embedded in IP law. In ‘Mythology of Modern Law’ (1992), Peter Fitzpatrick argued that instead of becoming secular and rational, modern law reflects its Western Christian origins: the notion of ‘rule of law’ contains features of a dogmatic religion.⁶⁴⁹ A similar reflection could be applied to IP. Secondly, as inequalities and labor precarity continue to rise in contemporary China, the forward-looking futuristic IP model may continue to legitimize exclusion and criminalize those who are now associated to the enemy figure of the ‘pirate’. Thirdly, despite the alleged appearance of neutrality of IP with respect to gender, race, sexual orientation, and other social markers, its history is profoundly determined by forms of inequalities and oppressions.⁶⁵⁰ While the rise of the IP ‘with Chinese characteristics’ may shift stereotypes about the inventor in terms of nationality⁶⁵¹, it does little to generate more diversity or target the reasons which currently make the global IP regime a factor of exclusion.

⁶⁴⁹ FITZPATRICK, Peter. **The Mythology of Modern Law**. Abingdon: Routledge, 1992; for a series of contemporary reviews and usages of the landmark book, see: BHANDAR, Brenna; RAMSHAW, Sara. **On Colonial Universality and other Legal Prerogatives: Reflections on Peter Fitzpatrick’s *The Mythology of Modern Law***. *Critical Legal Thinking*, 28 May 2020; for an application of the idea of the functional role of a mythological conceptualization of law ‘highlights some of the elusive ways that settler law maintains a stranglehold over legal imaginaries of oil and gas developments’, a reflection which could also be applied to intellectual property, see: SHAH, Sahar. ‘**Authorizing the Peril: Mythologies of (Settler) Law at the End of Time**’. *Law and Critique*, 2021.

⁶⁵⁰ See again, generally: VATS, Anjali, 2020. Also: Race + IP Conference 2021, available at: <https://raceipconference.org/2021/>

⁶⁵¹ The figure of the romantic individual writer and the figure of the garage inventor with a ‘flash of genius’ (an abstract genius who is also a North American, Caucasian, heterosexual male) are often evoked. For a critical view, see: BOYLE, James. **Shamans, Software, and Spleens: Law and the Construction of the Information Society**. Cambridge: Harvard University Press, 1997.

6. Concluding Remarks



Sky Ladder (2015)
蔡国强 (Cai Guo-Qiang)

Realized off Huiyu Island, Quanzhou, June 15
4:45 am (dawn), 100 seconds [Ephemeral]
Courtesy Cai Studio

6. Concluding Remarks

This research aimed at examining the expression IP ‘with Chinese characteristics’ in light of China’s contemporary development plans, with a focus on what it conceals and elicits. The Introduction and first chapter presented an overview of the topic and the critical legal anthropological approach adopted for this inquiry.

The second chapter investigated how the changes in the economic and industrial structure of China during the gradual reform and opening up process were reflected in changes in the country’s IP system, which turned from ‘quasi-inexistent’ to ‘super-protective’ in a relatively short time. To do so, the thesis provided a historical overview of IP in China, integrating the shifts in innovation policies from the ‘made in China’ model to the ‘made in China 2025’ high-tech aspirations. The transformations of the IP system in China is intimately tied to two counter-trends: (i) Chinese industrial and innovation policies, which enabled technology transfer policies so that domestic stakeholders now have the interest in the protection of their own IP, and (ii) foreign pressure, particularly exerted by the United States, creating the necessity to respond to morally charged accusations such as those of ‘IP theft’. The chapter distilled such narratives and conducted an analysis of the recent US-China Phase One Agreement. It argued that the main issue from the point of view of Western countries is how to face the rise of China as a technological superpower, more than issues of enforcement of foreign IP rights in the country. The chapter also delineated some trends in the contemporary Chinese IP system, namely: the extreme quantitative expansion of IP in China (and its recent attempts to promote more ‘quality’), the ‘maximalist’ trend in IP protection, the prominent role of judicial authorities, the interpretation of the public interest as part of national security and as synonymous with the state, and the use of policies to educate people, create a ‘culture of IP’, and automatize proceedings online.

The third chapter dealt with how the Chinese IP system is ‘internationalized’, and whether this may signal to a Chinese IP standard in the making or not. It addressed China’s participation across multilateral organizations such as the WTO and WIPO, where the country adopts generally middle-ground positions and a non-leadership role (with some notable exceptions) and is interested in legitimizing the two institutions. It also assessed how China influences regional bodies and negotiations, particularly with an analysis of RCEP and China’s Belt and Road Initiative, where the expansion of IP standards from Chinese laws

and policies may take place via harmonizing procedures, but not as substantive norm-impositions. China's focus and priorities are likely in other areas, the thesis argued. For Latin America, this relative disinterest may be utilized to create more leverage power to negotiations with China. Private standards by Chinese companies and court rulings, including SEP and anti-suit injunctions with extraterritorial effects, are also part of this governance. While the role of China is set to continue increasing, this will not likely be turned into a Chinese standard as such.

The fourth chapter addressed the politics of pharmaceutical patents, and the current Covid-19 vaccines. It showed that important changes in the Chinese healthcare and pharmaceutical sector took place, and that specific forms of regulating the economy by the Chinese State need to be considered when reflecting on the impact of TRIPS-Plus provisions in China. It highlighted the similarity of IP and vaccine development in China with Western countries, both accelerating and promoting patent applications for Covid-19 and massively investing public money and coordination power in R&D. The Sinovac-Butantan partnership to develop the CoronaVac vaccine shows that there are also specificities that deviate from Western pharmaceuticals' strategies during the pandemic. The chapter then analyzed China's position with respect to the current WTO TRIPS waiver proposal, which was supported by China only after the US extended its unprecedented support, referring to the political economy behind the topic, and the respective interests of China in remaining largely discreet. It also described the politics of China's vaccine diplomacy, and how they can be associated to the nationalism found in IP law.

The fifth chapter explored the relations between IP, modernities and nationalisms, arguing that while these interlinkages are more evident in China, they are part of all IP systems. The thesis exposed, therefore, that IP is part of a nation-building process in many senses of nationalism: it may serve a purpose in the crafting of a nation state and may be used for nationalistic purposes, for example. The chapter also explored how the creation of the figure of the 'pirate' as an enemy is instrumental in consolidating an opposition between what is seen as backwards and what should be promoted in contemporary China: the high-tech innovation. Finally, it addresses the idea that there is a 'specter' of modernity that surrounds IP, an ideological-discursive dimension of IP as a forward-looking, futuristic, and modern project. This all provides legitimacy to an IP system which is seen as necessary for development and innovation, as a natural set of private rights, and as a sign of what all market economies are expected to adopt. It however fails to expose the caveats that are promoted by the system, which is based on monopolies and exclusions.

Framed along these lines, ultimately, this thesis explored dimensions of the futures of the global IP regime. Chinese contemporary philosopher Yuk Hui coined the term technodiversity to refer to a non-dualistic and non-universal understanding of technology, which differs from the Western concept.⁶⁵² His remarks elucidate that the technological model endeavored by contemporary China does not seem to mean technodiversity ‘in its real sense’. It is diverse in the sense that it might be conducted by different actors in a different jurisdiction seen as exotic to Western eyes and of which little is known, but it is not a distinct model of technology. In other words, this IP system do not present possibilities of other forms of co-production and engagement between ‘humans’ and ‘technologies’,⁶⁵³ let alone ‘non-humans’ or other ontologically less categorical modes of classification and being.

In this sense, the IP ‘with Chinese characteristics’, an exercise of implementing international law and the global IP system, presents important lessons for developing countries with respect to their ‘policy space’ to conduct innovation and industrial policies. However, this IP system represents a reiteration of the exclusionary and monopolistic tendencies of the existing IP system, and not a critical, techno-diverse alternative. Is there no sociotechnical imaginary⁶⁵⁴ other than a system based on the protection of IP legal exclusivities and property?⁶⁵⁵ Based on the considerations made so far, the following four propositions draw broader, perhaps normative, remarks that can be extracted from the research.

6.1. IP ‘with Chinese characteristics’ offers inputs for a broader discussion on the role of law in developmental processes.

⁶⁵² HUI, Yuk. **Tecnodiversidade**. São Paulo: Ubu, 2020; see also: DUNKER, Anders. **On Technodiversity: A Conversation with Yuk Hui**. Los Angeles Review of Books, 9 June 2020, Available at: <https://lareviewofbooks.org/article/on-technodiversity-a-conversation-with-yuk-hui/>

⁶⁵³ JASANOFF, Sheila. **States of Knowledge: The Co-Production of Science and the Social Order**. Abingdon: Routledge, 2004.

⁶⁵⁴ See: JASANOFF, Sheila; KIM, Sang-Hyun. **Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power**. Chicago: Chicago University Press, 2015.

⁶⁵⁵ ‘It may be that the political challenges of this moment require a recalibration and indeed, a re-centering of how we understand ownership and its relationship to race, class, and nationalism, while we heed the urgent call to abandon what Richard Wright once called “the fever of possession”.’ BHANDAR, Brenna. **Possessive Nationalism: Race, Class and the Lifeworlds of Property**. Viewpoint Magazine, 01 February 2018. Available at: <https://viewpointmag.com/2018/02/01/possessive-nationalism-race-class-lifeworlds-property/>; see also: ‘The massive differences between the nineteenth century, the era dominated by the growth of industrial capitalism, and contemporary modes of neoliberal capitalism require close attention to the ways in which modes of appropriation, rationales for ownership, and the legal form(s) of property have adapted themselves to the imperatives of colonial domination’. BHANDAR, Brenna. **Colonial Lives of Property: Law, Land and Racial Regimes of Ownership**. Durham: Duke University Press, 2018.

An IP system ‘with Chinese characteristics’ relates to the grand context of the country’s innovation policies, its global aspirations, its development plans, but also to the ideological and material consequences of the notion of ‘modernity’ for the contemporary People’s Republic of China. China is at the present time a country that is both an innovator of cutting-edge technologies and a large-scale manufacturer of relatively low-added technology, affordable goods. The role of law was not merely instrumental nor necessarily at the centerpiece of this project. But as China’s current global aspirations promote a shift towards leadership in high-technology fields such as AI, the legal system in China that serves as the infrastructure to economic operations – contracts, corporations, investments, IP – becomes more important in ensuring smooth market operations, while safeguarding the upper hand of the State in regulatory affairs. As posited by Angela Zhang, an analytical framework needs to deal with four distinct actors: top government leaders, regulatory agents, firms, and the public.⁶⁵⁶ There will continue to be questions regarding the legality of some policies under WTO rules, which include but are not necessarily restricted to IP.

For some, the changes to promote more market security and predictability are mainly cosmetic and apply essentially to certain general foreign investors/players, with limited applicability when national security of highly strategic sectors entail. In this sense, the performativity of Chinese legal reform is more relevant than its content. But for others, the changes in legal education, the new embedded political views within the highest ranks of the Chinese Communist Party, and the overall relation of contemporary China to notions of rule of law and the importance of ‘Western-like’ legal norms may be a real commitment. If this is the case, then the *rule of law*, as an ideological artifact that orients people’s and institutions’ behaviors and decisions, reverberates in the *role* of law for Chinese current development plans. In short, law – in its Western, capitalism, ‘modern’ and ‘modernist’ form – would then really be more relevant than in the origins of the People’s Republic. Regardless, the coexistence of models and tensions will continue to exist in upcoming years. It remains to be verified, however, what concrete implications these changes may have in practice.

The current functional role of IP in the global economy is part of the construction of certain notions of how nation states should organize markets and their economic spheres, and how they should integrate themselves in global value chains in accordance with

⁶⁵⁶ ZHANG, Angela Huyue. **Agility Over Stability: China’s Great Reversal in Regulating the Platform Economy**. University of Hong Kong Research Paper, 28 July 2021.

liberalizing international trade law rules.⁶⁵⁷ Shaping norms and policies in accordance with this paradigm brings consequences in terms of the subjects who are valued (the innovation subjects) and those who need to be dismissed (the counterfeit subjects), and various material consequences. All countries and modern legal systems regulate the economy. Economic law often notes how ‘law shapes markets’⁶⁵⁸, how law and capitalism are closely inter-related⁶⁵⁹, and that law is not a value-free nor neutral instrument with respect to market structures.⁶⁶⁰ Yet, the relation specific between ‘market’ and the ‘State’ are historically challenged by the specificities of China. In many ways, they challenge these assumptions on the role of law by reasserting the role of governmental plans in defining both markets *and* law.

6.2. The IP ‘with Chinese characteristics’ is an exemplary use of policy space under international law but is not a case of technodiversity.

The IP ‘with Chinese characteristics’ – in the multiple dimensions described in the previous chapters – will continue to reinforce and strengthen the general IP model, partly because its success depends on reaffirming, and not critiquing, the system. It will not provide any alternatives which are more fine-tuned with a broad concept of public interest, more sustainable and based on equity, rather than monopolization and exclusion. This possible ‘Chinese standard’ in formation offers an example of how countries can do different things and how adopting unequivocally the standards proposed by now-industrialized countries is largely detrimental. As such, it is an exemplary case of the use of a country’s policy space under international law. This is positive in terms of the global dynamics usually controlled by Western standards and is still a form of ‘resistance’ against global hegemony in international law, but it can only do so much.

⁶⁵⁷ HICKEL, James. **The Divide: A Brief Guide to Global Inequality and its Solutions**. London: Penguin Random House, 2017; TAN, Celine; FAUNDEZ, Julio (eds). **International economic law, globalization and developing countries**. Cheltenham: Edward Elgar, 2010; ALESSANDRINI, Donatella. **Global Value Chains (GVCs), Trade and Inequalities**. AfronomicsLaw.org, 2020. Available at: <https://www.afronomicslaw.org/2020/11/10/global-value-chains-gvcs-trade-and-inequalities/>

⁶⁵⁸ See, for example: WILLIAMS, Cynthia A; ZUMBANSEN, Peer (orgs.). **The Embedded Firm: Corporate Governance, Labor, and Finance Capitalism**. Cambridge: Cambridge University Press, 2011; FORGIONI, Paula. **A Evolução do Direito Comercial Brasileiro: Da Mercancia ao Mercado**. São Paulo: Revista dos Tribunais, 3a ed, 2016.

⁶⁵⁹ BAARS, Grietje. **The Corporation, Law and Capitalism: A Radical Perspective on the Role of Law in the Global Political Economy**. Leiden: Brill, 2019; MILHAUPT, Curtis J.; PISTOR, Katharina. **Law and Capitalism: What Corporate Crises Reveal about Legal Systems and Economic Development around the World**, Chicago: University of Chicago Press, 2008.

⁶⁶⁰ SALOMÃO FILHO, Calixto, **A Legal Theory of Economic Power**. Edward Elgar, 2013; ZUMBANSEN, Peer C. **Transnational Law, Evolving**. In: SMITS, Jan (org.). *Encyclopedia of Comparative Law*, London: Edward Elgar, 2^a ed, 2012, p. 899-925.

The global IP order will be increasingly influenced by ‘Chinese characteristics’, but this does not take us away from the path of unbalanced, restrictive IP policies that enhance market power, restrain competition, limit access to essential goods and knowledge, and has limited impact in promoting what it sought to achieve: more innovation and more social welfare globally. The issue, thus, is less about China and more about the IP system.

To again refer to philosopher Yuk Hui, the development of Chinese digital economy has not signaled towards technodiversity in its stronger sense: the apps utilized in the Chinese market are not very different from the uses found in Western countries, perhaps with the sole difference of congregating more activities and uses in just one application.⁶⁶¹ For this reason, the expansion of WeChat, Alipay, Baidu, Didi or Pinduoduo are not in this sense experiments of ‘technodiversity’. To draw a parallel from the digital realm, the IP ‘with Chinese characteristics’ has various particularities in relation to high-income countries’ IP systems: this is due mainly to the duality of ‘two systems’ in the Chinese economy (‘Made in China’ + ‘Made in China 2025’), the intersection between the ‘State’ and the ‘market’, and a growing trend towards interpreting the public interest as national sovereignty. They also explicitly move towards the standards of the USA and EU rather than alternative experiments in IP policymaking such as Brazil or India.

For example, from the point of view of IP and inequalities, the IP ‘with Chinese characteristics’ is limited at best, and almost entirely silent. It does not address the concerns about the impacts of the IP system towards minorities, issues of race, class, gender, among others. Such an IP system does not mean a potential inner critique of the global IP system nor its reformulation. It means a different geopolitical and economic landscape that will increasingly give more attention and importance to IP policies, norms, and decisions in China. Ultimately, this may serve more to reiterate and reinforce the exclusionary consequences of the current IP system than a gap to integrate access, diversity, and equity concerns into it. In this sense, this research disagrees with the prospective argument by Drahos, Correa & Abbott (2013) concerning the increasing role of certain developing

⁶⁶¹ ‘Yuk Hui: Infelizmente, acho que não estamos testemunhando uma tecnodiversidade no seu sentido real. Certa vez fui a Hong Kong e Shenzhen com um grupo de estudantes russos que estava muito interessado em entender o desenvolvimento tecnológico da China. No entanto, eles ficaram desapontados ao constatar que os aplicativos utilizados pareciam familiares, com a diferença de que a interface estava em chinês. Essa é outra razão pela qual a questão da tecnodiversidade ainda está por ser formulada’. LEMOS, Ronaldo. **Conceito de tecnologia deve ser pensado à luz da diversidade, diz filósofo chinês (Interview with Yuk Hui)** Folha de São Paulo, 30 January 2021, Available at: <https://www1.folha.uol.com.br/ilustrissima/2021/01/conceito-de-tecnologia-deve-ser-pensado-a-luz-da-diversidade-diz-filosofo-chines.shtml>

countries, particularly China, in reshaping a new ‘global patent order’.⁶⁶²

As a reiteration and reproduction of the main foundations of the global IP order, the contemporary Chinese IP system promotes an overarching justification of IP as tool for ‘innovation’, pursues an infinite attempt to ‘strike the balance’ between public and private (even if the historical trend is clearly towards the expansion of monopolies and the private interest), has a focus on the private rights aspect of IP to the detriment of technological and socio-economic development, and assimilates IP protection and enforcement as morally necessary towards ‘rule of law’ and modernity. By doing so, they also reaffirm the very concept of the nation and nationalism in the ways exceptions are crafted, usually in the interest of national objectives.⁶⁶³

6.3. IP ‘with Chinese characteristics’ elicits how IP is a techno-futuristic dream, a mythology of progress, and strategic nationalism.

The case of China may illustrate that the contemporary IP system is not only an affirmation of the industrial society present in opposition to the traditional past: it is also forward-looking, as it promotes a never-ending logic of appropriation with the view that ‘technology’ and ‘innovation’, as artifacts of the future, may solve the problems of the present and recreate its constitutive imaginary. The nation-building process that is elicited in the promotion of IP is accordingly a self-affirmation of this high-tech future as a possible promise, something which is at the basis of capitalist promises and enchantments.⁶⁶⁴ As such, IP has become a techno-futuristic dream. The specificity in China is the attempt to fit this dream into a long *durée* history that creates an arch between the glorious past and the glorious future. The problem is, of course, that these promises are unfit to address the real pressures of climate catastrophe and extreme inequalities exposed by the Anthropocene,

⁶⁶² ABBOTT, Frederick M; CORREA, Carlos; DRAHOS, Peter. **Emerging Markets and the World Patent Order**. Cheltenham: Edward Elgar Publishing, 2013, p. 3-33.

⁶⁶³ It is nonetheless interesting that apart from national security issues, what lies at the core of such disputes is the conception of scientific production as a national-based and commercially interested endeavor, to which IPRs contribute to fostering and always reaffirming. The Bayh-Dole Act of 1980 in the United States not only enabled the patenting of inventions which are federally publicly funded but also legitimized and restructured scientific production towards the logic of patenting and therefore exclusionary practices rather than cooperation. With respect to the challenging trade-offs between maintaining national security and promoting science cooperation, some have argued – therefore highlighting that the core of the issue really is a scientific model – that the best alternative would then be the adoption of collaborative, open, and IP-free models.

⁶⁶⁴ BECKERT, Jens. **Imagined Futures: Fictional Expectations and Capitalist Dynamics**. Cambridge: Harvard University Press, 2016.

making them in fact illusive devices.⁶⁶⁵

In a second sense, this imagined prospect is also founded on a certain mythology of ‘progress’. Although ‘progress’ is a concept that has fallen in disuse, its embedded premises remain.⁶⁶⁶ It has been converted into a general notion of ‘development’ and more recently as the discourse of ‘innovation’. IP as a discourse has assumed the role of legitimizing these variations of the same fundamental assumption. The word mythology is not used lightly: neither a fictional narrative nor a mere ideology to hide material economic interests, mythology is a point of access to understand a society. Again, this mythology contains multiple variations of itself, but which are all part of the same structure in a Lévi-Straussian sense:⁶⁶⁷ in any such variations, ‘with Chinese characteristics’ or not, the progress ideology is an intrinsic part of IP.

For this reason, in a third sense, IP is also part of a strategic nationalism – it is formed along the lines of specific states-crafting processes. The American approach to this strategic nationalism entails deploying ‘national security’ as limited exceptions to the general promise of the free market – but in reality, the global trade entails actually a protectionism of American firms and economy when needed, while expecting and forcing full liberalization of developing countries. China troubles this assumption by converting the public interest into ‘national interest’, making such link more direct, but also allowing their separation when necessary – market dynamics, national security, public order can be transformed accordingly under the broader belt of State policies. In this sense, the senses and uses of nationalism in IP are also variable and mutating; they are however inevitably related to State’s objectives and policies.

The research exposed the material implications and the legal reverberations of

⁶⁶⁵ See generally: KOPENAWA, Davi; ALBERT, Bruce. **The Falling Sky: Words of a Yanomami Shaman**. Cambridge: Harvard University Press, 2013.

⁶⁶⁶ ‘IX. A Klee painting named ‘Angelus Novus’ shows an angel looking as though he is about to move away from something he is fixedly contemplating. His eyes are staring, his mouth is open, his wings are spread. This is how one pictures the angel of history. His face is turned toward the past. Where we perceive a chain of events, he sees one single catastrophe which keeps piling wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing in from Paradise; it has got caught in his wings with such a violence that the angel can no longer close them. The storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress.’ BENJAMIN, Walter. **On the Concept of History (Theses on the Philosophy of History)**, 1941.

⁶⁶⁷ Myths in the Lévi-Straussian sense are not a false representation of reality; they are not true nor false. They may stem from different cosmologies and worlds, and not only *worldviews*. In other words, they may reflect distinct ontologies. See, for different usages of the idea of myths under Lévi-Strauss and their ethical and political implications: LÉVI-STRAUSS, Claude. **Histoire de Lynx**. Paris: Plon, 1991; SZTUTMAN, Renato. **Ética e Profética nas Mitológicas de Lévi-Strauss**. Horizonte Antropológico, 15 (31), 2009; VIVEIROS DE CASTRO, Eduardo. **Cannibal Metaphysics**. Minneapolis: University of Minnesota Press, 2014.

such bundle of views: from the need to value the ‘Made in China’ brand to the responses of ‘IP theft’ at the WTO, from the promises of Chinese Covid-19 vaccines to ensure global access to the educational policies to promote the use of IP in Chinese schools. In many ways, this implicit aggregate of ideas is a necessary element to understand how IP protection is legitimized, fostered, and actively promoted in contemporary China – beyond, but not excluding, economic justifications and geopolitical explanations. More broadly, this clarifies that neither law is organized by market nor markets are entirely encoded by the legal form; government and political aspirations are constitutive of these processes.

