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Sequence-to-sequence learning for automated software artifact generation

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Introduction

The Intersection between Intellectual Property Rights and Free Trade Agreements

KUNG-CHUNG LIU AND JULIEN CHAISSE*

Recent trends in international trade and investment agreements show elements of change with regard to traditional approaches to trade rule making. While overall multilateral regulation of the so-called ‘Singapore issues’ (investment, competition, transparency in government procurement and trade facilitation) have been taken off the World Trade Organization (WTO) agenda, several prominent WTO Members have recently taken more comprehensive regulatory steps in their free trade agreements (FTAs) by including elements of intellectual property rights (IPRs) regulation – a fundamental component of WTO law. However, traditionally trade law and IP law have been two distinct areas of law, and interaction between the two legal communities remains rare.

In addition, the pulling out of the Trans-Pacific Partnership (TPP) by the United States (US) marks a new era for trade deals and possibly for intellectual property (IP). The TPP evolved into the Comprehensive and Progressive Agreement for TPP (CPTPP) between the remaining 11 members of the TPP by suspending some of its provisions, over half of which are IP-related. While the TPP excludes the two Asian giants – India and the People’s Republic of China (PRC) – the ongoing Regional Comprehensive Economic Partnership (RCEP) includes both of them. The PRC, India and Singapore are three of the participating countries negotiating the RCEP, along with members of ASEAN, Japan, New Zealand, Australia and South Korea. Noteworthy is the fact that India has not been able to sign a single major trade deal since joining the WTO Agreement in 1994; the contentious issue

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has almost always been intellectual property. To date, there has been limited literature that looks at the CPTPP and impending RCEP from Asian perspectives.

This is the context and background considerations for the conference organized by the Applied Research Centre for Intellectual Assets and the Law in Asia (ARCIALA), School of Law, Singapore Management University (SMU) on ‘The Future of Asian Trade Deals & Intellectual Property’ in December 2017. This conference brought together some 20 academics and experts from both trade law and IP law with strong Asian backgrounds. The present volume is the result of the conference, with one editor working on IP law and the other working on trade law, and 12 chapters in addition to this introductory one.

The main theme that runs through the conference and the book is about re-examining the two important trade deals and their IP Chapters. The book also strives to analyse how and to what extent Asian economies can shed some light on CPTPP, rectify the RCEP IP Chapter, and even redefine some aspects of international IP norms since their two key drivers, namely the US and the European Union, are not part of the CPTPP and RCEP talks. To better achieve its goals, the book has a three-part structure that covers the general development from TPP to CPTPP and further to RCEP, investor-state arbitration and IP, and improving the IP provisions national and regional (CPTPP and RCEP) and redefining some global IP norms.

Part I. From TPP/CPTPP to RCEP

The first part sets out to establish one of the basic principles of trade negotiation, namely choosing the right representatives to negotiate. It then looks into the major actors of trade deals and IP rules in Asia (namely China, India, and the US) by focusing on China’s trade and IP strategy against the backdrop of the power games between the PRC, India and the US, and China’s evolving IP schemes, in order to shed light on how Asian economies will reconfigure the IPR rules in future negotiations.

Benjamin Tham (Chapter 2: Selecting the Right Representatives to Participate in Trade Negotiations) addresses a perennial issue surrounding plurilateral FTA negotiations, ie secrecy, confidentiality and the lack of inclusivity, by first analysing the reasons for and against such a status quo being commonly adopted. He then looks at the consequences arising therefrom and how it affects IPRs by reference to stakeholder involvement models adopted by other trade agreements, the draft Anti-Counterfeiting Trade Agreement, the Transatlantic Trade and Investment Partnership, and the RCEP. The chapter recommends a new model of multi-stakeholder involvement and explains why this new model is necessary from an IPR perspective. Suggestions in relation to stakeholders who should participate in future plurilateral FTA negotiations under this new multi-stakeholder model include involving international organizations, civil society organizations, non-governmental organizations and academics.

