HUMAN RIGHTS APPROACH IN GLOBAL INTELLECTUAL PROPERTY REGIME: WITH CASE STUDIES ON THE US-KOREA FTA AND THE EUKOREA FTA

Heesob Nam

A thesis submitted for the Degree of Doctor of Philosophy

Centre for Commercial Law Studies

Queen Mary, University of London

2017

Statement of Originality

I do hereby declare that the work presented in this thesis is the result of my own research, except where referenced.

I accept that the College has the right to use plagiarism detection software to check the electronic version of this thesis.

I confirm that this thesis has not been previously submitted for the award of a degree by this or any other university.

The copyright of this thesis rests with the author but any quotation from it or information derived from it may be freely reproduced, published, communicated without prior consent of the author.

Heesob Nam

Acknowledgements

It was not as easy as I expected to resume wring dissertation that had been suspended for a long time. This thesis would not have happened without support of many people. First of all, I would like to thank my supervisors, Professor Uma Suthersanen and Dr. Gaetano Ditma for their reviews, advices, and encouragement. It was indeed fortunate for me to be able to discuss my research ideas with them. I would like to express my sincere gratitude to people of the School of Law for their warm consideration of my personal conditions and encouraging me to continue studying while I am fighting my illness. I must also express my gratitude to the Herchel Smith Foundation and the Selection Committee for supporting the early stage of my research. Finally, a special thanks to my family for their endless support during my research for several years.

ABSTRACT

From its emergence to its expansion, intellectual property (IP) has not been isolated from trade. However, in the late 1970s, business interests in the United States (US) exerted powerful pressure, leading to IP norms becoming increasingly trade-centric. Hypothesis of this thesis is that such trade-centric IP norms, encouraged and formed by the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and subsequent TRIPS-plus rules pursued by the two most active actors, the US and the European Union (EU), fail to achieve the intended purposes of IP protection. This normalization of trade-centric regulation also creates conflict with a range of economic, social and cultural values that have significant human rights implications. The goal of this thesis is to: (a) critically examine this predominance of trade in contemporary IP norms; and (b) provide a counter framework for IP policy reform. It seeks to do this by juxtaposing the theoretical and empirical aspects of IP norms against human rights.

This study will pursue to prove the hypothesis by conducting case studies on two free trade agreements (FTAs) enacted by South Korea with the US and the EU. The thesis concludes that, on the whole, the context of human rights provides a just counter framework that can unify the diverse range of issues. This is more so given that human rights are strengthened by international consensual norms institutionalised by intergovernmental organisations and supported by transnational advocacy networks. Nevertheless, this thesis advocates that an overemphasis on state and individuals in the human rights discourse needs to be challenged by taking into account the dominance of global economic regulations, the prevailing role of non-state actors, and the culturally relative nature of IP.

TABLE OF CONTENTS

Abstract	4
Chapter 1. Introduction	13
1-1. Background and Context of the Research	13
1-2. Definition of Key Concepts and Scope of Discussions	18
1-2-1. Intellectual Property	18
1-2-2. Human Rights	24
1-3. Research Questions, Chapter Structure and Methodologies	26
Chapter 2. Trade Dimension of Intellectual Property	29
2-1. Introduction	29
2-2. Historical Layer	29
2-2-1. Mercantilist Trade Policy and Patent Customs Era	30
2-2-2. Trade Relatedness in the Patent Custom Period	33
2-2-3. Trade Relatedness since the Nineteenth Century	37
2-2-4. Trade Concerns Reflected in the Early Patent Statutes	40
2-3. Diversity Layer	42
2-3-1. Non-Existence of Patent in Eastern Asia	43
2-3-2. Non-Existence of Copyright in Chinese History	45
2-3-3. Non-Existence of Copyright in Korean History	48
2-4. International Political Economy Layer	51
2-5. Substance Layer	55
2-6. Outcome Layer	61
2-7. Conclusion	66
Chapter 3. Human Rights Dimensions of Intellectual Property.	69
3-1. Introduction	69
3-2. Historical Landscape of Intersection between Human Rights	and

Intellectual Property	70
3-2-1. Emergence of the Right to Science and Culture in UL	OHR and
ICESR	
3-2-2. Long Period of Ignorance	82
3-2-3. Debating on Conflict or Non-Conflict between IP and	d Human
Rights	85
3-2-4. Co-existence or Reconciliation Approach	89
3-3. Protection Side of the Right to Science and Culture	93
3-3-1. Author	93
3-3-2. Any Scientific, Literary or Artistic Production	99
3-3-3. Moral and Material Interests	101
3-3-4. Obligation and Implementation	105
3-4. Dissemination Side of the Right to Science and Culture	108
3-4-1. Right to Take Part in Cultural Life	108
3-4-2. The Right to Enjoy the Benefits of Scientific Progress	and Its
Applications	114
3-5. Norm Setting Process	120
3-6. Human Rights Model of IP	123
3-6-1. New Balance and L&E	123
3-6-2. Liability Rule for the Protection of Material Interests	of
Authors	125
3-6-3. Right to Invention	129
3-7. Conclusion	135
Chapter 4 Case Study: the Korea-US FTA	139
4-1. Introduction	139
4-2. Negotiation and Implementation of KORUS	141
4-2-1. A Brief Chronology	141
4-2-2. Deals on IP	143
4-2-3. Discussion and Analysis	148
4-3. General Provision of KORUS	151

4-3-1. Obligations under KORUS	151
4-3-2. Discussion and Analysis	151
4-4. Copyright	152
4-4-1. Reproduction Right and Temporary Storage	152
4-4-2. Term of Protection	158
4-4-3. Restoration of Expired Rights of Neighbouring Rights	160
4-4-4. Protection of Technological Measures	162
4-4-5. Three-Step Test and Fair Use	165
4-5. Patent	167
4-5-1. Patentable Invention	167
4-5-2. Revocation of and Opposition to Patent	170
4-5-3. Patent Term Extension	174
4-5-4. Grace Period	176
4-6. Pharmaceutical Products and TRIPS-plus Protection	177
4-6-1. Data Exclusivity	177
4-6-2. Patent-Approval Linkage	177
4-7. Enforcement	194
4-7-1. General Remarks	194
4-7-2. Civil Enforcement	196
4-7-3. Administrative Enforcement	200
4-7-4. Criminal Enforcement	204
4-7-5. Online Enforcement: Shutting Down Internet Sites	210
4-8. Conclusion	213
Chapter 5. Case Study: the EU-Korea FTA	218
5-1. Introduction	218
5-2. Negotiation History and Strategies of the EU and Korea	219
5-2-1. Progress of Negotiations	219
5-2-2. Implementation of the EU-Korea FTA	222
5-2-3. Strategies of EU for IPRs in the Bilateral Trade Agreeme	ent
with Korea	223

5-2-4. Strategies of Korea for IPRS in the Bilateral Trade Ag	greement
with EU	225
5-2-5. Discussion and Analysis	226
5-3. Principles and Objectives of the IPR Chapter of the EU-Ko	orea FTA
	229
5-3-1. Lack of Balancing Consideration and Legitimacy	229
5-3-2. Transfer of Technology and Its Effectiveness	230
5-3-3. NT, MFN and Unequal Coalition Effect	231
5-4. Copyright	233
5-4-1. General Remarks	233
5-4.2. Term of Protection	233
5-4-3. Right to Communication to the Public and Remuner	ation
Right of Performers and Phonogram Producers	236
5-4-4. Ban on Retransmission of Television Signal over the	
Internet	240
5-4-5. Artists' Resale Right	242
5-5. Patent, Public Health and Protection of Pharmaceutical P	roducts
	243
5-5-1. General Remarks	243
5-5-2. Public Health and Doha Declaration	244
5-5-3. Patent Term Extension to Compensate Delay in Drug	j
Approval Process	246
5-5-4. Data Exclusivity	247
5-5-5. Patent-Approval Linkage	255
5-6. Enforcement of IPRs	257
5-6-1. TRIPS-plus and "Cut-and-Paste" of EU Laws	257
5-6-2. Civil Enforcement and Injunction against Intermedian	ies 258
5-6-3. Criminal Enforcement and EU-Plus Models	260
5-6-4. Online Enforcement: Intermediary Liability and Prohi	bition of
General Obligation to Monitor	267
5-7 Conclusion	278

Chapter 6. Conclusion	281
6-1. Research Questions and Main Findings of the Study	281
6-2. Merits and Limits of Human Rights Discourse	284
6-3. Limitations and Future Research	287

Table of Abbreviations

Acronyms

A2K Access to Knowledge

ACTA Anti-Counterfeiting Trade Agreement

CESCR Committee on Economic, Social and Cultural Rights

CJEU Court of Justice of the European Communities

DSU Understanding on Rules and Procedures Governing the

Settlement of Disputes

EPC European Patent Convention

EPO European Patent Office

ICESCR International Covenant on Economic, Social and Cultural

Rights

ICCPR International Covenant on Civil and Political Rights

IFPI International Federation of Phonographic Industry

GSP Generalized System of Preferences

ISP Internet Service Provider

NAFTA North American Free Trade Agreement

PMS Post-Marketing Surveillance

RCEP Regional Comprehensive Economic Partnership

TPA Trade Promotion Authority

TPM Technological Protection Measures

TPPA Trans-Pacific Partnership Agreement

TRIPS Agreement on Trade Related Aspects of Intellectual Property

Rights of 15 April 1994

TTIP Transatlantic Trade and Investment Partnership

UDHR Universal Declaration of Human Rights

USTR United States Trade Representative

WCT WIPO Copyright Treaty

WIPO World Intellectual Property Organization

WPPT WIPO Performances and Phonograms Treaty

Legislation

'Berne Convention' Berne Convention for the Protection of Literary and

Artistic Works

'DMCA' Digital Millennium Copyright Act 1998, Pub. L. 105-

304 Stat., 112 Stat. 2860 (1998)

'e-Commerce Directive' Directive 2000/31/EC of the European Parliament and

of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic

commerce, in the Internal Market.

'InfoSoc Directive' Directive 2001/29/EC of the European Parliament and

of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the

information society

'Rental Directive' Directive 2006/115/EC of the European Parliament and

of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (codified version)

'Rome Convention' Rome Convention for the Protection of performers,

11/335

Producers of Phonograms and Broadcasting Organizations

CHAPTER 1. INTRODUCTION

1-1. Background and Context of the Research

Growing number of academic literatures discuss intellectual property (IP) in terms of human rights. What has made the long-isolated two regimes meet each other? How can or should the idea of human rights affect the IP regime? Human rights discourse of IP was invoked by trade-centric IP norm, which has historical roots in domestic changes within the United States (US) during the late 1970s and the early 1980s.

For about 75 years before that era, the culture of IP in the US could be described as an anti-patent environment, "characterized by vigorous anti-trust enforcement and judicial attacks on the scope and validity of patents". The shift started in 1980 when the US Supreme Court, in its *Dawson Chem. Co.* decision, placed the public policy of supporting patent rights on equal footing with the public policy supporting free competition, leading to the end of anti-trust dominance over patent law. Moreover, under the slogan of "anything under the sun that is made by man", the Court expanded the patentable subject matter to living organisms in *Chakrabarty* case and computer programme in *Diehr* case. Also an unintended, contingent event played a significant role in the judicial shift toward stronger IP protection: the creation of the Court of Appeals for the Federal Circuits (CAFC) in 1982. This new judiciary venue, originally aimed to address the problem of uneven application of patent law in

¹ Sell, 2003, p. 66.

² Dawson Chem. Co. v. Rohm & Haas Co. 448 U.S. 176 (1980).

³ Sell, 2003, pp. 66-67; Gallini, 2002, p. 133.

⁴ This phrase was coined by Judge Giles S. Rich when he took part in the two-person committee to amend the US Patent Act of 1952. Judge Rich led, at his age of 90s, the notorious *State Street* decision upholding patentability of a business method invention (*State Street Bank & Trust Co. v. Signature Financial Grp., Inc.*, 149 F.3d 1368 (Fed. Cir. 1998)). For critical analysis on how the "anything under the sun" sentence departed from the original context of legislative history and was misapplied by courts to overly expand the patentable subject matter, *see* Oddi, 2002; and CCIA, 2008.

⁵ Diamond v. Chakrabartv 447 U.S. 303 (1980).

⁶ Diamond v. Diehr 450 U.S. 175 (1981).

the various circuit courts. However, it resulted in the unintended consequence of strengthening the economic power of patents by raising damage awards and upholding patent validity. The legislative branch, in 1981, also took part in this movement by enacting the Bayh-Dole Act,⁷ with a purpose of stimulating commercialization of publically sponsored research. The Bayh-Dole Act was a congressional reaction to the fear that the US might lose its supremacy in IP dependent industries against its international competitors.⁸ These judicial and legislative shifts paved the way for the "pro-patent" era and created environment that is more favourable to private sector's efforts to link IP and trade.

By successfully politicising IP protection, US business interests (patent and copyright industries) pressed their domestic policy makers to link IP protection to trade in the US Trade and Tariff Act and regional trade pacts such as the North American Free Trade Agreement (NAFTA) and the Caribbean Basin Initiative. Responding to the IP lobby and buying the concept of trade-based IP protection, the US congress adopted new amendments in the Trade and Tariff Act of 1984. The amendments identified acts, practices or policies of foreign countries as "unreasonable", when they deemed denying "fair and equitable provision of adequate and effective protection of IP rights" even though the act, practice or policy in question did not violate "the international legal rights of the US." In addition, the revised provisions permitted private sectors to petition the Office of the United States Trade Representative (USTR) to investigate IP practices of foreign trade partners and gave USTR an authority to initiate a so-called Section 301 action on its own motion. Further, the amendment first linked the IP protection to the non-reciprocal trade concessions under the Generalized System of Preferences (GSP) program.¹¹

Aiming at the newly industrialised countries, the new trade gun was first fired

⁷ Pub. L. 96-517, December 12, 1980.

⁸ Drahos & Braithwaite, 2002, p. 163.

⁹ For the origins and development of the trade-based approach to IP in the US, *see* Sell, 2003, in particular chapter 4.

¹⁰ Sell. 2003, pp. 85-86.

¹¹ Sell, 2003, p. 86.

against South Korea and Brazil. In fall 1985, the USTR initiated investigation under Section 301 which led to a bilateral negotiation with South Korea. The bilateral talk carried implicit threat of trade sanction upon South Korea if negotiation failed.¹² In July 1986, after about ten-month negotiation, the South Korean government acquiesced, accepting almost all of the US demands. As a result, all of the Korean IP laws were comprehensively amended at the end of 1986. These amendments included introduction of product patent, copyrightlike protection for phonogram producers, sui generis protection for computer programs, extension of protection terms of patent and copyright, reduced domestic discretion to remedy patent misuse, and strengthened criminal sanctions on IP infringers. The Korean commitment also contained highly controversial measures that were applied, through administrative actions rather than legislative rules, only to the US industries for patent protection of pharmaceutical products and *sui generis* protection of computer program. At that time, strengthening IP protection was widely perceived as contrary to Korean economic interests, and therefore the amendments were considered as conceding to the US in a humiliating manner.¹³

The economic coercion from the US, such as threat of trade retaliation on Korean exports and loss of benefits under the GSP, was a key weapon in obtaining South Korea's surrender to the new regulations. Another significant factor was the weak political position of the Korean government. At that time, South Korea was governed by a military junta under Chun Doo-Hwan. Fear of losing its weak political legitimacy made the South Korean government more receptive to the demands of the US, which was regarded as "a blood alliance" by the majority of Korean people. Unlike South Korea, Brazil refused to alter its policy on the pharmaceutical patent. This led to actual trade retaliation by the US under section 301 in 1988. 14

The 1984 amendment of the US Trade Act was insufficient to make the US industries satisfied. They continued to lobby their congress to further strengthen

¹³ Morin & Bannerman, 2015, p. 227. One Japanese scholar, Nakayama Nobuhiro portrayed the result as the US' capturing spoils from a victim after a military victory.

¹² Ryan, 1998, p. 75.

¹⁴ Drahos & Braithwaite, 2002, p. 104.

the Trade Act, resulting in the 1988 amendment. The 1988 amendment institutionalized the participation of the private sector in the process and obligated the USTR to annually identify IP priority countries and self-initiate investigation of priority countries within thirty days of identification.¹⁵ Following the passage of the 1988 legislation, the USTR had to annually review the IP laws, policies and practices of trade partners and classified them according to its assessment into three groups: Priority Watch Countries (for those that USTR deemed to have the most onerous or egregious policies with the greatest adverse impact on US IP holders or products); Priority Watch List (for countries that did not provide adequate IP protection and enforcement or market access for US persons relying on IP protection); and Watch List (for countries that USTR believed merited bilateral attention to address underlying IP problems). 16 While the Special 301 provision was highly condemned by international communities and legal experts, including a General Agreement on Tariffs and Trade (GATT) panel, it has been quite effective because it put trade partners under the potential threat of trade sanction whenever they were listed on the Report.

The strategy of linking trade and IP did work. Between 1985 and 1995 at least eighteen developing countries revised their laws to provide stronger patent protection. The ongoing unilateral pressures and increased bilateral trade agreements incorporating strong IP protection and enforcement provisions provided momentum for the establishment of the Agreement on Trade Related Aspects of Intellectual Property (TRIPS Agreement) within the World Trade Organization that took effect in 1995.

Since the TRIPS Agreement, ratcheting up the standard for the protection and enforcement of IP has continued through bilateral and regional trade agreements. These trade agreements pushed by the US and the EU included TRIPS-plus provisions that were designed to impose more stringent substantive rules of IP protection and enforcement than those mandated by the TRIPS Agreement, to eliminate the flexibilities provided in the TRIPS Agreement, and

¹⁵ Sell, 2003, p. 92.

16 / 335

¹⁶ Deere, 2009, pp. 49-50.

¹⁷ Deere, 2009, p. 51.

to introduce new provisions for the IP protection and enforcement that were failed to obtain at the TRIPS negotiation table. Under the premise that "strong IP protection is good and stronger IP protection is better", ¹⁸ the business interests and their backed industrialised states view the TRIPS Agreement as "a floor, not a ceiling". ¹⁹ Facing challenges by emerging economic powers such as Brazil, China, India, South Korea and Taiwan, the US and the EU have conceived strong IP protection at home and abroad as the only way to sustain a competitive advantage. ²⁰ They also employ strategies of "forum proliferation" to push the TRIPS-plus agenda, which focuses on the enforcement of IP. The advocates of the maximalist IP protection have bypassed the traditional multilateral forum and sought to reinforce the protection and enforcement of IP through bilateral, regional or plurilateral trade agreements such as the Anti-Counterfeiting Trade Agreement (ACTA), the Trans-Pacific Partnership Agreement (TPP), the Transatlantic Trade and Investment Partnership (TTIP), and the Regional Comprehensive Economic Partnership (RCEP)²².

The continuous push for the TRIPS-plus agendas created a new actor, or an agency in the jargon of 'critical realism'. ²³ Such an actor includes two groups. One group consists of IP experts who have an administrative power in domestic patent or copyright policies. They collaborate with narrow set of professionals such as IP lawyers and scholars who support the maximalist IP protection. This group is different from the private business sectors who had initially pushed for the adoption of TRIPS, in that it governs the policy-making process and holds control of institutions that are crucial in the interaction of structure and agency.

¹⁸ Benkler, 2006, p. 317.

¹⁹ Sell, 2010a, p. 2.

²⁰ Ruse-Khan, 2009, p. 60.

²¹ May, 2006, p. 93.

²² RCEP was formally launched in November 2012 for regional pact between ten member states of ASEAN and their six FTA partners (Australia, China, India, Japan and South Korea).

²³ Critical realism, emerged in the context of the post-positivist crises in the natural and social sciences in the 1970s and 1980s, is a series of philosophical positions on a range of matters including ontology, causation, structure, persons, and forms of explanation, and is concerned with the nature of causation, agency, structure, relations and the implicit or explicit ontologies we are operating with (Archer et al. (2016)).

The other group is one who opposes or resists the trade-centric IP norms. It includes those who are adversely affected by the trade-centric IP regime and have a focus on the public interests with regard to IP. Just as the trade-centric IP regime was a product of "structured agent", 24 this resistance group was also shaped by the new structure established by the TRIPS and TRIPS-plus regimes. The movement resisting TRIPS emerged from sectors in which TRIPS had a harsh impact: patenting on medicine, agricultural products and software. As the IP maximalist norms expanded in scope and breadth, the opposition groups that were initially dispersed in their own sectors began to understand that they were doing something in common. They have developed overlapping agendas and coordinated actions. Most of them are not anti-IP, but rather, anti-expansionists. They do not see the global IP norms as trade rules and seek reforms of maximalist IP norms by using different languages such as free culture, cultural environment, public domain, distributive justice, development, right to access, anti-censorship, and human rights.

In these alternative frameworks, the language of human rights looks powerful. An alternative IP frameworks based on human rights is argued to provide a fertile ground to restore balance in the contemporary international IP law,²⁷ or to offer a "framework treaty" for weaker actors in global regulatory system.²⁸ The extent to which the idea of human rights can provide a comprehensive counter framework for those who seek fundamental reform of contemporary IP norms still awaits further studies.

1-2. Definition of Key Concepts and Scope of Discussions

1-2-1. Intellectual Property

The term "intellectual property" is widely used in both academics and practices, and has acquired international acceptance. While most of the national laws do

²⁶ Silbey, 2010, p. 219.

²⁴ Sell, 2003, pp. 24-30.

²⁵ Coombe, 1998.

²⁷ Shaver 2009, p. 9.

²⁸ Drahos 2005, p. 3.

not define IP itself,²⁹ multilateral and bilateral international agreements contain definitional provisions. However, these provisions do not define the notion or essential nature of IP. Instead, they simply enumerate various categories of legal rights. For instance, the World Intellectual Property Organization (WIPO) Convention and the TRIPS Agreement just list items included in an IP catalogue such as copyrights, trademarks, geographical indications, industrial designs, patents, layout-designs of integrated circuits, and certain undisclosed information.³⁰ Most of TRIPS-plus bilaterals follow this 'catalogue model' for the definition of IP.³¹

The 'catalogue model' of the trade-related IP treaties having no clear borderlines of IP have played a role to open a door for more extensive protection of IP.³² Further, the non-restrictively enumerated catalogue model of IP treaties provides their member states with a certain freedom to create novel subject matter of IP and leads to a convergence of IPRs toward safeguarding an investment, ³³ rather than protecting individual's creative efforts.

Why has there been no clear conceptual definition of IP in IP treaties? The prehistory of WIPO may provide some clues for the answer. In a nutshell, the precursor body of WIPO adopted the word 'intellectual property' for an

²⁹ This is because there are few national laws dealing with all categories of IPRs. Some exceptions are found in French Code of Intellectual Property (Code de la propriété intellectuelle (version consolidée au 17 mars 2017, having no definitional provision), Japanese Basic Law on Intellectual Property (Law No. 122 of 2002, referring to various categories of IP which broadly include other property that is produced through creative activities by human beings and other technical or business information that is useful for business activities), and Korean Framework Act of Intellectual Property (enacted in 2007, defining IP as broadly encompassing knowledge, information, technology, the expression of thoughts or feelings, the indication of business or goods, varieties of organism or genetic resources and other intangibles created or discovered by creative activities, experience, etc. of human beings, the value of property of which may be realized).

³⁰ Article 2(viii) of the Convention establishing the World Intellectual Property Organization and Article 1(2) of TRIPS ("For the purpose of this Agreement, the term "intellectual property" refers to all categories of intellectual property that are the subject of Sections 1 through 7 of Part II").

³¹ See, for instance, Article 10.2(2) of the EU-Korea FTA and Article 18.1(1) of TPP. By contrast, the US FTAs indirectly encompass almost all categories of IPRs (Article 18.1:6).

³² Hilty, 2016, p. 187.

³³ Westkamp, 2005, pp. 97-100.

"umbrella term"³⁴ to combine two distinguished legal rights - industrial property and copyright -, and the ambiguous nature of industrial property contributed to the catalogue model of IP definition.

Precursor body of WIPO is the United International Bureaux for the Protection of Intellectual Property, best known as its French acronym BIRPI.³⁵ BIRPI was established in 1893 by merging the Paris Union for the Protection of Industrial Property (1883) and the Berne Union for the Protection of Literary and Artistic Works (1886) under a single secretariat.³⁶ In 1974, the WIPO, which was established by the Stockholm Conference in 1967, became a specialized agency of the UN.³⁷

Although many are confused, BIRPI did not start with the title containing the term IP. Originally, the "PI" in BIRPI stood for industrial property and the name was changed to intellectual property in the mid-1950s. ³⁸ Before that, "industrial property" and "property in literary and artistic works" had been commonly used; whereas the term "industrial property" was predominantly used to refer to rights on inventions, trademarks and industrial designs, the phrase "property in literary and artistic works" was interchangeably used by "intellectual property" or "copyright". ³⁹ From nineteen fifties, the concept of intellectual property gained in popularity, ⁴⁰ and understood as covering both

³⁴ Nard, Barnes & Madison, 2008, p. 2.

³⁵ Bureau Internationaux réunis pour la protection de la propriété intellectuelle.

³⁶ Bogsch, 1992, pp. 7-8; May, 2007, p. 19 (explaining that members of Rome and Berne Conventions realized that they have significant commonalities and felt it would be sensible to develop a joint secretariat, and that the establishment of BIRPI represent the beginning of the international period of IP protection).

³⁷ For the factors enabling WIPO, rather than UNESCO and ILO, to become such an agency, *see* Marx, 2010, pp. 188-190, and for the process of WIPO's becoming UN special agency, *see* Halbert, 2006, pp. 259-273 and May, 2017.

³⁸ Halbert, 2006, p. 257; Bogsch, 1992, p. 8.

³⁹ Bogsch, 1992, p. 8. During the nineteenth- and early twentieth-century, the term "intellectual property" had been used to mean copyright in French, Italian and Spanish domestic jurisprudence (Hughes, 2012, pp. 1304-1316). The Spanish IP law of 1879 stated that "intellectual property comprises ... the scientific, literary or artistic works that can be born by any means" (Vallés, 2009, p. 104).

⁴⁰ Halbert, 2006, p. 257. By contrast, Hughes explains that practices of using the term "intellectual property" was not consistent in 1950s (2012, p. 1300).

industrial property and copyright.⁴¹

The ambiguity and difficulty in defining the concept of IP stems mainly from the vague nature of its component; industrial property. The industrial property is ambiguous because the term "industry" in a broad sense can embrace "all sorts of human labor" and industrial property may include "very dissimilar kinds of interests and rights". Therefore, it was impossible for founders of WIPO to provide an absolutely uniform legal concept that could embrace all of the subset rights categorized as industrial property, leading to the 'catalogue model' of IP definitional provision in the existing IP treaties.

In responsive to growing importance of social, economic and cultural aspects of IP from 1990s, many scholars have tried to theorize IP. William Fisher outlined four dominant theoretical literatures on IP: (1) utilitarianism (based on the Bentham's ideal of "the greatest good of the greatest number"); (2) natural law or labor theory (having a place in a Lockean justification); (3) personality theory (grounded on Kantian and Hegelian philosophy); and (4) social planning theory (inspired from Jefferson and early Marx's thoughts). Yet, IP is still hard to be justified on one theory, 44 and there is no single justification, either philosophical or economical, adequate to encompass the various categories of IP. While some say that the common factor to categorize IP is the existence of property on immovable or intangible objects, 46 "property protection over

⁴¹ Bogsch, 1992, p. 8. Previously, those rights were variously termed as "incorporeal rights" or "incorporeal property", "intellectual rights," or "intellectual property" (Ladas, 1975, p. 2).

⁴² Ladas, 1975, p. 1. Prior to Paris Convention, the notion of industrial property was much broadly understood. Participants of the International Congress on Industrial Property held at Paris in 1878, precursor of Paris Convention, discussed "all matters relating to patents, trademarks, designs and models, photographic work, trade names, and industrial rewards" (Ladas, 1975, p. 61).

⁴³ Fisher, 2001, pp. 169-173. He viewed that, among these, predominant reliance by judges, legislators and lawyers was on the utilitarian theory of IP.

⁴⁴ Menell, 1999, p. 163 ("none of the traditional or even emerging rationalizations for intellectual property rights fully or satisfactorily account for all intellectual property regimes"); Oguananam, 2009, p. 105.

⁴⁵ Cornish & Llewelyn, 2007, p. 3 ("There is no single generic term that satisfactorily covers them [patent, copyright, trademarks] all").

⁴⁶ Leaffer, 1990, p. 2.

intangible things",⁴⁷ or "creations of the minds",⁴⁸ others point out the negative nature of conferred right, that is, a right to stop others from doing something.⁴⁹

Such commonality, however, cannot explain the existence of an inherent tension within IP, a tension between protection and diffusion (or dissemination). For instance, protection of trademark, one of the central items in IP catalogue, against an unauthorized use has no bearing on the diffusion of symbolic information conveyed by a trademark or on encouragement of trademark creation. Wider dissemination of a trademark is not a policy objective of trademark laws. The same line of argument is applicable to the undisclosed information, or trade secret. The purpose of legal protection of trade secret is neither to encourage more production of trade secret nor to promote its wider use. Therefore, the tension between protection and diffusion does not exist in trademark and undisclosed information.

The inherent tension of IP between protection and dissemination arises from the basic framework of Anglo-American "utilitarian, result-oriented focus"⁵² of IP. The utilitarian agenda is a governing concept of trade-centric IP norms, ⁵³ reinforced by natural law justification.⁵⁴ Based on the utilitarian theory of

⁴⁷ Bently & Sherman, 2009, pp. 1-2.

⁴⁸ WIPO, 2003, p. 2.

⁴⁹ Cornish & Llewelyn, 2007, p. 6.

⁵⁰ This tension is widely acknowledged by scholars: Fisher, 2001, p. 169 (tension between "the power of exclusive rights to stimulate the creation .. and ... widespread public enjoyment of those creations"); Sell, 2003, p. 15 (tension between creation and diffusion); Fink & Elliott, 2008, p. 215 (tension between protecting IP and diffusion); Nard, Barnes & Madison, 2008, p. 13 (tension between "the promotion of creative and technologic expression and the dissemination of and access to its fruits"); Flynn, Baker, Kaminski & Koo, 2013, p. 118 (tension or balance between the interest of IP owners and users and the larger community); Wallot, 2016, p. 236 (tension or balance between rewarding the IP owners and the public's right to access to information); and Syam & Tellez, 2016, p. 15 (tension between protection and access).

⁵¹ By contrast, Manta (2016) argues that trademark law also has an incentive function for a trademark creator in addition to widely accepted three functions of source identification, advertising and guarantee of quality.

⁵² Nard, Barnes & Madison, 2008, p. 12.

⁵³ Bashir, 2013, p. 65 (arguing that it's because of the economic dominance of developed countries).

⁵⁴ For an argument that the Lockean and utilitarian accounts are complementary

incentivizing innovation and creation, patent and copyright laws create artificial scarcity of creative production. Due to its nature of public good (non-rival and non-excludable nature) of the subject matter of patent and copyright, "excludability needs to be artificially constructed", and "by making knowledge property, IPRs are designed to make it temporarily excludable and generate a market for it". ⁵⁵ In this sense, IPRs are essentially a form of government regulation and "designed to artificially replicate scarcity where it would not otherwise exist". ⁵⁶ Utilitarian approach views IP a tool to achieve a certain end, rather than an inherent right, ⁵⁷ but the tool is never a mere tool, it always modify the goals. ⁵⁸

The inherent tension of IP is the main entrance for the idea of human rights to intervenes in the IP dialogue. For this reason, this thesis will focus on two categories of IP in which the tension between protection and dissemination is inherent - patents and copyrights. This focus is also relevant to human rights protection of IP. Patent and copyright are all about creation, and the creation is a bridge that connects human rights and IP. The international human rights laws recognize some attributes of IP as human rights mainly because of the existence of personal link between creative productions of individuals and their human dignity. However, the degree of the personal link between authors and their creative productions for the human rights protection is not the same in patent and copyright, implying that the extent to which human rights protection for authors and inventors is differing. In the case of copyright, the personal link is easily established. Yet, inventors can only claim human rights protection so far

rather than competing (for providing a full justification of IP), *see*, Kenneally, 2014. The US Supreme Court confirmed this by holding that "the economic policy behind the clause empowering Congress to grant patents and copyrights is the conviction that it is the best way to advance public welfare through the talents of authors and inventors in 'Scientific and useful Arts" (*Marer v. Stein*, 347 U.S. 201, 219 (1954).

⁵⁵ Archibugi & Filippetti, 2015, pp 484, 488.

⁵⁶ Lemley, 2015, p. 506.

⁵⁷ Drahos, 1999, p. 5.

⁵⁸ Gibson, 2006, p. 3.

⁵⁹ General Comment No. 17, ¶ 2 and ¶ 13.

as their inventions have a strong personal link. 60

Despite its importance in the discussion of IP and human rights, traditional knowledge will not be touched upon in this study. In its expansive version, discussion of IP protection of traditional knowledge covers 'creative production' such as traditional cultural expression, expression of folklore, and, on the basis of terminology of WIPO, "know-how, skills, innovations, practices, and knowledge". However, the rationale for IP protection of traditional knowledge is different from that of patent and copyright protection and from the human rights protection of moral and material interests of creators. The protection of traditional knowledge is justified for corrective justice, freedom right of community, and identify of community. Positive protection of traditional knowledge is not justified by utilitarian incentive for the creation of traditional knowledge.

1-2-2. Human Rights

While a number of international, regional and national laws recognize human rights, this thesis focuses on two codes of international human rights laws, namely the Universal Declaration of Human Rights (UDHR) and the International Covenant on Economic, Social, and Cultural Rights (ICESCR). Both Article 27 of UDHR and Article 15 of ICESCR contain what is called here the 'right to science and culture'. ⁶³ The only regional human rights system recognizing this right is the American Declaration of the Rights and Duties of Man of 1948.

⁶⁰ UN Patent Report of 2015 (A/70/279), ¶ 34.

⁶¹ Farah & Tremolada, 2015, p. 464.

⁶² Preventing commercial misappropriation (Operational Directives for the Implementation of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, ¶ 117; Munzer, 2012, pp. 59-60 (suggesting two components consisting of corrective justice argument for indigenous people: compensatory justice (a moral analogues of money damages at law); and restorative justice).

⁶³ The term 'right to science and culture' was coined by Shaver and Sganga in 2009 and has been widely used by scholars and international human rights bodies, in particular by the UN Special Rapporteur (for cultural rights) in her two consecutive reports, UN Copyright Reports of 2014 (A/HRC/28/57) and UN Patent Report of 2015 (A/70/279).

Among five categories of human rights (civil, political, economic, social and cultural rights), the right to science and culture is classified as cultural rights. In another categorisation, the structure of UDHR is described as a temple founded on four pillars: the first one of the civil and personal rights; the social rights that belong to the individual in his and her relationships with the groups they participate; political right exercised to contribute to the formation of government institution or to take part in the decision-making process; and right exercised in the economic and cultural area. ⁶⁴ The right to science and culture finds its place on the fourth pillar, but it is, as are most of other human rights, interlinked with the rights belonging to other pillars.

The right to science and cultural is multidimensional, encompassing both individual self-development and enabling institutions that facilitate the advancement of science for the public good and benefit of all through free individual participation.⁶⁵ It is also linked to freedom, and "people's sense of their own self-respect and identity".⁶⁶

The notion of the right to science and culture is in its early stage, but it is generally understood as containing three components: right to the protection of moral and material interests resulting from his or her works (called "Author Clause" here); the right to take part in cultural life; and the right to enjoy the benefits of scientific progress and its application (called 'dissemination side' collectively for the latter two). ⁶⁷ ICESCR expands further than UDHR the right to science and culture to cover states' obligations to take measures necessary for the conservation, development and diffusion of science and culture, and for the freedom indispensable for scientific research and creative activity. ⁶⁸

From the holistic approach of human rights, the right to science and culture needs to be discussed in full consideration of its interrelationship with all other human rights. However, for the purpose of this study, the intersection of human

⁶⁶ Stamatopoulou, 2008, p. 37.

⁶⁴ Claude, 2002, p, 21-22.

⁶⁵ Plomer, 2015, p. 34.

⁶⁷ UN Copyright Report of 2014, ¶ 4.

⁶⁸ Article 15(2) and (3) ICESCR.

rights and IP will be discussed with focusing on the normative contents of, and state's obligation imposed by the right to science and culture. This concentrated focus of study is both meaningful and purposeful in a sense that the right to science and culture is the most closely interlinked to IPRs, and can provide a possibility for alternative model for production and distribution of creative knowledge and information. This implies that other categories of human rights which have been widely discussed by scholars and international legal institutions in connection of IP regime and human rights such as the right to health, the right to food, the right to education, the right to free speech are not touched upon in a great detail.

Another reason that this thesis focuses on the right to science and culture is its allowance of inclusive approach to IP. In the traditional discussions on the intersection of IP and human rights, IP has been treated as extraneous to human rights, and when an encounter between human rights and IP takes place, solutions to address conflicts between two have been suggested by subjecting IP to external human rights pressures. ⁶⁹ The virtue of holistic approach with focusing on the right to science and culture right is that it enables us to embrace IP as an internal variable in the analysis of the relationship between human rights and IP.

1-3. Research Questions, Chapter Structure and Methodologies

The hypothesis of this thesis is that contemporary IP norms are trade-centric, fail to achieve their intended purposes, and bring about conflict with a range of economic, social and cultural values that have significant human rights implications. This thesis assumes that the idea of human rights can provide a counter-framework to the trade-centric IP norms. After testing this assumption, this thesis seeks to provide a counter-framework to the trade-centric IP regime, particularly an alternative IP model that can be drawn by exploring human rights-related aspects of IP and case studies on trade-centric IP norms. For this purpose, this thesis examines the process in which the IP regime has become trade-centric, and identifies the nature of conflict arising between the trade-

_

⁶⁹ For an explanation of this conflict resolving approach in the context of freedom of expression and copyright, *see* Drassinower, 2015, p. 203.

centric IP regime and human rights. From this analysis, this thesis offers a theoretical and practical basis for a paradigm shift of the existing IP norms from trade-centric to human rights-friendly. This is conducted by both theoretical and empirical studies.

For the theoretical study, Chapters 2 and 3 examine both the trade dimension and human rights dimension of IP. The trade dimension of IP is investigated in Chapter 2 from the vantage point of several academic fields, most notably, history, cultural diversity, international political economy, and international laws. By investigating both the historical development in which trade made a connection with IP in Western Europe and the origin of non-existence of the IP concept in Eastern Asia, Chapter 2 seeks to reveal the fact that trade has no inevitable causal link to the IP protection. It also puts the contemporary tradecentric IP regime in a historical moment to uncover the process in which the trade-centric IP agenda went global by the strategic behaviour of a handful of private sectors, revealing why and how such a trade-centric agenda fails to achieve intended purposes of IP protection.

Chapter 3 then goes on to examine the extent to which IP has implications in terms of human rights. This requires in-depth study on the meaning of the right to science and culture contained in UDHR and ICESCR. The protection of creator's moral and material interests by Author Clause can only be properly understood when its inherent limitations and negotiation history are fully examined. Inherent limitations of Author Clause, and, in turn, of IP protection, stems from the holistic nature of human rights. The moral and material interests protected by Author Clause is not a stand-alone right. Rather, they are intrinsically interrelated to other more fundamental components of the right to science and culture: the right to participate in cultural life; and the right to benefit from scientific advancement. Based on the redefined meaning of the right to science and culture, Chapter 3 also submits proposals for a paradigm shift from existing trade-centric IP norms toward a human rights-friendly model for the production and dissemination of creative production. The proposed framework includes: (1) a new model of balance striking between protection and dissemination of intellectual production; (2) a norm change from a property rule to a liability rule for the protection of intellectual production; and (3) a conceptual and practical shift for the protection of invention in line with the

author's right enshrined in the right to science and culture.

The theoretical study of two dimensions of IP (trade- and human rights-dimension) is predominantly based on a bibliographical research. The primary source of data comes from books, articles, journals, and official documents of international organizations. The collected data is processed and analysed in relation with the central questions of this study as described above.

For empirical studies of the intersection of IP with human rights, this thesis picks two of the strongest trade-centric approaches to IP: the US-Korea FTA (KORUS); and the EU-Korea FTA. They will be examined in Chapters 4 and 5 to analyse how and why two dimensions of IP – trade and human rights dimensions – are reflected or missing, and to assess their impacts on the right to science and culture. The reason behind this choice is two folds.

First, the US and EU are the most relevant actors in shaping the trade-centric IP norms and FTAs they pushed contain the strongest provisions for the IP protection and enforcement, having significant human rights implications. Second, there have been few studies on these two FTAs, especially on the impacts assessment from the human rights perspective. So far, the contracting parties (Korea, the US, and the EU) have conducted assessments predominantly in terms of economic impacts. Unlike the US and Korea, the EU carried out a broader analysis on FTAs in economic, social and environment context.⁷⁰ Recently, the EU started, pursuant to EU's 2012 Strategic Framework and Action Plan on Human Rights and Democracy, to conduct a human right impact assessment of trade agreements. In particular, EC is carrying out an ex post evaluation study on the EU-Korea FTA, which includes analysis of impacts on sustainable development and human rights, due to be completed during the fourth quarter of 2017. However, for the human rights impact assessment, only five narrowly-defined sectors were chosen and IP-related sectors were excluded 71

⁷⁰ This includes the Trade Sustainability Impact Assessment of the EU-Korea FTA of 2008 (http://trade.ec.europa.eu/doclib/docs/2008/december/tradoc_141660.pdf), actual focus of which was exclusively economic impacts on Korea and EU, and the

actual focus of which was exclusively economic impacts on Korea and EU, and the social and environmental impact assessments were highly limited.

71 Those five sectors are: automotive sector; consumer electronic goods; agricultural

CHAPTER 2. TRADE DIMENSION OF INTELLECTUAL PROPERTY

2-1. Introduction

This Chapter examines the trade dimension of IP in five different but correlated contexts: history; diversity; international political economy; substantial rules; and outcome. By investigating the trade dimension of IP from vantage point of diverse fields, it aims at revealing the fact that trade has no inevitable causal link to the IP protection. It also puts the contemporary trade-centric IP regime in a historical moment to uncover the process in which the trade-centric IP agenda has been going global by strategic behaviour of a handful of private sectors. This Chapter also reveals why and how such a trade-centric agenda fails to achieve the intended purpose of IP protection.

2-2. Historical Layer

From its emergence to its expansion to, initially Europe, then colonies and finally the world, IP has never been isolated from trade. Patent emerged in the late Medieval Italian cities as a part of trade policies and spread to Western Europe. The emergence of copyright was also a product of the state control of the book trade. However, this does not mean that trade *itself* is a decisive factor for the emergence and development of IP. Nor has the relationship between trade and IP been formed and developed in a linear fashion. If trade is defined as activities of "buying and selling or of exchanging goods or services between people or countries". We will find ourselves inundated with examples of such activities everywhere in human history. The questions then to be asked are: which social forces account for the emergence of the concept of IP and its

sector; environmental goods and services; and postal sector (European Commission. (2016). Evaluation of the implementation of the Free Trade Agreement between the EU and its Member States and the Republic of Korea (Inception Report). p. 75. Retrieved from http://trade.ec.europa.eu/doclib/docs/2016/october/tradoc 155014.pdf).

 $^{^{72}}$ Drahos, 2002, p. 176 ("The connection between trade and IP is hardly new. It has always been there").

⁷³ Balaam, 2008, p. 16.

expansion to the present-day trade-centric IP norms.

Broadly speaking the progress of IP is intimately linked to the movement of capitalism⁷⁴ and the free market system. Like the complicated history of capitalism, the history of IP cannot be explained as developing in a series of stages with regular progression from one phase to the next. ⁷⁵ Various factors have affected the development of IP. Political structure (Medieval city states and modern nation states), social position and role of private sectors in production (craft guilds, publisher's guilds and manufacture industries), ideology (mercantilism, possessive individualism, lazier faire and neoliberalism), and some contingent events (The Crusades, the Black Death, and the Watergate scandal) have influenced the development of IP. Inspired by the Coxian critical theory, May and Sell explain the history of IP as a process of triangular interactions among three factors such as material capabilities, institutions and ideologies. 76 This Chapter does not intend to examine all of the social forces that contributed to the emergence and development of IP. Instead, it focuses on two aspects: the extent to which trade has been related to IP in its history; and how the trade concerns are reflected in the early patent customs and statutes.

2-2-1. Mercantilist Trade Policy and Patent Customs Era

It is widely accepted that the concept of IP emerged from Renaissance Italy. The Medieval Italian city states such as Venice, Florence and Genoa had practices of granting patent privileges upon those who introduced new trade into the territories. In Venice, a few patent privileges were granted in the thirteenth century and this practice had steadily grown by the fifteenth century.⁷⁷ There are numerous explanations of how this "patent custom" arose

⁷⁴ Rubin & Klumpp, 2012, p. 213 ("the overall trend in intellectual property protection is broadly correlated with the rise of capitalism").

⁷⁵ Braudel, 1992, p. 621.

⁷⁶ May & Sell, 2006, p. 106.

⁷⁷ Long, 1991, p. 875.

⁷⁸ The term "patent custom" refers to a period that preceded patent-statute era. Such term was coined by Prager (1961, pp. 310-311) and discussed by Walterscheid (1993) and Meshbesher (1996, p. 601, f.n. 33).

from the Italian city states. Mandich, claiming the priority of Venice in recognizing the right of inventors, links the early patent privilege to the grants on mining. Dong ascribes the rising of patent custom era and the enactment of the Venetian Patent Statute of 1474 to the guilds' regulation and their distinctive culture recognising craft knowledge as an intangible property. May and Sell suggest public policy to control the guilds and strategic choice of the city government for the development of competitive advantage and effective economic organisation. What is shared in common among those writers is the mercantilist economic policy.

At base, the mercantilist economic policy is an economic nationalism that pursued trade surpluses primarily directing towards an excess of exports over imports. The rise of the mercantile system is related to the rise of trade and competition between towns that developed during the twelfth century, which was in turn influenced by the increasing use of money and a new form of production by freemen, rather than serfs. Of the freemen, skilled artisans created voluntary associations called guilds. This was not only for their own sake: the municipal authorities, the feudal lords, and the kings all found it desirable to get the craftsmen together in groups. The authorities granted the craftsmen the right to form a guild and to have a monopoly of their trade and in return the guild submitted to taxation, regulation, and control. In the end, the guild usually became an association of the workers in a given craft, enjoying a legal monopoly, responsible to the government, and subject to it. The early patent privileges were not different from such grants by the municipal rulers.

The Italian practices of granting patent privileges spread to continental Europe and eventually to England during the fifteenth to seventeenth centuries. But for several hundred years from the enactment of the Venetian Patent Statute in 1474, patent grants remained privileges rather than legal rights. In England,

⁸¹ May & Sell, 2006, p. 71.

⁷⁹ Mandich, 1948, pp. 171-174.

⁸⁰ Long, 1991.

⁸² Prager, 1944, p. 721.

⁸³ Clough & Cole, 1952, p. 28.

⁸⁴ Ibid, p. 29.

France, Germany and the Netherlands, the Venetian legal experiment did not inspire them to develop institutions of legal right on invention up until the late eighteenth and the early nineteenth centuries. Shamy historians and legal scholars consider the Statute of Monopolies of 1624 in England as the first modern patent law recognizing the right of inventors. Shaut this is, at best, an overstatement. The Statute of Monopolies did not change the legal position of inventors and in a legal sense it did not usher in a new era of patent legislation. Even with the Statute of Monopolies, patent privileges still remained subject to royal discretion and inventors or importers of foreign technologies did not have *legal* right on invention. The was not until the end of the eighteenth century or the early nineteenth century when the modern sense of patent laws were enacted and manufacturing industries and inventors started to use patent rights in a strategic way. During the long-lasting patent custom period, mercantilist doctrines achieved political dominance and trade became a key source of revenue of absolutist nation states. The custom of patents,

_

⁸⁵ This statement may encounter disagreements. For instance, Pohlmann argues that the extended and continuous practice of granting patent in Saxony and the Imperial City of Nuremberg became by 1600 a rule of legally binding customs (1961, pp. 122-126). But he denied the Venetian Statute of Patent of 1474 provided inventors with a right to a patent (ibid, p. 121 f.n. 3).

⁸⁶ Mossoff, 2001, pp. 1272-1273. North & Thomas, 1973, pp. 148, 155 ("the Statute of Monopolies of 1624 ... embodied in law a patent system to encourage any true innovation" and was "the creation of the first patent law to encourage innovation")

⁸⁷ Meshbesher, 1996, p. 602; Bracha, 2005, p. 16 ("The Statute of Monopolies and the common law did not attempt to establish a patent system. Nor did they create anything that could even be called patent law"); May & Sell, 2006, p. 75 ("It would be a mistake to assume that a fully fledged modern patent system emerged with the Statute of Monopolies").

⁸⁸ Federico, 1929, pp. 303-304 ("The Statute of Monopolies did not change the position of inventors. They did not have a right to a patent and the Statute did not confer upon him any such right. He was still in the position of a humble petitioner of the king's grace").

⁸⁹ The legislation records support this statement: patent laws were enacted in England in 1851, in France in 1791, in the US in 1793, in Austria in 1820, Russia in 1812, Prussia in 1815, Belgium and the Netherlands in 1817, Spain in 1820, Bavaria in 1825, Sardinia in 1826, the Vatican State in 1833, Sweden in 1834, Württemberg in 1836, Portugal in 1837, and Saxony in 1843 (Machlup & Penrose, 1950, pp. 2-3).

⁹⁰ Epstein, 1998, pp. 703-704; MacLeod, 1991, p. 90.

The mercantilism ended by the triumph of the free traders and the era of British free trade, which can probably be dated from the mid-nineteenth century (Held et

though its effectiveness was questionable as discussed below, survived as a form of mercantilist policies.

2-2-2. Trade Relatedness in the Patent Custom Period

The patent privileges were intended to play a role in mercantile trade policy for achieving trade surpluses. Such a role could be accomplished in two ways: introducing new trade from outside, and encouraging local production of new industry.

Of these encouraging the introduction of new trade from outside was the primary concerns of those who granted the patent privileges. During the fourteenth century patents were privileges granted upon one who brought new techniques into a sovereign's territory and rulers sought to attract and retain artisans in their territory. Therefore, it is not a coincidence that most of the early patent privileges were granted to foreigners. For instance, a Venetian patent as early as 1416 was granted to someone from the Greek island of Rhodes, who introduced a Byzantine practice into Venice, and another patent grant of 1444 was also conferred upon Antonio Marini of France. This was also the case in most of the pre-modern Europe. For example, majority of patent grants in England in the sixteenth and during much of the seventeenth centuries were for patents of importation. So the term "inventor" in the English Statute of Monopolies of 1624 denoted those who actually contributed to the introduction of new art, not the first finder out or discoverer of useful arts.

In this regard, the trade relatedness of the early patent privilege refers to a cross border mobility of artisans, i.e., an inward flow of craftsmen. The movement of craftsmen took place in three ways. First, there might be permanent immigration of master artisans and the temporary migration of journeymen. Both were functional consequence of the guild system, which imparted skills

-

al., 1999, p. 154).

⁹² May & Sell, 2006, p. 109.

⁹³ Mandich, 1960, p. 379.

⁹⁴ Walterscheid, 1993, p. 777.

⁹⁵ Hulme, 1900, p. 151.

that increased the masters' and journeymen's mobility. ⁹⁶ But this type of technical diffusion was limited to within areas that were institutionally, economically, and culturally similar. ⁹⁷ Second, artisans might escape religious persecution, economic hardship, epidemic or warfare and move to other territories. ⁹⁸ A third route for the artisan mobility was financial or legal inducement and protection from guild obstruction. The patent privileges were part of the third form of encouraging the cross-border mobility of artisans.

How were the patent privileges effective for the enhancement of the cross-border mobility of artisans? The historical records show that the actual contribution of patent privileges to the enhancement of the labour mobility was modest. The structure and regulation of medieval and early modern guilds may explain why it was modest. The regulation of guilds was extremely restrictive in the movement of members. Further, costs in transportation and cultural differences between regions might hinder the movement of craftsmen. For this reason, most of the early patent privileges were combined with other incentives such as tax exemptions, "jobs, pensions, titles, and cash rewards" which were more common than patents for rewarding inventors. Further, the most significant premodern incentive to invention was a capacity to capture the rent which was provided by a technical secret, not by patents. Relying upon secrecy or individual contracts to control inventions was also true in England up until the late nineteenth century when high cost in obtaining and enforcing

-

⁹⁶ Epstein, 1998, 702.

⁹⁷ Epstein, 2004, p. 385.

⁹⁸ Kohn, 2008, pp. 4-5 (explaining "The wars and persecution of the sixteenth and seventeenth centuries were a particular fruitful source of technology transfer, with England and Holland being the chief beneficiaries". On the other hand, according to Belfani, the first and second ways of encouraging artisans movement are irrelevant in northern Italy between the sixteenth and the eighteenth centuries (Belfani, 2004, p. 571).

⁹⁹ For instance, in the fifteenth Venice, the members of glass-making guild who attempted to practice their art abroad had to face a death penalty (Shao, 2006, p. 12).

¹⁰⁰ Biagioli, 2006, p. 143. For English inventors who sought titles or jobs in the royal service rather than patent privilege, *see* MacLeod, 1988, p. 34.

¹⁰¹ Epstein, 1998, p. 704.

patents was largely reduced by the Patent Reform Act of 1852. 102

This also explains why the early patent privilege did not confer a monopoly power over certain trades or industries: it was a sort of a passport or franchise. ¹⁰³ In case of England, the early privileges at least since the reign of Edward III (1327-1377) were short of an exclusive monopoly, offering protection and franchises to the inventor or introducer of new trade. ¹⁰⁴ The earlier grant, as Patterson puts it, was "no more than passports", ¹⁰⁵ providing the Crown's protection for foreigners and a license to practice their trade in spite of guilds and other similar limitations and restrictions. ¹⁰⁶ The non-exclusive privilege underwent a change under the Tudor Dynasty (1485-1603) by incorporating "monopoly clauses" in the grants. ¹⁰⁷ Notably, Queen Elizabeth I (1533-1603), during whose reign the English patent custom rooted and flourished, granted patent monopolies to lure foreigner artisans for the purposes of attracting the superior continent technologies. ¹⁰⁸ However, her prerogative ¹⁰⁹ was consistently abused, which led to *The Case of Monopolies*. ¹¹⁰

Apart from the cross-border movement of craftsmen, the patent privileges might have contributed to the mobility within the territory, i.e., mobility of those who were not members of guilds. Actually, in Venice in 1736 only 32 percent out of over 10,000 master artisans were enrolled in guilds. ¹¹¹ Further, the pre-modern

¹⁰² May & Sell, 2006, p. 109.

¹⁰³ Prager, 1944, p. 714 ("the early privileges were not exclusive rights").

¹⁰⁴ Walterscheid, 1993, p. 692; MacLeod, 1988, p. 10.

¹⁰⁵ Patterson, 1968, p. 83.

¹⁰⁶ Also in France, there existed two kinds of privilege: exclusive and ordinary. The ordinary privilege aimed to prohibit the guild traders from obstructing an inventor's activities. For instance, Jacques de la Rouviére, hosier to the king, was granted a privilege in 1757 allowing him to use a new stuff similar to silk without being disturbed by the silk fabric makers nor by any hosiery makers or merchants (Hilaire-Perez, 1991, p. 915).

¹⁰⁷ Patterson, 1968, p. 83.

¹⁰⁸ Devaiah, 2004, p. 5; Hulme, 1900, p. 52.

¹⁰⁹ She called it, when opposing the enactment of monopoly statute in Parliament in 1597, "the choicest Flower in her Garden" and "the principal and head Pearl in her Crown and Diadem (Patterson 1968, 84)".

¹¹⁰ Darcy v. Allen 74 Eng. Rep. 1131 (1603).

¹¹¹ Epstein, 1998, p. 689.

craftsmen were organized into craft guilds mostly in large town, not in villages and small towns.¹¹² This type of artisan movement is associated with the aforementioned second role of patent privileges.

The second role of patent privilege relates to the domestic innovation and local dissemination of technology. Many writers claim that the early patents grants were a kind of the public policy to provide incentives to unveil secrecy that was kept by members of craft guilds and to encourage wider dissemination and use of the uncovered technologies. Theoretically this might be true. But historically and economically this is unwarranted in two ways.

First, the presumption that the technological information will be widely disseminated if it is revealed ignores the information cost and learning cost of technological information. In the late medieval and early modern ages, technological information was not something shared by treatises. The technique was tacit and practical knowledge, which was embodied in those who possessed it and could be conveyed only person to person by example. ¹¹³ Epstein points out that the costs in the application of technological knowledge, in premodern manufacture "arose from the largely implicit nature of technical knowledge, which created the need for one-on-one training". ¹¹⁴ This explanation also supports the premise of the early patent privilege that technological innovation had to be transferred by travelling craftsmen and engineers. Therefore, in preindustrial Europe, most technical progress came from the diffusion of better technology to more and more producers, not from new inventions. ¹¹⁵

Second, the conventional wisdom does not fit with the structure and practice of guilds. Technological information was shared among guild members and keeping secrecy within them was a primary tool to capture rent in competition with others. In this regard, the question whether guilds were harsh rent-seekers and thus anti-innovative can be raised. The role of the guilds, although their influence differed across cities and states, was crucial in the development of

¹¹² Clough & Cole, 1952, pp 26-27.

¹¹³ Kohn, 2008, p. 4.

¹¹⁴ Epstein, 2004, pp. 384-5.

¹¹⁵ Kohn, 2008, p. 6.

patent. They were main source of production and technological innovation and primary interest groups in connection with the patent privileges. Most scholars assert that guilds monopolized trade and manufactures, which means they were largely anti-innovative. Recently, however, few scholars questioned this assertion. For instance, Epstein criticises the prevailing view as misrepresenting the function of guild and its technological consequences, ¹¹⁶ and Richardson, with focusing on England, explains such an assertion is myth. ¹¹⁷

This is not to deny the positive effect of the early patent privileges on technological progress. The question to be explored here is whether the effect of patent privileges was enough to the technological innovation as intended by the patent granters.

2-2-3. Trade Relatedness since the Nineteenth Century

The craft guilds and feudal privileges were abolished by laws in the eighteenth and the nineteenth centuries across Western Europe, ¹¹⁸ but the patent privileges did not face the same fate. It was the manufacturers who began to use patent grants in strategic ways between the late nineteenth and the early twentieth centuries. This led to the change of the trade relatedness of patent. Explanations for the increasing use of patent during this period are not consistent among historians. Dutton (1984) and Sullivan (1989) explain that the phenomenon corresponded to the increase of inventive activities. ¹¹⁹ By contrast, MacLeod viewed the strategic use as combination of emerging capitalism, business cycles and an increasing awareness of benefits of patent monopoly. ¹²⁰

During the nineteenth century, manufacturing interests tried to reform the patent system. As MacLeod puts it, they played a major role in shaping the patent system. ¹²¹ Their main concerns were the costs in acquiring, protecting and enforcing patents and the uncertainty in judicial decisions. This provoked

-

¹¹⁶ Epstein, 1998.

¹¹⁷ Richardson, 2004.

¹¹⁸ Polany, 1944/2001, pp. 74-75.

¹¹⁹ Dutton, 1984; Sullivan, 1989.

¹²⁰ MacLeod, 1988, Ch. 8.

¹²¹ MacLeod, 2004, p. 14.

debate around the justification of patent between patent advocate groups and patent abolitionists. In this debate, the concept of IP in general, patent in particular, was considered to be in direct conflict with the notion of free trade. 122 Therefore, in England, select committees of Parliament proposed the complete abolition of patent protection and in Germany trade associations and chambers of commerce submitted reports recommending reform or abolition of the patent law 123. The advocates of free trade were confronted with groups consisting of engineers, inventors, patent lawyers and industrialists with vested interests in patent protection. The debate, which ended with defeat of the abolitionists, led to two changes that are associated with the trade-relatedness of patent. 124 First, the idea of property in knowledge was accepted among governments, policy makers and commercial interests, and the romantic notion that justifies natural rights in individual creations was challenged by utilitarianism. 125 Second, agreements on IP between several nations emerged. Still IP was regarded as a restriction to trade, but such restriction was no longer regarded as problematic so long as it served the national interests and was applicable to foreign nations. 126

The agreements on IP between nations were initially pursued by way of bilateral treaties. Two major conventions were adopted in the late nineteenth century: the Paris Convention for the Protection of Industrial Property of 1883 (Paris Convention) and the Berne Convention for the Protection of Literary and Artistic Works of 1886. These conventions are described as the start of *international* IP agreements. But it would be more accurate to call them "plural" or "regional" pacts for they lacked something that can be called *international* at least in terms of the number of participants. The original

_

 $^{^{122}}$ May & Sell, 2006, p. 115 ("this debate highlighted the tension between free trade and IP").

¹²³ Machlup & Penrose, 1950, pp. 3-4.

¹²⁴ The decline of support of free trade (Machlup & Penrose, 1950, pp. 4-6) and the British domestic patent reform, resolved in 1883 (May & Sell, 2006, p. 116) are said to cause the abolitionists to lose their momentum.

¹²⁵ May & Sell, 2006, pp. 108, 117.

¹²⁶ Ibid, pp. 116-117.

¹²⁷ Bently & Sherman, 2009, p. 5.

¹²⁸ Drahos, 1999, pp. 352-353.

signatories to the Paris Convention of 1883 were merely eleven including nine European and two Latin American countries. ¹²⁹ Moreover, the Latin American countries dropped out of the club shortly after the signing and a half of the initial signatories including three European countries (the Netherlands, Serbia and Switzerland) did not have a national patent system. ¹³⁰ It was not until midtwentieth century when the number of members increased to what can be called an international accord. ¹³¹ The Berne Convention emerged and developed in a radically different way from the Paris Convention. Like the Paris Convention, it was drawn up in 1886 as a "small treaty" ¹³² signed by ten countries. ¹³³ The Berne convention was a product of 28-years efforts of European authors and artists, inspired by Victor Hugo. However, unlike the Paris Convention, a competing regional agreement, i.e., the Treaty on Literary and Artistic Property gave birth in 1889, which was the first step of a so-called "Pan-American" copyright system. ¹³⁴ Up until the TRIPS Agreement, the international copyright system has been split into two regional systems. ¹³⁵

The Paris and Berne Conventions are based on two principles: minimum level of protection and national treatment. However, the principle of minimum protection was different from the TRIPS Agreement in a sense that the Paris and Berne approaches did not intrude upon national sovereignty. They merely reflected a "consensus position". In other words, the Conventions were a codification of the existing practice of signatories.¹³⁶ The national treatment

_

¹²⁹ Belgium, France, Italy, the Netherlands, Portugal, Salvador, Serbia, Spain and Switzerland from Europe; and Brazil and Guatemala from Latin America. When the Paris Convention was ratified in 1884, instruments of accession were deposited by additional three countries, Ecuador, Tunisia and the United Kingdom (Bodenhausen, 1968, p. 9).

¹³⁰ Roffe & Vea, 2009, pp. 83-84.

¹³¹ The number of contracting parties to the Paris Convention increased to 47 by 1958 and to 80 in 1973.

¹³² Bently & Sherman, 2009, p. 40.

¹³³ Belgium, France, Germany, Haiti, Italy, Liberia, Spain, Switzerland, Tunisia and United Kingdom.

¹³⁴ Chartrand, 2007, p. xv.

¹³⁵ The Universal Copyright Convention of 1952 of UNESCO was erected as an effort to fill the gap but unsuccessful.

¹³⁶ Dinwoodie, 2007, p. 2.

principle, which became persisted to date, was to ensure the same protection in a member state without discriminating foreign creators.

By the middle of twentieth century, many developing countries joined the Paris and Berne Conventions. Here, we can see an interesting analogy between the developments of the middle of twentieth century (1960s) and of the early history of Western Europe. The primary reason that several developing countries joined the international patent treaty and adopted patent policies was expectations to promote technological transfer from industrialised countries. However, as seen below in Section 2-6 "Outcome Layer", the policy objectives of the developing countries hardly to be accomplished.

It was not until 1980s that IP came to be strongly linked to trade issues and substantive provisions for the IP protection and enforcement came to be governed by trade regimes. This is discussed in Section 2-4 in terms of international political economy.

2-2-4. Trade Concerns Reflected in the Early Patent Statutes

The trade concerns were reflected in the early patent statutes in various forms. At least four are worth discussion, which include the concept of inventor, the notion of novelty, the working clause and the term of protection.

As discussed earlier, an inventor in the early patent statutes refers to one who introduces a new trade or industry into the territory. ¹³⁷ In this regard, Bracha claims that new technology or discovery of anything was included in patent privileges "only because it bears resemblance to that of the importer of a new trade". ¹³⁸ Whether the introducers actually discover or invent does not matter. Consequently, any person who first imported the device could, under the Venetian Patent Statute of 1474, get a patent as well as a true inventor, and this was neither unique nor a new opening: it was a codification of prior practices. ¹³⁹ This was also true in England. Contrary to the literal meaning of the text, the "true and first inventor" of "new manufactures" in the Statute of Monopolies of

¹³⁷ Nard & Morriss, 2006, p. 9.

¹³⁸ Bracha, 2005, §I, p. 38.

¹³⁹ Long, 1991, p. 878.

1624 recognized the first introducer of a foreign invention as an inventor. In this sense, the notion of inventor is inseparable from the concept of novelty. That is, although no new invention was involved, patents were legally sound on the count of novelty so long as no such industry was then operating in England. Even when an already-known industry had not been worked in England within recent memory, the novelty was not denied. 141

Also, "any new and ingenious device" in the Venetian Statute embraced a device imported from foreign territories providing the device had not been made in Venice. The French story is not so different from the English and the Venetian ones at least in connection to the notion of novelty and inventor. The modern French patent system was established according to the laws of 1791 and 1844. The Revolutionary Assembly intended to avoid the abusive patent grants and to create a distinction with the past by introducing the natural right of the inventor to obtain property rights in patent on the premise that "every discovery or invention, in every type of industry, is the property of its creator; the law therefore guarantees him its full and entire enjoyment". In reality, however, many features of the *ancien régime* survived the Revolution: for instance, the first introducer of an invention covered by a foreign patent would enjoy the same "natural rights" as the patentee of an original invention or improvement. 142

The US had developed the novelty rule in a quite different way from its European counterparts. When the first US Patent Act of 1790 was discussed, one of the debates was the patents of importation. While several influential government officials, such as George Washington and Tench Coxe, favoured the importation patents, there were voices who strongly opposed to them. Richard Wells argued that Americans should not be deprived of the advantage of imitating the English invention. At the last, the opponents of importation patents prevailed in the House, and importation patent became prohibited. The US, geographically isolated from Europe and having abundant natural

¹⁴⁰ MacLeod, 2002, p. 21; Wallace et al, 1900, p. 31.

¹⁴¹ Walterscheid, 1993, p. 777.

¹⁴² Khan, 2005, pp. 42, 45.

¹⁴³ Nard & Morriss, 2006, p. 62.

¹⁴⁴ Oliar, 2004, p. 52.

resources, had less incentive to provide the carrot of patent for encouraging immigration of skilled artisans from the Europe. This had two important implications. First, where foreign inventors did not seek US patents, Americans had free access to the benefits from foreign technology. Second, American inventors had a great incentive to create useful improvements in borrowed technology (for which a patent could be granted) rather than simply acquiring monopolies over existing inventions from overseas. 146

The third element of trade concerns that were reflected in the early patent is the working clause. As the primary goal of the patent customs was the actual practice of new trade, the requirement of local working was strict. Rather than the disclosure of secret, the furtherance of trade through the effective introduction of a new technique or industry was primarily demanded, and the patenting of mere improvements was avoided. When the trade had not been actually performed in a certain period of time, the grant was revoked. For instance, in France, the patent holder had to put the invention into practice within two years from the initial grant. 148

Lastly, the duration of patent was determined on the basis of period that local artisans are trained in the new techniques. According to Machlup, "the 14-year of the English patents after 1624 was based on the idea that two sets of apprentices should, in 7 years each, be trained in the new techniques". The term of protection of patent had this historical precedent.

2-3. Diversity Layer

Increase of production, rise of trade and existence of private actors having interests to seek rent from trade were important in explaining the emergence of

¹⁴⁵ For debates on the importation patent in the early US, *see* Walterscheid, 1993, p. 800-.

¹⁴⁶ Khan, 2005, pp. 56-57.

¹⁴⁷ MacLeod, 1988, p. 13.

¹⁴⁸ Khan, 2005, p. 45.

¹⁴⁹ Machlup, 1958, p. 9.