6.4. IP ‘with Chinese characteristics’ is an artifact of, and an entry point towards, IP as a cornerstone of the contemporary global economy.

As a general conclusion, the IP ‘with Chinese characteristics’ is not an artificial State rhetoric nor a pure narrative; it is neither a manifestation of the essence of a new global patent order nor a necessary outcome of the Chinese economic development. It is nonetheless an artifact of its own time and geography⁶⁶⁸, an experiment of shaping law in accordance with a broader development project – in itself, a ‘dream’. The idea has material consequences and a distinct socio-political function, to the extent which it proposes a paradox⁶⁶⁹: the uniqueness of the PRC legal system and, at the same time, its commitment to global standards of international economic law. Hence, at the very level of its conceptualization, it is profoundly cunning⁶⁷⁰: it approximates and maintains distance, making a critique always hard and partial. But this IP system also contains reduced potential for the crafting of progressive alternatives, since its main trend is to reiterate and exacerbate the structural inequality problems associated to the global IP order, rather than its transformation from within.

⁶⁶⁸ This affirmation emulates what Alain Pottage proposes with respect to a patent as the founding moment of the industrial age and the Anthropocene – but also its meta-level of analysis on what researchers do in this context. See: POTTAGE, Alain. **An Apocalyptic Patent**. *Law and Critique*, Vol. 31, 239–252, 2020.

⁶⁶⁹ From a ‘Western’ point of view, it would be perhaps a form of dialectical *Aufhebung*, which translates into contradictory meanings: abolishment, sublation, preservation, transcend. The seemingly contradictory outcome, however, arguably means little for Chinese ontology. In this other regard, the problem is more in how to find ways for more ‘technodiversity’, as proposed by Yuk Hui, to become embedded in the processes associated to the IP ‘with Chinese characteristics’. For some explorations on where this could head instead, see: HUI, Yuk; LEMMENS, Pieter. **Cosmotronics: For a Renewed Concept of Technology**. Abingdon: Routledge, 2021.

⁶⁷⁰ The notion of cunning is herein utilized in a similar sense to the use by Rajshree Chandra on biocultural rights in India, although the implications and the uses of IPRs in the context of the PRC are quite distinct. See: CHANDRA, Rajshree. **The ‘Moral Economy’ of Cosmopolitan Commons**, *TWAIL Review*, 01, Issue 1, 2020.

For this reason, the IP ‘with Chinese characteristics’ is an artifact that conceals as much as it elicits the changes in China’s economy, its geopolitical aspirations, the mediation between the State, institutions and individuals, and senses of modernity and nationalism. By so doing, it decides to express content and appreciation with the ‘high-tech’ and ‘technology’, implicit paradigms in the current IP system, while concealing and undervaluing the ‘pirate’ subject – on the shoulders of whom economic ‘development’ could be concretized in China. The irony is that, even if concealed, this ‘pirate’ specter cannot be erased. Perhaps this is the case for IP anywhere: all those purportedly erased by the specter of modernity in IP, such as indigenous peoples, enslaved people, minorities, patient groups, and counterfeit merchants, remain. Certainly concealed, but not erased. This is a representative example of the broader operations of the global economy and of all those disenfranchised by it. In this sense, IP ‘with Chinese characteristics’ is more than anything an entry point for the mythology that surrounds IP as a cornerstone of the current global economy in all its contradictions, more than a proxy of contemporary China.

Afterword

Dreams of Modernity, Dreams of Intellectual Property: Back-and-forth between China and Brazil



Men on a Rooftop, René Burri (São Paulo, 1960)

‘I asked a man what Law was. He answered it was the assurance of the exercise of possibility. That man was called Galli Matias. I ate him.’ (**Cannibal Manifesto**, Oswald de Andrade, 1923).

In 1960, when René Burri climbed the Banespa Bank Building in São Paulo, he broke free from his predecessors’ technical standards for photojournalism.⁶⁷¹ By enlarging the lens’ width, Burri managed to capture this singular moment of four men on a rooftop, looming over the growing metropolis, and confusing the sense of scales for the observer by

⁶⁷¹ ‘In those days Henri Cartier-Bresson [the president of Magnum] limited us to lenses from 35mm to 90mm. When I showed him the photos he said: ‘Brilliant René!’ The lens I used was 180 mm – I never told him! At that point I broke loose from my mentor. I killed my mentor!’. As quoted in ADAMS, Tim. **The Big Picture: René Burri’s shadows of doubt**. The Guardian, 5 April 2020. Available at: <https://www.theguardian.com/artanddesign/2020/apr/05/the-big-picture-rene-burri-shadows-of-doubt>

overlapping buildings, individuals, their shadows, and the street level. In a strong parallel with what was herein proposed on the idea of IP ‘with Chinese characteristics’, the picture conceals as much as it elicits. Yanomami cosmology (perhaps a philosophy) suggests that mirrors do not reflect, but ‘obfuscate, shine, and glow’.⁶⁷² In this sense, a comparison should not reflect, but rather unleash potentials that obfuscate and glow at the same time.⁶⁷³

This unusual link paves the way for an experiment of speculating alternative forms of intellectual properties, in senses beyond the caveats and limitations imposed by the form of the nation state and existing legal norms. This can be traced back to varied traditions of imagining political alternatives to overcome structural inequities,⁶⁷⁴ and may be a path for a renewed form of critique and transformation in economic law.⁶⁷⁵ This Afterword conducts such an experiment.

a) From the ‘China Dream’ to Brazil, the ‘Land of the Future’

Burri’s ‘Men on a Rooftop’ portrays Brazil’s particular period of rapid and

⁶⁷² KOPENAWA, Davi; ALBERT, Bruce. **The Falling Sky: Words of a Yanomami Shaman**. Cambridge: Harvard University Press, 2013; see: ‘[a] propriedade que têm os espelhos de ofuscar, refulgir e resplandecer. Os espelhos sobrenaturais amazônicos não são dispositivos representacionais extensivos, espelhos refletos ou “reflexionantes”, mas cristais intensivos, instrumentos multiplicadores de uma experiência luminosa pura, fragmentos relampejantes’. VIVEIROS DE CASTRO, Eduardo. **A Floresta de Cristal: Notas sobre a ontologia dos espíritos amazônicos**. Cadernos de campo, São Paulo, n. 14/15, p. 1-382, 2006, Available at: <http://www.iea.usp.br/eventos/viveiros-floresta>

⁶⁷³ For a focus on the proposal of ontologically oriented ethnography, which could here also be applicable to the legal anthropological approach of this research: ‘An ontologically oriented ethnography aims to make something (real and ontological) appear from the other in the frictional contact with the metaphysical system of anthropology itself - or of the way of life from which the anthropologist starts from or has been socialized in. In comparison, therefore, there is always something of the native and the anthropologist that appears in this relation; what is revealed in the contrast is not the totality of the ontology of the anthropologist or of the native ontology. This means that, according to the ontological turn, a good ontologically oriented ethnography should not so much seek to know a radical alterity in itself, but simply reformulate the anthropologist's initial concepts in light of alterity and difference, which will always be interior to relation and to contrast. [...] When the Brazilian anthropologist states that “anthropology is always about putting its neck through the mirror of ontological difference” (Viveiros de Castro, 2015a: 15), we ask ourselves to what extent this does not describe anthropology, but also philosophy itself and all those who have contemporarily sought to return to the concept of ontology. To follow the metaphor, it seems to us that the recovery of the ontology concept synthesizes a broad movement of contemporary thought, i.e., that of **placing the narcissus in front of a mirror that aims not at the reflection of its image, but which seeks to show other reflections in which we can see something of the other and, only then, perceive something (other) about ourselves**’. (free translation) See: CORRÊA, Diogo Silva Corrêa; BALTAR, Paula Baltar. **O antinarciso no século XXI – A questão ontológica na filosofia e na antropologia**. *Revista Crítica de Ciências Sociais*, Vol. 123, 2020.

⁶⁷⁴ See, for example, FURTADO, Celso. **Criatividade e Dependência na Civilização Industrial**. São Paulo: Companhia das Letras, 2008 [1978].

⁶⁷⁵ See SALOMÃO FILHO, Calixto. **Teoria Crítico-Estruturalista do Direito Comercial**. São Paulo: Marcial Pons, 2015; MUIR-WATT, Horatia. **Private International Law Beyond the Schism**. *Transnational Legal Theory*, Vol 2, 3, 2011, p. 347–427; ZUMBANSEN, Peer. **Transnational Law: Evolving**. In: SMITS, Jan (ed.), *Encyclopedia of Comparative Law*. Cheltenham: Edward Elgar 2nd ed., 2012, p. 899-925.

intense industrialization, urbanization, and economic growth throughout the 1950s and 1960s. The emergence of social reforms was ultimately stalled by the military coup in 1964. During that time, the notion of Brazil as the ‘land of the future’ began to firmly (self-)indicate the main characteristics of the country: the promise of a developed, progressive, and rich country – but always as an unattainable future.⁶⁷⁶ The 1980s, similarly to many other global south countries, were perceived as a ‘lost decade’. The democratic period inaugurated by the 1988 Constitution is the longest in the country’s history and brought revamped hopes with reduction of inequalities and economic growth, especially in the mid-2000s onwards; however, Brazil seems to experience now a long-term period of instability and crisis since at least 2013. South American countries had relatively little economic growth over the past decades, giving rise to a generalized sense of ‘decadency’ rather than a prosperous future.⁶⁷⁷

In contrast, the ‘China Dream’ and its multiple concrete implications – from the creation of policies such as Made in China 2025 to the crafting of an ethos and a foundation myth for the new China –, as a form of ‘national project’ suggests to have been much more successful in transforming economic structures and generating social welfare than any similar set of ideas in Brazil.⁶⁷⁸ But the forces of history and its contingencies are often

⁶⁷⁶ SCHWARCZ, Lilia; STARLING, Heloisa. **Brazil: A Biography**. New York: Farrar, Straus and Giroux, 2018.

⁶⁷⁷ Lévi-Strauss’ ‘Tristes Tropiques’ had already suggested that there is a certain sense of decadency in the newly constructed society: ‘**As cidades americanas passam do apogeu à decadência sem encontrar a madurez**’. At the same time, however, he also acknowledges the precarity of the advantages conferred by time – ultimately, modern society is bound to its decadency: ‘Todos os que lançaram os olhos nessas linhas, encantadores discípulos, hoje colegas estimados, não sintam nenhum rancor. Pensando em vós, de acordo com o vosso uso, com vossos pronomes tão estranhos para um ouvido europeu, mas cuja diversidade expressa o privilégio que ainda o de vossos pais, de poder livremente, entre todas as fores duma humanidade milenar, escolher o frescor ramalhete da vossa: Anita, Corina, Zenaide, Lavínia, Taís, Gioconda, Gilda, Oneida, Lucília, Zenith, Cecília; e vós, Egon, Mário Wagner, Nicanor, Ruy, Lívio, James, Azor, Aquiles, Décio, Euclides, Milton; é sem ironia que evoco esse período balbuciante. Muito pelo contrário, pois ele me mostrou uma lição: **a da precariedade das vantagens conferidas no tempo**. Pensando no que então era a Europa e no que ela é hoje, aprendi, vendo-vos transpor uma diferença intelectual em poucos anos uma diferença intelectual que se poderia pensar da ordem de muitas décadas, como morrem e como nascem as sociedades; e que essas grandes subversões da história, que parecem, nos livros, resultar do jogo de forças anônimas agindo no coração das trevas, podem também, num claro instante, realizar-se pela resolução viril dum punhado de crianças bem dotadas’ (p. 106). LÉVI-STRAUSS, Claude. **Tristes Trópicos**. São Paulo: Companhia das Letras, 1996 [1955].

⁶⁷⁸ For a comparison between the two development paths, see: ‘China and Brazil can be considered important examples of industrialization in developing economies. In more recent years, these economies have followed different paths of economics growth. The difference is due, in large part, to different strategies of industrial and macroeconomic policies, especially regarding to the management of exchange rate. The Chinese development was quite successful in advancing its industrial structure towards sectors with high technological intensity, while the Brazilian economy has shown, in recent years, a regressive specialization focused on more traditional sectors. In Brazil, the virtuous trajectory of combined economic growth with industrial diversification was stopped in the 80s and deepened as a result of liberal reforms in the 90s. As a result of this process, we see a local movement of defensive downsizing in the most dynamic and technologically advanced sectors, and then a sharp and sustained upward trend in the concentration of industrial added value in less productive and less technology intensive sectors, based on natural resources and with a lower range of linkages

misleading for those who speak from a specific standpoint in geography and history. As Isabella Weber recalls in her book about the debates on market reform in China, a group of Chinese policymakers once visited the modernist capital of Brasilia and was impressed by the economic growth and the modern standards of urban living of Brazil of the time.⁶⁷⁹ The country's experience with large SOEs in key economic sectors such as automobiles, alongside the macroeconomic policies of the period, would later influence the Chinese government's policies – although China would question the idea that inflation would be a necessary outcome of economic development, dealing with it quite differently.⁶⁸⁰

The point to be illustrated in this comparison is that things are not perennial and the weight of history, if structurally determined, is not immutable. Writing about contemporary China while processes take place entails biases of various sorts, including the sense of awe and impressiveness that may also objectify and create a narcissistic mirror over China that in fact reflects what one wishes to see when looking at oneself. For those who see only threats in China, the comparison exercise is an attempt to ensure that the narcissistic mirror will not reflect any biased realities – once again, an impossible task. However, this mirror – akin to the Yanomami luminescence – obfuscates, shines, and glows at the same time. Therefore, the dualism between what remains hidden and what is elicited is also at the core of what can be extracted from the IP 'with Brazilian characteristics'.

b) From Public Health Leader to Pariah: On the Limits of Rhetoric and the Persistence of Economic Power

In the history and global politics of IP, Brazil became known as a 'champion' of developing countries and of public health.⁶⁸¹ Commentators have focused on the prominent

(when compared to major sectors of the techno-economic paradigm of electronics). DIEGUES, Antônio Carlos; CRUZ JÚNIOR, José César; ROSELINO, José Eduardo; MILARÉ, Luís Felipe Lopes; BRANDÃO, Caroline Miranda. **Brazilian and Chinese Industrial Development: A tale of two different paths**. Revista Espacios, Vo. 37, 5, 2016.

⁶⁷⁹ 'It is important to remember that in the late 1980s, China's reformers looked up to the Latin American modernization success of the postwar era and aspired to achieve similar levels of infrastructure development, industrialization, and urbanization. [...] Chen Yizi's (2013, 506) memoir expresses the Chinese delegation's fascination with Brazil's "large cake" – the modernist capital Brasilia, highways, stylish buildings and factories, up-to-date housing, and small cars for masses of people'. WEBER, Isabella. **How China Escaped Shock Therapy**. Abingdon: Routledge, 2021, p. 243-244.

⁶⁸⁰ *Op cit*, 2021, p. 245-247.

⁶⁸¹ See: OKEDIJI, Ruth; BAGLEY, Margo. **Patent Law in a Global Perspective**. Oxford: Oxford University Press, 2014, p. 118-121.

role of civil society,⁶⁸² the domestic pharmaceutical industry,⁶⁸³ and bureaucrats working at the National AIDS Program and the Ministry of Health⁶⁸⁴ in shaping and demanding such stance. The 1988 Constitution created the country's first universal public healthcare system, SUS, lauded as one of its biggest conquests, which paved the way for the universal HIV/AIDS program in the 1990s, a first for developing countries alongside Thailand. This experience was at the basis of the national policies to ensure broader access to medicines and directly placed the country at the global IP debate, given the need to negotiate with pharmaceutical firms and the aftermath of the 1996 Industrial Property Law. In 2001, an amendment to the same legislation created an obligation for the health regulatory agency, ANVISA, to become part of the patent examination procedure for pharmaceuticals.⁶⁸⁵ A national generics policy that prioritized generic products was also created, and policies for the population to gain knowledge and trust in generic medicines were implemented.⁶⁸⁶ In this context, Brazil actively negotiated the Doha Declaration on IP and Public Health at the WTO (2001) and was the main proponent of the Development Agenda at WIPO (2007).

In the late 2000s and early 2010s, Brazil's economy and international influence were steadily rising, and the BRICS expression became a sort of self-promise for a post-Western world⁶⁸⁷. A proposal for a new IP law more fine-tuned to health and industrial development purposes was tabled in 2012, clearly inspired by discussions on how to balance IP protection with the development of national industries and innovation. The draft bill was never taken forward or voted. Partnerships for product development (PPDs) were created between big pharmaceutical firms, domestic generic manufacturers, and institutions such as

⁶⁸² See: CARVALHO, Felipe de; VIEIRA, Marcela Fogaça; VILLARDI, Pedro. **GTPI - Experiences to Overcome IP Barriers to Increase Access to Medicines**. In: RAGAVAN, Srividhya; VANNI, Amaka. *Intellectual Property Law and Access to Medicines: TRIPS Agreement, Health, and Pharmaceuticals*. Abingdon: Routledge, 2021.

⁶⁸³ URIAS, Eduardo. **The Potential Synergies Between Industrial and Health Policies for Access to Medicines: Insights from the Brazilian Policy of Universal Access to HIV/AIDS Treatment**. *Innovation and Development*, Vol. 9, Issue 2, 2019, p. 245-260.

⁶⁸⁴ According to Michael Flynn, the expertise of such bureaucrats was key to the compulsory licensing issued in 2007 for efavirenz. The author also noted the relative contradiction in domestic capacity not being able to match demand immediately following the compulsory licensing experience. See: FLYNN, Michael. **Origins and Limitations of State-based Advocacy: Brazil's AIDS Treatment Program and Global Power Dynamics**. *Politics & Society* 41(1) 3–28, 2013.

⁶⁸⁵ See: VIEIRA, Marcela, REIS, Renata, MACHADO, Eloísa. **Patentes farmacêuticas e a anuência prévia da ANVISA: a inexistência de parecer da AGU**. In NOBRE, Milton Augusto de Brito; SILVA, Ricardo Augusto Dias. (Org.). *O CNJ e os Desafios da Efetivação do Direito à Saúde*. Minas Gerais: Editora Fórum, 2011, p. 303-344.

⁶⁸⁶ FONSECA, Elize Massard da; SHADLEN, Kenneth C. **Promoting and Regulating Generic Medicines: Brazil in comparative perspective**. *Revista Panamericana de Salud Pública*, vol. 41, 5, 2017.

⁶⁸⁷ STUENKER, Oliver. **Post-Western World: How Emerging Economies are Remaking Global Order**. New York: Wiley, 2016.

Fiocruz, the country's leading public health institution.⁶⁸⁸ It was in line with the thesis of Brazil as a 'new developmental state'.⁶⁸⁹

However, despite the positive narratives at the global stage, access to medicines and patent barriers remained a core issue for the country. In reality, especially at the domestic level, the country has had clashing views on IP throughout the post-TRIPS era.⁶⁹⁰ The 1996 Industrial Property Law did take advantage of TRIPS flexibilities, including a prohibition on patenting of life forms, but also waived many of them, including the fact that it was adopted much before the end of the transition period afforded for developing countries to properly adapt to its impacts.⁶⁹¹ Brazil has one of the lowest grants of pharmaceutical patents in the developing world, and its national production capacity is robust. Yet, the prices of medicines are constantly among the highest in LMICs and lack of access remains a major issue as inequality grows larger and poverty continues to be a factor that limits access to adequate healthcare.

In addition, Brazil had the largest backlog of patents in the world, with limited investments in the INPI, the National Institute of Industrial Property. There has been strong disagreement on how to address the issue, and many called for accelerating the patent procedures (to the detriment of quality examination), while others insisted that more autonomy and/or more patent examiners were needed.⁶⁹² The INPI is considered to have a mostly independent and relatively robust patent analysis system, but it also expedited examination with a program to fight backlogs, the enactment of new patentability guidelines,

⁶⁸⁸ See: FIOCRUZ. **Parcerias Públicas**. Available at: <https://portal.fiocruz.br/publicas>

⁶⁸⁹ TRUBEK, David; GARCIA, Helena Alviar; COUTINHO, Diogo R.; SANTOS, Álvaro. **Law and The New Developmental State**. Cambridge: Cambridge University Press, 2013.

⁶⁹⁰ For a different perspective on pharmaceutical patenting in Brazil, focusing on transnational structural conditions that influenced and shaped the domestic outcome, see: SHADLEN, Kenneth. **Coalitions and Compliance: The Political Economy of Pharmaceutical Patents in Latin America**. Oxford: Oxford University Press, 2017.

⁶⁹¹ The debates of the draft bill which would later become the 1996 Industrial Property Code in Brazil were staunchly clear as to the polarizing views of the role of IP for the country. Notions such as 'technological sovereignty', 'immorality' concerning the protection of living organisms via patents, and concerns about domestic industries were part of most parliamentarians' speeches against the enactment of the new law. Those favorable to trade liberalization were equivalently of the strong view that IP would be beneficial to the country, bringing foreign investments and leading to more technological development. For a comprehensive overview and analysis, see REIS, Renata Camile Carlos. **Redes Invisíveis: Os Grupos de Pressão na Câmara dos Deputados. O Processo de Aprovação da Lei de Propriedade Intelectual**. PhD Thesis, Federal University of Rio de Janeiro, 2015.

⁶⁹² The backlog of patent examination in Brazil, even if now reduced, remains the world's largest. It is a factor of overall anxiety, and the damages provided for by the law, being excessively protective of the interest of the patent applicant, may be a core cause of the lack of generic competition prior to the final decision on granting or not a patent. Simultaneously, it may be a *de facto* control that makes only serious, real applications to be carried forward. See, for an empirical-based argument in that sense: BHAVAN, Sampat; SHADLEN, Kenneth C. **Secondary pharmaceutical patenting: A global perspective**. Research Policy, vol 46(3), 2017, p. 693-707.

and patent prosecution highway (PPH) agreements with other IP offices, mostly from developed countries.

In parallel, Brazilian copyright law still contains extremely timid exceptions and limitations which do not include even those for educational and research purposes. Ongoing reform debates continue to focus on ‘modernizing’ to the digital era rather than reconceiving their role⁶⁹³. On the other hand, Brazil was one of the first countries in the world to introduce a legal provision on the protection of genetic resources and associated traditional knowledge (albeit under a provisional executive order, in 2001). It had a policy to favor patenting of environmentally sound technologies and a long advocated for adequate transfer of technology to developing countries.⁶⁹⁴ These different examples point to divergent paths and positions on the matter than the idea of ‘champion’ of development and public health may disseminate.

Amaka Vanni also draws attention to the entanglements of Brazil in relation to the use of judicial courts for litigation of strategic cases, and more broadly the phenomenon of judicialization of health.⁶⁹⁵ According to the author, this can describe Brazil as a ‘juridical state’, in the sense that multiple public discussions end up being resourced to courts’ decisions. Various recent case law in Brazilian courts tend to largely reflect a logic of maximalist IP.⁶⁹⁶ While this cannot be over-generalized without a deeper assessment, this trend is not distinct from the broader aspects of the process identified in China towards stronger IP protection and enforcement.⁶⁹⁷ Yet, a paradigmatic ruling in May 2021 by the

⁶⁹³ See: VALENTE, Mariana Giorgetti. **A Construção do Direito Autoral no Brasil: Cultura e Indústria em Debate Legislativo**. São Paulo: Letramento, 2019.

⁶⁹⁴ BATISTA, Livia Regina. **Mudanças Climáticas e Propriedade Intelectual: transferência internacional de tecnologias**. Curitiba: Juruá, 2007.