Liyu Han and Jiaxun Sun (Chapter 3: Trade Strategies and Power Games between China, the US and India) discuss the trade strategies and power games between the PRC, US and India. The US took a drastic turn from multilateralism to bilateralism and put forward the 'Indo-Pacific dream' in Asia, a system of bilateral agreements and negotiations, which would greatly affect China and India. In addition, the US is rewriting world trade order based on the 'America first' principle and targeting China's alleged unfair trade practices. China's trade policy since the opening up has been joining the WTO, upholding its multilateralism and embracing FTAs. India has an extremely complex relationship with China due to a border dispute and the Tibet and Pakistan issues. Its relations with the US also remain uncertain. The chapter suggests that China should pursue more comprehensive FTAs with more trade issues and deeper commitments, and support the multilateral trading system of the WTO, as this would benefit the whole world; that China and US should give each other space and time to develop trade policies at their own pace; and that the US, India and China should join efforts in building constructive relations to realize the Indo-Pacific dream.

Han-Wei Liu and Si-Wei Lu (Chapter 4: The Future of China's Trade Pact and Intellectual Property Rights) analyse the rise of China as a new global power and its role in shaping international IPRs by both domestic reforms and participation in bilateral and multilateral trade agreements. They offer a historical and contemporary account of China's evolving IPR schemes in the context of international trade in order to enlighten Asian economies' reconfiguration of the IPR rules in future negotiations. This chapter sketches out the changing face of the Chinese IPR regime in the pre-WTO era, revisits China's evolving IPR regime in the post-WTO era, and carefully examines the design of IPR provisions in its FTAs and mega-regional negotiations. China has gradually improved its IPR regime by taking into account external relationships, global norms and its long-term development. Recent initiatives in the context of the One-Belt-One-Road initiative provide new momentum to IP developments not only for China, but also the areas involved, to which policymakers should pay heed.

Peter K Yu (Chapter 5: The RCEP Negotiations and Asian Intellectual Property Norm Setters) closely examines the RCEP negotiations and the Asian countries' recent efforts to set regional IP norms. The chapter highlights the provisions in the draft RCEP IP Chapter, focusing on the four main branches of IP law (copyright, trademark, patent and trade secret) as well as the areas of IP enforcement and pro-development measures. The chapter outlines the role of the five norm setters in the RCEP negotiations – namely, the Association of Southeast Asian Nations (ASEAN), India, Japan, South Korea and China – China being the only one of all of these negotiating parties not having advanced draft negotiating texts. It suggests that the Asian countries' willingness to accept higher IP standards in the RCEP negotiations, or at least their ambivalence towards those standards, shows that these countries have now started to recognize the alignment of the TRIPS norms with their self-interests, and gone are the days when they accepted without questioning those norms that have been established abroad in the developed world.

Part II. Investor-State Arbitration and Intellectual Property

International investment agreements (IIAs) and investor-state dispute settlement (ISDS), which allows private companies to sue states via arbitration, are closely intertwined with the protection of IPRs. The tension between the protection of IPRs and the public interest of the host state manifested in several investment arbitration cases, such as *Philip Morris Asia Limited v. The Commonwealth of Australia* and *Eli Lilly v. Canada*, has given rise to concerns over the ISDS regime. The recent developments in the IIA regime towards greater sensitivity to the public interest of the host state are highly relevant to the future directions of IPR protection. Therefore, Part II examines the ISDS mechanism, which has existed in regional trade agreements such NAFTA and many bilateral investment treaties (BITS) under IIA, and the application of this mechanism.