 $^{^{150}}$ Machlup & Penrose, 1958, p. 9; UNCTAD Report "Learning by Doing" 1974, \P 369.

the notion of IP and its institutionalization in Western Europe. Yet, they were not determining factors dictating the outcomes. This can be supported by the experiences of societies other countries than Western Europe. This section explores the Eastern Asian history on the lack of IP. The "diversity" here does not simply refer to differences between cultures and societies. Rather, this section aims to discover the origin of *non-existence* of IP in societies other than Western Europe. Saying that IP is a Western European concept or 'a child of the European Enlightenment' is *not* to argue that the notion of IP lacks philosophical or cultural grounds for universal validity. The main purpose of this section is to put IP in a historical moment and to see "a continuing process of historical change" and "clarify a range of possible alternatives to the prevailing order". ¹⁵²

2-3-1. Non-Existence of Patent in Eastern Asia

In premodern Eastern Asia, especially in China, the technological advancement surpassed the Europe during the Middle Ages, ¹⁵³ and commercial trade was flourishing and mainly controlled by private groups, as did by merchant guilds in the Renaissance Europe. Further, the economic growth in China was most significant in period when the early patent emerged in the Western Europe. Moreover, many conditions, which were considered as precursors for the emergence of capitalism in Western Europe, existed in China. Those conditions include an elimination of the conscription of labour, tax reform allowing farmers to use money rather than grain to pay their duties, population growth which in turn promoted urban growth, creation of the biggest cities in the world, and the introduction of money and the development of credit, which stimulated trade, both nationally and internationally. ¹⁵⁴ Then, why did not the concept of patent emerge in China? Economic structure, political organization and

¹⁵² Cox, 1987, pp. 89-90.

¹⁵¹ Hesse, 2002, p. 26.

¹⁵³ At that time, China was the main source of many of the world's greatest inventions such as irrigation and fertilizing techniques, the iron plow, the spinning wheel, the compass, paper, paper money, pottery, gunpowder, pharmaceuticals and the clock (Mokyr, 1990, pp. 31-56, 210; Goldstone, 2009, pp. 8, 13, 90).

¹⁵⁴ Monteiro & Pereira, 2006, pp. 19-20.

geographical conditions may shed some lights on this question. 155

With regard to the economic structure, China has long maintained an irrigation-agricultural economy. The traditional Chinese society valued agriculture highly and the development of industry and commerce was dispersed. The agrarian nature of the society regarded profit-seeking as unethical and believed that mercantile activities did not increase state wealth and power. Therefore, the government held control on trade and commerce. Production of important goods having social benefits and luxury products were dominated or controlled by government.

As for the political organization, China had a bureaucratic structure. The government officials selected through the national civil examination represented the interests not of their own group but those of the state and its people. This is a significant difference from England, where the parliamentary system allowed the property-owning elite to further the interests of their own class by representing them as beneficial to the country as a whole. The Chinese merchant class was not able to rise to power, thereby lacking the political means to influence the government over the importance of commerce and industry. Further, in contrast to Europe there was little competition among governments in China which meant little pressure for government to be more conducive to economic development and growth. However, according to Shao, this does not indicate less economic development or growth. Rather, China, unlike the pre-modern England and Germany, had a little motivation to attract foreign technologies because China applied a multiple mechanism which enabled

⁻

¹⁵⁵ Liu emphasizes the different impact of Confucianism to copyright and to patent. That is, the influence of Confucian teaching to the scholars is distinguished from one to the artisans and merchants. Condemnation of profit-pursuing and of the mercantile class did not preclude the flourishing of commerce and trade throughout Chinese history (Liu, 2009, p. 123).

¹⁵⁶ Yang, 2003, p. 133 (explaining this attitude sustained from the time of the first emperor, Qin Shihuang (390BC-338BC) up until the late nineteenth century).

¹⁵⁷ Liu, 2009, pp. 124-125.

¹⁵⁸ Shao, 2006, pp. 12-13.

¹⁵⁹ Liu, 2009, p. 128.

¹⁶⁰ Ibid. p. 129.

¹⁶¹ Kohn, 2008, p. 17.

government to stimulate and attract most of the important inventions and their diffusion across the giant territory. 162

The geographical condition for the account of the non-existence of patent in the pre-modern China is related to the effectiveness of legal right to monopoly inventions. The Chinese imperial state tried to sustain its power to control economic activity and directly managed many manufacturing enterprises. ¹⁶³

Despite the imperial's stringent policy imposed over trade and commerce, its effect was doubtful. ¹⁶⁴

2-3-2. Non-Existence of Copyright in Chinese History

The invention of mechanical press in Korea and China predates the Gutenberg's invention of movable type in the 1450s, at least 400 years. Then it would be reasonable to ask why China and Korea have not incubated the conception of copyright.

Many scholars claim that the lack of IP in Eastern Asia (mainly Chinese culture) was largely due to philosophy and culture. ¹⁶⁷ One of the most influential works on this perspective was presented by William Alford. He argues that Confucian culture prevented the IP protection from emerging in China. ¹⁶⁸ Others add that "Chinese culture still seems to have trouble valuing

¹⁶² Shao, 2006, p. 12.

¹⁶³ Fu, 1993, p. 93.

¹⁶⁴ Liu, 2009, p. 126.

¹⁶⁵ The first movable type system for printing was invented in China around 1040 AD (Needham & Tsien, 1985, p. 201). However, this movable type was made of clay and turned out to be impracticable due to the lack of durability. The date of the first invention of metal movable type is not confirmed from document records. According to the Cheongju Museum, it was invented in Korea during the period of Moonjong (1047~1083); Sookjong the seventh year (1102); Yejong the fifteenth year (1120); Chungyulwang the twenty-third year (1297); or Kojong the nineteenth year (1232) (Cheongju Museum, n.d.).

¹⁶⁶ According to Ganea and Haijun, granting privileges of exclusive printing, certain salt distilling and iron smelting were found in China during the tenth to thirteenth centuries, but they were under discretion of local authorities, being rudimentary IP concepts not the real privilege system (2009, p. 17).

¹⁶⁷ For religious conflict with the Western notion of IP protection in Muslim and Buddhism cultures, *see* Mun, 2008, p. 57.

¹⁶⁸ Alford, 1995, pp. 19-22.

intangible assets". 169

Confucianism, having its root between the sixth BC to the third BC. 170 has greatly influenced the Chinese society up until early twentieth century as well as other East Asian countries such as Korea, Japan, and Vietnam. Confucian thought largely revolves around the concept of $r\acute{e}n$ (\subset), 171 which can be translated into "benevolence", "humaneness", "compassion", or "loving others". Rén is a moral value based upon harmony with other people and thus the Confucianism emphasizes the relationship with others. This can be demonstrated by a practical rule, called the Golden Rule: "What one does not wish for oneself, one ought not to do to anyone else". For the harmonious society and community, Confucius called attention to the relationships between the ruler and the subject, the parent and child, husband and wife, and the elder and the younger. This moral principle was injected into not only political philosophy that aims at substituting government by virtue for government by force, ¹⁷² but also learning by individuals. Learning self-restraint involves studying and mastering *li*, the ritual forms and rules of propriety through which one expresses respect for superiors and enacts his role in society in such a way that he himself is worthy of respect and admiration. Thus, Confucius himself represented his teachings as lessons transmitted from antiquity. Specifically, he claimed that he was "a transmitter and not a maker" and that all he did reflected his "reliance on and love for the ancients". 173

The conflict of Confucian philosophy with the Western concept of IP is said to come from this tradition. To Alford, emphasis on the relationship with the past posed a dilemma such as ensuring a broad access to the common heritage of all Chinese and this function of the past militated against thinking of the fruits of intellectual endeavour as private property. ¹⁷⁴ Accepting Alford's analysis, many

¹⁶⁹ Suttmeier & Yao, 2011, p. 19.

¹⁷⁰ Yang, 2003, p. 134.

¹⁷¹ Riegel, 2008, ¶ 2.

¹⁷² Blackburn, 2008, p. 73.

¹⁷³ Confucius, "The Analects" Section 2, Part 7, Online English Translation of the Analects, the Internet Classics Archive (MIT) (http://classics.mit.edu/Confucius/analects.2.2.html)

¹⁷⁴ Alford, 1995, p. 20.

writers posit that the Confucianism led "the Chinese to value unencumbered access to the knowledge of the past" and development of property in knowledge failed to produce the same results found in Venice and Western Europe during the fifteenth century. ¹⁷⁵ Put differently, East Asian's cultural basis, Confucianism, has been totally against the notion of IP. ¹⁷⁶

Recently the predominance of philosophy and culture in explanation of the non-existence of IP concept in Asia was challenged by scholars. They point out other factors than the Confucian philosophy and culture to explain why the institution of IP in general, the copyright system in particular did not blossom in China. Among others, Ke Shao criticized Alford as neglecting other historical conditions and overemphasizing the significance of the past or tradition. That is, the question of non-existence of IP in pre-modern China is hardly to be reducible to a philosophical element and Alford's analysis is disparaged as a cultural determinism. Material conditions and "institutional changes" in the Coxian triangular terms as discussed in Section 2-2 did matter.

As a material capability, Mun suggests the feature of Chinese characters and the structure of printing industry. Chinese characters are based on logograms, each has independent and complete meaning.¹⁷⁸ This implies that type-cutting and

¹⁷⁵ May & Sell, 2006, p. 72. For the consenting perspectives, *see* Low, 2002, p. 2; Yang, 2003. If the respect of the past has a such significance, it can be said that the change in Renaissance Europe towards the past paved the way for the emergence of the notion of IP. According to McMullin, in the Middle Ages, tradition was of great importance and medieval authors saw no merit in originality for its own sake. To them, knowledge was a matter of commenting on what others earlier had written. By contrast, the Renaissance European writers concealed their dependence on their predecessors and sometimes made quite unjustified claims to original discovery (McMullin, 1985, p. 17).

¹⁷⁶ Yang, 2003, p. 134. One cynical commentator has even asserted that until it abandons its twisted Confucianism the Asian region will trail the West, and alleged that it is time to deconstruct Confucius (Shi, 2008, p. 11).

¹⁷⁷ Shao, 2005, p. 412. Shao further argues that historical records of the thirteenth century in the Song Dynasty suggest that concerns of authors and printers about the unauthorised copying and publishing were reflected in the governmental decisions and this indicates non-heterogeneous of the concept of IP in Chinese history (Shao, 2006, p. 10; Shao, 2005, pp. 400-431). This claim, however, is unjustified in that the regulatory efforts against the unauthorized use were not to protect economic or individual interests of authors or printers but to control of the accuracy of texts.

¹⁷⁸ Mun, 2008, p. 138. One dictionary of the ninth century compiled about 25,000 characters.

Chinese characters consist of pictograms, i.e., they hold a graphic nature and its visual appeal has given rise to the elevated status of calligraphy. Mun goes on to say that this feature of Chinese characters made a woodblock printing more suitable than metal movable type. ¹⁷⁹ Also, such feature is argued to have dictated the structure of printing industry during the Song Dynasty (960-1279). In contrast with metal movable type printing, which required high costs in such as casting, storage, special machine and technical skills, the woodblock printing by which the texts on sheets of paper were pasted on the blocks entailed less initial investment cost. Therefore, according to Mun, popularity of woodblock printing in China was an obstacle to the large-scale and industrialized printing press and made the printing industry less risky, thereby little motivation to develop a market-oriented production system, which was a vital factor in the emergence of the modern copyright institution in England during the sixteenth and the seventeenth centuries. ¹⁸⁰

2-3-3. Non-Existence of Copyright in Korean History

The material conditions of Chinese printing industry, which stem from the feature of Chinese characters, are hardly to be generalized. The development of metal movable type in Korea provided a strong counter-argument. Before Korean alphabet was invented in 1440s and became official script in the late nineteenth century, Chinese characters were used for written language in Korea. However, the feature of Chinese characters such as logograms and pictograms was not conditional factor for the proliferation of woodblock printing. There are at least three reasons.

First, technology for metal movable type was already matured in Korea by the twelfth century, and hence the advantages of woodblock printing did not make economic sense in Korea. According to De Vinne, a key to the invention of movable type printing is a type mold, which requires a plate of metal strips and a metal rod to hold them in place. The movable metal type was invented in

¹⁸⁰ Mun. 2008, pp. 140-44.

¹⁷⁹ Mun, 2008, p. 139.

¹⁸¹ De Vinne, 1876, pp. 67-68.

Korea in the first half of the thirteenth century and the mold-casting method of producing fonts was based on their experience with minting bronze coins, bronze casting of bells and statutes. 182 In this respect, the movable type printing was a new form of application of the existing metalworking techniques. 183 Therefore, it is not coincidence that by sometime around 1234, artisans of Goryeo Dynasty (918-1392) had printed cast type twenty-eight copies of Sangjong Yemun (detailed and authentic code of rituals) on Kanghwa Island, where the Goryeo government took refuge to resist the Mongolian invasion. 184 and the earliest extant book printed with movable metal type was a product of Gorveo. 185 The metal movable type printing was of most value when a large number of copies were desired. The development of the Korean metal type was a response to the heavy demands for various types of books, both religious and secular. 186 Also the relative scarcity of appropriate hardwoods comparable to the pear wood and jujube used in China was one account of the wide use of metal movable type printing in Korea. Yet, the need to recover the destroyed collection of books was greater.

Second, historical events of Mongolian invasions and the resultant political condition incentivized the invention and the use of metal movable type printing in Goryeo. Before the Mongolian invasion, the Goryeo society published and distributed huge volumes of Chinese Classics and Buddhist canons. Since the tenth century, the Goryeo Dynasty, following the Chinese model, adopted a *gwageo* system, a national examination system to recruit government officials, and Buddhism was national religion. For this purpose, the woodblock printing was widely used because for instance with one woodblock around 50,000 copies could be printed.¹⁸⁷ From 1231, Mongol forces attacked the Goryeo Dynasty for three decades. During the war, the royal collection of books and

¹⁸² Christensen, 2006.

¹⁸³ Sohn, 1997, p. 4.

¹⁸⁴ Jeon, 1974, pp. 174-175. On the other hand, Carter claims the publication of the twenty-eight copies was made in 1241 (1955, p. 224).

¹⁸⁵ The Selected Teachings of Buddhist Sages and Soen Masters (Pulcho chikchi simch'e yojol), which contains a date equivalent to 1377 and is registered in the World Registered Legacy by the UNESCO.

¹⁸⁶ Kim. 2003, p. 13, also cited in Christensen, 2006.

¹⁸⁷ Shon, 1997, p. 3.

woodblocks containing the complete set of Buddhist canons were burned. When the huge number of book collections was destroyed and the Chinese Song Dynasty was under the control of the Mongols, the Goryeo Dynasty was forced to find out a new way of printing for various books of limited copies. Woodblock printing did not fit with these demands because, for instance, the Buddhist canon requiring around 80,000 blocks could not be recovered by the woodblock printing. The bronze movable types were durable and each of them could be rearranged to print new books. For this reason, the printing of the Goryeo transitioned from woodblock to metal movable type printing by the late twelfth century. Yet this did not mean an end of woodblock printing. While the metal movable type printing was employed for books of low demand and relatively low quality, the woodblock printing remained to be used for high demand books (such as genealogical records, portraits and maps of tombs). This practice continued by the early twentieth century. ¹⁸⁸

Third, the central control of printing industry was sustained in Korea. Metal production was totally controlled by the governmental for metal could be used in producing arms and coins, which were crucial in national security and control of economy. Woodblock printing was not different. The earliest official date for Korean typography under the central government control was the starting of the "Department of Books" in 1392, which was responsible for the casting of type and the printing of books. Also by 1403 the government's type foundry was established. Private publishing industries emerged during the seventeenth or the eighteenth centuries but their main copies were printed with woodblock and targeted genealogical records for gentry and rich farmers and novels and other works written in the Korean alphabet for ordinary people. Even so, the civilian contribution was limited as the casting and printing was still under the governmental control. 191

This early Korean structure of publishing industry and government central control of printing is contrasted with Chinese history. The imperial government

¹⁸⁸ Shon, 1997, p. 5.

¹⁸⁹ Carter, 1955, p. 224.

¹⁹⁰ Shon, 1997, p. 5.

¹⁹¹ Jeon, 1974, p. 164.

of Song Dynasty relinquished, since the Xi Ning period (1068-77), its monopoly on printing of canonical texts, and thus it is said that the government control of publishing lasted for short period and limited. Although the premodern Chinese government had sufficient motive to control the publishing industry, the Chinese printing industry was de-centralized differently from the early Korean industries as well as from the English industries.

2-4. International Political Economy Layer

The international political economy (IPE) focuses on the international relationship of states, markets, and societies to analyse how their political reactions shape a global system through which economic interactions are expressed. One of the key features of the IPE is the network of economic and political institutions designed to promote free trade and capital flows. ¹⁹³ As Susan Stranger observes, the network of economic and political interactions is the outcome of "human decisions taken in the context of manmade institutions and sets of self-set rules and customs". ¹⁹⁴ The central question of this section is why a particular course of action of ratcheting up the protection and enforcement of IP, especially TRIPS and TRIPS-plus, was selected from among different options. ¹⁹⁵

The public choice theory or rational choice theory explains the globalization of IP norms as rational choice by the actors (states and private actors). Landes and Posner suggest two kinds of asymmetry for the account of the unrelenting expansion of IP. The first asymmetry occurs in the value between creators and copiers of IP. If the cost of copying or free-riding exceeds the cost in creating IP, the creators of IP do not need to rely on institutional measure for the protection of IP. But the technological advancement does not allow this situation by reducing the cost of copying, thereby an inherent asymmetry exists "between the value that creators of IP place on having property rights and the value that would be copiers place on the freedom to copy without having to a

¹⁹³ Griffiths, 2008, p. 173.

¹⁹² Mun, 2008, p. 186.

¹⁹⁴ Stranger, 1988, p. 18.

¹⁹⁵ Balaam & Veseth, 2008, p. 82.

license". 196 Therefore, the IP holders rationally choose to take part in collective actions to revise upward the standard of protection and enforcement of IP. Then, continuous, inexorable pressure to strengthen the IP rights might be always rational to the IP holders. However, in theory, such pressure cannot go beyond a certain level because IP holders have to use IP created by others. So, the level is to be determined by equilibrium between the value and cost of stronger IP protection, which might even "align the interest of IP holders with that of society as a whole". 197 The second asymmetry that explains the nonstopping expansion of IP comes from the unevenness with regard to the private benefits from recognizing versus denying IP. To Landes and Posner, this refers to the absence of serious opposition to the IP expansionism as exemplified in the Sonny Bono Copyright Term Extension Act. 198 But this does not mean the private versus public value of IP: the tension lies in between *private* value of IP and *private* value of public domain. 199 The first asymmetry is extended to the international context in terms of mercantilism. They argue that "a nation that has a comparative advantage in producing IP is more likely to favor IP rights than one that does not". 200

The public choice theory can be internationalized in another model. In this model, the choice of developing countries in the TRIPS negotiation was rational because they expected benefits from the transfer of technology from IP exporting countries and potential expanded access to market to the industrialized countries. For instance, Scotchmer claims that the trade-off of IP protection in national context between benefit (the increased innovation) and cost (deadweight loss on innovations) needs to be modified in international context, especially the TRIPS accords, taking into account of an outflow of profit to foreign investors.²⁰¹ This assertion draws on the collective action problem or "prisoners' dilemma". In this model, it is assumed that if a country

¹⁹⁶ Landes & Posner, 2003, p. 407.

¹⁹⁷ Ibid, p. 408.

¹⁹⁸ Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, tit. I, 112 Stat. 2827 (1998).

¹⁹⁹ Landes & Posner, 2003, p. 409.

²⁰⁰ Ibid. p. 410.

²⁰¹ Scotchmer, 2004.

'A' strengthens IP protection in its territory, the benefits for the world as a whole will increase because the stronger IP protection of the country 'A' encourages more innovations not only in the country 'A' but also in other countries partly because of the national treatment principles being applied to all of the countries. However, the country 'A' cares only about the benefits and costs that accrue domestically, not paying attention to the benefits of consumers and innovators of other countries. ²⁰² This argument holds not only for the country 'A', but symmetrically for other countries. As a result, countries would choose less protection than that maximizes aggregated global welfare and that they harmonize one. ²⁰³

Also, Sykes applies the collective action problem to developing countries in a similar way. According to him, although the strong patent protection across the developing countries would stimulate valuable research, each country may be tempted not to afford patent protection in the hope to reap full benefits from weak or no patent protection (e.g., lower domestic drug prices). Therefore, the cost will be borne by all of the developing countries and the behavior of each developing country leads to the under-protection of patent. The TRIPS Agreement solves this problem by obligating every member countries to provide minimum standards, in particular no shortening of patent life. By committing them in this way, the member countries, both industrialised and developing, are better off than they were free to choose their policies. 205

The models footing on the public choice theory can be criticized as overemphasizing the material or economic interests for the motivation of action. Also, the public choice approach has a limitation in that the post-TRIPS mobilization against stronger IP standards, such as A2K movement, cannot be explained. Another way to explain the globalization of trade-centric IP norms is focusing on macro level structure. In this model, the structural change of global capitalism empowers transnational capitalist classes to build, in cooperation with economically dominant nations, the global norms that serve their interests.

²⁰² Ibid, p. 333.

²⁰³ Ibid, p. 334.

²⁰⁴ Sykes, 2002, PP. 68-70.

²⁰⁵ Scotchmer, 2004, p. 334.

The global IP rule, represented by TRIPS, is an inexorable tide mandated by the structural forces. However, we need to be cautious about the structural determinism. The structural forces played a vital role in the formation of the contemporary IP norms but they did not determine every outcome. To reveal the limit of the structural determinism, Susan Sell compares the TRIPS Agreement with other WTO pacts. The General Agreement on Trade in Service (GATS) and the Agreement on Trade-Related Investment Measures (TRIMS) were pushed by the same private groups in the same structural context. Yet the private sector failed to achieve its objectives in GATS and TRIMS, differently from its achievement in the TRIPS Agreement.²⁰⁶

This observation invites us to pay more attention to the role of agents. However, the agents-based micro-level explanation is also imperfect because it may lead us to an ahistorical analysis and make us to ignore the feature of "structures that give a framework for action and that form the actions". 207 For the full understanding of the emergence of the global IP norms, agents and their mutual interaction with structure are to be examined. The notion of "structured agency" is the key in explaining the emergence of TRIPS Agreement, but also for the understanding of post-TRIPS movements: the TRIPS-plus and its backlash. Drawing on the critical realism, in particular the morphogenetic perspective of Margaret Archer, Sell explains the concept of structured agency as mutually constructive relationship between agents and structure. ²⁰⁸ Two pre-TRIPS structural (and material) changes - the development of new technologies and the increasing value of IP - altered agents' interests and made certain agents particularly efficient. At the same time, four aspects of the structural changes of global economy (globalisation of finance, internationalization of production, changing role of technology, and politics of deregulation) led to institutional

²⁰⁶ Sell, 2003, pp. 165-72. Placing the three WTO pacts (TRIPS, GATS, and TRIMS) on a spectrum, the TRIPS is the most authoritative, the GATS is in the middle, and the TRIMS agreement is the least authoritative (Ibid at p. 164).

²⁰⁷ Cox, 1987, p. 395.

²⁰⁸ Sell, 2003, Chapters 1, 2 and 7. In sum, "agents are embedded in structures that make their actions possible. Institutions mediate between structures and agents in two directions. Structures alter institutions, and create new agents. In turn, agents alter institutions, and create new structures. Different combinations of elements can lead to vastly different outcomes (ibid at p. 7)".

change, first in the US and then in the international organisations. Saying that the structural changes empower certain agents (i.e., IP dependent industries) does not mean that such agents can do anything. While structural factors can "determine a given potential for transformation, they may not be capitalized upon by those with the power to do so, or the deployment of considerable power may not actually produce transformation". Therefore, agents framing skill, the organizational form of the agents, and interaction of agents with institution become important.

2-5. Substance Layer

The trade-centric IP norms yield changes in the substantive provisions for the IP protection and enforcement. These changes have been incorporated in TRIPS and TRIPS-plus regimes in three forms.

First of all, two principles of the General Agreement on Tariffs and Trade (GATT), the national treatment principle (NTP) and the most favoured nation (MFN) principle, became major pillars of global IP norms. The protection of IP within the meaning of these principles is so broad to include "matters affecting the availability, acquisitions, scope, maintenance and enforcement of IP rights as well as those matters affecting the use of IP rights" contained in TRIPS. ²¹⁰ The NTP in TRIPS is based on a "no less favourable" standard rather than an "equivalent treatment" standard that is reflected in "the same protection" of the Paris Convention (Article 2(1)) or the "same rights" of the Berne Convention (Article 5(2)). This may result in more protection for foreigners, ²¹¹ and the negotiation history shows that the "no less favourable" standard was a reflection of drafters' concerns that the strict "equivalent treatment" might eliminate the need for an MFN provision. ²¹² The MFN principle, one way to accomplish the trade liberalization, ²¹³ is incorporated into TRIPS as "a new element" in the

²¹⁰ Article 3(1) footnote 3.

²¹² UNCTAD-ICTSD, 2005, p. 66.

²⁰⁹ Archer, 1990, p. 81.

²¹¹ Amani, 2009, p. 164.

²¹³ The other way is a preferential treatment to provide better market access for certain trading partners but not for others.

international IP framework,²¹⁴ and requires in Article 4 that "with regard to the protection of IP, any advantage, favour, privilege or immunity granted by Members to the nationals of all other Members". Whether the MFN principle of TRIPS is applied to bilateral FTAs is not self-evident. In the light of the fact that the exceptions to MFN enumerated in Article 4(d) of TRIPS do not include differential IP treatment within arrangements negotiated after TRIPS, the bilateral or regional pacts having TRIPS-plus rules seem to be subject to the MFN principle.²¹⁵

The second change is the incorporation of maximalist IP concept into TRIPS and TRIPS-plus provisions. The expansion of protectable subject matter, the extended term of protection, the curtailment of national discretion on the limitations and exceptions of IP, and the reinforced enforcement of IP are typical ingredient of the maximalist IP concept.

The TRIPS Agreement extends copyrightable subject matter to computer programs and compilations of data (Article 10).²¹⁶ Two WIPO "Internet Treaties"²¹⁷ introduce significant TRIPS-plus obligations, which include: limited rental rights for authors (WCT Article 7); a distribution right for author (WCT Article 6); a widened reproduction right (Agreed Statement concerning WCT Article 1(4)); an introduction of communication right that allows the author to control whether his works can be made available over the Internet (WCT Article 8); and new rights for authors to protect their technological protection measures (TPM) and to prevent any modification of rights

²¹⁵ UNCTAD-ICTSD (2005, p. 88) explains that Article 4(d) allows four kinds of derogation from the MFN obligation: (1) the judicial assistance and law enforcement agreement of a general nature and not confined to the IP protection; (2) reciprocal treatment of foreigners under the Berne and Rome Conventions; (3) those rights of performers, producers and broadcasting organisations not provided for under TRIPS; and (4) international agreements related to the IP protection which entered into force prior to TRIPS. On the other hand, TRIPS-plus may give rise to potential *de facto* MFN discrimination (Abbott, 2005, p. 97).

²¹⁴ Gervais, 1998, p. 54.

²¹⁶ In this regard, it can be said that TRIPS enhanced the market position of the software, database and phonogram industries, in which US firms play a dominant role worldwide (Correa, 2000, p. 12).

²¹⁷ The WIPO Copyright Treaty 1996 (WCT) and the WIPO Performances and Phonograms Treaty of 1996 (WPPT).

management information contained in works (WCT Articles 11 and 12). ²¹⁸ Patent protection is also extended to all fields of technology without discrimination (Article 27(1)). Therefore, software, pharmaceutical product, food and life form become eligible for patent protection. ²¹⁹ Moreover, under Article 28(1)(b) of TRIPS, right of process patent is extended to cover the product obtained directly by that process. Some US FTAs further extend the patentable subject matter to new uses or methods of using a known product, ²²⁰ and foreclose the exclusion of patent for plants. ²²¹ Further, the FTAs driven by the US and the EU introduce new form of exclusivity on data submitted for marketing approval of pharmaceutical products, ²²² and a plant protection product. ²²³

While the term of copyright protection for authors remained constant by TRIPS, the term of the protection for phonogram producers is extended by TRIPS (Article 14(5)) from twenty years of the Rome Convention to at least fifty years from the fixation date. The EU and US FTAs extend the term of copyright protection to seventy years plus author's life. Concerning the patent protection, TRIPS obligates Members to ensure at least twenty years from the filing date (Article 33) and this term of patent protection is further extended by US FTAs in two ways. The first form of extension is based on the US Hatch-Waxman Act which provides for extension for delays in the marketing approval

²¹⁸ Suthersanen, 2005, p. 4.

²¹⁹ Members may exclude from patentable inventions what is necessary for the protection of *ordre public* or morality (Article 27(2)), diagnostic, therapeutic and surgical methods for the treatment of human or animals (Article 27(3)(a)), and plants and animals and essentially bio-logical processes for the production of plants or animals (Article 27(3)(b)).

²²⁰ Article 17.9(1) of the US-Australia FTA, Article 14.8(1) of the US-Bahrain FTA and Article 18.8(1) of the US-Korea FTA.

²²¹ Article 14.8(1) of the US-Bahrain FTA.

²²² Article 17.10 of the US-Chile FTA, Article 16.8 of the US-Singapore FTA, Article 17.10 of the US-Australia FTA, Article 14.9 of the US-Bahrain FTA, Article 18.9 of the US-Korea FTA, and Article 10.36(2) of the EU-Korea FTA.

²²³ Article 10.37 of the EU-Korea FTA.

²²⁴ Article 10.6 of the EU-Korea FTA; Article 18.4(4) of the US-Korea FTA.

process.²²⁵ The second extension also stems from the US domestic law²²⁶ and provides for compensation for the delay in granting a patent.²²⁷

The TRIPS Agreement restricts Members' discretion to legislate the limitations or exceptions to copyrights by expanding the three-step test of the Berne Convention, which applies to the reproduction right, to all forms of copyright (Article 13). 228 Under Article 30 of TRIPS, exceptions to patent rights should meet four or three steps test and compulsory license of patented invention has to follow complicated conditions set forth in Article 31. The compulsory license of patented invention in TRIPS follows a "ground approach" rather than a "condition approach", which is confirmed in Paragraph 5(b) of the Doha Declaration: "Each Member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted". Such discretion is restricted by US FTAs, limiting the grounds to certain cases such as public non-commercial use or national emergency or where compulsory license is necessary to remedy anticompetitive practices. 229

For the enforcement of IP, TRIPS contains civil, administrative and criminal procedures and remedies. Although the scope of IP enforcement in TRIPS is broad and reflects the proposals of industrialised countries, ²³⁰ the standard of IP enforcement is relatively weak. Difference in national legal systems is taken

²²⁵ Article 17.10(2)(a) of the US-Chile FTA, Article 16.8(4)(a) of the US-Singapore FTA, Article 17.9(8)(b) of the US-Australia FTA, and Article 18.8(6)(b) of the US-Korea FTA.

²²⁶ US Patent Act, Section 154.

For details, see, Section 4-5-3.

According to the three-step test, limitations and exceptions to the copyright are only permitted when they comply with three conditions: they must be limited to certain special cases; they must not conflict with the normal exploitation of the work; and they must not unreasonably prejudice the legitimate interests of the right holder. For the third condition, the Berne Convention uses the term of "author" instead of "right holder". On the other hand, in the dispute United States-Section 110(5) of the US Copyright Act, the European Communities argues that the three-step step of TRIPS applies only to those rights that were added to the TRIPS, not those provisions of the Berne Convention that were incorporated into TRIPS by reference. However, this argument was rejected by the panel (Report of the Panel, World Trade Organization, WT/DS160/R June 15, 2000 at ¶¶ 6.75, 6.80 and 6.81).

²²⁹ Article 16.7(6)(a) of the US-Singapore FTA, and Article 17.9(7) of the US-Australia FTA.

²³⁰ Matthews, 2002, p. 66.

into account and fair and equitable measures are to be ensured. In particular, Article 41(5) provides that the IP enforcement provisions do not "create any obligation to put in place a judicial system for the enforcement of IP rights distinct from that for the enforcement of law in general". Further, many provisions are not outright obligatory, giving judicial authorities to take certain actions without obligating the authorities to do so. In addition, while some provisions are mandatory in certain circumstances, many provisions are optional. However, these optional provisions become mandatory and those concerns on the national difference and the procedural justice are removed by the US and EU FTAs. Further the US and EU FTAs create new rules on the IP enforcement, which include a statutory damage rule, a camcorder provision, a website shutting down provision and reinforced intermediary liability rules.

Third, a dispute settlement mechanism is the most striking feature of TRIPS. One of the key motivations for the most industrialised countries to drive TRIPS is the lack of effective international dispute settlement procedures in the international IP agreements administrated by the WIPO. Article 64.1 of the TRIPS Agreement refers disputes under TRIPS to general WTO provisions as set out in the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).²³² The DSU has an adjudicatory procedure including appellate review and effective trade sanctions.²³³ This means that any countries that fail to comply with the obligations set forth in TRIPS may face trade retaliation authorized by the WTO Dispute Settlement Body. The dispute settlement machinery having such a trade "teeth" as well as a TRIPS compliance monitoring system by the TRIPS Council has been strategically used by IP industries to implement the TRIPS provisions.²³⁴

However, TRIPS does not ensure a full application of DSU. TRIPS negotiators

²³¹ Preliminary remedy, injunctions, declaratory relief, damages, disposition or destruction of contraband, and criminal sanctions for wilful trademark infringement and commercial copyright infringement are mandatory in certain circumstances, while other remedies such as recovery of the infringer's profit, attorneys' fees and

costs, statutory damages, and *ex officio* border measures are optional (UNCTADICTSD, 2005, p. 577).

²³² Matthews, 2002, p. 88.

²³³ Goldstein, 2001, p. 111.

²³⁴ For the strategic use by the US business, *see* Sell, 2003, pp. 122-138.

placed, in Article 64(2), a five-year moratorium of what is known as a "nonviolation dispute", under which a WTO Member may initiate a dispute settlement process even when another Members does not violate an agreement. The non-violation complaint is allowed on the grounds that any benefit one Member expects from the agreement is nullified or impaired or that the attainment of any objective of the agreement is being impeded as the result of (a) the application by another Member of any measure, whether or not it conflicts with the provisions of the agreement, or (b) the existence of any other situation. 235 The moratorium of non-violation dispute on TRIPS shows that the substantial difference between TRIPS and other WTO agreements such as the GATT or the GATS: there is no balance of rights and obligations in TRIPS that is similar with the one resulting from the exchange of scheduled tariff concessions and commitments on trade in service. 236 Another concern that made negotiators reluctant to allow the non-violation dispute in connection with TRIPS is its potential impact on policy authority of Member states. ²³⁷ Reflecting these concerns, the TRIPS Council has regularly extended the moratorium every two years, and in 2015 agreed to further extend the moratorium until 2017's WTO Ministerial Conference, which is scheduled to take place in Buenos Aires from 11-14 December. 238 However, some US FTAs try to undermine such policy concern by introducing non-violation dispute provisions. For instance, Article 21.2(c) of the US-Australia FTA allows dispute resolution proceedings to be commenced where legitimate expectations have been nullified, which provoked concerns that it would undermine Australian measures to amend drug pricing mechanism.²³⁹

_

²³⁵ Gervais, 1998, p. 249.

²³⁶ Sun, 2002, pp. 5-6.

²³⁷ Stilwell & Tuerk, 2001, p. 6. "During the negotiation, some developing countries shared the Canada's concern that "applying the non-violation remedy in IP may constrain Member's ability to introduce new and perhaps vital social, economic development, health, environmental and cultural measures".

²³⁸ WTO, 2015. While most of WTO Members prefer to indefinite extension of the moratorium, the US and Switzerland have insisted to lift the moratorium permanently (Saez, 2017).

²³⁹ Faunce et al., 2005, p. 6.

2-6. Outcome Layer

According to a theory of international law, outcomes reflect both power and norms result. In turn, these outcomes modify norms and reallocate power.²⁴⁰ As discussed in the previous Section 2-4, the pre-TRIPS explains how the weak norms triggered strong power to mobilize the outcomes, and the post-TRIPS shows how it reallocated power relations with regard to IP. This section examines the outcome of the post-TRIPS IP norms with focusing on two points: the intended purposes of IP protection; and technical transfer from IP exporting countries to IP importing countries.

The purpose of IP is to encourage creative activities and wider dissemination of knowledge and creative expression. For this purpose, the IP regime provides a temporary legal right to exclude others from using the product of IP. Therefore, the aim of IP can be accomplished through a balance striking work between protection and diffusion in consideration of broader public policy. TRIPS incorporates these balance and public policy concerns in Article 7, which requires the protection IP to "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 conductive to social and economic welfare, and to a balance of rights and obligations". Also, the principles of TRIPS expressed in Article 8 are to ensure the member states to "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".

These concerns, which were reflection of voices of developing countries during the TRIPS negotiation, are distinctive in a sense that they have no equivalent provisions in other international IP instrument such as the Paris and Berne Conventions²⁴¹. They also provide a guideline of how the member states implement the agreement and the WTO dispute resolution bodies render a decision. Yet their effectiveness is restrictive in that they are expressed in the form of exceptions and lack substantive, operational clauses. Further, the

-

²⁴⁰ Cheng, 2006, p. 111.

²⁴¹ Dutfield & Suthersanen, 2008, p. 224.

measures that member states can take under the principles of Article 8 are limited to the case where such measures are consistent with the provision of the TRIPS Agreement. Most of the TRIPS provisions consist of mandatory rules for the IP protection and enforcement. Therefore, for instance, even when it is necessary to protect public health, member states can neither waive the patent protection of certain medicine nor curtail patent protection to a period less than twenty years from the patent filing date. 242 This is why some scholars criticize the balance and public policy concerns expressed in the provisions for the TRIPS objectives and principles are merely "window-dressing". Taking for example, in Canada-Pharmaceutical Patents case, the European Commission argued that Articles 7 and 8 of TRIPS are declaratory and the interests mentioned in those Articles must not be drawn on again in interpreting other provisions (in this case Article 30) since this would involve taking the values mentioned in Articles 7 and 8 into account twice over (¶ 7.25). While the panel expressly decided against this argument of the EC, he drew neither on Article 7 nor on Article 8 during the interpretation of Article 30.²⁴³

In this regard, the balance embedded in the TRIPS Agreement needs to be assessed at a substantially different angle. The balance is, as Barbosa and Chon point out, struck between developing countries abandoning national autonomy to keep "unduly low levels of IP protection" and benefits from "market access and technology transfer".²⁴⁴ Thus, for the evaluation of the outcome of TRIPS, the expected benefits from market access and technology transfer become significant.²⁴⁵

Technology transfer²⁴⁶ and its relationship with the level of IP protection has

²⁴² Because of this "compatibility clause", Article 8 is described as not a proper exception to the protection of IP provided in TRIPS (Brand, 2009, p. 197). In contrast to the compatibility clause of TRIPS, Article XX of GATT 1994 and Article XIV of GATS lack a corresponding compatibility clause, and thus become proper exceptions.

²⁴³ Keßler, 2009, pp. 185-186.

²⁴⁴ Barbosa & Chon, 2007, p. 90.

²⁴⁵ The significance of technology transfer was one of the reasons for the need to conclude TRIPS. As early as in 1992, the GATT secretariat offered the reason: "the protection of IP is a factor in technological progress: it can encourage technology transfer between countries, leading to investment and jobs" (GATT, 1992, p. 17).

There is no clear consensus on the meaning of the transfer of technology, but the 62 / 335

been always controversy among economists. If we narrow the question of technology transfer to the flow from technologically advanced countries to developing countries, theoretically there are positive and negative sides. The positive side includes the incentive to innovate and appropriability of innovation. The introduction of new products, information, and creative activities are long term dynamic gains from the increased incentive to innovate. The appropriability of innovation would help foreign firms to invest into developing countries and license the innovation. The negative influence on diffusion into the developing countries comprises increasing cost of accessing technological information.

Net effect of stronger IP rights on the international diffusion of technology is an empirical question. According to Fink & Maskus, the existing research suggests that countries having strengthened their IP regimes are unlikely to experience a sudden boost in inflows of FDI, and that the empirical evidence does not point to a positive role for IP in stimulating cross-border technology transfer. ²⁴⁸ By contrast, in a study of Mansfield, which was based on interviews with IP executives of US corporations, large proportion of respondents from the chemical and pharmaceutical industries replied that their FDI decisions were affected by the levels of IP protection available.²⁴⁹ Another empirical research shows a positive relationship between IPR and transfer of technology; enhanced patent protections made for the 1994-2000 period have attracted significantly more imports of patent-sensitive technology from OECD countries to noncolonial developing countries, ²⁵⁰ and patent reforms after TRIPS accounted for as much as 20-percent increase in sectoral manufacturing exports from emerging countries to the US. 251 By contrast, evidence from Turkey found that the banning of pharmaceutical patents appeared to have no significant effects on

Draft International Code of Conduct on the Transfer of Technology defines it as "the transfer of systematic knowledge for the manufacture of a product, for the application of a process or for the rendering of a service and does not extend to the mere sale or lease of goods" (UNCTAD, 2014, p, 1).

²⁴⁷ Fink & Maskus, 2005, p. 3.

²⁴⁸ Fink & Maskus, 2005, p. 8.

²⁴⁹ UNCTAD-ICTSD Policy Discussion Paper, 2003, p. 87.

²⁵⁰ Ivus, 2010.

²⁵¹ Maskus & Saggi, 2015, ¶ 83.

the level of FDI, technology transfer or domestic innovation, and an empirical study on Brazil, taking the manufacturing industry as a whole found no evidence that FDI levels were greatly affected by patent protection. While a well-managed patent system together with favouring licenses for technology transfer through outright restriction on FDI contributed in technological catchup in Japan after World War II, weak IPRs encouraged creative imitations and contributed technological and industrial capacities in Korea.

The picture painted by the empirical studies is, as Lemley observed, inconclusive, contradictory or complicated. Since that the technology transfer can take place through various channels, most of which are irrelevant to IP, and different conditions affect the transfer of technology, since of IPRs is limited and does not dictate the outcome. However, it would be fair to say that the TRIPS and TRIPS-plus regimes are not designed to promote the technology transfer. In the previous Section 2-2 "Historical Layer", it is demonstrated that the early grant of patent privilege was, though its effectiveness is uncertain, to encourage technology transfer, and this policy objectives was pursued by incorporating certain rules in patent systems. They include the recognition of a technology importer as an inventor, locally confined concept of novelty, local working and linkage of patent protection term and a period of local learning of new technology. However, these rules designed for the encouragement of

²⁵² UNCTAD-ICTSD Policy Discussion Paper, 2003, p. 87.

²⁵³ Hoekman, Maskus & Saggi, 2004, pp. 17-18.

²⁵⁴ UNCTAD, 2014, pp. 27-28.

²⁵⁵ Lemley, 2015a, p. 1343.

²⁵⁶ Maskus and Saggi (2015) identify six channels for international technology transfer: (a) trade in goods and services embodying new ideas; (b) foreign direct investment; (c) IP licensing including licensing of trade secret; (d) open innovation; (e) migration; and (f) global innovation networks (GINs, referring to an establishment within a global firm of one or more R&D facilities at different locations and the associated management decisions and exchange of information among them and the parent company, ¶ 75) (while former three are traditional channels, latter three are new forms of technology transfer (¶ 81) providing new opportunities for better access to technological information (¶ 124).

²⁵⁷ Many factors such as geographical position of origin and destination markets, market size and competitiveness, commercial prospects, the level of development of human capacities and skills, governance, and infrastructure affect the transfer of technology (UNCTAD, 2014, p. 3).

technology transfer were entirely removed or substantially weakened by the TRIPS and TRIPS-plus provisions.

Local working, the most important rule for the encouragement of technology transfer, is no longer a condition for the patent grant. A patentee, who imports a patented product, can meet the working requirement because the importation of patented product into a country where the patent is granted shall not entail forfeiture of the patent. 258 Failure to work or insufficient working a patented invention is downgraded to one of the grounds for grating a compulsory license. Moreover, such a compulsory license cannot be issued before the expiration of a period of four years from the patent filing date or three years from the patent grant, whichever period expires later. Only when the compulsory license is insufficient to prevent the non-working abuse of patent right, forfeiture of the patent is allowed with an additional condition that two years from the grant of the first compulsory license has passed.²⁵⁹ The patented product²⁶⁰ refers to a product manufactured according to a patent and includes a product which is itself the subject of the patent and a product manufactured by means of a patented process. ²⁶¹ Therefore, a process technology may not be transferred by the mere importation of the patented product. Further, when the product patent is related to practical technology, it is hard to claim that the patent encourages the technology transfer.

The term of patent protection is delinked from such policy measures of early patent that patent protection lasts for a period during which the local craftsmen learn the invention. Now the patent life is discussed in terms of reward to technology disclosure or a period during which patentees can recoup their investment.

²⁵⁸ Article 5(A)(1) of the Paris Convention and Article 2(1) of the TRIPS Agreement. The original text of the Paris Convention of 1883 contained a provision stating that in the case of importation of patented articles the patentee remained under the obligation to exploit his patent in accordance with the laws of the country into which he introduced the patented articles (Bodenhausen, 1968, p. 68).

²⁵⁹ Article 5(A)(2) of the Paris Convention.

²⁶⁰ The Paris Convention uses the term "importation ... of articles manufactured" in any of the countries of the Union.

²⁶¹ Bodenhausen, 1968, p. 68.

2-7. Conclusion

This chapter has delved into the trade dimension of IP from five correlated vantage points (i.e., history, diversity, IPE, substance and outcome). The historical analysis on the emergence of IP in Western Europe and the study on non-existence of IP in Eastern Asia show that there is no inevitable causal link between trade and IP. The concept of IP emerged as a trade policy in pre-industrial Western Europe but its connection to trade was marginal and witnessed considerable fluctuation. In its history, IP was not always linked positively to trade and during the nineteenth century IP was considered to be in direct conflict with the notion of free trade.

One of the decisive factors in the emergence of patent in Western Europe was the mercantilist trade policy, main purpose of which was to achieve trade surpluses by enhancing a cross border mobility of craftsmen and by encouraging local technological innovation. Yet the actual contribution of the early patent system to this policy objective was modest mainly because the structure and regulation of medieval and early modern guilds were restrictive in promoting the cross-border mobility of craftsmen, and because the learning cost of technology was relatively high due to the nature of tacit and practical technology. Therefore, the early patent statutes contained strict rules for achieving the policy objectives. Those rules include (1) allowance of importation patent, (2) recognition of an importer or introductory of foreign technology as an inventor, (3) strict condition of local working, (4) and linkage between the protection term of patent and the period of local learning of patented invention. These are the trade relatedness of the early patent history, which is entirely removed in TRIPS and TRIPS-plus provisions.

This chapter also showed that the strategic use of patent system by manufacturing industries during the late nineteenth and the early twentieth centuries brought about a conceptual change in the patent protection and the emergence of bilateral treaties on patent protection among several Western states. However, the internationalization of patent systems began not in the nineteenth century by the Paris Convention but in the mid-twentieth century when many developing countries joined the Convention in the hope of increased technology transfer and foreign direct investment from industrialized countries. But the patent was not considered as a primary concern of

international trade. It was not until 1980s that IP came to be strongly linked to trade issues and substantive provisions for the IP protection and enforcement became governed by trade regimes. This dramatic change occurred by a strategic behavior of private sectors with an aid of economically powerful states such as the US and the EU. The rational choice theory and explanations footing on either the macro level structure or the micro level agents are insufficient in accounting for the changes in 1980s which led to TRIPS and TRIPS-plus. This Chapter suggests that critical realistic perspective focusing on the mutually constructive interaction between agents and structure and institutions that mediate such an interaction provides better tools to analyse why and how the contemporary IP norms became trade-centric. Further, unlike the rational choice approach, the critical realistic perspective allows us to analyse the emergence of the post-TRIPS mobilization against stronger IP standards.

Under the trade-centric IP regime, the differences in the standards of IP protection and enforcement among states are considered as trade barriers that must be removed as entirely as possible. TRIPS and TRIPS-plus are designed to remove the trade barriers by ratcheting up the IP standards, yielding changes in substantive rules in IP protection and enforcement. Two principles of GATT, the national treatment principle and most favoured nations principle, were incorporated into the global IP norms. The maximalist IP agendas such as expansion of protectable subject matter, extended term of protection, curtailment of national discretion on the limitations and exceptions of IP and the reinforced enforcement of IP became primary pillars of TRIPS and TRIPS-plus norms. TRIPS established a binding rule based on the WTO's dispute settlement mechanism, which means that any countries failing to comply with the obligations set forth in TRIPS may face trade retaliation authorized by the WTO Dispute Settlement Body.

The changed rules governing the global IP norms has failed to achieve intended purposes of IP protection (encouraging creative activities and wider dissemination of knowledge and creative expression). The purpose of IP can be accomplished by striking a fair balance between protection and diffusion of the products of IP. Although concerns on the balance between protection and diffusion are expressed in Article 7 of TRIPS and public policy objectives are declared in Article 8 of TRIPS as principles of the global IP accord, they are in

the form of exception and lack substantive operational clauses in contrast with detailed, mandatory provisions for the IP protection and enforcement.

Technology transfer, one of the bargains between IP exporting and importing countries during the TRIPS negotiation, lack empirical evidences and, more importantly, certain rules that were initially designed to promote the technology transfer are entirely removed or substantially weakened by the TRIPS and TRIPS-plus provisions.

The following chapter shifts to human rights dimension of IP to explore how the contemporary trade-centric IP norms intersect international human rights norms and proposes a new approach for the protection of intellectual creation from the human rights perspective.

CHAPTER 3. HUMAN RIGHTS DIMENSIONS OF INTELLECTUAL PROPERTY

3-1. Introduction

This chapter explores human rights dimensions of IP. As outlined in previous Chapter 2, IP norms have evolved with their relatedness to trade. Trade also played a vital role in provoking scholars and international human rights bodies to discuss IP in terms of human rights. When IP norms went into global with growing trade centrality, IP protection has been excessively expanded both globally and locally, creating conflicts with human rights and putting human rights under threat in certain areas. Hence trade is a common keyword in explaining both trade dimension and human right dimension of IP. However, the direction that trade invoked is different in both dimensions. Whereas trade works positively in expanding the reach of IP, in human right dimension, trade has been an essential catalyst to counterweight the expansion of IP.

If the trade-centrality of global IP regime provokes ardent debate on the human right infringement, a straightforward way to explain the human right dimensions of IP would be to delineate areas where IP regimes bring about conflicts with various human rights. Many scholars, international legal expert bodies and human rights advocates have identified the conflicts of IP with the right to food, health, education, freedom of speech, privacy and share in information. However, this thesis tries to go further by approaching human rights intersection of IP in a holistic way.

The holistic approach can be conceptualized by the term of "the right to science and culture". ²⁶² Both Article 27 of UDHR and Article 15 of ICESCR provide conceptual, legal and normative sources for the right to science and culture. Those Articles ensure both protection and dissemination sides of intellectual

²⁶² The term "right to science and culture" was first coined by Shaver and Sganga in 2009 and employed by the UN Special Rapporteur in the field of cultural rights in her consecutive reports of the UN Copyright Report of 2014 (A/HRC/28/57) and the UN Patent Report of 2015 (A/70/279). For the origin and process of the consecutive reports and discussions among state representative within OHCHR, *see* Bidault, 2016, pp. 25-28; Shaver, 2016, pp. 31-32.

creation, which is intended subject matter of traditional IP regime. Here, the 'protection side' refers to, what is called in this thesis Author Clause - everyone's right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author. 263 The 'dissemination side' rises from two provisions of the international human rights instruments ensuring: (a) everyone's right to take part in cultural life; and (b) to enjoy the benefits of scientific progress and its applications. 264 ICESCR expands the dissemination side by ensuring both the conservation, development and diffusion of science and culture, 265 and the freedom indispensable for scientific research and creative activity. 266

The first part of this chapter traces historical evolution of discourses on the relationship between IP and the right to science and culture. It goes back, for the purpose of unearthing, rediscovering and contextualizing the original understanding, to the mid-1900s when the notion of the right to science and culture was first materialized in the formation of UDRP and ICESCR. Then, it travels chronologically through the long-forgotten period of the right to science and culture, and toward recent controversies on whether IP and human rights are in conflict or not and how to reconcile the human rights and IP regimes. Then, will be discussed two apparently competing sides of the right to science and culture (Section 3-3 for protection side and Section 3-4 for dissemination side) as well as norm-setting process of IP from the human rights perspective (Section 3-5). On the basis of the study on normative and practical meaning of the right to science and culture, Section 3-6 provides an alternative IP model.

3-2. Historical Landscape of Intersection between Human Rights and Intellectual Property

IP has a short history for some attributes of which to be recognised as human

²⁶³ Article 27(2) of UDHR and Article 15(1)(c) of ICESCR.

²⁶⁴ Article 15(1)(a) and (b) of ICESCR and Article 27(1) of UHDR. For the expressional difference between these two Articles, and more comprehensive and broader scope of ICESCR in dissemination side than UDHR, *see* Section 3-4 below.

²⁶⁵ Article 15(2) of ICESCR.

²⁶⁶ Article 15(3) of ICESCR.

rights. IP and human rights have different normative foundations and have developed in isolation. In the last few years, however, a great deal of literatures has discussed IP in terms of human rights.

The examination of drafting history of UDHR and ICESCR aims at moving forward by looking back. By inspecting preparatory works of the international source of law for the right to science and culture, this section tries to recontextualise the right codified more than half a century ago and provide an insight on its contemporary implications.

3-2-1. Emergence of the Right to Science and Culture in UDHR and ICESR

3-2-1-1. UDHR and its Drafting History of the Right to Science and Culture

UDHR was built on the ashes of wars.²⁶⁷ Drafters of UDHR were trying "to repair damage of war, and to help construct the foundation of a just peace".²⁶⁸ This historical root has a connection with the right to science and culture, albeit weaker than civil and political rights have.

Discussions on Author Clause

UDHR was not authored by single person. As Morsink puts it, "numerous official representatives from dozens of countries made hundreds of amendments in hundreds of meetings and cast more than a thousand votes". ²⁶⁹ Drafting of UDHR includes seven formative drafting stages: (1) the first session of the Commission of Human Rights; (2) the first session of the Drafting Committee established by the Commission; (3) the second session of the Commission; (4) the second session of the Drafting Committee; (5) the third session of the Commission; (6) the Third (Social and Humanitarian) Committee of the General Assembly (held from September to December 1948); and (7) the

²⁶⁷ Brown, 2016, p. 29.

²⁶⁸ Prost & Winter, 2013, p. 238.

²⁶⁹ Morsink, 1999, p. 28.

Plenary Session of the same 1948 Assembly. 270

John Humphrey, a Canadian scholar and the representative of the UN Secretariat to the Commission on Human Rights, prepared a four-hundred-page blueprint for UDHR, which was consulted by the Drafting Committee²⁷¹ during the UDHR's formation.²⁷² Humphrey did not include in his document anything comparable to today's Author Clause. It was René Cassin, a French delegation, who suggested the inclusion of Author Clause.²⁷³ However, the first session of the Drafting Committee of 1947 decided not to include Author Clause in UDHR.²⁷⁴

In the following year, again the French delegation proposed Author Clause, with minor stylistic changes, to the third session of the Commission on Human Rights which held from May 24 to June 18, 1948.²⁷⁵ The French proposal received support from delegations from Latin American delegations including those from Mexico, Cuba, Chile and Uruguay.²⁷⁶ However, opponents outnumbered. They reasoned that protection of author's material interests was not properly speaking a basic human right and there was no special need to provide an additional protection to property right.²⁷⁷ Especially, the US delegation opposed the proposal on the grounds that copyright was a problem of international law.²⁷⁸ Finally, at the third session, the French proposal was

²⁷⁰ United Nations, 1950, pp. 524-527; Morsink, 1999, pp. 4, 11.

²⁷¹ Drafting Committee on an International Bill of Human Rights, first session, held on 9-25 June 1947.

²⁷² United Nations (n.d.). History of the Document. Retrieved on 9 November 2016 from http://www.un.org/en/sections/universal-declaration/history-document/index.html.

²⁷³ Shaver & Sganga, 2009, p. 29. René Cassin inappropriately took credit as the principal author of the UDHR (Shaver, 2010, p. 145).

²⁷⁴ Morsink, 1999, p. 220.

²⁷⁵ Ibid.

²⁷⁶ The Mexican delegation successfully proposed the IP Clause in the American Declaration, which greatly influenced the discussions of UDHR, and among the Latin American countries, Ecuador took an opposing stance on the grounds that the protection of literary and scientific property should be dealt with under the general Article on property rights (Haugen, 2007a, pp. 174-175).

²⁷⁷ Helfer & Austin, 2011, pp. 177-178.

²⁷⁸ Morsink, 1999, p. 221.

rejected by 6 votes to 5, with 5 abstentions.

This vote, however, was reversed at the Third Committee, more specifically at the 152nd session. ²⁷⁹ Concerning Author Clause, initially proposed by the French delegation, positions were divided largely along the line between the common-law tradition and civil law countries. 280 Most Latin American states, under the influence of the continent civil law traditions, supported the French proposal. By contrast, the US delegation from the common-law tradition objected on the grounds that protection of author, the main element of the proposed Author Clause, belonged to the domain of copyrights. Also, the UK delegation insisted that "copyright was not a basic human right and objected to the inclusion of rights targeted at specific classes of people, rather than principles that were valid for all men". 281 India under the common-law influence joined the US and the UK in opposition. ²⁸² In spite of such opposition, the proposed Author Clause passed the Third Committee. Morsink explains this was because the Third Committee had a much larger membership of representatives from Latin America, meaning that the proponents could count on a much larger Latin American vote.²⁸³

Discussions on 'Dissemination Side'

Unlike Author Clause, drafters were relatively easy in reaching an agreement on the inclusion of the right to take part in cultural life and the right of everyone to enjoy the benefits of scientific advances.

Most debate on the right to take part in cultural life was about whether it should recognize rights of a certain group other than a nation, in particular the right of minority groups. For some governments, the group rights could threaten the nation state and territorial integrity.²⁸⁴ Therefore, the text of Article 27 of

²⁸² Shaver & Sganga, 2009, p. 32.

²⁷⁹ UNGA, Third Committee, A/C.3/SR/.152 (22 November 1948). The full name of the Third Committee is The Social and Humanitarian Committee of the General Assembly, held from September to December 1948.

²⁸⁰ Haugen, 2007, p. 176; Shaver, 2010, p. 148.

²⁸¹ Morsink, 1999, p. 221.

²⁸³ Morsink, 1999, p. 221.

²⁸⁴ Stamatopoulou, 2008, p. 8.

UDHR appears not to respect diversity and pluralism by assuming that cultural participation will take place in the "one" culture of the "nation-state", ²⁸⁵ which was improved later in ICESCR. ²⁸⁶ The word "freely" after the phrase "to take part" was proposed by Peruvian delegation and supported by the UK representative because she thought "it useful to emphasize that participation in the cultural life of a community must be free". ²⁸⁷

Regarding the right to share in scientific progress and its application, which was in part a reflection of drafters' optimistic view that science had a potential to improve human life and living conditions, ²⁸⁸ there was some disagreement on the ideological foundation. Socialist bloc led by Soviets and their allies wanted "science confined to politically defined objectives serving international peace and economic development", ²⁸⁹ or to place science "at the service of progress and democracy". ²⁹⁰ The Western groups strongly opposed this language for fear that it would put the science "at the service of politics". ²⁹¹ Having met this opposition, Mr. Pavlov from the USSR denounced the Western countries as places where "science was subservient to militarism and ... intellectual forces were concentrated on producing a terrible weapon of aggression for the destruction of millions of peaceful human beings". ²⁹² This debate ended up with rejection of the amendment of the Soviet bloc.

3-2-1-2. ICESCR and Drafting History of the Right to Science and Culture

²⁸⁶ Stamatopoulou explains that in the final text, Article 27 of UDHR includes the prescriptive word *the* in the phrase "the right freely to participate in *the* cultural life of *the* community", while in ICESCR the word *the* is intentionally deleted: 'the right of everyone to take part in cultural life' (2008, p. 10). Therefore, it was improved from homogenous to multicultural right, meaning that the right includes cultural right of minority and to other communities and groups.

²⁸⁵ Ibid.

²⁸⁷ Records of UNGA (1948): Item 77: Draft international declaration of human rights (E/800), p. 624.

²⁸⁸ London, Cox & Coomans, 2016, p. 27.

²⁸⁹ Claude, 2002, p. 12.

²⁹⁰ Records of UNGA (1948): Item 77: Draft international declaration of human rights (E/800), p. 623.

²⁹¹ Ibid. p. 620.

²⁹² Ibid, p. 623.

ICESCR, adopted in 1966 together with the International Covenant on Civil and Political Rights (ICCPR), was a product of approximately 20 years of negotiations of an effort to transform UDHR of 1948 into a legally binding obligation. In 1946, the United Nations Commission on Human Rights (CHR), ²⁹³ directed by the United Nations Economic and Social Council (ECOSOC), was established "to weave the international legal fabric that protects our fundamental rights and freedoms". 294 Upon the request of General Assembly to include articles specifically on economic, social and cultural rights in addition to civil and political rights for the initial draft Covenant prepared by the Commission in 1950, the Commission, assisted by the International Labour Union, the UNESCO and the World Health Organization (WHO) completed a new draft in 1951.²⁹⁵ After long period of discussions, the Third Committee (Social, Humanitarian and Cultural matters) could submit completed draft Covenant to the UN General Assembly in 1966. 296 The provisions for cultural rights were substantively discussed at the seventh (April-May, 1951) and eighth (May 1952) sessions of CHR and at the twelfth session of the Third Committee of the General Assembly (October to November 1957).²⁹⁷

In 1951 when ECOSCO first considered inclusion of economic, social and cultural rights in a human right covenant, UNESCO proposed articles for the right to science and culture. Most discussion of Article 15 focused on the right to take part in cultural life. The initial UNESCO draft, which became the basis for the Commission's discussions in the seventh session, ²⁹⁹ read:

The Signatory States undertake to encourage by all appropriate means,

²⁹⁶ For official records on the drafting ICESCR, *see* Procedural History of Audiovisual Library of International Law provided by UN at http://legal.un.org/avl/ha/icescr/icescr.html and Dag Digital Repository of the UN at repository.un.org.

²⁹³ This body was replaced by the Human Right Council in 2006 by the UN General Assembly.

²⁹⁴ Canada's Human Right Commitments, 2015.

²⁹⁵ Ibid.

²⁹⁷ Green, 2000, pp. 4-13.

²⁹⁸ Saul, Kinley & Mowbray, 2014, p. 1177.

²⁹⁹ Green, 2000, ¶17.

the conservation, the development and the diffusion of science and culture.

They recognize that it is one of their principal aims to ensure conditions which will permit every one:

- 1. To take part in cultural life;
- 2. To enjoy the benefits resulting from scientific progress and its applications;
- 3. To obtain protection for his moral and material interests resulting from any literary, artistic or scientific work of which he is the author.

Each signatory State pledges itself to undertake progressively, with due regard to its organization and resources, and in accordance with the principle of non-discrimination enunciated in paragraph 1, article 1 of the present Covenant, the measures necessary to attain these objectives in the territories within its jurisdiction.³⁰⁰

Discussions on Author Clause

Unlike the provisions for ensuring participation in cultural life and benefiting from scientific progress, the provision on author's right was under debate from the outset. The representative of UNESCO supported the inclusion of author's right on the grounds that "it had already been included in the Universal Declaration on Human Rights and represented a safeguard and an encouragement" for creators. However, the nay-sayers outnumbered, and the proposal for author's right was rejected by 7 votes to 7, with 4 abstaining. 302

The same pattern of discussion reoccurred a year later in the eight session of the Commission. The French delegation resubmitted the original provision and maintained that a provision for the protection of author was necessary for rewarding "professional workers" and "it was not a matter only of material

³⁰⁰ UNESC Document E/CN.4/AC.14/2, p. 4. UNESCO presented the Commission with two versions (one long and one short) of a draft provision. For the long version, *see* Green, 2000, ¶15.

³⁰¹ ECOSOC Document E/CN.4/SR.228, ¶ 13.

³⁰² Green, 2000, ¶¶ 21, 25.

rights; the scientist and artist had a moral right to the protection of his work, for example against plagiarism, theft, mutilation and unwarranted use". ³⁰³ Opposition was reiterated from delegations of the US, the UK and Yugoslavia, asserting that the issue was too complex to be included in the Covenant and should be addressed elsewhere, thereby the passage on author's right was once again rejected. ³⁰⁴

For this reason, the draft Covenant submitted in 1957 by the Commission to the twelfth session of the Third Committee of the General Assembly did not include Author Clause. At this time, the French delegation abandoned to re-submit the proposal for author's right. Instead, the representatives of Uruguay and Costa Rica co-sponsored an amendment introducing Author Clause. Their underpinning was the same as the UNESCO proposal of 1951 and the French proposal of 1952: the fact that UDRP contained such a clause. The French delegation and the representative of UNESCO supported the inclusion of Author Clause.

The Uruguayan delegation strongly sought backing from other delegations by emphasising necessity for conforming with existing code of human rights, i.e., UDHR and for international cooperation to combat copyright piracy.³¹⁰ Against

³⁰³ ECOSOC Document E/CN.4/SR.292, ¶¶ 8-9.

³⁰⁴ Green, 2000, ¶¶ 28, 31.

³⁰⁵ Helfer & Austin, 2011, p. 178.

³⁰⁶ But later, the French representative to CHR proposed a provision for the author's rights (UNGA, Third Committee, A/2929, chap. VIII, ¶ 54).

³⁰⁷ Costa Rica became the co-sponsors by the invitation of Uruguayan representative (UNGA, Third Committee, A/C.3/SR.798, ¶ 31, also *see* UNGA, Third Committee, A/C.3/L.636/Add.1).

³⁰⁸ UNGA Document A/C.3/L.636/Rev.1).

³⁰⁹ Saul, Kinley & Mowbray, 2014, p. 1225.

³¹⁰ UNGA Third Committee, A/C.3/SR.799, ¶ 30 (Mr. Tejera (Uruguay) replied to the USSR representative that "while he recognized that the moral and material interests of authors were in most countries protected by national legislation, the insertion of a provision on the subject in the draft Covenant was necessary in order to give an impetus to national legislation and to make sure that it was brought into conformity with existing international instruments".); UNGA Third Committee, A/C.3/SR.797 ¶ 17 ("Mr. Tejera (Uruguay) ... considered that a reference to author's copyright was imperative. For lack of international protection, literary and scientific works, for example, were frequently pirated by foreign countries, which

this proposal, the USSR's representative tried to revoke the grounds of proposal, noting that the fact of inclusion of Author Clause in UDHR "did not mean that it should be repeated automatically in the Covenant" and pointed out the non-universal nature of Author Clause – not rights concerned all mankind, instead concerned a particular group. ³¹¹ He also criticized the changed position of UK and recalled that "after a long discussion the Commission on Human Rights had rejected by an overwhelming majority a proposal" for author's right. ³¹² To carry out his position, the delegation of USSR suggested alteration of the proposal for the author's right to be protected by national legislation, which was supported by Romania. ³¹³ Facing objection from USSR and other representatives, the Uruguayan delegation expressed his firm decision to maintain his proposal by presenting another foundations:

"It felt all the more justified in doing so since it had other excellent reasons: first, the addition of that paragraph would not lengthen the text of article 16 unduly; secondly, UNESCO had already achieved outstanding success in the matter and the adoption of that paragraph would give new impetus to the work of that organization and enhance its prestige; lastly, the right of the author and the right of the public were not opposed to but complemented each other. Respect for the right of the author would assure the public of the authenticity of the works presented to it". 314

The amendment proposed by Uruguay was finally adopted by 39 votes to 9, with 24 abstentions.³¹⁵ The existence of Author Clause in UHDR was the decisive factor in the triumph of proponents of author's right. Due to UDHR, at least two delegations (from the UK and Chile) changed their position from 'nay' in the seventh eighth sessions of the Commission of 1951 and 1952 to

paid no royalties to the authors".).

³¹¹ UNGA, Third Committee, A/C.3/SR.798, ¶ 19.

³¹² Ibid, ¶ 18.

³¹³ Ibid, ¶ 52.

³¹⁴ UNGA, Third Committee, A/C,3/SR,798, ¶ 32.

³¹⁵ UNGA Third Committee, A/C.3/SR.799, p. 190.

'yes' in the Third Committee of 1957.³¹⁶ The Author Clause of UDRP also contributed in making other delegations including Israel³¹⁷ become more sympathetic to the author's protection than before. Further, the proposer, the delegation of Uruguay, was able to come out very strongly: "he could not believe that any delegation could have valid reasons for opposing the insertion of a text which has already been adopted, since it appeared in article 27 of the Universal Declaration on Human Rights. There was no reason to vote against that text, other than a refusal to implement the Declaration on that point". ³¹⁸

For inventors, no delegation mentioned the word 'inventor' or 'discovery', only one delegation (Saudi Arabia) said "It should also be pointed out that the Committee had not adopted any article on the right to property, and in substance the Costa Rican and Uruguayan amendment dealt with literary and artistic property, as well as the rights of scientists and inventors". 319

Discussions on 'Dissemination Side'

The idea of the right to take part in cultural life, which was proposed by UNESCO, 320 was generally supported by states in the Commission on Human Rights and General Assembly as an important human right. There were differing views on certain concept or notion contained in the UNESCO's draft - whether to specify the cultural participation right to be "of the communities to

³¹⁶ The UK delegation even stated that he did not know the position the delegation of the UK had taken in the previous meetings (UNGA, Third Committee, A/C.3/SR.799, ¶ 16 "He did not recall exactly why the Commission on Human Rights had rejected a similar recommendation, nor what stand his delegation had taken. But it certainly seemed to him now that it was essential to include a provision corresponding to that in article 27, paragraph 2, of the Universal Declaration of Human Rights in the Covenant. He congratulated the representative of Uruguay on his action and would vote in favour of the amendment").