⁶⁹⁵ VANNI, Amaka. **Patent Games in the Global South: Pharmaceutical Patent Law-Making in Brazil, India and Nigeria**. Oxford, UK: Hart Publishing, 2020; see also FERRAZ, Octavio Luiz Motta. **Health as a Human Right: The Politics and Judicialisation of Health in Brazil**. Cambridge: Cambridge University Press, 2021.

⁶⁹⁶ For example, the Superior Court of Justice ruled in 2020 that a trademark infringement gives rise to moral damages without the need to be proven, stemming from the act itself (*in re ipsa*). For a critical appraisal, see BATISTA, Pedro Henrique D. **No Need of Evidence for Moral Damages Compensation after a Trademark Infringement – An Appropriate Development of the Brazilian Case Law?** GRUR International, 00(0), 2021, 1–6.

⁶⁹⁷ The Brazilian IP office administration, now under the realm of the Ministry of Economy, also adopted from the outset a path of more liberalization than ever before, although the changes in IP policy are indeed less perceptible. On the other hand, this contrasts with the overarching architecture of IP policies in China, where the creation of specialized IP courts and harmonization of judicial interpretation are integrated into the more general IP and developmental policies of the country. In the case of Brazil, this sort of entanglement and cohesion between the Executive body and the Judiciary is not possible in the same way, although the adopted approaches in IP might be similar. Yet, the history of promiscuity between judicial authorities and political bodies is long and problematic in Brazil, with the most recent case being at the core of recent history’s crisis in the Car Wash operation.

Brazilian Supreme Court ruled automatic patent extensions unconstitutional. The Court raised multiple arguments pertaining to the need to calibrate public and private interests, the protection of public health, and the constitutional mandate for IP to promote socio-economic and technological development.⁶⁹⁸

Very importantly, from this mixed set of positions, recent years saw a radical transformation in virtually all policy areas, especially since the current presidential administration in 2019. Brazil is incontestably one of the world's worst Covid-19 pandemic responses in the world, both in terms of deaths (per population and total) and economic downturn. In other words, from an international 'leader' of public health, it became a 'pariah'.⁶⁹⁹ In the technological and innovation field, while China's strategic policies aim at technological independence and dominance prominence, Brazil's investments in R&D are at an all-time low and Cietec, a state-owned company and the sole producers of microchips in Latin America, has been privatized.⁷⁰⁰

Measures aimed at improving transparency and technology transfer, such as the requirement to disclose and register tech transfer agreements with the INPI, continue to exist but are, according to most stakeholders, mainly bureaucratic and formalistic, and largely ineffective as an instrument of effective technology transfer. In this regard, the comparison with China – not necessarily with its legal norms, but with the overarching policy structures for innovation and technology transfer – may offer interesting reflections. Brazil does not, and simply cannot, replicate Chinese policies. But in its broader sense, the discussion on how to ensure innovation in key technological areas such as AI⁷⁰¹, how to best craft a data

⁶⁹⁸ For a summary, see IDO, Vitor Henrique Pinto. **The Role of Courts in Implementing TRIPS Flexibilities: Brazilian Supreme Court Rules Automatic Patent Term Extensions Unconstitutional**. Policy Brief 94, Geneva: South Centre, June 2021, Available at: <https://www.southcentre.int/policy-brief-94-june-2021/>

⁶⁹⁹ “Así, en un pasado reciente, protagonista de una visión crítica de la salud global, Brasil se ha convertido primero en miembro subalterno y, después, presunto líder de una alianza ultraconservadora, guiada por el dogmatismo religioso y la doctrina antiglobalista, orgullosamente convertido en un paria internacional. Este giro, que ha costado más de 240 000 muertes en gran parte evitables a nivel nacional, también hipoteca el futuro del Estado brasileño en el escenario internacional”. VENTURA, Deisy de Freitas Lima; BUENO, Flávia Thedim Costa. **De Líder a Paria de la Salud Global: Brasil como Laboratorio del “Neoliberalismo Epidemiológico” ante la COVID-19**. Foro Internacional (FI), LXI, 2021, n. 2, 244, p. 427-467. Available at: <https://forointernacional.colmex.mx/index.php/fi/article/view/2835/2760>

⁷⁰⁰ For a critical appraisal of the issue, and the privatization of Cietec, see LEMOS, Ronaldo. **O Estado tem um papel na inovação?** Folha de São Paulo, 9 May 2021. Available at: <https://www1.folha.uol.com.br/colunas/ronaldolemos/>

⁷⁰¹ See, for thorough comparison of national strategies on artificial intelligence (AI), with wide-ranging projects and investments undertaken by the United States, China, India and the European Union, and the almost absence of such a strategy in Brazil, see: POLIDO, Fabrício Bertini Pasquot. **Inteligência Artificial entre Estratégias Nacionais e a Corrida Regulatória Global: Rotas Analíticas para uma Releitura Internacionalista e Comparada**. Revista da Faculdade de Direito da UFMG, n. 76, 2020. Brazil's recent National AI Strategy was also described as a mere generalizing compilation of references on AI with no teeth

governance framework,⁷⁰² and how to ensure a pro-development IP system should all be explicitly reintroduced in the realm of IP discussions in the country, something which industrialized nations are also clearly undertaking.⁷⁰³

Brazil's terrible management of the pandemic, underutilization of its own manufacturing and R&D capacity for vaccines, lack of support for measures such as the WTO temporary TRIPS waiver proposed by India and South Africa (2020-2021), continued disinvestments in science and technology, and unpreparedness for the risks and opportunities of the new digital economy highlight the problems with a self-appraisal as a 'public health' or 'development' champion without effectively being one or even giving away its own previous conquests. This mismatch then raises the discussion of whether the international narratives merely conceal the problems with a dysfunctional domestic political and societal level.

As much as Chinese officials wish to express the successes of their own IP system at WTO and WIPO speeches, so did Brazilian officials in relation to the country's own record on public health, development, and IP. Every political narrative does this to a certain extent (selecting elements to be concealed and others to be emphasized), but in both cases, this is not mere elusion, but a functional discourse implicated in goals of nation-

nor real project. See: LEMOS, Ronaldo. **A Estratégia de IA do Brasil é Patética**. Folha de São Paulo, 11 April 2021. Available at: <https://www1.folha.uol.com.br/colunas/ronaldolemos/2021/04/estrategia-de-ia-brasileira-e-patetica.shtml> The lack of deeper discussions on AI biases and its implications to gender, race, and violation of human rights is yet another relevant aspect. See: DA HORA, Nina. **Coded Bias: linguagem acessível para entender vieses em algoritmos**. MIT Technology Review, 30 April 2021. Available at: <https://mittechreview.com.br/coded-bias-linguagem-acessivel-para-entender-vieses-em-algoritmos/>

⁷⁰² Brazil was also deemed in the past to be an innovator with its Civil Landmark on the Internet legislation, ensuring a balanced and robust Internet governance. At the international level, such as IGF, ICANN, and the Working Group on Enhanced Cooperation (WGEC), Brazil has had prominent roles. Although this continued to be so, the approval of the domestic Personal Data Protection Bill in 2018 and the turbulent creation of its data protection agency hint at a more convoluted path in data governance matters, as well as lack of clarity in terms of the prospects for the development of data-based industries.

⁷⁰³ See, for example: '[O] relatório identifica as dificuldades do crescimento das startups e o fato de a falta de competição prejudicar a capacidade da indústria de inovar e ser globalmente reconhecida na pesquisa e no desenvolvimento de IA. O documento vai ainda mais longe ao relacionar competição com desenvolvimento regional. Mesmo reconhecendo que a formação de "clusters" no Vale do Silício impulsiona a inovação ao acelerar o compartilhamento do conhecimento e intensificar a rivalidade doméstica, afirma que essa tendência beneficiou algumas regiões mais que outras e que isso concentra os ganhos do progresso tecnológico em apenas algumas localidades e empresas, prejudicando o potencial de inovação latente no resto do país. Com essa abordagem mais ampla da competição, com incentivos explícitos à abertura e diversificação, ficam mais compreensíveis as investidas do Congresso e do governo Biden em pressionar por um antitruste com objetivos mais plurais, mais preocupado com o impacto das estratégias empresariais sobre o capital humano, a diversidade e a lealdade do processo competitivo. Embora seja cedo para certezas, talvez estejamos diante do prenúncio de uma nova conciliação entre política concorrencial e política industrial, ou melhor, entre Estado regulador e desenvolvimentista'. MARQUES DE CARVALHO, Vinicius. **EUA tiram desenvolvimentismo do armário para enfrentar China em inteligência artificial**. Folha de São Paulo, 26 June 2021, Available at: <https://www1.folha.uol.com.br/ilustrissima/2021/06/eua-tiram-desenvolvimentismo-do-armario-para-enfrentar-china-em-inteligencia-artificial.shtml>

building and a specter of modernity, as proposed in the Conclusion. In addition, this analysis itself may be a persuasive fiction.⁷⁰⁴ By placing the two experiences side by side, it is possible to identify the potentials of what is hidden and concealed in such cases, and not only compare IP systems as if two static and well-delimited entities (China and Brazil) existed: if the Chinese experience conceals the power of the State under a free trade, innovation, and multilateralist rhetoric, the Brazilian experience conceals the pervasiveness of private power and structural inequalities that are under the rhetoric of public health and development champion in IP.

c) **Beyond the Hidden and the Visible: A Reinterpretation of IP**

With this context in mind, as many have insisted in Brazilian social sciences and law, unless historical economic, racial, gender and other forms of inequalities are structurally and effectively countered, grand narratives such as ‘public health champion’ and ‘new developmental state’ are no more than broken promises and paper tigers.⁷⁰⁵ Legal institutions such as IP assume a legal-political form that elicits an alleged economic neutrality in promising ‘progress’ and ‘modernity’, but which conceals inequalities and the limitations of the IP system in truly promoting innovation. In so doing, these legal institutions reinforce the inequalities and limitations structures behind the legal system itself, which situates the role of law in these processes as something beyond a mere instrument or object of economic analysis, but rather a co-constitutive element.

Therefore, more attention should be given to what remains hidden when IP arguments are mobilized beyond what they rendered explicit: what lies behind claims of technological innovation promoted by IP, what remains unresolved in claims of including the public interest and development concerns into the IP system, and what happens when IP is treated as a natural or fundamental right. As varied as the experiences in contemporary Brazil and China may be, a critical reflection along the lines of the project undertaken in this thesis clarifies that the histories of IP are both embedded in broader developmental projects, politics, and policies, and re-embed them via their persuasive fictions of innovation and

⁷⁰⁴ STRATHERN, Marilyn. **Terms of Engagement**. *Social Anthropology*, Vol. 29, Issue 2, 2021, p. 283-297.

⁷⁰⁵ See again section 3.1.1 and the idea of paper tiger; see also, for the mismatch between international and national instances: GUISE ROSINA, Monica Steffen; NOVAES, Adelina de Oliveira. **Brazil and the Case of Patents and Access to Medicines: A Medical Condition?** In: DREYFUSS, Rochelle; RODRÍGUEZ-GARAVITO, César. *Balancing Wealth and Health: The Battle over Intellectual Property and Access to Medicines in Latin America*. Oxford: Oxford University Press, 2014.

modernity. In the current global order, any reflections on the inconsistencies of the IP system are met with staunch opposition,⁷⁰⁶ sometimes even among academics⁷⁰⁷. Even though the globalization of IP is recent and that developed countries had much more policy space and flexible IP laws during their own industrialization, the IP system became naturalized, almost self-evident, and self-justifying.⁷⁰⁸

In this context, there is a necessity for legal interpreters to reinscribe IP in history, acknowledging the need to structurally transform society (rather than reinforce economic power), and consider interdisciplinary inputs with nuance and care. This requires reassessing the notion of public interest in IP law, re-embed IP into development and innovation plans, target structural inequalities in the IP system, and segregate the discourse of innovation from IP law. This research elucidated that China offers lessons in all these areas, in the sense that it used its policy space cunningly, which cannot and should not be merely replicated, but that overall, the critical potential to create alternatives is far distant. If Brazil somehow sought to achieve this critical stance, recent developments erase such attempts and exacerbate the fact that this remains an IP system more focused on monopolies than access.

d) Dreaming of Technodiverse Alternative(s) IP Systems

万事尽头，终将如意⁷⁰⁹

(No final, tudo vai ficar bem.)

⁷⁰⁶ In IP legal argumentation, the direct attachment between IP and innovation creates a form of burden of proof *ex ante* for arguments that are to be perceived to be ‘against IP’ protection and therefore ‘against innovation’. This argumentative shortcut is detrimental to more balanced discussions on the role of IP, the need for ensuring the public interest in IP law, and creates a bias in favor of patent applicants. For a discussion on how this affects court decisions in IP, and how this ‘internal positivism’ may be turned into a ‘global law’, see: SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Courts and Pharmaceutical Patents: From Formal Positivism to the Emergence of Global Law**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

⁷⁰⁷ For a critique of IP formalism by a group of IP scholars, with subscriptions from all around the globe, see: THAMBISETTY, Siva; McMAHON, Aisling; McDONAGH, Luke; KANG, Hyo Yoon; DUTFIELD, Graham. **The TRIPS Intellectual Property Waiver Proposal: Creating the Right Incentives in Patent Law and Politics to end the COVID-19 Pandemic**. LSE Legal Studies Working Paper No. 06, 24 May 2021. See also: **Panel Discussion on Intellectual Property Law Scholarship and Pedagogy in Times of Covid-19 Pandemic**, Kent Law School, 1 July 2021. Available at: <https://www.youtube.com/watch?v=hceZly406FI>

⁷⁰⁸ LEMLEY, Mark A. **Faith-Based Intellectual Property**. 62 UCLA L. REV. 1328, 2015.

⁷⁰⁹ Title of CCTV’s journalist Bai Yansong’s book about Brazil, based on his visit in the context of the Rio de Janeiro 2016 Olympics. The title is a Chinese translation of a version of a Brazilian proverb, supposed to denote a certain optimism via the idea that ‘in the end, everything will be well’. The book, the phrase, and the expression in Chinese came to my knowledge during a family stay in Longyan, Fujian province, in July 2018 by the brilliant high school student ‘Ricky’, number 1 student in the whole province and to whom I am grateful wholeheartedly.

This last topic reflects on how China and Brazil are exemplary cases of how intellectual properties are *always* embedded in logics of modernity and nationalisms, and how critical alternatives could be envisioned. Considering all risks associated to it, it would not be possible to conclude this writing trajectory without an assessment of the recent facts and how they impact the very analysis undertaken up until this point. As of the end of July 2021, over 555.000 Brazilians lost their lives to Covid-19, the economic crisis continues to ravage the population's living conditions, and the political situation is in absolute turmoil.⁷¹⁰ Prospects for bio-industries in the early 2000s have been replaced by the liberalization of extractive industries in the Amazon. Increasing global inequality and precarity have even expressed the potential for the world to be 'Brazilianized' in a bad sense.⁷¹¹ These material characteristics seem to set apart China and Brazil in diametrically opposite ways, and even undermine certain potentialities for comparisons, dialogues, or exchanges.

IP cannot, even for its most unconditional defenders, be a solution to *any* of the above. It may not be the ultimate source of the socio-economic and political problems around the world either, but nonetheless recent global history shows that IP matters in shaping the politics and the legal infrastructure for alternative development projects to be crafted – or especially for them to be largely restricted. Ultimately, this contextualization shows why, at the very end, by assessing a certain idea (that IP may be characterized by nationalisms and modernity), its discontents, and its consequences, one may find the prospects of dreaming of, but also crafting, an 'alternative' IP system. Without overstating what can be concluded from this research, what was proposed in the previous pages is perhaps a non-conventional, critical kind of comparative law.⁷¹²

From this analysis, some 'lines of escape' (as per Deleuze and Guattari) can be elicited. Since the ideological and the ideational dimensions are so essential to the legal form of IPRs, and that they may be seen as entry points for the mythology of IP in the current global economy, these final pages propose that dreaming, and dreaming *with hope*, could

⁷¹⁰ I take this opportunity to remember and honor each of the lost lives and the shattered dreams, all around the world, due to the ongoing pandemic and the shameful politics that led to the current state of affairs.

⁷¹¹ HOCHULI, Alex. **The Brazilianization of the World**. American Affairs, Vol. V, n. 2, 2021; this follows a much older interpretation along the same lines in Brazilian social sciences, such as ARANTES, Paulo. Arantes, Paulo Eduardo. **A fratura brasileira do mundo**. In: Zero à esquerda. São Paulo: Conrad, 2004.

⁷¹² FRANKENBERG, Günter. **Comparative Law as Critique**. Cheltenham: Edward Elgar, 2019.

become a tool for rethinking IP law.⁷¹³ To think in hopeful terms is neither a form of wishful thinking nor delusional optimism. It is a political opportunity.⁷¹⁴ These are perhaps the conditions to move beyond some of the biases that are part of academic inquiry itself, something that IP scholarship may highlight as a meta-theme.⁷¹⁵

In one of the most famous cases in IP law, *Diamond v. Chakrabarty* (1980), the US Supreme Court quoted a phrase which would become synonymous with the judgment itself: *'everything under the sun that is made by man is patentable'*.⁷¹⁶ In a sense, it conceals in a short form the problems with the current IP system: the possibility of never-ending appropriations, the extension in scope, geography and time of legal monopolies, and the very ambition of the Earth itself as the last possible frontier.⁷¹⁷ It also elicits the role of legal norms, institutions, actors, and values in shaping and legitimizing this very process. This research posited that, with what it intentionally and unintentionally conceals and elicits, the contemporary Chinese IP system reiterates these premises. Thus, if China and Brazil may present many 'lessons' in terms of differing from Western expectations, it is not promoting

⁷¹³ See: JASANOFF, Sheila; KIM, Sang-Hyun. **Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power**. Chicago: Chicago University Press, 2015. In this sense, there are various proximities with different streams of scholarship in economic law, including: PERRONE, Nicolás, **Investment Treaties and the Legal Imagination: How Foreign Investors Play by their Own Rules**. Oxford: Oxford University Press, 2021; SALOMÃO FILHO, Calixto. **Teoria Crítico-Estruturalista do Direito Comercial**, São Paulo: Marcial Pons, 2015; the potentials of dreams – both metaphorically and concretely – have also been explored in anthropology. See: GLOWCZEWSKI, Barbara. **Totemic Becomings. Cosmopolitics of the Dreaming**. Helsinki and São Paulo: n-1 publications, 2015; KOPENAWA, Davi; ALBERT, Bruce. *op cit*.

⁷¹⁴ See PINHEIRO-MACHADO, Rosana. **Amanhã vai ser maior: O que aconteceu com o Brasil e possíveis rotas de fuga para a crise atual**. São Paulo: Planeta, 2019.

⁷¹⁵ POTTAGE, Alain. **An Apocalyptic Patent**. *Law and Critique*, Vol. 31, 239–252, 2020.

⁷¹⁶ See: 'The relevant legislative history also supports a broad construction. The Patent Act of 1793, authored by Thomas Jefferson, defined statutory subject matter as "any new and useful art, machine, manufacture, or composition of matter, or any new or useful improvement [thereof]." Act of Feb. 21, 1793, 1, 1 Stat. 319. The Act embodied Jefferson's philosophy that "ingenuity should receive a liberal encouragement." [447 U.S. 303, 309] 5 Writings of Thomas Jefferson 75-76 (Washington ed. 1871). See *Graham v. John Deere Co.*, 383 U.S. 1, 7 -10 (1966). Subsequent patent statutes in 1836, 1870 and 1874 employed this same broad language. In 1952, when the patent laws were recodified, Congress replaced the word "art" with "process," but otherwise left Jefferson's language intact. **The Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to "include anything under the sun that is made by man."** S. Rep. No. 1979, 82d Cong., 2d Sess., 5 (1952); H. R. Rep. No. 1923, 82d Cong., 2d Sess., 6 (1952). This is not to suggest that 101 has no limits or that it embraces every discovery. The laws of nature, physical phenomena, and abstract ideas have been held not patentable. See *Parker v. Flook*, 437 U.S. 584 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972); *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948); *O'Reilly v. Morse*, 15 How. 62, 112-121 (1854); *Le Roy v. Tatham*, 14 How. 156, 175 (1853). Thus, a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented the law of gravity. Such discoveries are "manifestations of . . . nature, free to all men and reserved exclusively to none." *Funk*, supra, at 130. Judged in this light, respondent's micro-organism plainly qualifies as patentable subject matter.' US SUPREME COURT. ***Diamond v. Chakrabarty***, 447 U.S. 303 (1980).

⁷¹⁷ Therefore, applying the same logic of extraction and appropriation that led to the climate catastrophe now experienced globally (but felt by the most vulnerable in particular ways). In this sense, it might be the time for landing, as recently proposed by Bruno Latour and Peter Weibel. See: LATOUR, Bruno; WEIBEL, Peter. **Critical Zones: The Science and Politics of Landing on Earth**. Cambridge: MIT University Press, 2020.

a critical alternative in the strong meaning attributed to the idea of critique.

Therefore, it is a collective duty to think through and beyond these legal categories and to take seriously the endeavor of considering from a fundamental point of view what global IP system should be envisioned, for what purposes, to the benefit of whom and especially on the shoulders of whom – usually those invisible subjects whose work, lives and dreams continue to be displaced, unfulfilled and shattered by these and other operative norms of the ‘global economy’. By constituting the figures of the ‘backward’ pirate as opposed to the ‘futuristic’ inventor, and the ‘legitimate’ Western creator as opposed to the ‘thief’ Chinese, IP categories in their current form reproduce at the highest level the inequalities upon which economic structures are founded. In this sense, efforts of crafting different IP systems need to promote something more than integrating development and inequality considerations within the IP system, but rather engender and provide the conditions for its structural transformation.⁷¹⁸

An ‘ideal’/‘idealized’ conclusion to this thesis would be to argue that the ‘global south’ would ultimately change the system from within and structurally transform it – perhaps similarly to the utopia that may be extracted from the modernist project captured by Burri’s picture and de Andrade’s Cannibal Manifesto. It is very clear that this is not really the case, or at least not *for now*. Regardless, it is perhaps not at the level of nation states that any alternative IP system will arise; history shows that the strongest critiques and some of the most substantive changes in the IP system have been directly dependent on the efforts of activists, researchers, inventors, artists, indigenous peoples, and many others, who have highlighted the tensions between IP and access to medicines, the need to protect of indigenous traditional knowledge and addressing the gender, race, sexual orientation and classist biases embedded in IP, among others – and advocated for their change.

As such, a way forward is to reflect not only on what can/should be appropriated, but on what kinds of appropriations are appropriated. The issue, therefore, is about eliciting which properties are appropriated, and not simply understanding the process of appropriation

⁷¹⁸ This is not to argue that attempts to change the operation of the IP system to integrate and consider issues such as development and inequality are irrelevant or misplaced, but to fundamentally acknowledge the need for a reconceptualization at a broader level. For thorough recent and increasing examples of attempts to include such public-related issues into the IP system, see: BENOLIEL, Daniel; GURRY, Francis; LEE, Keun; YU, Peter K. (eds.) **Intellectual Property, Innovation, and Global Inequality**. Cambridge: Cambridge University Press, 2021; CORREA, Carlos; SEUBA, Xavier. **Intellectual Property and Development: Understanding the Interfaces**. Munich: Springer, 2019; VATS, Anjali. **The Color of Creatorship: Intellectual Property, Race and the Making of Americans**. Stanford: Stanford University Press, 2020; KANG, Hyo Yoon. **Patent Capital in the Covid-19 Pandemic: Critical Intellectual Property Law**. Critical Legal Thinking, 9 February 2021, Available at: <https://criticallegalthinking.com/2021/02/09/patent-capital-in-the-covid-19-pandemic-critical-intellectual-property-law/>

that converted ideas, expressions, and things into property rights. For example, a distinctively Amazonian IP concept, if any, could explore the forms and notions of commons that can potentially be found in the ontology of its peoples (and not the Western notion of commons).⁷¹⁹ Such a form would perhaps entail a real manifestation of technodiversity rather than a mere variation from the canonical IP form. It is yet to be seen, after all, if any variation of the IP ‘with Chinese characteristics’ could get closer to this objective.