Tomoko Ishikawa (Chapter 6: Recalibrating the Balance in International Investment Agreements) explores two recent developments in the practice of IIA making, in which the IIA regime exhibits greater sensitivity to the public interest of the host state. One is the inclusion of general exception clauses modelled on GATT Article XX and GATS Article XIV, and the other is the reference to investors' responsibility, in particular corporate social responsibility (CSR). This chapter claims that, while the textual transplant of general exception clauses in IIAs from GATT and GATS entails the risk that it might result in less regulatory flexibility, references to CSR have a potential role to play in rebalancing investment obligations and the public interest of the host state. This chapter also demonstrates the potential effects of including provisions on investor responsibilities in IIAs. Even when a reference to CSR is not addressed to investors, such a reference might still inform the interpretation and application of substantive investment obligations through, for example, the application of the principle of effective interpretation. Given that there is an imbalance between the lack of an effective mechanism to hold transnational corporations accountable for their conduct and the heavy protection of foreign investment in the IIA regime, and that in certain cases investors' activities do have a grave impact on the public interest of the host state, an explicit recognition of internationally accepted standards of corporate responsibility in IIAs would be the direction the future IIA negotiations should take.

Prabhash Ranjan (Chapter 7: Issuance of Compulsory Patent Licences and Expropriation in Asian BITs and FTA Investment Chapters) extends the analysis of ISDS and IPRs interactions by looking at whether the issuance of a compulsory patent licence constitutes indirect expropriation under BITs and FTA investment chapters by India, China, Malaysia and Thailand. The chapter shows that while some investment treaties of these countries exclude issuance of compulsory patent licences from the ambit of expropriation, many treaties do not do so explicitly. If issuance of compulsory patent licences is challenged as expropriation before an ISDS tribunal, the outcome would depend on a number of factors such as the

language of the treaty, the interpretative approach that a tribunal may adopt, and the degree of interference caused by the issuance of compulsory patent licence, etc. In order to safeguard regulatory autonomy, these countries may consider adopting a model that excludes issuance of compulsory patent licensing from the ambit of expropriation in the investment treaty. This chapter suggests that India, China, Malaysia, Thailand and the like need to carefully draft their treaties, in order to curb arbitral discretion and provide regulatory space to adopt compulsory patent licensing without worrying about an ISDS challenge.

More recently, the ISDS has found its way into TPP and RCEP. Although, the ISDS formed a central part of America's negotiating strategy during the TPP. It is very likely that any potential ISDS provision in the RCEP will be substantially different, because both India and China are present in the RCEP negotiation and are unlikely to surrender their national sovereignty to ISDS. The RCEP is therefore in a position to redefine the norms on ISDS and IP.

Part III. Improving the National, Regional (CPTPP/RCEP) and Global IP Provisions

Part III offers a selected analysis of some of national and regional IP provisions (CPTPP and RCEP), how they can be improved or better implemented, and their potential to redefine some global IP norms. It first covers the patent provisions with three chapters dealing with pre-grant opposition and experimental use exceptions, patent term extension (PTE), and the mitigation of the patent linkage, respectively. It then discusses, in sequence, provisions on IP in plant material, pre-established damages for copyright infringement and trademark counterfeiting, and copyright limitations.

Prashant Reddy Thikkavarapu (Chapter 8: Will RCEP Redefine Norms Related to Pre-grant Opposition and Experimental Use Exceptions in International Patent Law?) points out the exciting leading role which RCEP could potentially play to redefine norms related to pre-grant opposition and experimental use exceptions in international patent law, although the final text of CPTPP did not incorporate these demands. If the pre-grant oppositions (Article 5.14) and experimental use exceptions (Article 5.3) of the leaked text are in fact adopted by the RCEP, it will be a milestone of sorts, because most international agreements focus only on the rights of IP owners. Safeguards against expansive patent rights like pre-grant oppositions and exceptions like the one on experimental use are almost never the subject matter of discussion at the international negotiation table. Thus, if RCEP incorporates both these provisions it would mark the dawn of a new age, where Asia takes the lead in remolding international patent law norms to better balance the rights and limitations.