³¹⁷ The Israeli representative explained her support of the Uruguayan amendment that the Covenant should not be weaker than UDHR (UNGA, Third Committee, A/C.3/SR.798, \P 37).

³¹⁸ UNGA, Third Committee, A/C.3/SR.798, ¶ 53.

³¹⁹ A/C.3/SR.798, ¶ 56, p. 185.

³²⁰ ECOSOC Document, E/CN.4/541 (Agenda Item 3, suggestions submitted by the Director-General of UNESCO, 18 April 1951).

³²¹ Donders, 2008, p. 3.

which he belongs". 322

For the science right, drafter of ICESCR debated on the goal or function of scientific progress as did during the UDHR drafting. Czechoslovakian delegation proposed to insert a phrase "in the interest of the maintenance of peace and co-operation among nations". 323 She felt this amendment facing no opposition as it was common knowledge that when technical and scientific progress was applied to the wrong ends, it could be harmful to humanity. In reality, however, objections prevailed and some delegation (for instance Greece) regarded the amendment "even dangerous", 324 or might provide a pretext for State control over scientific research and creative activity (U.K. delegation).325 Other representative opined that peace was best promoted by ensuring the greatest possible scientific and cultural freedoms. 326 The representative of UNESCO did not view that the Czechoslovakian proposal was detrimental to creative freedom due to the UNESCO Constitution, suggesting to change the wording of the proposal in an exemplary manner (inserting "in particular"), 327 which was accepted by the representative of Czechoslovakia. 328 Nonetheless, the Committee rejected the Czechoslovak amendment by 35 votes to 21, with 16 abstentions. 329

3-2-1-3. Lessons from the Drafting History of UDHR and ICESCR

The first lesson learnt from the drafting history of UDHR and ICESCR is that their essential purpose was to "promote universal access to science and

_

³²² UNGA, A/3764 (Report of the Third Committee, 5 December 1957), ¶ 75.

³²³ UNGA, Third Committee, A/C.3/SR.795, ¶ 7.

³²⁴ Ibid ¶ 8

³²⁵ Ibid, ¶ 10. Supporter of the Czechoslovakian proposal came from Saudi Arabia and USSR (See, UNGA, Third Committee, A/C.3/SR.797, ¶¶ 4 and 6).

³²⁶ UNGA, A/3764 (Report of the Third Committee, 5 December 1957), ¶ 78.

³²⁷ UNGA, Third Committee, A/C.3/SR.796 ¶¶ 5 -7. Article 1 of the UNESCO Constitution declared that education, science and culture were instruments of peace but he considered the idea of the right to benefit from scientific progress was new and in the process of evolution.

³²⁸ UNGA. Third Committee, A/C.3/SR.797 ¶ 3.

³²⁹ UNGA, A/3764 (Report of the Third Committee, 5 December 1957), p. 25.

culture"³³⁰. Most delegations having contributed the drafting process were less interested in the moral and material interests of the authors than everyone's right to take part in culture. Maria Green, who prepared a background paper on the drafting history for the CESCR in 2000, observed that while there was not much disagreement on the notion of the right of everyone to enjoy the benefits of scientific advances, the discussion of authors' rights was more fraught, and more complex.³³¹ Many delegations sought to modify or completely exclude the proposed Author Clause. The strength of those oppositions appears to be *unique* in the history of the international bill of rights³³². This indicates that the Author Clause is "far from self-evident", ³³³ and its drafting history supports "relatively weak claims of IP as a human right". ³³⁴

Secondly, the protection side of the right to science and culture, i.e., the author's right is inseparably interlinked with the dissemination side, and has no stand-alone footing for the human rights claim. *Travaux* of both UDRP and ICESCR shows that Author Clause was "supported primarily because of their instrumental character in realizing other rights". This lesson requires the holistic approach for understanding the right to science and culture, as taken in this thesis. In the holistic approach, balance striking task of contemporary tradecentric IP regime needs to be reoriented toward a direction that puts more emphasis on cultural participation and broader access to the benefits of scientific progress and its applications.

Third, in Author Clause, the protection of material interests of authors received less attention than moral interests. Some delegations conceived the protection of moral interests of authors as a means to protect intellectual workers "against improper action on the part of publishers". For instance, the Mexican delegation, who was one of the strongest supporters of Author Clause and a

³³¹ Green, 2000, ¶¶ 3-4.

³³⁴ Chapman, 2002, p. 314; Helfer & Austin, 2011, p. 179.

³³⁰ Shaver, 2010, p. 128.

³³² Shaver & Sganga, 2009, p. 30.

³³³ Yu, 2004, p. 17.

³³⁵ Helfer & Austin, 2011, p. 179.

³³⁶ UNGA, A/3764 (Report of the Third Committee, 5 December 1957), ¶ 76.

designer of Author Clause for the American Declaration, defended the author's rights as "the rights of the individual as an intellectual worker, scientist, or writer", 337 and Australian counterpart argued, in her opposition to Author Clause that "the indisputable rights of intellectual worker could not appear beside fundamental rights of a more general nature, such as freedom of thought, religious freedom or the right to work". Further, the moral rights of authors were not claimed as a necessary legal or moral tool for the protection of an expression of human dignity. Caterina Sganga notes that although copyright law has evolved over time primarily to protect the economic interests of publishers, natural law conceptions of moral rights were originally conceived to protect authors from publishers. 339

Fourth, consensus on the protection of interest of inventors as opposed to authors is highly questionable. As discussed in the following Section 3-2-2-2, inventors were intentionally removed from Author Clause. Therefore, it is plausible to state that the existing patent laws cannot claim the backing of human rights, ³⁴⁰ and "there is no human right to patent protection under Article 15" of ICESCR. ³⁴¹

3-2-2. Long Period of Ignorance

The existence of the right to science and culture in the international human rights instruments have long been ignored. For more than half a century, the right to science and culture has been unobserved and its contents and scope have not been elaborated by academics, practitioners and international human rights organizations.³⁴² Audrey Chapman points out that "this right is so obscure and its interpretation so neglected that the overwhelming majority of human rights advocates, governments, and international human rights bodies appear to

³³⁷ UNGA, Third Committee, A/C.3/SR.150, p. 617.

³³⁸ Morsink, 1999, p. 221.

³³⁹ Shaver, 2009, p. 34.

³⁴⁰ Gordon, 2010.

³⁴¹ UN Patent Report of 2015, A/70/279, ¶ 90.

³⁴² Sganga, 2015, p. 568.

be oblivious to its existence". 343

The reason for the long period of ignorance can be explained in two ways. First, the ambiguity and uncertainty in normative contents and scope of the right to science and culture have contributed to such an ignorance. Due to the vagueness, states believed that the rights in ICPPR were immediately guaranteed and enforced, while the rights in ICESCR were subject to state discretion and incapable of judicial enforcement, ³⁴⁴ and fulfilment of the civil, political, social and economic rights been regarded as a precondition to participation in cultural life. ³⁴⁵ Therefore, the International Commission of Jurists remarked that due to vagueness or lack of definition of normative content, critics of economic, social, and cultural rights often consider the right to take part in cultural life as a right that lacks necessary clarity. ³⁴⁶

Second, there has been no or little incentive and motivation for human right advocates, scholars and international human rights bodies to discuss IPRs in terms of human rights. Also, IP scholars, practitioners and policy makers had little motivation to approach IPRs from the perspective of human rights. The IP policy makers put priority on economic aspects of IP, national competitiveness and development of domestic industries. They believe that doing so serves to their interests. For instance, the national patent offices operate on "a fee-for-service basis", ³⁴⁷ and consider patent applicants and patent holders their customers. Encouraging more stockpiling of patents is good not only for their income but also for strengthening their own organizational power. To the patent offices, there is no stimulus to approach the patent system in view of the human rights. The patent attorneys, a bigger IP experts group, have the same biased professional interests as their major income comes from big corporations filing a large number of patent applications. ³⁴⁸ To them, the human right aspects of IP

³⁴³ Chapman, 2009, p. 1

³⁴⁴ Dean, 2010, p. 1445.

³⁴⁵ Sganga, 2015, p. 561.

³⁴⁶ International Commission of Jurists (2008) Right to Take Part in Cultural Life (Article 15(1)(a) of the Covenant), Submitted to CESCR, U.N. Doc. E/C.12/40/7, \P

³⁴⁷ Drahos, 2010, p. 159.

³⁴⁸ For example, the final winner in patent wars, like the worldwide patent

are not sensitive and at best trivial with little overlapping with their practices and the operation of patent system. Copyright is not different. Copyright policy makers consider the copyright system as tools for economic growth and industrial development. Therefore, each legal regime was preoccupied with its own distinct concerns. 349

The long silence was broken by TRIPS. The dominance of trade rules in IPR regime, which was triggered by the launch of the WTO in 1995, prompted the discussion of IPRs in terms of human rights. 350 As the human rights framework is based on international human rights treaties, the trade and human rights debate has been greatly influenced by the UN human rights institutions. In 1999, the Office of High Commissioner for Human Rights (OHCHR) initiated a broad work programme under the rubric of "Globalization and Its Impact on the Full Enjoyment of All Human Rights". This programme assumed the primacy of human rights over trade agreements, and aimed at proposing "ways and means by which the *primacy* of human rights norms and standards could be better reflected in, and could better inform, international and regional trade, investment and financial policies, agreements and practices". 352

Alongside the programme, there have been a series of reports with detailed analysis of trade and human rights. The first report, released in 2001, touched upon the relation of TRIPS and public health. Since then, the topics covered

litigations between Samsung and Apple, is lawyers representing both fighters.

³⁴⁹ Helfer & Austin, 2011, p. 34.

³⁵⁰ Helfer and Austin suggest two groups of catalysts that triggered controversies over the intersection of IPR and human rights: strengthened IP protection and enforcement mechanism by TRIPS; and changes in human rights law (2011, p. 34).

³⁵¹ In part, this programme was the result of a variety of large UN conferences in the preceding years, such as the International Conference on Population and Development (Cairo in 1994), the World Summit for Social Development (Copenhagen in 1995), and the Fourth Conference on Women (Beijing in 1995) (Lang, 2007, p. 337 at n. 2).

³⁵² UNCHR (Sub-Commission) resolution 1998/12, Human rights as the primary objective of trade, investment and financial policy, 20 August 1998, ¶ 4. The final report was submitted in 2003 by J. Oloka-Onyango and Deepika Udagama, in accordance with the Sub-Commission decision 2002/105, 25 June 2003, E/CN.4/Sub.2/2003/14. See UN ECOSOC, Economic, Social and Cultural Rights: Globalization and its Impact on the Full Enjoyment of Human Rights.

³⁵³ UNCHR (Sub-Commission), The impact of the Agreement on Trade-Related Aspects of Intellectual Property Rights on human rights: Report of the High

have included agricultural liberalization and the right to food, the liberalisation of trade in services, investment liberalisation, and the principles of non-discrimination and participation as they apply in the context of trade policy.³⁵⁴

The areas covered by the series of reports are the "new" issues that have been brought up by the WTO regime and their impacts on human rights.³⁵⁵ The works of UN human rights bodies did not arise in a vacuum: largely they were responses to civil society movements, and the relationship between human rights and trade liberalization has been put on the agenda predominantly by civil societies.³⁵⁶

3-2-3. Debating on Conflict or Non-Conflict between IP and Human Rights

The approach to the intersection and relationship between IP and human rights can be divided into two: one theorizing a situation of incompatibility and conflict;³⁵⁷ the other denying the conflict and equating IP and human rights. As intuitively derived from the historical development outlined in the previous section, the initial debate was dominated by a perspective pointing to conflicts between IP and human rights, and most of the works from the UN human rights institutions were to identify conflicts and called for States to take fully into account the human rights implications of IPR regime. However, as the TRIPS and TRIPS-plus movements has produced a backlash, the current that emphasized conflicting aspects of IP created a crosscurrent, which emerged initially from IP industries and recently from states.

Conflict Approach

Conflict of IP with human rights has been asserted by scholars and the UN human rights bodies for longer than fifteen years. Chapman notes that IP,

Commissioner, (27 June 2001), UN Doc. E/CN.4/Sub.2/2001/13.

³⁵⁴ Lang, 2007, p, 339. For subsequent developments of the UN Human Rights bodies, *see* Lang, 2013, pp. 112-121; Helfer & Austin, 2011, pp. 53-56.

³⁵⁵ Preliminary Report of the "Globalization and its impact on the full enjoyment of all human rights", ¶14.

³⁵⁶ Kaufmann 2005, p. 114.

³⁵⁷ Sganga, 2015, p. 563.

especially post-TRIPS IP norms may be in conflict with human rights obligations. The Venice Statement on human rights also states that "the right to enjoy the benefits of scientific progress and its applications may create tensions with the intellectual property regime". As early as 2001, the High Commissioner (Sub-Commission) confirmed that actual or potential conflicts existed between the implementation of TRIPS and the realization of economic, social and cultural rights. Also, in the statement of 2001, the ECOSOC Committee emphasized that any IP regime "that makes it more difficult for a State party to comply with its core obligations in relation to health, food, education or any other rights set out in the Covenant is inconsistent with the legally binding obligations of the State party".

Underlying the conceptual framework of conflict approach lies the notion of primacy of human rights over economic policies and agreements. Scholars and civil societies also advocate the primacy of human rights over the freedom to participate in markets. For instance, Alston maintains that economic rights arising from WTO agreements are not, and should not be considered to be, analogous to human rights, pointing out the fundamental difference in objectives of two norms. Criticising the non-conflict approach which is based on 'ultra-liberal' view upholding the right to property and market freedom, Picciotto accuses it as simply having the effect of legitimising socioeconomic

³⁵⁸ Chapman, 2001, p. 19-20.

³⁵⁹ Venice Statement on the Right to Enjoy the Benefits of Scientific Progress and its Applications, Statement of Expert Group convened by UNESCO in Venice, Italy, 16–17 July 2009, ¶ 10, Retrieved from http://unesdoc.unesco.org/images/0018/001855/185558e.pdf.

³⁶⁰ OHCHR, Sub-Commission on the Promotion and Protection of Human Rights, Resolution 2001/21, U.N. Doc. E.CN.4/Sub.2.RES/2001/21 (16 August 2001), p. 2.

³⁶¹ ECOSOC, Statement by the Committee on Economic, Social and Cultural Rights, Substantive issues arising in the implementation of the international Covenant on Economic, Social and Cultural Rights: Human rights and intellectual property, UN Doc. E/C12/2001/15 (14 December 2001), ¶ 12.

³⁶² OHCHR, Sub-Commission on the Promotion and Protection of Human Rights, Intellectual Property Rights and Human Rights, Res. 2000/7, E/CN.4/Sub/2/2000/L.20, ¶ 3.

³⁶³ Alston, 2002, p. 826.

inequalities.364

Conflict between IP contained in the trade regime and human rights is fundamental due to their difference in nature. The General Comment No. 17 explains:

"[I]n contrast to human rights, IP rights are generally of a temporary nature, and can be revoked, licensed or assigned to someone else. While under most IP systems, IP rights, often with the exception of moral rights, may be allocated, limited in time and scope, traded, amended and even forfeited, human rights are timeless expressions of fundamental entitlements of the human person". 365

To a large degree, the conflict between IP and human rights is inevitable and inherent in that the TRIPS Agreement is an outcome of the strategic behaviour by firms in the chemical, pharmaceutical and biotechnology sectors, ³⁶⁶ and a product of "structured agency", i.e., the private business sectors. 367 However, in order to make the human right norms operative, it is necessary to identify the nature of conflict and present concrete code of conducts that States follow in adopting IP policies, which is possible from the holistic approach to the right to science and culture as proposed in this thesis.

Non-conflict Approach

Those who support a positive role of trade in the protection of human rights view that IP is also a human right and hence there is no conflict. Strong version of this perspective comes from officers of WTO. Anderson and Wager, insist that "the trade liberalization creates wealth for all participants and thereby helps to generate the resources needed for the fuller realization of human rights". 368

³⁶⁵ General Comment No. 17, ¶ 2. However, it should be noted that the UN institutions did not proclaim that IP rights per se conflict with human rights. Rather the problems, according to them, lie in the implementation of the trade-centric IP norms (Dutfield & Suthersanen, 2008, p. 225).

³⁶⁴ Picciotto, 2002, p. 233.

³⁶⁶ Drahos & Braithwaite 2002, p. 474.

³⁶⁷ Sell. 2003.

To them, freedom to participate in markets is civil and political rights, and in this sense the WTO rules are "directly supportive of civil rights", and stimulate economic growth, thereby "helping to generate the resources that are needed for the fulfilment of such rights". ³⁶⁹ Petersmann provides a theoretical, legal basis for this perspective by suggesting a "constitutionalism" approach in which the WTO rules are to be considered as a "constitutional framework" for the regulation of international markets, which is ultimately necessary for the fulfilment of human rights. ³⁷⁰ Key to this perspective is the right to property required by human nature. ³⁷¹ IP norms globalised by the WTO rules, especially by the TRIPS Agreement are regarded as a complementary tool to the property right, ³⁷² and a means to ensure sound operation of market by curing the market failure. ³⁷³ Due to the fear of expansion of IP by using human rights conception in this manner, some commentators avoid to discuss IP in human rights terms. ³⁷⁴

Another spectrum of the non-conflict school finds its foundation on common rationale between IP regime and human right. For instance, Minero maintains that human rights and IPRs share the same nature without hierarchical relationship, and both do not necessarily follow the same goals or values in any single case.³⁷⁵ The non-conflict approach goes on to equate Author Clause of the international code of human right with contemporary copyright.³⁷⁶ The equation is furthered by association of copyright holders.³⁷⁷ They criticise the

³⁶⁹ Anderson & Wager, 2006, p. 710.

³⁷⁰ Petersmann, 2005, p. 43.

³⁷¹ Cornides, 2004, pp. 141-143.

³⁷² Petersmann, 2005.

³⁷³ Anderson & Wager 2006, p. 714.

³⁷⁴ Helfer 2007, p. 1015.

³⁷⁵ Minero, 2015, pp. 164-165.

³⁷⁶ Torremans, 2004, p. 7; Minero, 2015, p. 169. In the words of Minero, the Author Clause "covers both economic and moral rights and therefore the whole of copyright".

³⁷⁷ For instance, the International Federation of Phonographic Industry (IFPI) elevates the status of copyright to "cornerstone" of the right to culture and an essential prerequisite for the enjoyment of the right to science and culture (IFPI, 2014).

conflict approach as unduly focusing on practical effects of IPRs in specific situation and failing to address the broader picture, ³⁷⁸ or as misguided narrow focus and fundamental failure of recognition on the long-term innovation dependent upon the existence of IP rights. ³⁷⁹

Recently, some member states of UN who pursued regional mega trade pacts took the same position. In June 2016, when replying to OHCHR, in a case concerning possible violation of human right obligations by TPP, the signatory countries of TPP except Australia and Canada argued that "[W]e reject the assertion that certain provisions in TPP could adversely affect the enjoyment of human rights", and "[N]o participant in the TPP negotiations would have considered becoming party to a negotiated outcome that ... unduly constrained access to affordable medicines". See Tor the public consultation in June 2014, organised by the Special Rapporteur in the field of cultural rights on the impact of IP regimes on the enjoyment of the right to science and culture, the US representative to the United Nations maintained that rewarding authors and inventors through IPRs would "foster and promote culture, science and the arts for the benefits of the public", and if there were any area where IPR regime impede access to culture, it was exceptional ("if implemented in particular way" or "certain systems for protecting geographical indications"). See Termination of the protecting geographical indications.

3-2-4. Co-existence or Reconciliation Approach

A holistic approach requires us to approach the right to science and culture from an all-inclusive perspective of its protection and dissemination sides. Like all other human rights, the right to science and culture is an embedded set of human rights. As regarded by drafters of ICESCR, the three components of the

³⁷⁸ Torremans, 2015, p. 222.

³⁷⁹ U.S. Chamber of Commerce, 2017, p. 17.

³⁸⁰ Reply from State (New Zealand) on alleged adverse human rights impact related to numerous provisions within the Trans-Pacific Partnership (TPP) (Communication Ref. JAL NZL 1/2016), 30 June 2016, Retrieved from https://spdb.ohchr.org/hrdb/33rd/NZL 30.06.16 (1.2016).pdf.

³⁸¹ Written contribution of the US to the public consultation on the impact of intellectual property regimes on enjoyment of the right to science and culture (5 November 2014). Retrieved from http://www.ohchr.org/Documents/Issues/CulturalRights/ConsultationIntelectualpro perty/USA.pdf.

right to science and culture are "intrinsically interrelated to one another". 382 The holistic view is supported by Article 15 of ICESCR itself. Paragraph 2 of Article 15 uses singular noun when it refers to the right set forth in Article 15(1)(a) to (c), i.e., the right to science and culture. 383 Therefore, from the holistic perspective, the right to science and culture is understood as a single right having three interrelated aspects of "(a) cultural participation, (b) access to the benefits of science and technology, and (c) protection of authorship". 384 "

Many commentators take the position somewhere between the conflicting and non-conflicting perspectives outlined above, which is loosely categorised here as "co-existence or reconciliation" approach. Even WTO opines the coexistence of the trade-centric IP agreements and human rights standards. 385 Not all of them, however, makes the holistic approach. The spectrum of co-existence and reconciliation view is very wide, but one commonality is seeking ways to mitigate the tensions between IPR and human rights.

Most of legal discourses discussed within the framework of international law are interpretative approaches: possible inclusion of human rights principles within the WTO framework.

Having doubts about any rule-changing mechanisms to resolve conflicts between TRIPS and access to medicine, Hestermeyer suggests a solution through the WTO dispute settlement procedures, on the premise that WTO iurisprudence, i.e., the power of panels, may be most likely route for the importation of human rights law into WTO laws. 386 Petersmann demonstrates

³⁸² Helfer & Austin, 2011, p. 179

³⁸³ Article 15(2) of ICESCR reads "The steps to be taken by the States Parties to the present Covenant to achieve the full realization of **this right** shall include those necessary for the conservation, the development and the diffusion of science and culture". (emphasis added)

³⁸⁴ Information Society Project at Yale Law School (2008) Access to knowledge and the right to take part in cultural life, Submission to the Committee on Economic, Social and Cultural Rights (41st Session, 3-21 November 2008), p. 1.

³⁸⁵ Intellectual Property and Human Rights: Report of the Secretary-General, ESCOR, Sub-Commission on the Promotion and Protection of Human Rights, 52nd Sess., Provisional Agenda Item 4, U.N. Doc. E/CN.4/Sub.2/2001/12 (2001) (submission by WTO), ¶ 8.

³⁸⁶ According to Hestermeyer, amending the WTO Agreements to accommodate human rights is politically impossible because developing countries would fear that 90 / 335

the compatibility of market rights and human rights and the potential to bring them into harmony, and proposes counter balancing approach which takes into account the general consumer and citizen interests.³⁸⁷ But Picciotto criticises this approach as overlooking "the realities of inequalities of power".³⁸⁸

Abbott suggests a two-step approach for the balance striking within the existing international laws. For the first step, Abbott introduces a concept of "core" human right rules and *res cojens*. The Abbott's "core" rights stems from the "core" obligation referred to in the General Comment No. 3 (1990). He points out that Article 52 of VCLT prohibits (or renders void) treaties that conflict with peremptory norms (*res cojens*), and if a provision of the TRIPS Agreement is in conflict with peremptory norms (such as state's obligation to the core human rights), such a provision is void. The rule-modify would be the Ministerial Conference of the WTO, then a judicial or dispute settlement body. As to the appropriate body for the rule changing, Abbott, like Hestermeyer, admits that the WTO is not suitable because of structural imbalance (the negotiation at the WTO are conducted by trade delegations largely representing producer group interests) and of reluctance of governments to reform the WTO decision-making process shown so far (Ibid).

Given the difficulty in identifying the "core" human rights³⁹¹ and the lack of possibility of rule-changing, the second step is a judiciary solution, i.e., WTO Appellate Body (AB). As the mandatory of AB is to decide on the interpretation of the covered agreements, including TRIPS, it would be difficult from a

industrialised countries may use the human right provisions to justify trade sanctions. Further, less ambitious amendment such as the Doha Declaration is also politically infeasible due to the unequivocal opposition from some powerful industrialised countries. In addition, suggestion of establishing an institutional linkage between the WTO and human rights related bodies and organizations is viewed as providing little hope (Hestermeyer 2007, 287).

³⁸⁷ Petersman, 2005, p. 87.

³⁸⁸ Picciotto, 2007, p. 11.

³⁸⁹ Abbott, 2006, p. 147.

³⁹⁰ Ibid, p. 156.

³⁹¹ It seems that Abbott does not consider some aspects of right to protection of material interests of authors are recognized as "core" right by the CESCR in General Comment No. 17. He discusses the "core" rights in terms of right to life and right to health.

judiciary standpoint to conclude that a human rights treaty-based norm should be given priority within the framework of the WTO.³⁹²

Simon Walker also supports the human rights consistent interpretation, but he raises the important issues of difficulties faced by developing countries of political and diplomatic pressures from the developed countries to implement TRIPS-plus policies.³⁹³ Referring to the 2001 Report, Walker rightly points out that the TRIPS Agreement does not take a human rights consistent approach. Among others, human rights considerations are provided in the TRIPS Agreement in the form of exceptions and the agreement fails to set out clearly to what extent the IPR holders have responsibilities of the public interest objectives.³⁹⁴ Dutfield and Suthersanen take a similar stand, arguing that "the proper interpretation of Article 15(1)(c) of UDHR implies a 'right' to IP is a human right, which is vested to individual creators", and the problem lies in the implementation of IP norms not the norms *per se*.³⁹⁵

Taking the holistic approach, Helfer and Austin suggest a human rights framework for IP, which is based on two distinguished dimensions of human rights in the context of IP: protective and restrictive dimensions. The protective dimension provides for IPR holders with both opportunities and risks. It is risky because the creator's rights become "more circumscribed" and "modest". First, the legal protection for economic exploitation of creation does not apply to legal entities. Second, the scope of right is varied depending on states: some may recognize the same exclusive rights as are found in IP treaties and statutes but with radically reduced terms of protection and expanded exceptions and limitations", alternatively (or more threateningly) states may choose to abandon the exclusionary IP protection model, substituting it with "a system of liability rules, levies, or government subsidies". The

³⁹² Abbott, 2006, p. 159.

³⁹³ Walker, 2006, pp. 175-178.

³⁹⁴ Walker, 2006, pp. 173-174.

³⁹⁵ Dutfield & Suthersanen, 2008, pp. 220-221.

³⁹⁶ Helfer & Austin, 2011, p. 512.

³⁹⁷ Ibid, p. 513.

³⁹⁸ Ibid, p. 514.

opportunities are provided for indigenous groups and the "irreducible core of rights", for the core component of rights, more stringent test for evaluating restriction being imposed.³⁹⁹

In order to reconcile the existing IP and human rights, the UN Special Rapporteur in the field of cultural rights proposes the adoption of a public good approach to knowledge innovation and diffusion and suggests reconsidering the current maximalist IP approach. This proposal is based on Shaver's idea that international IP laws are in tension with human rights norms fundamentally and systematically, proposing to treat science and culture as global public good. This proposal is appealing but needs to be refined by taking into account the tacit nature of knowledge as discussed in Section 3-4-2.

3-3. Protection Side of the Right to Science and Culture

3-3-1. Author

3-3-1-1. Concept of Author

The Author Clause defines the right conferred to author of scientific, literary or artistic production. The General Comment No. 17 equates the author to a creator and explains that writers and artists are beneficiary of the protection of Author Clause. 402

An author for the entitlement of the right to science and culture is not the same as defined in copyright law. While an author under copyright law refers to individuals who create something eligible for copyright protection, an author under the right to science and culture includes individuals, groups or communities who "have created a work, even where that work may not be protected by copyright". 403 However, the boundaries of the "non-copyrightable"

³⁹⁹ Ibid, pp. 514-515.

⁴⁰⁰ Human Rights Council, Report of the Special Rapporteur in the Field of Cultural Rights on the right to enjoy the benefits of scientific progress and its applications, A/HRC/20/26 (14 May 2012), ¶ 65.

⁴⁰¹ Shaver, 2010, p. 124.

⁴⁰² General Comment No. 17. ¶ 7.

⁴⁰³ UN Copyright Report of 2014, ¶ 27.

creative works that are covered by the right to science and culture are not clear. The term "creation" may provide an interpretational guideline, which requires certain level of creativity and originality, "a distinction between uncopyrightable and copyrightable subject matter". Therefore, the scope of author under the meaning of the human rights law does not unduly extend beyond the notion of author under the copyright law.

In the international human rights instruments, the author's right is recognised because of the personal linkage between authors and their creative works or productions. Therefore, the primary right bearer is a natural person, and the General Comment No. 17 makes clear that legal entity is not a recipient of the protection of Art. 15(1)(c) of ICESCR. The UN Copyright Report of 2014 also confirms that the human right protection of authorship can only be claimed by human creator, excluding legal entity such as corporate publisher or distributer. Yet, the authors may license their rights, and therefore business enterprises may enjoy a derivative protection. Toroups of individuals were not realised at the time of drafting UDHR and ICESCR, but later the UN human rights bodies have taken an expansive interpretation to encompass groups and communities for the right bearers.

3-3-1-2. Inventor and Author

As Article 27(2) UDHR and Article 15(1)(c) ICESCR refer only to 'author,' the

⁴⁰⁴ Drassinower, 2015, p. 218. For the difference of originality from copyright systems, *see* Section 3-6-3.

⁴⁰⁵ General Comment No. 17, ¶ 7. By this human authorship requirement, a photograph taken by a monkey (as in case *Natuto v. David John Slater et al.*, No. 3:2015cv04324 (N.D. Cal. 2016)) and paintings 'The Next Rembrandt' drawn by Microsoft's artificial intelligence have no room for claiming the protection of author's right.

⁴⁰⁶ UN Copyright Report 2014, ¶ 28. By contrast, the European Court has extended human rights protected under the ECHR to legal persons; e.g., under art. 10 (freedom of expression), under art. 6 (fair trial) as well as art. 11 (freedom of peaceful assembly and association). The European Court decided that even the right to protection of one's 'private life' and 'the home' can be extended to a legal person. accordingly, it is not surprising that the right to property has been conferred to legal persons in case law before the European Court (Banning, 2002, p. 172).

⁴⁰⁷ Abbott, 2006, p. 149.

⁴⁰⁸ General Comment No. 17, ¶ 1.

ensuing question is whether an inventor is covered by the international human right framework. The special rapporteur in the field of cultural rights, who declares that "there is no human right to patent protection" concluded in 2015 that "the term "authors" within the right to science and culture can be interpreted to include inventors and scientific discoverers". The CESCR also interprets the 'scientific production' as including innovation as well as scientific publication. According to the review of the CESCR on the drafting history of UDHR and ICESCR, it is explained that patent was not explicitly excluded albeit lesser attentions than copyright. Although majority of scholars agree on the negotiation history's weak support for inventors, they do not deny the inclusion of inventor as a right bearer in the international human rights instruments. However, it is hard to maintain that inventors are covered in Articles 27(2) UDHR and 15(1)(c) ICESCR. It is not easy to draw a dependable conclusion that inventors are authors within the ordinary meaning of Author Clause as well as from the drafting history of the UDHR.

The proposal to the Third Committee of 1948 for draft UDHR was initiated by the French delegation, which was joined and amended by the delegations of Cuba and Mexico. Original text suggested by the French delegation read (emphasis added):

"The authors of all artistic, literary, scientific works and *inventors* shall retain, in addition to just remuneration for their labour, a moral right on their work and/or *discovery* which shall not disappear, even after such a work and/or *discovery* shall have become the common property of

⁴¹⁰ General Comment No. 17, ¶ 9 ("the protection of the moral and material interests of authors was given some attention, with the focus on copyright protection, and to a lesser extent patents").

⁴⁰⁹ UN Patent Report of 2015. ¶ 34.

⁴¹¹ Green 2000, ¶ 6; *See also* U.N. Econ. & Soc. Council, Sub-Commission on the Promotion and Protection of Human Rights, *The Impact of the Agreement on Trade-Related Aspects of Intellectual Property Rights on Human Rights: Report of the High Commissioner*, U.N. Doc. E/CN.4/Sub.2/2001/13 (2001), ¶21-22.

⁴¹² Cullet, 2004, p. 4; Chapman, 2002, p. 314; and Walker, 2006. On the other hand, Dutfield and Suthersanen criticised the inclusion of inventor by the General Comment No. 17 as "confusing stance and language" (2008, p. 219). For more academic positions and their grounds, *see* Yu, 2016, pp. 45-53.

mankind". [emphasis added]

The joint amendment by the delegations of France, Cuba and Mexico included:

"Everyone has, likewise, the right to the protection of his moral and material interests *in any inventions* or literary, scientific or artistic *works* of which he is the author". 413

Two days later Chang, delegation of China, proposed a compromised text which reads:

"Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic *production* of which he is the author". 414

When comparing above three draft texts, it became clear that the compromised text of the Chinese delegation removed the phrases that are reasonably understood as referring to rights of inventors, as opposed to the rights of authors. The terms, 'inventors' and 'discovery' included in the original proposal and the phrases 'in any inventions' contained in the joint amendment were taken out by the Chinese compromised text. This compromised text passed the Third Committee as Article 25(2), 415 and then the General Assembly as the current Article 27(2). In addition, the regional human rights instrument (the American Declaration 416) adopted during the negotiation of the UDHR became the source of the Latin American delegations' support of Author Clause that contained clear languages for inventors' rights distinguished from authors' rights. The American Declaration included an IP provision in its Article 13 stating that every person has "the right to take part in the cultural life of the community", and it then added "he likewise has the right to the protection of his

⁴¹³ A/C.3/360, Draft International Declaration of Human Rights: Joint Amendment to Article 25 of the Draft Declaration (E/800) / Cuba, France, Mexico: 20/11/1948.

⁴¹⁴ A/C.3/361, Draft International Declaration of Human Rights: Compromise Text for Article 25 of the Draft Declaration (E/800).

⁴¹⁵ "A number of amendments had been proposed but after the USSR proposal had been rejected, a compromise text for the Articles, suggested by China, was first adopted in paragraphs and finally the whole Article, as amended, was adopted (United Nations Bulletin, January 15, 1949, Vol. VI, Number 2, p. 95).

⁴¹⁶ The American Declaration of the Rights and Duties of Man of 1948.

moral and material interests as regards his *inventions* or any literary, scientific, or artistic works of which he is the author".

Then, the negotiation history seems to suggest that the drafters intentionally removed the proposed rights to an invention or discovery from Author Clause. One may argue that when the drafters voted to the Chinese compromised text, they had in mind that the protection of authors was broad enough to cover the protection on invention. Or, it can be assumed that the drafters did not make a clear distinction between authors and inventors. None of these inferences is supported from the *travaux preparatoires*. During the negotiation of UDHR, eighty-one meetings took place and one hundred sixty-eight formal draft resolutions containing amendments to the various articles were submitted. However, the detailed examination of each article was conducted in relatively short period, from 6 October to 7 December 1948. There were less than five official proposals on Author Clause, and most of the discussions were taking place at the 150th to 152nd sessions of the Third Committee, held from 20-22 November 1948.

During these sessions, many delegates distinguished author's right from inventor's right and copyright from patent. Meeting records show that Mexican delegate used terms "the rights of authors and inventors' patents", ⁴¹⁹ Ecuador delegate also stated that "the Mexican, Cuban and French amendments introduced a new element concerning literary property and the rights of the inventor". ⁴²⁰ Peru delegate also expressed "the amendments submitted by the delegations of Mexico, Cuba and France designed to safeguard the rights of authors and inventors' patents". ⁴²¹ Mr. Cassin, the French delegate, mentioned when he claimed for the *moral interest of inventors* that "[I]t could also be argued that royalties and patents were sufficient to protect such persons [a

⁴¹⁷ UN, 1950, p. 526.

⁴¹⁸ At the 178th meeting of the Third Committee on 6 December 1948 the Draft Declaration was adopted by a roll-call vote of 29 to none, with 7 abstentions. The Draft was considered at the 180th to 183rd plenary meeting of the General Assembly of 9-10 December 1948 (UN, 1950, pp. 529-530).

⁴¹⁹ UNGA, Third Committee, A/C.3/SR.150, p. 617.

⁴²⁰ Ibid, pp. 618-619.

⁴²¹ Ibid, p. 619.

number of learned men and artists]. But he did not think so. His proposal not only took into account the material aspect of the question, but was also designed to protect the moral interests of artists and inventors ".⁴²² Delegate of Brazil said "the protection of the moral and material interests of men of science, inventors and persons engaged in artistic pursuits", ⁴²³ and delegate of UK alleged "[T]he representative of France had spoken on the one hand of the recognition due to the author of an invention - a very legitimate claim - and on the other, of protecting the right of ownership attaching to an invention. Those were very different concept". ⁴²⁴ Also delegates from Chile and Canada distinguished "authors' copyright and patents". ⁴²⁵

However, the distinction was not made by all delegates. Curiously, one of them was the Chinese delegation. When he suggested the compromised text that deleted the phrase "in any inventions" from the joint amendment, he explained his proposal as minor changes of the joint amendment: "a few drafting changes in the second paragraph of the joint amendment of Cuba, France and Mexico". Eurther, Cuban delegation welcomed and accepted the changes as "having clarified and improved the original text of the joint amendment". French delegation did not even mention anything on the Chinese proposal and merely expressed support to the Peru amendment. The Chinese delegation, just before the vote, clarified "the second paragraph was really a joint Cuban, French and Mexican proposal, and he asked that the second paragraph should be voted upon separately".

With these records, it may be concluded that the removal of "interests in any inventions" was intentional but accepted as trivial changes among the drafters

⁴²³ Ibid, p. 621.

⁴²² Ibid. p. 620.

⁴²⁴ Ibid, p. 624.

⁴²⁵ UNGA, Third Committee, A/C.3/SR.151, p. 632.

⁴²⁶ Ibid, p. 628.

⁴²⁷ Ibid, p. 628.

⁴²⁸ Ibid, p. 631. The Peru amendment was made on the first paragraph, not Author Clause (A/C.3/SR.150, p. 619).

⁴²⁹ UNGA, Third Committee, A/C.3/SR.152, p. 633.

of the Third Committee. 430 During the drafting negotiations, a majority of discussions was devoted to the first paragraph and the USSR proposal. The inclusion of Author Clause in the second paragraph was debated to lesser extent and the distinction between copyright and patent was not an issue, though many of drafters recognized such distinction.

Meanwhile, revision of "scientific ... works" in the joint amendment to "scientific ... production" in the Chang's compromised text does not provide textual and historical support for the conclusion that an author of the human rights law encompasses an inventor. For details, refer to Section 3-3-3 below.

On the grounds outlined above, this thesis maintains that authors within the meaning of Author Clause do not include inventors under the meaning of the existing patent laws. This conclusion is also in line with the ordinary meaning of the text of Author Clause. According to the Vienna Convention on the Law of Treaties, the principle rule in interpreting a treaty is that a treaty be interpreted "in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose". ⁴³¹ Then the question arises is the scope of author's right to the material interests in *scientific* production, which is discussed in the following Section.

3-3-2. Any Scientific, Literary or Artistic Production

The protection of Author Clause is provided for "any scientific, literary or artistic production". ECSCR divides this production into two: scientific production; and literary or artistic production. This division makes sense when we try to match subject matter of Author Clause with that of two major areas of IP - patent and copyright. The literary and artistic productions may correspond to subject matter of copyright laws, such as "poems, novels, paintings, sculptures, musical compositions, theatrical and cinematographic works,

⁴³⁰ The special rapporteur in the field of culture also pointed out that during the negotiation of Author Clause drafters dropped language mentioning inventors $(A/70/279 \ \P \ 30)$, but she concluded that authors of Author Clause include inventors and scientific discoverers $(A/70/279 \ \P \ 34)$.

⁴³¹ Article 31.1 of the Vienna Convention.

performances and oral traditions". ⁴³² By contrast, the scientific production is interpreted so broad as to encompass subject matters of both copyright and patent and even non-patentable subject matter, such as "scientific publications and innovations, including knowledge, innovations and practices of indigenous and local communities". ⁴³³ In her UN Patent Report of 2015, the Special Rapporteur in the field of cultural rights, does not refute such an expansive interpretation of scientific production, and merely alerted specific parameters and safeguards for the wide-ranging interpretation of the scientific production or patent. ⁴³⁴

The interpretative expansion of scientific production appears to be an effort to cover traditional knowledge and to encompass indigenous communities. However, the negotiation history of UDHR, again, disapproves such an expansive interpretation, and the protection of traditional knowledge and indigenous communities is possible without direct resorting to Author Clause.

During the negotiation, the phrase "any scientific, literary or artistic production" was adopted through the following modifications:

- Original text: "The authors of all artistic, literary, scientific works and inventors";
- Joint amendment: "in any inventions or literary, scientific or artistic works of which he is the author"; and
- Compromised text: "any scientific, literary or artistic production of which he is the author".

This shows that the drafters did not intend to attach any requirement of 'originality' to inventors. Note that the originality is a requirement for copyrightable work, and the corresponding requirement for a patentable invention, i.e., novelty, has nothing to do with an origin of the invention. The

⁴³² General Comment No. 17, ¶ 9.

⁴³³ Ibid.

⁴³⁴ A/70/279 ¶32. The safeguards are within what the UN human rights bodies have repeatedly stated: the equation of IP regimes with the human right to protection under Author Clause is false and misleading given the fundamental difference between the IPRs and human rights.

change of "works" in the joint amendment to "production" in the compromised text does not seem to attach originality to invention or discovery. Historically, the concept of "true and first inventor" in the early patent custom era had little to do with original invention as discussed in Section 2-2, and this had been remained in mid twentieth century when UDHR was drafted. What mattered was the introduction of new trade or innovation itself, not the entity who introduced it. Therefore, the personal link, which is a basic premise of the human rights protection of an author, 435 lacks in invention or scientific production.436

Further, in the words of Brinkhof, "scientific production cannot be understood as being a synonym for an 'invention'", 437 and "scientific production is not synonymous with patents. ... neither the UDHR nor the ICESCR provides sufficient legal basis for the view that the entitlement to a patent ought to belong to human rights". 438

3-3-3. Moral and Material Interests

UN human rights institutions have repeatedly acknowledged the difference between the human rights protection of 'authors' and the protection of existing IP regime. General Comment No. 17 begins with the basic and uncontroversial assertion that the "scope of protection" of authors' rights in Article 15(1)(c) "does not necessarily coincide with what is termed IP rights under national legislation or international agreements". 439 Yet, it is not clearly defined what. precisely, these differences are in scope.

⁴³⁸ Ibid. p. 149.

⁴³⁵ See General Comment No. 17, ¶ 23 ("the very nature of the rights protection in article 15, paragraph 1(c) ... lies in the protection of the personal link between the author and his/her creation"), and A/70/279 \P 32 ("the human right to benefit from the protection of the moral and material interest resulting from one's scientific, literary and artistic productions safeguards the personal link between authors and their creation").

⁴³⁶ Drefuss points out the personal link in invention does not exist because the value of invention or discovery resides in functionality and not in the identity of the inventor (2010, p. 80).

⁴³⁷ Brinkhof, 2010, pp. 147-148.

⁴³⁹ General Comment No. 17, \P 2 to 3.

The scope of author's protection under the international human rights laws is examined by analysing its two components - moral and material interests of authors.

The moral interest of authors was the primary concern of the drafters of the UDHR and ICECSR. They considered that intellectual creation was an expression of personality of an author, and the protection of moral interest of author was necessary tools to link the intellectual production and its author. The drafters were also affected by then existing international agreement on copyright, the Berne Convention that protected the author's moral right. Therefore, the protection of moral interests may be interpreted as close to the 'moral rights' provided in Article 6*bis* of the Berne Convention: the right to attribution and the right to integrity.

One unresolved question with regard to the moral interest is the scope of moral interests of an inventor. As discussed in the previous section, an inventor was intentionally excluded by the drafters of UDHR and ICESCR from the concept of an author in Author Clause. However, subsequent interpretations of UN human rights bodies have extended the concept of authors to include inventors or innovators by expansive interpretation of 'scientific production', which include scientific or technological innovations and discoveries. Then, how to ensure the moral interests of inventors and innovators? The General Comment No. 17 simply states that "[A]uthors ... and inventors shall retain ... a moral right on their work and/or discovery", and reiterates the author's moral right to attribution and to integrity defined in the Berne Convention. 445 The UN Patent

⁴⁴¹ The moral right was codified in Berne Convention during its Rome revision in 1928.

 $^{^{440}}$ Ibid, ¶ 12; A/70/279, ¶ 34

⁴⁴² The right of authors to be recognized as the creators of their scientific, literary and artistic productions.

⁴⁴³ The right to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, such productions, which would be prejudicial to their honour and reputation.

⁴⁴⁴ By contrast, the TRIPS Agreement does not respect the moral rights of author. This indicates that under the TRIPS regime the rights of knowledge capitalists (and owners) are favoured over the rights of knowledge producers (May, 2000, p. 73).

⁴⁴⁵ General Comment No. 17, ¶¶ 12-13.

Report of 2015 simply avoids this thorny issue without further elaboration on the moral right of inventor.

If the author of the Author Clause is interpreted to include an inventor, the existing patent laws are lacking sufficient protection for inventor's moral interests. Most of the international and national patent laws do not recognise a personal link between inventors and inventions. Take for example, the European Patent Convention (EPC) only recognise the initial entitlement of a European patent, which is belong to the inventor (Article 60(1)). Although some view this provision the direct product of Author Clause of UDHR, 446 Article 60 of EPC is insufficient to protect of moral interests of an inventor for two reasons. First, the initial entitlement ensured by EPC has nothing to do with the right to attribution and integrity. Second, the entitlement is given to the first applicant. 447 Inventor's right to attribution is mentioned in Article 62 EPC that an inventor shall have the right, vis-à-vis an applicant for or proprietor of a European patent, to be mentioned as such before the European Patent Office. This provision has its root on Article 4ter of Paris Convention providing that "[T]he inventor shall have the right to be mentioned as such in the patent". But this right, commonly recognized as moral right of inventors, can be waived and its protection is a matter for national legislation. 448 In addition, the right to be mentioned is not extended to the right to be named as an inventor on the scientific production or creation. Nor the right to claim integrity is ensured for inventors. Therefore, the existing rules for inventor's moral rights are far from the human right protection of moral interests of inventors.

⁴⁴⁶ During the discussion of the failed Community Patent Convention of 1975, the International Federation of Inventors Associations (IFIA) maintained that EPC provision (specifically Article 60) permitting a true inventor asking a transfer of an European patent application when the applicant fails to prove successor "are a direct consequence of Article 27(2) of UDHR (General Secretary of the Council of the European Communities, 1981, p. 21)

⁴⁴⁷ According to Article 60(2) of EPC, "if two or more personals have made an invention independently of each other, the right to the European patent shall belong to the person whose European patent application has the earliest date of filing".

⁴⁴⁸ Bodenhausen, 1968, p. 64 ("Since the inventor has only the *right* to be mentioned in the patent, he can waive this right, unless national legislation prescribes otherwise. The original proposals for the provision contained a clause according to which any contract contrary to the provision would be null and void, but this clause was not accepted").

The scope of protection of material interests is less certain than moral counterpart. The first insight into the scope of the protection of material interests is its association to the right to own property set forth in Article 17 of UDHR, or to the enjoyment of right to an adequate standard of living ensured in Article 11(1) of UDHR. While some view that the right to property covers the IP rights, 449 others question this view and emphasise inherent limitations to the protection of material interest. 450 The UN human right bodies put emphasis on direct relations of the protection of material interests and right to an adequate standard living of authors. 451

The second insight is to look at the inherent limitations imposed on the protection of material interests. Other rights, recognized in Article 15 of ICESCR and Article 27 of UDHR, provide a guideline for the interpretation of the scope of the protection of material interest. One thing to note is that even with its association to the right to property, the protection of material interest is not to be equated with the protection under the contemporary IP laws. That is, the right to the protection of material interests does not cover all forms of economic interests. Unlike the traditional economic rights, the material interests are not tied to objectives of market efficiency and utilitarianism. Further, *travaux* of UDHR and CESCR indicates that the material interests cover a narrower type of economic interests: the right to remuneration for intellectual labour 453

⁴⁴⁹ E.g., Cornides, 2004, pp. 139-141 (on grounds that the right to property is not limited to tangible assets); the European Human Rights Court of Strasbourg on Article 1 of the European Convention on Human Rights.

⁴⁵⁰ Wong, 2009, p. 44; Amani, 2009, pp. 196-8.

⁴⁵¹ General Comment No. 17, ¶15 and A/70/279, ¶ 10 (The purpose of the Committee in this interpretative approach is to avoid "the conflation of this term with property rights or rights of exclusion, especially when held by corporations rather than individual creators").

⁴⁵² Wong, 2009, p. 46.

⁴⁵³ Yu, 2004, pp. 1087-1088; Cullet, 2007, p. 409. Cullet suggests that "this provision should not guarantee a monopoly rent, but rather only basic material compensation for effective costs incurred in developing a new scientific, literary, or artistic production and to foster a decent standard of living".

3-3-4. Obligation and Implementation

The UHDR and the ICESCR are clearly written in terms of state obligation. ⁴⁵⁴ Then are non-state actors such as private parties, e.g., corporations and international organizations including the World Trade Organization and the World Intellectual Property Organization not bound by the international human rights norms?

Although the non-states actors are not *directly* bound by ICESCR and UDHR, they are *not* free to violate the international human right norms. The UN Human Rights bodies have recognized the violation of human rights by non-state actors and suggested responsibilities of non-state actors and duties of states to prevent from committing such violations. Further, Article 5(1) of ICESCR makes clear that "[N]othing in the present Covenant may be interpreted as implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights or freedoms recognized herein". Hestermeyer suggests interpreting the human rights norms to contain a duty of the state to protect individuals from violations of their rights by the state and by private parties. Other scholars take the same position on the grounds that state governments are required to regulate individual parties to satisfy states' treaty obligations.

Since 1999, the UN human rights institutions interpret the "core" obligation in

⁴⁵⁴ General Comment No. 17 mentions only states. But this is because its function is to provide an interpretation standard for states and therefore it directs only to states.

⁴⁵⁵ Hestermeyer, 2007, p. 97.

⁴⁵⁶ See, Clapham, 2006, pp. 324-32. In connection to the right to food, see CESCR General Comment No. 12 at ¶ 19, with regard to the right to water, refer to CESCR General Comment No. 15 at ¶ 23 and ¶ 24, and for the right to health, see the CESCR General Comment No. 14 at ¶ 35 and ¶ 42 ("While only States are parties to the Covenant and thus ultimately accountable for compliance with it, all members of society - individuals, including health professionals, families, local communities, intergovernmental and non-governmental organizations, civil society organizations, as well as the private business sector - have responsibilities regarding the realization of the right to health. States parties should therefore provide an environment which facilitates the discharge of these responsibilities.).

⁴⁵⁷ He further argues that the WTO has no direct human rights obligations under its own treaties, but general international law may impose a certain obligation.

⁴⁵⁸ Helfer, 2007, p. 12.

terms of rights to health, food, education or rights to take part in cultural life, and rights to enjoy benefits of scientific progress, all of which are reiterated in General Comment No. 17. In this approach, the key is that "any intellectual property regime that makes it more difficult for a State party to comply with its core obligations in relation to health, food, education, especially, or any other right set out in the Covenant, is inconsistent with the legally binding obligations of the State party". 459

General Comment No. 17 firstly spelled out in great detail the "core" obligation in terms of the right to the protection of moral and material interests. It creates new "core" rights by enlisting at least five core obligations, which are of immediate effect:

- (a) To take legislative and other necessary steps to ensure the effective protection of the moral and material interests of authors;
- (b) To protect the rights of authors to be recognized as the creators of their scientific, literary and artistic productions and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, their productions that would be prejudicial to their honour or reputation;
- (c) To respect and protect the basic material interests of authors resulting from their scientific, literary or artistic productions, which are necessary to enable those authors to enjoy an adequate standard of living;
- (d) To ensure equal access, particularly for authors belonging to disadvantaged and marginalized groups, to administrative, judicial or other appropriate remedies enabling authors to seek and obtain redress in case their moral and material interests have been infringed;
- (e) To strike an adequate balance between the effective protection of the moral and material interests of authors and States parties' obligations in relation to the rights to food, health and education, as well as the rights to take part in cultural life and to enjoy the benefits of scientific progress and its applications, or any other right recognized in the Covenant.

This approach is problematic for several reasons.

First, it is doubtable that rights to the protection of material interests can be categorized as basic rights necessitating the "core" obligation, which is not the

_

⁴⁵⁹ Statement by the Committee on Economic, Social and Cultural Rights, UN Doc. E/C. 12/2001/15 (2001), ¶ 12.

subject of "progressive realization". 460 Rights that need to "ensure the satisfaction of minimum essential levels of rights" can be regarded basic, in a sense that the enjoyment of it is essential to the enjoyment of all other rights. 461 If the concept of core rights gain currency, the "right to life" would certainly be among them. 462 For example, a right to free speech cannot be enjoyed by someone who is under physical threat, any more than a right to employment can be enjoyed by someone who is inadequately nourished. 463 The rights to protection of material interests can be subject of "core" obligation when authors' rights to enjoy an adequate standard of living can be ensured only by the remuneration for the intellectual production, which would be seldom in practice.

Second, if the protection of material interests of authors is subject of "core" obligation, the ability of governments to regulate them ought to be exceedingly narrow. As Helfer suggests, according to this test, government restrictions on authors' rights must be "(1) determined by law, (2) in a manner compatible with the nature of these rights, (3) must pursue a legitimate aim, (4) must be strictly necessary for the promotion of the general welfare in a democratic society, (5) such limitations must be proportionate, meaning that (6) the least restrictive measures must be adopted when several types of limitations may be imposed". Therefore, this may lead to a system of protection stricter than those provided by the present copyright or patent system.

defines the core obligations: A minimum core obligation to ensure the satisfaction of, at the very least, minimum essential levels of each of the rights is incumbent upon every State party. Thus, for example, a State party in which any significant number of individuals is deprived of essential foodstuffs, of essential primary health care, of basic shelter and housing, or of the most basic forms of education is, *prima facie*, failing to discharge its obligations under the Covenant (General Comment No. 3, ¶ 10). By contrast, the progressive obligation relates to an obligation of which full realization of human rights depend on resources of the states. Therefore, "progressive" realization refers to that "States parties have a specific and continuing obligation to move as expeditiously and effectively as possible towards the full realization of all the rights enshrined in the Covenant" (Statement by CESCR, UN Doc. E/C. 12/2001/15 (2001), ¶11).

⁴⁶¹ Vincent, 1986, p. 125.

⁴⁶² Abbott 2006, p. 148.

⁴⁶³ Vincent, 1986, p. 125.

⁴⁶⁴ Helfer, 2007, p. 994

Third, General Comment No. 17 fails to pay due attention to emerging and viable alternative systems which do not rely on the economic remuneration for free sharing of "scientific or artistic production" such as Free Software and Creative Commons. Some commentators have been disappointed with the inability of the CESCR to focus its General Comment No. 17 on the tension between human rights and IP rights, as compared to what the Committee did in its earlier projects. 465

3-4. Dissemination Side of the Right to Science and Culture

3-4-1. Right to Take Part in Cultural Life

3-4-1-1. Culture and Cultural Life of Community

The right to take part in cultural life is the broadest one of the five cultural human rights. He is broadest due to the "amorphous and complex nature" of culture and cultural life. In the broadest sense, culture includes everything related to human life, which distinguishes human from nature. In anthropological sense, culture has "a polysemantic value", had and encompasses "aspects of life such as language, norms, values, beliefs, and practices that are specific to a certain human group and distinguish that group from others". He drafters of UDHR and ICESCR mostly had in mind a narrow view of culture - the 'high' material aspects of culture, such as art, theatre, museums, and other tangible elements of culture.

Later, the UN bodies took a broader concept of culture. For instance, in 1976 UNESCO issued a recommendation characterising culture as encompassing "all

⁴⁶⁵ Cullet 2004 (arguing "Unlike the 2001 Statement, the [then-]proposed General Comment focuses mostly on the rights of individual contributors to knowledge and gives little space to questions concerning the impacts of intellectual property rights on human rights".).

⁴⁶⁶ Stamatopoulou, 2008, p. 3. Other four rights are: the right to education; the right to enjoy the benefits of scientific progress and its application; the right under Author Clause; and the freedom for scientific research and creative activity.

⁴⁶⁷ Thornberry, 2008, p. 4.

⁴⁶⁸ Farah & Tremolada, 2015, p. 463.

⁴⁶⁹ Helfer & Austin, 2011, p. 238.

⁴⁷⁰ Donders, 2008, p. 4.

forms of creativity and expression of groups and individuals", ⁴⁷¹ and participants in the Day of General Discussion held in 1992 and 2008 supported a wide understanding of the concept of 'culture', in line with the definition provided by the UNESCO Declaration on Cultural Diversity. ⁴⁷² The General Comment No. 21, following the anthropological approach, ⁴⁷³ defines the 'culture' as "encompassing all manifestations of human existence", and characterised "cultural life" as "an explicit reference to culture as a living process, historical, dynamic and evolving, with a past, a present and a future". ⁴⁷⁴

In order to assess the existing global IP norms in terms of the human right to science and culture, and operationalize the right to science and culture to the level that this right becomes "sufficiently precise to give rise to identifiable and practicable rights and obligations", 475 it is necessary to narrow down our focus to cultural right in a specified and restricted sense. Here, 'operationalization' refers to an effort to make the right to science and culture operable in a real world and a decisive component of the normative force of a legal norm. Without operationalization, how national courts, administrative bodies and legislators, as recommended by the UN Copyright Report 2014, interpret national copyright and patent rules "consistently with human rights standards, including the right to science and culture"? This operationalization process requires "a version of conceptual subsidiarity", 478 which brings a broad concept to closer to base and addresses a situation in terms of human rights. The notion of "access to knowledge" may provide a useful conceptual subsidiarity. 'Access

⁴⁷¹ UNESCO. (1976). Recommendation on participation by the people at large in cultural life. UNESCO Doc. 19 C/Resolutions. (¶ I.3(a)).

⁴⁷² In the fifth paragraph of the preamble of the Declaration, the 'culture' is regarded as "the set of distinctive spiritual, material, intellectual and emotional features of society or a social group", and encompassing "art and literature, lifestyles, ways of living together, value systems, traditions and beliefs".

⁴⁷³ Romainville, 2015, p. 426.

⁴⁷⁴ General Comment No. 21, ¶ 11.

⁴⁷⁵ UN General Assembly Resolution 41/120, dated 4 December 1986.

⁴⁷⁶ Romainville, 2015, p. 427.

⁴⁷⁷ UN Copyright Report 2014, ¶ 97

⁴⁷⁸ Thornberry, 2008, p. 6.

to knowledge' is an umbrella term referring to various movements aiming at creating "more equitable public access to the products of human culture and learning", 479 and ultimately realising alternative model for knowledge and information production and sharing. It covers cross-sectoral issues such as "science, education, research, and many other public-policy areas". 480 The central themes of A2K are explained as "information commons and public domain", 481 "the public domain, the commons, sharing and openness" or "the idea of balance in IP and the protection of the public domain".

By taking the notion of 'access to knowledge' as a conceptual subsidiarity, the culture within the meaning of the right to science and culture is redefined as something placed between the anthropological culture and the initial narrow concept of culture. The redefined culture may refer to "cultural expressions and heritage, and the processes of understanding, expression, learning, communication, and creation". This redefined concept of culture is comparable with the first and second clusters of culture as defined by Rodolfo Stavenhagen who defines three clusters of culture: (1) 'culture as capital' (accumulated material heritage of humankind in its entirety or of particular human groups); (2) 'culture as creativity' (a process of artistic and scientific

⁴⁷⁹ Malcolm, 2010, p. 2. Benkler explains four long-term intellectual and material-historical trends for an account of the emergence of the access to knowledge movement; (1) the rise of a globalized, liberal trading system, (2) the rise of information economy, (3) the subsequent genesis of a networked information society; (4) the rise of human rights in general as an ideal and the idea of development as freedom (Benkler, 2010, p. 222-223). Kapczynski locates the A2K movement as a reaction to structural trends in technologies of information processing and a conceptual critique of the narrative legitimating maximalist agenda of IP expansion (Kapczynski, 2010, pp. 18-30).

⁴⁸⁰ Latif, 2010, p. 112.

⁴⁸¹ Kapczynski, 2008, p. 853.

⁴⁸² Boyle, 2008, p. 243.

⁴⁸³ Romainville, 2015, p. 429. Inspired by Sunstein's theory of 'incomplete theorized and specified agreements', Romainville opens a new way of definition for the right to take part in cultural life, which is in between a restrictive definition of "a right to access a set of definite artworks" and "anthropological definition given in General Comment No. 21" (Ibid, p. 428). According to her, this approach allows to identify six prerogatives that the right to take part in cultural life implies for individuals: creative freedom; the right to conservation, development and diffusion of the diversity of cultural heritages and expressions; access to cultural life and cultural informations; contribution to cultural life; freedom of choice; and participation in the decision-making in cultural matters (Ibid, pp. 430-435).

creation); and (3) 'culture as a total way of life'. ⁴⁸⁴ Joan posits that the second view of 'culture as creativity' is "the more traditional characterization of culture" in IP law, while the third description is more anthropological and the best for the protection of traditional knowledge of indigenous people. ⁴⁸⁵

Further operationalization of the right to science and culture is conducted by discussing other elements of the right in the ensuing sections. What should be noted at this section is the dynamic nature of the underlying concept of the right. Culture is not "a fixed artefact" but "a dynamic process of engagement among those who make up a culture", ⁴⁸⁶ and as ECSCR characterised, the cultural life is best understood by "reference to culture as a living process, historical, dynamic and evolving, with a past, a present and a future". ⁴⁸⁷

3-4-1-2. "To Take Part"

The main components of the right to participate or take part in cultural life include: (a) participation in; (b) access to; and (c) contribution to cultural life.⁴⁸⁸

The participation component covers an active element: not merely including reference to 'general participation' in 'cultural, religious, social, economic and public life', but also to effective participation in decisions on the national and regional level. 489 The access component is broadly interpreted to encompass the right "to know and understand his or her culture and that of others through education and information, and to receive quality education and training with due regard for cultural identity". 490 The third component, contribution to cultural life, refers to the right to be involved in creative activity such as creating "the spiritual, material, intellectual and emotional expressions of the

⁴⁸⁶ Benkler, 2006, p. 282.

489 ---

⁴⁸⁴ Stavenhagen, 2001, p. 87.

⁴⁸⁵ Joan, 2016, p. 65.

⁴⁸⁷ General Comment No. 21, ¶ 12.

⁴⁸⁸ Ibid, ¶ 15.

⁴⁸⁹ Thornberry, 2008, p. 7.

⁴⁹⁰ General Comment No. 21, ¶ 15.

community.491

Of these three components, the access component has been central to the historical proponents of the right to participate in cultural life, ⁴⁹² and is essential for the purpose of analysing the intersection of this right to IPRs. The notion of the right to culture, along with the right to science, can be best captured by the phrase 'the right to access to knowledge'. ⁴⁹³ By the right of everyone to culture, it is to be understood that everyone has the right to access to knowledge, to the arts and literature of all people, ⁴⁹⁴ and IPRs of access-restricting nature creates an inherent, fundamental, and systematic tension with the right to culture. ⁴⁹⁵

According to Romainville, the access component has two different dimensions: material dimension, which implies more affordable performances, activities, cultural institutions, equally accessible cultural infrastructure; and intellectual dimension, which focuses on access to cultural information and to media and access to and enrichment of cultural capital and cultural references. When focusing on the intersection of IP and the right to science and culture, the second dimension has implications for distributive justice and freedom. The demand for access is a claim from those excluded, which anchored in the demands for distributive justice, as best demonstrated by the movement of access to AIDS medicines, which intimately bound up with claims about intellectual property. Freedom of action of 'information commons' can be guaranteed by condition of "a universe of existing information resources on

⁴⁹¹ Ibid, ¶ 15.

⁴⁹² Romainville, 2015, p. 433.

⁴⁹³ Submission by the Information Society Project at Yale Law School to CESCR (41th Sessions, 3-21 November 2008), p. 1.

⁴⁹⁴ Boutros-Ghali, 1970, p. 73.

⁴⁹⁵ In April 2007, the European Parliament called on the EC to initiate a thorough revision of IPRs in order to better ensure "free and fair access to cultural products and services, an access that, when denied, may constitute "root causes to counterfeiting and piracy" (European Parliament, European agenda for culture in a globalising world, Resolution P6_TA (2008) 0124 (April 2007), ¶ 52, cited in ISP of Yale, 2008, fn. 34).

⁴⁹⁶ Romainville, 2015, pp. 433-434.

⁴⁹⁷ Kapczynski, 2010, pp. 37-38.

which they have the authority to act". 498 However, IPRs, copyrights or patents, remove the authority to act on a given information and cultural resources and locates such authority in the hand of IPR holders. 499

3-4-1-3. Elements for the realisation of the Right to Take Part in Cultural Life

For the full realisation of the right to take part in cultural life, mere protection and conservation of culture and cultural heritage are insufficient: enabling conditions and environment that guarantee for everyone to "access, participate in and contribute to cultural life in a continuously and developing manner" are needed. 500

ECSCR emphasised those necessary conditions to be met on the basis of equality and non-discrimination, which include: (a) availability of cultural goods and services; (b) accessibility for individuals and communities to enjoy culture fully; (c) acceptability of cultural policies and measures; (d) adaptability of cultural policies, strategies, programmes and measures adopted by the State; and (e) appropriateness (or cultural adequacy).⁵⁰¹

The importance of enabling condition and environment can be explained by 'combined capability' of Nussbaum's theory, which relates to 'innate powers' of people and 'external opportunity'. ⁵⁰² It requires positive measures creating "possibilities and institutional infrastructure" allowing individuals to "actually enjoy that particular capabilities". ⁵⁰³ The measures to build infrastructure for ensuring real opportunities for everyone to access, participate in and contribute to cultural life, which has a connection with freedom as well as participatory role of individuals, are in tension with exclusive nature of IPRs in that the

Ibid, p. 228.

⁴⁹⁸ Benkler, 2010, p. 227.

⁴⁹⁹ Ibid, p. 228.

 $^{^{500}}$ Human Rights Council, Report of Special Rapporteur, A/HRC/31/59 (3 February 2016), \P 8.

⁵⁰¹ General Comment No. 21, ¶ 16.

⁵⁰² The innate power, called 'the basic capability' by Nussabum, refers to the innate equipment of individuals necessary for developing more advanced capability (Nussbaum, 1997, p. 289).

⁵⁰³ Romainville, 2015, p. 416.

freedom of individuals to take cultural product, and "cut it, paste it, mix it, and make it their own" is restricted by legal constraints, mostly by copyright laws. 504

3-4-1-4. Obligation of States

Obligation imposed on the States party by the right to participate in cultural life, which is immediate, includes recognition of cultural practices and refraining from interfering in their enjoyment and development. From the holistic approach of human rights, active actions are also imposed. Hence, states must adopt steps necessary for the conservation, development and dissemination of science and culture as well as steps to ensure respect for the freedom indispensable to scientific research and creative activity. 506

Like other rights enshrined in ICESCR, the right to participate in cultural life imposes on State parties three types of legal obligations to: (a) respect; (b) protect; and (c) fulfil the right. The minimum core obligation in relation to the right to take part in culture includes, inter alia: an obligation "to respect and protect the right of everyone to engage in their own cultural practice, while respecting ... freedom of thought, belief and religion". ⁵⁰⁷

3-4-2. The Right to Enjoy the Benefits of Scientific Progress and Its Applications

3-4-2-1. Science, its Progress and Applications

Among the human rights, the right to benefit from scientific progress is a "neglected" human right. Both UDHR and ICESCR ensure everyone's right to enjoy the benefits of scientific progress and its applications. Although this right was inserted into the international human rights instruments long ago, it has long failed to attract attention from the human rights and scientific communities, ⁵⁰⁸ and the only provision in Article 15(1) of ICESCR that the

⁵⁰⁵ General Comment No. 21, ¶ 44.

_

⁵⁰⁴ Benkler, 2006, p. 276.

⁵⁰⁶ Ibid, ¶ 47.

⁵⁰⁷ General Comment No. 21, ¶ 55(c).

⁵⁰⁸ Chapman & Wyndham, 2013, p. 1291; London, Cox & Coomans, 2016, p. 26.