All in all, there is a paramount necessity to envision, explore and advocate for alternative intellectual properties, which should not be based on exclusionary concepts of ‘nationalisms’ and the ‘private’, but rather on inclusionary ideas of ‘global’ and the ‘public’. In this context, science fiction author Octavia Butler may offer an alternative to those concerned about IP, challenging the US Supreme Court doctrine, and providing a summary of how this research could/will conclude at another yet uncertain time: *‘There’s nothing new under the sun. But there are new suns’*.⁷²⁰

⁷¹⁹ See, for example: “What we find throughout much of Amazonia, I think, is not egalitarianism but a tendency towards what I shall call ‘equality without equivalence’, corresponding to a kind of ‘individualism without individuals’, where a strong sense of the common leads directly to a politics of alterity and singularity: to a politics of the multitude”. WALKER, Harry. **Equality without equivalence: an anthropology of the common**. *Journal of the Royal Anthropological Institute*, 26 (1). 146–166, 2020; with the acknowledgement of the risks of the language of ‘commons’ being converted into the same process of domination and oppression by turning traditional knowledge into a freely appropriated public domain, see also IDO, Vitor Henrique Pinto. **Conhecimentos Tradicionais na Economia Global**, Master’s Dissertation, Faculty of Law, University of São Paulo, 2017.

⁷²⁰ Epigram of Parable of the Trickster, Butler’s never completed and unpublished book.

References

- AARONSON, Susan Ariel; STRUETT, Thomas. **Data is Divisive: A History of Public Communications on E-Commerce, 1998-2020**. CIGI Papers N. 247, December 2020, Available at: <https://www.cigionline.org/publications/data-divisive-history-public-communications-e-commerce-1998-2020>
- ABBOTT, Frederick. **The TRIPS Agreement Article 73 Security Exceptions and the Covid-19 Pandemic**. Research Paper 116, Geneva: South Centre, August 2020.
- ABBOTT, Frederick M; CORREA, Carlos; DRAHOS, Peter. **Emerging Markets and the World Patent Order**. Cheltenham: Edward Elgar Publishing, 2013, p. 3-33.
- ADAMS, Tim. **The Big Picture: René Burri's shadows of doubt**. The Guardian, 5 April 2020. Available at: <https://www.theguardian.com/artanddesign/2020/apr/05/the-big-picture-rene-burri-shadows-of-doubt>
- AGINAM, Obijiofor. **The Proposed Pandemic Treaty and the Challenge of the South for a Robust Diplomacy**. South Centre, South Views, No., 218, 19 May 2021. Available at: <https://www.southcentre.int/wp-content/uploads/2021/05/SouthViews-Aginam.pdf>.
- AKAMATSU, Kaname. **A historical pattern of economic growth in developing countries**. *Journal of Developing Economies*. 1 (1): 3–25, 1962.
- ALESSANDRINI, Donatella. **Global Value Chains (GVCs), Trade and Inequalities**. AfronomicsLaw.org, 2020. Available at: <https://www.afronomicslaw.org/2020/11/10/global-value-chains-gvcs-trade-and-inequalities/>
- ALESSANDRINI, Donatella; DAVITTI, Daria; ESLAVA, Luis; GAMMAGE, Claire; LA CHIMIA, Annamaria; NATILE, Serena; LIMA, Karina Patricio Ferreira; TAN, Celine; VAN HO, Tara; VANNI, Amaka; VARGIU, Paolo; YILMAZ, Anil Vastardis. **International Economic Law and Covid-19**. Critical Legal Thinking. 27 March 2020. Available at: <https://criticallegalthinking.com/2020/03/27/international-economic-law-covid-19/>.
- ALFORD, William. **To Steal a Book is an Elegant Offense: Intellectual Property Law in the Chinese Civilization**. Stanford: Stanford University Press, 1995
- ALLEN, Arthur, **For Billion-Dollar Vaccines, Government-Funded Science Laid the Groundwork**, Kaiser Health News, 18 November 2020, Available at: <https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/>
- ALTEHENGER, Jennifer. **Legal Lessons: Popularizing laws in the People's Republic of China 1949-1989**. Cambridge: Harvard University Press, 2018.
- AMSDEN, Alice. **The Rise of “The Rest”: Challenges to the West from Late-Industrializing Economies**. Oxford: Oxford University Press, 2003.
- ANDERSON, Benedict. **Imagined Communities: Reflections on the Origins and Spread of Nationalism**. London: Verso Books, 1983.
- ANG, Yuen Yuen. **The Myth of the Tech Race**. Project Syndicate, 28 April 2020. Available at: <https://www.project-syndicate.org/onpoint/us-china-tech-race-unnecessary-by-yuen-yuen-ang->

2020-04.

APPADURAI, Arjun. **Disjuncture and Difference in the Global Economy.** *Theory, Culture & Society* 7, 1990, 295–310.

APPADURAI, Arjun. **The Social Life of Things: Commodities in Cultural Perspective.** Cambridge: Cambridge University Press, 2006.

APLIN, Tanya; BENTLY, Lionel. **Global Mandatory Fair Use: The Nature and Scope of the Right to Quote Copyright Works.** Cambridge: Cambridge University Press, 2021.

ARANTES, Paulo. Arantes, Paulo Eduardo. **A fratura brasileira do mundo.** In: Zero à esquerda. São Paulo: Conrad, 2004

ARBIX, Glauco; MIRANDA, Zil; TOLEDO, Demétrio Cirne de; ZANCUL, Eduardo de Senzi. **Made in China 2025 e Indústria 4.0: a difícil transição chinesa do catching up à economia puxada pela inovação.** *Tempo Social*, 30(3), 2018. 143-170.

ARCESATI, Rebecca; HOLZMANN, Anna; MAO, Yishu; NYAMDORJ, Manlai; SHI-KUPFER, Kristin; VON CARNAP, Kai; WESSLING, Claudia. **China's Digital Platform Economy: Assessing Developments Towards Industry 4.0.** MERICS Report, June 2020. Available at: <https://merics.org/sites/default/files/2020-06/MERICReportDigitalPlatformEconomyEN02.pdf>

ARRIGHI, Giovanni. **Adam Smith in Beijing: Lineages of the 21st Century.** London: Verso, 2007.

ARONCZYK, Melissa. **Branding the Nation: The Global Business of National Identity.** Oxford: Oxford University Press, 2013

ATHREYE, Suma. **Vaccine platforms and limited global production capacity: what is to be done?** IPKat, 13 May 2021. Available at: <https://ipkitten.blogspot.com/2021/05/vaccine-platforms-and-limited-global.html>

BAARS, Grietje. **The Corporation, Law and Capitalism: A Radical Perspective on the Role of Law in the Global Political Economy.** Leiden: Brill, 2019.

BAGLEY, Margo A. **The Morality of Compulsory Licensing as an Access to Medicines Tool.** *Minnesota Law Review*. 133, 2018. <https://scholarship.law.umn.edu/mlr/133>.

BAKER, Dean; JAYADEV, Arjun; STIGLITZ, Joseph, **Innovation, Intellectual Property and Development: A Better Set of Approaches for the 21st Century,** July 2017, available at: <http://ip-unit.org/wp-content/uploads/2017/07/IP-for-21st-Century-EN.pdf>

BASARAN, Tugba; OLSSON, Christian Olsson. **Becoming International: On Symbolic Capital, Conversion and Privilege.** *Millennium* 46, no. 2, January 2018, p. 96–118. Available at: <http://journals.sagepub.com/doi/pdf/10.1177/0305829817739636>

BAO, Annie; LUI, Peilin. **China's Stumbling Sprint to Semiconductor Self-Sufficiency.** Caixin, 20 November 2020. Available at: <https://www.caixinglobal.com/2020-11-20/chinas-stumbling-sprint-to-semiconductor-self-sufficiency-101630701.html>

BASHEER, Shamnad. **Sexual Pleasure is Immoral: So Says the Indian Patent Office!** Spicy IP, 11 August 2018, Available at: <https://spicyip.com/2018/08/sexual-pleasure-is-immoral-so-says-the-indian-patent-office.html>

BATISTA, Livia Regina. **Mudanças Climáticas e Propriedade Intelectual: transferência**

internacional de tecnologias. Curitiba: Juruá, 2007.

BATISTA, Pedro Henrique D. **No Need of Evidence for Moral Damages Compensation after a Trademark Infringement – An Appropriate Development of the Brazilian Case Law?** GRUR International, 00(0), 2021, 1–6.

BBC. Meng Hongwei: China sentences ex-Interpol chief to 13 years in jail. 21 January 2021. Available at: <https://www.bbc.com/news/world-asia-china-51185838>

BEN-ATAR, Doron S. **Trade Secrets: Intellectual Piracy and the Origins of American Industrial Power.** New Haven: Yale University Press, 2004.

BHANDAR, Brenna. **Colonial Lives of Property: Law, Land and Racial Regimes of Ownership.** Durham: Duke University Press, 2018.

BHANDAR, Brenna. **Possessive Nationalism: Race, Class and the Lifeworlds of Property.** Viewpoint Magazine, 01 February 2018. Available at: <https://viewpointmag.com/2018/02/01/possessive-nationalism-race-class-lifeworlds-property/>;

BHANDAR, Brenna; RAMSHAW, Sara. **On Colonial Universality and other Legal Prerogatives: Reflections on Peter Fitzpatrick’s *The Mythology of Modern Law*.** Critical Legal Thinking, 28 May 2020

BECKERT, Jens. **Imagined Futures: Fictional Expectations and Capitalist Dynamics.** Cambridge: Harvard University Press, 2016.

BENOLIEL, Daniel; GURRY, Francis; LEE, Keun; YU, Peter K. (eds.) **Intellectual Property, Innovation, and Global Inequality.** Cambridge: Cambridge University Press, 2021.

BENJAMIN, Walter. **On the Concept of History (Theses on the Philosophy of History),** 1941.

BERCOVICI, Gilberto; **Constituição Econômica e Desenvolvimento: Uma Leitura a partir da Constituição de 1988.** São Paulo: Malheiros, 2005

BERMAN, Marshall. **All that is Solid Melts in the Air: The Experience of Modernity.** New York City: Random House, 1988.

BHAVAN, Sampat; SHADLEN, Kenneth C. **Secondary pharmaceutical patenting: A global perspective.** Research Policy, vol 46(3), 2017, p. 693-707.

BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. **Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective.** Chicago: University of Chicago Press, 2011

BLOOMBERG. **China’s Fosun Willing to Supply BioNTech Vaccine to Taiwan.** 31 March 2021, Available at: <https://www.bloomberg.com/news/articles/2021-03-31/china-s-fosun-says-willing-to-supply-biontech-vaccine-to-taiwan>.

BING, Han, **TRIPS-plus Rules in International Trade Agreements and Access to Medicines Chinese Perspectives and Practices.** Boston University Global Economy Governance Initiative Working Paper 049, 04/2021.

BIRCH, Kean; MUNIESA, Fabian. **Assetization: Turning Things into Assets in Technoscientific Capitalism.** Cambridge, MA: MIT University Press, 2020, Available at: <https://direct.mit.edu/books/book/4848/AssetizationTurning-Things-into-Assets-in>

BOLDRIN, Michele; LEVINE, D.K. **Against Intellectual Monopoly**, Cambridge University Press, 2010, Chapter 9: The Pharmaceutical Industry, 243-245;

BORGES, Jorge Luis. **An Overwhelming Film**, Review of Citizen Kane, 1941. Available at: <https://interrelevant.wordpress.com/2013/01/24/borges-reviews-citizen-kane/>.

BOSKER, Bianca. **Why China's Homeowners Want to Live In Fake Paris**. The Huffington Post, 25 January 2014, Available at: https://www.huffpost.com/entry/china-fake-towns_b_4610715.

BOSSE, Jocelyn; KANG, Hyo-Yoon; THAMBISETTY, Siva. **TRIPS Waiver: there's more to the story than vaccine patents, 7 May 2021**, Available at: <https://theconversation.com/trips-waiver-theres-more-to-the-story-than-vaccine-patents-160502>

BOURLA, Albert. **Today I Sent This Letter To Have a Candid Conversation With Our Colleagues About the Drivers of COVID-19 Access and Availability. 7 May 2021**, Available at: <https://www.linkedin.com/pulse/today-i-sent-letter-have-candid-conversation-our-drivers-bourla/>

BOWN, Chad. **US-China phase one tracker: China's purchases of US goods**. Peterson Institute for International Economics. 29 June 2021, Available at: <https://www.piie.com/research/piie-charts/us-china-phase-one-tracker-chinas-purchases-us-goods>

BOYLE, James. **Shamans, Software, and Spleens: Law and the Construction of the Information Society**. Cambridge: Harvard University Press, 1997.

BRANCOVIC, Jelena. **The Absurdity of University Rankings**. LSE Impact Blog, 22 March 2021. Available at: <https://blogs.lse.ac.uk/impactofsocialsciences/2021/03/22/the-absurdity-of-university-rankings/>

BRAW, Elisabeth. **The Manufacturer's Dilemma**. Foreign Policy, 27 April 2019. Available at: <https://foreignpolicy.com/2019/04/27/the-manufacturers-dilemma-industrial-espionage-manufacturing-iphone/>

BRITTON-PURDY, Jedediah S; GREWAL, David Singh; KAPCYZNSKI, Amy; RAHMAN, K. Sabeel, **Building a Law-and-Political-Economy Framework: Beyond the Twentieth-Century Synthesis**. Yale Law Journal, Vol 129, N.6, 2020.

BRUCKERMANN, Charlotte; FEUCHTWANG, Stephan. **The Anthropology of China. China as Ethnographic and Theoretical Critique**. London: Imperial College Press, 2016.

BUDDE-SUNG, Amanda. **The Invisible Meets the Intangible: Culture's Impact on Intellectual Property Protection**. Journal of Business Ethics 117, 2013, p. 345–359.

BUMP, Jesse; BAUM, Fran; SAKORNSIN, Milin; YATES, Robert; HOFMAN, Karen. **Political economy of covid-19: extractive, regressive, competitive** BMJ 2021; 372, n. 73, 2021.

BURK, Dan; LEMLEY, Mark. **The Patent Crisis and how the Courts Can Solve It**. University of Chicago Press, 2013.

BURLAMAQUI, Leonardo. **Schumpeter, the entrepreneurial state and China**. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2020-15). Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/wp2020-15>

BUTLER, Judith. **Bodies that Matter: On the Discursive Limits of "Sex"**. New York: Routledge, 1993

CAI, Jiaxin; SHENGLIN, Yin; LI, Xiaofang. **Finally, I don't have to work tomorrow.** Chinanarrative, March 2021, originally published by Media Fox (极昼工作室).

CALLO-MÜLLER, María Vásquez; UPRETI, Pratyush Nath. **RCEP IP Chapter: Another TRIPS-Plus Agreement?** GRUR International 70 (7). Oxford: Oxford University Press, 2021, p. 10.

CÂNDIDO, Osmair. **A História do Coveiro Filósofo.** Piauí, 18 June 2021, Available at: <https://piaui.folha.uol.com.br/historia-do-coveiro-filosofo/> (Access on 19 June 2021).

CAO, Siying. **Quantifying Economic Reasoning in Court: Judge Economic Sophistication and Pro-Business Orientation.** 2020. Available at: https://www.econ.cuhk.edu.hk/econ/images/content/news_event/seminars/2020-21_2ndTerm/JMP_CaoSiying.pdf

CAO, Qing; WU, Doreen; TOMASELLI, Keyan. **Brand China in the Media: Transformation of Identities.** Abingdon: Routledge, 2019.

CAPRI, Alex. **Techno-nationalism: the US-China tech innovation race – new challenges for markets, business and academia.** Hinrich Foundation White Paper, July 2020. Available at: <https://www.hinrichfoundation.com/research/wp/tech/us-china-tech-innovation-race/>

CARNEIRO DA CUNHA, Manuela. **“Culture” and Culture: Traditional Knowledge and Intellectual Rights.** Chicago: Chicago University Press, 2009.

CARNEIRO DA CUNHA, Manuela. **Negros, Estrangeiros – Os Escravos Libertos e sua Volta à África.** São Paulo: Companhia das Letras, 2013 [1985].

CARRAI, Maria Adele. **China's malleable sovereignty along the Belt and Road Initiative: the case of the 99-year Chinese lease of Hambantota Port.** NYU J Int Law Pol 51, 2019, p. 1061–1099.

CGTN. **China Emphasizes IPR Education from Elementary School Onwards.** 3 March 2020, Available at: <https://news.cgtn.com/news/2020-03-03/China-emphasizes-IPR-education-from-elementary-school-onwards-Oy7eCbdO6Y/index.html>

CHANDRA, Rajshree. **The Cunning of Rights,** Delhi: Oxford University Press, 2016

CHANDRA, Rajshree. **The ‘Moral Economy’ of Cosmopolitan Commons,** TWAIL Review, 01, Issue 1, 2020.

CHAKRABARTY, Dipesh. **Provincializing Europe: Postcolonial Thought and Historical Difference.** Princeton: Princeton University Press, 2000.

CHANG, Ha-Joon. **Kicking Away the Ladder: Development Strategy in a Historical Perspective.** London: Anthem Press, 2002.

CHIMNI, B.S. **Third World Approaches to International Law: A Manifesto.** International Community Law Review 8, 2006, p. 3–27

CHARNOVITZ, Steve. **Taiwan's WTO Membership and its International Implications,** 1 Asian J. of WTO & Int'l Health L. & Pol'y 401, 2006.

CHEN, Li. **Traditionalising Chinese Law Symbolic Epistemic Violence in the Discourse of Legal Reform and Modernity in Late Qing China.** in: NG, Michael; ZHAO, Yun. *Chinese Legal Reform*

and the Global Legal Order: Adoption and Adaptation. Cambridge: Cambridge University Press, 2017, p, 181-210.

CHEN, Yifu. **Traditional Chinese Medicines and Patent Law**. In: LI, Yahong. *Patents and Innovation in Mainland China and Hong Kong: Two Systems in One Country Compared*. Cambridge: Cambridge University Press, 2017, p. 106-126.

CHENG, Yangyang. **The US is Building Walls Around Science, and We're All Poorer for It**. Vice World News, 12 March 2021. Available at: <https://www.vice.com/en/article/xgzbqq/us-china-relations-science-rivalry-gang-chen-mit>

CONN, Virginia. **Sinofuturism and Chinese Science Fiction: An Introduction to Alternative Sinofuturisms**. Science Fiction Research Association Review, vol. 50, n. 2-3, Special Issue: Alternative Sinofuturisms (中华未来主义), 2020.

CROUCH, Dennis. **US Issues Patents Referencing COVID-19 or SARS-CoV-2**. Patently O-Daily Review, 8 May 2021.

COHEN, Mark. **Phase 1 and CAT: A Tale of Two Agreements**, 26 January 2021. Available at: <https://chinaipr.com/2021/01/26/phase-1-and-cai-a-tale-of-two-agreements/>

COHEN, Mark. **China's 'Naked' Bolar Exception and the Tapering Momentum to Protect Innovative Pharmaceuticals**. China IPR. 17 September 2019. Available at: <https://chinaipr.com/2019/09/17/chinas-naked-bolar-and-the-tapering-momentum-to-protect-innovative-pharmaceuticals/>

COHEN, Mark. **"Dying to Survive" and Pharmaceutical IP Reform in China**. China IPR, 28 July 2018. Available at: <https://chinaipr.com/2018/07/28/dying-to-survive-and-pharmaceutical-ip-reform-in-china/>

COHEN, Mark. **The Good Faith Elephant in the IP Trade War**. China IPR, 21 January 2019, Available at: <https://chinaipr.com/2019/01/21/the-good-faith-elephant-in-the-ip-trade-war/>

COHEN, Mark. **The NTE Report On Chinese IP And Its Relationships To Chinese Legal Developments**. China IPR, 05 April 2021, Available at: <https://chinaipr.com/2021/04/05/the-nte-report-on-chinese-ip-and-its-relationships-to-chinese-legal-developments/>

COHN, Jonathan. **Why the FDA's Approval of a New Alzheimer Drug Should Worry You**. Huffington Post, 16 June 2021, available at: https://www.huffpost.com/entry/fda-aduhelm-alzheimer-drug-price-should-worry_n_60c84f9ee4b02df18f7fed84

CORREA, Carlos. **Expanding the Production of COVID-19 Vaccines to Reach Developing Countries: Lift the barriers to fight the pandemic in the Global South**. Policy Brief 92, Geneva: South Centre, April 2021

CORREA, Carlos. **Guide for the Examination of Patent Applications Relating to Pharmaceuticals: Examining Patents from a Public Health Perspective.** United Nations Development Programme (UNDP), 2016.

CORREA, Carlos. **Interpreting the Flexibilities under the TRIPS Agreement.** In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*, South Centre and Max Planck Institute for Innovation and Competition. Munich: Springer, forthcoming in 2021.

CORREA, Carlos. **Mitigating the Regulatory Constraints Imposed by Intellectual Property Rules under Free Trade Agreements.** Research Paper No. 74, Geneva: South Centre, February 2017.

CORREA, Carlos. **Protection and Promotion of Traditional medicine: Implications for Public Health in Developing Countries.** South Centre, 2002.

CORREA, Carlos. **The Push for Stronger Enforcement Rules: Implications for Developing Countries.** In: *The Global Debate on the Enforcement of Intellectual Property Rights and Developing Countries*, Programme on IPRs and Sustainable Development, Issue Paper No. 22, International Centre for Trade and Sustainable Development (ICTSD), Geneva, Switzerland, 2009.

CORREA, Carlos. **Trade Related Aspects of Intellectual Property Rights – A Commentary on the TRIPS Agreement.** Oxford: Oxford University Press, 2nd ed, 2020.

CORREA, Carlos; SEUBA, Xavier. **Intellectual Property and Development: Understanding the Interfaces.** Munich: Springer, 2019

CORREA, Carlos; VELÁSQUEZ, Germán; IDO, Vitor H. P.. **Intellectual Property and Access to Medicines: A Selected and Annotated Bibliography.** South Centre, 2020.

CORREIA, Diogo Silva Corrêa; BALTAR, Paula Baltar. **O antinarciso no século XXI – A questão ontológica na filosofia e na antropologia.** *Revista Crítica de Ciências Sociais*, Vol. 123, 2020.

CORREA, Juan Ignacio; CORREA, Carlos. **Impact of the Patent Cooperation Treaty in Latin America.** *GRUR Int* 69, 8, 2020, p.803 – 822.

COOMBE, Rosemary; CHAPMAN, S. **Ethnographic Explorations of Intellectual Property.** *Oxford Research Encyclopedia of Anthropology*, 27 August 2020, Available at: <https://oxfordre.com/anthropology/view/10.1093/acrefore/9780190854584.001.0001/acrefore-9780190854584-e-115>

COTTER, Thomas F. **Is Global FRAND Litigation Spinning Out of Control?** *Patently-O Patent Law Journal* 1 (2021). Available at: <https://patentlyo.com/media/2021/01/Cotter-Global-FRAND-Litigation-2021.pdf>

CRANE, Daniel A. **Fascism and Monopoly.** 118 *MICH. L. REV.* 1315 (2020). Available at: <https://repository.law.umich.edu/mlr/vol118/iss7/2>.