Yaojin Peng (Chapter 9: Patent Term Extension in the Pharmaceutical Sector) analyses the role of PTE in the pharmaceutical sector. The PTE system

originated in the US, expanded to other jurisdictions in Europe and Asia, and is now being considered by jurisdictions around the world. Interestingly, although based on similar objectives and following the same US model, jurisdictions have set forth slightly different provisions and made diverse interpretations concerning the PTE system. The tailoring of the specific PTE rules and policies in a jurisdiction depends on its domestic pharmaceutical industry. It demonstrates that the conditions for granting a PTE are highly controversial, the PTE systems and case law are still evolving, and there remain plenty of uncertainties to be clarified. This chapter highlights the convergences and divergences among the PTE systems in Japan, Korea and Taiwan, to examine and identify the pros and cons of different approaches taken by these jurisdictions. It provides recommendations for the potential negotiation of the PTE requirement in the context of the CPTPP/TPP and the introduction of the PTE system in China.

Su-Hua Lee (Chapter 10: Mitigating the Impacts of Patent Linkage on Access to Medicine) looks at how to mitigate the impacts of patent linkage, demanded only by CPPTT and not by RCEP, on access to medicine. The importance of patent linkage in Asian countries has been rising due to the FTAs with the US and the coming into effect of the CPTPP. This measure might cause negative impacts on public health if the mechanisms in favour of the generics industry are not incorporated when establishing the patent linkage regime. The experiences that Singapore, South Korea and Taiwan have had with patent linkage while striving to improve access to innovative drugs and the competitiveness of the domestic pharmaceutical industry might provide some lessons for members of the CPTPP in striking a proper balance of interests between original and generics companies.

Christoph Antons (Chapter 11: Intellectual Property in Plant Material and Free Trade Agreements in Asia) discusses the rise of IPRs in plant material over the last few decades, the expansion of the International Convention for the Protection of New Varieties of Plants (UPOV) since the WTO TRIPS Agreement, and the considerable impact of current FTAs and negotiations on these trends. The chapter identifies those countries that have shown particular interest in upscaling the IP protection of plant material, and focuses on agreements that emphasize cooperation and exceptions to IP protection rather than a further strengthening of the system. It advises developing countries to remain extremely cautious about the expansion of IPRs in this field and to resist pressure to adopt positions and legislative models in FTAs that are potentially harmful to their economic interests or that threaten their agro-biodiversity. Countries with constitutional and treaty obligations towards indigenous and other communities with traditional resource rights should highlight such obligations during international treaty negotiations to achieve the necessary freedom to legislate for the protection of such rights.

Kung-Chung Liu and Haoran Zhang (Chapter 12: Pre-established Damages for Copyright Infringement and Trademark Counterfeiting) critically discuss the pre-established damages for copyright infringement and trademark counterfeiting. One of the solutions for the difficulty for IP right holders to prove their actual loss as a result of infringement that arises is statutory damages or pre-established

damages. The CPTPP has embarked on this solution on its own initiative for copyright infringement and trademark counterfeiting. After examining the experiences in some Asian jurisdictions and identifying its potential downsides, this chapter suggests that the CPTPP interpret and apply this new regime by following the Japanese regime as a benchmark, and that the RCEP should abandon its current leaked version, which further strengthens, or denatures, pre-established damages for copyright infringement and trademark counterfeiting and, at most, mirror the CPTPP.

Haochen Sun (Chapter 13: Liberalizing Use of the Three-Step Test and Copyright Limitations in the Public Interest) completes the analysis of Part III by looking at the three-step test and copyright limitations. The RCEP's draft IP Chapter comprehensively sets out a host of minimum standards for IP protection in the participating countries and has given rise to a plethora of concerns over negative effects such as the stifling of creativity, innovation, and economic growth. Therefore, this chapter argues that trade agreement negotiators should take limitations on copyright seriously. First, it cautions against the direct inclusion of the three-step test in future trade agreements, including the RCEP. Second, it proposes that the test be altered in a liberal manner to allow it to be interpreted and applied in the public interest under future trade agreements. The chapter suggests that both professionalism and transparency are needed to guide the negotiation process of such agreements.

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