Committee (CESCR) has not yet issued an authoritative interpretation. ⁵⁰⁹

The notion of 'science' in 'scientific progress' is far-reaching, not narrowly referring to technology but broadly encompassing "knowledge that is testable and rebuttable, in all fields of inquiries, including social sciences, and encompassing all research". 510

In parallel with the 'operationalization' work on the right to participate in cultural life conducted in Section 3-3-1, the notion of 'science' needs to be narrowed down. In the narrowest conception, the science may be viewed as one applied to "industry and production whereby industry bases itself on specialized technical knowledge which relies on science ... so that man can manipulate nature for the material welfare of man with far-reaching effects on his cultural orientation". This concept of science needs to be expanded to cover major concerns of Venice Statement, that is increased human rights impacts arising from two factors: increasing disparities among states concerning the availability of resources, capabilities and infrastructure for research and development; private actors being the principal producers of scientific progress and technological advances, leading to inequality among people. 512

By taking into consideration of its intersection with the trade-centric IP norms, science is broadly defined to encompass creative production and relevant policies that are identified as "most directly challenged by international trade liberalization", ⁵¹³ which definitely includes technologies and discoveries that may be covered by patents. ⁵¹⁴ Further, a broad set of technologies that are considered as "essential for realisation of the human rights to an adequate standard of living and cultural and scientific participation", ⁵¹⁵ and that reveal a

⁵¹⁰ Human Rights Council, A/HRC/20/26 (14 May 2012), ¶ 24.

⁵⁰⁹ Yu, 2016, p. 41.

⁵¹¹ Otieno, 1970, p. 70.

⁵¹² Venice Statement, ¶¶ 3-5.

⁵¹³ Morijn, 2008, p. 293.

⁵¹⁴ UN Patent Report 2015, ¶ 46.

⁵¹⁵ Shaver, 2016, p. 38. As the terms "progress" and "benefit" are linked to progressive realization of economic, social, and cultural human rights, some scholars view that the right to enjoy the benefits of scientific progress and its application is not an end itself but a vehicle for achieving other human rights, such

tension between patent exclusivity and the need for broad access to new technologies⁵¹⁶ is to be included within the notion of science and its applications.

3-4-2-2. To Share in or Enjoy Benefits

The term 'benefits' of science, scientific progress and its application include both material and non-material benefits, ⁵¹⁷ and convey the idea of a positive impact on the well-being of people and the realization of their human rights. ⁵¹⁸ The benefits should be enjoyed in a non-discriminatory manner. This principle of equality does not only apply to minority and vulnerable groups, but to those who did not take part in scientific progress. As Cassin declared, during the UDRP drafting, "[E]ven if all persons could not play an equal part in scientific progress, they should indisputably be able to participate in the benefits derived from it", ⁵¹⁹

In this vein, the right to enjoy benefits of scientific progress and its applications is linked to distributive justice and requires "affirmative actions" so that the right to science "cannot be reduced to the right to wait to benefit from any trickle-down effects ... flowing from technological progress". Thus, the right to participate in the benefits of science means, among other things, to be able to receive affordable medicine, which is a prerequisite to the full development of one's personality". Then, this right is in an inherent tension with IPRs, in particular with patent, which are, in the words of the Venice Statement,

as the right to health (London, Cox & Commans, 2016, p. 27).

⁵¹⁶ UN Patent Report 2015, ¶¶ 47-55.

⁵¹⁷ The non-material benefit may include "removal of certain prejudices, for example racial prejudices, which constituted a direct threat to the whole edifice of human rights (Commission on Human Rights, 1951, p. 11), and scientific methodologies and tools (Human Rights Council, A/HRC/20/26, ¶¶ 22, 24).

⁵¹⁸ Human Rights Council, A/HRC/20/26, ¶ 24.

⁵¹⁹ Morsink, 1999, p. 219.

⁵²⁰ Chapman, 2009, p. 14.

⁵²¹ Helfer & Austin, 2011, p. 237.

⁵²² Morsink, 1999, p. 219.

"temporary monopoly". 523

Another important aspect of the "benefit sharing" is public participation in decision-making about science and its uses. ⁵²⁴ This aspect can be justified by the principles of self-determination and participatory democracy model of governance of sciences. These principles require that major decisions about priorities and policies on science and its applications be made with input by diverse communities within a society. ⁵²⁵ Public participation in decision-making process is also related to safety because certain scientific advancement is harmful and dangerous as exemplified in cases of agricultural biotechnology and artificial intelligence.

Participation in a decision-making process is also vital in light of the nature of the right to enjoy benefit from scientific progress. This right does not directly confer to individuals or groups of people an enforceable entitlement to claim benefits of scientific progress. Rather, it entails a right for people to demand policy framework to be "adopted and implemented which aims at making the benefits of scientific progress available and accessible". The availability and accessibility of the benefits are not only guaranteed by promoting scientific advancement and innovation, but by removing obstacles preventing people from accessing and using existing scientific knowledge and production. Here the norm-setting process of trade-centric IP norms gives rise to conflict with the right to science and culture, which will be discussed in Section 3-5 and the following case study chapters.

3-4-2-3. Normative Content

To delineate the normative contents of the right, the interlinked nature of this right needs to be taken into consideration. The right to benefit from scientific

chapman, 2

⁵²³ Venice Statement, ¶ 10 ("The right to enjoy the benefits of scientific progress and its applications may create tensions with intellectual property regime, which is a temporary monopoly with a valuable social function that should be managed in accordance with a common responsibility to prevent the unacceptable prioritization of profit for some over benefit for all.)

⁵²⁴ Saul, Kinley & Mowbray, 2014, p. 1218.

⁵²⁵ Chapman, 2009, p. 15.

⁵²⁶ London, Cox & Coomans, 2016, p. 28.

progress and its application is inextricably linked to various other human rights including the freedom indispensable for scientific research and progress in Article 15(3) ICESCR, the right under Author Clause, the right to food (Article 11 ICESCR), the right to health (Article 12 ICESCR) and other rights such as to a clean environment, education, information, labor rights, social security, sustainable development, and water. 527

The normative contents of the right to benefit from scientific progress and its application can be discussed in consideration of three aspects of the right: (a) freedom of scientific research and communication; (b) enjoyment of the benefits of scientific progress; and (c) protection from adverse effects of science. Based on this premise, the Special Rapporteur proposes four normative contents for the right to science: (a) access to the benefits of science by everyone, without discrimination; (b) opportunities for all to contribute to the scientific enterprise and freedom indispensable for scientific research; (c) participation of individuals and communities in decision-making; and (d) an enabling environment fostering the conservation, development and diffusion of science and technology. 529

Of these, the freedom of scientific research and communication can be ensured by creating an enabling and participatory environment for freedom of opinion and expression, seeking, receiving and imparting information, equal access and participation of all public and private actors, and capacity-building and education. ⁵³⁰

For the realization of the right to science, like for the right to participate in cultural life, access to scientific knowledge is pivotal.⁵³¹ When the scientific knowledge is completely protected, it is difficult to see how one could still enjoy and exercise the right to science.⁵³² Therefore, the Special Rapporteur

⁵²⁸ Saul, Kinley & Mowbray, 2014, p. 1215.

⁵²⁷ Venice Statement, ¶ 12(d).

⁵²⁹ Human Rights Council, A/HRC/20/26, ¶ 25; Bidault, 2016, p. 21.

⁵³⁰ Venice Statement, ¶ 13.

⁵³¹ Human Rights Council, A/HRC/20/26, ¶ 27.

⁵³² Yu, 2016, p. 77.

stresses the need to guard against promoting the privatization of knowledge to the extent that it deprives individuals of opportunities to enjoy the fruits of scientific progress.⁵³³ In practical terms, the right to science implies the prioritization of universal access to essential technologies such as water purification, essential medicines, electricity, telephone and Internet services, as well as access to scientific education and the tools for learning.⁵³⁴

The enabling environment for the promotion of diffusion of science and technology needs to be approached differently from that for the right to take part in cultural life by considering the tacit nature of scientific and technological knowledge. As discussed in previous Section 2-2-2, technological knowledge is tacit and practical knowledge, requiring information cost and learning cost. Therefore, a 'pure' pubic good theory does not apply to science and technology. Even when technological information is freely available by e.g., transferring, "the recipient needs to have basic knowledge to scan, understand, and use it". 535 Thus, it would be wrong to equate scientific and technological knowledge to information as a public good. This observation has a significant implication in transfer of technology between North and South, which is a broken promise of TRIPS (see Sections 2-5 and 2-6) and TRIPS-plus bilaterals (for an analysis with the EU-Korea FTA, see Section 5-3-2).

3-4-2-4. Obligation of States

The duty of states on the science right includes obligations: (a) to respect the freedom indispensable for scientific research and creative activity, such as freedom of thought, to hold opinions without interferences, and to seek, receive, and impart information and ideas of all kinds, and to take appropriate measures to prevent the use of science and technology in a manner that could limit or interfere with the enjoyment of the human rights and fundamental freedom, (b) to protect the right by taking measures to prevent and preclude the utilization by third parties of science and technologies to the detriment of human rights, and

⁵³³ Human Rights Council, A/HRC/20/26, ¶ 65.

 $^{^{534}}$ UNGA, Report of the OHCHR on the seminar on the right to enjoy the benefits of scientific progress and its applications, A/HRC/26/19 (1 April 2014), ¶ 11 (summarizing the presentation of Ms. Shaver).

⁵³⁵ Archibugi & Filippetti, 2015, p. 486.

to ensure in particular the right to information and free and informed consent; (c) to fulfill by adopting a legal and policy framework and establishing institutions to promote the development and diffusion of science and technology, and by promoting access to the benefits of science and its applications on a nondiscriminatory basis. 536

3-5. Norm Setting Process

Both the UN Copyright Report of 2014 and Patent Report of 2015 express considerable concerns on transparency and democratic process in international IP norm setting. Particularly, bilateral, regional or plurilateral trade negotiations such as ACTA and TPP, carried out amid great secrecy, allowing substantial corporate participation but excluding equivalent public interest voices, are concerned to advance private interests at the expense of public welfare or human rights. This democratic deficit may bring a conflict with the human right to take part in public affairs enshrined in Article 25 of ICCPR, and the right to science and culture.

Transparency and public participation in norm setting are much less guaranteed in bilateral trade negotiations than multilateral discussions of such as WIPO and WTO. Rather secrecy has long been a standard in bilateral forums. The shift to less transparent negotiation forums is "part of effort by powerful actors to institutionalize new unequal norms in other forums, not yet challenged by social movements", ⁵⁴⁰ and to avoid "an open debate over the standards being proposed

-

⁵³⁶ Venice Statement ¶¶ 14-16.

⁵³⁷ UN Copyright Report of 2014, ¶ 19. In case of TPP, while law makers were not allowed to access to draft texts, so-called "trade advisers" were frequently given access to major parts of TPP draft texts, and these "trade advisers" were "simply lobbyists representing the interests of U.S. corporations" (Rubinson, 2017, p. 454).

⁵³⁸ The conduct of public affairs is a broad concept which covers all aspects of public administration, and the formulation and implementation of policy at international, national, regional and local levels (General Comment No. 21 on the right to participate in public affairs, voting rights and the right of equal access to public service, \P 5).

⁵³⁹ The right to participate in cultural life covers the right to contribute to cultural life which is supported by the right to take part in the definition, elaboration and implementation of policies and decisions that have an impact on the exercise of a person's cultural rights (General Comment No. 21, \P 15(c)).

⁵⁴⁰ Flynn, Baker, Kaminski & Koo, 2013, pp. 110-111 (citing Morin, J-F. (2006). 120 / 335

in the agreement". ⁵⁴¹ Government officials taking part in bilateral trade negotiations have a discretion to opt for a closed-door negotiation strategy, and from the perspective of diplomats and negotiators, maintaining secrecy seems valuable by permitting smooth and efficient negotiation process and creating an environment of confidence for negotiators. ⁵⁴² However, given that IP-related negotiations in bilateral trade forums are directly linked to domestic legislations in which openness is a well-established norm, and increasingly cover diverse range of issues affecting various groups of people, such a discretion needs to be balanced with public interests that can be ensured by transparency and public participation of trade negotiations.

Therefore, as the Washington Declaration declares, "intellectual property policy making should be conducted through mechanisms of transparency and openness that encourage broad public participation . . . [and] [n]ew rules should be made within the existing forums . . . where the texts of and forums for considering proposals are open", and "[a]ll new intellectual property standards must be subject to democratic checks and balances". ⁵⁴³

From the positive nature of the right to science and culture, which requires positive measures creating possibilities and institutional infrastructure allowing individuals to actually enjoy their particular possibilities and public participation in decision-making process of cultural and scientific policies as discussed earlier in Sections 3-4-1 and 3-4-2, transparency is not sufficient. Transparency, referring to openness of or better access to information, primarily focus on information equity. Transparency may change the power structure between the government and the public by removing asymmetry of information, serving a more democratic and human rights friendly norm setting. Yet.

Tripping up TRIPS debates IP and health in bilateral agreements, *International Journal of Intellectual Property Management*, 1, 37)

⁵⁴¹ Flynn, Baker, Kaminski & Koo, 2013, p. 110.

⁵⁴² Limenta, 2012, pp. 78-79, 86.

⁵⁴³ The Washington Declaration on Intellectual Property and the Public Interest, adopted by the Global Congress on Intellectual Property and the Public Interest held on August 25-27, 2011 with over 180 experts from 32 countries.

⁵⁴⁴ Limenta, 2012, p. 92.

⁵⁴⁵ This will be demonstrated later in case studies on FTAs, in particular *see*,

transparency does not necessarily allow active participation. For active participation, individuals and groups of people who are affected are guaranteed to have an ability to influence decision-making and to involve in agenda-setting and actual discussion, while recognising governments' discretion as policy makers.

Transparency and public participation in IP norm setting process is an obligation imposed upon states by the human rights instruments. Yet, in order for IP policies to be made in a democratic way, it is necessary to convince the policy makers of the benefit to them of transparency and public participation. Lack of democratic process may raise a question on the efficiency of the norm and its legitimacy. As Limenta puts it "transparency and public participation are significant to enhance the credibility of trade negotiation process. Greater credibility generates a greater degree of compliance". Further, transparent and democratic process in norm-setting is vital in striking a fair balance between protection and dissemination, without which IP systems would lose credibility. S49

Further, the international IP norms formulated in this way foreclose the possibility of alternative model such as access-oriented legislation. This has created a form of path dependency – the proliferation of proprietary models, alongside stringent restrictions on access-oriented model – that the A2K movement aims to address. Therefore, it is recommended that international IP instruments, including trade agreements, be negotiated in a transparent way, permitting public engagement and commentary, and that national patent laws and policies be adopted and reviewed in forums that promote broad

Section 5-6-3 on EC's efforts to harmonize criminal enforcement rules.

_

⁵⁴⁶ Limenta, 2012, p. 93.

⁵⁴⁷ Drahos, 2002, p. 180.

⁵⁴⁸ Limenta, 2012, p. 77.

⁵⁴⁹ One example of good practices for the transparent and democratic process is the UK's copyright law revision process in 2014. The new legislation was adopted through an extensive consultation process, resulting in legislation that expanded copyright exceptions and limitations and ensured that several crucial limitations could no longer be overridden by private contract (UN Copyright Report of 2014, ¶ 86).

⁵⁵⁰ Bannerman, 2016, p. 18.

engagement, with input from innovators and the public at large. 551

3-6. Human Rights Model of IP

3-6-1. New Balance and L&E

Balance is a foundational element in IP system. It is not foundational only in IP; it is the central question of law in general. The role of law keeping peaceful coexistence of the human groups can only be achieved through a balance between opposing interests. 552 But in the trade-centric IP regime the balance is biased in favor of right holders. TRIPS Agreement, unlike Berne and Paris Conventions, employs in Article 7 the terminology of "balance" between rights and obligations. However, the balance provision is outweighed by a large number of substantive provisions for stronger protection and enforcement of IPRs. Further, the balance provision has little or no independent weight in applying TRIPS. 553 The balance provision is far from addressing the concerns of imbalance of TRIPS.

Furthermore, the TRIPS-plus bilateral and regional trade agreements do not have the balance provision. Study of Wechsler reveals that out of the 17 FTAs driven by the US, only one FTA, the US-Chile FTA, explicitly recognize "the need to achieve a balance between the right holders and the legitimate interest of users and the community with regard to protected works". 554 Some EU FTAs are worse. For instance, the EU-Korea FTA, contains an outspoken provision explicitly ignoring the balance, stating in Article 10:1 that the goals of IP Chapter are to: "(a) facilitate the production and commercialisation of innovative and creative products in the Parties; and (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights". 555

⁵⁵¹ The UN Patent Policy of 2015, ¶¶ 92-93.

⁵⁵² Geiger, 2015, access right, p. 6.

⁵⁵³ Wechsler, 2009, p. 4. (In 25 TRIPS dispute settlement cases by 2009, "there were only one appellate body report and three panel reports that explicitly referred to the term "balance" in an IP law context").

⁵⁵⁴ Wechsler, 2009, p. 3.

⁵⁵⁵ Compare Article 195 of the EU-Colombia and Peru FTA signed on 29 June 2012 ("The objectives of this Title are to: (a) promote innovation and creativity and facilitate the production and commercialisation of innovative and creative products

The human rights approach of IP may work to recover the broken balance of the trade-centric IP norms. For striking a fair balance, the first step is delineating two opposing poles to be balanced. In human rights model, the dissemination side of the right to science and culture should be balanced with private interests of IPR holders. And in striking the balance, the private interests should not be unduly favoured and the public interest in enjoying broad access to creative productions should be given due consideration. 556

The second step is to take a larger perspective. As Breakey suggested, copyright exceptions are not "a small, tentative island in the large sea that is the fundamental prohibition on copying from others' work". Start Rather, "intellectual property is just a small lake in the larger continent; it is a set of limited and tentative exceptions to much larger and more fundamental rights like the right to free speech". This approach is in line with the holistic approach of the right to science and culture. From this, more positive user's right may be constructed.

As discussed in previous Sections, the protection of author's moral and material interest is justifiable only when it promotes a full enjoyment of other human rights, especially the right to culture. Given the right to culture is a *positive* right, the balancing exercise does not refer to one against a mere limitation or exception to the protection of moral and material interest. Therefore, the principle of restrictive interpretation of limitation and exceptions is no longer applied to the balance striking work. The right to take part in cultural life and the right to benefit from scientific progress can be fully justified without resorting to "limitations and exceptions" to IP protection or to flexibilities of TRIPS.

between the Parties; and (b) achieve an adequate and effective level of protection and enforcement of intellectual property rights that contributes to transfer and dissemination of technology and favour social and economic welfare and the balance between the rights of the holders and the public interest"). One of the reasons of the change in the language of the objective provision of the EU FTAs

reasons of the change in the language of the objective provision of the EU FTAs recognizing the primacy of economic development goals for agreement partners may be that the EU negotiators were aware of considerable criticism on the TRIPS-plus agenda in the previous EU FTAs (Maskus, 2014, pp. 171-172).

⁵⁵⁶ General Comment No. 17, ¶ 35.

⁵⁵⁷ Breakey, 2016, p. 2.

⁵⁵⁸ Ibid.

Also vital in this balance striking work is to understand the nature of tradecentric IP norms. They do not aim to incentivize creative activities of individuals. Rather, they aim to commercialize products in technological and cultural industries and to boost rent-seeking by investors in trade partner country as revealed in Chapters 4 and 5.

3-6-2. Liability Rule for the Protection of Material Interests of Authors

Property and liability rules are two distinct forms of legal protection of entitlement. Calabresi and Melamed distinguishes them: while under the property rule, a person is granted an absolute title to conduct a certain act or to never being subjected to a certain infringement, under the liability rule, a person is required to accept an infringement by another person as long as there is a compensation for damages. 559

In an economic cost-benefit analysis of law, the choice between the property and liability rules depends on two factors: externalities; and transaction costs. In his seminal article, Coase claims that even in the presence of externalities, private bargaining through a market system can lead to an optimum outcome. Further, if transaction costs are zero, initial allocation of entitlement does not matter. In other words, who is entitled by either property or liability rule does not affect the outcome. However, as Coase himself admits, no transaction cost is "a very unrealistic assumption". Then, two questions arise in the presence of transaction cost: how to allocate an entitlement; and which rule is to be applied. Conventional wisdom is that the entitlement is allocated in a way that an obligation is placed on those who have the least costly solution, and when transaction cost is low, the property rule is better, whereas with high the transaction cost, the liability rule produces more efficient outcome and externalities are internalized. A property rule is also chosen when the amount

⁵⁶¹ Merges, 1994, p. 2565 (f.n. 6).

⁵⁵⁹ Calabresi & Melamed, 1972, p. 1091.

⁵⁶⁰ Coase, 1960.

⁵⁶² Coase, 1960, p. 15.

⁵⁶³ Krauss, 1999, p. 788; Merges, 1994, p. 2655. One of the striking examples of the low transaction cost is the bargaining between beekeepers and farmers. As honey bees do not fly very far, one beekeeper can contract for its pollination service with one farmer. There are no bystanders and the property rights here are clear;

of damages is hard to be calculated by courts or public policy makers.

In the context of IP, most of the creative works and innovations exhibit positive externalities, and a free market would involve underproduction of creative goods. This can be explained by the currently dominant justification of IPRs—a utilitarian justification. Creators cannot fully capture or "internalize" benefits that free-riders enjoy from creative goods because the creative goods are non-rival and non-excludable. Due to this 'public goods' problem or 'tragedy of commons' problem, the creators are dissuaded from incurring costs necessary in creation, leading to underproduction. Therefore, property rights for the protection of creators emerge as a tool for internalizing positive externalities. IPR, a "classic instance of a property rule" is justified in both Coasean and Demsetzian models on various accounts.

For instance, Merges supports property rules of the Coasean model as they work effectively in situations involving IPRs because: (1) there are only two parties in IP transaction; (2) the transaction costs are low; and (3) courts have difficulties in setting the terms of exchange given the abstract nature of creative ideas and the varied and complex business environments in which IP assets are deployed.⁵⁶⁸ Kieff, advancing the Demsetzian model, maintains that strong

beekeepers own bees and farmers own crops. Hence the externalities generated by honey bees pollinating crops in the nearby farms are all internalized (Cheung, 1973). Cases for high transaction cost are many such as driving while using a cell phone (having negative externalities on the safety of others but people cannot contract with all drivers), flu shot (exhibiting positive externalities but hard to know the beneficiaries e.g., by not sneezing in a subway), and 'thank you for not smoking' (producing positive externalities and difficult to make efficient deals with potential victims of second smoking).

⁵⁶⁴ Langus, Neven & Shier, 2013, p. 40. By contrast, Merges observes that even the existence of externalities in IP is debatable due to abstract nature of creative ideas (1996, p. 2658)

⁵⁶⁵ Fromer, 2010, p. 1458.

⁵⁶⁶ Kieff, 2006, p. 338; Demsetz, 1976, p. 354 (arguing that "property rights arise when it becomes economic for those affected by externalities to internalize benefits and costs").

⁵⁶⁷ Merges, 1994, p. 2655.

⁵⁶⁸ Ibid, p. 2664.

property protection of IP is efficient for commercialization of IP asset. 569

Critics point out that the biggest risk of applying property rules in IP case is holdup, enabling IP holders to demand the full value of others' use as a condition of approving it and preventing society from benefiting from improvement by subsequent creators. More importantly, the transaction costs in IP bargaining are not low, contrary to the fundamental assumption for the choice of property rule. In IP bargaining, the transaction costs are high because of costs in delimitating boundaries between protected and unprotected areas. The scopes of patent and copyright are determined by uncertain interpretative rules such as 'doctrine of equivalent' for patent and 'substantial similarity' for copyright. These rules are also varying. Further, validity of right is uncertain in case of patent because most of patents turn out to be invalid in litigations. Therefore, economists, particularly information economists, offer no or lesser clear endorsement of property rule of IP. ⁵⁷¹

One point at which the human rights discourse can enter into the choice between property and liability rules is the basic premise of legal economics. The "optimal outcome" of the Coasean model is determined in terms of economic efficiency, i.e., efficient allocation of resources, not of income distribution. The problem is that the economic model does not take seriously into account justice and distributive consequences of policies, albeit not entirely rejecting justice as a criterion for assessing the economic efficiency. Given that the human rights protection of moral and material interest of creator has no stand-alone footing and inseparably interlinked with dissemination side as demonstrated in Section 3-2-1, the consideration of equal allocation of resources and distributive justice is a built-in condition of the human rights model of IP. The goal of utilitarian economic efficiency, i.e., the aggregate welfare maximization is not a substitute for justice and the values reflected in certain legal rules including IP ought not to be reduced to mere factors in a

⁵⁶⁹ Kieff, 2006, p, 332.

⁵⁷⁰ Lemley, 2012, p. 468.

⁵⁷¹ Kapczynski, 2012, p. 988.

⁵⁷² Coase, 1960.

⁵⁷³ Posner, 1998, p. 30.

utilitarian calculus.574

Another problem of the (neo-)classical economic model is its premise that rational agents are self-interested maximizers of utility, which varies only in quantity and is therefore measurable.⁵⁷⁵ However the self-interest is not the main motivation of creators and agents do not act rationally. Behavioral economists suggest that various factors affect agents' action such as an endowment effect, regret aversion, and optimism/ownership bias. In the context of copyright works, due to a 'creativity effect', rational creators value more their creations than buyers do, and hence liability rule is better than property rule for optimal transaction of creative production.⁵⁷⁶

The human rights approach of IP supports a liability rule rather than a property rule. The liability rule is supported from all of three components of the right to science and culture discussed in this Chapter. In the first component, i.e., Author Clause, the protection of moral and material interests of author does not necessarily require a property-based protection. Rather, the human rights approach of IP disapproves the property rule. The human rights approach of IP disapproves the property rule. The public goods having features of nonrival and nonexcludible, and that the problem of under-production or free-riding should be addressed by exclusionary property right of IP similar to the protection of property right. This argument, however, lacks empirical support. Nonetheless, the contemporary IP standards have incessantly moved to higher and higher protection level or what is called by James Boyle to an

-

⁵⁷⁴ Lee, 2000, p. 26.

⁵⁷⁵ Nussbaum, 1997, p. 1197.

⁵⁷⁶ Bucaffusco & Sprigman, 2011, p. 32.

⁵⁷⁷ Concerning the right to property, it should be noted that the languages of UDHR and ICESCR for the right to science and culture are quite different from the human rights protection of property in Article 17 of UDHR (Helfer & Austin, 2011, p. 186).

⁵⁷⁸ Lemley, 2015a, pp. 1336, 1338 (arguing that scholars failing to provide empirical evidence turn to a religion-like "belief system that does not require evidence at all" and "believe in IP as an end in itself"); Merges, 2011, p. 3 (confessing that "I simply cannot justify our current IP system on the basis of verifiable data showing that people are better off with IP law than they would be without it").

"evidence-free zone". 579

The human right model of IP suggests to reconstruct the IP rights by restricting the level of protection to the material interests of creators, which is tied to "the ability of individual creators to enjoy an adequate standard of living". The right to enjoy an adequate standard of living can be achieved through one-time payment, and the liability rule based on this would prevent transaction costs, which are higher than royalties, and be less restrictive of the fundamental rights and more effective in securing creators an appropriate income. The liability rule may be progressively implemented, as Helfer and Austin suggest, by combining alternative models such as "liability rule, levies, or government subsidies", and by "abandoning the exclusive rights altogether except for minimal attribution and integrity guarantees". S83

3-6-3. Right to Invention

3-6-3-1. Invention as an Expression

The human right model calls for a somewhat radical change in the notion of the right to invention or patent right. As demonstrated in Section 3-3, the negotiation history of Author Clause shows that the drafters expressly removed the patent-like protection from the human right approach of IP. Also, the interpretation of Author Clause according to the principle of treaty interpretation suggests that the protection of author's material interest does not encompass a patent right to exclude others from using an invention. Saying that a patent right is excluded from the scope of Author Clause, however, is not to argue that any entitlement to invention is in conflict with human right approach to the protection of invention. The invention in the human right perspective is defined in a quite different way than the existing national and international

 580 A/70/279 ¶ 10 and A/HRC/28/57 ¶ 12. The Special Rapporteur pointed out that the right to material interests should not be conflated with property rights or rights of exclusion.

⁵⁷⁹ Boyle, 2008, p. 205.

⁵⁸¹ General Comment No. 17, ¶ 16.

⁵⁸² Mylly, 2015, p. 109.

⁵⁸³ Helfer & Austin, 2011, p. 514.

patent laws. Insofar as an invention represents an "intrinsically personal character" ⁵⁸⁴ of inventor's human mind, an inventor may claim a human right protection as an author under the meaning of Author Clause.

In order to reconceptualise an inventor as an author or to recast an invention into an expression, it is required to investigate the nature of invention and copyright work and the processes in which an invention is produced ('inventing process') and a copyright work is authored ('authoring process').

Although invention and copyright work are the *sine qua non* of patent and copyright laws, there is no coherent theory of the invention and copyright work applicable across jurisdictions, and studies on the 'inventing process' and 'authoring process' are underdeveloped. Concerning the nature of invention, some national laws positively define what invention is, ⁵⁸⁵ and others simply list categories that are excluded from patentable invention. ⁵⁸⁶ When there is no positive definitional provision, it is difficult to delineate the boundary of categories that fall within or outside the concept of invention, particularly in the area of new technology. ⁵⁸⁷ These incoherence and difficulty are also found in copyright. Most of national and international copyright laws do not define what literary and artistic works are. Despite of the "absence of any coherent theory" of copyright work, ⁵⁸⁸ large consensus is that copyright work is "an original form

130 / 335

⁵⁸⁴ General Comment No. 17, ¶ 12.

of Chinese Patent Law - "Inventions mean new technical solutions processed for a product, a process or the improvement thereof", and Art. 2 of Japanese and Korean Patent Laws - "Invention means the highly-advanced creation of technical idea utilizing the laws of nature"). The US domestic law contains very loose and recursive definition in Art. 100(a) saying that "the term "invention" means invention or discovery", and the US courts have long held that "law of nature, natural phenomena, and abstract ideas" are excluded from patentable subject matter (*Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S. Ct. 2347 (2014)).

⁵⁸⁶ See Art. 52 of EPC excluding discoveries, scientific theories, mathematical methods, aesthetic creations, schemes, rules and methods for performing mental acts, playing games or doing business and programs for computers. The origin of the EPC's exclusionary categories lies in a proposal of Germany and the Netherland in 1960s for then discussed Community patent law (Pila & Torremans, 2016, p. 172). These exclusions lack clear underlying principles and are subject of qualifying condition, i.e., "as such" condition (Colston & Galloway, 2010, p. 111).

⁵⁸⁷ Pila & Torremans, 2016, p. 155.

⁵⁸⁸ Plia, 2010, p. 241.

that an author has adopted to express an idea" ⁵⁸⁹ or "particular form of expression in which an author conveyed ideas or information to the world". ⁵⁹⁰

However, the manner in which the requirement of 'originality' is codified and interpreted varies by legal traditions, and its meaning is not quite as self-evident as is commonly assumed. In common law copyright system, originality means that "the work derives from the copyright owner, as opposed to that individual having copied it from a previous source", and, therefore, under the UK copyright system, there is "no need to have any cultural or artistic merits or to reflect the maker's or author's personality in any way". By contrast, in civil law author's right system, to be original a work has to bear certain degree of creativity. Therefore, the degree of creativity for a work to be eligible for a copyright protection remains relatively higher in jurisdictions of civil law tradition, although the degree of such a difference has been gradually reduced among jurisdictions.

While the basic concepts of patent and copyright lack coherent theories and reveal differences among jurisdictions, a widely accepted divide line between patent and copyright is that while patent protects functionality, copyright protects non-functional aspect. ⁵⁹⁶ In other words, functional aspect of creation belongs exclusively to a patent arena. ⁵⁹⁷ Beldiman defines functionality as

⁵⁸⁹ Latreille, 2009. P. 134.

⁵⁹⁰ *Hollinrake v Truswell* [1894] 3 Ch 420, 424 (Lord Herschell LC).

⁵⁹¹ Fisher, 2016, p. 438.

⁵⁹² Nimmer, 2001, pp. 14-15.

⁵⁹³ Ohly, 2009, p. 288.

⁵⁹⁴ In common law system, "at least some minimal degree of creativity" is required (*Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345). The degree of creativity is also different in civil law jurisdictions. While French law does not explicitly mention the creativity prong (ICPI 1992, Art. L. 112-4), the German law expressly speaks of 'personal intellectual creation' (Art. 2(2) UrhG 1965) and Austrian law requires 'distinct intellectual creation' (Art. 1(1) UrhG 1936) (Rahmatian, 2009, p. 293).

⁵⁹⁵ Fisher, 2016, p. 447; Rahmatian, 2009, p. 294 (arguing no contradictions between civil law and common law traditions in reality).

⁵⁹⁶ Karjala, 2003, p. 451; Beldiman, 2008 p. 123.

 $^{^{597}}$ Protection of functionality solely by patent is justified on the grounds that threshold for patent protection is higher than other IPRs and term of protection is

something to "accomplish a given specific, concrete, practical and useful task", ⁵⁹⁸ and Buccafusco depicts functional aspect of invention as "making things stronger, lighter, faster, more efficient, and easier to use". ⁵⁹⁹ So the functional aspect of creation is distinguished from an expression that belongs to copyright arena. Expression is a 'mark' or 'stamp' of author's personality on work, ⁶⁰⁰ unique to author, and something to appeal to people's "emotions, judgement, aesthetics, etc". ⁶⁰¹ As observed by Drassinower, who frames a copyright work as a "communicative act" whereby a person addresses other through speech, while copyright concerns a relation between persons and patent concerns a relation between persons and objects. ⁶⁰²

This distinction is generally valid for the policy objectives of patent and copyright systems. But it is a purely legal dichotomy, valid in specific context of IP laws. Study on creativity tells a different story. ⁶⁰³ In a psychological study on creativity, "there is no difference between scientific creativity and artistic creativity; the mechanisms are the same". ⁶⁰⁴ There are two definitions on creativity: individualist and sociocultural definition. By the individualist definition, creativity means a new mental combination that is expressed in the

shorter (Buccafusco & Lemely, 2016, p. 2).

⁵⁹⁸ Beldiman, 2008, p. 121.

⁵⁹⁹ Buccafusco, 2016, p. 1266. Also, Buccafusco & Lemely, 2016, p. 9 ("patent protection of functionality means protection of things that make a product work at all, or work better, or with fewer defects, or more cheaply").

⁶⁰⁰ Rahmantian, 2009, p. 293.

⁶⁰¹ Beldiman, 2008, p. 125.

⁶⁰² Drassinower, 2015, pp. 8, 65.

⁶⁰³ The creativity study refers to a broad set of studies on education, institution and public policies to enhance creativity, the process by which individuals, communities and firms produce creation, relationship between creativity and national economic growth and so on. When focusing on the creative process, the creativity study has evolved through three waves: (1) a first wave began in the 1950s and 1960s, focusing on personal traits of exceptional creators; (2) a second wave in the 1970s and 1980s based on cognitive psychology and focusing on the internal mental processes that occur while people are engaged in creative behavior; and (3) a third wave from the 1980s and 1990s, called a socio-cultural approach, focusing on creative social systems and sociocultural contexts (Sawyer, 2012, p. 4). Combining latter two waves, Nersessian proposes an environmental approach (Nersessian, 2005).

⁶⁰⁴ Fishman, 2015, p. 1341.

world, excluding ideas that are not expressed, and under the sociocultural definition, creativity is the generation of a product that is judged to be novel and also to be appropriate, useful, or valuable. Under either definition, two stages of creative process – 'finding a problem' and 'problem solving' stages are common in 'inventing process' and 'authoring process'.

The problem finding in the 'inventing process' is constructed in social and cultural contexts surrounding an inventor. The solution to the problem presented by the inventor is a communicative act. In this sense, invention can be regarded as an expression, something that is expressed toward society by inventor. From their studies on telephone inventions of Bell and Edison, Gorman and Carlson show that the 'inventing process' may be viewed "as dynamic process combining abstract ideas with tangible object", and that "like creative people in other fields, inventors succeed by manifesting mental models in terms of mechanical representation". ⁶⁰⁷ The 'mental models', referring to a process in which inventor combine ideas with objects, ⁶⁰⁸ are "shaped by inventors in response to social and economic pressures as well as personal preferences." ⁶⁰⁹ The mental models developed by one inventor "differ completely or in detail from everyone else's with regard to the same object to be understood". ⁶¹⁰ Then, invention may be regarded as a manifestation uniquely expressed by an inventor.

When an invention is conceived as an expression, at least four modifications in patent laws are entailed. First, discoveries devoid of either of the 'problem finding' or 'problem solving' stage are not eligible for patent protection. For

⁶⁰⁵ Sawyer, 2012, p. 7.

⁶⁰⁶ Fromer explains that there are four stages in creative process: preparation (finding a problem and gathering necessary information), incubation (unconscious processing of information to solve the problem, plodding toward a solution), illumination (the "a-ha" moment of insight, which may occur suddenly and consciously), and verification (testing ideas and fully developing them), key aspects of which are problem finding (associated with preparation) and problem solving (associated with the next three stages) (Fromer, 2010, pp. 1463-1466).

⁶⁰⁷ Gorman & Carlson, 1990, p. 156.

⁶⁰⁸ Ibid, p 134.

⁶⁰⁹ Ibid. p. 156.

⁶¹⁰ Seel, 2013, p. 1244.

instance, new molecule or new use of known material discovered in an unconscious manner is excluded from protection. Second, the role of patent claims is replaced with embodiments that are described in a patent application because what is expressed by the 'mental models' are embodiments. Third, the notion of 'romantic authorship' and 'the lone inventorship' needs to be modified. Fourth, those who are original in the 'problem finding' and 'problem solving', i.e., independent inventors are entitled of protection, which will be discussed in detail in the following Section.

3-6-3-2. Independent Inventor Protected as an Author

The conceptual shift of invention may lead to a new approach to the scope of patent protection. The patent protection is not extended to cover the same or equivalent *function* of patented invention: it only encompasses the same or equivalent *embodiments* described in patent application. Described embodiment is the main vehicle that an inventor expresses her invention.

In addition, the conceptual change of the protection of invention involves a substantial modification to the absolutistic nature of current patent right. A patent right is called absolute because it can exclude not only those who copy or free-ride a patented invention but also independent inventors who are not responsible for the free-riding problems. A person who independently (and simultaneously) invents the same or equivalent invention may be included as an author under the meaning of the right to science and culture. As the current patent laws do not fit with concept of creator within the meaning of Author Clause of the international human rights instruments, the winner-takes-all rule may make sense in utilitarian or economic terms, not the human rights perspective.

In the human right model suggested here, independent inventors are entitled to the protection of material interests. Yet, this entitlement is non-exclusive and defensive in nature, based on the 'liability rule', not on the 'property rule'. The

⁶¹¹ The protection of an independent inventor is deemed to be required in Author Clause. *See*, Gordon, 2010, p. 162 (arguing that the ICESCR speaking of scientific author implies to include "anyone who independently makes or creates … were second in time").

⁶¹² Gordon, 2010, pp. 166-167.

entitlement of independent inventor not only ensures fairness. It is also effective in reducing the monopoly deadweight loss, while maintaining the incentive to invent. Further, it can fix the problem of abuse of patent system, such as patent trolls or 'non-practicing entities'.⁶¹³

3-7. Conclusion

This Chapter explored the human rights dimension of IP through the lens of the right to science and culture. Another lens of human rights such as the right to health, food, education, information, and freedom of expression may provide different outlooks on the human right dimension of IP. Virtue of the lens of the right to science and culture is its allowance for all-inclusive approach to IP and human rights. They allow us to embrace IP as an internal variable and treat the inherent tension of IP, a tension between protection and dissemination, within the framework of human rights. Protection side of the right to science and culture – everyone's right to benefit from the protection of moral and material interests resulting from any scientific, literary or artistic production of which he is the author, which is termed 'Author Clause' here – provides a fresh insight for the concept of author and inventor and scope of protection for them, which are distinguished, conceptually and normatively, from those found in the existing IP norms. The dissemination side of the right to science and culture – human rights to participate in cultural life and to benefit from scientific progress and its applications – provides an alternative perception on the models for production system of creative knowledge in a way to enable people to freely and in a more democratic way participate in creative activity, share creative information and knowledge, and remove barriers created by trade-centric IP norms.

Regarding the protection side of the right to science and culture, this Chapter found that, contrasting to arguments of IP industries and FTA participating states, Author Clause provides *shaky* grounds for the human rights protection of

_

⁶¹³ NPEs are abusive and harmful because they "hold patents for the primary purpose of enforcing them against alleged infringers" and harm the patent system by "exacting outsized licensing fees on threat of litigation" (*Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1935 (2016)). Their abusive actions can significantly reduce incremental innovation (Executive Office of the US President (2013) Patent assertion and U.S. innovation).

IP, and the scope of IP pursuant to Author Clause is much narrower than that found in the existing trade-centric IP norms. Author Clause only covers the right to the moral and material interests resulting from any scientific, literary or artistic production of which he is the author. This implies that trademark, undisclosed information and, arguably, patent are not encompassed by the International Bill of Human Rights. Further, the material interests protected by Author Clause do not cover all forms of economic interests. The author's right to the material interests is more directly related to the right to an adequate standard of living than the right to property. Moreover, the boundary of author's right is intrinsically limited by the broader right to science and culture.

Next, concerning the dissemination side of the right to science and culture, this Chapter suggested conceptual and practical models for understanding the intersection of IP and human rights and reconciling the tension inherent in IP itself as well as the tension between IP and human rights.

First, by taking the notion of 'access to knowledge' and 'capabilities approach' as conceptual subsidiarity, this Chapter tried to reconceptualise and operationalise the concept of two components of the right to science and culture - the right to take part in cultural life and the right to enjoy benefits from scientific progress. According to the operationalisation, culture is redefined as having its place somewhere between the anthropological culture and the initial narrow concept of culture, referring to "cultural expressions and heritage, and the processes of understanding, expression, learning, communication, and creation". 614 However, this concept of culture is not static; it can be best understood as a living process, evolving by engagement of those who make up a culture and dynamically redefined by the way to conceptualise the normative contents of the right. The science is, for the purpose of studying the intersection of the right to enjoy benefits from scientific progress and existing IP norms, redefined to encompass creative production, innovations and technological knowledge that may be covered by patent and broad set of scientific knowledges which are essential for realisation of the human rights to an adequate standard of living and reveal a tension between patent exclusivity and

⁶¹⁴ Romainville, 2015, p. 429.

the need for broad access to new technologies. 615

Second, distributive justice, which is ignored in the utilitarian justification of IP, finds its footing in the positive nature of the dissemination side of the right to science and culture. The right to take part in cultural life includes as its central normative content an active element of the right to access to cultural information. The demand for access is a claim from those excluded, which anchored in the demands for distributive justice. The right to share in or enjoy benefits of scientific progress also conveys a positive impact on the realisation of human rights. This right covers those who do not or could not play an equal part in scientific progress, and is not reduced to the right of people to wait spillover of scientific progress and its applications spreading to them.

Third, enabling condition and environment are crucial for the realisation of the right to science and culture from the perspectives of capabilities approach and access to knowledge movement. It is hard to interpret both the right to take part in cultural life and the right to benefit from scientific progress, albeit their positive nature, to confer individuals or groups an enforceable entitlement to claim access to or benefits of creative production against creators. Rather, they entail a right for people to demand cultural and scientific policies to be framed in a way to make cultural and scientific creations available and accessible. The real opportunities for the availability and accessibility of cultural and scientific creations are guaranteed by removing barriers preventing people from accessing and using those creations. The barriers imposed by patent and copyright have implications with the freedom for participants in cultural life and scientific researcher.

Finally, the reconciliation model proposed by the UN Special Rapporteur in the field of cultural rights, i.e., the public good approach is a good starting point. However, the public good model needs to be streamlined in consideration of tacit nature of knowledge and its social dimensions. The immanent form of knowledge, tacit knowledge, is communicated and exists in interpersonal relation for its production and dissemination. 616

⁶¹⁵ UN Patent Report of 2015, ¶¶ 47-55.

⁶¹⁶ Ramello, 2008, p. 80.

The findings of this Chapter allow alternative models for production and dissemination of creative production based on human rights perspective. The proposed models include (a) shift from existing property rules to liability rules, (b) recognition of rights of independent inventors, (c) conceptual and practical change of invention as an industrial or technological expression, and (d) modification of traditional balance striking between protection and diffusion of IP by taking into account of positive nature of the right to science and culture.

CHAPTER 4 CASE STUDY: THE KOREA-US FTA

4-1. Introduction

This Chapter, for the empirical study of the intersection of IP and human rights, examines the Korea-US FTA ("KORUS"). Case study on KORUS is meaningful as KORUS is one of the strongest trade-centric approaches of IP. When KORUS was concluded in 2007, the USTR's highest advisory committee applauded, in its report to the US president, the final text of KORUS as "the strongest ever bilateral protections for intellectual property", and a possible model for future FTA negotiations. American business sectors also evaluated IP Chapter of KORUS as strongest ever. Actually, the US proposals for TPPA IP Chapter were based upon KORUS. However, many of them were watered down in the end. Therefore, the US business interests, especially the pharmaceutical sectors complained the agreed TPPA text as "less robust compared to KORUS".

Main focus of KORUS case study is to see how are the two dimensions of IP, trade dimension discussed in Chapter 2 and human rights dimension discussed in Chapter 3, reflected or neglected in KORUS. Regarding the trade dimension of IP, this Chapter will examine the early trade concerns and TRIPS-plus rules through the lens of KORUS. The early trade concerns include: (1) cross-border

⁶¹⁷ USTR, 2007, p. 5 ("The members of the ACTPN commend the U.S. negotiators for obtaining what appears to be the strongest ever bilateral protections for intellectual property ... We view this as an extremely important outcome and a very strong part of the agreement. It should serve as the model from here on out".)

⁶¹⁸ The U.S.-Korea Business Council and the Chamber of Commerce of the United States, 2007, p. 17 ("The U.S.-Korea FTA features some of the strongest IPR protections and enforcement rules ever included in a U.S. trade agreement. ... The FTA ... sets a powerful precedent for IPR protection and enforcement for other major Asian markets".)

⁶¹⁹ CRS Report 2016 on TPP at p. 47. On the other hand, the USTR's advisory committee for IP issues "Some business groups, especially in the pharmaceutical sector, while broadly supportive of the IPR chapter, express concern that certain aspects of it may be less robust compared to KORUS, while others say that vigilant enforcement of TPP will not lead to any substantive differences from the level in KORUS.[FN131: "The Trans-Pacific Partnership Agreement: Report of the Industry Trade Advisory Committee on Intellectual Property Rights (ITAC-15)", December 3, 2015] ..." The IP chapter also contains some new provisions that go beyond existing U.S. FTAs, such as KORUS" (Ibid)

mobility of artisans; (2) local working of technological knowledge and information; and (3) actual practice of new trade as discussed in Section 2-2. The TRIPS-plus rules to be examined here, as discussed in Section 2-5, refer to: (1) two pillars of GATT, the national treatment principle and most favoured nations principle; and (2) typical ingredients of maximalist IP agenda such as the expansion of protectable subject matter, extended term of protection, curtailment of national discretion on the limitations and exceptions of IPRs, and the reinforced enforcement measures. Further, this Chapter investigates the elements of diversity layer of trade dimension of IP, including, as discussed in Section 2-3, political, social and cultural contexts that may enable or disable certain IP-related institutions and ideologies, and the elements of outcome layer including, as discussed in Section 2-6, intended purposes and balance of IP and transfer of technology.

Regarding the human rights dimension of IP, this Chapter will investigate the extent to which has KORUS an intersection with the human right to science and culture discussed in Chapter 3. The right to science and culture will be tested in terms of both the protection side of the right to science and culture, i.e., protection of moral and material interest of author under the Author Clause discussed in Sections 3-2 and 3-3, and the dissemination side, i.e., the right to take part in cultural life and to benefit from scientific progress discussed in Section 3-4. Empirical study of KORUS in terms of the human right to science and culture inevitably requires a human rights impact assessment (HRIA).

Methodologies for the HRIA are borrowed from the EC's Guideline of 2015,⁶²⁰ which builds on recent academic literature on HRIA for trade agreements. The Guideline requires that the HRIA be based on the normative framework of human rights, and the depth and scope of the assessment be calibrated to the type of trade measures and the magnitude of the expected human rights impacts.⁶²¹ Modeled on the Guideline, this Chapter tries to assess human rights impact assessment through three steps of: screening (narrowing down the list of

_

⁶²⁰ European Commission, 2015a. The EC's Guideline of 2015 aims at identifying and preventing the impacts that trade policies may have on human rights in the EU and member states, to avoid the negative ones and to enhance the positive ones.

⁶²¹ European Commission, 2015a, pp. 5-6.

issues to be assessed and identifying key human rights issues); scoping (clarifying the scope of content of the listed issues, describing the likely impact on human rights and indicating whether the impact is beneficial (promotion of human rights) or negative (limitation of human rights)); and detailed assessment.⁶²²

For the purpose of screening, i.e., narrowing down and identifying key human rights issues in KORUS, this Chapter begins with negotiation history to examine the process by which the strongest trade-centric pact came into existence. Then, this Chapter delves into specific provisions that have implications on the right to science and culture. For the purpose of the empirical study on KORUS, a range of core issues that have actual or possible significant human rights impact are chosen and their implications in IP policies and subsequent developments are analyzed. Impact assessment is conducted to KORUS obligations on general provision, patent, copyright and enforcement, excluding trademark and trade secret, and mainly directed to South Korea because KORUS has brought about little changes in the US. For instance, while all of the Korean IP laws have been amended due to KORUS, none of the US laws were affected by KORUS. 623 Ex post impact assessment carried out in this Chapter differs from section from section because of uneven availability of evidence-based information and insufficient time lapse for gathering a robust body of data and evidence from the entry into effect of KORUS on March 15, 2012.

4-2. Negotiation and Implementation of KORUS

4-2-1. A Brief Chronology

There would be few FTAs that have experienced more twists and turns than

⁶²² The core methodological steps for carrying out the human right impact assessment are by and large common in various research institutions. For instance, refer to The World Bank & the Nordic Trust Fund (2013), Study on human rights impact assessment: A Review of the Literature, Differences with other forms of Assessments and Relevance for Development' p.22 (preparation, screening, scoping, evidence gathering, consultation, analysis, recommendation & conclusions).

⁶²³ KORUS urged Korea to amend at least twenty domestic laws in which IP-related laws were more than half.

KORUS. The negotiation for KORUS was commenced in February 2006 by a sudden offer of Korean government. Despite of strong resistance and controversies, the talks on KORUS were concluded in nine months. Then the concluded texts were re-opened twice in 2007 and 2010, and motions for approving KORUS were submitted to the Korea National Assembly three times. It took five years for KORUS to be a legally binding treaty in both countries. After another five years, KORUS now faces a risk of termination or renegotiation. ⁶²⁴ Chronological records of KORUS show such twists and turns:

- 2 February 2006: Public hearing in Seoul;
- 3 February 2006: Official launch of KORUS negotiation;
- 5 June 2006 to 12 March 2007: Eight official rounds of negotiation;
- 19 to 22 March 2007: Higher-level discussion;
- 26 March to 2 April 2007: Ministerial talk;
- 2 April 2007: Conclusion of negotiation;
- 25 May 2007: Concluded KORUS text made open;
- 21 to 22 June 2007: Re-negotiation (1st);⁶²⁵
- 30 June 2007: Signing FTA texts;
- 7 September 2007: Korean motion for KORUS approval (1st);

⁶²⁴ Rucker, 2017 (reporting that the US President threatened, in an interview on 28 April, 2017, to terminate KORUS as it was "a horrible deal" and "should've never been made").

The first re-negotiation was to reflect the deal of US politicians. The Democratic Party, having gained majority seats in both the House of Representatives and the Senate in the mid-term election of January 2007, changed the Bush Administration's trade policy, and announced a bipartisan deal with the Administration, called "A New Trade Policy for America" on May 10, 2007. This May 10th deal required reopening and amending then pending FTAs with Korea and Colombia, not only with Peru and Panama, to reflect, in enforceable languages, the Democratic priorities (Kim, 2007). These include new standards on labor, environment and global warming, patent and access to medicines, and investment. Long before the announcement of the May 10th deal, the Korean government had vowed several times that there would be no renegotiation as it inevitably broke the highly-calibrated compromises between two countries. However, the Korean government had no alternative but to accede the US demand. For the development and political implication of the May 10th deal, *see* Destler, 2007.

- 8 October 2008: Korean motion for KORUS approval (2nd);
- 30 November to 3 December 2010: Re-negotiation (2nd);⁶²⁶
- 4 May 2011: Withdrawal of the 2nd motion;⁶²⁷
- 3 June 2011: Korean motion for KORUS approval (3rd);
- 3 October 2011: US motion for KORUS approval;
- 12 October 2011: US motion approved;
- 22 November 2011: Korean motion approved;
- 27 January to 20 February 2012: Consultation on implementation of KORUS; and
- 15 March 2012: KORUS entering into effect.

4-2-2. Deals on IP

IPR was one of the most controversial issues in KORUS negotiation. When the final round of talk was finished on March 12, 2007, a small number of issues on agriculture, auto, trade remedy, broadcasting and IPRs were remained unsettled and had to be moved to a higher-level discussion. Even after the Korean Trade

⁶²⁶ The second re-negotiation was again initiated by the US. Unlike the Korean government, the US government, despite signing the KORUS FTA in 2007, did not seek a congressional approval until 2010. It was because the Democratic leadership had complained the commitments on autos and beef. The modifications made in the second re-negotiation are incorporated in KORUS in the form of an "exchange of letters" and two "agreed minutes".

⁶²⁷ Withdrawal of the second motion reveals unpreparedness of Korean negotiators and has a special implication in connection with the effect of IP-related treaties in Korea. The second motion was recanted due to an inaccurate Korean translation of English text of KORUS. Unlike other FTAs to which South Korea is a party, KORUS recognizes two texts, the English and Korean texts, "equally authentic" (Art. 24.6). While the Korean Constitution admits that any treaties ratified and proclaimed in accordance with the Constitution has the same effect as the domestic laws, some Korean IP laws such as the Patent Act (Art. 26) and the Trademark Act (Art. 5) prescribe that international agreements prevail domestic laws. The treaty prevailing rule of the Korean industrial rights laws has been maintained for several decades since 1961, the purpose of which is explained by the Korea Patent Office to respect the international harmonization of industrial property laws. This rule was entirely repealed when KORUS was approved by the National Assembly in 2011 due to the concerns of law makers on unequal application of KORUS between the US and Korea (Note that in the US, KORUS is not a treaty under the meaning of the US Constitution; it's a congressional-executive agreement having no direct applicable effect, inferior to conflicting federal laws).

Minister reported to the Korean president of the outcome of the higher-level discussion, IPRs were still under debate because the US sustained its position to include the controversial non-violation dispute for IPRs. The outstanding issues were all cleared in the ministerial meeting where negotiators of the competent departments on patent and copyright policies were excluded and had no final say.

Concerning the copyright negotiation, the Korean negotiators strongly opposed the US push for TRIPS-plus and WCT/WPPT-plus provisions. According to an interim memo prepared by negotiators of the Ministry of Culture after the third round of talk and the official reports of the Trade Minister to the National Assembly after the first and second rounds of talk, the Korean negotiators took a firm stand against the US proposals on the following grounds:

- Copyright Term Extension: The term of protection is the most important element for a balanced copyright protection. The US demand to extend the term from life plus 50 years to 70 years is unacceptable because of huge potential adverse social and cultural impact;
- **Temporary Copying**: Expanding author's reproduction right to cover temporary copying is unacceptable because harmful effects such as undermining use of copyrighted works and restricting users' access to information;
- Technological Protection Measures: TPMs for access control are unacceptable because of unduly over-protection of copyright holder against users in digital network environment;
- ISP Liability: Proposal of the US to bind ISPs to provide user's personal information to copyright holders needs a careful consideration as it may jeopardize the business of ISPs; and categorizing ISPs into four types as under the DMCA is not necessary in consideration of possible emerging new type of services; and
- **Statutory Damages**: Introduction of pre-established damages is undesirable as it conflicts with the actual damages principles under the Korean legal system of civil law tradition.

_

 $^{^{628}}$ For details on the non-violation dispute in WTO/TRIPS Council, see Section 2-5.

Regarding the negotiations on patent, in which the Patent Office took part, and TRIPS-plus protection of pharmaceutical products, for which the Ministry of Health and Welfare led the Korean negotiation team, the Korean negotiators were also firm in opposing the US proposals for the following reasons:

- Patent Term Extension for Delay in Patent Grant: Unacceptable as this may cause an increase of royalty payments by domestic industries, leading to a price increase of patented products and a decrease of consumer benefits;
- Patent Term Extension for Delay in Drug Approving Process: The
 US demand to include any delay made by foreign authorities in drug
 approving process is not acceptable;
- Data Exclusivity: Expanding the data exclusivity to cover disclosed information and "similar products" is unacceptable, because the meaning and scope of the "similar" products are unclear, and the expansive protection may spark strong oppositions from domestic pharmaceutical industries;
- Patent-Approval Linkage: Linkage between a drug approval process
 and a patent status is not acceptable because a patent holder can,
 without the linkage system, seek remedies against infringers through
 litigation and under the Korean judicial system infringement disputes
 can be easily and cheaply decided by a trial; and
- Restriction of the Grounds for Granting Compulsory Licenses: The
 US demand to limit the grounds on which compulsory licenses of
 patented inventions are granted to exceptional circumstances such as
 national emergency is not acceptable because they are narrower than
 those permitted under the existing Korean laws.

However, the opposition of the Korean negotiators was not kept long. When the third round of talk was finished in September 2006, the Trade Minister urged the negotiators of the Ministry of Culture, the Patent Office and the Ministry of Justice. 629 to accept the US demands. According to several local news reports,

⁶²⁹ The Ministry of Justice participated in the negotiation for discussions on IPR enforcement section.

the Trade Ministry asked negotiators of the relevant departments to provide a "full cooperation" to the US negotiators in the fourth round of talks where the IPR division was the only division that was supposed to have a five-days long full discussion. At that time, the US adopted a strategy of "defeating one by one" to appease the Korean negotiators' opposition in individual issues. For instance, the US negotiators sought to have a talk on copyright issues with only negotiators from the Ministry of Culture, and patent issues with only negotiators from the Patent Office. Stringing along with the US negotiators, the Trade Ministry of Korea urged relevant departments to do as the US wanted.

For the most of the IPR-related issues, the US is the main *demandeurs* and Korea was on the defensive. However, not all of the US demands were the attainment targets. They demanded some TRIPS-plus agenda for a bargaining chip. These include: (1) a prohibition of parallel importation of copyrighted works;⁶³¹ (2) expanding patentable subject matters to cover diagnostic, therapeutic, and surgical methods for the treatment of humans and animals; (3) triple damages for willful patent infringements; (4) patent term extensions due to any delay including one occurring in the third countries; and (5) broadening trademark right to reach "related goods or services".

Also, the Korean negotiators proposed certain provisions that were new to the US for the purposes of showing off that they were not merely defensive and to get a bargaining chip. These include: (1) obligation of protection of author's moral rights:⁶³² (2) removal of a fixation requirement in copyright rule,

⁶³⁰ Noh, 2006 (citing an internal document of government departments obtained by the Korean Times and interviews with an anonymous official of the Ministry of Justice).

⁶³¹ Concerning the parallel importation of patented products, the US Congress prohibited, in 2005, USTR from imposing any restriction to trade partners. *See*, Section 631 of the Science, State, Justice, Commerce, and Related Agencies Appropriation Act of 2005 (Public Law No. 109-108). The congressional action was to reflect the concerns that patent might prevent US citizens from enjoying competitive advantages of cheap medicines sold in foreign countries such as Canada. In May 2017, the US Supreme Court generally endorsed the international exhaustion of patent right, allowing parallel importation of patented toner cartridge (*Impression Products v. Lexmark International*, No. 15-1189.) as the Court did for copyrighted works in 2013 (*Kirtsaeng v. John Wiley & Sons, Inc.*, 133 S. Ct. 2351 (2013)).

 $^{^{632}}$ Against this proposal, the US negotiators requested Korean counterpart to present any empirical evidences showing that Korean authors had been suffering

especially in reproduction right;⁶³³ (3) a mandatory publication of all of the patent applications; (4) an introduction of patent examination request system; (4) mandating an internationalism in the concept of prior arts in determining patentability;⁶³⁴ and (5) repealing a Hilmer doctrine.⁶³⁵

These bargaining chips were exchanged each other and abused by each in domestically claiming that they obtained some concession from the counterpart. There is no document showing the whole picture of the exchange and trade-off between the negotiators. However, according to records of the Korean National Assembly and interim memo of negotiators, following deals were made:

- Korean demand for protection of moral rights was traded with the US demand of prohibition on parallel importation of copyright works at the 5th round of December 2006;
- US demand to insert into KORUS a binding sentencing guideline for courts in criminal procedure was watered down to a non-binding recommendation at the 5th round;⁶³⁶

from lack of moral rights in the US. The US Copyright Act does no fully protect the moral right of authors but the US businesses, politicians and some scholars have maintained that the US laws protect author's moral right in combination of various state and federal statutes such as tort and contract laws. Even the WIPO Director General (Dr. Bogsch) witnessed before the US Congress that the US did not need to "enact statutory provisions on moral rights in order to comply with Article 6bis of the Berne Convention" (US Copyright Office, 2017, p. 7871). Now the US government is conducting a formal study on this issue. See, US Copyright Office, 2017.

⁶³³ Unlike the US counterpart, the Korean Copyright Act does not require for a work to be "fixed" in a tangible object. One of the concerns of the Korean negotiators was that the fixation requirement might preclude the protection of live performance.

⁶³⁴ Under Section 102 of the US Patent Act, if the invention were publicly known or used in countries other than in the US, it does not constitute prior arts in determining a novelty or a non-obviousness. The Korean negotiator demanded the US to make prior arts publicly known anywhere in the world the statutory bar.

⁶³⁵ The Hilmer doctrine refers to a rule established by the US court (*In re Hilmer*, 424 F.2d 1108 (C.C.P.A. 1970)), under which a foreign patent application could not count as prior art of its foreign filing date, abolished by the American Invention Act on 16 March 2013 (Randall, 2013, pp. 20-21).

⁶³⁶ Relevant KORUS text is the second sentence of Article 18.10:27(a), saying that "[E]ach party shall further encourage judicial authorities to impose those penalties at levels sufficient to provide a deterrent to further infringements …"

- US proposal on written requirements of patent claims was agreed upon as Korean negotiators suggested, 637 and the Korean demand for removing a fixation requirement from copyright rule was withdrawn at the 5th round;⁶³⁸
- Korean commitment on auto was traded-off with the US' commitment on the extension of transition period of patent-approval linkage for three vears at the 2nd renegotiation of November 2010:
- As a part of the package deal made at the higher level talk of March 2007, Korea conceded on the copyright term extension and the US relaxed its position on statutory damages and data exclusivity; and
- At the final, 8th round of March 2007, a package settlement on unsolved patent-related issues was reached by Korean accepting the US demands and the US conceding on the patent term extension for longer period of delay in patent prosecution (three years from the date when a request for examination is filed, not two years as demanded by the US).

4-2-3. Discussion and Analysis

Negotiation history of KORUS shows lack of transparency and public participation, which are the main elements for human rights approach of IP as discussed in Section 3-5. The first two lines of 'A Brief Chronology' of Section 4-2-1 reveal that the public hearing for KORUS took place just one day before both governments announced official launch of KORUS negotiation, indicating a purposeful ignorance of the human rights concerns on transparency and public participation of trade negotiation. A process of public hearing was mandatory for Korean government. According to a Presidential Decree on free trade agreements, 639 no FTAs that were deemed by the Trade Minister 640 apt for FTA

⁶³⁷ This was what the Korean Trade Minister reported to the National Assembly, but it is unclear what the Korean negotiators suggested because the written requirement of Article 18.8:10 is modeled on the US case laws.

⁶³⁸ Footnote 7 of Article 18.4:1 KORUS "The Parties reaffirm that it is a matter for each Party's law to prescribe that works and phonograms shall not be protected by copyright unless they have been fixed in some material form".

⁶³⁹ Decree No. 121, enacted on 8 June 2004.

⁶⁴⁰ At that time, the former title of Trade Ministry was the Ministry of Foreign Affairs and Trade. After KORUS went into effect, trade function was transferred to the Ministry of Industry and Energy. Across this thesis, the term "Trade Ministry"

negotiation could be launched without prior public hearing. Further, any decision of government to float or not the FTA ship had to depend on the outcome of the prior public hearing. The hearing for KORUS was held with only inviting researchers of governmental think tank, and over in the middle due to farmers' demonstration. However, this did not affect the floating of FTA ship. To Korean governments, the public hearing was nothing more than a ritual to avoid debate on breach of the procedural requirement.

The Presidential Decree also required two additional procedures for public participation: during the FTA negotiation; and after the negotiation, none of which was adhered to by government. Stakeholders including business sectors, experts and even law makers were not allowed to access to draft text and detailed negotiation information. They were kept secret and only small numbers of friendly scholars were shared with limited information on KORUS negotiation. Therefore, KORUS, lacking democratic checks and balances, could not reflect voices of those who would be affected.

The negotiation history of KORUS also shows that the public choice theory or rational choice theory in its internationalised version discussed in Section 2-4 does not hold true for KORUS. Korea did not expect transfer of technology from the US or increased domestic innovation in exchange of upward IPR standards. IP deals were a scapegoat for concluding a bilateral trade deal with the US. Therefore, the deals on IP incorporate almost all of the core elements of maximalist IP agenda, while ignoring intended purpose of IP and the early trade concerns such as cross-border mobility of artisans, local working of new technologies and trade.

Political context and governance structure in trade policy within the Korean government, which in turn widened the unequal bargaining power, may be the main account for the explanation of Korea's acceptance of TRIPS-plus agenda of the US.

For the KORUS IP negotiation, the US had clear objectives – improving further "the protection that Korea afforded to IP, including strengthened measures in

_

or "Minister of Trade" is used to refer to administrative branches of both departments.

Korea against the illegal online distribution and transmission of copyrighted works", 641 and exporting the standard of IPR protection "similar to that found in United States law". 642 By contrast, Korea had no concrete objectives that were specific to IP negotiation. Let alone the negotiation objectives, the Korean negotiators were busy in catching the meaning of US proposals and had to follow the intensive schedule of talks set by the US domestic law without having a sufficient time for preparation. 643 When reporting to the National Assembly of the 3rd round of talk, the Minister of Health and Welfare, which was in charge of pharmaceutical related IP talks, confessed that the primary role of his department was, as in football games, a defense to prevent the opposition team from scoring goals. The Patent Office even admitted, in its written response to a lawmaker in October 2006, that the best way to cope with the trade pressure from the US would be to "streamline or modernize the Korean IP laws through the trade negotiation with the US". The only department that tried to hold fast in rejecting the TRIPS-plus and WCT/WPPT-plus proposals of the US was the Ministry of Culture. When the Ministry of Trade urged the copyright negotiators to provide a full cooperation to the US for the 4th round of talk, they asked their Minister to meet in person the Trade Minister to alleviate the pressure from the trade department. They also called for a joint action with the Patent Office and the Ministry of Justice.

All of these efforts were ended without success. Main reason was that the KORUS negotiation was under control of the Trade Ministry having a presidential support on its back. To the trade officials, contracting FTA with the US *itself* was the primary goal. Their performance was evaluated by a binary

⁶⁴¹ USTR letter to the U.S. House of Representatives (February 2, 2006).

⁶⁴² 19 U.S. Code § 3802(b)(4)(iii). Later, the US added new objectives for TPP to address cybertheft and protect trade secrets and proprietary information". (The U.S. Congressional Research Service Report No. R44489, 'The Trans-Pacific Partnership (TPP): Key Provisions and Issues for Congress, May 4, 2016, at page 45).

⁶⁴³ Official rounds of KORUS negotiation were over in nine months due to tight schedule set by the Bipartisan Trade Promotion Act of 2002, under which the US President has to notify the U.S. Congress its intent to enter into the FTA with South Korea under the Trade Promotion Authority, also called a fast-track trade authority, which statutorily expired on April 1, 2007. The fast-track trade authority has not been renewed about for eight years since 2007 until the Obama Administration was given such an authority for TPPA in 2015.

choice between concluding or failing bilateral deal with trading partners, no matter what commitments were made in there. Furthermore, the Korean president was pursuing KORUS for highly political purposes which include, something vague, a doctrine of strategic flexibility, the role of a balancer among the major powers in Northeast Asia, and reforming Korean economic structure, especially of service sector, triggered by an external shock. In this process, the public policy aspects of IPRs and fair balance between rights and dissemination, let alone the human rights dimensions, found no or little way to engage.

4-3. General Provision of KORUS

4-3-1. Obligations under KORUS

The IP Chapter of KORUS starts with the general provision (Article 18.10:1) consisting of twelve paragraphs. They deal with affirmation of the rights and obligations under TRIPS, international IPR treaties both Parties shall or make all reasonable effort to ratify, a ratchet provision, ⁶⁴⁴ and provisions for national treatment, application to existing subject matter and prior acts, and transparency (identical to an "internal transparency" required in WTO). ⁶⁴⁵

4-3-2. Discussion and Analysis

The general provision shows the nature of KORUS. First, KORUS reflects the changes of substantive rules produced by trade-centric IP norms, which were discussed in Section 2-5. The principles of GATT such as NTP and MFN are incorporated into KORUS. Although KORUS does not explicitly mandate MFN obligation, under Article 18.1:2, which confirms the rights and obligations under TRIPS, both Parties cannot derogate from the MFN obligation of Article 4 of TRIPS. Yet, the scope of MFN obligations under TRIPS is uncertain on for

of IPRs, and a Party is free to move back from higher standards to the minimum standards mandated by KORUS.