CRARY, Jonathan. **Late Capitalism and the Ends of Sleep.** London: Verso Books, 2013

CYRANOSKI, David; LEDFORD, Heidi. **Genome-edited baby claim provokes international outcry,** *Nature*, Vol. 563, pp. 607-608, 26 November 2018. Available at: <https://www.nature.com/articles/d41586-018-07545-0>.

DA HORA, Nina. **Coded Bias: linguagem acessível para entender vieses em algoritmos.** MIT Technology Review, 30 April 2021. Available at: <https://mittechreview.com.br/coded-bias-linguagem-acessivel-para-entender-vieses-em-algoritmos/>

DAVIS, Angela Y. **Are Prisons Obsolete?** New York: Seven Stories Press, 2003.

DE ANDRADE, Oswald. **Cannibal Manifesto**, 1923.

DEERE, Carolyn. **The Implementation Game: The TRIPS Agreement and the Global Politics of Intellectual Property Reform in Developing Countries.** Oxford: Oxford University Press, 2008

DE LA CHAPELLE, B.; PORCIUNCULA, L. **We Need to Talk About Data: Framing the Debate Around Free Flow of Data and Data Sovereignty.** Internet and Jurisdiction Policy Network, 2021. Available at: <https://www.internetjurisdiction.net/uploads/pdfs/We-Need-to-Talk-About-Data-Framing-the-Debate-Around-the-Free-Flow-of-Data-and-Data-Sovereignty-Report-2021.pdf>

DE SETA, Gabriele. **Sinofuturism as Inverse Orientalism: China's Future and the Denial of Coevalness.** Science Fiction Research Association Review, vol. 50, n. 2-3, Special Issue: Alternative Sinofuturisms (中华未来主义), 2020.

DEVONSHIRE-ELLIS, Chris. **The EU Suspends Ratification of the CAI Investment Agreement with China: Business and Trade Implications.** China Briefing, 5 May 2021. Available at: <https://www.china-briefing.com/news/the-eu-suspends-ratification-of-cai-investment-agreement-with-china-business-and-trade-implications/>

DEVONSHIRE-ELLIS, Chris; SCOTT, Andy; WOOLLARD, Sam. **Intellectual Property Rights in China – Second Edition.** Munich: Springer, 2nd ed, 2011.

DE WERRA, Jacques, **Specialised Intellectual Property Courts - Issues and Challenges**, in: CEIPI-ICTSD. *Specialised Intellectual Property Courts - Issues and Challenges, Global Perspectives for the Intellectual Property System*, Issue Number 2: 2016, p. 15-41

DEZALAY, Yves; GARTH, Bryant G. **International Commercial Arbitration and the Construction of a Transnational Legal Order.** Chicago: University of Chicago Press, 1996.

DIAO Yifan; LI, Mingshuang; HUANG, Zhiran; CHEE, Yoke Ling; LIU, Yunali. **Unlocking Access To Novel Medicines In China-A Review From A Health System Perspective.** Risk Manag Healthc Policy. 2019 Dec 18; 12, p. 357-367.

DIEGUES, Antônio Carlos; CRUZ JÚNIOR, José César; ROSELINO, José Eduardo; MILARÉ, Luís Felipe Lopes; BRANDÃO, Caroline Miranda. **Brazilian and Chinese Industrial Development: A tale of two different paths.** Revista Espacios, Vo. 37, 5, 2016.

DRAHOS, Peter. **“Trust Me”: Patent Offices in Developing Countries.** American Journal of Law and Medicines, Vol. 34, 151, 2008.

DRAHOS, Peter; BRAITHWART, John. **Information Feudalism: Who Owns the Knowledge Economy.** Abingdon: Routledge, 2002.

DRAHOS, Peter; MAYNE, Ruth. **Global Intellectual Property Rights: Knowledge Access and Development.** UK: Palgrave Macmillan, 2002

DRAHOS, PETER. **The Global Governance of Knowledge: patent offices and their clients.** Cambridge University Press, Cambridge, 2010

DUNKER, Anders. On Technodiversity: A Conversation with Yuk Hui. Los Angeles Review of Books, 9 June 2020, Available at: <https://lareviewofbooks.org/article/on-technodiversity-a-conversation-with-yuk-hui/>

DUSSOLLIER, Sévère. **Sharing Access to Intellectual Property through Private Ordering.** Chicago Kent Law Review 1391, 2007.

DUTFIELD, Graham. **Not Just Patents and Data Exclusivity: The Role of Trademarks in Integrated IP Strategy – Where Lies the Public Interest?** In: RAGAVAN, Srividhya; VANNI, Amaka. *Intellectual Property Law and Access to Medicines: TRIPS Agreement, Health, and Pharmaceuticals.* Abingdon: Routledge, 2021.

DUTFIELD, Graham; SUTHERSON, Uma. **Dutfield & Suthersanen on Global Intellectual Property Law.** Cheltenham: Edward Elgar, 2nd ed, 2020.

EL-SAID, Mohammed. **Intellectual Property, Islamic Values, and the Patenting of Genes.** In: BERG, Thomas C.; CHOLIJ, Roman; RAVENSCROFT, Simon. *Patents on Life: Religious, Moral, and Social Justice Aspects of Biotechnology and Intellectual Property.* Cambridge: Cambridge University Press, 2019.

EMTSEVA, Julia. **Practicing Reflexivity in International Law: Running a NeverEnding Race to Catch Up with the Western International Lawyers** (April 30, 2021). Max Planck Institute for Comparative Public Law & International Law (MPIL) Research Paper No. 2021-11.

EPSTEIN, Richard A. **Intellectual Property and the Covid-19 Vaccines.** Hoover Institute, 3 May 2021.

ERIE, Matthew S. **China and the International Legal Order.** 46 Yale Journal of International Law & 62 Harvard International Law Journal. Joint Special Issue, 2021.

ERIE, Matthew. **Chinese Law and Development.** Harvard International Law Journal, Vol. 62, Issue 1, Winter 2021.

ESLAVA, Luis. **Local Space, Global Life: The Everyday Operation of International Law and Development.** Cambridge: Cambridge University Press, 2015

ESLAVA, Luis; PAHUJA, Sundhya. **The State and International Law: A Reading from the Global South;** *Humanity: An International Journal of Human Rights, Humanitarianism, and Development*, Volume 11, Number 1, Spring 2020, pp. 118-138.

ESCOBAR, Arturo. **Encountering Development: The Making and Unmaking of the Third World.** Princeton: Princeton University Press, 1995.

FANG, Lee. **Last-Minute Trump Rule Would Let Vaccine Makers Hike Prices Unchecked.** The Intercept, 4 April 2021. Available at: <https://theintercept.com/2021/04/02/covid-vaccine-price-hikes/>

FANON, Frantz. **Peau Noire, Masques Blancs.** Paris: Points, 2005 [1952].

FENG, Hui. **The Politics of China's Accession to the World Trade Organization: The Dragon goes Global.** Abingdon: Routledge, 2006.

FERRAZ, Octavio Luiz Motta. **Health as a Human Right: The Politics and Judicialisation of Health in Brazil.** Cambridge: Cambridge University Press, 2021.

FERGUSON, James; GUPTA, Akhil. **Spatializing States: Toward and Ethnography of Neoliberal Governmentality**. *American Ethnologist*, Vol. 20, N. 4, 2002, p. 981-1001.

FINANCIAL TIMES, **Angela Merkel rejects US move to waive patents on vaccines**. 6 May 2021, Available at: <https://www.ft.com/content/76a05a85-b83c-4e36-b04d-7f44f63e57b0>

FINK, Carsten; RAFFO, Julio D., **What Role for Intellectual Property in Industrial Development**, in CORREA, Carlos; SEUBA, Xavier (eds.), *Intellectual Property and Development: Understanding the Interfaces*, Springer, 2019.

FIOCRUZ. **Parcerias Públicas**. Available at: <https://portal.fiocruz.br/publicas>

FITZPATRICK, Peter. **The Mythology of Modern Law**. Abingdon: Routledge, 1992.

FLESSAS, Tatiana. **The Repatriation Debate and the Discourse of the Commons**. LSE Law, Society and Economy Working Paper Series, 2007.

FLYNN, Michael. **Origins and Limitations of State-based Advocacy: Brazil's AIDS Treatment Program and Global Power Dynamics**. *Politics & Society* 41(1) 3–28, 2013.

FLYNN, Sean. **The Temporary WTO Waiver to Fight Covid Must Include Copyright**. Inside Sources, 08 April 2021. Available at: <https://insidesources.com/the-temporary-wto-waiver-to-fight-covid-must-include-copyright/>

FLYNN, Sean; GEIGER, Christophe; QUINTAIS, João Pedro; MARGONI, THOMAS; SAG, Matthew; GUIBAULT, Lucie; CARROLL, Michael W. **Implementing User Rights for Research in the Field of Artificial Intelligence: A Call for International Action**. Joint PIJIP/TLS Research Paper Series 48, 2020.

FONSECA, Elize Massard da; SHADLEN, Kenneth C. **Promoting and Regulating Generic Medicines: Brazil in comparative perspective**. *Revista Panamericana de Salud Pública*, vol. 41, 5, 2017.

FORGIONI, Paula. **A Evolução do Direito Comercial Brasileiro: Da Mercancia ao Mercado**. São Paulo: Revista dos Tribunais, 3a ed, 2016.

FRANKENBERG, Günter. **Comparative Law as Critique**. Cheltenham: Edward Elgar, 2019.

FRAZIER, Mark; ZHU, Zhiqun. Interview with Zhiqun Zhu: A Discussion on Vaccine Diplomacy by China and India. **The New School - India China Institute, 2 April 2021, Available at: <https://www.indiachinainstitute.org/2021/04/02/interview-with-zhiqun-zhu-a-discussion-on-vaccine-diplomacy-by-china-and-india/>**

FURTADO, Celso. **Criatividade e Dependência na Civilização Industrial**. São Paulo: Companhia das Letras, 2008 [1978].

FURTADO, Celso. **Desenvolvimento e Subdesenvolvimento**. Rio de Janeiro: Contraponto, 2003 [1961].

GARRICK, John; BENNETT, Yan Chang. **“Xi Jinping Thought”: Realisation of the Chinese Dream of National Rejuvenation?** *China Perspectives, New Approaches to the Political Regime Under Xi Jinping*, 2018, p. 99-105

GAO, Henry. **Data regulation in trade agreements: different models and options ahead**. In: SMEETS, Maarten (ed.). *Adapting to the digital trade era: challenges and opportunities*, WTO

Chairs Programme, 2021, p. 329-331

GUO, Xiaojun. **A Stronger Trade Secret Protection in China**. Mondaq, 02 April 2021, Available at: <https://www.mondaq.com/china/trade-secrets/1053568/a-stronger-protection-of-trade-secret-in-china>

GAVIRIA, Mario; KILIC, Burcu. **A network analysis of COVID-19 mRNA vaccine patents**. *Nature Biotechnology* **39**, 546–548, 2021. Available at: <https://www.nature.com/articles/s41587-021-00912-9>

GEIGER, Christophe; FROSIO, Giancarlo; BULAYENKO, Oleksandr. **Text and Data Mining in the Proposed Copyright Reform: Making the EU Ready for an Age of Big Data?** 48 IIC - International Review of Intellectual Property and Competition Law, 2018.

GEISMAR, Heidy. **Treasured Possessions: Indigenous Interventions into Cultural and Intellectual Property**. Durham: Duke University Press, 2013

GERVAIS, Daniel. **The TRIPS Waiver Debate: Why, and where to from here**. IPKat, 20 May 2021, Available at: <https://ipkitten.blogspot.com/2021/05/guest-post-trips-waiver-debate-why-and.html>

GEWIRTZ, Julian. **Unlikely Partners: Chinese Reformers, Western Economists, and the Making of Global China**. Cambridge: Harvard University Press, 2017.

GALLAGHER, Kevin. **Understanding developing country resistance to the Doha Round**. Review of International Political Economy, Vol., 15, 2007, p. 62-85.

GLECKMAN, Harris. **COVAX - A global multistakeholder group that poses political and health risks to developing countries and multilateralism**. Friends of the Earth International & Transnational Institute, March 2021, p. 15.

GONSALVES, Gregg; YAMEY, Gavin. **The covid-19 vaccine patent waiver: a crucial step towards a “people’s vaccine”**. The BMJ Opinion, 10 May 2021. Available at: <https://blogs.bmj.com/bmj/2021/05/10/the-covid-19-vaccine-patent-waiver-a-crucial-step-towards-a-peoples-vaccine/>

GOODMAN, Steve. **Fei Ch’ien Rinse out: Sino-Futurist Under-Currency**. *Cybernetic Culture Research Unit*, 2003, <http://www.ccru.net:80/archive/rinse.htm>.

GUISE ROSINA, Monica Steffen; NOVAES, Adelina de Oliveira. **Brazil and the Case of Patents and Access to Medicines: A Medical Condition?** In: DREYFUSS, Rochelle; RODRÍGUEZ-GARAVITO, César. *Balancing Wealth and Health: The Battle over Intellectual Property and Access to Medicines in Latin America*. Oxford: Oxford University Press, 2014.

GUISE ROSINA, Mônica Steffen; SHAVER, Lea. **Why are Generic Drugs Being Held in Transit? Intellectual Property Rights, International Trade, and the Right to Health in Brazil and Beyond**. *Journal of Law, Medicine & Ethics*, Vol. 40, Issue 2, 2012, p. 197-205.

GLOBAL TIMES. **Core Vaccine Ingredients in Market Spotlight**. 31 March 2021. Available at: <https://www.globaltimes.cn/page/202103/1219977.shtml>

GLOWCZEWSKI, Barbara. **Totemic Becomings. Cosmopolitics of the Dreaming**. Helsinki and São Paulo: n-1 publications, 2015.

GRUPO DIREITO E POBREZA. **Research Report on Access to Covid-19 Vaccines**. São Paulo, 2021. Available at: <https://www.direitopobreza.org.br/>

HARAWAY, Donna. **Staying with the Trouble – Making kin in the Chthulucene**. Durham: Duke University Press, 2016.

HARRISON, Henrietta. **China: Inventing the Nation**. London: Bloomsbury, 2001.

HARRISON, James; BARBU, Mirela; CAMPLING, Liam; RICHARDSON, Ben; SMITH, Adrian. **Governing Labour Standards through Free Trade Agreements: Limits of the European Union’s Trade and Sustainable Development Chapters**. *Journal of Common Market Studies*, Vol. 57, Issue 2, p. 260-277.

HARTMANN, Christian; ALLAN, Jacqueline E. M.; HUGENHOLTZ, Bernt; QUINTAIS, João P.; GERVAIS, Daniel. **Trends and Developments in Artificial Intelligence Challenges to the Intellectual Property Rights Framework**. European Commission, 2020, available at: <https://ec.europa.eu/digital-single-market/en/news/trends-and-developments-artificial-intelligence-challenges-intellectual-property-rights-0>

HAYDEN, Corey. **No patent, no generic: Pharmaceutical Access and the Politics of the Copy**. in BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. *Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective*. Chicago: University of Chicago Press, 2011, pp. 285-304.

HELPER, Laurence; LAND, Molly; OKEDIJI, Ruth; REICHMANN, Jerome. **The World Blind Union Guide to the Marrakesh Treaty – Facilitating Access to Books for Print-Disabled Individuals**. Oxford: Oxford University Press, 2017.

HELLER, Michael, **The Gridlock Economy: How Too Much Ownership Wrecks Markets, Stops Innovation, and Costs Live**. New York: Basic Books, 2008.

HELLER, Michael. **The Tragedy of the Anticommons: Property in the Transition from Marx to Markets**. *Harvard Law Review*, Vol. 111, 1998.

HICKEL, James. **The Divide: A Brief Guide to Global Inequality and its Solutions**. London: Penguin Random House, 2017.

HILLE, Kathrin. **TSMC: How a Taiwanese chipmaker became a linchpin of the global economy**. *Financial Times*, 24 March 2021, Available at: <https://www.ft.com/content/05206915-fd73-4a3a-92a5-6760ce965bd9>

HILLENBRAND, Margaret. **Negative Exposures – Knowing What not to Know in Contemporary China**. Durham, Duke University Press: 2020.

HILTY, Reto. Interfering with patent protection means playing with fire. 14 March 2021. Available at: <https://www.mpg.de/16579491/patent-protection-vaccines-covid-10-reto-hilty>

HOCHULI, Alex. **The Brazilianization of the World**. *American Affairs*, Vol. V, n. 2, 2021.

HOFMAN, Bert. **China’s Economic Policy of Dual Circulation**. Hinrich Foundation, 08 June 2021. Available at: <https://www.hinrichfoundation.com/research/article/sustainable/china-economic-policy-of-dual-circulation/>

HOLLAND, Steve; FAULCONBRIDGE, Guy. **G7 Rivals China with Grand Infrastructure Project.** Reuters, 13 June 2021. Available at: <https://www.reuters.com/world/g7-counter-chinas-belt-road-with-infrastructure-project-senior-us-official-2021-06-12/>

HOPKINS, Jared S.; LOFTUS, Peter. **Covid-19 Vaccine Makers Press Countries to Oppose Patent Waiver.** Wall Street Journal, 26 May 2021, Available at: <https://www.wsj.com/articles/covid-19-vaccine-makers-press-countries-to-oppose-patent-waiver-11622021402>

HSIEH, Chee-Ruey. **Pharmaceuticals, Health Policy and Intellectual Property in China.** In: LÖFGREN, Hans; WILLIAMS, Owen David. *The New Political Economy of Pharmaceuticals: Production, Innovation and TRIPS in the Global South.* UK: Palgrave MacMillan, 2013, p. 48-69.

HU Yuanqiong. **Resistance and Consistent: Access to Medicines and Patent Law Reforms in India and China.** SOAS Law Working Paper N. 3, 2016. Available at: https://eprints.soas.ac.uk/23118/1/Hu_23188.pdf

HUANG, Yasheng, **Capitalism with Chinese Characteristics: Entrepreneurship and the State.** Cambridge: Cambridge University Press, 2008.

HUBBERT, Jennifer. **China in the World: An Anthropology of Confucius Institutes, Soft Power, and Globalization.** Honolulu: University of Hawai'i Press, 2019.

HUI, Yuk; LEMMENS, Pieter. **Cosmotronics: For a Renewed Concept of Technology.** Abingdon: Routledge, 2021.

HUI, Yuk. **Tecnodiversidade.** São Paulo: Ubu, 2020.

HUNTER, Sophie. **China's innovative Internet Courts and their use of blockchain backed evidence.** Conflict of Laws, 28 May 2019. Available at: <https://conflictoflaws.net/2019/chinas-innovative-internet-courts-and-their-use-of-blockchain-backed-evidence/>.

HVISTENDAHL, Mara. **The Scientist and the Spy: A True Story of China, the FBI, and Industrial Espionage.** NYC: Penguin Random House, 2020.

IP, Greg. **'Industrial Policy' Is Back: The West Dusts Off Old Idea to Counter China.** Wall Street Journal, 29 July 2021. Available at: <https://www.wsj.com/articles/subsidies-chips-china-state-aid-biden-11627565906>

IDO, Vitor H. P. **Conhecimentos Tradicionais na Economia Global.** Master's Dissertation, Faculty of Law, University of São Paulo, 2017.

IDO, Vitor Henrique Pinto. **Designing Pro-Health Competition Policies in Developing Countries.** South Centre Research Paper 125, December 2020

IDO, Vitor Henrique Pinto. **E-Commerce Proposals at the WTO.** Policy Brief 69, Geneva: South Centre, 2019.

IDO, Vitor Henrique Pinto. **The Role of Courts in Implementing TRIPS Flexibilities: Brazilian Supreme Court Rules Automatic Patent Term Extensions Unconstitutional.** Policy Brief 94, Geneva: South Centre, June 2021, Available at: <https://www.southcentre.int/policy-brief-94-june-2021/>

IDO, Vitor Henrique Pinto. **Transparency in the Pharmaceutical Sector: A New Dimension in the International Debate Regarding Access to Medicines?** *Revista Trabalho, Educação e Saúde*, 17 (3), 2019.

IDO, Vitor Henrique Pinto. **TRIPS Flexibilities and TRIPS-Plus Provisions in the RCEP Chapter on Intellectual Property: How much policy space has been retained?** Research Paper 131, Geneva: South Centre, June 2021.

IDO, Vitor Henrique Pinto; NEDER CEREZETTI, Sheila C.; PELA, Juliana K. **Technology Transfer.** In: DE FEYTER, Koen; ERDEM TÜRKELLI, Gamze; DE MOERLOOSE, Stéphanie. *Encyclopedia of Law and Development*, London: Edward Elgar, 2021.

IPHouse (translation by Anjie Law Firm). **Offline Event: How Legal People See "Medicine God" : "Dying to Survive " in the Eyes of IP Professionals.** Available at: <https://chinaipr.com/2018/07/28/dying-to-survive-and-pharmaceutical-ip-reform-in-china/>

IPKEY (EUROPEAN UNION INTELLECTUAL PROPERTY OFFICE). **Study on Online Counterfeit in China: Could the EU Memoranda of Understanding Approach Help, and If So – How?** November 2019, Available at: https://ipkey.eu/sites/default/files/ipkey-docs/2020/IPKeyChina_nov2019_Lessons-from-the-EU-experience-with-memoranda-of-understanding-in-tackling-the-online-sale-of-counterfeit-goods.pdf

JACOBS, Jane. **The Life and Death of Great American Cities.** New York: Random House, 1961.

JASANOFF, Sheila; KIM, Sang-Hyun. **Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power.** Chicago: Chicago University Press, 2015.

JASANOFF, Sheila. **States of Knowledge: The Co-Production of Science and the Social Order.** Abingdon: Routledge, 2004.

JIA, Hepeng. **China's New National IP Rights Strategy Puts IP on its Political Agenda.** IP Watch, 26 June 2008. Available at: www.ip-watch.org/2008/06/26/chinas-new-national-ip-rights-strategy-puts-ip-on-its-political-agenda/ (Accessed 26 June 2021).

JIANG, Jessie. **Patents: Protecting China's National Treasure.** *Nature*: 480, S93, 2011.

JOHNSON, Chalmers. **MITI and the Japanese Miracle.** Stanford: Stanford University Press, 1982.

JONES, Emily; KIRA, Beatriz; ALVES, Danilo B. Garrido; SANDS, Anna. **The UK and Digital Trade: Which Way Forward?** Blavatnik School of Government Working Paper Series 038/2021. Available at: https://www.bsg.ox.ac.uk/sites/default/files/2021-02/BSG-WP-2021-038_0.pdf

JUKES, John. **The Sources of Invention.** 1958.

KANEVA, Nadia. **Nation Branding: Towards and Agenda for Critical Research.** *International Journal of Communication* 5, 2011, 117–141

KANG, Hyo Yoon. **Ghosts of Inventions: Patent Law's Digital Mediations.** *History of Science* 57, no. 1, March 2019, p. 38–61.

KANG, Hyo Yoon. **Patents as Assets: Intellectual Property Rights as Market Subjects and Objects.** In: BIRCH, Kean; MUNIESA, Fabian (eds.). *Assetization: Turning Things into Assets in Technoscientific Capitalism.* Cambridge, MA: MIT University Press, 2020.

KANG, Hyo-Yoon. **Patent as Credit. When Intellectual Property Becomes Speculative.** *Radical*

Philosophy 194, 2015, p. 29-37.