The ratchet provision in KORUS IP Chapter is different from the ratchet clause in Service Chapter. Under the Service Chapter, a Party is locked in every time it takes a measure for further liberalization of service market. By contrast, the ratchet provision of IP Chapter merely permits more extensive protection and enforcement

⁶⁴⁵ Article X of GATT imposing obligations on contracting parties to publish their laws, regulations, judicial decisions and administrative rulings affecting trade is called an internal transparency (Limenta, 2012, pp. 79-80).

instance, whether it covers only the IPR protection mandated by TRIPS or extended to more extensive protection and enforcement of IPRs provided by only KORUS or other bilateral or regional agreements.

Second, and more importantly, unlike other multilateral IP treaties and previous US FTAs (such as the US-Chile FTA), KORUS does not have any provision referring to public interests and balance between private and public interests in protection, dissemination and access to intellectual productions. This skewed provision may cause a lopsided interpretation and application of the other provisions, most of which are related to the substantive protection and enforcement of IPRs. According to the Vienna Convention on the Law of Treaties, "objectives and purpose" of a treaty are vital factors in interpretation of a treaty (Article 31), and WTO panels regarded the objectives text as a guiding principle that can help ensure that the rest of the chapter is interpreted in line with negotiators' intentions — "it can add colour, texture and shading to our interpretation". 647

The general provision of KORUS lacking the balance provision shows the very nature of the pact, and reveals how are the US and Korean negotiators on IP policies indifferent of human rights dimension of IP.

4-4. Copyright

4-4-1. Reproduction Right and Temporary Storage

4-4-1-1. Obligations under KORUS

Article 18.4:1 of KORUS makes clear that temporary storage be under control of copyright, i.e., the reproduction right. Unlike TPPA, KORUS employs the term "temporary storage in electronic form" and confirms such a right bestowed

⁶⁴⁶ Compare Articles 7 and 8 of TRIPS, and Article 18.4 of TPP (embracing "the underlying public policy objectives of national systems" and recognizing the need to "promote innovation and creativity" and "facilitate the diffusion of information, knowledge, technology, culture and the arts") and the latest FTA to which Korea is a party (Article 15.5 of the Korea-Colombia FTA recognizing "the need to maintain a balance between the rights of the right holders and the public interest" and technology transfer, and allowing measures to "prevent the abuse of intellectual"

property rights by right holders"). ⁶⁴⁷ Weatherall 2015a, 5.

to performers and producers of phonograms as well as to authors and their "successors in title". 648 Further, contrasting the EU InfoSoc Directive, KORUS does not provide a mandatory exception to this right. 649 Inversely, KORUS confirms that any limitation or exception to the reproduction right to temporary storage should be restricted to the controversial three-step test and even when either Party introduces an open-ended fair use limitation, the three-step test prevails.

4-4-1-2. Controversies on Temporary Storage

Obligations on the temporary storage was highly controversial during the negotiation. The Korean negotiators strongly opposed the US proposal for the temporary storage and the disagreement was not solved until the final round of talk (8th round). The Ministry of Culture, which co-chaired, along with the Trade Ministry, the Korean IP negotiation division, was very stubborn in the opposition. When the 1st round of talk ended, the Ministry of Culture decided not to accept the US proposal as they viewed that it would "weaken the promotion of (fair) use of copyrighted works and undermine access to information". 650 Further, the Trade Ministry reported to the National Assembly of the outcome of the 2nd round negotiation that the Korean negotiators opposed the introduction of temporary storage because the problem of temporary storage could be indirectly addressed by in combination of the permanent reproduction right, the right to communication to the public and the protection of technological protection measures. However, the Trade Minister, having controlled the whole process of Korean negotiation, changed its position later and urged the copyright officials to accept the US proposal on the temporary

_

⁶⁴⁸ Footnote 8 of the Article. By contrast, Article 18.58 of TPP does not use the term "temporary storage". Instead, it says "the exclusive right to authorize or prohibit all reproduction of their works, performances or phonograms in any manner or form, including in electronic form".

⁶⁴⁹ Under the InfoSoc Directive, Member states must exempt temporary copying from the reproduction right subject to several conditions that: (1) the temporary acts of reproduction are transient or incidental and an integral and essential part of a technological process; (2) whose sole purpose is to enable: (a) a transmission in a network between third parties by an intermediary; or (b) a lawful use of a copyright work or other subject-matter to be made; and (3) they have no independent economic significance (Article 5(1) of the Directive 2001/29/EC).

⁶⁵⁰ Anonymous, 2006.

storage. A negotiators' interim document revealed that the copyright officials asked their Minister to meet in person with and persuade the Trade Minister to stop pushing them on the issue. For the purpose of preparing defensive strategies, the Minister of Culture and the National Copyright Commission held a consultation meeting with copyright experts, industries and activists, ended up with failure.

The issue of temporary storage re-emerged during the congressional approval process in Korea. This time the issue was not whether the copyright policy change putting the temporary storage under the control of copyright holder was acceptable, but whether the US implemented the temporary storage obligation of KORUS.

The US Copyright Act defines "copies" by referring to the concept of fixation. In *Cartoon Network* case, ⁶⁵¹ which was decided after the KORUS pact was signed, the US Federal Court ruled that for the work is "fixed" two conditions have to be met: the embodiment requirement (the work is in a medium that enables it to be "perceived, reproduced, or otherwise communicated"); and the duration requirement (the work's embodiment must last for a "period of more than transitory duration"). The *Cartoon Network* court held that the buffer memory copy of a router for 0.1 second and holding up a TV programming for up to 1.2 seconds, are not "copies" under the meaning of the US Copyright Act because they do not meet the "duration requirement".

This decision is distinguishable from the *MAI System* decision, ⁶⁵² which was the cornerstone for the US negotiators' push for the temporary storage proposal and the Korean negotiators' understanding that the US legally recognizes the temporary storage. The *Cartoon Network* decision sparked the debate on the question of US' implementation of KORUS. In November 2011, seventy lawmakers of five opposition parities in Korea brought this issue to a criminal proceeding against the Trade Minister. Under this pressure, the Trade Ministry began to consult several US and Korean law firms about the compatibility of US Copyright Act with the KORUS obligation. Further, during the

⁶⁵¹ Cartoon Network LP, LLLP v. CSC Holdings, Inc., 536 F.3d 121 (2d Cir. 2008).

⁶⁵² MAI Systems Corp. v. Peak Computer, Inc., 991 F.2d 511 (9th Cir. 1993).

implementation review process of December 2011 to February 2012, the Trade Ministry raised the issue of temporary storage obligation against USTR. However, USTR simply replied that the US law were in compliance, and there was no further counter-reaction from the Korean government.

4-4-1-3. Discussion and Analysis

copyright".)

Granting an exclusive right to temporary storage alters the fundamental nature of copyright system in digital environment. Every online activity, either by users or telecommunication service providers, entails temporary storage of information in electronic form. A web browser cannot display information on a screen without receiving from a remote host and temporarily storing data packets for such information. Therefore, granting a reproduction right on temporary storage in electronic form is akin to giving copyright holders a power to control the Internet, a full control of access to information online. Such a right is analogous to a power to control reading books, listening music, and watching movie. Then, the obligation of temporary storage goes too far beyond the human rights protection of material interests of author discussed in Section 3-3-4.

Temporary storage is not a mere theoretical question. It has a practical implication. Further, the process in which the temporary storage was proposed and implemented shows the USTR's strategy to push 'US law-plus' agenda to trading partners and how the balance in copyright policy is broken in trading

decision of *Intellectual Reserve*, *Inc. v. Utah Lighthouse Ministry*, *Inc.*, 75 F. Supp. 2d 1290, 1294 (D. Utah 1999) (holding that "[W]hen a person browses a website, and by so doing displays the Handbook, a copy of the Handbook is made in the computer's random access memory (RAM), to permit viewing of the material. And in making a copy, even a temporary one, the person who browsed infringes the

⁶⁵⁴ Lord Sumption explained "where a web-page is viewed by an end user on his computer, ... temporary copies to be made on screen ... without which the web-page cannot be viewed by the user". (Public Relations Consultants Association Ltd. v. The Newspaper Licensing Agency Ltd. [2103] UKSC 18 (17 April 2013).

⁶⁵⁵ Weatherall, 2015b, p. 7: "Including temporary copies within the reproduction right therefore has the tendency to transform copyright into an 'access right' that enables copyright owners to take action against every user and every possible intermediary that facilitates or provides technology to users that interacts with any kind of copyright material (which means any text, any image, any sound)".

partners when they import only one side of the rule. The US law strictly requires "fixation" to be defined with reference to "duration requirement". However, in Korea, the fixation is not statutory requirement and hence the court of Korea does not consider the duration requirement as shown in various cases involving: background music streaming; loading a screen capture computer program into RAM; and TV program streaming device.

In a music stream case, the court held that digital sound, which was originally recorded on a phonogram possessed by a copyright licensee, is temporarily fixed to a tangible media when it is transmitted to a defendant's computer and streamed to be played by defendant, thereby leading to an infringement of reproduction right. ⁶⁵⁶ In this decision, the court does not consider how long does the streamed sound last.

In a RAM copy case, the court again ignores the transient nature of temporary storage. It held that a computer program (called "Open Capture"), which is for a screen capture, entails loading the program onto memory (logical memory) of Windows OS, resulting in a (temporary in electronic form) fixation of the program onto the physical and tangible media (RAM), and thus loading program itself constitutes a temporary reproduction under the meaning of the Copyright Act. The Court even rejects the alleged infringers' argument that the RAM copy is transient as its duration is too short, finding that the RAM copy exists long enough while the program is running.

The "RAM copy doctrine" of the *Open Capture* court is much broader than that of the *MAI System* court of the US and the standard of temporary reproduction of EU's InfoSoc Directive because the *Open Capture* court viewed that:

 the "necessity for smooth and efficient information processing", the statutory prong for an exception of the temporary reproduction, meant a temporary storage such as buffering or caching occurred during Internet browsing, use of transmitted digital works, or use of copyrighted works stored in computer storage medium;

⁶⁵⁶ The Seoul High Court. 2013Na2007547. November 28, 2013.

⁶⁵⁷ The Seoul Central District Court, 2013GaHap63771, February 21, 2014.

- 2) a RAM copy of a computer program was not for efficient data processing;
- 3) performing a function of computer program with the RAM copy was an essential part of sale of the program, having a separate economic value on its own; and
- 4) the newly added exceptional provision for temporary reproduction (Article 35bis of the Copyright Act of 2012) only allowed for repair and maintenance purpose of a computer, indicating a legislative intension to exclude the RAM copy created during the normal operation of a computer program.⁶⁵⁸

In a TV program streaming device case, the Seoul District court ruled that a retailer of a stream enabling device, neither a manufacturer of the device nor a streaming service provider, is liable for a direct infringement of temporary reproduction right. Even users were found liable as a direct infringer violating the right to communication to the public because they were involved in activities retransmitting other users the received TV signal via P4P technology, a variant of P2P.

The temporary storage obligation reveals more harmful effect of FTAs, a lockin effect; FTAs acting against domestic reform. Concerned about the expansive application of the temporary storage obligation of KORUS, law makers introduced, in January 2013, a bill to amend the Copyright Act by inserting the "duration requirement". The bill replaces "temporarily or permanently fixing" in the definition of "reproduction" with a phrase "fixing (referring to the case where fixation lasts permanently or for sufficiently stable period of time so as to allow reproduction of works)." Against this legislative reform, the Trade Ministry submitted a dissenting opinion to the National Assembly, indirectly indicating a possible breach of KORUS. Further, the International Federation of the Phonographic Industry (IFPI) argued, in its written opinion submitted to the National Assembly, that the amendment specifically excluded "special forms of

⁶⁵⁸ This finding was repealed by appeal court (the Seoul High Court, *2014Na19631*, November 20, 2014) and the case is pending before the Supreme Court.

⁶⁵⁹ The Seoul Central District Court, 2014GaHap534942, September 4, 2015.

reproduction, i.e. temporary reproductions" and made Korea to breach international treaty obligations under the Berne Convention as well as under the WCT and WPPT. Also, the Ministry of Culture viewed the temporary storage as broad as to cover all forms of streaming services of copyrighted works. In determining that whether mobile service of filelocker service provider is within the special type online service provider of Article 104 of the Korea Copyright Act, the Ministry of Culture (the Copyright Protection Division) considers that RAM copies created in user's mobile device when the user enjoys contents provided by the filelocker's streaming service are reproduction because Article 2(22) defines the reproduction includes a temporary storage.

4-4-2. Term of Protection

4-4-2-1. Obligations under KORUS

KORUS requires the term of copyright protection to be at least author's lifetime plus 70 years, or 70 years from publication or creation of works, performance or phonograms.⁶⁶¹ This compels Korea to amend its Copyright Act for the additional 20 years protection.⁶⁶²

4-4-2-2. Discussion and Analysis

The obligation of extended protection term of copyright has provoked resistance and opposition from scholars, civil societies, and even the copyright industry. Especially, the publishing industry maintained that the term of protection should remain within the realm of national policy and could not be conditions for foreign trade, contending that the push of the US was nothing but extending the term during which US copyright industries could receive copyright royalties from Korea. 663

⁶⁶⁰ IFPI, 2013, pp. 2-3.

⁶⁶¹ Article 18.4:4(a) and (b).

⁶⁶² The Korean Copyright Act was amended for additional 20 years for authors according to the EU-Korea FTA, which was concluded later than KORUS but entered into effect (provisionally) earlier than KORUS. However, an amendment for additional 20-years protection for neighboring rights was made effective by KORUS.

⁶⁶³ Korean Publishers Association, 2006; Korean Publishers Association, 2007.

The term of copyright protection is one of the key elements in striking a fair balance between private interests of copyright holders and public interests. From the human rights perspective, whilst the moral interests of authors can last forever, the material interests of authors need to be limited in time to ensure "a vibrant public domain of shared cultural heritage, from which all creators are free to draw". 664 As the General Comment No. 17 points out, the human right aspect of the protection of author's material interest is to enable authors to enjoy an adequate standard of living, which can be achieved by an one-time payment, and therefore the duration of protection of author's material interests need not extend over the entire lifespan of author. 665

Formally, the Korean negotiators stood with these opposition groups. From the 1st round of talk, the Korean negotiators were firm in rejecting the US demand as they viewed it unacceptable due to huge social and economic impacts, and reported to the National Assembly that their stance was to keep the author's life plus 50 years under the international standards such as TRIPS and the Berne Convention. The copyright term extension was one of the standout issues held out to the last. At the final round of talks of March 8 to 12, 2007, most of the outstanding issues of the IP Chapter were resolved. However, the copyright term extension was not on the list. Only at the ministerial high level talk of March 19 to 22, 2007, the Korean negotiators suggested a package deal under which Korea accepted the US demand of additional 20 years for copyright protection, and in exchange the US conceded on provisions for statutory damages and data exclusivity.666

However, from the outset the Korean negotiators admitted that they would not be successful in defeating the US demand of the copyright term extension. According to an interim report drafted prior to the official round of talks, the negotiators viewed that it would be difficult to sustain positions contrary to the US counterpart in key provisions such as the copyright term extension. They knew that the maximum commitment obtainable from US was transitional

⁶⁶⁴ UN Copyright Report of 2014, ¶ 50

⁶⁶⁵ General Comment No. 17, ¶ 16.

⁶⁶⁶ The package deal was revealed by a printed autobiography of then Ministry of Trade (Hyun-Jong Kim). Yet, it is still unknown what the US commitments were on the statutory damages and data exclusivity.

period.667

As the extension of copyright protection term was come into force by the EU-Korea FTA, its impact will be discussed in the following Chapter 5 (Section 5-4-2).

4-4-3. Restoration of Expired Rights of Neighbouring Rights

4-4-3-1. Obligation under KORUS

Restoring copyright protection is not an obligation of the FTAs. Contrariwise, Article 18.10:1(10) of KORUS provides that "a Party shall not be required to restore protection to subject matter that on the date of this Agreement enters into force has fallen into the public domain in the territory of the Party where the protection is claimed". The only exception to this applies when the IP Chapter provides otherwise. Examples of this include Article 18 of the Berne Convention ("Works Existing on Convention's Entry Into Force") and Article 14.6 of the TRIPS Agreement. 668 Therefore, subject matters of neighboring rights put into the public domain before March 15, 2012, the effective date of KORUS, by the term expiration under the Korean Copyright Act needs not to be restored for an extended protection.

4-4-3-2. Discussion and Analysis

The copyright term extension mandated by the EU-Korea FTA and KORUS produced extraordinary and unprecedented consequences: a restoration of expired neighboring rights. During the implementation review period, the US demanded that the existing Korean Copyright Act be revised, restoring the expired neighboring rights to fulfill Korea's obligations under TRIPS, which

⁶⁶⁷ Anonymous, 2005. This report was drafted by a senior researcher of the Korea Copyright Commission and a law professor after their visit to Australia (from August 3 to 10, 2005) and having meetings with a copyright law consultant and a principle legal officer of the Attorney General's Department of Australia, an officer of the Department of Foreign Affairs and Trade of Australia, three scholars of the Australian National University and University of Technology, and experts of the Australian Copyright Council and related institutions. The report has been kept classified and undisclosed by Korean government, but downloadable at the website of the Professors for Democracy (PD)

http://www.professornet.org/_new/idx.html?Qy=pds4&nid=161&page=64.

⁶⁶⁸ Article 18.4:5 of KORUS.

was binding under KORUS.

Under this pressure, the KORUS implementation act (amendment of the Copyright Act) restored rights on phonograms that were fixed during July 1, 1987 and June 30, 1994 and expired, on or before March 15, 2012, by 20 years lapse from the fixation date, and the resurrected rights remained effective for fifty years from the fixation date. This restoration also applies to performance.

For more than twenty years, the 20-years protection of neighboring rights under the Korean Copyright Act, which is shorter than fifty years required by TRIPS, has never come into question by any other TRIPS member countries. The retrospective protection has a huge impact. The phonograms published during July 1, 1987 and June 30, 1994 are estimated more than five thousand for 56,000 songs. When the amendment was brought to the Constitutional Court, the Court ruled that the retrospective protection is *not* unconstitutional.⁶⁶⁹ The complainant who was engaged in a business to remake several hundred of expired phonograms argued that the revised act to implement KORUS was an unconstitutional retroactive legislation and that conflicted with the constitutional right to freedom of business. However, the Constitutional Court held that the restoration of related rights was not retroactive legislation because it only regulated activities on phonogram after the amendment went into effect. Further the Court ruled that the interests of the complainant were not a specific right, but merely interests or opportunities for acquiring money, or the legal or actual circumstances of business activity that resulted in no deprivation of property. Concerning the freedom of business, the Court held that the amendment was proportional in that whereas the protection term of copyright for authors had been continuously extended, the non-extended protection term of 20-years for neighbouring rights was insufficient and unreasonable, and even under the amendment the complainant could still use the phonogram by paying royalties. Further, as the amendment provided a grace period for two years, during which the complainant could sell the already produced phonograms in the market, the restoration of related rights is, according to the Court, had nothing in conflict with the constitution.

_

⁶⁶⁹ The Korean Constitutional Court, 2012HunMa770, November 28, 2013.

4-4-4. Protection of Technological Measures

4-4-4-1. Obligations under KORUS

KORUS protects technological protection measures (TPMs) much broadly than the international standards such as WCT and WPPT.⁶⁷⁰ First, KORUS makes clear that TPMs encompass "access control", which is not mandated by WCT and WPPT, as well as for "copy control".⁶⁷¹ Second, it prohibits both activities of circumvention and trafficking circumvention device. Third, knowing act of circumvention of TPM has to be subject to both civil and criminal penalties.⁶⁷²

KORUS also restricts limitation and exception of TPM. Modeled on the US law (17 USC §1201), it allows only eight permanent exceptions to the prohibition on circumvention: reverse engineering a computer program for the sole purpose of achieving interoperability (Art. 18.4:7(d)(i)); encryption research by an appropriately qualified researcher (Art. 18.4:7(d)(ii)), prevention of minors from accessing to inappropriate online content (Art. 18.4:7(d)(iii)); security testing (Art. 18.47(d)(iv)); protection of personally identifying information (Art. 18.4:7(d)(v)); government acts for law enforcement (Art. 18.4:7(d)(vi)); access by nonprofit library, archive, or educational institution for the sole purpose of making acquisition decision (Art. 18.4:7(d)(vii)); and certain uses exempted by either Party subject to a mandatory triennial review (Art. 18.4:7(d)(viii)).⁶⁷³

⁶⁷⁰ In KORUS, TPM is defined to mean "any technology, device, or component that, in normal course of its operation, controls access to a protected work, performance, phonogram, or other protected subject matter, or protects any

copyright or any rights related to copyright (Article 18.4:7(f)).

⁶⁷¹ The WCT and WPPT do not obligate the protection for an "access control" TPM. Article 11 of WCT and Article 18 of WPPT only require "adequate legal protection and effective legal remedies" against the circumvention of effective technological measures that are used "in connection with the exercise of their [authors'] rights" and restrict acts which are "not authorized" by the authors". While the "access control" refers to TPM for controlling access to copyright works, the "copy control" means TPM for protecting "exclusive rights granted to copyright owners" under the copyright laws. *See* Notices of Library of Congress, U.S. Copyright Office on Section 1201 Study, December 29, 2015 (80 FR 81369-01, 2015 WL 9460398), at p. 2.

⁶⁷² The "knowing" prong is broader in KORUS and the US-Singapore FTA (Article 16.4.7(a)) than the US-Chile FTA (Article 17.7.5(a)) as they add a "reasonable grounds to know" clause (Handler & Mercurio, 2016, p. 330).

⁶⁷³ TPP also requires civil, administrative, and criminal penalties for circumventing 162 / 335

4-4-4. Discussion and Analysis

A broader protection of TPM extended to an access control has been widely criticized as being used by copyright holders in anti-competitive business, stifling free expression and scientific research, preventing non-infringing uses, such as fair use, an overly narrow exception, ⁶⁷⁴ and failing to keep up with changing technologies with inadequate conditions for nonprofit entities. ⁶⁷⁵

Having recognized these problems, the Korean government has long denied stronger protection of TPMs than the international standards. Therefore, it was natural that the Korean negotiators strongly objected the US' demand for an expansive protection of TPM. In preparing the 2nd round of talk, the Korean negotiators posited that penalties against circumvention of access control TPM would undermine the user's right to access to information and provide an overly extensive protection for copyright holders. They viewed that the protection of TPM should remain as supplemental tools for ensuring an effective exploitation of copyright holders in digital environment. This position was sustained at least until the 6th round of talk. At the hearing of the National Assembly, the Trade Minister also confirmed that the strategy of Korean negotiators for the 3rd round of talk was to negotiate TPM within the boundary of domestic copyright laws that did not prohibit circumvention of the access control TPM. However, the stronger protection of TPM was one of the non-negotiable trade policies of the US, and KORUS incorporated what the US demanded.

To implement KORUS, the Korean Copyright Act was revised to embrace protection of access control TPMs. Still its impact is limited. Prior to KORUS entering into effect, the Korean courts interpreted TPMs for "copy control" so

TPMs or selling devices and services for breaking TPMs, subject to certain exceptions for noninfringing uses. While KORUS appears to confine exceptions and limitations to specified measures, TPP appears to set out broader parameters for providing exceptions and limitations regarding circumventing TPMs. According to USTR, "TPP's anti-circumvention of [TPMs] provisions do not preclude new exceptions, like cellphone unlocking, while still protecting new online services that engage in legitimate digital trade (USTR, n.d.).

⁶⁷⁴ Handler & Bryan Mercurio, 2016, p. 331.

⁶⁷⁵ United States Copyright Office, 2015, p. 81373. According to this notice, the Register of the U.S. Copyright Office concluded that the statutory exemptions for reverse engineering, encryption research, and security testing, and activities for non-profit entities have been proven compelling.

broadly as to encompass an access code for a computer game. For instance, in "PlayStation 2 mod chip" case, 676 the Korean Supreme Court held that an access code for "PlayStation" was a technical protection measure within the meaning of the Computer Program Protection Act ("CPPA"). 677 Users could not run the PlayStation 2 game program by copying it and reproduction of the access code was impossible with normal device and software. Further, the access code or boot ROM itself was unable to block physical copy of the program. Then, the mod chip, a circumventing device called "Blue Messiah Chip" that the defendant manufactured and sold, according to the court, was equivalent to means for preventing physical copying, a TPM within the meaning of the CPPA. In other words, the court viewed that the mod chip replaced the function of the access code. Later, the Supreme Court granted protection on technological measures against: (1) a patch program that could decode, without authorization, encrypted control words transmitted by satellite broadcasting service providers, and enabled users to freely watch the broadcasted programs;⁶⁷⁸ (2) a circumventing tool that made DS game devices of Nintendo to treat the pirated game software as if it was licensed:⁶⁷⁹ and (3) a circumventing tool enabling karaoke businesses to perform for their customers newly released songs without paying music copyright holders. 680

-

⁶⁷⁶ The Supreme Court, 2004Do2743, February 24, 2006.

⁶⁷⁷ The CCPA is a special law to Copyright Act and was enacted in 1986 as a consequence of bilateral agreement between the US and Korea, aiming at 5-years retroactive protection of computer programs created by US citizens. On the other hand, the Supreme Court rejected a technological measure banning access to a computer program used in chauffeur service (The Supreme Court, *2010Do1422*, February 23, 2012).

⁶⁷⁸ The Supreme Court, 2007Do10735, October 29, 2009.

⁶⁷⁹ The Supreme Court, *2010Do1441*, July 14, 2011.

⁶⁸⁰ The Supreme Court, *2015Do3352*, July 9, 2015. In this case, the Court admitted that around four thousand songs were illegally distributed by the circumvention device, causing serious harms to copyright holder as much as KRW 1.3 billion, and sentenced 2.5 years in jail to the accused who manufactured key elements of the circumventing device.

4-4-5. Three-Step Test and Fair Use

4-4-5-1. Obligation under KORUS

KORUS does not mandate limitations and exceptions of copyright. Instead it confirms that the controversial three-step tests be applied to the reproduction right, which is extended to cover temporary copying, ⁶⁸¹ and to all of the exclusive rights ensured by copyright and related rights clauses. ⁶⁸² With regard to television signal, whether terrestrial, cable, or satellite, any limitations or exceptions for retransmission on the Internet are absolutely prohibited. ⁶⁸³

KORUS, in its footnote 11 of Article 18.4:1, allows a room for more flexible fair use with two limitations: in connection with the reproduction right; and qualifying it by referring to the three-step test.

4-4-5-2. Discussion and Analysis

The fair use footnote is not to fully guarantee the open-ended more flexible limitations and exceptions: it simply reflects the concerns on possible side effects caused by the expansive protection of the reproduction right to temporary storage in electronic form. Further, KORUS restricts the application of fair use within the boundary of three-step test. Under this restriction, Korea had to legislate fair use clause (Article 35ter of the Korean Copyright Act) by mixing the four requirements of Section 107 of the US Copyright Act⁶⁸⁴ and the second and third elements of the three-step test.

Before the enactment of the fair use clause, the most commonly relied-upon defense to a claim of copyright infringement were the specific limitations for

⁶⁸³ Article 18.4:10(b).

⁶⁸¹ Footnote 11 of Article 18.4:1.

⁶⁸² Article 18.4:10(a).

⁶⁸⁴ The four requirements include: (1) purpose and character of the use; (2) nature of the copyrighted work; (3) amount and substantiality of the portion used in relation to the copyrighted work; and (4) the effect of the use upon the potential market for or value of the copyrighted work.

⁶⁸⁵ The first element of three-step test, "certain special cases", was not codified in the Korean Copyright Act because legislators viewed that it did not fit with concept of open ended fair use. For a contrary interpretation that the three-step test does not limit an open-ended exception, *see*, Geiger, Gervais & Senftleben, 2014.

quotation and private use.⁶⁸⁶ However, both were codified in restrictive terms and courts interpreted them narrowly. First, to be a permitted quotation, a so-called "master-servant relationship" has to be met. The condition of master-servant relationship was developed by the Korean Supreme Court from 1990s modeled on Japanese case laws. It requires that "the quoting work is superior, while the quoted work is subordinate".⁶⁸⁷ Therefore, reproducing the whole or a substantial amount of a work is excluded from the permitted quotation. The Supreme Court of Korea later relaxed the master-servant relationship by legitimating reproduction of thumbnail images by search engines.⁶⁸⁸

The open-ended fair use clause induced, albeit slowly, changes the judicial practices. For instance, in 2015, the Seoul Western District Court upheld the fair use defence in a copyrighted photo case, supported by the appeal court. In this case, the copyright holder was Image Making, one of the notorious copyright trolls in Korea. The defendant was a peace movement NGO called Without War. For using a photo of sliced flatfish in a blog posting, Image Making demanded, in a civil litigation, damages of as much as KRW 2 million. In the clause of the property of the propert

In upholding all of the lower court's reasoning, the appeal court found that the use was fair under Article 35ter. Concluding non-infringement, the court considered such factors as: (1) the purpose of the use was not-for-profit, to encourage a vegetarian diet; (2) the photo used in the blog was not substantial; (3) the potential impact on the market or business of the copyrighted work would be small because the main customers of the photo at issue would be advertising companies and restaurant businesses; (4) there was no copyright notice on the photo, making difficult for Without War to recognize the existence of copyright; (5) the degree of creativity of the photo was low; and (6)

⁶⁸⁸ 2005Do7793, February 9, 2006.

⁶⁸⁶ Jong, 2013, pp. 176-194.

⁶⁸⁷ Ueno, 2009, p.170.

⁶⁸⁹ Seoul Western District Court, 2015Na33407, November 26, 2015.

⁶⁹⁰ According to price schedule of copyright holder, the retail price was KRW 300,000.

the used photo was of lower quality than the original. ⁶⁹¹

In other cases, the Korean courts did not admit a fair use defense. For instance, when a liquor wholesaler posted news articles for an exclusive use of its employees, the court held that it conflicted with the normal exploitation of works and unreasonably prejudice the legitimate interests of copyright holders. Furthermore, when a company produced audiovisual materials for an online lecture in which textbooks sold by the plaintiff were used, the court did not view it fair because the textbooks were used for-profit and their potential market value would be substantially undermined. 693

The UN human rights bodies recommends that "national courts and administrative bodies should interpret national copyright rules consistently with human rights standards, including the right to science and culture," and noted the importance of copyright limitations and exceptions to empower new creativity, promote educational opportunity, expand space for noncommercial culture. ⁶⁹⁴ The open-ended fair use clause recently introduced in the Korea Copyright Act has shown how it serves to achieve the recommended states obligation and strike a fair balance in flexible way between the copyright holders and users in various cases described below.

4-5. Patent

4-5-1. Patentable Invention

4-5-1-1. Obligations under KORUS

Article 18.8:1 of KORUS sets forth inventions that can or cannot be entitled for the protection of patent and requirement for patent registration. The first sentence mandates both Parties to make patents available for any invention

⁶⁹³ Seoul Central District Court, 2012GaHap541175, February 12, 2015.

⁶⁹¹ The lower court first ordered a reconciliation of money settlement that the defendant pays half of the retail price (KRW 150,000). However, the defendant raised an objection to this order and asked the court to render a formal decision.

⁶⁹² Seoul Central District Court, 2013Na36100, February 11, 2014.

⁶⁹⁴ Special Rapporteur in the field of cultural rights, *Copyright policy and the right to science and culture*, U.N. General Assembly, Doc. A/HRC/28/57 (Dec. 24, 2014).

directed to either a product or a process, regardless of technical field, which is new, involves an inventive step and is industrially applicable.

Article 18.8.2(b) of KORUS permits both Parties to exclude "diagnostic, therapeutic, and surgical procedures for the treatment of humans or animals" from the patentable inventions. The same Article also allows exceptions for the purpose of protecting *ordre public* or morality including protecting human, animal, or plant life or health or avoiding serious prejudice to the environment.

4-5-1-2. Discussion and Analysis

The scope of patentable inventions directly affects both the right to protection of material interests resulting from scientific production to which he is the author and the right to benefit from scientific progress. Patentable inventions under the domestic patent laws and international IP treaties are not identical to the "scientific production", or "scientific progress and its applications" of the international human rights instruments. Both are different in fundamental purposes, not only in terms of scope. In human right perspective, the moral and material interests of scientific production are protected insofar as a personal link between the scientific productions and creators exists. Further, Author Clause of the international human right laws require authorship for the protection of moral and material interests. By contrast, patentable inventions are determined by quite different requirements, such as industrial applicability, novelty and inventive step. Here, any personal link is not required. 695

The first sentence of Article 18.8:1 of KORUS for patentable invention is the same as Article 27(1) of TRIPS. However, the second sentence of Article 18.8(1) of KORUS is TRIPS-plus because it embraces "any new uses or methods of using a known product". The language used in KORUS is slightly different from TPP. While KORUS says that "each Party confirms that patents shall be available for any new uses or methods of using a known product", TPP prescribes that "each Party confirms that patents are available for inventions claimed as at least one of the following: new uses of a known product, new

⁶⁹⁵ Gordon observes that the current IP law has two primary conceptions of who counts as a creator: subjective originality versus being objectively 'first', but patent legal systems do not consistently follow either conception (2010, p. 163).

methods of using a known product, or new processes of using a known product". Further, TPP watered down the obligation; "A Party may limit those new processes to those that do not claim the use of the product as such".

This "new use" clause may foreclose the TRIPS flexibilities that allow a national discretion in determining patentability of inventions. Further, it may systematically ensure the "evergreening" strategy of pharmaceutical companies - an endless extension of patent protection of one pharmaceutical product. For the purpose of striking a proper balance between private and public interests, and at the same time for ensuring respect for a wide range of human rights, flexible patentability requirements, and exclusion from patentable subject matter are recommended for national government to use. 698

The exception for "diagnostic, therapeutic, and surgical procedures" is modelled on Article 27.3(a) of TRIPS with minor change (replacing "methods" of TRIPS with "procedures" in KORUS). No provisions in Korean and US patent laws preclude such procedures from invention. Instead, under the Korean practice, the diagnostic, therapeutic, and surgical method is deemed lacking industrial applicability. ⁶⁹⁹ KORUS contains no exceptional provision to plant and animals, which are excludable in TRIPS (Article 27(3)(b)) and TPP (Article 18.37:3(b) and 4). Therefore, the USTR's advisory committee satisfied with this broader protection of patent, especially for bio-industries. ⁷⁰⁰

⁶⁹⁶ Article 18.37:2 of TPP.

⁶⁹⁷ The term "evergreening" is used to describe patenting or marketing strategies of pharmaceutical industries to extend the period of patent protection or effective period of market exclusivity, which are considered to be unjustifiable and therefore abusive (UN Secretary-General's High-Level Panel on Access to Medicines (2016) Final report: Promoting innovation and access to health technologies, p. 5).

⁶⁹⁸ UN Patent Report of 2015, ¶¶ 64-65.

⁶⁹⁹ Section 5.1 of the Korea Patent Office's Patent Examination Guideline (Amended on 11 February, 2016, Patent Office Bylaw No. 89).

⁷⁰⁰ [ITAC-15 Report 2007, 14-15] "The obligation, which includes patents on plants and animals, reinforces the standards that exist today in Korea and validates the importance of extending, without exclusion, broad patent eligibility for biotechnology products".

4-5-2. Revocation of and Opposition to Patent

4-5-2-1. Obligations under KORUS

Article 18.8:4 of KORUS mandates the grounds to revoke a patent to be the same as those for refusal of a patent registration. The grounds for the refusal are not specified as an obligation. Rather, it simply enumerates certain grounds such as fraud, misrepresentation, or inequitable conduct, all of which are codified in the US Patent Act, but not in the Korean Act. 701

The third sentence of Article 18.8:4 prohibits a pre-grant opposition system.

4-5-2-2. Discussion and Analysis

Restricting the ground to revoke a patent to those for refusing patent grant limits state's discretion to use TRIPS flexibilities on revocation or forfeiture of patent right. 702 It also prevents states from taking ex post measures against patentee's misuse of right such as non-working. Historically, local working has been viewed as a device for the transfer of technology and a tool to balance the exclusive rights of patentees with their obligations towards contributing to public interests ⁷⁰³ as discussed in Section 2-2.

The US' proposal for the ban of pre-grant opposition became a catalyst for Korea to entirely abolish an opposition system itself in 2006. 704 The traditional arguments against the pre-grant opposition system are abuse by competitors and delay in patent granting, leading to an inadequate protection of inventors. However, the empirical data do not support such arguments.

< Table 4-1> Pre-Grant Opposition System from 1971 to 1998

⁷⁰¹ The second sentence of Article 18.8:4 KORUS allowing that either Party may revoke a patent or hold a patent unenforceable on the grounds of fraud, misrepresentation, or inequitable conduct is one of the balancing provisions for public interest. However, Korean government was reluctant to reflect this provision into the domestic laws simply because the provision is not mandatory.

⁷⁰² UN Patent Report of 2015, ¶ 69.

⁷⁰³ Ganguli, 2014, p. 68.

⁷⁰⁴ At that time, the Korean Patent Act allowed only a post-grant opposition, which was enacted on March 1, 1998.

Year	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Opposed	228	218	211	248	323	361	221	327	443	350
Patent Rejected	38	144	124	50	68	85	35	60	66	122
Grant	1,370	1,363	1,118	2,173	1,488	1,594	851	1,426	3,200	3,385
Year	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Opposed	310	364	302	472	530	620	450	384	314	359
Patent Rejected	113	125	63	97	140	121	101	111	52	96
Grant	3,499	5,123	4,512	4,725	4,569	4,652	5,749	5,282	9,283	16,608
Year	1991	1992	1993	1994	1995	1996	1997	1998	Total	
Opposed	199	236	221	223	344	426	421	389	9,494	
Patent Rejected	58	57	55	78	73	66	73	24	2,295	
Grant	17,060	18,372	19,038	19,500	20,661	25,707	38,292	39,430	318,646	

As shown in <Table 4-1>, during the pre-grant opposition period of 1971 to 1998, total grants of patents and utility models were 280,030, and oppositions raised against 9,494 patent publications in Korea. Therefore, the opposition rate is 3.39% and 24.17% of the opposed patent publications were unregistered. When concentrating the time frame to the period when the yearly patent grants exceeded 10,000, and discussions for abolishing the pre-grant opposition system were emerging, i.e., from 1992 to 1998, total number of patent grants and utility models were 181,000, and 2,260 oppositions were filed with 426 patent publications unregistered. Thus, the opposition rate was only 1.25% (among these 18.85% of the opposed patent publications were unregistered). These figures were not substantially changed during the post-grant period from 1999 to 2007 as shown in <Table 4-2> below (the opposition rate of 0.32% and

⁷⁰⁵ The opposition rate should be counted on the number of patent publications that deemed by patent examiners as registable. However, data on such publications is not available from database provided by the Korea Patent Office. Given the small portion of oppositions per grant, the opposition rate counted on the number of grant is a valid approximation.

<table 4-2=""> Post-Grant Opposition System from 1999 to 2007</table>										
Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Opposed	453	377	265	301	274	244	329	378	213	2,834
Patent Revoked	18	56	58	69	84	94	80	83	109	651
Grant	95,503	76,701	78,517	85,273	81,437	83,250	106,228	150,526	126,500	883,935

The pre-grant opposition systems have played a role of a recipe for remedying social cost of low-quality patent and patent trolls. Total According to Drahos who conducted extensive interviews with various patent offices, the pre-grant opposition system was successful for keeping patent quality. As illustrated by Indian experiences, the pre-grant opposition system is particularly important in patients' right to access to essential medicines. The empirical data of Table 4-1> and Table 4-2> demonstrate the remedying function of the pre-grant opposition system without causing abusive delay of patent grant. However, the US has exercised bilateral pressures upon trade partners to drop the pre-grant opposition. Not only Korea, Japan also dropped the pre-grant opposition through bilateral discussion with the US in late 1980s when the US complained that pre-grant opposition was filed by Japanese firms to purposely delay the

 $^{^{706}}$ Compare with figures of European Patent Office in 2015 – opposition rate of 4.4%, and 31% of patents were revoked (European Patent Office, 2015, p. 2).

⁷⁰⁷ Worrel explains the pre-grant opposition is to "increase the efficiency of the examination process, decrease the number of patent erroneously issued, and to avoid giving undeserved protection to patent applicant like NTP" (2011, p. 834).

⁷⁰⁸ Drahos, 2010, p. 148 ("The German and British models of patent administration, which proved to be so influential in the twentieth century, both had pre-grant opposition and some countries such as Australia and India retain it as part of their system. At the interview in the German PO, pre-grant opposition was said to be a very important tool of patent quality").

⁷⁰⁹ Ho, 2009, p. 699 (explaining that the denial of an India Glivec patent seems to have been promoted by a pre-grant opposition filed by the Cancer Patient Aid Association of India).

⁷¹⁰ Drahos, 2010, p. 172.

patent grants on the US inventions.⁷¹¹

Cost of low-patent quality is obvious. Patents that should have not been granted raise prices without adequate compensation to society. They "might damage competition and eventually harm innovation incentives, with detrimental effects for consumers". 712 This holds true regardless of the definition of patent quality; it can be defined either by "techno-economic quality created by the patent's underlying invention" or "legal quality created by the patent's reliability as an enforceable property right". 713

The role of pre-grant opposition becomes more apparent as the patent quality deteriorates. Harhoff et al. demonstrate that patent quality has long been decreasing partly because of low examination standard, which in turn fueled the increase in patent applications.⁷¹⁴ Patent applications also increase when patent protection is stronger, thereby patent becomes more profitable for inventors. Thus, "owners of obvious inventions also have a private incentive to seek a patent".715

Screening quality of patent offices is poor not because patent examiners are under-skilled. It's because of weak incentive and high work load of patent offices. According to the US GAO's survey of USPTO examiners, 70% of examiners admit that "they do not have enough time to complete a through examination given a typical workload". The When the examiners are allotted less time to conduct a patent examination, they were less likely to make timeintensive prior art rejections and more likely to grant a patent.⁷¹⁷ The examiners also have less incentive because there is neither the carrot nor the stick; they are not rewarded for rejecting more patent applications, and they are not

⁷¹¹ Japan Patent Office, 2016, p. 2, footnote 1.

⁷¹² Scellato et al., 2011, p. 19.

⁷¹³ Burke & Reitzing, 2007.

⁷¹⁴ Harhoff et al., 2007, p. 93.

⁷¹⁵ Scellato et al., 2011, p. 3.

⁷¹⁶ USGAO, 2016, p. 2.

⁷¹⁷ USGAO, 2016, p. 10 (USPTO examiners spend about 22 hours total on average on each application from start to final determination).

responsible for incorrectly-granted patents.

Pre-grant opposition system needs to be reintroduced especially where patent quality tends to be low such as in Korea where all of the factors contributing to the low patent quality exist; large number of patent applications, low examination standards, weak incentive of patent examiners and higher workload. In Korea, invalidation rate of patent for five years from 2011 to 2015 turns out to be on average 50.5% in terms of the first instance trial decisions, and workload of Korean patent examiners is five times higher than EPO counterpart. In 2014, the Korean patent examiners had to examine on average 230 patent applications, which is incomparably higher than workload of other patent offices-160 of JPO, 47 of EPO (in 2013), and 77 of USPTO. Restoring the pre-grant opposition system requires a bilateral negotiation with the US. Yet, the bilateral deal would be feasible as the US during the negotiation of TPP changed her position to support the pre-grant opposition procedures. ⁷¹⁹

4-5-3. Patent Term Extension

4-5-3-1. Obligations under KORUS

Under KORUS, a patent term extension is possible for compensating two kinds of delays: delay in drug approval process; and delay in patent examination process, the latter of which is new to Korea.

Article 18.8:6(a) of KORUS requires both Parties to allow the patent term extension for the compensation of unreasonable delay in granting the patent. The unreasonable delay should include a delay in the issuance of the patent of more than four years from the filing date, or three years after a request for examination, whichever is later.⁷²⁰ This provision has a retroactive effect

⁷¹⁸ Korea Patent Office, 2016, p. 3.

⁷¹⁹ New, 2013.

There are two models for this extension. While the US-Chile FTA (Article 17.9(6)) and the CAFTA (Article 15.9(6)(a)) allow for extension in cases of delay in granting a patent of less than five years from filing date or three years from the request of examination whichever is later, majority of FTAs (US-Singapore FTA, US-Morocco FTA, US-Australia FTA, US-Bahrain FTA and US-Korea FTA) allow for extension in cases of delay less than four years from filing date or two years from the request of examination.

regardless of the effective date of the KORUS - the patent term extension should be available for all patent applications filed on or after January 1, 2008.

4-5-3-2. Discussion and Analysis

When KORUS was negotiated, the Korean government estimated that among the registered patents only 0.2% would be subject to the patent term extension for the examination delay, and the patent applications filed on or after January 2008 that were likely to benefit from the term extension would be less than 10 cases per month. Therefore, it concluded that the economic impact was trivial and insignificant. Furthermore, the Korea Patent Office reported to the National Assembly that the KPO would keep the average examination duration for 9.8 months and control it less than 16 months. 721 Since KORUS entering into effect, an application for the term extension for the examination delay was filed only once, but rejected by the KPO as failing to meet the statutory requirement. Although no direct impact has been observed, the KORUS obligation on patent term extension may cause indirect, more harmful effects. The obligation may press KPO to speed up examination process, eventually leading to low patent quality. As illustrated in previous Section 4-5-2-2, KPO has already met the conditions of the low patent quality, and the term extension will add to this condition.

The term extension for compensating delay in drug approval process has been applied in 487 cases for ten years from 2007 to August 2016. In addition to this actual impact, the TRIPS-plus provision is theoretically defective given that the patent right is an exclusive right, not a positive right. When a patent is granted, patent owner can prohibit anyone who, without consent, produces, sells, distributes or uses a product or uses a method covered by the patent claim regardless of whether the patent owners can or cannot work their own product or method. Therefore, the term extension to compensate the period during which patent owners cannot market their pharmaceutical products lacks theoretical justification.

⁷²¹ The Review Report of the National Assembly (2011) p.783.

4-5-4. Grace Period

4-5-4-1. Obligations under KORUS

KORUS mandates a 12-months grace period.⁷²² This extends the existing grace period for additional 6 months in Korea for which a publicly disclosed information may not be considered to be part of prior art.

4-5-4-2. Discussion and Analysis

The additional grace period means that, for others working in the same area of medicines or medical technology, there would be additional uncertainty as to whether they can work on or produce a particular medicine or medical technology disclosed by any person for fear that a patent application may be filed 12 months later.⁷²³

Although a comprehensive qualitative assessment of the extension of grace period needs a further study,⁷²⁴ the following data is sufficient to show a potential adverse impact. Since KORUS entering into effect, more than ten thousand applications for the extended grace period has been filed with the Korean Patent Office, and most of them (99.6%) were granted.

<table 4-3=""> Applications and Grant of Extended Grace Period</table>						
March 15, 2012 to August 31,	Before six	On or after six				
2016	months	months				
Application for exception	15,002	11,396				
Exception granted	14,912	11,355				

⁷²² Article 18.8:7(b).

⁷²³ UNITAID, 2014, p. 25.

⁷²⁴ For potential adverse impact of the grace period to the third party's rights to information, majority of academic views in disfavor of the grace period, *see* UK Patent Office, 2012. According to the analysis of the UK office, the main views from the respondents are that a grace period is not required partly because the grace period would allow "someone to restrict the use of publicly available information by patent applications even though people would not realize that the information is the subject of a patent application until later when the application is actually

4-6. Pharmaceutical Products and TRIPS-plus Protection

4-6-1. Data Exclusivity

Data exclusivity is one of the strongest TRIPS-plus provisions that provide an over-protection on pharmaceutical products, delaying generic entry and restricting patients' right to access to medicine. It is also criticized as unethical by compelling generic producers to conduct duplicate clinical trials on patients.⁷²⁵

KORUS does not use the term "data exclusivity". Instead, it prohibits the approving authority from authorizing generic companies to market the generic product on the basis of data concerning safety or efficacy submitted by originator company. As the data exclusivity was introduced in Korea by the trade pressure from the EC and the existing rules are almost the same as agreed upon between Korea and the EC in early 1990s, this topic will be discussed in detail in the next Chapter (*See* Section 5-5-4).

4-6-2. Patent-Approval Linkage

4-6-2-1. Obligations under KORUS: A 'Harder' Model of Linkage

Drug approval process is "distinct and separate", from the status of patent that may cover drug under an approval examination. The linkage between patent status and drug approval process was invented by the US in 1984, and the US has spread out the linkage system through bilateral and regional trade

⁷²⁵ USFTC, 2003, p. 9 ("The FDA considered retesting of generic drugs to be wasteful if the underlying drug is safe and effective. Moreover, such retesting is unethical because it requires that some risk patients take placebos and be denied treatment known to be effective."). For debates on the data exclusivity, refer to Section 5-5-4.

⁷²⁶ Article 18.9:1 and 2.

⁷²⁷ Bayer Corp. v. Union of India, LPA 443/2009 (Delhi H.C.) (India) at ¶ 28 (cited in Bouchard et al., 2011, p. 440).

⁷²⁸ The US enacted the linkage regulation by the Hatch-Waxman Act (Drug Price Competition and Patent Term Restoration Act of 1984, 21 U.S.C § 355).

agreements.⁷²⁹ In the US, its aim was "to balance the competing goals of stimulating pioneering innovation and facilitating generic entry", ⁷³⁰ and to achieve a balance between "cheaper drugs today and better drugs tomorrow". ⁷³¹ However, in a country having a different structure of pharmaceutical industries and drug regulation system, the linkage regime may not work as intended. It could yield a decline in innovative products, substantial delays in generic entry, increased monopoly price, wasteful litigation and increased public health costs. ⁷³² Due to the potential harmful impact on public health, even the May 10th deal of the US politicians recommended to remove the linkage clause from FTAs. ⁷³³

Reflecting these concerns, the linkage regime was one of the most controversial issues in KORUS negotiation. It has long faced strong opposition from public health advocates, patients' groups and Korean pharmaceutical industries. From the beginning of KORUS negotiation, Korean negotiators were firm in opposing the US' demand on linkage regime. However, it was a non-negotiable trade policy of the US. The USTR and US Congress decided not to apply the May 10th deal to Korea "in view of Korea's relatively higher level of economic

⁷²⁹ In 1993, Canada introduced the linkage system under NAFTA, followed by Mexico in 2003. Most other countries have entered into bilateral or regional trade pacts with the US incorporating the linkage regime, which include Australia, Bahrain, Chile, Singapore and South Korea. Two exceptions are Japan and China but they are not entirely free from the pressure of the US. For the Chinese story, *see* Liu, 2012. In May 2017, the Chinese Food and Drug Administration (CFDA) proposed new linkage regime, under which every applicant for a drug approval has to notify relevant patent holders and the CFDA, upon informed of initiation of patent infringement suit by the patent holders, may delay the drug approval for up to 24 months. For unofficial English translation of official notice of Chinese government, *see* https://www.cov.com/-

[/]media/files/corporate/publications/file repository/alert circular 55.pdf.

⁷³⁰ Bouchard et al., 2011, p. 439.

⁷³¹ Epstein & Kuhlik, 2004, p.11.

⁷³² Bouchard et al., 2011, p. 435.

The May 10th deal refers to "A New Trade Policy for America" adopted by the US Congress and the Administration on May 10th 2007 (*see* Section 4-2-1), requiring USTR to "amend FTA so that there is no "linkage" requirement between drug regulatory agencies and patent issues: in particular, no requirement that the drug regulatory agency withhold approval of a generic until it can certify that no patent would be violated if the generic were marketed."

development". ⁷³⁴ The maximum commitment Korea obtained, at the end of two renegotiations, from the US was a three-year transition period for a full implementation of the linkage obligation.

The patent-approval linkage may take two forms. In a 'soft' model, a patentee may be notified of any generic application that may be in conflict with a patent granted by the Patent Office and listed by the drug approval authority. Under a 'hard' model, the drug approval authority is obliged not to approve marketing of generic drugs if there exists any relevant listed patent. In the 'hard' model, the patentee needs "not seek private enforcement of rights to bar the generic approval". Therefore, by simply listing patent, the patent holder obtains "what is tantamount to an interlocutory injunction ... without having satisfied any of the criteria a court would require before enjoining issuance of" generic approval. The linkage regulations, as Flynn et al put it, "reverse the onus, forcing generic company, blocked from access to market, to affirmatively sue the patent holder in order to gain market access". KORUS adopts the hard model. It is harder than the previous US FTAs and the US domestic regime in two aspects.

First, the KORUS text defines a patent to be linked to the drug approval process as a patent "notified to the approving authority as *covering* that product or its approved method of use (emphasis added)". The product "refers to the previously approved pharmaceutical product, i.e., the original product. However, it is unclear whether the patent is confined to a product patent and a method of use patent, or it broadly covers a process patent. This blurring comes from the word "covering". In contrast to the Australia-US FTA requiring "where that product is *claimed* in a patent", and TPP requiring "an applicable patent *claiming* an approved pharmaceutical product or its approved method of

⁷³⁴ USGAO, 2007, p. 42.

⁷³⁵ Rubinson, 2017, p. 460. The 'soft' and 'hard' models stem from two options that TPP signatory countries may take (Article 18.51 of TPP).

⁷³⁶ Bouchard et al., 2011, p. 436.

⁷³⁷ Flynn, Baker, Kaminski & Koo, 2013, p. 178.

⁷³⁸ Article 18.9:5(a).

use" (emphasis added),⁷³⁹ a patent *covering* a pharmaceutical product under KORUS may include a process claim due to TRIPS. According to Article 28(1)(b) of TRIPS, a patentee on a process has an exclusive right on the product "directly obtained by that process." Therefore, under KORUS, a process claim (e.g., a claim directed to a method for producing a pharmaceutical product) can be notified as *covering* the original product, and the KORUS linkage is more vulnerable to an 'evergreening abuse'.

Second, in KORUS, there is no explicit language allowing an automatic stay. The automatic stay refers to a time period during which a generic approval is prohibited. Under the US law, if a patent holder takes a legal action against generic applicant, the generic approval process automatically stops for up to 30 months. ⁷⁴⁰ In Canada, the automatic stay lasts for up to 24-months. ⁷⁴¹ When there is no predetermined period of stay, the drug approval authority has to wait before approving generic until a court renders the final decision finding that either the listed patent is invalid or generic does not infringe the listed patent. 742 Then, a patent holder, who is likely to lose the case, has a strong incentive to delay court proceedings as long as possible. Given that most of the listed patents are found invalid as shown in previous Section 4-5-2-2, or not covering generics as shown in following Section 4-6-2-3, the incentive to delay is real and big enough to push patentees over the edge into the delay action. Therefore, the automatic stay is considered as a mechanism to balance the patent linkage system by facilitating elimination of weak patents and encouraging timely resolution of patent dispute. 743 However, KORUS fails to alleviate these concerns. Rather, it mandates that if there is no "consent or acquiescence of the patent owner", the generic approval is prohibited "during the term of a patent".

⁷³⁹ Article 17.10:4(a)(i) of the Australia-US FTA and Article 18.53:1(c) of TPP.

⁷⁴⁰ 21 U.S.C. §355(j)(5)(B)(iii). The 30-months period may be prolonged or shortened by court.

Regulations Amending the Patented Medicines (Notice of Compliance) Regulations, SOR/98-166, March 12, 1998, s. 6(1)(2)(3), amending s. 7(1)(e) and 7(5). In 1988, Canada shortened the automatic stay to 24-month from 30-month for the purpose of reducing unnecessary litigation and streamlining the litigation process (Government of Canada, 1998, p. 1055).

⁷⁴² Listing of patent is made on 'Orange Book' in the US and on 'Green List' in Korea.

⁷⁴³ GPhA's letter to USTR on March 2, 2006.

More seriously, at the negotiation table, Korean negotiators denied to accept the US proposal to insert texts for explicitly supporting the automatic stay. This was because the Korean negotiators did not fully understand the function and underlying policy objectives of automatic stay. When this arouse controversy, the Korean negotiators made excuses by asserting that both sides agreed to implement the linkage obligation in an appropriate way each regarded as appropriate, which was, however, not confirmed in a written format.

These two 'harder' elements of the linkage regulation are not actually implemented in Korea. However, they are sufficient to show that the negotiators were far away from balancing approach to mitigate harmful impact of the linkage regime. The agreed harder model also reveals that the extent to which can the trade-centric IP norms move beyond the obligation of TRIPS and the US domestic law. Moving beyond the US domestic law occurred in early 2015 when Korea had to fully implement the linkage obligation in connection with biologics. Linkage of biologics goes beyond even KORUS.

4-6-2-2. KORUS-plus Implementation - Biologics

The linkage clause of KORUS does not define the scope of a pharmaceutical product eligible for the linkage privilege. Such a scope can be inferred from other provisions in the KORUS IPR Chapter. Article 18.8:6(b) for a patent term extension for compensating delay in drug approval process defines "new pharmaceutical product" as a product containing a new chemical entity without mentioning biologics. By contrast, Article 5.8 of Chapter Five (Pharmaceutical Products and Medical Devices) makes clear that pharmaceutical product includes biological products. 744 This broader definition is only valid for the purpose of KORUS Chapter Five, and thus it is fair to conclude that the negotiators did not intend to extend the linkage regulation to cover biological products. This conclusion is also supported by the US domestic law itself, the Hatch-Waxman Act, which was the model for the KORUS linkage provision. The Hatch-Waxman Act does not apply to biologics. Instead, the US enacted, after the signing of KORUS, a new regulation for additional protection of biologics through data exclusivity, not the linkage regime – the Biologics Price

_

^{744 &}quot;For purposes of this Chapter: ... **pharmaceutical product or medical device** means a pharmaceutical, biologic, medical device, or diagnostic product".

Competition and Innovation Act (BPCIA).⁷⁴⁵ Among others, the BPCIA does not contain the 'soft' model for patent-approval linkage (notification process).⁷⁴⁶

Nonetheless, the US government pushed Korea to enact a patent-approval linkage system that applies to biologics. In a letter dated on February 17, 2015 to the Korean Minister of Food and Drug Safety, the US Ambassador maintained that "[T]he United States meets this obligation through the Hatch Waxman Act and the Biologics Price Competition and Innovation Act (BPCIA), and the U.S. system therefore is KORUS-consistent". He reaffirmed that "it is critical that Korea adopts a patent linkage system that covers all pharmaceutical products, in line with KORUS". The US Ambassador wrote this letter to block a bill jointly prepared by Korean lawmakers and civil society groups on public health, which aims to exclude biological products from the linkage regime and to ban the generic exclusivity. The pressure of the US did work in preventing the bill from getting majority supports of members of the National Assembly. Korean government also took a position that biological products should be subject to linkage regulation.

4-6-2-3. Impacts of the Linkage Regulation

In 2007, Korean government estimated that potential impact of linkage would be the worst in IPR sectors. The potential impacts of patent-approval linkage

_

⁷⁴⁵ Pub. L. 111-148, §§ 7001-7003 (42 U.S.C. § 262). BPCIA provides for an abbreviated approval pathway for follow-on biologics, or bio-similar products, and at the same time seeks to incentivize innovation by providing originators (reference product sponsors) a longer period of data exclusivity (12-years) (Rubinson, 2017, p. 464).

The notification process of Hatch-Waxman Act is distinguished from a schedule for a series of information exchange between the originator (reference product sponsor) and biosimilar applicant (called as "patent dance") under BPCIA, which is optional as confirmed by the US Court (*Amgen Inc. v. Sandoz, Inc.*, 794 F.3d 1347 (Fed. Cir. 2015)). Kim (2012, pp. 234-236) maintains that the patent linkage of KORUS does not cover biologics because: (1) the US BPCIA does not target patents notified to the approving authority (Instead, patent list is exchanged between original and generic pharmaceutical companies); and (2) the legislative intention of BPCIA was to protect the original biologics by data exclusivity, not by the patent-linkage system.

⁷⁴⁷ For scanned copy of the letter, see Nam. 2015.

⁷⁴⁸ Nam, 2015.

estimated in an official report of Korean government on 27 April 2007 published just after the conclusion of FTA talks, can be summarized in <Table 4-4> below: 749

<table 4-4=""> Ex Ante Estimation of Patent-Approval Linkage</table>					
Category	Result (Yearly average for 10 years)				
Domestic Drug Production Loss (billion KRW)	67.3 to 145.8				
Job Loss (person)	275 to 595				
Increase in Drug Costs of Public Health Insurance (billion KRW)	51.7 to 175.4				

The *ex ante* estimation of 2007 was based on the assumptions that: (1) due to patent-approval linkage, market entry of generics would be delayed for 9 months; (2) patent infringement litigations between generic and original drug makers would increase by 40%; (3) winning rate of domestic pharmaceutical companies in patent disputes vis-à-vis foreign companies would be maintained at 66.7%.⁷⁵⁰

The estimated adverse impacts of patent-approval linkage on drug production, job and public health cost, albeit poor methodologies and too rough assumptions, have gained widespread support. The reality, however, turned out to be somewhat different. In a comprehensive *ex post* assessment of 2016, the actual impact of linkage was evaluated to be insignificant. This assessment is mandated by the linkage implementation act,⁷⁵¹ and conducted on the following

pharmaceutical patent litigations since 1988 where domestic firms won the lawsuit in 54 cases. The winning rate was significant in the government's assessment as defeated domestic firms could not market generic products, leading to no impact on delay of generic entry (Government of Republic of Korea, 2007, p. 67).

183 / 335

⁷⁴⁹ Government of Republic of Korea, 2007, pp. 66-71. The estimation maintained substantially the same in a governmental reassessment report of August 2011, which was conducted to reflect renegotiated deals of KORUS of December 2010.

⁷⁵¹ Art. 50*undecies* of the Pharmaceutical Affairs Act (amended on March 13, 2015) provides that the Ministry of Food and Drug Safety shall conduct an impact assessment of patent-approval linkage regime, including impacts on domestic pharmaceutical industry, health policies, and jobs, as well as analysis on foreign

- Number of patents listed on the Green List from 2012 to 31 May 2016: 908;
- Number of original products covered by listed patents (same period): 1,186;
- Generic applications: 2,146 generic products have been applied for marketing approvals against 151 listed original products from 12
 December 2012 to 31 May 2016; and 672 generic products have been applied for marketing approvals against 108 listed original products from 15 March 2015 to 31 May 2016;
- Patent dispute: 1,869 patent trial cases from 15 March 2015 to 31 May 2016;
- <u>Prohibited generic approval</u>: 17 requests have been filed by originators to bar generic approval, with 3 granted, 2 rejected, 3 withdrawal and 9 pending; and
- Generic exclusivity: 204 generics were applied for generic exclusivity against 52 listed original products from 15 March 2015 to 31 May 2016 (among these, generic exclusivity has been granted to 152 generic products).

The assessed impacts of the 266-pages-long report can be summarized by <Table 4-4> below.

<table 4-5=""> Ex Post Impact Assessment of Patent-Approval Linkage</table>						
	Result					
Domestic Drug Produ	0.016 to 0.037 or 0.010 to 0.024					
Job Loss (person)	Original Firms	2.75 to 4.66				
	Generic Firms	3.41 to 5.98				
Increase in Drug Cos Insurance (billion KR		0.18 to 0.34				

_

cases.

⁷⁵² Lee, 2016, pp. 51-70.

As shown in <Table 4-5>, the impact of linkage is insignificant, ignorable in terms of production loss, job loss and public health costs. This unexpected result may be explained in two ways. First, it is premature to evaluate the actual impacts given the short time lapse from full implementation (only fifteen months). Second, as a result, there have been only three cases that actually banned generic approval, and the period during which generic entry was barred was only 1.4 months on average. However, tiny portion of originators request to bar generic approval (only 17 requests against 2,146 generic applications), and a steep rise of patent disputes (1,869 cases for the assessment period and about 40 times surge in 2015 from 2013 as explained below) require different interpretations.

Bouchard et al., based on the 'general systems theory', suggest to investigate both structural and functional aspects of different systems of linkage regime to assess the performance of the system relative to its goals and objectives. The their structure-function analysis, the 'structural aspects' refer to "broad administrative, legal, and policy attributes of the linkage regime in differing jurisdictions", and the 'functional aspects' refer to "the output of the regulations in each jurisdiction". They show that the structure and function have a mutually influential relationship through an array of positive and negative feedback loops, and demonstrate that discrete statutory mechanisms and the way these mechanisms interact with relevant provisions of patent and food and drug laws have the potential to substantially alter outcomes and outputs.

One of the discrete statutory mechanisms that primarily affects the ex post

⁷⁵³ The report also explains that the linkage system has been under-used by pharmaceutical industries (mainly by originators) because it is in an early stage of operation (Lee, 2016, p. 78).

⁷⁵⁴ Lee, 2016, p. 88.

⁷⁵⁵ Note that under the Korean linkage system originator has to file a separate request to the approval authority by showing its legal action against the generic applicant and asking ban of generic approval.

⁷⁵⁶ Bouchard et al., 2011, pp. 402-403.

⁷⁵⁷ Ibid. pp. 403-405.

⁷⁵⁸ Ibid, p. 455.

impact of 2016 is generic exclusivity. Secondary effect comes from a statutory mechanism that overly curtails the period of automatic stay. These two factors are not requirements of KORUS as demonstrated in previous Section 4-6-2-1. Therefore, in the strict sense, the *ex post* impact of 2016 is not an impact of KORUS. It's a functional aspect or output of 'administrative, legal and policy attributes' of a distinct Korean linkage system. In a nutshell, (1) the generic exclusivity of 9-month functions to signal an over-reward to generic applicants who successfully challenge the listed patents, triggering, in combination with a window of 14-day to be the 'first' generic, 759 an excessive competition between generic companies, and (2) short period of automatic stay, 9-month, which is the same period of time for the generic exclusivity, discourages originators to rely on the linkage privilege. This conclusion can be confirmed from empirical data on patent disputes.

<Table 4-5> below shows how many patent disputes, in term of trial cases, ⁷⁶⁰ have been arisen from 2013 (when the 'soft' model of linkage was implemented) and a steep rise of patent disputes in 2015 (when the 'hard' model of linkage was implemented).

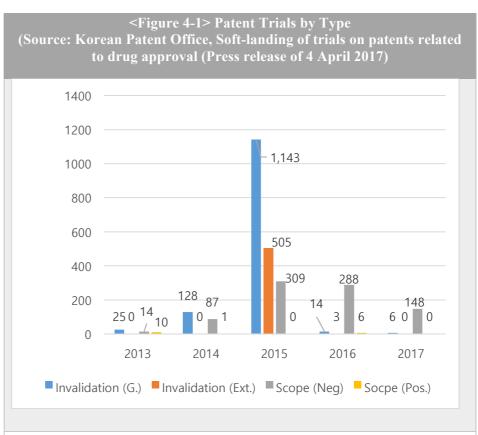
<table 4-5=""> Patent Trials Concerning Patents Listed on the Green List (Source: Korean Patent Office, Soft-landing of trials on patents related to drug approval (Press release of 4 April 2017)</table>						
Year	2013	2014	2015	2016	2017 (March)	Total
Filed	49	216	1,957	311	154	2,687
Decided	37	207	606	63	0	913
Withdrawn	12	9	703	13	2	739

Unlike the Hatch-Waxman model of the US, the Korean linkage model permits 14 days for the eligibility of the 'first' generic. In other words, if a generic applicant challenges the listed patent within 14 days from the date when the 'true' first challenge was initiated by another generic applicant. Due to this 14-day window, multiple generic applicants are involved in a single patent challenge, resulting in a large number in both patent litigations and owners of generic exclusivity.

⁷⁶⁰ Patent trial refers to a proceeding before the Intellectual Property Trial and Appeal Board (IPTAB) established within the Korean Patent Office, which consists of three instance procedures followed by the Patent Court and the Supreme Court.

Procedural Dismiss	0	0	288	0	0	288
Pending	0	0	360	235	152	747

<Figure 4-1> shows that overwhelming majority of patent disputes was initiated by generic applicants who sought the generic exclusivity. Compare the huge number of trials that can only be brought by generic applicants ('Invalidation (G.)', 'Invalidation (Ext.)', 'Scope (Neg.)') with the tiny number of trials initiated by originators ('Scope (Pos.)'. Whereas generic applicants opened 2,670 cases, originators initiated actions only in 17 cases against generic applicants, with none in 2015 and 2017).



- Invalidation (G.): Invalidation trial of a patent grant.
- Invalidation (Ext.): Invalidation trial of a patent term extension.
- Scope (Neg.): Trial to confirm the scope of a patent right, filed by a potential infringer against a patentee, negatively seeking a non-infringement decision.
- Scope (Pos.): Trial to confirm the scope of a patent right, filed by a patentee against a potential infringer, positively seeking an infringement decision.