KANG, Hyo Yoon. **Patent Capital in the Covid-19 Pandemic: Critical Intellectual Property Law.** Critical Legal Thinking, 9 February 2021, Available at: <https://criticallegalthinking.com/2021/02/09/patent-capital-in-the-covid-19-pandemic-critical-intellectual-property-law/>

KANG, Hyo-Yoon; KENDALL, Sarah. **Legal Materiality.** In: DelMar, M, Meyler, B. & Stern, S. (eds). *Oxford Handbook for Law and the Humanities*, Oxford University Press, 2020.

KANG, Hyo Yoon; McMAHON, Aisling; DUTFIELD, Graham; McDONAGH, Luke; THAMBISETTY, Siva. **Academic Open Letter in Support of the TRIPS Intellectual Property Waiver Proposal.** LSE Law - Policy Briefing Paper No. 46, 13 July 2021.

KAPCYZNSKI, Amy; RAVINTHIRAN, Jishian. **How to Vaccinate the World? Part 2.** 05 April 2021, Available at: <https://lpeproject.org/blog/how-to-vaccinate-the-world-part-2/>

KAPCYZNSKI, Amy. **Order without Intellectual Property Law : Open Science in Influenza.** 102 Cornell L. Rev. 1539, 2017. Available at: <https://scholarship.law.cornell.edu/clr/vol102/iss6/3>

KAPCZYNSKI, Amy. **The Law of Informational Capitalism.** Yale Law Journal, Vol. 129, 2020, p. 1460-1515.

KAPCYZNSKI, Amy. **The Right to Medicines in an Age of Neoliberalism.** Humanity: An International Journal of Human Rights, Humanitarianism, and Development. University of Pennsylvania Press, Vol. 10, N. 1, Spring 2019, p. 79-107.

KATELOUZOU, Dionysia; ZUMBANSEN, Peer. **The New Geographies of Corporate Governance.** University of Pennsylvania Journal of International Law 51, Vol. 412, Issue 1, 2020.

KAVANAUGH, Matthew; SUNDER, Madhavi. **Poor Countries may not be vaccinated until 2024. Here is how to prevent that.** Washington Post, 10 March 2021. Available at: <https://www.washingtonpost.com/opinions/2021/03/10/dont-let-intellectual-property-rights-get-way-global-vaccination/>;

KENNEDY, David; STIGLITZ, Joseph. **Law and Economics with Chinese Characteristics, Institutions for Promoting Development in the Twenty-First Century**, Oxford: Oxford University Press, 2013.

KENNEDY, Scott. **Made in China 2025.** Center for Strategic and International Studies (CSIS), 1 June 2021, Available at: <https://www.csis.org/analysis/made-china-2025>.

KELSEY, Jane. **RCEP: Nothing to See and Everything to See.** Afronomics Law, 15 February 2021, Available at: <https://www.afronomicslaw.org/index.php/category/analysis/rcep-nothing-see-and-everything-see>

KELSEY, Jane; BUSH, John; MONTES, Manuel; NDUBAI, Joy. **How ‘Digital Trade’ Rules Would Impede Taxation of the Digitalised Economy in the Global South Peer.** Penang: Third World Network, 2020.

KEVLES, Daniel J. **The National Science Foundation and the Debate over Postwar Research Policy, 1942-1945: A Political Interpretation of Science—The Endless Frontier.** *Isis*, vol. 68, no. 1, 1977, pp. 5–26

KIERNAN, Samantha; TOHMEAND, Serena; SHANKSAND, Kailey; ROSENBAUM, Basia.

The Politics of Vaccine Donation and Diplomacy – Is a friend in need a friend indeed? Think Global Health, 4 June 2021. Available at: <https://www.thinkglobalhealth.org/article/politics-vaccine-donation-and-diplomacy>

KJAER, Poul. (ed.). **The Law of Political Economy. Transformation in the Function of Law.** Cambridge: Cambridge University Press, 2020.

KNOWLEDGE ECOLOGY INTERNATIONAL (KEI). **2015 Oct 15 version: RCEP IP Chapter.** 19 April 2016, Available at: <https://www.keionline.org/23060>

KREVER, Tor. **The Ideological Origins of Piracy in International Legal Thought.** PhD Thesis, London School of Economics, May 2018.

KRIKORIAN, Gaëlle; KAPCYNISKI, Amy. **Access to knowledge in the age of intellectual property,** Zone Books, 2010.

KRIZIC, Ivo; SERRANO, Omar. **‘Exporting Intellectual Property Rights to Emerging Countries: EU and US Approaches Compared’.** European Foreign Affairs Review 22, no. 1 (2017): 57–76.

KOPENAWA, Davi; ALBERT, Bruce. **The Falling Sky: Words of a Yanomami Shaman.** Cambridge: Harvard University Press, 2013.

KWA, Aileen; LUNENBORG, Peter. **US’ Section 301 Actions: Why They Are Illegitimate and Misguided.** Research Paper 86, Geneva: South Centre, September 2018.

LANCASTER, Kirk; RUBIN, Michael; RAPP-HOOPER, Mira. **Mapping China’s Health Silk Road.** Council on Foreign Relations. Available at: <https://www.cfr.org/blog/mapping-chinas-health-silk-road>.

LATOUR, Bruno. **We Have Never Been Modern.** Cambridge: Harvard University Press, 1993.

LATOUR, Bruno; WEIBEL, Peter. **Critical Zones: The Science and Politics of Landing on Earth.** Cambridge: MIT University Press, 2020.

LAWDER, David; SHALAL, Andrea; O’DONNELL, Carl. **US wants Covid vaccine patent waiver to benefit world, not boost China biotech.** 8 May 2021. Available at: <https://www.reuters.com/world/china/us-wants-covid-vaccine-patent-waiver-benefit-world-not-boost-china-biotech-2021-05-08/>

LEE, John; KLEINHANS, Jan-Peter. **Mapping China’s Semiconductor Ecosystem in Global Context: strategic dimensions and conclusions.** Merics & Stiftung Neue Verantwortung Policy Brief, June 2021, Available at: https://merics.org/sites/default/files/2021-06/China%E2%80%99s%20Semiconductor%20Ecosystem_0.pdf;

LEMLEY, Mark A. **Are Universities Patent Trolls?** 18 Fordham Intellectual Property, Media and Entertainment Law Journal 611, 2008

LEMLEY, Mark A. **Faith-Based Intellectual Property.** 62 UCLA L. REV. 1328, 2015.

LEMOIS, Ronaldo. **A Estratégia de IA do Brasil é Patética.** Flha de São Paulo, 11 April 2021. Available at: <https://www1.folha.uol.com.br/colunas/ronaldolemos/2021/04/estrategia-de-ia-brasileira-e-patetica.shtml>

LEMOS, Ronaldo. **Conceito de tecnologia deve ser pensado à luz da diversidade, diz filósofo chinês (Interview with Yuk Hui)** Folha de São Paulo, 30 January 2021, Available at: <https://www1.folha.uol.com.br/ilustrissima/2021/01/conceito-de-tecnologia-deve-ser-pensado-a-luz-da-diversidade-diz-filosofo-chines.shtml>

LEMOS, Ronaldo. **O Estado tem um papel na inovação?** Folha de São Paulo, 9 May 2021. Available at: <https://www1.folha.uol.com.br/colunas/ronaldolemos/>

LESSIG, Lawrence. Code: Version 2.0. NYC: Basic Books, 2006.

LEONARD, Mark. **The New China Shock.** Project Syndicate, 31 March 2021. Available at: <https://www.project-syndicate.org/commentary/the-new-china-shock-by-mark-leonard-2021-03>

LÉVI-STRAUSS, Claude. **Histoire de Lynx.** Paris: Plon, 1991;

LÉVI-STRAUSS, Claude. **Tristes Trópicos.** São Paulo: Companhia das Letras, 1996 [1955].

LI, Daitian; TONG, Tony W.; XIAO, Yangao. **Is China Emerging as the Global Leader in AI?** Harvard Business Review. 18 February 2021. Available at: <https://hbr.org/2021/02/is-china-emerging-as-the-global-leader-in-ai>

LI, Ji. **Meeting's Law Demand: Chinese Multinationals as Consumers of US Legal Services.** Yale Journal of International Law Online, Vol. 46, 2021

LI, Yahong. **Patents and Innovation in Mainland China and Hong Kong: Two Systems in One Country Compared.** Cambridge: Cambridge University Press, 2017.

LI, Yuwen; BIAN, Cheng. **China's Stance on Investor-State Dispute Settlement: Evolution, Challenges, and Reform Options.** Netherlands International Law Review 67, 503–551 (2020).

LIANG, Lawrence. **Beyond Representation: The Figure of the Pirate.** In: BIAGIOLI, Mario; JASZI, Peter; WOODMANSEE, Martha. *Making and Unmaking Intellectual Property: Creative Production in Legal and Cultural Perspective.* Chicago: University of Chicago Press, 2011, p. 167-180.

LIN, Xiuqin. **Prior Negotiation and Remuneration for Patent Compulsory Licensing: Practice, Problem, and Proposal.** in: HILTY, Reto M.; LIU, Kung-Chung. *Compulsory Licensing: Practical Experiences and Ways Forward*, MPI Studies on IP and Competition Law. Berlin: Springer, 2015, p. 166-190.

LINARELLI, John, SALOMON, Margot, SORNARAJAH, Muthucumaraswamy. **The Misery of International Law: Confrontations with Injustice in the Global Economy.** Oxford: Oxford University Press, 2018.

LINDTNER, Silvia M. **Prototype Nation: China and the Contested Promise of Innovation.** Princeton: Princeton University Press, 2020.

LIU, Angus. **BioNTech, Fosun Pharma eye 1B doses of COVID-19 vaccine capacity with new China JV.** 10 May 2021, Available at: <https://www.fiercepharma.com/manufacturing/biontech-fosun-pharma-eye-1b-doses-covid-19-vaccine-capacity-new-china-jv>.

LIU, Cixin. **The Three-Body Problem (三体).** Chongqing: Chongqing Press, 2008.

LIU, Qiao. **COVID-19 in Civil or Commercial Disputes: First Responses from Chinese Courts.** *The Chinese Journal of Comparative Law*, Volume 8, Issue 2, September 2020, p. 485–501.

LIVEMINT. **Bharat Biotech ready to share COVAXIN formula with other manufacturers.** 13 May 2021. Available at: <https://www.livemint.com/news/india/bharat-biotech-agrees-to-give-covaxin-formula-to-other-manufacturers-centre-11620906716372.html> (Accessed: 13 May 2021).

LOCKETT, Hudson. **Global Investor’s Exposure to Chinese Assets surge to \$800bn.** *Financial Times*, 14 July 2021, Available at: <https://www.ft.com/content/f0c71c66-b386-4f3c-8796-4384e7378a56>

LONDOÑO, Ernesto. **Paraguay’s ‘Life and Death’ Covid Crisis Gives China Diplomatic Opening.** *The New York Times*, 16 April 2021. Access on 20 April 2021. Available at: <https://www.nytimes.com/2021/04/16/world/americas/paraguay-china-vaccine-diplomacy.html>

LOVE, James. **The Use and Abuse of the Phrase “Global Public Good”.** *The New School – India China Institute*. 9 July 2020. Available at: <https://www.indiachinainstitute.org/2020/07/09/the-use-and-abuse-of-global-public-good/>

LU, Shen. **China could soon have stronger privacy laws than the U.S.** *Protocol Alert*, 10 May 2021. Available at: <https://mailchi.mp/protocol/j5pal1d6aiz?e=e7563a7ab5>.

MAK, Toby. **China: Victoria’s Secret Service Mark.** *Mondaq*, 30 May 2018. Available at: <https://www.mondaq.com/china/trademark/706040/victoria39s-secret-service-mark>

MALLAPATY, Smriti. **The COVID vaccine pioneer behind southeast Asia’s first mRNA shot.** *Nature Magazine*, 26 May 2021, Available at: <https://www.nature.com/articles/d41586-021-01426-9>

MAO, Zedong. **U.S. Imperialism is a Paper Tiger.** 14 July 1956. Available at: https://www.marxists.org/reference/archive/mao/selected-works/volume-5/mswv5_52.htm.

MARQUES DE CARVALHO, Vinicius. **EUA tiram desenvolvimentismo do armário para enfrentar China em inteligência artificial.** *Folha de São Paulo*, 26 June 2021, Available at: <https://www1.folha.uol.com.br/ilustrissima/2021/06/eua-tiram-desenvolvimentismo-do-armario-para-enfrentar-china-em-inteligencia-artificial.shtml>

MARKS, Susan. **International Law on the Left: Re-Examining Marxist Legacies.** Cambridge: Cambridge University Press, 2008

MARTIN, Cecilia; LOWERY, Drew. **mRNA vaccines: Intellectual Property Landscape.** *Nature, Biobusiness Briefs*, 27 July 2020. Available at: <https://www.nature.com/articles/d41573-020-00119-8>

MASKUS, K.E; REICHMAN, J., “**The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods**”, *Journal of International Economic Law*, 2004, 7(2), 288.

MATHUR, Nayanika. **Bureaucracy.** *The Cambridge Encyclopedia of Anthropology*. 9 November 2017. Available at: <https://www.anthroencyclopedia.com/entry/bureaucracy>

MATHUR, Nayanika. **Paper Tiger Law, Bureaucracy and the Developmental State in Himalayan India,** Oxford University Press 2015

MATTHEWS, Duncan. **Access to CRISPR Genome Editing Technologies: Patents, Human Rights and the Public Interest.** Queen Mary University of London, School of Law Legal Studies Research Paper No. 332/2020.

MATTHEWS, Duncan. **Intellectual Property Courts in China**. In: MANIATIS, Spyros; KOKKORIS, Ioannis; WANG, Xiaoye. *Competition Law and Intellectual Property in China and the ASEAN*. Oxford: Oxford University Press, 2017.

MATTHEWS, Duncan; GURGULA, Olga. **Patent Strategies and Competition Law in the Pharmaceutical Sector: Implications for Access to Medicines**, Queen Mary School of Law Legal Studies Research Paper No. 233/2016.

MAUME, Philipp. **Huawei/ZET, or, how the CJEU closed the Orange Book**. Queen Mary Journal of Intellectual Property, Vol. 6, N. 2, p. 207-226, 2016.

MAZZUCATO, Mariana; GHOSH, Jayati; TORREELE, Els. **To Control the Pandemic, it is essential to suspend intellectual property rights on medical products related to Covid-19**. The Economist, 20 April 2021. Available at: <https://www.economist.com/by-invitation/2021/04/20/mariana-mazzucato-jayati-ghosh-and-els-torreele-on-waiving-covid-patents>

MAXMEM, Amy. **Why Some Researchers Oppose Unrestricted Sharing of Coronavirus Genome Data**. Nature, 05 May 2021, Available at: <https://www.nature.com/articles/d41586-021-01194-6>

MAX PLANCK INSTITUTE FOR INNOVATION AND COMPETITION. **The Covid-19 and the Role of Intellectual Property**. Position Statement, 7 May 2021.

MAZZUCATO, Mariana. **The Entrepreneurial State: Debunking public vs. private sector myths**, London: Anthem Press, 2013.

MAZZUCATO, Mariana. **The Value of Everything: Making and Taking in the Global Economy**. New York: Public Affairs, 2018.

MENEZES, Henrique Zeferino de. **The TRIPS waiver proposal: an urgent measure to expand access to the COVID-19 vaccines**. Research Paper 129. Geneva: South Centre, March 2021.

MERCURIO, Bryan. **Drugs, Patents and Policy: A Contextual Study of Hong Kong**. Cambridge: Cambridge University Press, 2019.

MERCURIO, Bryan. **WTO Waiver from Intellectual Property Protection for Covid-19 Vaccines and Treatments: A Critical Review**. Virginia Journal of International Law Online, forthcoming in 2021, p. 24-25.

MERRY, Sally Engle. **Measuring the World: Indicators, Human Rights, and Global Governance**. Current Anthropology, Vol. 52, No. S3, 2011.

MICHALEC, Matej. **Bad Faith Grounds for Invalidating EUTM containing Chinese characters**. IPKat, 20 May 2020, Available at: <https://ipkitten.blogspot.com/2020/05/bad-faith-grounds-for-invalidating-eutm.html> (Accessed 26 June 2021).

MILANOVIC, Branko. **The Social and Geopolitics of China's rise. Review of The China boom: Why China will not rule the world" by Ho-fung Hung. 22 May 2021**, Available at: <https://glineq.blogspot.com/2019/05/the-social-and-geopolitical-origins-of.html>

MILES, Margaret. **Art as Plunder: The Ancient Origins of Debate about Cultural Property**. Cambridge: Cambridge University Press, 2008.

MILHAUPT, Curtis J.; PISTOR, Katharina. **Law and Capitalism: What Corporate Crises Reveal about Legal Systems and Economic Development around the World**, Chicago: University of Chicago Press, 2008.

MILLER, Daniel, COSTA, Elisabetta; HAYNES, Nell; McDONALD, Tom; NICOLESCU, Razvan; SINANAN, Jolynna; SPYER, Juliano; VENKATRAMAN, Shriram; WANG, Xinyuan. **How the World Changed Social Media**. London: UCL Press, 2016.

MING, Chen. **Transcend Left and Right, Unite the Three Traditions, Renew the Party-State: A Confucian Interpretation of the China Dream**. 17 March 2015, Introduction and translation by David Ownby. Available at: <https://www.readingthechinadream.com/chen-ming-transcend-left-and-right.html>

MIYAZAKI, Hirokazu. **Arbitraging Japan: Dreams of Capitalism at the End of Finance**. Berkeley: University of California Press, 2013.

MONSENEPWO JOOST, Justin. **Technology Transfer in China–Africa Trade Relations**. Oxford China, Law and Development Research Brief 15, 2020. Available at: <https://cld.web.ox.ac.uk/files/finalmonsenepwotechtransferpdf>

MOON, Suerie; HEIN, Wolfgang. **Norms in Global Governance: Human Rights, Intellectual Property and Access to Medicines**. Farnham: Ashgate 2013.

MORIN, Jean-Frédéric; THÉRIAULT, Dimitri. **How Trade Deals Extend the Frontiers of International Patent Law**. CIGI Papers No. 199, November 2018.

MOROSINI, Fabio; SANCHEZ-BADIN, Michelle Ratton. **Reconceptualizing International Investment Law from Global South**. Cambridge: Cambridge University Press, 2017.

MORPHY, Howard; PERKINS, Morgan Perkins (eds.). **The Anthropology of Art: A Reader**. Oxford: Blackwell, 2006.

MORRISON, J. Stephen; BLISS, Katherine; McCAFFREY, Anna. **The Time is Now for US Global Leadership on Covid-19 Vaccines**. Center for Strategic & International Studies – Commission on Strengthening America’s Health Security. April 2020, p. 8.

MUIR-WATT, Horatia. **Private International Law Beyond the Schism**. *Transnational Legal Theory*, Vol 2, 3, 2011, p. 347–427

MUÑOZ-TELLEZ, Viviana. **Bolar Exception**. In: CORREA, Carlos; HILTY, Reto (eds), *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.

MUSUNGU, Sisule; VILLANUEVA, Susan; BLASETTI, Roxana Carmen. **Utilizing TRIPS Flexibilities for Public Health Protection Through South-South Regional Frameworks**. Geneva: South Centre, 2004.

NADER, Laura & MATTEI, Ugo. **Plunder: When the Rule of Law is Illegal**. Hoboken: Wiley-Blackwell, 2008.

NATILE, Serena. **The Exclusionary Politics of Digital Financial Inclusion: mobile money, gendered walls**. Abingdon: Routledge, 2020.

NATURE BIOTECHNOLOGY. **The Next Biotech Superpower**. Editorial, 37, 1243, 2019. Available at: <https://www.nature.com/articles/s41587-019-0316-7>

- NAUGHTON, Barry. **Growing Out of the Plan: Chinese Economic Reform, 1978–1993.** Cambridge: Cambridge University Press, 1995
- NAUGHTON, Barry. **The Chinese Economy: Transitions and Growth.** Cambridge: MIT University Press, 2005.
- NAYYAR, Deepak. **Catch-Up: Developing Countries in the Global Economy.** Oxford: Oxford University Press, 2016;
- NETANEL, Neil Weinstock. **The Development Agenda: Global Intellectual Property and Developing Countries,** Oxford: Oxford University Press, 2008
- NOTO LA DIEGA, Guido. **Against the Dehumanisation of Decision-Making-Algorithmic Decisions at the Crossroads of Intellectual Property, Data Protection, and Freedom of Information.** *JIPITEC - Journal of Intellectual Property, Information Technology and E-Commerce Law*, 9 (1), 2018.
- OKEDIJI, Ruth. **The International Copyright System: Limitations, Exceptions and Public Interest Considerations in Developing Countries.** UNCTAD-ICTSD, Issue Paper 15, 2006;
- OKEDIJI, Ruth. **The International Relations of Intellectual Property: Narratives of Developing Country Participation in the Global Intellectual Property System.** *Singapore Journal of International & Comparative Law*, Vol. 7, 2003, p. 315-385.
- OKEDIJI, Ruth; BAGLEY, Margo. **Patent Law in a Global Perspective.** Oxford: Oxford University Press, 2014, p. 118-121.
- OCTAVIANI, Alessandro. **Recursos Genéticos e Subdesenvolvimento: Os Desafios Furtadiano e Gramsciano.** São Paulo: Saraiva, 2014.
- ONG, Aihwa; COLLIER, Stephen. **Global Assemblages: Technology, Politics, and Ethics as Anthropological Problems.** Oxford: Blackwell, 2005.
- ONG, Aihwa. **Flexible Citizenship: The Cultural Logics of Transnationality.** Durham: Duke University Press, 1999
- ONG, Aihwa. **“What Marco Polo Forgot” – Contemporary Chinese Art Reconfigures the Global.** *Cultural Anthropology*, Vol. 53, N. 4, 2012. p. 483.
- OSTRY, Sylvia; NELSON, Richard. **Techno-Nationalism and Techno-Globalism: Conflict and Cooperation.** Washington DC: Brookings Institution Press, 1995
- PAHUJA, Sundhya. **Decolonising International Law: Development, Economic Growth and the Politics of Universality.** Cambridge: Cambridge University Press, 2011
- PARFITT, Rose. **The Process of International Legal Reproduction: Inequality, Historiography, Resistance.** Cambridge: Cambridge University Press, 2019.
- PARK, June. **Why are Semiconductors so Relevant for Global Manufacturing?** 07 June 2021. Available at: <https://www.ispionline.it/en/pubblicazione/why-are-semiconductors-so-relevant-global-manufacturing-30705>;

PATNAIK, Priti. **The clock is ticking on securing WHO's finances; TRIPS Waiver update.** Geneva Health Files, Newsletter Edition 68, 2 July 2021. Available at: <https://genevahealthfiles.substack.com/p/the-clock-is-ticking-on-securing>

PATNAIK, Priti. Q&A: Hyo Yoon Kang on the financialization of intellectual property & its implications in a pandemic, Geneva Health Files, 20 April 2021, Available at: <https://genevahealthfiles.substack.com/p/india-the-quagmire-for-covax-q-and>

PEREIRA, Lia Baker Valls. **Brasil-China: A Agenda de Investimentos.** Revista Conjuntura Econômica, December 2016, p. 62-65

PERRONE, Nicolás. **Investment Treaties and the Legal Imagination: How Foreign Investors Play by their Own Rules.** Oxford: Oxford University Press, 2021.

PERRY-KESSARIS, Amanda. **Prepare your indicators: economics imperialism on the shores of law and development.** International Journal of Law in Context, Volume 7, Issue 4, December 2011, pp. 401-421.

PHARMACEUTICAL TECHNOLOGY. **China's Sinovac Biotech gets funding for Covid-19 vaccine development.** 25 May 2020. Available at: <https://www.pharmaceutical-technology.com/news/sinovac-covid-19-vaccine-funding/>.

PILA, Justine. **Adapting the ordre public and morality exclusion of European patent law to accommodate emerging technologies.** Nature Biotechnology, Volume 38, 2020, p. 555–557.

PINHEIRO-MACHADO, Rosana. **Amanhã vai ser maior: O que aconteceu com o Brasil e possíveis rotas de fuga para a crise atual.** São Paulo: Planeta, 2019.

PINHEIRO-MACHADO, Rosana. **Counterfeit Itineraries in the Global South: The human consequences of piracy in China and Brazil.** Abingdon: Routledge, 2018.

PINHEIRO-MACHADO, Rosana. **Mona Lisa made in China – Refletindo sobre cópia e propriedade intelectual na sociedade chinesa a partir do caso de Dafen.** Proa – Revista de Antropologia e Arte 1(3), 2011.

POLIDO, Fabrício Bertini Pasquot. **Inteligência Artificial entre Estratégias Nacionais e a Corrida Regulatória Global: Rotas Analíticas para uma Releitura Internacionalista e Comparada.** Revista da Faculdade de Direito da UFMG, n. 76, 2020

POMERANZ, Kenneth. **The Making of a Hinterland: State, Society, and Economy in Inland North.** Los Angeles: University of California Press, 1993.

POTTAGE, Alain. **An Apocalyptic Patent.** Law and Critique, Vol. 31, 239–252, 2020.

POTTAGE, Alain; MUNDY, Martha. **Law, Anthropology, and the Constitution of the Social: Making Persons and Things.** Cambridge: Cambridge University Press, 2004.

POTTAGE, Alain; SHERMAN, Brad. **Figures of Invention: A History of Modern Patent Law.** Oxford: Oxford University Press, 2010.

POOVEY, Mary. **A history of the modern fact: problems of knowledge in the sciences of wealth and society.** Chicago: University of Chicago Press, 1998.

PRATT, Simon Frankel; LEVIN, Jamie. **Vaccines Will Shape the New Geopolitical Order: The gulf between haves and have-nots is only growing.** Foreign Policy, 29 April 2021.

PrEP4All. **Academics & Activists Urge NIH to Use Government-Owned Patents to Increase Vaccine Access.** 24 March 2021. Available at: <https://www.prep4all.org/news/nih-letter>

PUSCEDDU, Piergiuseppe. ***Hic sunt dracones? Mapping the Legal Framework of China's Innovation Policy: Standardization and IPRs.*** International Review of Intellectual Property and Competition Law, 51, 2020, p. 559–593.

QU, Jason. **Self-Strengthening Movement of Late Qing China: an Intermediate Reform Doomed to Failure.** Asian Culture and History; Vol. 8, No. 2; 2016.

RAJAGOPAL, Balakrishnan. **International Law from Below.** Cambridge: Cambridge University Press, 2003.

RANJAN, Prabhash, **Voluntary licensing of Covaxin will boost vaccine production.** Hindustan Times, 04 May 2021, Available at: <https://www.hindustantimes.com/opinion/voluntary-licensing-of-covaxin-will-boost-vaccine-production-101620130941033.html>

RATTON, Michelle Sanchez-Badin. **Demandas por um novo arcabouço sociojurídico na Organização Mundial de Comércio e o caso do Brasil.** PhD Thesis, São Paulo: University of São Paulo, 2004.

REIS, Renata Camile Carlos. **Redes Invisíveis: Os Grupos de Pressão na Câmara dos Deputados. O Processo de Aprovação da Lei de Propriedade Intelectual.** PhD Thesis, Federal University of Rio de Janeiro, 2015.

REN, Jiantao. **Rethinking the localization ideals of Chinese social sciences.** Available at: <http://www.aisixiang.com/data/121317.html>

REUTERS. **Cancer drug movie strikes nerve in China, becomes box-office hit.** 18 July 2018.

REUTERS. **China backs talks on intellectual property waiver for COVID vaccines.** 13 May 2021. Available at: <https://www.reuters.com/article/us-health-coronavirus-vaccine-china/china-backs-talks-on-intellectual-property-waiver-for-covid-vaccines-idUSKBN2CU0P8>

RILES, Annelise. **The Network Inside Out.** Ann Arbor: University of Michigan Press, 2001.

ROCAFORT, Fred. **How to Fight Back Against China Trademark Squatters.** 5 October 2020, Available at: <https://harrisbricken.com/chinalawblog/how-to-fight-back-against-china-trademark-squatters/>

ROMERO, Thamara. **Articles 7 and 8 as the basis for interpretation of the TRIPS Agreement.** Policy Brief 79, Geneva: South Centre, June 2020.

ROMERO, Thamara. **Public Health and Plain Packaging of Tobacco: An Intellectual Property Perspective.** South Centre Research Paper 108, May 2020.

ROY, Arundhati. **'We are witnessing a crime against humanity': Arundhati Roy on India's Covid.** The Guardian, 28 April 2021, Available at: <https://www.theguardian.com/news/2021/apr/28/crime-against-humanity-arundhati-roy-india-covid-catastrophe>

RUSE-KHAN, Henning Grosse; TEEMU, Alexander Puutio. **A Handbook on Negotiating Development Oriented Intellectual Property Provisions in Trade and Investment Agreements,** UN ESCAP & ARTNeT. 2017.

- SAHLINS, Marshall. **Japanese Culture is Always Changing**. In: Waiting Foucault, Still. Chicago: Prickly Paradigm Press, 2002, p. 9-11.
- SAHLINS, Marshall; GRAEBER, David. **On Kings**. HAU, 2017.
- SALOMÃO FILHO, Calixto, **A Legal Theory of Economic Power**. Cheltenham: Edward Elgar, 2013
- SALOMÃO FILHO, Calixto. **Direito Concorrencial**. São Paulo: Forense, 2021.
- SALOMÃO FILHO, Calixto. **Teoria Crítico-Estruturalista do Direito Comercial**. São Paulo: Marcial Pons, 2015.
- SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Courts and Pharmaceutical Patents: From Formal Positivism to the Emergence of Global Law**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing Flexibilities under International Intellectual Property Law*. Munich: Springer, forthcoming in 2021.
- SALOMÃO FILHO, Calixto; IDO, Vitor Henrique Pinto. **Global Corruption and Economic Power**. In: MUIR-WATT, Horatia; ARROYO, Diego; BÍZIKOVÁ, Lucia; OLIVEIRA, Agatha Brandão de. *Adjudication without Frontiers: The Global Turn in Private International Law*. Edward Elgar: London, 2019.
- SAMPATH, Padmashree Gehl. **Technology and Inequality: Can we decolonize the digital world?** Southviews N. 215, Geneva, 6 April 2021. Available at: <https://www.southcentre.int/wp-content/uploads/2021/04/SouthViews-Sampath.pdf>
- SAMPATH, Padmashree Gehl; ROFFE, Pedro. **Unpacking the International Technology Transfer Debate: Fifty Years and Beyond** ICTSD, Issue Paper 36, November 2012
- SAMPAT, Bhaven; SHADLEN, Kenneth C. **The COVID-19 innovation system**. Health Affairs, 40 (3), 2021, p. 400 - 409.
- SAMPAT, Bhavan. **Whose Drugs are These?** ISSUES In Science and Technology. Vol. XXXIV, No. 4, Summer 2020. Available at: <https://issues.org/drug-pricing-and-taxpayer-funded-research/>
- SANCHEZ-BADIN, Michelle Ratton; MOROSINI, Fabio. **International Economic Law by Other Means: a three-level matrix of Chinese investments in Brazil's Electric Power Sector**. Harvard International Law Journal, Vol. 62, Special Issue, 2021.
- SANTA CRUZ, Maximiliano; OLIVOS, Catalina. **The Twenty-First Century Intellectual Property Office**. In: CORREA, Carlos; SEUBA, Xavier. **Intellectual Property and Development: Understanding the Interfaces**. Munich: Springer, 2019, p. 181-198.
- SAPIGNOLI, Maria. **A kaleidoscopic institutional form: expertise and transformation in the UN Permanent Forum on Indigenous Issues**. In: NIEZEN, Ronald; SAPIGNOLI, Maria (eds.). *Palaces of hope: the anthropology of global organizations*. 1. ed. Cambridge Studies in Law and Society. Cambridge: Cambridge University Press, 2017, pp. 78–105.
- SASKEN, Saskia. **Expulsions: Brutality and Complexity in the Global Economy**. Cambridge: Harvard University Press, 2014.
- SCHIFF, Eric. **Industrialization Without National Patents: The Netherlands, 1869-1912; Switzerland, 1850-1907**, Princeton, Princeton University Press, 1971.

SCHMALL, Emily; SINGH, Karan Deep. **India and its Vaccine Maker Stumble Over their Pandemic Promises.** The New York Times, 7 May 2021, Available at: <https://www.nytimes.com/2021/05/07/world/india-serum-institute-covid19.html>

SCHUETTLER, Darren. Angered U.S. firm excludes Thailand from new drugs. Reuters, 14 March 2007. Available at: <https://www.reuters.com/article/us-thailand-drugs-abbott/angered-u-s-firm-excludes-thailand-from-new-drugs-idUSBKK27714620070314>

SCHWARCZ, Lilia; STARLING, Heloisa. **Brazil: A Biography.** New York: Farrar, Straus and Giroux, 2018.

SELL, Susan. **Private Power, Public Law: The globalization of intellectual property rights.** Cambridge: Cambridge University Press, 2003.

SELL, Susan. **TRIPS-Plus Free Trade Agreements and Access to Medicines.** Liverpool Law Review, 28, 2007, p. 41-75

SENFTLEBEN, Martin. **The Copyright/Trademark Interface: How the Expansion of Trademark Protection Is Stifling Cultural Creativity.** Philadelphia: Wolters Kluwer, 2020.

SHADLEN, Kenneth. **Coalitions and Compliance: The Political Economy of Pharmaceutical Patents in Latin America.** Oxford: Oxford University Press, 2017.

SHADLEN, Kenneth. **Patents and Pills, Power and Procedure: The North-South Politics of Public Health in the WHO.** LSE Development Studies Institute Working Paper Series, N. 03-42, January 2003

SHADLEN, Kenneth C; BHAVEN, Sampat; KAPCZYSNKI, Amy. **Patents, trade and medicines: past, present and future.** Review of International Political Economy, 27:1, 2020, p. 75-97.

SHAFFER, Gregory; GAO, Henry. **A new Chinese economic law order?** Journal of International Economic Law. 23, (3), 2020, p. 607-635.

SHAH, Sahar. **‘Authorizing the Peril’: Mythologies of (Settler) Law at the End of Time.** Law and Critique, 2021.

SHAO, Ken. **Taobao, WeChat and Xiaomi: How innovation flourishes in China’s ‘fertile land of intellectual property piracy’.** In: GHIDINI, Gustavo; ULLRICH, Hans; DRAHOS, Peter. *Kritika: Essays on Intellectual Property*, Vol 2, 2017, p. 22-43.

SHEN, Changyu. **Upholding Development of Intellectual Property with Chinese Characteristics.** 19 February 2021, Available at: https://english.cnipa.gov.cn/art/2021/2/19/art_1340_156782.html

SHEN, Lu. **China Could Soon Have Stronger Privacy Laws than the US.** Protocol, 8 May 2021. Available at: <https://www.protocol.com/china/china-privacy-laws-surpass-usa>

SHIH, Victor C. **China’s Leninist Response to Covid-19: From information repression to total mobilization.** In: GREER, Scott L., KING, Elizabeth J., FONSECA, Elize Massard da, PERALTA-SANTOS, André (Ed.) *Coronavirus Politics: The Comparative Politics and Policy of COVID-19.* e-book. Ann Arbor: Michigan University Press, 2021.

SHIH, Victor; ADOLPH, Christopher; LIU, Mingxing. **Getting Ahead in the Communist Party: Explaining the Advancement of Central Committee Members in China.** *American Political Science Review*: Vol. 106, Issue 1, February 2021, p. 166-187.

SLOBODIAN, Quinn. **Are Intellectual Property Rights Neoliberal? Yes and No.** *Promarket* (Stigler Center for the Study of the Economy and the State), 18 April 2021. Available at: <https://promarket.org/2021/04/18/intellectual-property-rights-neoliberal-hayek-history/>

SOFFE, Raphaëlle P. **The Treaty as to Commercial Relations of 1903: China and Extraterritoriality.** *The Chinese Journal of Comparative Law*, Volume 8, Issue 2, September 2020, Pages 435–449.

SONG, Jianlin, GEE, James Paul. **Slogans with Chinese Characteristics: The Political Functions of a Discourse Form.** *Discourse & Society* 31, no. 2, March 2020, p. 201–17.

SONG, Ping. **Anthropology in China today.** *Asian Anthropology*, Vol 16, Issue 3, 2017.

SOUTH CENTRE, **A Public Health Approach to Intellectual Property Rights: Public Health Related Flexibilities in the TRIPS Agreement.** Available at: <https://ipaccessmeds.southcentre.int/wp-content/uploads/2018/12/Public-Health-RelatedFlexibilities-in-the-TRIPS-Agreement.pdf>

SRIDEVAN, Prabha. **Is the Right to Exclusivity a Hamlet Question?** *SouthViews*, No. 207, 28 September 2020. Available at: <https://www.southcentre.int/wp-content/uploads/2020/09/SouthViews-Sridevan.pdf>

STRATHERN, Marilyn. **Cutting the Network.** *The Journal of Royal Anthropological Institute*, Vol. 2, N. 3, p. 517-535, 1996.

STRATHERN, Marilyn. **From Improvement to Enhancement: An Anthropological Comment on the Audit Culture.** *Cambridge Anthropology* 19, no. 3, 1996, p. 1-21.

STRATHERN, Marilyn. **Out of Context: The Persuasive Fictions of Anthropology.** *Current Anthropology*, Vol. 28, No. 3, June 1987, pp. 251-281.

STRATHERN, Marilyn. **Partial Connections.** Lanham: Rowman and Littlefield, 1991

STRATHERN, Marilyn. **Relations: An Anthropological Account.** Durham: Duke University Press, 2020, p. 3.

STRATHERN, Marilyn. **Terms of Engagement.** *Social Anthropology*, Vol. 29, Issue 2, 2021, p. 283-297.

STRATHERN, Marilyn; HIRSCH, Eric. **Transactions and Creations: Property Debates and the Stimulus of Melanesia.** Oxford: Berghahn Books, 2006.

STOPPIONI, Edoardo. **Rethinking the Structures of the Hegemonic Discourse of the WTO Judge and Investment Arbitrator: a Gramscian Analysis.** *Legal Form: A Forum for Marxist Analysis and Critique*. 26 October 2018, Available at: <https://legalform.blog/2018/10/26/rethinking-the-structures-of-the-hegemonic-discourse-of-the-wto-judge-and-investment-arbitrator-a-gramscian-analysis-edoardo-stoppioni/>

STOLLER, Matt. **Why Joe Biden Punched Big Pharma in the Nose Over Covid Vaccines.** 9 May 2021, Available at: <https://mattstoller.substack.com/p/why-joe-biden-punched-big-pharma>

SZTUTMAN, Renato. **Ética e Profética nas Mitológicas de Lévi-Strauss**. Horizonte Antropológico, 15 (31), 2009.

STUENKER, Oliver. **Post-Western World: How Emerging Economies are Remaking Global Order**. New York: Wiley, 2016.

SUPIOT, Alain. **Governance by Numbers: The Making of a Legal Model of Allegiance**. London: Hart Publishing, 2017.

SYAM, Nirmalya. **Mainstreaming or Dilution? Intellectual Property and Development in WIPO**. Research Paper, Geneva: South Centre, 2019.

SYAM, Nirmalya. **Robust Patent Examination or Deep Harmonization? Cooperation and Work Sharing Between Patent Offices**. In: CORREA, Carlos; HILTY, Reto. *Access to Medicines and Vaccines: Implementing flexibilities under international intellectual property law*. South Centre and Max Planck Institute for Innovation and Competition. Munich: Springer, forthcoming in 2021.

SWANSON, Ana; ZHONG, Raymond. **U.S. Places Restrictions on China's Leading Chip Maker**. New York Times, 26 September 2020. Available at: <https://www.nytimes.com/2020/09/26/technology/trump-china-smic-blacklist.html>

TAN, Celine; FAUNDEZ, Julio (eds). **International economic law, globalization and developing countries**. Cheltenham: Edward Elgar, 2010

TAN, Celine. **Audit as Accountability: Technical Authority and Expertise in the Governance of Private Financing for Development**. *Social & Legal Studies*. February 2021.

TAO, Kaiyuan. **China's commitment to strengthening IP judicial protection and creating a bright future for IP rights**. WIPO Magazine, June 2019, Available at: https://www.wipo.int/wipo_magazine/en/2019/03/article_0004.html

TAVOLARI, Bianca. **Jane Jacobs: contradictions and tensions**. Revista Brasileira de Estudos Urbanos e Regionais, São Paulo, v. 21, n. 1, p. 13-25, 2019.

THAMBISETTY, Siva. **Liza's Bucket: Intellectual Property and the Metamodern Impulse**. LSE Law Working Paper Series 19/2020.

THAMBISETTY, Siva; McMAHON, Aisling; McDONAGH, Luke; KANG, Hyo Yoon; DUTFIELD, Graham. **The TRIPS Intellectual Property Waiver Proposal: Creating the Right Incentives in Patent Law and Politics to end the COVID-19 Pandemic**. LSE Legal Studies Working Paper No. 06, 24 May 2021.

THE GUARDIAN. **Chinese government urged to admit responsibility for HIV cases**. 01 December 2010. Available at: <https://www.theguardian.com/world/2010/dec/01/china-blood-selling-scandal-hiv>

THOMAS, Christopher A. **Lagging but Motivated: The state of China's semiconductor industry**. Brookings Institution – Tech Streams, 7 January 2021. Available at: <https://www.brookings.edu/techstream/lagging-but-motivated-the-state-of-chinas-semiconductor-industry/>

THOMPSON, Clive. **Imitation Can Be the Sincerest Form of Innovation**. 27 February 2013. Available at: <https://www.wired.com/2013/02/clive-thompson-imitation/>

TINGMEI, Liu. **The China International Commercial Court (CICC) 2018**. Available at: <http://cicc.court.gov.cn/html/1/219/208/209/1316.html>

TORREELE, Els; MAZZUCATO, Mariana; LI, Henry Lishi. **Delivering the People's Vaccine: Challenges and Proposals for the Biopharmaceutical Innovation System**. Institute for Innovation and Public Purpose Policy Brief 12, January 2021, Available at: https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/iipp-pb12_delivering-the-peoples-vaccine_final.pdf

TOWNSEND, Belinda. **Defending access to medicines in regional trade agreements: lessons from the Regional Comprehensive Economic Partnership – a qualitative study of policy actors' views**. *Global Health* 17, 78, 2021.

TRUBEK, David. **Law and Development 50 years on**. University of Wisconsin Law School, Legal Studies Research Paper Series Paper No. 1212, 2012.

TRUBEK, David; GARCIA, Helena Alviar; COUTINHO, Diogo R.; SANTOS, Álvaro. **Law and The New Developmental State**. Cambridge: Cambridge University Press, 2013.

TSOU, Leo. **Coronavirus Patents: China Files for Remdesivir Patent, but Gilead Sciences Will Still Come Out a Winner**. InQuartik. 20 February 2020. Available at: <https://www.inquartik.com/inq-china-coronavirus-patents-gilead-portfolio/>

TURNER, Victor. **Liminality and Communitas**. In: *The Ritual Process: Structure and Anti-Structure*. Chicago: Aldine Publishing, 1969.

TZOUVALA, Ntina. **Capitalism as Civilization: A History of International Law**. Cambridge: Cambridge University Press, 2020.

TZOUVALA, Ntina. **The Spectre of Eurocentrism in International Legal History**. *Yale Journal of Law & the Humanities*, Vol. 31, Issue 2, 2021.

URIAS, Eduardo. **The Potential Synergies Between Industrial and Health Policies for Access to Medicines: Insights from the Brazilian Policy of Universal Access to HIV/AIDS Treatment**. *Innovation and Development*, Vol. 9, Issue 2, 2019, p. 245-260.

UNITED STATES PATENTS AND TRADEMARKS OFFICE (USPTO). **Trademarks and Patents in China: The Impact of Non-Market Factors on Filing Trends and IP Systems**. January 2021, Available at: <https://www.uspto.gov/sites/default/files/documents/USPTO-TrademarkPatentsInChina.pdf>

VANNI, Amaka. **Patent Games in the Global South: Pharmaceutical Patent Law-Making in Brazil, India and Nigeria**. Oxford, UK: Hart Publishing, 2020.

VANNI, Amaka. **On Intellectual Property Rights, Access to Medicines and Imperialism**. *TWAIL Review*, 23 March 2021. Available at: <https://twailr.com/on-intellectual-property-rights-access-to-medicines-and-vaccine-imperialism/>

VATS, Anjali. **The Color of Creatorship: Intellectual Property, Race and the Making of Americans**. Stanford: Stanford University Press, 2020

VALENTE, Mariana Giorgetti. **A Construção do Direito Autoral no Brasil: Cultura e Indústria em Debate Legislativo**. São Paulo: Letramento, 2019.

VALENTE, Mariana Giorgetti. **Digital technologies and copyright: international trends and implications for developing countries.** Digital Pathways at Oxford Paper Series; no. 1, Oxford, 2020.

VELÁSQUEZ, Germán. **Access to Medicines and Intellectual Property: The Role of the World Health Organization.** Research Paper 47, South Centre: Geneva, May 2013.

VELÁSQUEZ, Germán. **Rethinking R&D for Pharmaceuticals After the Novel Coronavirus COVID-19 Shock.** Policy Brief 75, Geneva: South Centre, April 2020.

VELÁSQUEZ, Germán. **What's wrong with Biden's promise to waive vaccine patents.** Politico, 6 May 2021. Available at: <https://www.politico.eu/article/jo-biden-coronavirus-vaccine-patents/>

VELÁSQUEZ, Germán; SYAM, Nirmalya. **A New WHO International Treaty on Pandemic Preparedness and Response: Can it Address the Needs of the Global South?** Policy Brief 93. Geneva: South Centre, May 2021.

VENTURA, Deisy de Freitas Lima; BUENO, Flávia Thedim Costa. **De Líder a Paria de la Salud Global: Brasil como Laboratorio del “Neoliberalismo Epidemiológico” ante la COVID-19.** Foro Internacional (FI), LXI, 2021, n. 2, 244, p. 427-467. Available at: <https://forointernacional.colmex.mx/index.php/fi/article/view/2835/2760>

VIEIRA, Marcela, REIS, Renata, MACHADO, Eloísa. **Patentes farmacêuticas e a anuência prévia da ANVISA: a inexequibilidade do parecer da AGU.** In NOBRE, Milton Augusto de Brito; SILVA, Ricardo Augusto Dias. (Org.). *O CNJ e os Desafios da Efetivação do Direito à Saúde.* Minas Gerais: Editora Fórum, 2011, p. 303-344.

VIEIRA, Marcela.; MOON, Suerie. **Research Synthesis: Public Funding of Pharmaceutical R&D.** Graduate Institute – Global Health Centre, 2019. Available at: <https://www.knowledgeportalia.org/public-funding-of-r-d>

VIVEIROS DE CASTRO, Eduardo. **A Floresta de Cristal: Notas sobre a ontologia dos espíritos amazônicos.** Cadernos de campo, São Paulo, n. 14/15, p. 1-382, 2006, Available at: <http://www.iea.usp.br/eventos/viveiros-floresta>

VIVEIROS DE CASTRO, Eduardo. **Cannibal Metaphysics.** Minneapolis: University of Minnesota Press, 2014.