As revealed from the empirical data on patent disputes above, the operation of linkage regime is governed by one statutory mechanism – the 'generic exclusivity'. Again, the generic exclusivity is not provided in KORUS. It is codified in the US law and allows the first generic company who successfully challenges the linked patent to exclude other generics for 180 days. ⁷⁶¹ The purpose of the generic exclusivity is to provide incentives for generic company to take a risk of challenging the validity of patent.

During legislating the implementation act of patent linkage in Korea, generic exclusivity was controversial. Supporting groups reiterated the incentive argument. The US, the incentive to challenge could be necessary due to high litigation cost. The US are costs in patent dispute in Korea is much less, on average around 1% of the US cost. Benefits of generic exclusivity, such as early resolution of patent disputes outweighed by social costs, which may include: (1) subsequent generic entry being delayed even when there is no risk of patent infringement; (2) potential encouragement of pay-for-delay settlement between a patentee and the first challenger; (3) unfair benefit to patentee as the patentee can duopoly market even when its patent is found invalid or unenforceable; and (4) unequal and disproportionate reward to the first challenger given that there is no such a reward in disputes involving patents for

⁷⁶¹ No other countries having patent-approval linkage systems permit the US model of generic exclusivity, mainly because they do not feel any need to provide incentives to challenge pharmaceutical patents. One exception is Taiwan. In August 2016, Taiwan, in an effort to join TPP, amended domestic laws to introduce patent-approval linkage regime (patent listing and automatic stay of 15-month), and to confer the first generic who successfully challenges the listed patent, a marketing exclusivity for 12-month (Chen, 2016).

⁷⁶² Shin, 2014, p. 1109. Supporters include large scale generic companies, originators, patent lawyers and the Korean government.

⁷⁶³ Ohly, 2010, p. 16. According to the American Intellectual Property Law Association, the average cost in patent litigation of the US was estimated as much as USD 6 million in 2011 (Liu, 2012, p. 646).

⁷⁶⁴ The marketing exclusivity vested to the first generic is unable to exclude marketing of patentee because it can only bar marketing approval subsequent to the first generic. Therefore, for 9-month of generic exclusivity period, the patentee, along with the first generic, can control the market. In other words, the generic exclusivity is tantamount to a duopoly entitlement to originator maker whose patent is found invalid or unenforceable.

other technological fields. Despite of the social costs, the Korea legislation provides the generic exclusivity for "9 + 2" months. 765

These two discrete statutory mechanisms (the generic exclusivity and curtailed period of automatic stay) have produced unintended, somewhat paradoxical, consequences: under-use by originator, and over-use by generic makers. The under-use of originator indicates that one of the policy goals of the linkage regime, i.e., "stimulating pioneering innovation" fails to be achieved. The *ex post* impact assessment of 2016 also reveals that 86% of respondents in pharmaceutical industries replied that there was no impact of the linkage regime on their R&D investments for new drugs, and estimates that R&D investment of original maker would be rather reduced by KRW 34 to 58 million. The over-use by generic maker and a steep rise of patent disputes imply that the first generic exclusivity does not work as intended. This can be explained by the phenomenon of 'trial concentration' as illustrated by <Table 4-6> below.

<table 4-6=""> Top 10 Patent owners and Trials (as of 15 June 2017) (Source: Green List of the Korean Ministry of Food and Drug Safety, https://medipatent.mfds.go.kr)</table>							
No.	Top 10 Pater	t Owners	Top 10 Makers Involved in Disputes				
	Companies	No. of Listed Patents	Patentee / Originator	Trials (Involved Patents) (Trials per Patent) ¹⁾			
1	Novartis	44	AstraZeneca	447 (16) (27.9)			
2	MSD	36	Astellas	280 (11) (25.5)			
3	Jansen	34	Boehringer Ingelheim	252 (13) (19.4)			

⁷⁶⁵ The additional 2-month exclusivity is optional, only granted when the generic product is put under the reimbursement scheme of the National Health Insurance System.

189 / 335

⁷⁶⁶ Bouchard et al., 2011, p. 439.

⁷⁶⁷ The under-use by originator also shows little 'evergreen abuse' in Korea, which is prevented by unintended measures. Comparing with Australia which legislated "anti-evergreening measures that allowed Australia's Attorney-General to join injunctive applications by brand name patent holders against generic manufacturers and claim damages if a price rise occurred" (Tully, 2016, pp. 409-410).

⁷⁶⁸ Lee, 2016, pp. 152, 245.

4	GSK	32	Pfizer	212 (10) (21.2)
5	Roche	28	Bayer	101 (8) (12.6)
6	Pfizer	27	Jansen	97 (11) (8.82)
7	Bayer	26	Takeda Pharma.	76 (4) (19)
8	AstraZeneca	26	BMS	76 (7) (10.9)
9	Takeda Pharma	24	Mitsubishi Tanabe Pharma	75 (3) (25)
10	Boehringer Ingelheim	23	Santem Pharma.	72 (3) (24)
Total		300		1,688 (86) (19.6)

^{1) &#}x27;Trials': The number of patent trials filed before IPTAB including four types of trials of <Figure 4-1>.

<Table 4-6> shows that most of trials are intense on a few patents owned by a small number of original makers. Trials on 86 patents out of 1,504 listed patens occupy 62.8% of whole trial cases. The trial concentration occurs because multiple generic applicants have taken actions against the same patent within the '14-day window'. At first glance, the primary motivation appears to be the generic exclusivity. A trial case that involves the largest number of generic applicants is on a patent for 'Amozaltan' (a hypertension treatment). Twenty generic makers jointly challenged the patent (Registration No. 10-1232296) and got exclusivity on their forty-five generic products. Not only was an expected private gain from the market exclusivity a pivotal motivation; market size does matter. In most cases, expected profitability from the large scale of market is the primary motivation of patent challenge. 'Amozaltan' was one of the superblockbuster drugs in Korea. As demonstrated in joint challenges against patents covering Pfizer's 'Viagra' and GSK's 'Rosiglitazone' in China, the size of market encourages generic makers "to band together and challenge the patents

^{&#}x27;Involved Patents': The number of all patents involved in the trials.

^{&#}x27;Trials per Patent': The average number of trials per patent.

^{*} The number of all patents listed on the Green List: 1,504

covering particularly profitable drugs". ⁷⁶⁹ Behavior of generic makers in patent challenges may depend on various factors such as capabilities to develop certain generic products, "weakness" of patents, likelihood of a successful challenge, and judicial interpretation of the threshold of patentability. ⁷⁷⁰ But the profitability expected from market size is the decisive factor in generic maker's patent challenge as supported by several academic studies. For instance, in the US almost of all blockbuster drugs over the 1995-2000 period have been subject to patent challenges, ⁷⁷¹ and for patents listed on the Orange Book from the 2000 to 2010 period, challenges were "much more common for higher sales drug". ⁷⁷² This holds true even when the challenge was not successful. Grabowski shows that even when patentees win a majority active ingredient (AI) patent litigation (60%), patent challenges for new molecule increasingly extend to stronger AI and core patents. ⁷⁷³

4-6-2-4. Discussion and Analysis

As evidenced above, the competing goals of linkage regime are found frustrated. They are not likely to be achieved in Korea because the overall pharmaceutical market size is incomparably small to the US counterpart. The linkage regime configured by KORUS failed to stimulate pioneering

⁷⁶⁹ Liu, 2012, p. 647.

⁷⁷⁰ Another factor specific to Korean linkage experience is 'jumping on the bandwagon'. Abrupt increase of trials in 2015 (*see* <Table 4-5> and <Figure 4-1>) was the result of flock in filings of March and April, when the 'hard' model of linkage was implemented (698 in March and 861 of April occupying 79.7% of the whole filings in 2015). Uncertainty of the impacts of the 'hard' model became a cognitive bias, pushing multiple generic makers to race to enter the '14-day window'. Sudden decrease of trials in 2016 both in terms of the number of filings and the invalidation trials as shown in <Figure 4-1> also supports the bandwagon effect.

⁷⁷¹ Grabowski & Kyle, 2007, p. 497.

⁷⁷² Hemphill & Sampat, 2012, p. 328.

⁷⁷³ Grabowski, 2014, pp. 26-27.

⁷⁷⁴ According to an IMS report, in 2016, the market size of Korea is as small as 3% of the US one (USD Bn 13.0 vs. 461.7, measured by medicine spending) (Aitken, Kleinrock & Nass, 2016, pp. 8-9). Medicine spending per capita is also incomparable (USD 1,955 in the US and USD 295 in South Korea, Ibid, p. 45). Consensual view of generic industries is that the patent-approval linkage system works when market size is big enough to ensure a significant payoff from a single molecule (Storton, 2012, pp. 5, 10).

innovation. Policy goal to facilitate early entry of generic was achieved only moderately. The *ex post* assessment of 2016 measures that the generic entry was shortened by 8.2 months in the case of 'Amozaltan' ('Amozaltan' is the only case that the assessment conducted for the shortened generic entry), but there was no further generic entrance after the 9-month generic exclusivity ended. Then, both from the patent and industry policy perspectives, there is little reason to maintain the linkage regime. However, it is not certain if the outcomes, i.e., the functional aspects of Korean linkage system may mutually influence the structural aspects as the 'general systems theory' expects. One is the regime's early stage in its operation. The other, more significant one, is a limited policy discretion. The linkage regulation is a treaty obligation, requiring bilateral, highly political, negotiation with the US to be reformed.

The human rights discourse may provide policy margins for reforming the linkage obligation. Protection of pharmaceutical patent under the linkage regime deviates too far from the protection of material interests of pharmaceutical inventors. First, the 9-month automatic stay of generic entry, albeit its shorter term vis-à-vis 30-month of the US model, has nothing to do with adequate standard of living of inventors, which has a more direct link with the protection of material interest of author as discussed in Sections 3-3-4 and 3-3-5. Rather, it transforms drug approving authorities into private guards for pharmaceutical companies and converts private costs of patentees in enforcing their rights into a social burden. Second, the generic exclusivity runs counter to the principle of protection of material interest of creator. Generic applicants who successfully challenge patent are not entitled for the protection because what they do has no dealing with creation.

Positive nature of the dissemination side of the right to science and culture requires cultural and scientific policies to be framed in a way to make cultural and scientific creation available and accessible and to remove barriers preventing people from accessing to and using those creations (Section 3-4-2). The linkage regime is found to have little function to enhance availability of innovative drugs, even when it is in the extreme version of IPR protection of the

_

⁷⁷⁵ Lee, 2016, p. 129.

maximalist IP agenda. The barriers to access are found moderate.

There is another stronger reason not to maintain the linkage regulation. In a separate assessment, it was revealed that in 88.4% cases the listed patents were found invalid, and 91.5% of the listed patents are found unenforceable. 776 These figures were obtained from an analysis on 235 trial cases initiated from 2013 to July 2015. They signify that social cost in maintaining the linkage regime is disproportionately higher than social benefit in providing stronger protection for innovative pharmaceutical companies. It is highly disproportionate because whereas when a patent is incorrectly granted and linked to drug approval process, its cost is borne by a society, when a generic is incorrectly approved, leading to a patent infringement, a patentee can recover every cost incurred by the infringement. The high ratio of patent invalidation also suggests that the problem of 'bad' patents be resolved in a way other than the generic exclusivity. The generic exclusivity is a market-based incentive, designed to reward private entities who take the risk of patent challenge. As discussed above, a private gain expected from a loom-large market of relevant medicine may provide a sufficient incentive for patent challenge. 777 Given the social nature of incorrectly issued patent, this problem has to be resolved by public policy. One possible way is an independent review body to correct mistake of patent issuing authorities.

Finally, the evidence presented in this Section also shows that the linkage regulation departs far away from the early trade concerns of IP such as actual practice of new trade and local working of new techniques (Section 2-2-4). And public choice theory discussed in Section 2-4 supporting the choice of TRIPS-plus rules by developing countries as rationale because of benefits from

_

⁷⁷⁶ Chon, 2015. She also found that the invalidation rate in 2014 was 100%, meaning that all of the twenty patents were invalidated by the IPTAB in 2014.

draft of 2013 incorporated a provision for the generic exclusivity (Article QQ.E.17:1(d) – "when a Party delays the grant of marketing approval consistent with subparagraph 5(b)(i), provide an effective reward, consistent with the provisions of this Agreement, for the successful challenge of the validity or applicability of the patent. ...FN 116: A Party may comply with paragraph 5(d) by providing a period of marketing exclusivity in appropriate circumstances to the first such other person or persons to challenge a patent), which was removed from the 2014 draft.

technological transfer and foreign direct investment does not hold true in linkage case of KORUS. It only holds true that maximalist IP concept discussed in Section 2-5 are incorporated in its extreme format. The beneficiary of KORUS linkage system is not pharmaceutical companies, either original or generic producers. Nor patients. The main beneficiary is turned out to be patent lawyers.

4-7. Enforcement

4-7-1. General Remarks

One of the main purposes of the US in bilateral negotiation is to level up the enforcement of IPRs, especially enhanced enforcement provisions that the US sought but failed in achieving at the TRIPS negotiation. During the KORUS talks, the Korean negotiators were more or less sympathetic to the US' TRIPS-plus proposals on IPR enforcement. The bottom line of the Korean negotiators was to keep any ensued domestic legislative changes to a minimum. This was to avoid possible political debates at the approval process within the National Assembly and to prevent potential complaints or trade sanctions from the US.

The outcomes of such negotiation are problematical in three aspects. First, the enforcement section of KORUS unduly narrows state's discretion than TRIPS. As the WTO panel observes in China – Intellectual Property Rights case, ⁷⁷⁸ TRIPS allows more discretion in enforcement (Part III of TRIPS) than protection of IPRs (Part II of TRIPS). However, KORUS removes these discretional flexibilities. Second, it conflicts with the fundamental principles of due process and procedural justice, undermining national obligation to protect human rights, especially everyone's right to fair trial, which is enshrined in the international human rights institutions. Everyone's right to fair trial is a key element of human rights to safeguard the rule of law. Finally, KORUS institutionalizes unfair and inequitable procedures between IP holders and

⁷⁷⁸ China – Measures affecting the protection and enforcement of intellectual property rights (China – Intellectual Property), Panel Report (adopted 20 March 2009) WT/DS362/R.

⁷⁷⁹ Yamane, 2011, p. 419.

⁷⁸⁰ Article 10 of UDHR.

alleged infringers, which can be called an 'IP exceptionalism' instead of rule of law. It provides too much privileges in judicial proceedings for the benefits of IP holders, and produces inequality between parties, unequal opportunities of either party to contest, and an unfair distribution of the burden of proof. Typical example is a presumption obligation.

Article 18.10:3 of KORUS mandates statutory presumption on authorship and subsistence of copyright, and validity of registered patent and trademark rights. This strong presumption in favour of right holders shifts the burden of proof to alleged infringers, which should be applied to criminal proceedings not only civil and administrative proceedings. Presumption in criminal proceeding may bring a conflict with the presumption of innocence, the fundamental principle under which the prosecutors have to show every element of crime and establish that the allegedly infringing activity does not fall into the "circumstance precluding wrongfulness". By shifting this burden, the alleged infringer has to prove his innocence.

In the words of Flynn et al, the IP-exceptionalism enforcement rules implicate "due process and procedural protections against unwarranted deprivation of liberty and property and may deter lawful competition and expression". ⁷⁸²

On the implementation level, it is noteworthy to point out that both the US and Korean domestic laws do not fully implement the presumption obligation. In the US, there exists neither presumption of authorship for "the person whose name is indicated as the author, producer, performer, or publisher of the work, performance, or phonogram in the usual manner", nor presumption of the subsistence of copyright in the work. In Korea, only the authorship is presumed and validity of registered patent and trademark is not presumed. Instead, the Korean Patent Act presumes the negligence of alleged infringer, 783 which is not obligated under KORUS.

⁷⁸¹ By contrast, the Korea-Canada FTA mandates the presumption of authorship and subsistence of right only in civil proceeding involving copyright and related rights (Article 16.13:5).

⁷⁸² Flynn, Baker, Kaminski & Koo, 2013, p. 184

⁷⁸³ Article 130 of the Korean Patent Act.

4-7-2. Civil Enforcement

The provisions for civil enforcement are to ensure to the maximum extent the economic interests of IP holders. For the full compensation for them, KORUS intervenes the way to calculate the amount of damages. KORUS not only guarantees the compensation of "the injury the right holder has suffered as a result of infringement", but also presumes the profit of alleged infringer to be the amount of damages, and forces the court to consider, in determining the amount of damages, the value of infringed goods, "measured by the market price," the suggested retail price, or other legitimate measures of value submitted by the right holder". 785

4-7-2-1. Pre-established or Statutory Damages

KORUS exempts the burden of IP holders to prove their actual harm that has a causal link to the infringement by introducing a pre-established or statutory damage rule. Further, KORUS defines the nature of statutory damages rule differently from that defined by the US courts.

First, it is replaceable of, rather than supplemental to the actual damages rule because right holders of copyright and trademark can choose pre-established damages "in lieu" of the primary remedies such as actual damages and presumed infringer's profit. When choosing the statutory damages track, the right holders do not need to show the difficulty to prove the actual harm or profits.

Second, it is punitive, not compensatory given that KORUS mandates the "preestablished damages shall be in an amount sufficient to constitute a deterrent to future infringements", and that KORUS omits exceptions for innocent or ordinary infringers.

In contrast to the punitive nature, the US Supreme Court observed that "a civil

⁷⁸⁴ Concerning the market value in calculating the 'reasonable royalty', some US courts require that damages be limited to the proven number of instances of actual infringement (Yamene, 2011, p. 495).

⁷⁸⁵ Article 18.10:5(a) and (b).

⁷⁸⁶ Article 18.10:6.

sanction that cannot be fairly to said solely to serve a remedial purpose, but rather can only be explained as also serving either retributive or deterrent purpose, is punishment". Concerning the qualifying condition for innocent infringer, the US court can, pursuant Section 504(c)(2) of the US Copyright Act, reduce the statutory damages lower than the minima when "infringer was not aware and had no reason to believe that his or her acts constituted an infringement of copyright".

The concept of statutory damages is alien in civil law jurisdiction. The underlying principle of the damages relief is to ensure a full compensation of actual injury caused by an unlawful act. Therefore, a causal link between the unlawful act and the injury should be established, in principle, by a plaintiff, or the injured. If there is no actual and causal injury, the person who committed the unlawful act is NOT liable even when an unlawful act takes place. For this reason, at the early stage of the KORUS negotiation, the Korean negotiators were reluctant to accept the US proposal on the statutory damages rule. However, in the end, they accepted the alien rule. The KPO explained the reason was that they felt it necessary for the enhanced protection of trademark holders, and the Korean government departments jointly explained that they considered the concerns (probably of the US negotiators) that in civil litigations on copyright and trademark, right holders were difficult to prove the amount of actual injury and the amount of damages actually admitted by Korean courts were insufficiently low.

So far, the statutory damages rule had a limiting effect in Korea and there have been no awards of statutory damages which are "arbitrary, inconsistent, unprincipled, and sometimes grossly excessive", which have been observed in the US.⁷⁸⁹ It is because Korea implemented it in a restrictive way by enacting only the upper limit of pre-established damages for both copyright and

⁷⁸⁷ *Austin v. United States*, 509 U.S. 602, 610 (1993) (quoted in Samuleson & Wheatland, 2009, p. 461).

The statutory damages rule was modeled on the US law. For the US governmental recommendations for reforming the statutory damages scheme in copyright, refer to White Paper on Remixes, First Sale, and Statutory Damages (the U.S. Patent and Trademark Office (USPTO) and the National Telecommunications and Information Administration (NTIA)), published on January 28, 2016.

⁷⁸⁹ Samuelson & Wheatland, 2009, p. 441.

trademark,⁷⁹⁰ and it is applied only when trademark holders actually use their validly registered mark and when allegedly infringing mark and goods/services are identical to the registered mark and goods/services.⁷⁹¹

4-7-2-2. Destruction of Infringing Goods, Materials and Implements

Under KORUS, when IP holder alleges an infringement, goods, materials, implement, and, in case of trademark counterfeiting, even documents are to be seized, ⁷⁹² and when found pirated or counterfeit, the infringing goods should be destroyed, and the materials and implements used in manufacturing the infringing goods have to be destroyed or disposed of outside the channels of commerce. ⁷⁹³

This obligation reduces TRIPS flexibilities. Unlike TRIPS Article 46, the requirement of "predominant use" of materials and implements in the creation of the infringing goods is not required under KORUS, and the need for proportionality between the seriousness of infringement and remedies orders as well as the interests of third parties of TRIPS is omitted in KORUS. Further, the inclusion of all materials and implements used in the creation of the infringing goods is broader than the US domestic law. Section 503(b) of the US Copyright Act permits a court to "order the destruction or other reasonable disposition of ... all plates, molds, matrices, masters, tapes, film negatives, or other articles by means of which such copies or phonorecords may be reproduced". 794

⁷⁹⁰ For copyright infringement, the upper limit is KRW ten million per copyright work, which is quintuple for willful and for-profit infringement, and for trademark infringement, the upper limit is KRW 50 million. Unlike up to USD two million for willful counterfeit, there is no increased maxima in trademark counterfeit in Korea.

⁷⁹¹ The term "equivalent" is to reflect the definition of "counterfeit trademark goods" of KORUS: "any goods … bearing … a trademark that cannot be distinguished in its essential aspects from such a trademark" (Footnote 30 of Article 18.10:19, which aims at the border measures).

⁷⁹² Article 18.10:8. For the seizure under this Article, it is sufficient that the allegedly infringing goods, material, and implements have a relevance to the act of infringement.

⁷⁹³ Article 18.10:9(a) and (b).

⁷⁹⁴ Griffin, 2011, p. 7.

4-7-2-3. Provisional Relief

KORUS compels in an unbalanced way a provisional relief for IP holders. Article 18.10:27 provides that "[E]ach party shall act on requests for provisional measures *inaudita altera parte*⁷⁹⁵ expeditiously".

This intentionally removes "the safeguards and limitations that TRIPS institutes around such order". Such as "where any delay is likely to cause irreparable harm to the right holder" or "where there is a demonstrable risk of evidence being destroyed" in Article 50(2) of TRIPS. Further, there is no "check and balances" provided by TRIPS Articles 50.3 and 50.4 that require the right holder to provide "any reasonably available evidence ... with a sufficient degree of certainty that the applicant is the right holder and that the applicant's right is being infringed or that such infringement is imminent" and the alleged infringer, in the *inaudita intera parte* measures, shall be notified of the execution of the measures and a review shall take place upon request of the defendant to deciding whether the measures shall be modified, revoked or confirmed".

Both the US and Korea, either at the time of negotiation or during the implementation phase, had no legislations or case laws permitting, in principle, the provisional measures excluding the other party from being heard. Instead, the US courts have long granted a preliminary relief only when the plaintiff shows that (1) she is likely to succeed on the merits, (2) she will suffer irreparable harm from the defendant's conduct, (3) less harm will result to the defendant if the preliminary injunction issues than to the plaintiff if the preliminary injunction does not issue, and (4) the public interest weighs in favor of the plaintiff.⁷⁹⁷

In addition, Korean civil laws make it a rule to hold hearing joinable by the other party and permit court to render an interim injunction without hearing the other party only when such hearing makes unattainable the purpose of the

_

⁷⁹⁵ Latin for "Without hearing the other Party" (UNCTAD-ICTSD, 2005, p. 604).

⁷⁹⁶ Weatherall, 2015c, p. 32.

⁷⁹⁷ Griffin, 2011, p. 8.

injunctive relief. 798 Concerning the need of domestic legislative change for implementing the *inaudita altera parte* obligation, the Korean government explains that as KORUS simply requires the Party to act expeditiously upon requests for provisional measures and does not make mandatory all provisional measures be proceeded without hearing of the alleged infringer, any legislative change is not necessary.

4-7-3. Administrative Enforcement

4-7-3-1. Border Measures

KORUS grants a power to the customs authorities to suspend release of suspected counterfeit or pirated goods into free circulation when a right holder requests to do so with "adequate evidence". The suspension should be applied to "all points of entry to its territory" and remain applicable for at least one year. 800 While the border measures initiated upon the request of right holder control only importation, ex officio measures regulate three types of the flow of goods: importation; exportation; and in-transit shipment.801

Although from the language of Article 18.10:22 of KORUS it is unclear if the actions against the exportation or in-transit shipments are to be taken under the laws of the country of importation, its intention is to block international trade of suspected counterfeit or pirated goods by applying the law of countries taking the border measures. This would expand the economic interests of IP holders extraterritorially because they can exercise their rights even when goods are not

⁷⁹⁸ Article 304 of the Korean Civil Execution Act.

⁷⁹⁹ The requirement of "adequate evidence" is less strict than "prima facie evidence" of Article 51 of TRIPS.

⁸⁰⁰ Article 18.10:19.

⁸⁰¹ Article 18.10:22. The *ex officio* measures refer to an action that "does not require a formal complaint from a private party or right holder" (footnote 31 of the Article), and for the purpose of the *ex officio* actions the in-transit merchandise means "goods under "Customs transit" and goods "transhipped" as defined in the International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention)" (footnote 31 of the Article). Note that not all the US FTAs mandate the ex officio measures against in-transit shipments: the US-Australia FTA §17.11:22 (ex officio with respect to imported merchandise); the US-Singapore FTA §16.9:19 ("goods imported into or exported out of a party's territory").

infringing IPRs in the country of origin and destination. The seizure of Indian generic drugs by Dutch authorities in 2008 sparked this controversy. 802 IP rights are territorial and applicable law in private international laws is to be determined on the basis of strongest territorial link or connection to the legal issue to be decided. 803 This principle is ignored in KORUS.

The border measures of KORUS also force unequal treatment between the owners of IPRs and suspected goods. While IPR holders can request seizure of suspected goods by providing "a reasonable security or equivalent assurance", Article 18.10:20 prohibits an importer from obtaining possession of suspected counterfeit or pirated goods *in any case* including when the importer posts a bond or other security. While the KORUS pact was negotiated, the Korean laws applied the border measures only to goods that were suspected as infringing trademark and copyright, and permitted release of seized goods when the importer of goods requested with posting a bond or other security.

4-7-3-2. Unilateral Commitment for Combatting Book Piracy

KORUS contains an unprecedented administrative enforcement commitment targeting book piracy on university campus. In the second side letter of KORUS IPR Chapter, ⁸⁰⁵ the Korean government vows to police "book piracy on university campus", and increases its efforts to combat illegal book printing

⁸⁰² The Dutch authorities seized the generic medicines produced in India destined to Brazil and other countries pursuant to the European Communities Council Regulation No. 1383/2003 (EC Regulation No 1383/2003) and applying the law of EC transit country. The Dutch court also found the in-transit product as infringing patents of Netherland on the grounds that the legal status of goods in transit is to be assessed as if they had been manufactured in the Netherlands (European Union and a Member State – Seizure of Generic Drugs in Transit, Request for Consultations by Brazil, WT/DS409/1, 19 May 2010, p. 3)

⁸⁰³ Ruse-Khan, 2011a, p. 682.

⁸⁰⁴ Comparing with ACTA Article 18 (A Party may, only in exceptional circumstances or pursuant to a judicial order, permit the defendant to obtain possession of suspect goods by posting a bond or other security). And, Article 53(2) of TRIPS permits for certain forms of alleged IP infringements, the owner/importer of the goods must have the option of posting a security in order to have the goods released (Ruse-Khan, 2011a, p. 676).

⁸⁰⁵ Entitled by USTR "Promoting Protection and Effective Enforcement of Copyrighted Works".

activities pursuant to the Master Plan for IPRs of 2004. 806

Under this unilateral commitments, Korea has to take specific actions no later than six months from the effective date of KOURS to: (1) implement policies promoting use of the legitimate materials by students, lecturers, bookstores, and photocopy shops on university campus; (2) enhance training activities on book piracy enforcement and raise the awareness among enforcement personnel; (3) reinforce enforcement activities with respect to underground book piracy operations; and (4) develop and pursue targeted public education campaign.

Combatting book piracy was one of the long wish lists of the US publishing industries. The American book publishers estimated loss of USD 39 million in 2000 due to the book piracy in Korea, a 56% increase from 1995, 807 and USTR elevated Korea to the Special 301 Priority Watch List from the Watch List in 2004. 808 Since then, IIPA has continuously complained that "massive illegal photocopying in and around university campuses and more complicated pirate offset print operations" were the chief problems facing book publishers in Korea. IIPA further requested, in March 2005, the Korean Minister of Education to encourage every university to devise action plans for reducing book piracy on campus. 809 However, the Ministry simply sent letters to

arguable domestic IPRs infringements. The Plan was administered by the Prime Minister's Office for pan-governmental actions for IPR enforcement, protection and public awareness.

⁸⁰⁶ The Master Plan for IPRs 2004 (original Korean title contained the term "IPRs Protection") was prepared to deal with trade pressures from foreign countries on the

⁸⁰⁷ Choi, 2003, p. 665. However, it is still unknown how are reliable and objective the methodologies that the US copyright industries relied upon for the estimated loss. Later in 2013, the IIPA published methodologies to assess the impact of copyright piracy, but they included only three categories of copyright works: software (including business computer program and entertainment software); motion pictures; and records and music. *See*, IIPA, 2013.

⁸⁰⁸ Korea was removed from the Watch List in 2009. It is interesting to note that when Korea was elevated to the Priority Watch List in 2004, Korean government's efforts to combat piracy on university campuses was assessed as one of the positive steps and the USTR's 2010 National Trade Estimate Report on Foreign Trade Barriers mentioned for Korea that "concerns remain with elevated levels of online piracy, corporate end-user software piracy, book piracy in universities, counterfeiting of consumer products, and a lack of coordination between Korean health and IPR authorities to prevent the issuance of marketing approvals for patent infringing products".

⁸⁰⁹ IIPA, 2006, p. 387.

universities and showed, according to IIPA, little interest since 2006, revealing no evidence of concrete implementation of the action plans or meaningful follow-up by the Ministry. 810 Therefore, IIPA views that the side letter of KORUS builds on the initiative in 2005 with the cooperation of the Ministry of Education. 811 However, given that the commitment in the side letter is purely unilateral, and book piracy was not the Korea-specific issues, 812 it would reasonable to see it as the outcome of package deal between the US and Korean negotiators.

4-7-3-3. Impact of Combatting Measures against Book Piracy

After the official signing of the KORUS pact in June 2007, Korean government dramatically reinforced its enforcement actions against book piracy. According to the leaked wire of the US Embassy to Korea, the Korean government "confiscated 17,811 pirated books in 2008, up from 10,068 in 2007" and deleted 12.16 million printed publications on-line, up from 3.23 million in 2007". 813 Further, the Copyright Protection Center (at that time, one of the governmental organizations), the police and prosecutors engaged in a special enforcement period for 100 days between April and June 2008, confiscating 172,081 items, four times as many illegal DVDs, tapes, CDs, books and pieces of reproduction equipment as were confiscated during the same period in 2007. 814 From then on, official raid on photocopying and printing becomes annual events in and around university campuses, especially when new school semesters begin in March and September.

There are at least two problems with the side letter against book piracy: shifting public resources for the benefits of private sectors; and foreclosing the space for students' fair use.

⁸¹⁰ IIPA, 2009, p. 293.

⁸¹² In the written submission of IIPA to USTR for the 2014 Special 301 Report, print piracy has been prevalent in many developing countries for several years, calling for aggressive actions by law enforcement authorities.

⁸¹³ Wikileaks Cablegate - US Embassy Seoul, 2009 Special 301 - Post Recommendation (16 March 2009).

⁸¹⁴ Ibid.

The problem of resource allocation affects the recognition and in turn behaviors of students who have legitimate rights to copy educational materials for either private studying or educational purposes. According to Article 25(3) of the Korean Copyright Act, which was effective during the KORUS negotiation.⁸¹⁵ those who receive an education at an educational institution may reproduce or make copyright works available to the public provided that it is recognized as necessary for the purpose of education. 816 The purpose of education is interpreted as broadly as to encompass after-school courses such as volunteer activities and club activities that are administered by school, supplemental curriculum and preparing exam, not only the official class curriculum. Further, the law permits students to reproduce whole work when it is inevitable in view of the character of work, the purpose and form of the use. 817 Contrasting the use of copyright works by educational institutions themselves, the student's use is NOT subject to a remuneration scheme. In addition, Article 30 of the Act exempts a private copying from copyright infringement when the use of work is for personal non-for-profit purpose and takes place in a limited space like the home. Therefore, the reprographic copying for private study or for the purpose of receiving education made by students themselves or by someone else on their behalf was, and still is, legitimate. The strong enforcement on book piracy not only forces students feel guilty even when their copying is legitimate, but also actually restricts the fair use of students for educational purposes.

4-7-4. Criminal Enforcement

4-7-4-1. Commercial Scale and "Anything of Value"

KORUS expands the scope that the criminal procedure has to be applied.

KORUS uses the same term "commercial scale" as TRIPS does, but it defines willful copyright infringements to include those having "no direct or indirect motivation of financial gain" and "for purpose of commercial advantage or private financial gain", which includes "the receipt or expectation of anything

⁸¹⁵ Act No. 8101, amended on 28 December 2006, and effective on 29 June 2007.

⁸¹⁷ The student copying is also permitted in Japan (Article 35(1) of the Japanese Copyright Act as amended in 2003) and Australia in a limited range.

⁸¹⁶ The making available exception is to ensure the legitimate use of students attending in online education.

of value". 818

In China-IPRs case,⁸¹⁹ the TRIPS panellist interpreted the "commercial scale" in both qualitative and quantitative terms in dissenting the US interpretation that commercial scale refers to "basically everything that is 'commercial' with the exception of some trivial or *de minimis* activities" (¶ 7.576). However, the "commercial scale" under KORUS is "reduced to the quantitative element of demanding significant amount infringements or, alternatively, to a qualitative element requiring a purpose of commercial advantage or financial gain". ⁸²⁰

Further, the phrase "anything of value" of KORUS is "an incredibly broad definition that would appear to criminalize every "willful" infringing act of copying, which, by definition, gives something of value to its receiver". See The threshold of commercial scale is somewhat higher than DR-CAFTA which requires in Article 15.11:26 criminal liability when there is more than *de minimis* financial harm and the US-Chile FTA defining, in footnote 34 of Article 17.11:22, the commercial advantage or financial gain to exclude *de minimis* infringements. Nonetheless, the definition of "financial gain" of KORUS is low enough to encompass every file sharing on the Internet.

The "financial gain" is modeled on the US No Electronic Theft Act, ⁸²³ which specifically aims at addressing bartering (trading infringing copies of a work for other items), ⁸²⁴ and some US courts interpret it broadly finding "financial gain" or "commercial advantage" when: the infringing material is offered for free; ⁸²⁵ a hotel performs music even if customers do not pay for the performance; ⁸²⁶

921 _.

 $^{^{818}}$ Article 18.10:26(a) and (b) and footnote 33. This is based on Sections 101 (definition for "financial gain") and Section 506 of the US Copyright Act.

⁸¹⁹ WT/DS362/R (January 26, 2009).

⁸²⁰ Geiger, 2012, p. 187.

⁸²¹ Flynn et al., 2012, p. 195.

⁸²² The USTR's advisory committee emphasizes keeping the threshold low (ITAC-15 Report, 2007, p.379).

⁸²³ Pub. L. No. 105-147, 111 Stat. 2678 (1997).

⁸²⁴ USDoJ, 2013, p.57.

⁸²⁵ A&M Records, Inc. v. Napster, Inc., 239 F.3d 1004, 1023 (9th Cir. 2001).

⁸²⁶ Herbert v. Shanley Co., 242 U.S. 591, 595 (1917).

individuals receive cable broadcasts using illegal device to watch programs for which payment should have been paid;⁸²⁷ and an engineering firm uses pirated drafting software to keep overhead low.⁸²⁸

4-7-4-2. Criminal Enforcement as a New Business Model

Although the lower standard of "financial gain" is not legislated into Korean laws, KORUS plays a role to block copyright reform initiatives to address the abusive use of the criminal enforcement.

Soon after the signing of KORUS, Korea experienced a dramatic increase of complaints of copyright crime from 2007. Around one hundred thousands of persons were accused of copyright infringement in a year, and juvenile's victims occupied 24% in 2008. But the actual indictments by the prosecutors were very small: from 2005 to 2013 on average only 7.38% of the complaints were brought to the court. Most of them were for summary proceedings and public trial occupied only 0.22%. Notably in 2008, among the complaints as many as 90,979, only 8 complaints led to the public trial (0.00879%). Among the complaints that were not indicted by the public prosecutors in 2008, around 60% cases were withdrawn by the complainants.

These unimaginable figures, i.e., the skyrocketed increase of criminal complaints on the one hand and the tiny portion of actual trial on the other hand are for two reasons.

First, the threshold for entering the criminal procedure is too low – almost nothing. The only threshold is knowingness. Any infringing act is subject to criminal penalty regardless of the nature or seriousness of offense.

.

 $^{^{827}}$ Charter Comme'ns Entm't I, LLC v. Burdulis, 367 F. Supp. 2d 16, 32 (D. Mass. 2005).

⁸²⁸ USDoJ, 2013, p.58.

The number of complained reduced to a half since 2010 when the Ministry of Culture and the Prosecutors' Office took an interim measure not to prosecute those who were first involved in the copyright infringement crime or minors.

⁸³⁰ The summary proceedings, also called summary indictment, refer to a court proceeding by which judge orders, without attendance of the accused, a fine or penalty. *See*, Korean Minister of Justice, Criminal case procedures available at http://fgn.kics.go.kr/en/jsp/cjp/criminalCaseProcedures09.jsp.

Second, the criminal enforcement has been strategically abused by copyright holders and lawyers. The threat of criminal sanction became a new business model since 2007 when KORUS officially signed. Most of the complaints, 63% in 2008, were raised by law firms. They hired special agents to regularly monitor the Internet and sent warning letters to individuals who conducted technically copyright infringing activity, threatening criminal actions. In exchange of stopping the criminal action, they asked a cash settlement. The criminal enforcement procedure provides copyright holders with a leverage using the threat of criminal action as the initiation of criminal procedure is subject to a complaint by the right holder.

The phenomenon so-called a "business of copyright settlement money" has been widespread and become a serious social problem in Korea for nearly a decade. To fix this problem, several bills to raise the threshold of the copyright criminality has been introduced in the National Assembly. The latest effort makes the statutory requirements for criminal sanction: a for-profit purpose; or harm or injury to copyright holder of more than KRW one million. The copyright industries and like-minded scholars and practitioners presented a united front to the bill when it passed the competent committee in April 2014 and had a legal formality examination ahead. Their opposition was based, among others, on possible disputes with foreign countries, predicted complaints from foreign authors, degradation of general public's recognition on copyright protection, and breach of KORUS, which requires criminalizing copyright violation for purpose of private financial gain. Due to their strong resistance, the reform bill was finally foundered in May 2016.

4-7-4-3. Counterfeiting Labels

For enhanced criminal enforcements, KORUS introduces again alien rules that are targeting counterfeit labels and unauthorized camcording, both of which are based solely on the US laws, and the policy objectives of which are questionable.

⁸³¹ The threshold of KRW one million was modeled on the US laws of "during any 180-day period ... a total retail value of more than \$1,000 (17 U.S.C. § 506(1)(1)(B)).

Article 18.10:28(a) KORUS prohibits knowing trafficking of counterfeit or illicit labels affixed to copyright works even absent willful trademark counterfeiting or copyright piracy. ⁸³² It also prohibits trafficking of counterfeit documentation or packaging for the pirated copies. The mandatory criminal sanction against this ancillary offense is not found in TRIPS and narrowed down in TPPA. ⁸³³

The KORUS obligation is problematic in itself as it is US law-plus. First, the prohibition of counterfeit or illicit labels of KORUS lacks qualifications of the US domestic law requiring a documentation and packaging to be in physical form (§2318(b)(5). Second, restrictive scope of the documentation and packaging that should be "copyrighted" in itself (§ 2318(c)(4))⁸³⁴ is missing in KORUS.

4-7-4-4. Anti-Camcording Provision

The anti-camcording provision set forth in Article 18.10:29 KORUS is problematical in both terms of protection of copyright holders and human rights to participate in cultural life. It mandates criminal procedures against so-called "camcorded version" of film. It applies to any person who "knowingly uses ... an audiovisual recording device to transmit or make a copy of the motion picture ... from a performance of the motion picture ... in a public motion picture exhibition facility". Not only a person who actually uses an audiovisual recording device, but the person who "attempts to use" the device is also subject to the criminal punishment. Using an audiovisual recording device does not fall within the bundle of rights exclusively enjoyable by copyright holder. Nor does attempting to use the recording device. In this sense, KORUS creates criminal offense against a sort of preparatory act. In principle, criminal sanction is

distributed or intended for distributing without the owner's permission.

⁸³² KORUS does not define the illicit labels but according to its mother provision, 18 USC §2318(b)(4), the term refers to labels that are genuine certificates, licensing documents, registration cards or similar labeling components that the copyright owner would normally use to verify that a work is noninfringing, but which are

⁸³³ Article 18.77:3 of TPPA requires only "willful importation and domestic use, in the course of trade and on a commercial scale" and applies when a mark identical to a registered trademark is applied and intended to be used to the same goods or services.

⁸³⁴ USDoJ, 2013, pp.288-289.

applied to act that actually resulted in any crime, and punishing the preparatory act is only allowed in exceptional serious crimes cases such as a murder or an offense against the safety of a state.⁸³⁵

Another problem arises from its immunity from fair use defense. A violation of anti-camcording provision constitutes a separate cause of action independently from infringement of reproduction, distribution or communication to the public rights. Therefore, limitation or exception to the copyright, such as fair use and private end-user copying is not applied. Further the *mens rea* requirement of "knowingly" is lower than the "willfulness" requirement for criminal copyright offenses, and it is not necessary to show copyright infringement. 836 Therefore, the US film industries picked up the anti-camcording provision of KORUS as one of the four "gold standard" provisions bringing significant benefits to U.S. content producers. 837

Entertainment and Copyright Act (18 USC §2319B), enacted by overstated and misleading figures coined by the US entertainment industries. At the US Congress, the US movie industries presented an estimated annual loss of \$3.5 billion the movie industry suffered because of hard-goods piracy to which the "camcorded version" occupied a significant portion. They further complained that "camcorded versions of movies in theatrical release account for more than 90 percent of the first copies of motion pictures illegally distributed on the Internet. Responsive to this claim, the US Congress admitted the significance and urgency of protecting movie industries from the misuse of camcorders. Not surprisingly, such estimation has not been subject to an independent review, and according to Geist and AT&T Labs, most of movie piracy originates from insiders of movie industries; 77% of pirated movies actually come from

⁸³⁵ TPPA does not contain a mandatory provision targeting the camcording (Article 18.77), and ACTA prohibits, which is optional, only actual "copying of cinematographic works" (Article 23.3).

⁸³⁶ USDoJ, 2013, p. 84.

⁸³⁷ Time Warner Inc., Written submission to the USITC, June 21, 2007.

⁸³⁸ The U.S. House Report 109-33 – Family Entertainment and Copyright Act of 2005, p. 2.

⁸³⁹ Ibid.

industry insiders and advance screener copies provided to movie reviewers. 840

For about five years since the anti-camcording provision was implemented in 2012, no actual cases involving those who misused the camcorder in theaters have been reported in Korea. The Copyright Protection Center has not even mentioned camcorded piracy in its annual reports. This appears to imply that the deterrent effect of anti-camcording legislation is working as intended. But, in reality, low-quality in both terms of image and sound of camcorded version has deterred distribution of camcorded films. Those who are familiar with DVD- or Blueray-quality clips do not tend to download and watch the camcorded version.

Actual impacts of the anti-camcording provision occurred in unexpected areas. In 2017, when famous movie stars shared, via their 'Instragram' pages, a few photos taken in theaters while they were watching movies, they were soon accused as violating the Copyright Act. Having faced public criticisms, they deleted the photos and their agencies apologized officially. This anecdote highlights that the "fiction" created by the US copyright industries and their consistent lobbying affects cultural activities and freedom of expression of individuals. Taking still photos in public theater and sharing them with friends are not subject of the anti-camcording legislation. As the US Congress put it, the legislation "would not, and is not intended to, reach the conduct of a person who uses a camera, picture phone, or other photographic device to capture a still photo from an exhibition of a motion picture". 842 Unlike the intended scope, the legislation reached a non-violating conduct, a conduct of individuals who participate in their cultural life.

4-7-5. Online Enforcement: Shutting Down Internet Sites

4-7-5-1. Obligations under KORUS

KORUS contains an unprecedented and extraordinary side letter, entitled "Online Piracy Prevention". It aims at shutting down Internet sites that permit

٠

⁸⁴⁰ Geist, 2007; Simon, 2003.

⁸⁴¹ Geist, 2007.

⁸⁴² The U.S. House Report 109-33, p. 2.

an unauthorized reproduction, distribution, or transmission of copyrighted works. This heinous side agreement was hailed by the USTR's advisory committee as "a very welcome supplement to the FTA principles", ⁸⁴³ but has never appeared again in subsequent bilateral, regional, or plurilateral trade agreements involving the US or other TRIPS-plus demanding members. The lone precedent is the side letter between Russian Federation and USTR when Russia was trying to join the WTO club in 2006. ⁸⁴⁴

It is still unknown how this side letter became a part of the KORUS pact. Yet, from the similarities in terms of intended policy objectives, contents and timing with the Russian letter, it is likely that the KORUS side letter was drafted by Korean government to appease the US counterpart and to conclude the negotiation in a short period of time. The side letter consists of commitments of nine sentences. Excepting the first sentence that declares open-ended policy objectives of shutting down Internet sites by both Parties, the remaining eight sentences are "the very specific unilateral obligations given by Korea to the U.S. government". 845 There, Korea concedes to "providing more effective enforcement" against webhard services and peer-to-peer services, and to "strengthen enforcement of IPRs in Korea" by co-working with "private sector and with the United States and other foreign authorities". Further, Korea vows to issue a specific policy directive, no later than six months after KORUS enters into effect, establishing a joint investigation team for an effective enforcement against online piracy. Also, Korea agrees to take actions in a transparent way to right holders, and prosecute "individuals and companies that profit from developing and maintaining services that effectively induce infringement".

4-7-5-2. Discussion and Analysis

The policy objectives of this side letter cannot be something that is agreed upon by the US and Korea because they conflict with the framework of ISPs safe harbor. The shutting down side letter targets Internet sites that permit an "unauthorized" reproduction, distribution, or transmission of copyright

⁸⁴³ ITAC-15 Report, 2007, p. 381.

⁸⁴⁴ The Russian letter, a work of US copyright industries and USTR (Mendenhall, 2005), is available at http://www.state.gov/documents/organization/96620.pdf.

⁸⁴⁵ Gwen, 2007.

works. Works. However, permitting unauthorized circulation of digital materials, copyrighted or not, is the basic, underlying function of ISPs. Under the US and Korean laws, none of the ISPs are required to provide their services with "authorized" materials. ISPs defined in the safe harbor provisions of KORUS can enjoy exemption from liability even when they permit unauthorized reproduction, distribution, and transmission of copyright works between users. What is the basic, underlying function of ISPs. Under the US and Korean laws, none of the ISPs are required to provide their services with "authorized" materials. ISPs defined in the safe harbor provisions of KORUS can enjoy exemption from liability even when they permit unauthorized reproduction, distribution, and transmission of copyright works between users.

Despite the high praise of USTR's advisory committee, the US government and copyright industries has been indifferent in Korean implementation of the shutting down obligation.⁸⁴⁸ It is because Korea has taken rigorous copyright enforcement measures since KORUS was negotiated, not directly from the shutting down obligation. A graduated response system, or a three strikes law was enacted in April 2009 and the Korean government suspended 487 users' accounts from 2009 to 2012, and sent, from 2009 to 2012, warnings to as many as 240,938 users. 849 Further, under the Korean three strikes rule, the Ministry of Culture may order suspension of online bulletin board services such as webhard or cyberlocker. Even hyper-linking became the target of the three strikes regulation. In September 2013, the Korea government ordered ISPs to delete two hundred posting that provided link information of unauthorized movies. These administrative actions are conflicting with court decision. The Supreme Court made clear several times that providing link information does not constitute a copyright infringement, directly or indirectly. More rigorous measures taken by Korea include a filtering obligation of certain types of ISPs including cyberlocker and P2P service providers, and so-called a webhard

⁸⁴⁶ Comparing the Russian side letter that uses the term "pirated material", "shutting down pirate websites", and "illegal distribution of content protected by copyright and related rights".

⁸⁴⁷ Article 18.10:30 of KORUS.

⁸⁴⁸ In March 2013, the Ministry of Culture replied to a law maker that the US side has never asked Korea of any information on the policies for blocking Internet sites, and there have been no discussions between two Parties including, in the Joint Committee, established pursuant to Article 22.2 of KORUS and co-chaired by USTR and the Korean Minister of Trade for supervising the implementation of KORUS, or in sub-committees and working groups.

⁸⁴⁹ In March 2013, the Korean National Human Rights Commission recommended to consider abolishing the three strikes law (Giblin, 2013, p. 165; Nam, 2013).

registration system. ⁸⁵⁰ These rigorous measures, voluntarily taken by Korean government might make satisfaction the US copyright industries without need of strict enforcement of the shutting-down provisions.

4-8. Conclusion

Regarding the trade dimension of IP discussed in Chapter 2, this Chapter shows that KORUS is distinct from the early trade concerns while fully reflecting the maximalist IP agenda of TRIPS-plus era. Further, this Chapter reveals that the trade-centric IP rules were framed without democratic process of transparency and public participation, and contain a plenty of provisions having a potential of negatively affecting the right to science and culture. Beneficial impact in promoting human rights is rarely observed – only in fair use clause, which is not directly mandated by KORUS, a sort of by-product produced in a way that Korean government blinds dark sides of the overly expansive protection of copyright in temporary storage (Sections 4-4-1 and 4-4-5).

On the normative level, this Chapter reveals that the gap lying between human rights approaches of IP and trade-centric IP norms in KORUS is irreconcilably and irreducibly large. The negotiation history of KORUS shows that human right protection of author was mere bargaining chips, and almost all of the core provisions for TRIPS/WCT/WPPT-plus agenda became a legally binding treaty. Trade-off between negotiators were not made in a way to boost creativity of individuals of both countries or to allow individuals to "actually enjoy particular capabilities". As evidenced in this Chapter, the level of IPRs protection and enforcement under KORUS even goes beyond the US statutes or case laws in temporary storage (Section 4-4-1), patent-approval linkage on biological products (Section 4-6-2-2), provisional relief (Section 4-7-2-3), statutory damages (Section 4-7-2-1), and counterfeiting labels (Section 4-7-4-3).

An in-depth review of negotiation history of KORUS reveals that the pact was

⁸⁵⁰ The filtering obligation and a webhard registration system are closely related to the EU-Korea FTA that prohibits a general monitoring obligation. Thus, this will be discussed in detail in Chapter 5 (see Section 5-6-4).

⁸⁵¹ Romainville, 2015, p. 416.

created no to best serve policy goals of Korea and how successful was the US strategy of forum shift "vertically" into bilateral trade agreement talks. The negotiation history, in terms of failed resistance of grass roots, politicians, and objections of some governmental branches (such copyright and public health), confirms the FTA as a "very efficient tool in the process of promoting neoliberal policies".

On the human rights impact level, KORUS, however, exhibits somewhat complex outcomes. In some areas, apparent adverse impacts were identified, and in other areas there have been no or little impacts. Two explanatory accounts may be offered.

First, the way of implementation matters. Not all of KORUS obligations were implemented as the treaty requires. Some are entirely ignored in domestic legislations or implemented in a restrictive way, which include: (1) presumption of authorship, subsistence of copyright, and validity of trademark and patent rights (no presumption of authorship and subsistence of copyright in the US and no presumption of subsistence of copyright and validity of trademark or patent in Korea, see Section 4-7-1); (2) statutory damages of copyright or trademark infringement (limited implementation in Korea, Section 4-7-2-1); (3) *inaudita intera parte* provisional relief (no actual application in both countries, Section 4-7-2-3); and (5) online enforcement aiming at shutting down internet sites (no implementation in Korea but having equivalent effects through other enforcement measures, Section 4-7-5).

Second account is "context-sensitive" nature of IP protection, strongly depending on the specific industry and varying significantly across sectors. 854 As demonstrated in case studies on the patent-approval linkage, different structure of Korean pharmaceutical industries having incomparably small market size, less litigation costs and distinctive way of implementation (e.g., shorter period for automatic stay of generic approval) produced ignorable impact in terms of production loss of domestic pharmaceutical industries and

⁸⁵² Sell. 2003.

⁸⁵³ Krikorian, 2010, p. 305.

⁸⁵⁴ Machnicka, 2016, p. 440.

public health cost. The linkage case study also reveals that even with its extreme version of TRIPS-plus, the linkage protection failed to achieve intended purpose of "stimulating pioneering innovation". ⁸⁵⁵ In addition, where harmful impacts on human rights were observed, including: extension of copyright protection term (Section 4-4-3); ban on pre-grant opposition of patent (Section 4-5-2); extension of grace period (Section 4-5-4-2); patent term extension for compensating delay in patent grant (Section 4-5-3); measures for combatting book piracy (Section 4-7-3-2); and anti-camcording provision (Section 4-7-4-4), the impacts are not direct from the KORUS texts, and unintended consequences are detected.

KORUS becomes a vehicle for the US to push Korea to take further liberalized measures for the interests of the US business. When Korea expressed its interests in TPP, the US attached conditions of further concessions of Korea and a full implementation of KORUS, which may have adverse impact on human rights. These conditions include environmental regulation on high emission vehicle, cross-border transfer of financial private information, and public health mechanism for pharmaceuticals and medical devices.

The impact of KORUS does not remain within the border of Korea. It crosses the border and affects foreign trading partners. Soon after signing KORUS in 2007, the Korean government in various branches started to regard KORUS as a minimum standard and a model for IPR protection and enforcement to follow in subsequent trade negotiations. Morin explains this with a concept of domino effect of a chain reaction. According to Morin, the broadest goal of the US bilateralism is to create a measurable effect beyond the targeted country and one way to achieve this goal is to create a chain reaction. As the former USTR Robert Zoellick explained, the "idea is to start out with the leading reformers [...] and then try to connect others to it over time", with a hope for the new partners to actively negotiate similar provisions in their treaties with third countries. This is what Korea is doing in RCEP negotiation. For RCEP,

⁸⁵⁵ Bouchard et al., 2011, p. 439.

⁸⁵⁶ Tso, 2014.

⁸⁵⁷ Morin, 2009, p. 178.

⁸⁵⁸ Ibid, p. 177.

Korea proposed TRIPS-plus provisions having an adverse impact on the right to access to medicines. Besides, Korean proposals contain the notorious three-strikes-out rule for copyright protection against repeat infringers.⁸⁵⁹

More profound impact of KORUS, which is not apparent from either the FTA texts or negotiation history, is on an ideational level. The IP protectionism, maximalist IP agenda, and IP exceptionalism have produced ideational changes by affecting the values and perceptions of policy makers and the general public. IPRs infringement does not remain within private affairs of individual IP owners, it is considered as social problems to be addressed by deploying public resources. Therefore, escalating and reallocating public resource toward enhanced IP protection gain acceptance. The prevalent perception on IP is elevated to the status of, what Lemley calls, 'faith-based, religious belief' - they believe in IP as an end in itself, and IP is considered as some kind of prepolitical right to which inventors and creators are entitled, needing no empirical evidence. 860 This, in turn, sparks changes in structure and function of IP policy institutions, and reinforces insider governance of IP offices, making them more vulnerable for regulatory capture. 861 Then, it becomes more difficult for policy makers to consider human rights aspects of IP. In this sense, the locked-in effect and limiting policy space for TRIPS flexibilities stem from both KORUS and inside.

To fix the problem, identifying root is vital. The root of the ideational shift was exogenous but now is endogenous. Driving force of KORUS is explained as a "deal between Korean and U.S. economic elites", ⁸⁶² i.e., the transnational corporations, or as "Korean capitalist rivalry with China and Japan". ⁸⁶³ According Park, concerns on lagging behind in FTA competitions with other Asian nations, Korean capital including Samsung pushed signing of FTAs. ⁸⁶⁴

⁸⁵⁹ Article [X.G.7]: Measures against Repetitive Copyright Infringers on the Internet of leaked RCEP negotiation document.

⁸⁶⁰ Lemley, 2015, pp. 1337-1338.

⁸⁶¹ Deere, 2009a, p. 116.

⁸⁶² Martin, 2011, p. 327.

⁸⁶³ Park, 2009, p. 454.

⁸⁶⁴ Ibid.

This holds true in general but is insufficient to explain the changes of IP policies. Competitive advantages of Korean capitalists lie in manufacturing mainly of electronics, automobiles, ships, semiconductors and steel. In these fields, market barriers of the US were sufficiently low and their preferences in trade deal were limited in certain areas such as services, electronic commerce, government procurement and protection of investors. This observation requires modification of 'three-stage' model of Morin and Bannerman for the explanation of IP policy changes in Korea. According to the 'three-stage' model, (1) coercive pressure of the US triggered strengthening of domestic IP standard in Korea (stage one), 865 (2) institutional changes fuelled transformation of domestic industries from duplicative imitation to creative imitation or genuine innovation, making them stronger in enthusiastic advocators and effective preachers for appropriate IPR protection and diffusing ideas sympathetic to strong IP protection (stage two), 866 and (3) the prevalent paradigm and the perception of the national interest in Korea has shifted in favour of strong IP protection (stage three). 867 As discussed in Sections 1-1 and 2-4, the primary agent gaining power in 'stage two' of Morin and Bannerman's model is not private sector; it's IP offices. They have an administrative power in domestic patent or copyright policies, and is distinct from the private business sectors because they govern the policy-making process and hold control of institutions that are crucial in the interaction of structure and agency.

-

⁸⁶⁵ Morin & Bannerman, 2015, pp. 226-229.

⁸⁶⁶ Ibid. pp. 229-230.

⁸⁶⁷ Ibid, pp. 221, 230.

CHAPTER 5. CASE STUDY: THE EU-KOREA FTA

5-1. Introduction

For the case study on the intersection of the trade-centric IP norms and human rights, this Chapter examines the EU-Korea. The main purpose of this case study is to test the hypothesis of this thesis—the contemporary trade-centric IP norms fail to achieve their intended purposes and cause human rights conflicts. The reason for conducting a case study on the EU-Korea FTA is that among the numerous EU FTAs, the EU-Korea FTA is one of the most far-reaching and comprehensive trade deals, containing TRIPS/WCT/WPPT-plus provisions, and the most ambitious FTA implemented by the EU.

The same methodologies taken in the previous Chapter 4 for testing KORUS are applied here. However, the scope and breadth discussed in this Chapter is narrower than the discussion of KORUS because the EU-Korea FTA contains fewer provisions that have implications on human rights and IP policies. In addition, some of the overlapping contents in both FTAs were previously covered in Chapter 4. The EU-Korea FTA was less controversial than KORUS. In the EU, it was relatively uncontentious because the EU could benefit from the TRIPS/WCT/WPPT-plus commitments previously made between Korea and the US. In Korea, it was less debated because KORUS made the general public, policy makers, civil society members, and the negotiators to regard the deal with EU as less serious.

For analysing the EU-Korea FTA, this Chapter begins with the negotiation history and strategies of the EU and Korea. Then, this Chapter explores in detail, specific provisions that have implications on human rights, primarily the right to science and culture. The human rights impact assessment carried out here covers those resulted from obligations under the general provision, protection of patent and pharmaceutical products, protection of copyright and related rights, and enforcement of IPRs.

⁸⁶⁸ European Commission, 2016 (Report on the FTA), p. 2.

5-2. Negotiation History and Strategies of the EU and Korea

5-2-1. Progress of Negotiations

Negotiations of the EU-Korea FTA officially launched on 7 May 2007, just one month prior to the signing of KORUS. After almost two years, with eight formal rounds of working level discussions (from May 2007 to March 2009), the trade pact was initialled on 15 October 2009. It was signed during the EU-Korea Summit in Brussels on 6 October 2010, ⁸⁶⁹ and the European Parliament gave its consent to the FTA on 17 February 2011, making it provisionally applicable as of 1 July 2011, and fully enforceable on December 13, 2015. ⁸⁷⁰

Long before the EU-Korea FTA was negotiated, many European countries and Korea have maintained close trade relationships. The Framework Agreement on Trade and Co-operation between the EU and Korea was signed in 1996, ⁸⁷¹ and an FTA with the European Free Trade Association (EFTA) was signed on 15 December 2005. However, these relationships have not made trade to be central in the IP policies of each signing party. The Framework Agreement of 1996 contains only one provision (Article 9) for IPRs. Despite inclusion of this provision, it does not impose legally binding obligation for the protection and enforcement of IPRs, merely confirming the implementation of TRIPS. ⁸⁷² Also, the FTA between member states of EFTA and Korea is free from TRIPS-plus provisions. ⁸⁷³ The EU-Korea FTA entirely changed this relationship. It imposed the TRIPS/WCT/WPPT-plus obligations, even adding EU-plus duties (such as a strict ban on retransmission of television signal over the Internet and criminal enforcement provisions). This change was driven concurrently by both parties.

From mid-2000s, the EC altered its trade policy concerning IPRs in bilateral agreements, as disclosed in the EC's strategy paper, Global Europe of 2006, 874

⁸⁷⁰ The agreement was amended in 2014 to allow the Republic of Croatia to join.

⁸⁶⁹ Lakatos & Nilsson, 2016, p. 4.

 $^{^{871}}$ Its upgraded version was signed in May 2010 and entered into force on 1 June 2014.

⁸⁷² The IPR provision was deleted and replaced with an IPR-irrelevant provision for trade and investment in the upgraded text of 2010.

⁸⁷³ see Chapter 7 and Annex XIII of the FTA.

European Commission, External Trade (2006) *Global Europe: Competing in the* 219 / 335

and IPR Enforcement Strategy of 2005. **Traditionally, the EU had not demanded its trade partners to accept IPR standards higher than those required by multilateral agreements such as TRIPS, respecting national discretion. The new trade policy, which is more likely to converge with the practice of the US in its FTAs, *** requires far-reaching IPR standards that go beyond TRIPS and are found in the EU laws. *** Korea also changed its trade policy during mid-2000s to seek comprehensive, high-standard FTAs with world's largest economies including the US, the EU and China. Despite this movement, Korea, however, has not adopted a concrete policy framework in connection with IPRs. When KORUS was signed in 2007, the commitments made by Korea in KORUS IPR sector became the minimum standards for subsequent bilateral negotiations. This means that Korea was ready to accept the EU's proposals of TRIPS/WCT/WPPT-plus provisions insofar as they do neither exceed KORUS nor cause substantial legislative change in Korea. ***

Consequently, IPR was less controversial in the formation of the EU-Korea FTA. Certain disputed issues between negotiators were resolved at the early stage, which include: joining the Singapore Treaty on the Law of Trademarks (Article 10.16);⁸⁷⁹ protection of unregistered design (Article 10.29);⁸⁸⁰

World (November 13, 2006).

 $^{^{875}}$ Strategy for the enforcement of intellectual property rights in third countries. OJ C 29/3 (26 May 2005).

⁸⁷⁶ CIEL, 2007, p. 4.

⁸⁷⁷ Watal observed that the only obvious difference between the EU and US FTAs is that the EU FTAs contain GIs and enforcement more extensive than TRIPS (2014, p. 48).

⁸⁷⁸ Generally, the EU-Korea FTA mirrors the scope of KORUS with some exceptions including no specific chapter on foreign direct investment, disallowance of trade sanction against violations of labor and environment provisions, and a positive-list mechanism for service market opening (Cooper, Jureans, Platzer & Mark, 2011, pp. 1, 16).

⁸⁷⁹ The EU negotiators demanded mandatory compliance with the Singapore Treaty, while the Korean counterparts tried to lower the obligation because the treaty was not effective at that time. They reached to an agreement to water down the obligation that both parties "make all reasonable efforts to comply with" the treaty.

⁸⁸⁰ The EU demanded an exclusive right for unregistered appearance of a product, even when it was known to the public, while Korea pointed out no practical benefit of such a protection. In the end, Korea agreed, for an unknown reason, to keep protecting the unregistered design by the Unfair Competition Prevention and Trade

protection term of registered design (Article 10.30);⁸⁸¹ compliance with the Patent Law Treaty (Article 10.33);⁸⁸² judicial order for the submission of evidence such as banking, financial or commercial documents of the alleged IPR infringers (Article 10.43);⁸⁸³ corrective measures for court order to destroy IPR infringing goods or remove those goods from the channels of commerce (Article 10.47:1); artists' resale right (Article 10.10); and data exclusivity (Articles 10.36 and 10.37). Provisions on trademark and design were easily agreed upon, while the protection of geographical indications (GIs) was the most controversial issue.⁸⁸⁴

All of the outstanding IPR issues were cleared during the sixth round of talks (28 January 2008), excepting GIs and the remuneration right of performers and phonogram producers for public performance of music. A package deal, resolving these issues, was struck at the final stage. The EU withdrew its demands on remuneration rights of phonogram producers and performers for public performance and ten-years period of data exclusivity. In exchange, Korea agreed to expand the border measures to cover patent and GIs in addition to copyright and trademark. The artists' resale right was agreed to be revisited in two years after the FTA entered into effect. On the criminal enforcement rule, both sides commenced negotiation when the working level discussion was officially over at the eighth round of talks (24 March 2009), which will be

Secret Protection Act (footnote 12(a) of Article 10.29).

⁸⁸¹ For the protection term of registered design right, the EU proposed up to 25 years, but Korea successfully countered to lower it to at least 15 years in accordance with TRIPS.

⁸⁸² At that time, among the member states of the EU, only the UK joined the Patent Law Treaty, and thus the final text does not make mandatory both parties to comply with the treaty.

⁸⁸³ Until the second round, Korea had no position on this proposal but in the end accepted the EU's proposal.

Having a few items entitled for the GIs protection, Korea tried to reduce down the the number of protectable GIs. Initially, the EU demanded more than 2,900 agricultural products and foodstuff for GIs, but, in the end, curtailed them to more than 160 products with a preservation of further discussion for adding new GIs.

⁸⁸⁵ The remuneration rights are not included in the final text, but they are related to Article 10.9 as discussed in Section 5-4-3.

⁸⁸⁶ However, until 2016, they have not discussed the resale right (*see*, Section 5-4-5).

discussed in detail in Section 5-6-3.

5-2-2. Implementation of the EU-Korea FTA

Implementation of the EU-Korea FTA is controlled exclusively by the trade bodies of both sides. The FTA establishes a Trade Committee co-chaired by the Trade Ministry of Korea and the Member of the EC responsible for trade. The mandate of the Trade Committee is to ensure a proper operation of, supervise and facilitate the implementation and application of the FTA. Under the Trade Committee, several specialised sub-committees and working groups are established, and IP Dialogue to address topics relevant to the protection and enforcement of IPRs is founded according to an agreement under the IP Chapter. 888

Discussions of the various implementation bodies have been carried out behind closed doors without permitting public engagement and commentary, with details of the discussions kept in secret. However, the EC's annual reports on the implementation of the EU-Korea FTA to the European Parliament show that the implementation discussion serves as a window for the European industries to solve their private complaints. Further, the trade officials in both parties approach public policies such as health-related policy as trade barriers to be removed.

The EC found that the EU-Korea FTA "has worked very well" in favour of the EU mainly because of an unexpected high increase of EU export of goods (55% in the fourth year of FTA implementation) and services (11% in 2014 compared to 2013) to Korea. 889 In order to maintain this trade advantage, the EC has not abandoned the attitude of approaching the public policy of trade partner as a trade barrier. For instance, the EC has tabled, whenever they met at the Working Group on Pharmaceutical and Medical Devices, issues such as the drug pricing system and practices under the Korean public health system and appropriate recognition of the value of innovated, patented drugs in Korean

-

⁸⁸⁷ Article 15.1:3 of the EU-Korea FTA. One exception is the Protocol on Cultural Cooperation.

⁸⁸⁸ Article 10.69:2.

⁸⁸⁹ European Commission, 2016 - FTA Implementation Report, p. 12.

determination of the reimbursement prices of medicines and medical device. 890

Implementation discussions on IPRs have taken place in two tracks: the IP Dialogue; and the Working Group on Geographical Indications (GI Working Group). On these tracks, complaints from the European companies have been the main topic and matters that may affect the interest of IPR industries have been put on the tables. These matters include those not specifically dealt with in the FTA such as trademark squatting, invalidation rates in the Korean patent system, implementation of copyright provision with regard to public performance, and relationship between standard essential patent and competition policy of Korea. ⁸⁹¹ The principal aim of the GI working group is to add lists of new GIs. ⁸⁹²

5-2-3. Strategies of EU for IPRs in the Bilateral Trade Agreement with Korea

When the EU and Korea considered a possible trade deal at the preliminary discussions in 2005 and 2006, ⁸⁹³ the enforcement of IPRs was the top priority of the EU for a bilateral trade deal with Korea. Luc Devigne, head of the IPR unit at the DG Trade of the EC, confirmed that "IP will be [an] extremely high priority, especially effective enforcement ... [And] in a number of trade deals, the EU is planning to go even beyond minimum standards of TRIPS". ⁸⁹⁴ DG

⁸⁹⁰ European Commission, 2015 – FTA Implementation Report, p. 6 (The Working Group had its first meeting on 26-27 April 2012 and has met every year from 2014); European Commission, 2016 – FTA Implementation Report, p. 8.