VON HIPPEL, Eric. **The Sources of Innovation.** Oxford: Oxford University Press, 1988.

WAGNER, Roy. **The Invention of Culture.** Chicago: Chicago University Press, 1981 [1975], p. 16.

WAISBICH, Laura Trajber; ROYCHOUDHURY, Supriya; HAUG, Sebastian. **Beyond the Single Story: ‘Global South’ polyphonies.** Third World Quarterly, 2021.

WALKER, Harry. **Equality without equivalence: an anthropology of the common.** Journal of the Royal Anthropological Institute, 26 (1). 146–166, 2020

WALKER, R.B.J. **Inside/Outside – International Relations as Political Theory.** Cambridge: Cambridge University Press, 1992.

WALLERSTEIN; Immanuel. **The Modern World-system I. Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century.** Berkeley: University of California Press, 2011 [1974].

WANG, Gungwu. **Renewal: The Chinese State and the New Global History.** Hong Kong: The Chinese University of Hong Kong Press, 2013.

WANG, Xiaoyu. **Experimental Covid vaccine gets patent.** State Council of the People's Republic of China, 18 August 2021. Available at: http://english.www.gov.cn/news/topnews/202008/18/content_WS5f3b2c11c6d029c1c2637ff0.html

WANG, Zuoyue. **The Chinese Developmental State during the Cold War: the making of the 1956 twelve-year science and technology.** History and Technology, Vol. 31, n. 3, 2015, p. 180-205.

VAWDA, Yousuf A.; BAKER, Brook. **Achieving social justice in the human rights/intellectual property debate realizing the goal of access to medicines.** African Human Rights Law Journal, Vol. 13, N. 1, 1 January 2013.

WEBER, Isabella. **How China Escaped Shock Therapy: The Market Reform Debate.** Abingdon: Routledge, 2021.

WHEATON, Sarah; DEUTSCH, Jillian. Europe prepares late entry in vaccine diplomacy race, POLITICO, 6 May 2021, Available at: <https://www.politico.eu/article/eu-europe-excess-coronavirus-vaccine-doses/>

WILLIAMS, Cynthia A; ZUMBANSEN, Peer (orgs.). **The Embedded Firm: Corporate Governance, Labor, and Finance Capitalism.** Cambridge: Cambridge University Press, 2011.

WININGER, Aaron. **China to Cancel all Patent Subsidies.** China IP Law Update. 27 January 2021, Available at: <https://www.chinaiplawupdate.com/2021/01/china-to-cancel-all-patent-subsidies/>

WORLD INTELLECTUAL PROPERTY ORGANIZATION. **Global Innovation Index 2020.** Available at: https://www.wipo.int/global_innovation_index/en/

WORLD INTELLECTUAL PROPERTY ORGANIZATION. **WIPO Conversation on IP and AI.** Available at: https://www.wipo.int/about-ip/en/artificial_intelligence/conversation.html

WORLD INTELLECTUAL PROPERTY ORGANIZATION – PROGRAM AND BUDGET COMMITTEE (WO/PBC/32/3), **Medium-Term Strategic Plan (MTSP) 2022-2026.**

WORLD INTELLECTUAL PROPERTY ORGANIZATION – ADVISORY COMMITTEE ON ENFORCEMENT (WIPO/ACE/3/4), **Education and Awareness-Building Initiatives on International Trademark Association (INTA) on Trademark Protection and Enforcement,** 2006.

WIPO MAGAZINE. **China's IP Journey.** December 2010, Available at: https://www.wipo.int/wipo_magazine/en/2010/06/article_0010.html

WOLF, Eric. **Europe and the People Without History.** Berkeley: University of California Press, 1982.

WORLD HEALTH ORGANIZATION. **WHO Covid-19 Technology Access Pool. May 2020.** Available at: <https://www.who.int/initiatives/covid-19-technology-access-pool>

WORLD INTELLECTUAL PROPERTY ORGANIZATION. **Intangible Capital in Global Value Chains.** Geneva: WIPO Report 2017, Available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf

WORLD INTELLECTUAL PROPERTY ORGANIZATION. **IP4Youth and Teachers.** Available at: <https://welc.wipo.int/ipedu/>

WORLD TRADE ORGANIZATION. COUNCIL OF THE TRIPS AGREEMENT. **Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of Covid-19.** Communication from India and South Africa, IP/C/W/669, 2 October 2020, Available at: <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/IP/C/W669.pdf&Open=True>

WU, Mark. **The 'China, Inc.' Challenge to Global Trade Governance.** Harvard International Law Journal, 57, 261, 2016.

XI, Jinping. **Comprehensively strengthen the protection of intellectual property rights, stimulate innovation and promote the construction of a new development pattern.** 31 January 2021, available at: http://www.xinhuanet.com/politics/2021-01/31/c_1127046994.htm

XINHUA. **Cronology of China's Belt and Road.** 24 June 2016. Available at: <http://en.people.cn/n3/2016/0624/c90883-9077342.html>

YADAV, Monika. **ICMR ready to offer Covaxin know-how to other firms.** The Hindu, 7 May 2021, Available at: <https://www.thehindubusinessline.com/news/icmr-ready-to-offer-covaxin-know-how-to-other-firms/article34501232.ece>

YANG, Deli. **Culture matters to multinationals' intellectual property businesses.** Journal of World Business, 40, 2005, p 281–301.

YAPP, Hentyle. **Minor China: Methods, Materialisms, and the Aesthetic.** Durham: Duke University Press, 2021.

YU, Liya. **Vulnerable Brains: The Neuropolitics of Divided Societies.** New York City: Columbia University Press, forthcoming in 2021.

YU, Peter K. **Building Intellectual Property Infrastructure Along China's Belt and Road,** 14 U. PA. ASIAN L. REV. 275, 2019.

YU, Peter K. **China, 'Belt and Road' and Intellectual Property Cooperation.** Global Trade and Customs Journal, Vol. 14, 2019

YU, Peter K. **China's Innovative Turn and the Changing Pharmaceutical Landscape.** University of the Pacific Law Review, Vol. 51, pp. 593-620, 2020

YU, Peter K., **The Rise of China in the International Intellectual Property Regime** (August 1, 2018). HANDBOOK ON THE INTERNATIONAL POLITICAL ECONOMY OF CHINA, Zeng Ka, ed., Edward Elgar Publishing, pp. 424-43, 2019.

ZELIZER, Viviana. **Economic Lives: How Culture Shapes the Economy.** Princeton, NJ: Princeton University Press, 2010.

ZERK, Jennifer. **Advancing Human Rights through Trade – Why stronger human rights monitoring is needed and how to make it work.** 26 May 2021. Research Paper, Chatham House. Available at: <https://www.chathamhouse.org/2021/05/advancing-human-rights-through-trade>

ZHANG, Angela. **Agility Over Stability: China's Great Reversal in Regulating the Platform Economy**. University of Hong Kong Research Paper, 28 July 2021.

ZHANG, Angela. **Chinese Antitrust Exceptionalism: How the Rise of China Challenges Global Regulation**. Oxford: Oxford University Press, 2021.

ZHANG, Chenchen. **Covid-19 in China: From 'Chernobyl Moment' to Impetus for Nationalism**. *Made in China Journal*, 4 May 2020. Available at: <https://madeinchinajournal.com/2020/05/04/covid-19-in-china-from-chernobyl-moment-to-impetus-for-nationalism/>

ZHOU, Yuexin. **Proteção Cibernética de Informações Pessoais em um Sistema Multidimensional**. (translated by YI, Liu; SAEZ, Talitha) *Revista Internet e Sociedade*, Vol. 1, n. 2, dez 2020. Available at: <https://revista.internetlab.org.br/protacao-cibernetica-de-informacoes-pessoais-em-um-sistema-multidimensional/>

ZHU, Zhiqun. **Interpreting China's "Wolf Warrior Diplomacy"**. Honolulu: Pacific Forum, PacNet 14 May 2020.

ZHU, Zhiqun. **Vaccine diplomacy: China and India push ahead to supply vaccines to developing countries**. *Think China*, 8 February 2021, Available at: <https://www.thinkchina.sg/vaccine-diplomacy-china-and-india-push-ahead-supply-vaccines-developing-countries>.

ZUMBANSEN, Peer. **Transnational Law: Evolving**. In: SMITS, Jan (ed.), *Encyclopedia of Comparative Law*. Cheltenham: Edward Elgar 2nd ed., 2012, p. 899-925.

ZUMBANSEN, Peer. **What is Economic Law?** TLI Think! Paper 20/2020, King's College London Law School Research Paper No. 2021/1.

Websites

China IPR blog by Mark Cohen. Available at: <https://chinaipr.com/>

Made in China Journal. Available at: <https://madeinchinajournal.com/>

Race + IP Conference 2021. Available at: <https://raceipconference.org/2021/>

Reading the China Dream Blog by David Ownby, Available at: <https://www.readingthechinadream.com/>

Shumian. Available at: <https://shumian.com.br/>

Speeches, Official Documents and Announcements

CHINA NATIONAL INTELLECTUAL PROPERTY ADMINISTRATION (CNIPA). **Notice of the State Intellectual Property Office on Further Strictly Regulating Patent Application Behavior**. 27 January 2021. Available at: https://www.cnipa.gov.cn/art/2021/1/27/art_545_156433.html

COMMISSION FOR SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD). **Draft Report of the Working Group on Enhanced Cooperation (WGEC)**, Fifth Meeting, 29-31 January 2018. Available at: https://unctad.org/system/files/official-document/WGEC2016-18_m5_SecondDraftReport_en.pdf

DEPARTMENT OF FOREIGN AFFAIRS AND TRADE, AUSTRALIA. **Twenty-sixth Round of Negotiations, 22 June – 3 July 2019, Melbourne, Australia.** Available at: <https://www.dfat.gov.au/trade/agreements/negotiations/rcep/news/Pages/twenty-sixth-round-of-negotiations-22-june-3-july-2019-melbourne-australia>

EUROPEAN COMMISSION. **Commission Report on the Protection and Enforcement of IPR in Third Countries.** Brussels, 28 April 2021, Available at: <https://trade.ec.europa.eu/doclib/press/index.cfm?id=2266>

EUROPEAN COMMISSION. **Counterfeit and Piracy Watch List.** Commission Staff Working Document, 14 December 2020. Available at: https://trade.ec.europa.eu/doclib/docs/2020/december/tradoc_159183.pdf

HUAWEI. **Respecting and Protecting Intellectual Property: The Foundation of Innovation.** Huawei White Paper on Innovation and Intellectual Property 2020. Available at: <https://www.huawei.com/en/technology-insights/industry-insights/innovation/huawei-white-paper-on-innovation-and-intellectual-property>

MÉDECINS SANS FRONTIÈRES. **MSF update on 26th round of RCEP negotiations in Melbourne, Australia.** 01 July 2019. Available at: <https://msfaccess.org/msf-update-26th-round-rcep-negotiations-melbourne-australia>

MEDICINES PATENT POOL. **Governance Board Resolution on expanding MPP's remit into the licensing of technology transfer with an initial focus on Covid-19 vaccines and pandemic preparedness.** 19 May 2021. Available at: <https://medicinespatentpool.org/who-we-are/governance-team/governance-board-decisions/>

PEOPLE'S REPUBLIC OF CHINA. **Comments on Future Work Regarding Graphical User Interface (GUI), Icon, and Typeface/Type Font Designs to WIPO SCT 39/2018.** Available at: <https://www.wipo.int/export/sites/www/sct/en/comments/pdf/sct39/china.pdf>

PEOPLE'S REPUBLIC OF CHINA – MINISTRY OF COMMERCE (MFC). **China FTA Network.** Available at: <http://fta.mofcom.gov.cn/english/index.shtml>

PEOPLE'S REPUBLIC OF CHINA – STATE COUNCIL. **Fighting Covid-19 China in Action.** 07 June 2020. Available at: http://english.www.gov.cn/news/topnews/202006/07/content_WS5edc559ac6d066592a449030.htm

PEOPLE'S REPUBLIC OF CHINA – STATE COUNCIL. **National Intellectual Property Strategy.** 5 June 2008.

PEOPLE'S REPUBLIC OF CHINA – STATE COUNCIL. **Made in China 2025 (中国制造 2025),** 19 May 2015;

PFIZER. **Pfizer and BioNTech Announce Collaboration with Biovac to Manufacture and Distribute Covid-19 Vaccines Doses Within Africa.** 21 July 2021. Available at: <https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-collaboration-biovac>

SHANGHAI FOSUN PHARMACEUTICAL (GROUP) CO. LTD. **Voluntary Announcement. Entering into the Term Sheet in Relation to the Formation of a Joint Venture.** Available at: <https://www1.hkexnews.hk/listedco/listconews/sehk/2021/0509/2021050900121.pdf>

SHEN, Changyu. **The Chinese Government Delegation Statement at the 61st WIPO Assemblies.** 21-25 September 2020. Available at: https://www.wipo.int/edocs/mdocs/govbody/zh/a_61/a_61_stmt_china.pdf

SINOVAC BIOTECH. **Company Profile.** Available at: <http://www.sinovac.com/?optionid=749>.

SINOVAC BIOTECH. **Sinovac and Butantan Join Efforts to Advance the Clinical Development of An Inactivated Vaccine for COVID-19 to Phase III.** Press Release. Available at: http://www.sinovac.com/?optionid=754&auto_id=903.

SOUTH CENTRE. **South Centre Statement for the Third Session of the WIPO Conversation on AI and IP.** 4 November 2020, Available at: https://www.southcentre.int/wp-content/uploads/2020/11/South-Centre-Statement-3rd-Session-AI-IP-Nov-2020_finalrev.pdf

SUPREME PEOPLE'S COURT OF THE PEOPLE'S REPUBLIC OF CHINA. **Opinions on Comprehensively Strengthening Judicial Protection of Intellectual Property Rights.** 21 April 2020, Available at: <http://www.court.gov.cn/fabu-xiangqing-226491.html>

UNCTAD. **Globalization of R&D and Developing Countries.** 2006.

UNITED NATIONS SECRETARY-GENERAL HIGH-LEVEL PANEL ON ACCESS TO MEDICINES. **Report – Promoting Innovation and Access to Health Technologies,** 2016.

UNITED STATES, **Fact Sheet – American Jobs Plan,** 31 March 2021, Available at: <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>

USTR. Statement from Ambassador Katherine Tai on the Covid-19 Trips Waiver, 05 May 2021. Available at: <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2021/may/statement-ambassador-katherine-tai-covid-19-trips-waiver>

XI, Jinping. Working Together to Build a Global Community of Health for All. G20 Global Health Summit, 17 May 2021, Available at: https://www.fmprc.gov.cn/mfa_eng/zxxx_662805/t1877666.shtml

XI, Jinping. **Comprehensively strengthen the protection of intellectual property rights, stimulate innovation and promote the construction of a new development pattern.** 31 January 2021. Qiúshì Magazine (求是), 2021. Available at: http://www.xinhuanet.com/politics/2021-01/31/c_1127046994.htm

WORLD HEALTH ORGANIZATION. **Establishment of a Covid-19 mRNA Vaccine Technology Transfer Hub to Scale Up Global Manufacturing.** 16 April 2021. Available at: <https://www.who.int/news-room/articles-detail/establishment-of-a-covid-19-mrna-vaccine-technology-transfer-hub-to-scale-up-global-manufacturing>

WORLD HEALTH ORGANIZATION - THE INDEPENDENT PANEL FOR PANDEMIC PREPAREDNESS & RESPONSE – WORLD HEALTH ORGANIZATION. **COVID-19: Make it the Last Pandemic.** Report, 2021, Available at: https://theindependentpanel.org/wp-content/uploads/2021/05/COVID-19-Make-it-the-Last-Pandemic_final.pdf

WORLD HEALTH ORGANIZATION. **WHO Results Report – Programme Budget 2018-2019.** Available at: https://www.who.int/about/finances-accountability/reports/results_report_18-19_high_res.pdf?ua=1

WORLD INTELLECTUAL PROPERTY ORGANIZATION. **Intangible Capital in Global Value Chains.** Geneva: WIPO Report 2017, Available at: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2017.pdf

WORLD INTELLECTUAL PROPERTY ORGANIZATION. **Notification Number 110. Accession by the People's Republic of China.** Available at: https://www.wipo.int/treaties/en/notifications/convention/treaty_convention_110.html

WORLD TRADE ORGANIZATION. **China donates USD 1 million to support implementation of Trade Facilitation Agreement.** Press/816: Technical Assistance, 2 February 2018. Available at: https://www.wto.org/english/news_e/pres18_e/pr816_e.htm

WORLD TRADE ORGANIZATION, **Chinese Taipei – Member Information.** Available at: https://www.wto.org/english/thewto_e/countries_e/chinese_taipei_e.htm

WORLD TRADE ORGANIZATION. **Hong Kong - Member Information.** Available at: https://www.wto.org/english/thewto_e/countries_e/hong_kong_china_e.htm

WORLD TRADE ORGANIZATION, - **Macao – Member Information.** Available at: https://www.wto.org/english/thewto_e/countries_e/macao_china_e.htm

Case Law

BEIJING INTELLECTUAL PROPERTY COURT. (2017) **Jing 73 Min Zhong No. 797 Civil Judgment.** April 2, 2020.

HIGH COURT OF KENYA. Patricia Asero Ochieng v. Attorney General, Petition No. 409 of 2009 (Kenya, High Court of Kenya at Nairobi, 2012)

PEOPLE'S SUPREME COURT OF THE PEOPLE'S REPUBLIC OF CHINA. **Typical Cases – The Nature of the Markush claim, the amendment to it in the invalidation proceeding and the method for the inventive step judgment.** 13 December 2018. Available at: <http://ipc.court.gov.cn/en-us/news/view-15.html>

SUPREME COURT OF INDIA. **Novartis v. Union of India & Others** (2012).

US COURT OF APPEALS, 5TH CIRCUIT. **EI DuPont deNemours & Company v. Christopher**, 431 F. 2d 1012 (1970)

US SUPREME COURT. **Diamond v. Chakrabarty**, 447 U.S. 303 (1980).

US SUPREME COURT. **Animal Science Products, Inc. v. Hebei Welcome Pharmaceutical Co.** 585 U.S. (2018).

US SUPREME COURT. **Association for Molecular Pathology v. Myriad Genetics, Inc.**, 569 U.S. 576 (2013)

US SUPREME COURT. **eBay Inc. v. MercExchange, L.L.C.**, 547 U.S. 388 (2006).

WORLD TRADE ORGANIZATION, **China – Intellectual Property Rights (DS362).** Available at: https://www.wto.org/english/tratop_e/dispu_e/cases_e/1pagesum_e/ds362sum_e.pdf

WORLD TRADE ORGANIZATION. **Request for Consultation by India, European Union and a Member State – Seizure of Generic, Drugs in Transit, DS408** (2010)

WORLD TRADE ORGANIZATION. **Request for Consultation by Brazil European Union and a Member State – Seizure of Generic Drugs in Transit, DS409** (2010)

WORLD TRADE ORGANIZATION, **Request for Consultations by the United States, China – Certain Measures Concerning the Protection of Intellectual Property Rights, WTO Doc. WT/DS542/1** (23 Mar. 2018).

Artwork

CAI, Guo-Qiang (蔡国强). **Sky Ladder (2015)**

FEI, Cao. (曹斐) **RMB City** (2008) Available at: <http://rmbcity.com/>

FEI, Cao. (曹斐) **Whose Utopia (2006)**

PROST, François. **Paris Syndrome**. 2017.

Available at: <http://francoisprost.com/portfolio-item/paris-syndrome/>

WANG, Dongling (王冬玲) (2015)

WEN Muye (文牧野), Director. **Dying to Survive (Film)**, 2018.

YONG, Shi (施勇). **Saudade, 2018**.

Available at: <https://www.shanghartgallery.com/galleryarchive/work.htm?workId=102041>

ZHANG, Huan (張洵). **Family Tree. 2001**.

Legislations, Legal Documents, and Treaties

ECONOMIC AND TRADE AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA, 2020.

MINISTRY OF HOUSING AND URBAN-RELATED DEVELOPMENT OF THE PEOPLE'S REPUBLIC OF CHINA. **Notice of the National Development and Reform Commission of the Ministry of Housing and Urban-Rural Development on further strengthening the management of urban and architectural features**. 27 April 2020. Available at: http://www.mohurd.gov.cn/jzjnykj/202004/t20200429_245239.html.

TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS AGREEMENT), 1994.

UNITED KINGDOM – COMMISSION ON INTELLECTUAL PROPERTY RIGHTS. **Integrating Intellectual Property Rights and Development Policy**. Report. London, September 2002.

WORLD HEALTH ASSEMBLY. **Resolution WHA 61.21 Global Strategy and Plan of Action on Public Health, Innovation and Intellectual property**. Geneva, 2006.

Webinars and Conferences

CENTRO DE ESTUDOS LEGAIS ASIÁTICOS – CELA, FDUSP (Center for Asian Legal Studies, Faculty of Law, University of São Paulo). **Competition Law in Developing Countries**. Webinar discussion, 21 June 2021.

COHEN, Mark. **China's Emerging Intellectual Property Edge: Challenges and Opportunities. Presentation**. Duke University, 22 February 2021.

COHEN, Mark. **Fact and Fiction in the U.S.-China Intellectual Property Trade War**. Presentation at Asia Society. **13 October 2020**. Available at: <https://www.youtube.com/watch?v=F3lSiS2EbyU>

COHEN, Mark. **Weaponization of Intellectual Property Against China**. Presentation at UC San Diego, 25 February 2021. Available at: <https://www.youtube.com/watch?v=jlaOttgBPGU>

FAIRBANK CENTER FOR CHINESE STUDIES **How Political Heritage and Future Progress Shape the China Challenge with Wang Gungwu**. 26 October 2020, Available at: https://www.youtube.com/watch?v=kMcGx_Wr7rU

GLOBAL HEALTH CENTRE – GRADUATE INSTITUTE. Statement by Jayshree Watal during Webinar “**Getting to Vaccine Equity: TRIPS Waiver and Beyond**”, 17 June 2021. Information and recording available at: <https://www.graduateinstitute.ch/Vaccine-Equity?j=71168033&sfmc>

LEE, Gregory. **What does it mean to be “Chinese” outside of China today?** Oxford China Centre, China Centre Seminar Series: Conversations. The Oxford China Conversations IV, 20 May 2021. Initial Remarks.

LI, Mingde. Presentation at Xiamen University IP Summer School, July 2018. Xiamen.

Panel Discussion on Intellectual Property Law Scholarship and Pedagogy in Times of Covid-19 Pandemic, Kent Law School, 1 July 2021. Available at: <https://www.youtube.com/watch?v=hceZly406FI>

SOUTH CENTRE. **Webinar – Manufacturing Capacity for Covid-19: The Experience of Butantan-Sinovac**. 23 May 2021. Available at: <https://www.youtube.com/watch?v=H6dmVvxRiOo&t=9s>

WOLFF, Alan. **The Role of the WTO and International Organizations in IP and Technology**. Presentation. Tech, Trade and China – The Future of Multilateral Approaches to China Tech Policy. Berkeley Law School – Asia IP & Technology Law Project. 27 April 2021. Available at: https://www.kaltura.com/index.php/extwidget/preview/partner_id/1368891/uiconf_id/41443412/entry_id/1_r1ydz6y0/embed/iframe?

XIAMEN UNIVERSITY INTELLECTUAL PROPERTY INSTITUTE. Summer School, July 2018.