⁸⁹¹ European Commission, 2013 - Annual Report, p. 7; European Commission, 2014 - Annual Report p. 7; European Commission, 2016 Annual Report pp.9-10. The public performance right does not form a part of the FTA obligation as discussed *infra* Section 5-4-3. Nonetheless, insufficient implementation of the performance right of Korea has been an issue raised every year by the EC.

European Commission, 2014 - Annual Report, p. 7; European Commission,2015 - Annual Report, p. 8; European Commission, 2016 - Annual Report p. 9.

Before official launch of talks for the EU-Korea FTA in May 2007, the EU and Korea first discussed the possibility of a trade deal at the EU-Korea trade ministerial conference in May 2005 and held two consecutive preliminary discussions in July and September 2006 (The Ministry of Foreign Affairs and Trade of Korea (2006, September 25) *Je-2-cha han-EU FTA ye-bi-hyeob-ui gae-choe* [The second preliminary consultation meeting for the Korea-EU FTA] [Press release]. Retrieved from http://www.fta.go.kr/eu/.

⁸⁹⁴ Gerhardsen, 2007.

Trade of EC regarded an insufficient enforcement of IPRs a serious harm to EU business, and solving it became the central objectives of the EC's new ambitious trade policy. In Global Europe of 2006, ⁸⁹⁵ which aims at stimulating growth and creating jobs in Europe by reinforcing the competitive position of EU industry globally, ⁸⁹⁶ the EC pledged to seek strengthening "IPR provisions in future bilateral agreements and the enforcement of existing commitments in order to reduce IPR violations and the production and export of fake goods", in particular against "China, Russia, ASEAN, Korea, Mercosur, Chile and Ukraine". ⁸⁹⁷

However, IPR enforcement was not the single goal of the EC, a more detailed IP chapter, which would be closer to the US-style and cover "the protection of design rights, enforcement as well as geographical indications" were also pursued by the EU as high importance to be included in FTAs. ⁸⁹⁸ The process in which the EC picked up the "priority countries" and their agenda for FTA talks shows the lack of "the condition of representation" required for democratic process of international bargaining, ⁸⁹⁹ and broad public participation in international IPR norm-setting process. ⁹⁰⁰

The "priority countries" were selected by the EC surveying 63 countries based on 290 replies mostly from copyright and trademark industries in the EU.⁹⁰¹ The survey formed a part of the EC's action plans disclosed in the IPR Enforcement Strategy of 2005, ⁹⁰² which led to a one-sided, unified strategy. This was despite

_

⁸⁹⁵ European Commission, External Trade (2006) *Global Europe: Competing in the World* (November 13, 2006).

⁸⁹⁶ EC, 2006 – Global Europe, pp. 2 and 6. Later, in 2010 the EC complemented the Global Europe, main message of which is very similar, but adds a new element for strategic trade dimension for the EU by highlighting cooperation with Brazil, China, India, Japan, Russia, and the US (Pitschas, 2014, p. 214; European Commission (2010) Communication: Trade, growth and world affairs. Trade policy as a core component of the EU's 2020 strategy, COM(2010) 612 final).

⁸⁹⁷ EC, 2006 - Global Europe, p. 13.

⁸⁹⁸ Gerhardsen, 2007.

⁸⁹⁹ Drahos, 2002, p. 161.

⁹⁰⁰ UN Copyright Report of 2014, ¶ 93.

⁹⁰¹ EC (2006, October) Enforcement Survey 2006. Retrieved from http://trade.ec.europa.eu/doclib/docs/2010/february/tradoc 145795.pdf

⁹⁰² European Commission (2005) Strategy for the enforcement of intellectual

its proclaimed intentions not to impose "unilateral solution" upon third countries and to refrain from proposing a "one-size-fits-all" approach to promoting IPR enforcement. Against Korea, the EC indicated that main areas of concerns in term of IPR violation were: counterfeiting (departing from the traditional interpretation of counterfeiting by including infringements of design right, not only trademark infringements); lack of copyright protection prior to 1957 (meaning a shorter term of copyright protection); unauthorised use of geographical indications; and certain restriction on patent licenses for pharmaceuticals. 904

Inserting their voices into the formal discussion of the EU-Korea FTA, European business sectors presented extensive and far-reaching wish lists. For instance, in 2007, the European Chamber of Commerce in Korea provided the EC with information that they deemed needing to be solved through the trade agreement. The information came from various committees within the Chamber of Commerce, including: Beer-Wine-Spirits; Intellectual Property Rights; and Healthcare Committees. They complained regarding various issues such as insufficient court rulings against IPR infringers and insufficient protection of data submitted for approval of pharmaceutical products, and demanded improved enforcement actions, in particular criminal enforcement.

5-2-4. Strategies of Korea for IPRS in the Bilateral Trade Agreement with EU

Until 2004, a free trade agreement with the EU was a part of mid- or long-term project for South Korea. It was changed around 2005 when KORUS was discussed, and pursuing FTAs with the world largest economies, under the slogan of "making Korea a hub for international FTA networks", became the main strategy of Korean trade policy. However, the policy change was not the

.

property rights in third countries, 2005/C 129/03.

⁹⁰³ Ibid, p. 1.

⁹⁰⁴ European Commission (2004) Summary of Survey (Country: South Korea), Retrieved from

http://trade.ec.europa.eu/doclib/docs/2004/august/tradoc 113217.pdf.

⁹⁰⁵ The European Chamber of Commerce in Korea, (2007),. Trade Issues and Recommendations 2007, Retrieved from http://trade.eucck.org/site/2007/.

product of a process in which the voices of the stakeholders in relevant sectors, let alone a wide range of public participation, were heard in a transparent way.

In this context, for the talk of the EU-Korea FTA, the Korean negotiators had no specific strategies in regarding IPRs. As explained previously, Korea was ready to accept the TRIPS-plus agenda, which would not go beyond KORUS. Therefore, the Korean government evaluated the outcomes of the EU-Korea FTA as optimistic, which include:

- Reinforcing the enforcement of IPRs beyond that required by TRIPS;
- Strengthening the level of copyright protection in accordance with the change of technological environment (the same level as KORUS);
- Clarifying obligations related to trademark registration procedures;
- Clarifying the level of protection of registered and unregistered design or appearance;
- Regulating extension of term of protection for pharmaceutical patents and data exclusivity within the scope of KORUS;
- Ensuring protection of Korean geographical indications within the European territory by agreeing mutually protecting GIs registered on Annex 10 (64 items for Korean GIs and 162 items for EU GIs);
- Safeguarding predictability and legal stability of IPR protection by clearly providing the procedurals for civil and criminal remedies against IPR infringements; and
- Suppressing cross border trade of IPR infringing goods by expanding the scope of border measures. 906

5-2-5. Discussion and Analysis

When the trade-centric IP norms had gone global from mid-1980s to 2000s, some IP exporting countries such as the US and the EU adopted a "carrot-and-stick approach", a tactic hinged on threatening countries with commercial retaliation or using economic benefits as an incentive to impose stronger IP protections.⁹⁰⁷ The negotiation history examined here shows that the EU was

-

⁹⁰⁶ Government of Republic of Korea, 2010, p. 367.

⁹⁰⁷ Krikorian, 2010, p. 296.

able to save the cost of the carrot-and-stick approach because of the voluntary liberalization of Korea.

It is challenging to explain the Korea's choice to voluntarily open its market and deregulate IPRs, especially when Korea has been estimated to be the biggest victim of the globalization of IPRs through WTO/TRIPS. One possible explanation is the expectation of the Korean government that cost of deregulating IPRs would be outweighed by an increased access to foreign markets. In this account, TRIPS-plus rules are regarded as a necessary evil in pursuing the liberalized trade environment and it is inevitable for Korean domestic industries to accept the TRIPS-plus norms in the course of competing with companies of the world economies. Another explanation is, as shown in the previous Chapter, "reform-minded liberal economist and policy makers" were successful in expanding their influence within the Korean government since the 1980s. In carrying out their agenda, IPR became a scapegoat. Further, external trade pressures from the US and the EU to elevate the level of domestic IPR protection have forced the policy makers to internalize the IP maximalist agenda.

The case study on the phase of negotiation and implementation of the EU-Korea FTA shows that one particular interest of society, or the business sector, and trade policy makers have dominated the whole process and gained the authority to set agendas. In Korea, there was little procedure permitting public participation in agenda setting for IPR negotiation. In the EU, the consultations took place predominantly with IPR-related industries, such as accessories and apparel luxury goods, entertainment software companies, and copyright associations representing more than 140 European member companies. ⁹¹⁰ They

⁹⁰⁸ A study of the World Bank estimated that the largest impact in terms of change in payment of royalties and licensing fees by an elevated patent protection by TRIPS would be found in the Republic of Korea (The International Bank for Reconstruction and Development (2002) *Global economic prospects and the developing countries*, p. 133 (estimating Korean loss of patent rent of 15,333 in millions of 2000 dollars, almost triple than China, the second largest victim of 5,121 in the same unit)).

⁹⁰⁹ Ministry of Strategy and Finance & KDI School of Public Policy and Management (2015) *South Korea's voluntary unilateral import liberalization during the 1st half of 1980s*, p. 29

⁹¹⁰ European Commission (2006) A summary of the replies to the 2006 227 / 335

reported, without sufficient supporting data and reliable methodologies, widespread copyright piracy and a large number of counterfeit goods in South Korea and complained a discriminatory protection by Korean authorities for local entertainment software industry and refusing assistance in protection for foreign industries.⁹¹¹

Further, the negotiation and discussions of implementation were undertaken amid great secrecy, with "substantial [European] corporate participation but without an equivalent participation of public interests voices". None of the negotiation documents was made public during the negotiation. Even after the pact was transformed into a binding norm having the same effect as domestic laws, no detailed explanation was provided and the talk for implementing the FTA remained secret.

This lack of democratic process results in a failure of consideration of human right aspects of IPRs and raises questions on the efficiency of the norms and its legitimacy. ⁹¹⁴ In larger part, the FTA was a tool that business sectors advanced their private interests at the expense of the public welfare and human rights. The biggest problem in the trade-centric IPR norm setting process examined in this Section lies in that the inherent policy objectives of IPRs *themselves* are inevitably subordinate to wider, more general trade liberalization policies and the vague policy aims of top level politicians. The fundamental policy objectives of IPRs, i.e., striking a fair balance either between "the effective protection of the moral and material interests of authors and ... the right to take part in cultural life and to enjoy the benefits of scientific progress and its

enforcement survey relating to South Korea, Retrieved from http://trade.ec.europa.eu/doclib/docs/2006/october/tradoc_130429.pdf.

⁹¹¹ Ibid.

⁹¹² UN Copyright Report of 2014, ¶ 19.

⁹¹³ When an information disclosure was requested in June 2016 by this author for the full list of documents that have been exchanged between the EU and Korean negotiators for the IPR Chapter, the Korean government, on 4 July 2016, only disclosed a list of five documents for the full list. The disclosed list includes: Presumption of Authorship or Ownership (28 January 2008); GI Protection Level (9 December 2008); EU food GIs transcription into the Korean alphabet (12 December 2008); and EU wines GIs transcription into the Korean alphabet (12 December 2008).

⁹¹⁴ Drahos, 2002, p. 180.

applications", 915 or between "rules of appropriation and rules of diffusion", 916 have lost their grounds in this process as elaborated in subsequent Sections.

5-3. Principles and Objectives of the IPR Chapter of the EU-Korea FTA

5-3-1. Lack of Balancing Consideration and Legitimacy

While the law is a product of the power dynamics within society, it pretends to serve the interests of general public for two reasons. First, by not expressing the winner's interests in a naked manner, the law can force obedience of people. Therefore, examining only the legal texts that appear to promote common interests may fail to reveal the interests that the law actually seeks to pursue. Second, when rulers cannot completely suppress the weak, they must make concessions. In this case, the law has an appearance that reflects the interests of all the members rather than reflecting the interests of the strong. 917

However, the EU-Korea FTA is outspoken in expressing the power relationship in IPRs. It declares that the objectives of IPR Chapter are to facilitate "commercialisation" of IPR products and to achieve an adequate and effective level of protection and enforcement of IPRs. 918 With this explicit revelation of the commercial interests of IPR holders, the FTA loses its legitimacy. The balance between private and public interests in the TRIPS Agreement or between the protection and dissemination sides of the right to science and culture has been collapsed in the EU-Korea FTA. 919 Due to this destruction of legitimacy, it is difficult to expect the voluntary compliance of the members of society. Maintaining these norms should be supported by powerful and coercive means such as civil and criminal enforcement measures and retaliatory trade actions.

⁹¹⁵ General Comment No. 17, ¶ 39(e).

⁹¹⁶ Drahos, 2002, p. 162.

⁹¹⁷ Lee, 1999.

⁹¹⁸ Article 10.1(a) and (b).

⁹¹⁹ The approach of the EU-Korea FTA is quite different from TPP, which recognizes broader range of interests not merely the right holders and users but also service providers and the public (Article 18.4), and recognises the importance of public domain (Article 18.15).

5-3-2. Transfer of Technology and Its Effectiveness

One of the most striking differences between the EU-Korea FTA and KORUS lies in the commitment for technology transfer. Unlike KORUS, the EU-Korea FTA contains a provision for technology transfer. From the human rights perspective, the transfer of technology is an essential element in any system for the protection of the material and moral interests of intellectual productions. ⁹²⁰ It also forms a fundamental element of patent systems. ⁹²¹ Further, as discussed in previous Sections 2-5 and 2-6, the transfer of technology, together with an expectation of increased foreign direct investment, was the decisive incentive that allowed developing countries to join the global trade-centric IP norms. If TRIPs is considered to pursue creation of a safe environment for global trade, IPRs are predominantly deemed an instrument to facilitate technology transfer. ⁹²² Despite this positive aspect, the effectiveness of technology transfer commitment in the EU-Korea FTA is doubtable due to considerable limitations.

First, the obligation of technology transfer of the EU-Korea FTA is a soft commitment, lacking a firm obligation. Article 10.3:1 of the FTA only encourages exchanging views and information on their practices and policies affecting transfer of technology. Also, it simply calls for a particular attention to the conditions necessary to create an adequate enabling environment for the transfer of technology. In the case of TRIPS, the firm obligation for transfer of technology was an unmet demand of developing countries. He lack of a firm obligation turned out to have produced little meaningful results. When considering the tacit nature of technological knowledge, which requires information cost and learning cost as discussed in Sections 2-2-2 and 3-4-2-3, a

⁹²⁰ General Comment No. 17, ¶ 38.

⁹²¹ UN Patent Report of 2015, ¶ 4.

⁹²² Westkamp, 2005, p 98.

⁹²³ Abbott, 2014, p. 168.

⁹²⁴ Watal, 2014, p. 51. Article 7 of TRIPS provides that the protection and enforcement of IPRs should contribute to the transfer of technology, and Article 66.2 of TRIPS imposes a soft commitment only upon the developed countries to "provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members".

⁹²⁵ Abbott, 2014, p. 168.

firm program for the enabling environment is crucial. 926

Second, a more meaningful provision for the technology transfer, which aims to prevent anti-competitive licensing practices, is also restrictive in scope. 927 Under the EU-Korea FTA, each Party has to take measures to prevent or control two kinds of IPRs-related practices and conditions:: (1) the practices adversely affecting the international transfer of technology, which are different from Article 40(2) of TRIPS requiring adverse effects on competition in the relevant markets; and (2) the practices constituting an abuse of IPRs by the right holder, not the abuse of dominant position of IPR holders. 928 Further, the EU-Korea FTA does not take into consideration the unequal bargaining power between licensor and licensee. 929

5-3-3. NT, MFN and Unequal Coalition Effect

As discussed earlier in Section 2-5, the national treatment (NT)⁹³⁰ and mostfavoured nation (MFN) principles are major pillars of the global trade-centric IP. These major elements are missing in the EU-Korea FTA. 931

Behind this absence of NT and MFN is TRIPS. By anchoring to TRIPS, 932 the EU and Korea can benefit from any advantage, favour, privilege or immunity

⁹²⁶ Many economic studies have shown that North-South technology transfer was unsuccessful due to the lack of enabling conditions (Archibugi & Filippetti, 2015, p. 486).

⁹²⁷ For the discussion on the interpretation and possible application of EU's competition law according to technology transfer commitments of the EU FTAs, see Drexl, 2014, pp. 280-283.

⁹²⁸ Article 10.3:2.

⁹²⁹ By contrast, under the EU-CARIFORUM FTA, an abuse of obvious information asymmetries constitutes a separate cause of action to take measures independently from the abuse of IPRs.

⁹³⁰ More accurately, the NT is a "no less favourable" standard rather than a strict equivalent treatment standard.

⁹³¹ Not all of the EU FTAs follow this model. See, for instance, the EU-Peru-Colombia FTA (Article 6.1:3 and 4). In case of US and Asian FTAs, only a minority of them includes NT and MFN provisions, while just over two-thirds of the EU FTAs include such provisions (Valdés & McCann, 2014, p. 16).

⁹³² Article 10.2:1 of the EU-Korea FTA mandates effective implementation of TRIPS and confirms that the FTA complements obligations under TRIPS.

granted by their partner in other FTAs with regard to the protection IPRs. ⁹³³ Undoubtedly, the EU may gain more than Korea in this regard, due to the heightened IPR standards set by the US in earlier FTAs including KORUS. ⁹³⁴ Even without an MFN provision, the EU can benefit from the commitments of KORUS because most of the IP provisions take the form of domestic legislations applicable generally rather than measures specifically applied at the border. ⁹³⁵ In this way, the EU can free ride on KORUS as it did on the US' Section 301 against Korea in 1980s, ⁹³⁶ and as demonstrated in the following Sections 5-5-3 and 5-5-4.

The "multilateralization effect" of NT and MFN standards, ⁹³⁷ which allows IP right holders from across the globe to enjoy the higher IPR standard that an FTA member has offered in various trade deals differs between the EU and Korea. Whereas the EU denies the direct applicability of FTAs including the EU-Korea FTA, ⁹³⁸ Korea admits that any treaties ratified and proclaimed pursuant to the Constitution have the same effect as the domestic laws.

The multilateralization effect is reinforced by treaty accession or compliance provisions that create a "coalition effect". ⁹³⁹ Those provisions are not contained in the General Provision but are scattered throughout the IP Chapter of the EU-Korea FTA. ⁹⁴⁰

⁹³³ Aleman, 2014, pp. 68-69; Drexl, 2016, p. 63.

⁹³⁴ Watal, 2014, p. 48.

⁹³⁵ Valdés & McCann, 2014, p. 39.

⁹³⁶ Drahos & Braithwaite 2002, p. 127.

⁹³⁷ Ruse-Khan, 2016, p. 170.

⁹³⁸ Article 8 of the Council Decision 8525/10 confirms that the EU-Korea FTA "shall not be construed as conferring rights or imposing obligations which can be directly invoked before Union or Member States courts and tribunals". An FTA provision explicitly denying the self-executing effect is found only in Article 6 of Annex 7-A-1 EU Party, List of Commitments in Conformity with Article 7-7 (Cross-Border Supply or Service), saying that "the rights and obligations arising from the list below shall have no self-executing effect and thus confer no rights directly to natural or juridical persons".)

⁹³⁹ Morin explains the coalition effect as creating strategic alliance of like-minded countries in multilateral settings (2009, pp. 182-184).

⁹⁴⁰ For instance, Article 10.5 for the Rome Convention, Berne Convention, WCT and WPPT; Article 10.16 for the Singapore Treaty; Article 10.33 for the Patent Law 232 / 335

5-4. Copyright

5-4-1. General Remarks

The EU-Korea FTA does not incorporate provisions for rules that were mentioned as good practices by the UN Copyright Report of 2014. Instead, it mandates compliance with specific protective rules for copyright and related rights under the international treaties, including the Rome Convention, Berne Convention, WCT and WPPT. 941 For the most part, the EU-Korea FTA imports the relevant EU laws and specifically regulates the term of copyright protection, collective management, right to communication to the public, technological protection measures, right management information, and limitations and exceptions. One of the features of the copyright clauses of the EU-Korea FTA is an emphasis on right of performers, phonogram producers and broadcasting organisations.942

5-4.2. Term of Protection

5-4-2-1. Life plus 70 Years for Authors

Article 10.6 of the EU-Korea FTA extends the copyright protection term to at least the author's life plus 70 years. 943 This Article touches upon only the author's right and controls the case where the protection term is calculated on the basis of a natural person. 944 This restrictive scope was for two reasons.

First, when the FTA was negotiated, the EU was discussing a possible extension of the protection term of rights of performers and phonogram producers. Therefore, the EU was not able to propose a term extension for related rights. 945

Treaty; and Article 10.39 for UPOV.

⁹⁴¹ Article 10.5.

⁹⁴² The EU-Korea FTA does not have any provision for reproduction right, which is in contrast with the draft EU-India FTA (Article 11.4bis) and the EU-Thailand FTA, which incorporates Article 2 of the InfoSoc Directive.

⁹⁴³ This obligation is waived for two years for Korea (Article 10.14).

⁹⁴⁴ One exception applies for broadcasting organisations. Article 10.7 ensures the protection term for no less than 50 years from the first transmission of a broadcast either by wire or over the air, including by cable or satellite.

⁹⁴⁵ In 2011, the EU extended the protection term to 70 years, not 95 years as in the 233 / 335

Second, the negotiators of the EU and Korea realized that they could not harmonise and bridge the gap between their respective domestic laws. For instance, under the European law, 946 the protection term of authors runs for 70 years from the creation date, in the case of works for which the term of protection is not calculated from the death of an author. 947 By contrast, the Korean Copyright Act counts the protection term of works made for hire from the publication date. 948 Further, whereas the EU law provides that the term of protection of cinematographic or audiovisual work expires 70 years after the death of the last of those who have contributed to the creation of the work, 949 the Korean law stipulates that the term of protection runs from the time when the work is published without listing those who are entitled to be authors 950.

5-4-2-2. Impact of the Term Extension

A comprehensive impact assessment of the copyright term extension in terms of overall social welfare or human rights to science and culture would be premature given that only three years have passed since it was implemented. However, the dissemination effect of the term expiration is obvious from following example.

An explosive publication of Hemingway's works hit the bookstore shelve in the first half of 2012. Ernest Hemingway, an American novelist, died in 1961 and copyright on his works expired at the end of 2011 because the term extension of the amended Copyright Act did not go into force until March 15, 2013. Around twenty works, including 'A Farewell to Arms', 'The Old Man and the Sea', and 'The Sun also Rises', ⁹⁵¹ were translated into Korean, and approximately

EC's original proposal. *See*, Directive 2011/77/EU of the European Parliament and of the Council of 27 September 2011 amending Directive 2006/116/EC on the term of protection of copyright and certain related rights.

Directive 2006/116/EC of the European Parliament and of the Council of
 December 2006 on the term of protection of copyright and certain related rights.

⁹⁴⁷ Article 1(6) of the Directive 2006/116/EC.

⁹⁴⁸ Article 41 of the Korean Copyright Act.

⁹⁴⁹ Article 2(2) of the Directive 2006/116/EC.

⁹⁵⁰ Article 42 of the Korean Copyright Act.

⁹⁵¹ In the US, the Hemingway's works are still under copyright protection. For instance, 'The Sun Also Rises' is protected until 2022 because it was first published in 1926 with a copyright notice and was renewed within 28 years

400,000 copies were published in the early of 2012. This is as many as the number of copies published for the previous ten years. Many of the previous publications were "pirate" copies, having been printed without copyright license. The Ernest Hemingway Foundation, founded in 1965 by his widow, Mary Hemingway, and holding copyright on Hemingway's works was not interested in publication of Korean editions. Domestic publishers tried to contact the Foundation to get a permission but communication itself was arduous. Even when they obtained a contact with the Foundation, the permission was simply refused or the royalty rate the Foundation requested was too high. P52 Reportedly, a major publisher in Korea said that as Hemingway was one of the most famous writers worldwide and domestically, they tried, for fifteen years, to contact and get a permission from the Foundation to publish his works, but were only refused.

Expiration of copyright removed all these hurdles and provoked an explosion of publication. However, it did not provoke price competition. New publications were sold at the same price or higher than previously sold. Instead, it provoked competition in the quality of translation. Publishers employed experts and professors in American literature and raced each other, providing opportunities for readers to enjoy unique and diverse beauty in Hemingway's works. In addition, they published relatively less famous works of Hemingway, which had been unavailable in the local language. The same phenomenon occurred in 2013, when another term expiration arrived for authors such as Hermann Karl Hesse, a German-born Swiss poet, novelist and painter, and William Faulkner, an American writer and Nobel Prize laureate.

The Hemingway case shows the problem of copyright barriers for those who are willingness to pay and the significance of real opportunities for the availability of cultural products, which were discussed in Section 3-4. It also suggests that the property based copyright may raise the transaction cost to the extent that actual bargaining is unattainable, and the liability rule may produce more

(http://librarycopyright.net/resources/genie/example.pdf).

⁹⁵² Kim, 2012a (reporting that the minimum royalty rate requested by the Foundation was USD 100,000 per work, which was two or three times higher than the typical rate of classic works for Korean publishers).

⁹⁵³ Ibid.

efficient outcomes as discussed in Section 3-6-2. Due to the term extension for additional twenty years, users in Korea need to wait until 2034 to see the same effect as Hemingway for works of authors who died in 1963.

5-4-3. Right to Communication to the Public and Remuneration Right of Performers and Phonogram Producers

5-4-3-1. Controversies and Compromise on Remuneration Right for Public Performance

One of the controversial issues between the negotiators was a remuneration right of performers and phonogram producers for pubic performance. This issue was raised by the EU at the second round of talks (16 to 20 July 2007). According to the Korean government, the EU proposed to mandate both parties to legislate a remuneration right for performers and phonogram producers when a phonogram was used for performance in public places such as a pub, café, or restaurant. 954

To this proposal, the Korean negotiators responded that they were unfamiliar with the idea and asked time for internal discussions. Later, they took a stand against this proposal on three grounds. First, the remuneration paid to performers and phonogram producers would be a significant burden on the small-scale businesses and in the worst-case scenario, consumers visiting pubs or cafés could not listen to music or the cost would be shifted to the consumers. Second, the protection term for neighbouring rights was agreed upon to be extended to 70 years with KORUS and such expansive protection, equally applied to Europeans, was sufficient to reward performers and phonogram producers. Third, despite the EU's law, the Member States of EU had not fully implemented the remuneration rights in their domestic laws.

At the later stage of talks, the EU withdrew its demand. However, it was not a concession without cost. In return, the EU was able to obtain a concession from

-

⁹⁵⁴ Press release of the Korean Minister of Culture and Tourism (31 August 2007).

⁹⁵⁵ Nam, 2008, p. 12.

⁹⁵⁶ Personal communication, on the condition of anonymity, with an officer of the Korean government on 16 November 2016, who led the copyright team for the negotiation of the EU-Korea FTA.

Korea of expansive border measures for patent, design, new plant varieties, and geographical indications, not only for copyright and trademark. This give-and-take compromise is flawed because the EU proposal cannot extend to cover the public performance of phonograms. The findings of this case study also reveal the lack of expertise of the Korean negotiation team and at the same time exposing the EU's strategy to obtain what they want by pushing overly broader interpretations of its proposal.

5-4-3-2. Interpretation of Communication Right and its Encompassing Public Performance

Among the negotiators, there was no doubt that the EU proposal was modelled on Article 8(2) of the Rental Directive. 957 The Article 8(2) was inspired by Article 12 of the Rome Convention. 958 In order to interpret the EU proposal, it is necessary to determine, first, whether the "communication to the public" under Article 8(2) of the Rental Directive covers a public performance, and, second, if the "communication to the public" under the EU proposal also covers a public performance.

It is clear that the "communication to the public" of Article 8(2) of the Rental Directive covers the public performance. While the communication to the public under the Info. Soc. Directive is limited to the case where the public is not present at the place where the communication originates, the right to communication to the public granted by Article 8(2) of the Rental Directive covers any communication to the public, including the ones where the public is present at the place of the communication. ⁹⁵⁹

Regarding the second issue, the proposed text by the EU for the second round

⁹⁵⁷ Directive 2006/115/EC of the European Parliament and of the Council of 12 December 2006 on rental right and lending right and on certain rights related to copyright in the field of intellectual property, which repealed Directive 92/100/EEC.

⁹⁵⁸ Vanheusden, 2007, p. 17 (In implementing the Rome Convention, the Rental Directive removed the limitation to "direct use", and extended the remuneration right to be additionally payable for the indirect use of phonograms published for commercial purposes).

⁹⁵⁹ Ramalho, 2016, p. 165. As the two Directives employ the same terminology, "communication to the public" and have different concept and scope, it is particularly confusing (Eechoud, 2009, p. 82).

of talks is considered to exclude the public performance or "on the spot" communication, 960 as shown from the draft text below. 961

EC Draft of 6 July 2007 (prepared for the 2nd round of 16 to 20 July 2007)

Article 5.5 – Broadcasting and communication to the public

1. For the purpose of this provision, the right of communication to the public is understood as covering all communication to the public not present at the place where the communication originates. This right covers any such transmission or retransmission of a work to the public by wire or wireless means, including broadcasting. This right does not cover any other acts.

...

3. The Republic of Korea and the EC shall provide a right in order to ensure that a single equitable remuneration is paid by the user, if a phonogram published for commercial purposes, or a reproduction of such phonogram, is used for broadcasting by wireless means or for any communication to the public, and to ensure that this remuneration is shared between the relevant performers and phonogram producers. The Republic of Korea and the EC may, in the absence of agreement between the performers and phonogram producers, lay down the conditions as to the sharing of this remuneration between them.

The proposed Article 5.5(3) aims at a remuneration right for performers and phonogram producers ("a single equitable remuneration paid by the user"). This right is confined to the case of the secondary use of phonogram, i.e., "if a phonogram ... is used ... for any communication to the public". The meaning of communication to the public is defined in Article 5.5(1) as excluding the "on the spot" communication. It provides that the communication refers to "all communication to the public not present at the place where the communication originates". In addition, the Article begins with a clarifying phrase "[F]or the purpose of this provision". Therefore, it is clear that when the EU proposed the remuneration right, they intended to exclude the public performance. This structure was maintained until fifth round of talks. ⁹⁶²

⁹⁶⁰ Eechoud, 2009, p. 82.

⁹⁶¹ Unpublished text, on file with author.

⁹⁶² The clarifying phrase and the limitation of "not present at the place where the communication originates", which stems from the Recital 23 of the Info. Soc.

One notable change occurred after the seventh round where the EC allegedly withdrew its demand. The expression in the previous proposal to exclude "on the spot" communication was removed. Instead, the EC proposal introduced a new definition of the communication to the public, "transmission to the public by any means", and broadcasting was isolated from the concept of communication to the public. Moreover, the EC split the remuneration right into two sub-paragraphs, as shown below. ⁹⁶³

EC Draft of October 2008 (between the 7th round (May 2008) and 8th round (March 2009))

Article 9.5.5 – *Broadcasting and communication to the public*

1. For the purpose of this provision:

...

b) communication to the public means the transmission to the public by any medium, otherwise than by broadcasting, of sounds of a performance or the sounds or the representations of sounds fixed in a phonogram; however for the purpose of Paragraph 5, communication to the public includes making the sounds or representations of sounds fixed in a phonogram audible to the public.

. . .

- 3. Each Party shall provide a right in order to ensure that a single equitable remuneration is paid by the user, if a phonogram published for commercial purposes, or a reproduction of such phonogram, is used for broadcasting by wireless means or for any communication to the public.
- 4. Each Party shall establish in its legislation that the single equitable remuneration shall be claimed from the user by performers or producers of phonograms, or by both. Both Parties may enact legislation that, in the absence of an agreement between performers and phonogram producers, sets the terms according to which performers and producers of phonograms shall share the single equitable remuneration.

This proposal became the final text, Article 10.9 of the EU-Korea FTA, having

_

Directive, are also found in the texts of EC proposals of 12 December 2007 (prepared for the 6th round of 28 January to 1 February 2008).

⁹⁶³ Unpublished text, on file with author.

the same title with the same structure of sub-paragraphs. The final proposal was modelled on Art. 15 of WPPT. Despite the final text deleting the limiting expression to exclude "on the spot" communication, it is clear that the Article does not include public performance of phonogram because it uses the term "transmission" when it defines the communication right. The term "transmission" is not used in the Rental Directive. It is used in the Info. Soc. Directive, Recital 23 of which says "[T]his right [the communication right] should cover any such transmission or retransmission of a work to the public by wire or wireless means, including broadcasting". Transmission, by definition, excludes any distribution of works in the form of tangible object. It also excludes non-copy communication carried out without wire or wireless means.

5-4-3-3. Discussion and Analysis

The case study conducted here reveals a flawed compromise between the EU and Korea. The finding also shows the importance of transparency in IPR norm setting. If the negotiation texts were not kept confidential to for a small circle of negotiators but open to a limited extent for review by legal experts, the deal would have been struck in a quite different way and Korea would not have revised its law to extend the border measures to cover all categories of IPRs.

Further, the debate over the remuneration right for performers and phonogram producers triggered an independent legislative change in Korea. Inspired by the EU's proposal, the performers and phonogram producers were successful in lobbying the Korean National Assembly to enact the remuneration right for public performance in March 2009. ⁹⁶⁴ This happened despite the Korean government's promoting the deal with the EU as their successful negotiation for the benefit of consumers and small business such as café owners.

5-4-4. Ban on Retransmission of Television Signal over the Internet

The EU-Korea FTA, in Article 10.9:5, grants broadcasting organisations an exclusive right to both control re-broadcasting and fixation of their broadcast. New to Korea is the right to control communication to the public of television

_

⁹⁶⁴ The Copyright Act as amended on 25 March 2009 and effective on 26 September 2009.

broadcast where such communication is made in places accessible to the public against payment of an entrance fee. In addition, the EU-Korea FTA prohibits, in Article 10.7:2, any retransmission of television signal over the Internet.

It is uncertain if this ban is a strict prohibition or subject to the limitations and exceptions (L&E) set forth in Article 10.11. Although the L&E provision refers to Articles 10.5 through 10.10, it is questionable if negotiators intended to permit retransmission of television signals on the Internet when the cumulative conditions of the three-step test are met. The L&E provision limits its scope to "in their legislation" and is applicable to "the rights granted to the right holders referred to in Articles 10.5 through 10.10". By contrast, the ban on retransmission of television signal over the Internet applies to each "Party". In the EU-FTA, the "Party" includes any legislative, administrative and judicial bodies, central or local, of Korea, the EU and its Member States. Therefore, if a court exempts a certain internet retransmission from copyright infringement, the decision may give rise to a conflict with Article 10.7 and the Party cannot resort to the L&E provision because it is not within an applicable scope, i.e., a legislative measure. Moreover, the banning provision is hardly considered as "the right granted" mentioned in the L&E provision of Article 10.11.

In addition to the discord regarding the right granted and the banning provision, the referring Articles in the L&E provision are inaccurate. The reference to the L&E provision in Article 10.6 governs the protection term for natural authors. However, it would not be possible for the EU or Korea to enact a legislation to curtail the term of protection in certain special cases, e.g., where works of highly educational value are out of print and the potential commercial gain of reprint is low. Then, the L&E provision of the EU-Korea FTA can be regarded as a general statement of negotiators' intention to incorporate the three-step test into the trade pact between the EU and Korea. 965

If the ban of retransmission of television signals on the Internet is of an absolute nature, excluding the application of L&E provision and even the "right clearing

⁹⁶⁵ Personal communication, on the condition of anonymity, on 16 November 2016 with an official of Korean government, who lead the team for copyright negotiation of the EU-Korea FTA.

scheme", ⁹⁶⁶ it may cause serious problems to public policy objectives of stimulating free circulation of audiovisual media services, ⁹⁶⁷ and protecting the human right to enjoy the benefits of scientific progress and its application. ⁹⁶⁸

5-4-5. Artists' Resale Right

For the human rights measures to protect the material interests of authors, the UN Copyright Report of 2014 recommends the artist's resale right (*droit de suite*). ⁹⁶⁹ This right is regarded as necessary to fix the problem of the inequality of legal expertise and bargaining power of individual authors vis-à-vis publishers and distributors. For a nuanced and balanced approach between supporting and constraining creators' right by copyright law, the Report advocates the creators' right to share in the proceeds from future sales of their works. ⁹⁷⁰

Unlike the UN Copyright Report, the negotiators of the EU-Korea FTA did not approach the resale right from the human rights perspective. The EU tried to transplant its own level of protection. ⁹⁷¹ In the course of negotiations, the Korean negotiators emphasized that the resale right was an alien concept in Korea and they would need to carry out consultations with artists and relevant industries and stakeholders, which would take a significant amount of time. The EU accepted this and an agreement was reached to revisit the matter again, not

 $^{^{966}}$ The scheme includes a cable retransmission under Article 9.6 of the Satellite Broadcasting Directive 93/83/EC.

⁹⁶⁷ This is set out in the Audiovisual Media Services Directive 2010/13/EU, which is technology-neutral and covers all services provided by TV, the Internet and mobile phone (European Commission. (2015) Questions and answers on the public consultation on the Audiovisual Media Services Directive (AVMSD). Retrieved from https://ec.europa.eu/digital-single-market/en/news/questions-and-answers-public-consultation-avmsd).

⁹⁶⁸ The single exception of this ban provided in the FTA text is a retransmission over a closed and defined subscriber network that is not accessible from outside of the Party's territory (Footnote 1 of Article 10.7:2). This exception, stemming from the US FTAs, intends to exempt retransmission by Internet Protocol TV (IPTV).

⁹⁶⁹ A/HRC/28/57, ¶ 101.

⁹⁷⁰ Ibid, ¶ 45.

⁹⁷¹ Directive 2001/84/EC of the European Parliament and of the Council of 27 September2001 on the resale right for the benefit of the author of an original work of art.

making it obligatory in the FTA. Therefore, Article 10.10 mandates both parties to enter into consultation to review the desirability and feasibility of introducing the resale right within two years from the FTA's entry into force. However, as of June 2017, they have yet to revisit the resale right and the EC's annual reports on the implementation of the EU-Korea FTA have not mentioned any movements for discussing the resale right.

5-5. Patent, Public Health and Protection of Pharmaceutical Products

5-5-1. General Remarks

The EU-Korea FTA contains only three provisions for patent: an obligation to comply with the Patent Law Treaty (Article 10.33);⁹⁷² the recognition of the Doha Declaration (Article 10.34); and the patent term extension (Article 10.34).⁹⁷³ Remaining two provisions in the Sub-Section E for Patents are irrelevant to patent – data exclusivity submitted for marketing approval of pharmaceutical products (Article 10.36) and agro-chemical products (Article 10.37).⁹⁷⁴

The presence of so few patent-related provisions can be explained on three accounts. First, the EU has no harmonised rule on patent. Patent eligibility and process of patent examination and grant is governed by the European Patent Convention (EPC), which is not a treaty administered by EU institutions. Further, the unitary patent, the EU regulations for which entered into force on 20 January 2013, 975 only has a pan-European effect granted by the European Patent Office, which again is not an official body of the EU, and is under the

⁹⁷² The obligation to endeavour for the compliance with the Patent Law Treaty is a mechanism for "smooth transition" to stronger IP protections, which becomes part of the obligation under TRIPS due to its MFN clause (Aleman, 2014, p. 78).

⁹⁷³ In the meantime, the provision for genetic resources, traditional knowledge and folklore (Article 10.40) mandates both Parties to encourage the equitable sharing of the benefits arising from the utilisation of knowledge, innovations and practices of indigenous and local communities. However, it does not specifically require a patent applicant to identify sources of biological material used in a patent application and described as part of an invention (Contrasting Article 164 of the EU-CARIFORUM FTA).

 $^{^{974}}$ In the language of the FTA text, the agro-chemical products are expressed by plant protection products.

⁹⁷⁵ EPO, 2016.

rules and procedures of the EPC. Second, there has been few complainants from European business sectors regarding substantive rules or practices of patent scope and grant in Korea. Most of their concerns can be resolved by IPRs enforcement provisions. Third, even without any substantive TRIPS-plus provisions for patent protection, the EU can benefit from TRIPS-plus commitments made through KORUS.

5-5-2. Public Health and Doha Declaration

The most widely cited debate on the trade-centric IPR norms concerns the access to medicines, which may be impeded by strong protection of patent, exclusivity of pharmaceutical products and intensified enforcement measures. Despite relatively weak in the TRIPS-plus protection of pharmaceuticals than KORUS, the EU-Korea FTA is questionable to sufficiently resolve the public health concerns. Article 10.34 of the EU-Korea FTA recognises the importance of the Doha Declaration and requires both Parties to contribute to the implementation of the subsequent paragraph-six solution.

Some scholars rate highly the reference of the Doha Declaration in the TRIPS-plus FTAs. For instance, Acconci et al. explain: 978

It is beyond any doubt that references to the Doha principles have a stronger impact on the interpretation of TRIPS flexibilities than mere reference to TRIPS, in that they suggest that fundamental public needs must be given due weight when balanced against the investor's IPRs. ... TRIPS/Doha can be considered as relevant as a 'subsequent agreements between the parties regarding the interpretation of the treaty or the application of its provision' in the sense of Art. 31.3(a) of the Vienna Convention on the Law of Treaties, which, therefore, 'shall be taken into account, together with the context' in the process of interpreting the TRIPS Agreement. This can represent a turning point also in WTO/TRIPs case-law, which is sometimes elusive as regards public concerns.

However, interpreting the Doha Declaration reference clause in accordance with the principles of treaty interpretation, i.e., the standard of ordinary meaning of the terms, the EU-Korea FTA is insufficient to resolve the numerous public

.

⁹⁷⁶ For details of the KORUS commitments, see Section 4-5.

⁹⁷⁷ Yu, 2014, p. 118.

⁹⁷⁸ Acconci, Valenti & De Luca. 2014, pp. 205-206.

health concerns. For example, in accord with the reference clause, can Korea and the EU, as declared in Paragraph 4 of the Doha Declaration, interpret and implement the TRIPS-plus provisions of the EU-Korea FTA in a manner supportive of their own rights to protect public health and promote access to medicines for all? Or is Korea, as recommended by Argentina and Brazil for the establishment of a development agenda for WIPO, 979 allowed to operate the EU-Korea FTA in a manner that does not run counter to the public health objectives under the international human rights instruments? At least three explanations block that possibility.

First, in TRIPS-plus FTAs, there are four different models of reference to the Doha Declaration. Each model differs in terms of the extent to which it ensures the TRIPS flexibilities and national discretion and sovereignty. Among these, the EU-Korea adopts the weakest model, simply recognising the importance of Doha Declaration, and there are no specific further workable provisions.

Second, a simple reference clause would help interpreting, in favour of public health, other provisions when they are ambiguous. But, in the EU-Korea FTA, most of the substantive rules on the protection and enforcement of IPRs are clearly defined.

Third and more importantly, the Doha Declaration clause in the EU-Korea FTA restricts its application to only the Sub-Section E of the agreement, regarding Patents. This condition is an excessive restriction when compared to other EU FTAs. In the case of the EU-Vietnam FTA, the reliance upon the Doha

⁹⁷⁹ Helfer & Austin, 2011, p. 125.

⁹⁸⁰ Ruse-Khan, 2011, pp. 353-357 (The first weakest model is of a general nature (using the terms "recognise the principles", "affirm their commitment to" or "recognise the importance of:"). The second one ensures with a legally binding language the consistency of Doha Declaration. A more promising third model incorporates such terms as "a Party may take measures to protect public health in accordance with the Doha Declaration". The last model employs the actual languages of the Doha Declaration languages or contains further assuring phrase that "nothing in this Agreement shall be construed as to impair the capacity of the Parties to promote access to medicines".

⁹⁸¹ The second paragraph of Article 10.34:1 saying "In interpreting and implementing the rights and obligations under this Sub-section, the Parties are entitled to rely upon the Doha Declaration".

Declaration applies to the entire IPR chapter. This holds true with the EU-Colombia-Peru FTA and the EU-Central America FTA as well. In addition, the Korea-Canada FTA also assures the application of the Doha Declaration to the entire IPR chapter. Moreover, the more promising sentence to guarantee the national capacity to promote access to medicines and protect public health is omitted in the EU-Korea FTA.

5-5-3. Patent Term Extension to Compensate Delay in Drug Approval Process

The EU-Korea FTA obligates a patent term extension to compensate the delay in the marketing approval process of pharmaceutical product and plant protection products. ⁹⁸⁶ The pharmaceutical product refers to any substance or combination of substances which may be administered to human beings with the object of making a medical diagnosis, treating or preventing disease, or restoring, correcting or modifying physiological functions or structures. ⁹⁸⁷ Unlike KORUS, the EU-Korea FTA makes clear that the pharmaceutical product includes biologics such as vaccines, gene therapy and cell therapy products ⁹⁸⁸ The maximum duration of extension is limited to five years and further extension is possible for paediatric use. ⁹⁸⁹

Although the term extension is not limited to "new" pharmaceutical products,

⁹⁸² Article 8.2:1

⁹⁸³ Article 197.2 of the EU-Colombia-Peru FTA and Article 229:2(a) of the EU-Central America FTA.

⁹⁸⁴ Article 16.5.

⁹⁸⁵ Such a sentence is found in Article 13.2 of the draft EU-India FTA of April 2010 (negotiation of FTA between the two was commenced in June 2007 and is still ongoing as of December 2016) - "Nothing in this Agreement shall be construed as to impair the capacity of the Parties to promote access to medicines and protect public health". Later the EC confirmed that any future investment provisions be fully consistent with this clear commitment and nothing in FTA should "prevent India from using compulsory licensing including for the manufacture and export of medicines to other developing countries in need" (EC, 2011a).

⁹⁸⁶ Article 10.35:1 and 2.

⁹⁸⁷ Article 6 of Annex 2-D and footnote 15 of Article 10.35(1).

⁹⁸⁸ The second paragraph of Article 6 of Annex-2D.

⁹⁸⁹ Footnote 17 of Article 10.35:1.

until recently the Korea Patent Office only allowed the term extension for new drugs. The term extension was introduced by the Patent Act Amendment in 1986 due to a bilateral trade deal with the US. From 1999 to 2007, the extension was granted for both new and generic drugs, but from 2012 all of the applications for generic drugs have been rejected by the Patent Office. This practice, however, is to be reversed due to a recent ruling of the Patent Court. 990

The purpose of the patent term extension is to "compensate the patent owner for the reduction of effective patent life" resulting from a delay in "the first authorisation to place the product on their respective markets". 991 However, as discussed in previous Section 4-5-3, the patent term extension is theoretically flawed given the exclusive nature of patent right. Behind the patent term extension lies the fact that patent life starts too early. The winner-take-all game of patent system triggers an excessive patent race, urging an early start of patent life. The more the winner gets, the higher the patent race will be, which is the case in pharmaceuticals.

5-5-4. Data Exclusivity

5-5-4-1. Negotiating Process and Arrangement

The UN High Level Panel considers data exclusivity as one of the notable TRIPS-plus provisions that significantly affects the public health and patients' right to access to medicines. 992 Nonetheless, data exclusivity is the one area that shows a large degree of convergence in all TRIPS-plus FTAs. 993 The most aggressive demandeurs for higher protection of test data than in present in TRIPS is the US. By contrast, the EU was not such demandeurs during its first

⁹⁹⁰ 2015Hu1256 (January 29, 2016) (holding that the patent term extension is not confined to new pharmaceutical products).

⁹⁹¹ Article 1035:2.

⁹⁹² Secretary-General, U.N., 2016, p. 25. Drexl observes that test data exclusivity will certainly make drugs more expensive and create budgetary constraint for the social security systems in developed countries, and in developing countries where health care system is poor, it can even exclude patients from access to drugs (2016, p. 75). MSF (2015) maintains that data exclusivity is a means of impeding generic competition, and maintaining artificially high prices, thereby restricting access to medicines.

⁹⁹³ Watal, 2014, p. 50.

generation FTAs such as those with Chile, South Africa, and CARIFORUM, but this stance was changed in the second generation FTAs including those with Peru-Colombia and Korea. 994

In the course of negotiations with Korea, the EU requested 10-years for the period of data exclusivity during which no subsequent marketing approval would be granted without an explicit consent of the marketing approval holder of the original product. Further, the EU demanded a possible extension of the period up to 11 years when the original holder obtained, during the first 6 years, an authorisation for one or more new therapeutic indications for the same product. These demands were largely patterned on the EU's Directive. Against this demand, Korea tried to level down the protection of test data to the level set forth in Article 39(3) of TRIPS. The data protection under TRIPS is distinguished from the data exclusivity and provides the general protection affordable to undisclosed information or trade secrets. Alternatively, Korea proposed protecting test data within the scope of its domestic law. The disagreement between the two lasted until the final round of talks.

The final text, in large part, reflects the EU position, but having exclusivity of a shorter term (at least 5 years) and removing possible extension period of up to 11 years. Article 10.36 of the EU-Korea FTA mandates legislative measure to ensure confidentiality, non-disclosure of and non-reliance on the test data and

⁹⁹⁵ Directive 2004/27/EC of the European Parliament and of the Council of 31 March 2004 amending Directive 2001/83/EC on the Community code relating to medicinal products for human use.

248 / 335

⁹⁹⁴ Roffe, 2014, p. 24; Drexl, 2016, pp. 65-66.

⁹⁹⁶ Valdés & McCann, 2014, p. 26; Flynn, Baker, Kaminski & Koo, 2013, pp. 167-168; and Shugurov, 2015, p. 54. For the negotiation history of TRIPS and explanation why TRIPS does not support a reading to the effect that Article 39(3) requires data exclusivity, *see* Fellmeth, 2004, pp. 454-460; Correa, 2002, pp. 72-84.

official story is different. The Korean government announced that the EU withdrew its demand for 10-years data exclusivity at the 6th round. However, the actual draft reveals that they did not reach an agreement on the protection term. The actual draft refers to the unpublished (on file with author) draft text of the EU-Korea FTA reflecting each party's position as of September 2008 (consider that the final 8th round of working level talk was held on 23 to 24 March 2009, and the 7th round of talk took place on 12 to 15 May 2008.).

⁹⁹⁸ While the meaning of "confidentiality and non-disclosure" is straightforward, the concept of non-reliance is less obvious. The EU and the US aims, with the term of non-reliance, to prohibit any forms of reliance (direct, indirect, active and

preventing drug authorities from granting subsequent marketing approval of generic products for at least five years. Unlike KORUS, the EU-Korea FTA does not contain such an ambiguous term as the "similar product", and implicitly requires "considerable efforts" and "undisclosed" test data by defining "data" with reference to Article 39 of TRIPS. Contrasting the "new chemical entities" of TRIPS, the FTA provides data exclusivity for new pharmaceutical product that may be produced with known chemical entities.

5-5-4-2. Difference between FTA and National Practices

Historically, in the EU, data exclusivity was introduced in 1986 to afford *sui generis* protection for originator pharmaceutical companies in some Member States that did not confer patents to pharmaceuticals, such as Spain and Portugal. However, data exclusivity has provided an additional and separate legal protection for originator companies as well.

Impact assessment of the data exclusivity protection is hard mainly because both Parties operate data exclusivity systems quite differently from what the FTA requires.

The European model is called the "(8+2)+1" formula. ¹⁰⁰³ During an 8-year period, called the "data exclusivity" period in a limited sense, an application for generic product (including hybrid and biosimilar products) cannot refer to the

passive reliance) by drug authorities, including reliance upon originators' test data in bio-equivalence test (comparing reference product with generics in terms of chemical and toxic levels) (Pugatch, 2004, p. 7).

⁹⁹⁹ Article 10.36. For agrochemical products, the period of exclusivity is at least ten years.

¹⁰⁰⁰ By contrast, the EU-Singapore FTA prevents subsequent marketing approval of the same or a "similar product" (Article 11.33).

¹⁰⁰¹ However, in practice, the "considerable efforts" in originating the test data are not explicitly required in the EU and Korea.

¹⁰⁰² Junod, 2004, pp. 502-503. In the EU, the data exclusivity was introduced in 1986 through the Directive 87/21/EEC, which amended Directive 65/65/EEC.

¹⁰⁰³ This formula, introduced by the revised Directive (2004/27/EC), is applied to a pharmaceutical product that has been authorised of marketing through EU's centralized procedure for which the initial submission was made before 20 November 2005 (European Medicines Agency, 2016a, p. 21), and the mutual recognition procedure, which is mandatory for marketing in several Member States (EC, 2004, p. 14 (Vol. 2A, Ch. 1)).

test data of reference product, meaning that the submission of the application *itself* is not accepted by drug authorities such as the European Medicines Agency. The following 2-year period forms a total 10-year marketing exclusivity period along with the preceding 8-year, and during the 2-year period, submission of generics authorisation is permitted but generics cannot be placed on the market. An additional non-cumulative 1-year period is granted where an application is made for a new indication for a well-established substance provided that significant pre-clinical or clinical studies were carried out in relation to the new indication. 1005

When the reference medicinal product is nationally authorised, a 6-year period may apply depending on the Member States. Those countries may choose what Cook called the "not-beyond patent expiry" option. That is, they can cap the data exclusivity period at the instance that the patent protects the reference medicinal product expires.

Korea also runs its own system, called "post-marketing surveillance" (PMS). Drug authorities, specifically, the Ministry of Food and Drug Safety (MFDS) may designate newly approved pharmaceutical product as subject to reexamination. The purpose of PMS is to explore newly appeared adaptation symptoms and collect additional data of actual medical dose after marketing approval. The PMS re-examination is carried out within 3 months when the 6-

¹⁰⁰⁴ The reference product refers to a medicinal product which has been granted a marketing authorisation by a Member State or by the Commission on the basis of a complete dossier, i.e., with the submission of qualify, pre-clinical and clinical data in accordance with Articles 8(3), 10a, 10b or 10c of Directive 2001/83/EC and (European Medicines Agency, 2016, p. 8).

 $^{^{1005}}$ Article 10(5) of the Directive 2001/83/EC); European Medicines Agency, 2016, p. 22.

 $^{^{1006}}$ European Medicines Agency, 2016a, p. 15. The EFTA countries also apply sixyear period.

¹⁰⁰⁷ Cook, 2000, p. 43.

¹⁰⁰⁸ Junod, 2004, p. 504. If a supplementary protection certificate (SPC) extends the patent life, then the cap sets in when the SPC expires. Three countries, Greece, Spain and Portugal have opted for this solution.

¹⁰⁰⁹ Article 25 of the MFDS' Regulation Regarding the Licensing, Report and Examination of Drug Products.

year (for new drug)¹⁰¹⁰ or 4-year (for new indication)¹⁰¹¹ period expires from the initial approval date. During the 6-year or 4-year period, generics have to submit data equivalent to or *exceeding* the original data unless use of the data is consented by the originator or they apply for an approval after expiration of the PMS period.¹⁰¹² The 4-year period is cumulative because it is applicable whenever MFDS designate drugs having new indication as PMS drugs. Nor is the "not-beyond patent expiry" option available.

The 6-year formula used in Korea originates from the bilateral deal with the EU in 1980s and early 1990s. When the US brought Korea to heel at the bilateral IPR talks in 1986 (*see*, Section 1-1), the EU approached Korea, demanding the same level of protection by threatening suspension of Korea's GSP privilege. ¹⁰¹³ In the end, Korea accepted what the EU requested, including the 6-year data protection by the PMS system. ¹⁰¹⁴

5-5-4-3. Impact Assessment

For the impact assessment of data exclusivity, both the potential benefit and cost must be assessed.

Originator pharmaceutical companies support data exclusivity for necessary incentive for innovation. ¹⁰¹⁵ Some commentators predict that data exclusivity may soon surpass patents as the primary driver of innovation in the

¹⁰¹⁰ The new drug refers to new pharmaceutical products, prescription drug with different active pharmaceutical ingredient (API) type or composition, prescription drugs having the same ingredient but different administration form from the approved drug.

¹⁰¹¹ PMS for new indication include prescription drugs with the same API and administration form but having a clearly different effect or efficacy, and other drugs as designated by MFDS.

¹⁰¹² IFPMA, 2011, p. 76.

¹⁰¹³ Drahos, 2002, p. 178.

Article 2.2.c of the Korea-EC Record of Understanding (April 1993) provides that "during the 6 years following the initial approval of marketing a new pharmaceutical product in Korea, any application for approval by a second or subsequent person to manufacture and/or market the same product which seeks to rely on test data supplied by the original applicant, shall only be accepted if accompanied by a full set of phase I, II and III clinical test data which have been originated by the subsequent applicant himself" (Kang, 2007, p. 9).

¹⁰¹⁵ IFPMA, 2000, p. 1.

pharmaceutical industry. ¹⁰¹⁶ Junod rejects this line of argument as pharmaceutical companies have no choice but to submit test data if they want to sell their drugs. ¹⁰¹⁷ Fellmeth observes that the incentive claim is empirically unproven and the "first-mover advantage" for registering a drug would outweigh the cost of obtaining marketing approval. ¹⁰¹⁸ The US FTC does not recognise the incentive claim for longer exclusivity period (12- to 14-year for biologics) because "it does not spur the creation" of a new drug. ¹⁰¹⁹ In countries with little capacity to develop innovative new drugs and having a small domestic market, like Korea, data exclusivity would provide a little incentive for innovation within their territories.

The cost of data exclusivity may include its potential adverse impact on drug price, generic competition and its market entry, the availability of TRIPS flexibilities such as compulsory licenses, ¹⁰²⁰ and therefore the accessibility of medicine. ¹⁰²¹ Due to lack of reliable raw data, evaluating the cost of Korea in a comprehensive, empirical and quantitative way is not achievable. For instance, as shown in tables below, the relationship between the number of new drug approval and the number of PMS drugs is unclear. One of the key parameters in estimating the delay of generic entry and its possible impact on the drug price, i.e., the generic penetration rate is not currently available as well. ¹⁰²²

¹⁰¹⁶ Morgan, 2010; Thomas, 2015, p. 42.

¹⁰¹⁷ Juno, 2004, p, 485.

¹⁰¹⁸ Fellmeth, 2004, pp. 469-470. Instead of data exclusivity, Fellmeth suggests an alternative cost sharing model that generics compensate the first registrant of the drug through a re-adjustable royalty system (2004, pp. 482-499).

¹⁰¹⁹ US FTC, 2009, p. 44.

¹⁰²⁰ Concerning the compulsory license and the negotiation of the EU-India FTA, the EU indicated that data exclusivity would not hamper the effective use of a compulsory license because of the Doha Declaration reference clause and confirmed that in the case of conflict between data exclusivity rules and compulsory licensing, the latter would override the former (European Commission (2010) EU-India FTA negotiation and access to medicines: Questions and Answers. at ¶ 4.). This assertion is less likely applicable in actual dispute involving the EU-Korea FTA from the objectives embodied in Article 10.1 that emphasises commercialisation of IPR product and adequate and effective protection and enforcement of IPR, and from the weakest referencing model to the Doha Declaration as discussed supra Section 5-2-2.

¹⁰²¹ Forman & MacNaughton, 2016, p. 55.

The generic penetration rate refers to the degree of replacement of the 252/335

When the Korean government published its 105-pages long report on possible impacts of KORUS in 2011, they estimated that KRW 133.8 billion¹⁰²³ would be the cost of data exclusivity for the first 10 years from the entry into force of KORUS (<Table 5-1>). Further, it was estimated that 443 persons would lose their jobs due to data exclusivity for the same 10 years. However, the methodologies they used for this estimation were not disclosed and are still kept confidential. Moreover, the impact of data exclusivity was only conducted in cases where data exclusivity was extended to protect "disclosed" test data. For this limited impact assessment, it was assumed that 9.6% of generics would rely on disclosed data. ¹⁰²⁴ The figure, 9.6%, is of low credibility as it was obtained from a questionnaire survey, conducted in July 2006, involving participants from 24 pharmaceutical companies having patent-related divisions. ¹⁰²⁵ Further, the survey response rate is still unknown.

< Table 5-1> Estimated Impact of KORUS on Pharmaceutical Industries							
(Source: Government of Republic of Korea. (2011, August 5). Re-evaluation of economic impact of the Korea-US FTA, p. 100)							
	Annual Average (1 st five years)	Annual Average (2 nd five years)	Cumulative for 10 years				

originators' products with generics, which varies depending on pharmaceutical product, market size, relevant industries and public policies such as subsidy and drug reimbursement policy.

¹⁰²³ The KRW 133.8 billion is the sum of 726 (Production Loss), 484 (Income Loss), and 128 (Consumer Welfare) of the Table.

¹⁰²⁴ The 9.6% is a product of 12% ("incrementally modified drugs" occupying 12% of total generic drugs) and 80% (assumption made from responses replying that disclosed data would be used in 80% of the "incrementally modified drugs") (Government of Republic of Korea (5 August 2011) Re-evaluation of economic impact of the Korea-US FTA, p. 97). The "incrementally modified drug" refers to a medicine that has ingredients and efficacy similar to those of an original new drug but its property or formulation is changed to improve convenience in use (Kang, 2016).

¹⁰²⁵ Korean Ministry of Health and Welfare (2007) Press Release (press explanation material, 13 April 2007).

¹⁰²⁶ For questionnaire on the patent linkage, of 24 persons only 14 persons replied. Their estimations on possible increase of patent dispute due to the introduction of patent linkage system varied too much from 30% to 3,000 %. Nonetheless, the Korean government simply presumed that the increase would be 50%, and concluded her impact assessment.

Production (Sale) Loss [1]	Linkage	274 to 592	604 to 1,308	4,390 to 9,500
	Data Exclusivity	64	81	726
Income Loss [1]	Linkage	182 to 394	402 to 871	2,924 to 6,327
	Data Exclusivity	43	54	484
Job Loss [2]	Linkage	167 to 361	368 to 798	2,678 to 5,795
	Data Exclusivity	39	49	443
Consumer Welfare* [1]	Linkage	-306 to -623	-647 to -2,707	-4,760 to - 16,648
	Data Exclusivity	-11	-14	-128

^{*} Impact on Consumer Welfare includes increase of governmental expenditure in reimbursing drug cost under the National Health Insurance System and out-of-pocket burden of patients resulting from delay of generic entry into the market.

[1]: KRW 0.1 billion

[2]: Person

Thus, the empirical evidence is still insufficient. Yet, from the empirical data on "sensitivity of drugs to data exclusivity protection", 1027 it can be drawn a conclusion that the data exclusivity has a substantial exclusionary impact on generics. Nam et al. reported that among new drugs of which patents were expired, data exclusivity under the PMS system has lived longer than patent for 26 products (new drugs) and 81 products (new indication). Similar empirical studies have been reported in the US. Further, as shown in <Table 5-2> below, there are more products protected under PMS than approved new drugs. This seems to be due to the cumulative 4-year PMS for new diagnostic indications. Then, the trend of more PMS protection than new drugs will

¹⁰²⁷ Pugatch, 2004, p. 21.

¹⁰²⁸ Nam, Lee, Kim, & Oh, 2007, p. 489.

¹⁰²⁹ According to Junod, among 137 drugs approved by the US FDA between 1998 and February 2004, 23 drugs were protected by data exclusivity for a period past the expiry of the last patent, and 22 drugs (among those 23 drugs) had no patent listed in the Orange Book (2004, p. 487).

continue.

<Table 5-2> New Drugs and Products under PMS

Source: Government of Republic of Korea, Ministry of Food and Drug Safety (2016) 2016 Food & Drug Statistical Yearbook (Vol. 18), pp. 332, 337, 442.

Year	New Drugs Approval	PMS designated Drugs	Re-examination Designated Bio Drugs	Sum of Re- examination	
2004	52	59	9	68	
2005	48	42	12	54	
2006	60	32	23	55	
2007	65	69	33	102	
2008	39	68	20	88	
2009	21	75	36	91	
2010	48	56	16	82	
2011	28	63	17	80	
2012	17	63	13	76	
2013	23	72	10	82	
2014	49	95	22	117	
2015	38	151	11	162	
Total	488	845	222	1057	

5-5-5. Patent-Approval Linkage

Patent linkage does not form a part of the EU-Korea FTA: It is contained in KORUS. 1030 Despite its absence in the EU-Korea FTA, it is worth examining the progress of negotiation as it shows that the negotiators did not discuss the patent linkage in a way to mitigate its adverse effect. Rather, they approached in a way to provide full advantages to European patent holders or originating

¹⁰³⁰ For details of the KORUS linkage model, *see* Section 4-6-2.

pharmaceutical industries. This finding also confirms that the EU has been a "quiet free rider" on previous US aggression regarding IP. 1031

Until later stages of talks, the EU and Korean negotiators agreed to ensure protection of patentees by the KORUS linkage clause in the form of a side letter, which states: 1032

"Where the Republic of Korea permits, as a condition for approving the marketing of a pharmaceutical product, persons, other than the person originally submitted safety or efficacy information, to rely on that information or on evidence of safety or efficacy information of a product that was previously approved, such as an evidence of prior marketing approval in its territory or in another territory, the Republic of Korea shall:

(a) provide that the patent owner shall be notified of the identity of any such other person that requests marketing approval to enter the market during the term of a patent notified to the approving authority as covering that product or its approved method of use; and

(b) implement measures in its marketing approval process to prevent such other persons from marketing a product without the consent or acquiescence of the patent owner during the term of a patent notified to the approving authority as covering that product or its approved method of use". The European Union law prohibits linkage. Article 10(1) of Directive 2001/83/EC and Article 3 (3) (b) of Regulation 726/2004 disallows drug approval authority to link the granting of marketing authorisation to the status of a patent. When Member States tried to introduce a back door for patent linkage, the EC took action. For instance, on 14 March 2011, the EC commenced formal infringement proceeding against Italy for Italian legislative change would constitute a case of patent linkage. 1034

¹⁰³² Article 9.9.5 (Patent Linkage) of the draft text of the EU-Korea FTA reflecting each party's position as of September 2008.

¹⁰³¹ Drahos, 2002, p. 178.

¹⁰³³ European Commission, 2009 – Inquiry, p. 315 ("Under EU law, linking the granting of marketing authorisation for a product to the patent status of an originator company's reference product is unlawful").

¹⁰³⁴ Marchesoni, 2011.

Further, in 2012, the EC issued, against Italy, a formal request to remove the linkage between patents and generic medicines authorisation. Noticing the possible inclusion of patent linkage in the trade pact with Korea, the European generic industries demanded the DG Trade to develop the pact according to the legal framework already established in the relevant Directives and Regulations of the EU. 1036 The main concerns in this industry were that the European generic companies willing to produce and market medicines in Korea would be seriously hindered by the combination of European style data exclusivity and US style patent linkage. 1037

What the EC did was to simply remove the proposed side letter, expecting the MFN privilege of TRIPS. If the EU aims to implant the EU laws into the EU-Korea FTA, there should have been discussions on waiving the MFN clause. Or the EU could have proposed schemes to promote generic competition or to encourage patent challenge of generics against a linked patent.

5-6. Enforcement of IPRs

5-6-1. TRIPS-plus and "Cut-and-Paste" of EU Laws

The structure of enforcement provisions in the EU-Korea FTA is similar to other EU FTAs, ¹⁰³⁸ excepting provisions for presumption of authorship and ownership (applicable only to civil enforcement unlike KORUS), criminal enforcement, and online enforcement.

In terms of enforcement of IPRs, the EU FTAs can be divided into three categories: first-generation FTAs; second-generation FTAs; and post-ACTA FTAs. The first-generation FTAs refer to those in which the EU tried to simply

¹⁰³⁶ European Generic Medicines Association (EGA) letter to DG Trade, dated 19 January 2009.

¹⁰³⁵ IPWatch (2012, January 31).

¹⁰³⁷ EGA letter to DG Trade, dated 12 March 2009.

¹⁰³⁸ It begins by laying out the general prerequisites of enforcement: fairness, effectiveness and proportionality, followed by a definition of persons entitled to sue, provisions on the collection and preservation of evidence, a right of information for IPR holders, provisional and precautionary measures, corrective and injunctive measures, damages, legal costs, publicity measures regarding judicial decisions and border measures (Jaeger, 2014, pp. 191-192).

reaffirm TRIPS obligation and not to request WTO-plus provisions. Examples of these are FTAs with South Africa, Mexico and Chile. ¹⁰³⁹ By contrast, the second-generation FTAs contain a complete description of IPRs, enforcement measures, lists of protected geographical indications, border measures and, in some cases, internet provisions and protection of biological resources. ¹⁰⁴⁰ The enforcement provision of the EU-Korea FTA is a "cut-and-paste" of the EU Enforcement Directive. ¹⁰⁴¹

5-6-2. Civil Enforcement and Injunction against Intermediaries

The civil enforcement provision of the EU-Korea FTA contains what the EU proposed for ACTA: injunction against intermediaries whose services are used by IPR infringers, excepting patent. This is modelled on EU laws, and defines the intermediary so broad as to encompass those who deliver or distribute infringing goods and online service providers. The injunction against intermediaries is allowed regardless of their secondary liability. 1044

This is in potential-conflict with the Manila Principles on Intermediary Liability, adopted in March 2015 by wide range of human rights advocates. These principles aim to encourage policy development of liability regimes that can promote innovation while respecting online freedom of expression and users' rights in line with international human rights instruments. The parent provisions of the EU-Korea FTA have been used in various cases to compel

¹⁰³⁹ European Union, 2013-ACTA, p. 12.

 $^{^{1040}}$ Ibid, pp. 12-13. The turning point to the second-generation FTAs was the Strategy for the enforcement of IPR in third countries, approved by the European Commission in May 2005

⁽http://trade.ec.europa.eu/doclib/docs/2010/december/tradoc 147070.pdf).

¹⁰⁴¹ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.

¹⁰⁴² Articles 10.46:1 and 10.10.48:2.

¹⁰⁴³ Article 8(3) of the InfoSoc Directive and Article 11 of the Enforcement Directive.

 $^{^{1044}}$ EU study on the legal analysis of a single market for the information society: New rules for a new age? – 6. Liability of online intermediaries. November 2009, p. 21

¹⁰⁴⁵ https://www.manilaprinciples.org/ and The Manila Principles on Intermediary Liability Background Paper (ver. 1.0 of 30 March 2015).

online intermediaries to block access to Internet sites and forwarding agents who have no general duty of care to examine handled goods. ¹⁰⁴⁶ This broader application may also cause a clash with Korean practices under the civil law tradition.

Injunctive remedy varies depending on legal traditions: contributory, vicarious or inducement liability under US tort theory; authorization, joint-tortfeasance and various liability under the Common Wealth Countries; and duty of care or the *Störerhaftung* doctrine under the civil law tradition. Under which conditions and to which extent a non-infringing entity is liable are matters of general civil doctrine. Creating an exception which is only applied to a civil dispute involving IPRs is unfamiliar.

The injunctive remedy rule of the EU-Korea FTA puts the principle and the exception into reverse by making injunctive relief against non-infringing intermediaries to be a principle, not an exception. The Korean IP laws allow injunctions against "those who are infringing or likely to infringe protected rights". Here, the person who is likely to infringe protected rights does not include the non-infringing intermediaries, in principle. As a general rule, the Civil Act does provide a room for the civil liability of a third party. Article 760(3) stipulates that "instigator or accessories shall be deemed to act jointly". However, the remedies against the instigator or accessories are limited to compensation under Article 750 providing that "any person who causes losses to or inflicts injuries on another person by unlawful act, wilfully or negligently, shall be bound to make compensation for damages arising therefrom".

Accordingly, the mere fact that the services are used by a third party to infringe IPRs is not enough to order the intermediaries who provide such services to take actions avoiding or preventing third party's infringement.

Yet, this does not mean that the injunctive relief against intermediaries is entirely denied under the Korean legal system. In exceptional cases, the courts will award an injunctive relief against a service provider. For instance, an injunctive relief is granted where the full recovery of injuries (such as monetary

-

¹⁰⁴⁶ BGH Case Xa ZR 2/08 – MP3-player import, September 17, 2009.

¹⁰⁴⁷ Article 126 of the Patent Act, Article 65 of the Trademark Act, Article 123 of the Copyright Act, and Article 10 of the Unfair Competition Prevention Act.

compensation or recover of impaired reputation) is impossible after a right (personal rights in this case) is infringed and where it is difficult to expect full compensation of damages. In connection with IPR infringement cases, the Korean Court held, in the *Soribada* case that a peer-to-peer service provider specifically designed for MP3 music file sharing is liable for copyright infringement. But the court enumerates several conditions that must be met to find that the P2P service provider (Soribada) is liable when the intermediary:

- Knew or should have known users' infringement;
- Could control illegal file sharing;
- Planned to make profit from the service;
- Did nothing but displayed a notice; and
- Aided the users' copyright infringement.

5-6-3. Criminal Enforcement and EU-Plus Models

5-6-3-1. Obligations under the EU-Korea FTA

Unlike other FTAs to which the EU is a party, the EU-Korea FTA contains substantive rules on criminal enforcement of IPRs. In Sub-Section B of the IPR chapter of the pact, there are eight Articles mandating legislative and judicial actions that the EU and Korea must take for the criminal enforcement against counterfeiting and piracy. Although the obligation is weaker than KORUS, and both the lower standard of "financial gain" and alien rules against counterfeit labels or unauthorized camcording of KORUS¹⁰⁵⁰ are omitted in the EU-Korea FTA, it still goes beyond the TRIPS obligation.

Criminal enforcement provisions in the EU-Korea FTA are so extensive to cover liability of legal person, aiding and abetting, seizure, penalties, and confiscation that must be applied to trademark counterfeiting and copyright piracy conducted "on a commercial scale". ¹⁰⁵¹ It is still unknown why the

¹⁰⁵⁰ For details, *see* Section 4-7-4. As explained in this Section, rules against counterfeit labels was proposed by the EU during the negotiation of the EU-Korea FTA but it was removed from the FTA text by the opposition of Korea.

¹⁰⁴⁸ Supreme Court, *93Da40614*, *40621*, April 21, 1996.

¹⁰⁴⁹ Seoul Higher Court, *2003Na21140*, January 12, 2005.

Article 10.54 of the EU-Korea FTA. With regard to counterfeiting geographical 260 / 335

European Parliament approved the pact in February 2011, despite their refusal to adopt the EC's proposal of a Directive on criminal enforcement of IPRs for several years in the mid-2000s, ¹⁰⁵² and their rejection of ACTA on 4 July 2012. To some scholars, such an approval of the EU-Korea FTA containing the mandatory criminal sanctions on aiding and abetting is extraordinary and surprising. ¹⁰⁵³ The negotiation history of the EU-Korea FTA and comparative studies on other EU FTAs and ACTA indicate that it was a strategic action of the EC and trade officials of the EU Member States.

5-6-3-2. Negotiation for the Inclusion of Criminal Sanction

Until the final round of negotiations of the EU-Korea FTA (the 8th round of March 23 to 24, 2009), the EU did not propose any specific provisions for the criminal enforcement of IPRs. The reserved provision for criminal sanctions was Article 9.24¹⁰⁵⁴ and this Article was bracketed with the phrase: "to be specified". Thus, it was excluded from the official discussion for around two years fromMay 2007 when the negotiations of the EU-Korea FTA commenced. While the negotiations were undertaken, the Korean negotiators repeatedly asked the EU counterparts to make specific proposals on Article 9.24 for criminal sanctions. However, the EU negotiators simply replied that it was difficult to do so because the proposed Directive on criminal enforcement of IPRs was not adopted by the European Council. Around one month later after the working-level discussions were officially over on March 24, 2009, the EU negotiators delivered their proposal on the IPR criminal enforcement via an

indications and designs, the criminal enforcement rules are not mandatory. However, both Parties have to "consider adopting measures to establish the criminal liability" "subject to its national or constitutional law and regulations" (Article 10.55 of the EU-Korea FTA).

¹⁰⁵² Summers, 2014, p135.

¹⁰⁵³ Drexl, 2014, p.274; Geiger, 2016, p. 654.

¹⁰⁵⁴ During the negotiation of the EU-Korea FTA, IPRs was discussed under Chapter Nine, which became Chapter Ten in the final text.

¹⁰⁵⁵ This also shows that the Koran negotiators was passive in rules on criminal enforcement of IPRs in the pact. As Korea signed in June 2007 the KORUS pact which contained extensive provisions for criminal sanctions against trademark counterfeiting and copyright piracy soon after the 1st round of the EU-Korea FTA was ended in May 2007, they could have proposed their own provisions modeled on KORUS or Korean domestic laws.

email message dated April 20, 2009. ¹⁰⁵⁶ As the Korean government wanted to sign the pact as soon as possible, they were reluctant to discuss the EU proposal, and counter-proposed to put off the discussion on the criminal enforcement in three years from the entry into force of the FTA. This counter proposal was sent to the EU on May 7, 2009, presumably by an email. However, the chairing state of the EU (the Czech Republic) sent, on 26 May 2009, a letter containing the EU Member States' assertion that the criminal enforcement rules should be included in the final text of the EU-Korea FTA. The chief negotiators of the EU and Korea had a telephone conversation on June 5, 2009 and agreed to have teleconferences to discuss the pending EU proposals. After three months, in September 20009, they reached an agreement.

The EU proposal contained ten Articles from 10.24:1 to 10 rather than eight Articles of the final text (Articles 10.54 to 10.61). The response to the EU proposals by the Korean negotiators was generally not to accept any proposals that would entail domestic legislative changes. They regarded the IPR criminal enforcement rules as something that might be internationally harmonised through the then-discussed ACTA. The Korean negotiators were successful in rejecting two EU proposals on: (1) criminal sanctions against use and importation of counterfeit trademark labels; ¹⁰⁵⁷ and (2) further review of the criminal enforcement rules in three years after the entry into force of the FTA. ¹⁰⁵⁸ One debated proposal was the criminal enforcement on counterfeiting geographical indications and design in proposed Article 10.24:2, which was recommendatory in nature. The Korean negotiators maintained that the proposed criminal procedures on counterfeiting geographical indications would not be capable of harmonised under the Korean legal system and suggested to delete the proposal because it was not mandatory. However, this proposal

_

¹⁰⁵⁶ Kim, 2009, p. 164.

¹⁰⁵⁷ Korean opposition was based on the logic that the counterfeit label was a sort of secondary infringement of trademark right and under the Korean legal system, it was uncertain that the secondary infringement was necessarily subject to criminal sanction. Further, the "importation" written in the EU proposal was not listed as infringing activity under the Korean Trademark Act.

¹⁰⁵⁸ Against the further review of the proposal, Korean negotiators suggested discussions at the joint working group which was to be constructed according to the FTA and deleted the proposed Article 10.24:10.

survived to be Article 10.55 of the final text. The remaining proposals were accepted by Korean negotiators as they were regarded as already reflected in KORUS and Korean domestic laws.

5-6-3-3. Struggles of the EC for Harmonised Rules on IPR Criminal Enforcement

Since the 1990s, the EC has long struggled to legislate a community level regime for effective enforcement of IPRs. In its Green Paper of October 1998, 1059 the EC considered counterfeiting and piracy a serious threat to the proper functioning of the Single Market, and presented ambitious action plans 1060 including a proposed Directive, which in 2004 became the Directive 2004/48/EC. 1061 The early draft of Directive 2004/48/EC contained provisions for criminal sanctions applied to all IPRs, not only counterfeiting and piracy. However, the European Parliament removed such provisions and excluded patents from the scope of the Directive 2004/48/EC. Gibson explains the reason for the rejection of proposals for criminal sanctions was entirely pragmatic as it was uncertain whether the EC, handling economic and social policies, was permissible to propose them. 1063 However, the Environment Framework Decision of ECJ 1064 in 2005, opened the door for the EC to propose a Directive aiming at a separate Directive for criminal enforcement of IPRs. 1065 This

¹⁰⁵⁹ Combating Counterfeiting and Piracy in the Single Market COM(98) 0569 final.

¹⁰⁶⁰ Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee – Follow-up to the Green Paper on combating counterfeiting and piracy in the single market, COM(2000) 0789 final.

¹⁰⁶¹ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights [2004] OJ L195/16. Seville, 2016, p. 505. For more, *see* Mylly, 2011, pp. 213-244.

¹⁰⁶² Gibson, 2011, p. 4. Two Articles for criminal enforcement in the original proposals were: Article 4 providing that IPR infringement be punishable by penalties which were effective, proportionate and deterrent; and Article 20 treating all serious IPR infringement as a criminal offence.

¹⁰⁶³ Gibson, 2011, p. 5.

¹⁰⁶⁴ Commission v. Council and Parliament, C-176-03 [2005] 3 CMLR 20.

¹⁰⁶⁵ Proposals for a European Parliament and Council Directive on criminal measures aimed at ensuring the enforcement of intellectual property rights, Brussels, 12 July 2005, COM (2005) 276 final.

proposal and its revised version¹⁰⁶⁶ were initially welcomed by the European Parliament,¹⁰⁶⁷ but failed to be adopted due to controversy surrounding the criminal law competence of the EC.¹⁰⁶⁸

Until and even after its proposal of criminal enforcement was finally withdrawn in 2010, ¹⁰⁶⁹ the EC did not stop far reaching and comprehensive attempts to seek harmonised enforcement rules. In 2008, ¹⁰⁷⁰ the EC began to consider an integrated strategy across the spectrum of IPRs, ¹⁰⁷¹ and in 2009, it set up the European Observatory on Counterfeit and Piracy. ¹⁰⁷² However, rules for harmonised criminal sanctions was not specifically pursued within the EU. ¹⁰⁷³ It was "not because of uncertainty about whether criminal law measures were necessary, but because it planned to achieve the same result by promoting the ratification of ACTA". ¹⁰⁷⁴ However, ACTA was not the only vehicle for the EC to achieve its goal. Bilateral trade agreements, especially the second-generation FTAs were another attractive channel for the EC and the like-minded trade

Amended proposal for a Directive of the European Parliament and of the Council on criminal measures aimed at ensuring the enforcement of intellectual property rights, Brussels, 26 April 2006, COM (2006) 168 final.

¹⁰⁶⁷ European Parliament legislative resolution of 25 April 2007 on the amended proposal for a Directive of the European Parliament and of the Council on criminal measures aimed at ensuring the enforcement of intellectual property rights (COM (2006) 0168 – C6-0233/2005 0 2005/0127 (COD)), P6_TA (2007) 0145.

¹⁰⁶⁸ Summers, Schwarzenegger, Ege & Young, 2014, p. 135. The competence of EC to propose a Directive to criminalise IPR infringement was officially denied by both Chambers of the Dutch Parliament (Staten-General) on June 29, 2006 (Intellectual Property Rights Enforcement Directive. Retrieved from *Open Rights Group* Wiki: https://wiki.openrightsgroup.org/wiki/Intellectual_Property_Rights_Enforcement_Directive).

¹⁰⁶⁹ Withdrawal of obsolete Commission Proposals, OJ C 252, 18 September 2010.

¹⁰⁷⁰ Green Paper, *An industrial Property Rights Strategy for Europe*, COM(2008) 0465 final (16 July 2008).

¹⁰⁷¹ Seville, 2016, p. 506.

¹⁰⁷² Geiger, 2014, p. 314.

¹⁰⁷³ For instance, in the communication from the Commission to the Council and the European Parliament for enhancing the enforcement of IPRs in the internal market of November 9, 2009, the EC simply mentioned that the Directive for criminal enforcement was under discussion in the Council, while emphasizing a legal framework to address a dramatic and damaging effect of counterfeiting and piracy on business, innovation, economic growth, job creation, and health and safety of European citizen (COM(2009) 0467 final).

¹⁰⁷⁴ Summers, Schwarzenegger, Ege & Young, 2014, pp. 135-136.

officials in the European member states to bypass the EU's internal law-making process and seek the pan-European rules for the IPR criminal enforcement.

5-6-3-4. Discussion and Analysis

The EU-Korea FTA is a unique example among the second-generation FTAs, given that it contains, in the final text, far-reaching, extensive and mandatory rules for criminal sanctions. There are two FTAs that the EU was involved in discussions regarding around the same time as the EU-Korea FTA: India; and ASEAN. The official negotiation of the EU-India FTA was launched in 2007, but there were no proposals for criminal sanctions. Also launched in 2007, the talks on the EU-ASEAN FTA, which was paused in 2009, to give way to FTAs with bilateral pacts with ASEAN members countries, including Singapore, Malaysia, Vietnam, Indonesia, and Myanmar, did not seek far reaching criminal enforcement rules. In its leaked 2008 draft text regarding IPR, the EU-ASEAN FTA contained a provision for criminal sanctions, which was reserved by the EU as a future right to propose. 1077

Other second-generation FTAs were the EU-Colombia/Peru/Ecuador FTA and the EU-Central America FTA. Although the DG for External Policies of the EC categorized them as having criminal measures, ¹⁰⁷⁸ actual texts either do not contain criminal measures at all or contain much less extensive provisions. The

¹⁰⁷⁵ As confirmed in the "Global Europe (October 2006)", the negotiations of EU for bilateral trade agreements with India and ASEAN were launched as a result of EC's trade policy initiatives to generate new opportunities for growth of EU by going beyond the level of liberalization achieved through WTO and DDA (European Commission, DG for Trade (2007) *Invitation to tender related to one or several contracts to provide 4 Trade Sustainability Impact Assessments (Trade SIAs)*. Brussels: author at p. 7).

¹⁰⁷⁶ Leaked texts of July 2010 (available at http://www.bilaterals.org/IMG/pdf/ip_euindia_july2010.pdf) and of 2013 (available at http://www.bilaterals.org/?eu-india-fta-ip-chapter-draft-text&lang=en) do not contain any provision for criminal enforcement of IPRS. Also refer to DG Trade, EC (2010) EU-India FTA negotiations and access to medicines: Questions and answers, retrieved from http://trade.ec.europa.eu/doclib/docs/2010/may/tradoc 146191.pdf.

¹⁰⁷⁷ Article 26, which was blanketed, says "Article 26 Criminal Sanctions [The EU reserves the right to propose specific language ensuring that all intentional infringements of intellectual property rights, with the exclusion of patents, are sanctioned. Those sanctions shall be effective, proportionate and dissuasive.]".

¹⁰⁷⁸ European Union, 2013, p. 15.

EU-Colombia/Peru/Ecuador FTAs, which was signed with Colombia and Peru in June 2012 and joined by Ecuador on 11 November 2016 has no rule on criminal sanction. The EU-Central America FTA, signed on 29 June 2012, has only one article for criminal sanctions, which does not impose obligations on legal persons, aiding and abetting, seizure of documentary evidence and any assets, confiscation of infringing goods, materials, implements and assets. ¹⁰⁷⁹

The first post-ACTA FTA was the EU-Canada FTA (CETA). 1080 A leaked version of CETA circulated in February 2012 revealed that it contained provisions similar to ACTA's. The treaty was, therefore, heavily criticized, especially for its chapter on criminal enforcement and internet infringements. After the European Parliament rejected ACTA in July, the Commission announced that it had requested the EU Presidency to withdraw the criminal enforcement provisions. 1081 From then on, no post-ACTA EU FTAs have a provision for criminal enforcement. 1082

Article 271 saying "The Parties shall provide for criminal procedures and penalties to be applied at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale. Remedies available shall include imprisonment and/or monetary fines sufficient to provide a deterrent, consistently with the level of penalties applied for crimes of a corresponding gravity. In appropriate cases, remedies available shall also include the seizure, forfeiture and destruction of the infringing goods and of any materials and implements the predominant use of which has been in the commission of the offence. The Parties may provide for criminal procedures and penalties to be applied in other cases of infringement of intellectual property rights, in particular where they are committed wilfully and on a commercial scale". The IP Chapter is included in Part IV (Trade), Title VI (Intellectual property) of the pact. Meanwhile, the EU proposal of 2008 contained rules on "attempting, aiding or abetting and inciting", confiscation, and legal persons.

¹⁰⁸⁰ European Union, 2013, p. 18.

¹⁰⁸¹ The final EU-Canada FTA text has no provisions on criminal enforcement (at Chapter 20) excepting one criminal provision against camcording.

¹⁰⁸² See for instance the EU-East African Countries FTA (Interim Economic Partnership Agreement), negotiation of which ended on 16 October 2016, having no IPR chapter at all (instead both Parties agreed to undertake to conclude the negotiation on IPRs and other issues such as services, competition policy and investment (Part I General Provision, Article 3 (Rendez-vous Clause); the EU-Singapore FTA, initialed on 17 October 2014; the EU-Vietnam FTA, negotiation of which was concluded on 1 February 2016, having no provisions on criminal enforcement; the EU-Iraq FTA (Partnership and Cooperation Agreement, signed on 11 May 2012) (Chapter III and Annex 2), having in Chapter III only one article (Article 60) related to IP, without referring to IPR enforcement rule; the EU-West Africa FTA (Economic Partnership Agreement, provisionally applied from 3

The criminal enforcement of EU-plus nature is problematic in itself. The FTA may be used by the EC in the future to drive again its failed agenda for harmonised criminal rules of IPR. The EU-Korea FTA may also be used by the Korean IP industries and their European allies for the same purposes. The observations above show the positive effect of leaked information, and in turn necessity of transparency and public participation in IP-norm setting as discussed in Section 3-5. When the draft of the EU-Canada FTA was leaked, it increased transparency and contributed public scrutiny, resulting in withdrawal of criminal enforcement provisions. By revealing the intention of negotiators as it is, the leaked text changes the power structure between the government and the public by removing asymmetry of information. Openness and information transparency serve a more democratic and human rights friendly norm setting.

To ensure the transparency in trade talks, further studies and more information gathering are warranted regarding: the process in which the presidency country of the Council of the EU sent an email to the Korean negotiators demanding the inclusion of criminal enforcement rules at the final stage of talk; whether the decision of the Council was made independently from the EC; and why did the Member States draft an opinion letter in unanimously supporting such an idea.

5-6-4. Online Enforcement: Intermediary Liability and Prohibition of General Obligation to Monitor

5-6-4-1. Legal Framework on Intermediary Liability under the EU-Korea FTA

September 2016), having no IP chapter (instead containing Rendez-vous clause Article 106(2)(2)); the EU-Southern African Development Community (SADC) FTA (Economic Partnership Agreement, provisionally applied by signing on 10 October 2016, with no substantive rule on the protection or enforcement of IP (general statement on enforcement is exclusively directed to geographical indications (Article 8); the EU-Thailand FTA, negotiation of which was launched in March 2013, having no further progress since 20 September 2013 when they concluded the second round of negotiation, and its leaked text of September 2013 showing no provision for criminal enforcement (http://www.bilaterals.org/?eu-thailand-fta-ip-chapter-draft&lang=en); and the Transatlantic Trade and Investment Partnership (TTIP) under negotiation and its EU Position Paper on IP dated 20 March 2015 having no mentioning on criminal enforcement. (http://trade.ec.europa.eu/doclib/docs/2015/april/tradoc_153331.7%20IPR%20EU% 20position%20paper%2020%20March%202015.pdf).

Articles 10.62 to 10.66 of the EU-Korea FTA govern the liability of online service providers. ¹⁰⁸³ They are verbatim copies of Articles 12 to 15 of the EU's e-Commerce Directive, ¹⁰⁸⁴ and provide a legal framework of safe harbor or exemption from liability for intermediary service providers. The European proposal to include its own legal framework for intermediary liability in the bilateral trade pact was, without substantial discussion, accepted by the Korean negotiators because they viewed the proposed European model had nothing in conflict with the US model, ¹⁰⁸⁵ which was previously incorporated into KORUS ¹⁰⁸⁶

The two differences between the EU-Korea FTA and the e-Commerce Directive are the purpose and scope of application. While the objective or purpose of the e-Commerce Directive is "to create a legal framework to ensure the free movement of information society service", ¹⁰⁸⁷ the FTA has an additional purpose of enforcing IPRs in the digital environment (Article 10.62). Whereas the liability exemption rule of the e-Commerce Directive applies to any illegal online content, including, IPR infringing material, child pornography, racist and xenophobic content, defamation, and illegal pharmaceutical offers, ¹⁰⁸⁸ the rule of the EU-Korea FTA is only applied to IPR infringing contents. This

¹⁰⁸³ In the FTA text, the term "online service provider" is used in exchangeable with terms "information society service" and "intermediary service provider", only the latter two terms being used in the e-Commerce Directive. Under the European law, the online service provider is defined so broadly as to cover wider domain of e-commerce transaction in goods and services, including those services provided at a distance, electronically and at the request of a recipient of services against remuneration (European Commission, 2011 Staff Working Paper, p. 4). However, to benefit from the liability exemption, the providers should be "in no way involved with the information transmitted", which is required to all service providers under the EU-Korea FTA (Article 10.62), while the e-Commerce Directive requires only for 'mere conduit' and 'caching' service providers (Recital 43).

¹⁰⁸⁴ Directive 2000/31/EC of the European Parliament and of the Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market (Directive on electronic commerce).

¹⁰⁸⁵ 17 USC §512.

¹⁰⁸⁶ Article 18.10:30.

¹⁰⁸⁷ Recital 8 of the e-Commerce Directive.

¹⁰⁸⁸ However, the e-Commerce Directive is not applied to those activities to be regulated for the proper functioning of the European internal market including taxation and matters related to the Data Protection Directive and gambling activities (Article 1(5) and Recital 12).

difference is due to the ISP liability rule is codified in Chapter Ten of the EU-Korea FTA, which covers only IPRs. There has also been no evidence showing that both negotiators agreed to expand the liability exemption rule to trade in service or electronic commerce, which is dealt with in Chapter Seven of the FTA.

Modelled on the e-Commerce Directive, the EU-Korea FTA sets forth material conditions for the safe harbor or liability exemption. The types of conditions are individually applied to online service providers depending on the activities they engage in: 'mere conduit', 'caching' and 'hosting'. Unlike the US model, the European model does not have an explicit safe harbour provision for service providers of location tools such as search engine services and hyperlinking services. One of the challenges that Korea faced was how to combine the two different models and implement them with a single domestic legislation. The way Korea chose was simple: just disregarding the exemption rules mandated by the EU-Korea FTA. Korea codified in verbatim the safe harbour conditions contained in the KORUS text, despite the fact that the bill to amend the Korean Copyright Act explicitly indicated that its purpose was to implement the obligations of the EU-Korea FTA.

5-6-4-2. Prohibition of General Monitoring Obligation

Commission, 2011 Staff Working Paper, p. 26.).

European model.

One positive aspect of the trade-centric pact between the EU and Korea is the prevention of imposing a general monitoring obligation upon online service

¹⁰⁸⁹ In the EU, the liability exemption of the location tools is a matter of national law. Some Member States such as Austria, Hungary, Spain, and Portugal have adopted specific rules for search engines and hyperlinking services (European

The challenge stems from the difference between the safe harbour conditions between the two models. For instance, the financial benefit prong of the US model (17 USC §512(c)) is not required in the European model. The financial benefit standard is a legislative reaction to incorporate the principle of vicarious liability developed by the US courts, in particular *Marobie-FL, Inc. v. National Association of Fire Equipment Distributors*, 983 F. Supp. 1167 (N.D. III. 1997) (H. R. Rep. No. 105-551 WIPO Copyright Treaties Implementation and On-line copyright infringement liability limitation, May 22, 1998 Part 2, at p. 54). Further, a policy for termination of the accounts of repeat infringers (17 USC §512(i)) and a requirement not to initiate the chain of transmission of copyrighted materials (Article 18.10:30(b)(ii)) are not conditions for the liability exemption under the

providers. Both parties are banned from forcing service providers to monitor information that they transmit or store, or to actively seek facts or circumstances indicating illegal activity. This is a strict prohibition as the language "shall not" is used instead of "may not".

There is neither definition nor explanation in the FTA for the meaning of 'general monitoring' and 'active seeking'. Due to the fact that the texts are a "copy-and-paste" replica of the e-Commerce Directive, it is reasonable to assume that Korean negotiators entirely agreed to interpret them under the meaning of the e-Commerce Directive. After the EU-Korea FTA was provisionally applied in July 2011, the European Court and national courts of Germany and France have successively interpreted their meanings in numerous cases.

In the *Scarlet* case, ¹⁰⁹¹ the European Courts held that an injunction imposed by the Belgian Court upon the intermediary (Scarlet, formerly Tiscali) to install a filtering system to prevent P2P filing sharing was requiring the intermediary to carry out general monitoring, which is prohibited by Article 15(1) of the e-Commerce Directive. The Court viewed that a filtering obligation to identify and block electronic communications of Scarlet users, which may infringe copyright of musical works collectively managed by SABAM, is general in nature because: it applies to all of the electronic communications made through the network of the intermediary; there is no limitation in time; and it is directed at all future infringements (¶ 47). Further, the Court went on to rule that the general filtering obligation would result in a serious infringement of the freedom of the intermediary to conduct its business (¶ 48).

This reasoning is sustained literally the same at the subsequent, similar, *Netlog* case. The only difference is the type of online intermediary: a hosting service provider in the *Netlog* decision (a social networking platform, similar to Facebook), while a 'mere conduit' service provider in the *Scarlet* case.

One of the central questions of the prohibition of general monitoring is whether ISPs are, once they were notified or had a knowledge of the existence of

¹⁰⁹¹ Scarlet v SABAM, C-70/10 (European Court of Justice 2011).

¹⁰⁹² SABAM v Netlog, C-360/10 (European Court of Justice 2012)

infringing materials on their platform, obliged to take measures to prevent further infringement of copyright. This, called a 'staydown' measure as opposed to the 'takedown' measure under the US model, ¹⁰⁹³ was specifically dealt with by French and German Supreme Courts in July 2012.

On 12 July 2012, the French Supreme Court, in three resembled cases involving Google France, 1094 reversed the Paris Higher Court decisions, holding that an ISP had no duty to take staydown measures to prevent uploading of the same infringing materials by its users. 1095 This ruling is highly regarded as following the ECJ's principles established in the *Scarlet* and *Netlog* decisions, and putting an end to lower courts practices that have imposed staydown obligations. To the French highest court, such staydown obligations force Google to seek out illicit uploads, as well as implement a blocking mechanism with no limitation in time, which cannot be carried out without conducting the prohibited general monitoring. 1096

On the very same day, the German Supreme Court (BGH) applied the no staydown principles of the ECJ in a different way. In *Rapidshare (Alone in the Dark)* case, ¹⁰⁹⁷ the BGH ruled that an ISP, aware of copyright infringing material from the notice of right holders, could be liable when it ignored a duty to act reasonably to prevent harm to others. However, the BGH limited the duty of care to the case where such a preventive measure was reasonable both

¹⁰⁹³ Carroll, 2016, p. 190.

¹⁰⁹⁴ La société Bac films vs. La société Google France and Inc (1 & 2) (Arrêt n° 828 du 12 July 2012 (11-13.666) (This case involves a documentary film "Les Dissimulateurs" and hyperlinks provided by Google France to which users could watch the whole film in a streamed way. Upon request of the copyright holder, the Google France deleted the hyperlinks and later another hyperlinks for the same film were found); La société Bac films vs. La société Google France (Arrêt n° 831 du 12 juillet 2012 (11-13.669) (involving another documentary film "L'affaire Clearstream"); and Aufeminin.com v. Google France (Arrêt n° 827 du 12 July 2012 (11-15165; 11-15188) (involving photographic works of a singer and actor taken at the Marrakech Film Festival in 2001).

¹⁰⁹⁵ In another case involving a hosting service provider (DailyMotion), the French Supreme Court also found that the ISP only had an obligation of takedown action upon notice (*Christian C., Nord Ouest Production v. DailyMotion*, Arrêt n° 165 du 17 février 2011 (09-67.896), cited in Ficsor, 2012, p. 39).

¹⁰⁹⁶ Angelopoulos, 2016, p. 126.

¹⁰⁹⁷ BGH, *Rapidshare I*, 12 July 2012, I ZR 18/11.

technologically and economically. According to the Court in this case, the reasonable measure may include: monitoring a reasonably "small number" of third parties' sites providing link collections¹⁰⁹⁸ that enable users' access to RapidShare's contents that may infringe computer game software "Alone in the Dark" of copyright holder 'Altari'. ¹⁰⁹⁹

5-6-4-3. Breach of Korea of the No General Monitoring Obligation

The obligation of no general monitoring under the EU-Korea FTA has not been respected by Korea. This breach has lasted for five years, since the provisional application of the FTA in 2011. Nonetheless, their European counterpart has never called the non-compliance into question.

In 2006, the Korean Copyright Act was revised to introduce special regulations against certain types of online intermediaries. By definition, the special types of online intermediaries are those who aim principally to enable interactive transmission of copyrighted works between users (Article 104). The main targets of the regulation are online file storage (also called "filelockers" or "webhard services") and P2P service providers. The statutory obligation imposed upon them is filtering measures to prevent uploading and downloading of copyright infringing materials upon request of right holders.

The request is different from the notice of the notice-and-takedown system in a sense that the copyright holder can make such a request without informing online intermediaries of the locations of infringing materials (e.g., URLs). Information on the locations are mandatory in the notice of the notice-and-takedown model. Therefore, the filtering measures include *ex ante* preventions and the obligation is tantamount to a request-and-staydown obligation. Should

¹⁰⁹⁸ The service of RapidShare is distinguished from conventional hosting services in that RapidShare does not provide a search function by which users can locate materials uploaded by other users. Instead, there exist third parties' sites providing hyperlink collections for the uploaded materials.

Angelopoulos, 2016, p. 157. In the next year, the BGH imposed stricter preventive measures, after relying on different factual findings that the business of RapidShare significantly facilitates copyright infringement (BGH, *Rapidshare III*, 15 August 2013, I ZR 80/12). Subsequently, the German lower courts, following the BGH rulings of RapidShare, imposed ISPs (including YouTube) an automated filtering obligation, which is "clearly in no way compatible with underlying EU law" (Angelopoulos, 2016, pp. 158-159).

the special intermediaries be found to have incompletely fulfilled the filtering obligation, they are subject to an administrative fine up to KRW thirty million. In total, fines of KRW 2.5 billion have been imposed on around six hundred intermediaries (*see* <Table 5-3> below). 1100

<table 5-3=""> Filtering Obligation of Special Intermediaries and Administrative Fines (Amount: KRW Million)</table>										
Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Number of OSPs	80	88	56	76	0	0	0	0	0	598
Amounts of Fines	674	725	250	862	0	0	0	0	0	251

Starting in 2012, the special intermediaries have faced a continuously stricter regulatory regime. To do business, they must register with the government. ¹¹⁰¹ For the registration, the special intermediaries must take abundant technical measures including filtering software. They cannot select which filtering software is to be used. It must be verified by the Korea Copyright Commission (KCC), a governmental body, that the filtering solutions effectively block unauthorized file sharing. The criteria of verification are strict: the filtering measure must have a success ratio over 97% for audio contents and a success ratio over 95% for video contents, ¹¹⁰² and has to pass the KCC's field test. Further, the special intermediaries need to apply the filtering measure 24 hours a day, monitoring all traffic to and from every user. In addition, at least two employees have to monitor copyright infringing or other unlawful information 24 hours a day. Moreover, the special intermediaries are required to submit to

¹¹⁰⁰ The fines were first charged in 2008 when the revised regulation went into force and stopped in 2012 because of the introduction of a so-called webhard registration system as explained below.

¹¹⁰¹ Under the Korean law, the Telecommunication Business Act, the online intermediaries (other than key telecommunication service providers such as Internet connection service providers) can do their business without prior registration.

These criteria are applied to filtering solution using a fingerprint technology. For various schemes and vendors for content recognition technologies worldwide, *see* Annex 12A of the European Commission (2016) Commission Staff Working Document: Impact assessment on the modernisation of EU copyright rules (Part 3/3). SWD(2016) 301 final.

the government documents explaining how they compensate the infringed copyright holders with its implementation plan. Furthermore, the special intermediaries have to keep the log records showing all incoming and outgoing traffic of every user for more than two years. The records include uploaders' identification information, list of shared contents, and date and payment of every transaction. ¹¹⁰³

The filtering obligation of the special intermediaries is in a direct conflict with the EU-Korea FTA obligations in light of ECJ's principles developed in the *Scarlet* and *Netlog* decisions. The filtering measure under the Korean Copyright Act is a prohibited, general monitoring because it requires "active observation of files stored by users with the hosting service provider and would involve almost all of the information thus stored and all of the service users of that provider" Also, it obliges the special types of intermediaries "to actively monitor almost all the data relating to all of its service users in order to prevent any future infringement" of IPRs and "to carry out general monitoring, something which is prohibited by Article 15(1) of Directive 2000/31". 1105

Despite this argument, the Korean government and copyright industries have denied that there is a conflict on two grounds, and firmly opposed the copyright reform bill of 2013 that tries to codify the no general monitoring obligation and eliminate the filtering obligation. 1106

The first ground of their denial and opposition is the "no-duty-to-monitor" obligation under the US model. The "no-duty-to-monitor" concept is provided

¹¹⁰³ In April 2015, the mandatory filtering measure was extended to cover pornographic contents (not limited to child porn). Such measures also have to be taken for 24 hours and log records thereof have to be kept for at least two years. To ensure the implementation of filtering measures, the government officials have the power to investigate the special OSPs.

 $^{^{1104}}$ \P 37 of the Netlog decision and \P 39 of the Scarlet decision.

 $[\]P$ 38 of the *Netlog* decision; and \P 40 of the *Scarlet* decision.

¹¹⁰⁶ The bill (No. 1903349, introduced on 17 January 2013) also proposed to modernize the Copyright Act by reflecting the balance taking clauses in other FTAs, which is available at

 $http://likms.assembly.go.kr/bill/jsp/BillDetail.jsp?bill_id=PRC_R1H3I0E1O1F7M1C8D1B2Q0S7M8U0H8.$

¹¹⁰⁷ Carroll, 2016, p. 190.

in the Korean Copyright Act and based on KORUS. This prevents conditioning an ISP's eligibility of safe harbour on its monitoring their services or requiring it to affirmatively seek out facts indicating infringing activity, except to the extent consistent with the standard technical measures. 1108 Yet, the no-duty-tomonitor rule is fundamentally different from the "no general monitoring" obligation. The general monitoring is strictly prohibited regardless of the fact that intermediaries are liable or not for their user's copyright infringing activities. Put differently, under the European model, courts cannot order even the *liable* intermediaries to monitor or actively seek infringing activities insofar as it is general in nature. By contrast, the US model does not entirely ban the general monitoring – it only prohibits attaching monitoring to eligibility - for the benefit of safe harbour and does not distinguish between the general or specific nature of the monitoring. 1109

The second ground relied upon by the Korean government and copyright industries stems from the misunderstanding of the concept of the "no general monitoring" obligation. They interpreted the meaning of "general" narrowly, as merely requiring online intermediaries to take filtering measures without request of right holders. 1110 Under the Korean Copyright Act, the filtering obligation is triggered only when the copyright holders request the special intermediaries to do so, and, therefore, according to them, the obligation is specific, not general in nature. 1111 This interpretation is groundless in light of

¹¹⁰⁸ Section 512(m) of the US Copyright Act and Article 18.10:30(b)(vii) of

¹¹⁰⁹ Concerning the "notice-to-staydown" measures, the legislative history indicates that intermediaries may be ordered to take such measures (H.R. Rep. No. 105-551 (Part I) p. 26: "Once one becomes aware of such infringement [] one may have an obligation to check further"). In practice, however, the intermediaries have not been required to block copyright infringing material from being re-uploaded to their service after the material has been taken down in response to a copyright owner's notice (Carroll, 2016, p. 190).

¹¹¹⁰ This narrow interpretation is also accepted by some lawmakers following the Korean Constitutional Court's holding that the filtering obligation imposed on the special type of online intermediaries is a limited one. The Court did not mention a general obligation as opposed to the limited obligation. The Court reasoned that the filtering obligation is conditional on the prior request from copyright holders, and found it proportional and constitutional (99HunBa 13, 52 & 110, 24 February 2011).

¹¹¹¹ The Korean Ministry of Foreign Affairs (Taewon Lee, a counsellor of the Embassy and Mission of the Republic of Korea in Brussels) officially replied to a

the *Scarlet* and *Netlog* decisions of the ECJ and the *Google France* decision of the French Supreme Court.

5-6-4-4. Discussion and Analysis

The case study on intermediary liability and the ban on general monitoring obligation shows that those who designed and are implementing the EU-Korea FTA are indifferent to the balance between IPR protection and other fundamental rights. As the *Scarlet* and *Netlog* decisions of ECJ show, the enforcement of IPRs should be carried out in a balanced way, considering other rights, including the freedom to conduct business, the right to protection of personal data and the freedom to receive or impart information. The strict prohibition of general monitoring of online intermediaries is the central element for the balance striking work. Korea's intentional ignorance of the key balancing element for more than five years has never attracted attention from IPR-specific periodic conversations between the EU and Korea (IPR Dialogue) or from the EC's annual reports to the European Parliament on the implementation of the FTA.

A counterfactual analysis also supports this observation. What if the breach of Korea occurs with the protection of "Bordeaux" or "Münchener Beer", registered GIs on Annex 10-A of the FTA, or with the criminal enforcement against piracy or counterfeiting? Then, the DG Trade of EC would take, without waiting for complaints from private stakeholders, actions against Korea. When the violation of the FTA has not been resolved in a short period time, the EC

expression as secondary, *see* Milly 2015, pp. 114-116 ("It is regrettable that the CJEU left unclear whether data protection and freedom of expression could independently have tilted the balance against the injunction".).

member of European Parliament (Amelia Andersdotter) that "First of all, our government made a revision to the Copyright Act in order to provide for no general obligation to monitor in 2011. Article 102 paragraph 3 reads clearly that with regard to liability of online service providers, OSPs do not have liability to monitor possible infringements within their services and to investigate infringement actively. This provision is in accordance with the Article 10.66 of the Korea-EU FTA. Secondly, article 104 of the Copyright Act targets special types of online

service providers not online internet service providers in general. This article concerns some OSPs which offer downloading or file sharing such P2P, webhard, etc" (An email message from Taewon Lee to Amelia, 03 October 2012).

1112 For a critical analysis that ECJ recognized the freedom to conduct a business as the primary counterweight to IPRs, and the users' privacy and freedom of

would launch the dispute settlement procedures pursuant to Chapter Fourteen of the FTA, seeking a trade retaliation. The balance with the freedom to conduct business of online intermediaries, let alone with the protection of personal data and the freedom to receive or impart information of users has an insufficient gravity to attract the EC's attention. This has been the case even when the European internet service providers made public the possible breach of the FTA by Korea. ¹¹¹³

The compatibility of the filtering measure with the prohibition of general monitoring obligation has been sparked by the EC's copyright reform proposal published in September 2016.¹¹¹⁴ The filtering obligation proposed by EC is broader than the current Korean one given that the filtering or an "effective content recognition" technology must be taken by any hosting service providers "that store and provide to the public access to large amounts of works or other subject-matter uploaded by their users".¹¹¹⁵ The EC's proposal does not require a prior request of the right holder for the filtering measure. Instead, it compels online intermediaries to conclude agreements with right holders on the availability of copyrighted works on their services.

From the Korean experiences, the filtering measures by intermediaries cannot be taken without general monitoring. In order to filter out unwanted content, the intermediaries must monitor all content. Further, the effectiveness of filtering measures in reducing online copyright infringement and bridging the "value gap" between intermediaries and copyright holders has not been established by reliable, empirical data. Rather, the filtering obligation has created a balloon effect: squeezing the special types of intermediaries (P2P and webhard service providers) with tight controls triggered bigger piracy on the other side (torrent

¹¹¹³ EuroISP, 2015: "The South Korean regulatory outlook is of particular interest to European ISPs, especially given the concern among the ICT community that recent amendments to the Korea Copyright Act may conflict with the Korea-EU Free Trade Agreement (FTA). Indeed, the obligation for Online Service Providers operating in South Korean to filter content under what is effectively a Notice and Staydown mechanism is contradictory to the FTA, especially in the context the recent EU Court of Justice rulings that prohibit the kind of general monitoring that a filtering obligation requires".

¹¹¹⁴ Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market. COM(2016) 593 final.

¹¹¹⁵ Article 13 of the proposed Directive.

<table 5-4=""> Unauthorised Materials in Intermediaries</table>								
Year	P2P		Webhard		Torrent		Portal	
	Vol.*	Var.**	Vol.	Var.	Vol.	Var.	Vol.	Var.
2010	442,362	-48.4%	860,379	+48.4%	-	-	304,884	-11.5%
2011	245,067	-44.6%	731,532	-15.0%	525,724	-	293,981	-3.6%
2012	209,359	-14.6%	664,758	-9.1%	745,067	+41.7%	222,704	-24/2%
2013	183,646	-12.3%	759,241	+14.2%	874,351	+17.4%	289,316	+29.9%
2014	215,039	+17.1%	333,942	-56.0%	772,592	-11.6%	313,235	+8.3%
2015	196,418	-8.66%	295,423	-11.5%	598,822	-22.5%	301,233	-3.83%

^{*} Volume: Number of pirate materials found online by the Copyright Protection Center (in thousand)

The volume data was obtained from the Annual Reports on Copyright Protection (from 2011 to 2016) published by the CPC, a branch body of the Korea Federation of Copyright Organizations, which became a governmental body in 2016.

The mandatory filtering also fuels shift in bargaining power in favour of copyright holders. With the filtering solution, the copyright holders can request preventive measures prior to infringement and may control contents to be shared on the service of online intermediaries. This forces intermediaries to accept anti-competitive terms requested by copyright holders. For instance, the special types of intermediaries in Korea have entered into contracts with major broadcasting organizations under which the copyright owners are rewarded 77% of fees paid by download users, and users are only allowed to download television broadcast through wire Internet and desktop PCs, excluding mobile platform, streaming service and other over-the-top services.

5-7. Conclusion

A close examination of the negotiation history of the EU-Korea FTA conducted here reveals that the traditional practice of the EU's free riding on US

^{**} Variation: change from previous year.

¹¹¹⁶ To cope with this balloon effect, the Office of Copyright Police, a branch of the Korean Minister of Culture, conducted intensive crackdown on torrent sites in 2013 and 2015, prosecuted twelve individuals who operated torrent sites and 41 individuals who uploaded torrent seed files.

aggression on IP in trade agreements holds true. At the same time, how the path dependency, i.e., the set of decisions previously made by Korea in deals with the US, reinforces the IP maximalist agendas with little cost. It also shows that the process of negotiation and implementation controlled exclusively by trade officials has become a vehicle that one particular interests of society, or the business sectors achieve what they want for their own sake. This has left little room for the public interests and the human rights to science and culture to be taken into account. This has been demonstrated with case studies on: the transfer of technology clause; provisions for artists' resale right; public health as related to the Doha Declaration; remuneration right of performers and phonogram producers; patent-approval linkage; criminal enforcement; and prohibition of general monitoring obligation upon online intermediaries.

The democratic process in norm-setting and informational transparency is crucial to repair the broken balance of the trade-centric IP norms. The need for this has been demonstrated in the case studies on the procedures of negotiation and implementation phases of the EU-Korea FTA and in studies on the provisions for remuneration rights of performers and phonogram producers and for criminal enforcement. What if the EC's proposals on the remuneration right had been made open for public scrutiny? If the draft texts for the criminal enforcement rules had been leaked? Then, the flawed compromise on extensive border measures could have been fixed, and the EU-plus model for criminal sanction would have been removed from the pact. The same may have occurred for the strict ban on retransmission of television signals over the Internet.

The trade-centric TRIPS-plus models have been considered by scholars and human rights advocates as having adverse impacts on and imposing an even greater threat to individuals' enjoyment of human rights and national obligations under the international human rights instruments. The findings of this Chapter show that identifying and quantifying such impacts are not always straightforward. Two explanations for this may be provided. The impacts anticipated from the theoretical analysis of legal text of the FTA appear in the real world in different ways depending on various parameters such as the level of domestic implementation and relevant social, cultural and industrial structure and instruments as shown in the case study on data exclusivity. More explanatory account for the difficulty in quantifying the adverse impact is

shown by the lack of empirical data and insufficient time lapse from the entry into effect of the FTA.

The more important effect of the EU-Korea FTA and complex networks of trade-centric IP agreements would be the lock-in domestic reform and the prevention of policy reversal. Such effect is not apparent as its causal link to FTAs is invisible and implicit. The more TRIPS-plus FTAs are concluded, the deeper the integration of IP maximalist clubs become. As domestic IP legislations become increasingly subordinate to legally binding international trade agreements, reforming IP norms is harder to achieve.

The analysis of this Chapter confirms the hypothesis that trade-centric trend upholding stronger and more expansive TRIPS-plus standards is robust in the real world between the EU and Korea. It also shows how big is the gap between the trade-centric IP norms and the human right perspectives of IP. In order to bridge the gap and to recover the intended balance between protecting private interests of IPR holders and preserving public interests, fundamental reforms of existing IPR norms and trade policy are necessary. The human rights discourse discussed in Chapter 3 may pave the way for such reforms.

¹¹¹⁷ Valdés & McCann, 2014, p. 39.

CHAPTER 6. CONCLUSION

6-1. Research Questions and Main Findings of the Study

The existing model of global IP regime, which is based on neo-liberal or Anglo-American utilitarianism, is unsustainable. Altering incentives to create into incentives to commercialise is just one aspect. Goal of the trade-centric global IP regime, especially TRIPS-plus regime, is not a balance between protection and dissemination. It aims at providing for investors with privileges to seek monopoly rent. Recipients this model targets are not individuals who express human dignity in their creation. They are capitalistic producers. In this model, distributive justice is ignored. It also fails to capture the humanistic element of IP, or dynamics of cultural creation and circulation. Can human rights-based approach provide a powerful counter-framework to the trade-centric IP regime? This is the main research question of this study.

For seeking the counter-framework, this thesis investigated two competing, inter-related aspects of IP: trade; and human rights. Trade aspects of IP, explored in Chapter 2, refer to the centrality of trade in IP, both qualitatively and quantitatively, rather than a mere relatedness to trade. Vital in understanding the trade-centrality is the fact that a logically inevitable link between IP and trade is lacking. Strategic use of patent by manufacturing industries in Europe and the US during nineteenth and early twentieth centuries paved the way for trade-centrality by making the idea of property in knowledge acceptable among governments and international agreements on IP emerge (Section 2-2-3). From 1980s, strategic actions of US private sectors in collaboration with European and Japanese counterparts were decisive in forming the trade-central IP regime into global, which can be better understood from the lens of "structured agency" of a critical realism (Section 2-4). The present trade-centric IP model departs from policy objectives of the early traderelated IP model: cross-border mobility of artisans; domestic innovation; dissemination of technologies (Section 2-2-2); international transfer of technology; and actual or local working of knowledge (Sections 2-2-3 to 2-2-4).

¹¹¹⁸ Sunder, 2006, p. 283.

Chapter 2 also shows that a system for encouraging and rewarding creative labours can be designed in diverse ways, and a reward system based on IP is far from universality and cross-cultural validity (Section 2-3).

Studies on human rights aspects of IP in Chapter 3 through the lens of long-forgotten right to science and culture have a virtue to provide a holistic approach to IP and human rights. The right to science and culture, having both protection and dissemination sides, allows us to embrace IP as an internal element in the analysis of the intersection of human rights and IP. Another virtue is that the right to science and culture guides us to an alternative model for production and dissemination of creative knowledge and information.

By closely investigating the drafting history of the 'protection side', i.e., Author Clause, this thesis maintains that an author for the protection of moral and material interests does not include an inventor within the meaning of the existing patent laws. Further finding of this study is that the scope of IP pursuant to Author Clause is much narrower than that found in the trade-centric IP regime (Section 3-3). This finding may start the ball rolling toward a fundamental reform of patent system. In the reformed model, an invention is redefined as an expression that links an inventor and his/her invention, leading to a new approach to the scope of patent protection. A patent right is restricted not to exclude an independent innovator who invented (or 'authored' under the meaning of Author Clause) the same or equivalent invention as a patent holder (Section 3-6-3). Protection of material interest of authors, which is neither equated with the monopolistic right granted by the contemporary IP laws, nor covers all forms of economic interests, is guaranteed by a narrower type of economic interests – the right to remuneration for intellectual labour (Section 3-3-4). This calls for a change in basic design of the trade-centric IP regime, a shift from property to liability rules (Section 3-6-2).

Chapter 3 also recaptured the notion of the right to science and culture, particularly its dissemination side, in order to make such a right operable, i.e., "identifiable and practicable rights and obligations" ¹¹¹⁹ and "a decisive

¹¹¹⁹ UN General Assembly Resolution 41/120, dated 4 December 1986.

component of the normative force of a legal norm". 1120 By taking the notion of 'access to knowledge' and 'capabilities approach' as a conceptual subsidiarity, 'culture' and 'science' are redefined (Sections 3-4-1 and 3-4-2), and everyone's right to participate in cultural life and enjoy benefit from scientific progress finds its footing for active elements of the right to access to knowledge and information. The active elements, however, do not confer individuals an enforceable entitlement to claim access to or benefits from creative production vis-à-vis creators. Rather, they entail a right for people to demand cultural and scientific policies to be framed in a way to make cultural and scientific creations available and accessible. Therefore, enabling conditions and environment are crucial for the realisation of the right to science and culture. To ensure real opportunities and particular capabilities for everyone, two conditions are vital: participation in decision making process; and removing barriers that prevent people from accessing and using cultural and scientific creations. In this respect, the TRIPS-plus IP norms are in direct conflict with human rights as public participation in the IP norm setting process is denied and the barriers are stacking higher.

The case studies conducted in Chapters 4 and 5 on two TRIPS-plus bilaterals, KORUS and the EU-Korea FTA, demonstrate that how far the FTAs are devoid of the trade concerns of early IP era, and how neglected the human rights dimension is in the FTAs. This may be considered as an obvious result without requiring further elaborations given that those two FTAs are at the apex of the TRIPS-plus march. However, findings of the case studies show that the intersection of human rights and IP is varying from provision to provision and differing considerable dependent upon the way the FTAs obligations are implemented as demonstrated with case studies on patent-approval linkage of KORUS (Section 4-6-2) and data exclusivity of the EU-Korea FTA (Section 5-5-4). It also reveals that the process by which the maximalist IP agenda was successfully incorporated into the FTA texts was differing. The deal of KORUS experienced strong oppositions not only from grass roots, civil societies, farmers, labor unions and politicians, but also from Korean negotiators, especially those who were in charge of copyright policies, but was successfully

_

¹¹²⁰ Romainville, 2015, p. 427.

concluded in a short period because the negotiation process was governed by trade officials who were backed by top level politicians pursuing KORUS for highly political purpose. By contrast, the EU was relatively easy in getting what they wanted from Korea partly because of the path-dependency, i.e., the set of decisions previously made by Korea in KORUS.

The case studies also exhibit the significance of concerns expressed in the UN Copyright Report 2014 and the Patent Report of 2015 on transparency and democratic process in IP norm setting. The negotiation and subsequent discussions on implementation of both FTAs were carried out behind a closed door without permitting public engagement and commentary. Lack of transparency and participatory process not only raises question on the efficiency of the norms and its legitimacy. It also produces a flawed compromise among trade negotiators, which serves to the interests of small groups of societies at the expense of general public (*see* for example a case study on the right to communication to the public and remuneration right of performers and phonogram producer of Section 5-4-3).

6-2. Merits and Limits of Human Rights Discourse

In order to provide a counter-framework of the existing trade-centric IP norms on the basis of human rights, the strength and weakness of human rights discourse needs to be considered.

The idea of human rights is one of the most powerful concepts to motivate juristic, social, political and philosophical thoughts. As Jack Donnelly puts it, human rights are a "hegemonic political discourse" and "settled norms" of contemporary international society. As a moral and legal norm of universal application, the international human rights standards have implications for diverse range of actors in international community, not just for the dominant groups. They can provide moral and political weapons for the non-dominant groups. For the human rights advocates, the UDHR and two Covenants became

¹¹²¹ Rosenbaum, 1980, pp. 22-23.

¹¹²² Donnelly, 2003, p. 38.

a useful platform.¹¹²³ There are a number of cases where an appeal to human rights has become a successful tool for advancement of political demands by non-dominant groups, for example by indigenous peoples and by women's movements.¹¹²⁴ As Keck and Sikkink (1998) observed, for many NGOs the international human rights norms are the main recourse in domestic political and social struggles.

Domestic NGOs bypass their states and directly seek international human rights allies to put pressure on their states, thereby improving the poor human rights records, for instance, in Argentina and Mexico during 1970s-80s. While the human right movements are mainly related to the civil and political rights, the issues associated with the second generation rights has come to centre-stage in the global engagement with human rights. As an example, in 1998 the international human rights community took issue of the relationship between IP regime and right to health, which led to the High Commissioner's issuing a report on the impact of TRIPS on human rights with a focus on access to medicines in 2001. The efforts of NGOs and international human rights institutions have shifted the discussions of intellectual property from traditional perspective of innovation, economic development and piracy to new standpoint of human rights.

Some commentators explain the possible success of the human right movements in terms of the primacy of human rights in international and legal point of view. The basic principles of human rights are globally established and the obligations to the protection of human rights become the concerns of all states. However, as Dommen correctly points out, on the political level, the human rights movements are less advanced in the dominant intergovernmental organisations such as the World Trade Organisation (WTO) and needs to

¹¹²³ Morsink, 2009, p. 1.

¹¹²⁴ Cox & Schechter, 2002, p. 62. The authors go on to say that "[I]n this regard the field of human rights remains a terrain of struggle in which the notion of human rights continuously evolves."

¹¹²⁵ Keck & Sikkink, 1998, pp. 12, 79-80.

¹¹²⁶ Sen, 2009, pp. 380-381.

¹¹²⁷ Deere, 2009, p. 130.

¹¹²⁸ Donnelly 2003, p. 38.

contemplate how and where to raise their issues so that they get heard. 1129

At the fundamental level, it is debatable if the idea of human rights is philosophically justifiable for all cultures and societies having different religious or moral belief, and politically viable within the global power politics. In some areas, it is true that the international bills of human rights became a useful platform for the advancement of political demands by non-dominant groups, 1130 and international human rights communities have been successful, from 1998, in mobilizing the UN human rights body to issue a series of reports, recommendations, and resolutions touching upon IP in terms of human rights. Such a success story of human right advocates in shifting the discussion of IP from traditional perspective of economic growth, innovation and piracy to new standpoint of human rights has its history of twenty years. Yet the human rights discourse is far from the dominant perspective for IP policy makers and practitioners, let alone scholars.

It is required to avoid taking the validity of human right for granted or assuming, explicitly or implicitly, the superiority of human rights over IP protection. Also is important to understand that the concept of human rights and humanity has been socially constructed. The moral universalism of human rights resting upon the philosophical belief that an absolute moral order exists independently from contingent historical and social conditions and applies to all human beings at all times needs to be modified in consideration of cultural relative nature of human rights. We do not need to entirely reject the idea of universality per se, but it is required to understand such universality must be attained within culture, rather than be imposed from outsider. 1131 The concept of human rights is a product of highly complicated evolution of legal, moral. political and philosophical motivations. 1132 For making the concept of human

286 / 335

¹¹²⁹ Dommen, 2002, pp. 49-50.

¹¹³⁰ Cox & Schechter, 2002, p. 62.

¹¹³¹ Rajagopal, 2003, p. 211. Among others, An-Na'im (2003, p. 2) holds that the universality of HRs should be seen as a product of a process rather than as an established "given" concept and specific predetermined normative content to be discovered or proclaimed through international declarations and rendered legally binding through treaties.

¹¹³² Menke & Pollmann, 2007.

rights meaningful, it needs to be redefined in light of experiences and circumstances of today. 1133 Such redefinition requires investigation of the nature of trade-centrality of contemporary IP norms and their intersection with human rights. It also demands avoiding over-legal approach to human rights, which often means a narrow focus of what the law says, and focusing how to translate human rights into real entitlement. 1134 The re-definitional work also applies to IP. In this work, we need to escape from the proposition that IP is about promoting creativity; the gist of the proposition should be insisting that IP ought to be different. 1135

6-3. Limitations and Future Research

For the purpose of investigating the intersection of IP and human rights, this thesis conducted case studies on KORUS and the EU-Korea FTA. Case study on those two FTAs, given their strong TRIPS-plus nature, is particularly appealing. But it also presents certain limitations.

The first limitation relates to the issue of generalisability. Findings of the case studies reveal that impacts of FTAs are highly dependent on the way they are implemented. While some TRIPS-plus obligations are over-implemented, others are neglected or implemented in quite different ways from what FTAs require. Further, as illustrated in patent-approval linkage cases, small institutional changes in implementing the FTA obligations lead to significantly different outcomes.

The second limitation stems from the lack of reliable data for comprehensive human rights impact assessment. This is due to: (1) insufficient time lapse from the entry into effect of the FTAs; (2) unavailability of raw data; and (3) concealment by governments of documents and information produced during the negotiation and subsequent implementation phases. For these reasons, in certain areas, the impact is observable but in most areas comprehensive impact assessment is less achievable.

¹¹³³ Arendt, 1949, p. 34.

¹¹³⁴ Chitonge, 2015, p. 15.

¹¹³⁵ Drassinower, 2015, p. 151.

The findings of this thesis have lighted some avenues for future research. For example, research is needed to explore other FTAs having similar TRIPS-plus provisions to KORUS and the EU-Korea FTA and identify factors that contribute, if any, different outcomes from those of the two FTAs. It also necessary to find and understand, as this thesis suggests, contexts under which IP and human rights clash and social forces to drive and deepen such a clash. By knowing them, it would be possible to go beyond the binary choice between conflict and co-existence of IP and human rights, and to reformulate the tradecentrality of IP regime.

This thesis offers human rights model of IP to fundamentally reform the contemporary trade-centric IP norms; a new balance between protection and dissemination; a liability rule, rather than a property rule, for the protection of material interests of creators; and a conceptual shift of right to invention, which is based on the notion of invention as an expression and permits an independent invention. This model, however, firmly anchors to the premise that a personal link exists between creators and their scientific, literary or artistic productions. The personal link is a primary justification for the human rights protection of creators because the creative production is regarded as an expression of author's human dignity. Future research needs to address the relationship of the personal link and the notion of romantic authorship that puts an emphasis on individuals in creative process and ignores commons and social nature of creation.

Bibliography

Abbott, F. M. (2006). TRIPS and human rights: Preliminary reflections. In F. M. Abbott, C. Breining-Kaufmann & T. Cottier (Eds.), *International trade and human rights: Foundations and conceptual issues (World Trade Forum, Volume 5)* (pp. 145-170). University of Michigan Press.

Abbott, F. M. (2014). Trade costs and shadow benefits: EU Economic Partnership Agreements as models for progressive development of international IP law. In J. Drexl, H. G. Ruse-Khan, S. Nadde-Phlix (Eds.), *EU Bilateral Trade Agreements and Intellectual Property: For Better Or Worse?* (pp. 159-170). Springer.

Acconci, P., Valenti, M., & De Luca, A. (2014). *General Interests of Host States in International Investment Law* (Vol. 13). G. Sacerdoti (Ed.). Cambridge University Press.

Aitken, M., Kleinrock, M. & Nass, D. (2016). *Outlook for global medicines through 2021: Balancing cost and value*. QuintilesIMS Institute: New Jersey.

Aleman, M. M. (2014). Impact of TRIPS-plus obligation in economic partnership and free trade agreements on international IP law. In J. Drexl, H. G. Ruse-Khan, S. Nadde-Phlix (Eds.), *EU Bilateral Trade Agreements and Intellectual Property: For better or worse?* (pp. 61-86). Berlin: Springer.

Alford, W. P. (1995). *To steal a book is an elegant offense: Intellectual property law in Chinese civilization.* Stanford, Calif.: Stanford University Press.

Alston, P. (2002). Resisting the merger and acquisition of human rights by trade law: A reply to Petersmann. *European Journal of International Law*, 13(4), 815.

Amani, B. (2009). State agency and the patenting of life in international law: Merchants and missionaries in a global society. Farnham: Ashgate.

American Association for the Advancement of Science [AAAS]. (2013). Defining the right to enjoy the benefits of scientific progress and its applications: American scientists' perspectives. DOI: 10.1126/srhrl.aaa0028.

An-Na'im, A. A. (2003). Introduction: "Area expression" and the universality

of human rights – Mediating a contingent relationship. In D. P. Forsythe & P. C. McMahon (Eds.), *Human Rights and diversity: Area studies revisited*. University of Nebraska Press.

Anderson, R. D. & Wager, H. (2006). Human rights, development, and the WTO: The cases of intellectual property and competition policy. *Journal of International Economic Law*, 9 (3), 707.

Angelopoulos, C. J. (2016). European intermediary liability in copyright: A tort-based analysis (doctoral dissertation, University of Amsterdam). Retrieved from

https://pure.uva.nl/ws/files/2738365/172299_Angelopoulos_thesis_complete.pd f.

Anonymous. (2005). Report of business trip to Australia for preparing conclusion of the Korea-US FTA copyright sector. (unpublished, on file with author).

Anonymous. (2006). Hanmi FTA jeojaggwon bunya hyeobsangui jeonmanggwa daechaeg [Prospect and strategy for copyright negotiation in the KORUS FTA]. (Interim note of negotiators in the Ministry of Culture, unpublished, on file with author).

Aplin, T. (2009). Subject matter. In E. Derclaye (Ed.), *Research Handbook on the Future of EU Copyright*, Edward Elgar Publishing.

Appel, I., Farre-Mensa, J & Simintzi, E. (2016). Patent trolls and small business employment. Retrieved from https://ssrn.com/abstract=2887104

Araujo, B. A. M. (2013). Intellectual property and the EU's deep trade agenda. *Journal of International Economic Law*, 16(2), 439-474.

Archer, M. et al. (2016). What is critical realism? Retrieved from http://www.asatheory.org/current-newsletter-online/what-is-critical-realism

Archibugi D. & Filippetti A. (2015). Knowledge as global public good. In D. Archibugi & A. Filippetti (Eds.), *The Handbook of Global Science, Technology, and Innovation* (pp. 479-503). John Wiley & Songs.

Arendt, H. (1949). The rights of man: What are they. Modern Review, 3(1), 24-

Article 19. (2013). *The right to share: Principles on freedom of expression and copyright in the digital age*, International Standards Series (London, 2013). Retrieved from www.article19.org/data/files/medialibrary/3716/13-04-23-right-to-share-EN.pdf.

Balaam, D. N. & Veseth, M. (2008). *Introduction to international political economy*. Upper Saddle River, NJ: Prentice Hall.

Bannerman, S. (2016). *International copyright and access to knowledge*. Cambridge University Press.

Banning, T. R. G. (2002). The human right to property. Intersentia nv.

Barbosa, D. B. & Chon, M. (2007). Slouching towards development in intellectual property. *Michigan State Law Review*, 2007(1), 71-141.

Bartels, L. (2014). *A model human rights clause for the EU's international trade agreements*. German Institute for Human Rights and MISEREOR.

Bashir, A. (2013). Re-visioning international law making on intellectual property: A joint East-West perspective. In. H. Bahir, P. W. Gray & E. Masad (Eds.), *Co-existing in a globalized world*. Lexington Books.

Batliwala, S. (2002). Grassroots movements as transnational actors: Implications for global civil society. *International Journal of Voluntary and Nonprofit Organizations*, 13(4), 393-410.

Beiter, K. D. (2016). Establishing conformity between TRIPS and human rights: Hierarchy in international law, human rights obligations of the WTO and extraterritorial state obligations under the International Covenant on Economic, Social and Cultural Rights. In Ullrich, H., Hilty, R. M., Lamping, M. & Drexl, J. (Eds.), *TRIPS plus 20: From Trade Rules to Market Principles* (pp. 446-500). Springer.

Beldiman, D. (2008). Functionality, information works, and copyright. Yorkhill Law Publishing.

Benkler, Y. (2006). The wealth of networks: How social production transforms markets and freedom. Yale University Press.

Bently, L. & Sherman, B. (2009). *Intellectual property law* (3rd ed.). Oxford: Oxford University Press.

Bettig, R. V. (1996). *Copyrighting culture: The political economy of intellectual property*. Oxford: Westview.

Biagioli, M, (2006). From print to patents: Living on instruments in early modern Europe. *History of Science*, 44(2), 139-86.

Bidault M. (2016). Intellectual property polices and the right to science and culture: The work of the special rapporteur in context. In C. Geiger (Ed.) *Intellectual property and access to science and culture: Convergence of conflict?* (pp. 21-29). CEIPI-ICTSD publication series.

Bodenhausen, G. H. C. (1968). *Guide to the application of the Paris Convention for the Protection of Industrial Property as revised at Stockholm in 1967*. United International Bureaux for the Protection of Intellectual Property: Geneva.

Bogden, M. A. (2011). Fixing fixation: the RAM copy doctrine, *Arizona State Law Review*, 43, 181.

Bogsch, A. (1992). Brief history of the first 25 years of the World Intellectual Property Organization. WIPO.

Bouchard, R., Cahoy, D. R., Domeij, B., Dutfield, G., Faunce, T., Hollis, A., ... & Serrano, J. L. (2011). Structure-function analysis of global pharmaceutical linkage regulations. *Minnesota Journal of Law, Science & Technology*, *12*(2).

Boutros-Ghali, B. (1970). The right to culture and the Universal Declaration of Human Rights. In UNESCO (Ed.), *Cultural rights as human rights*. Retrieved from http://unescdoc.unesco.org/images/0000/000011/001194eo.pdf

Boyle, J. (2008). *The public domain: Enclosing the commons of the mind*. Yale University Press.

Bracha, O. (2005). *Owning ideas: a history of Anglo-American intellectual property* (Doctoral dissertation). Harvard Law School.

Braudel, F. (1992). *Civilization and capitalism, 15th-18th century, Vol. 3: The perspective of the world.* University of California Press.

Breakey, H. (2016). Intellectual liberty: Natural rights and intellectual property. Routledge (First published in 2012 by Ashgate Publishing).

Brinhof, J. (2010). On patents and human rights. In W. Grosheide (Ed.), *Intellectual property and human rights: a paradox* (pp. 140-154). Edward Elgar Publishing.

Brousseau, E. (1998). The link between regulation and innovation: Some preliminary remarks. In J. Hemmelskamp & F. Leone (Eds.), *The impact of EU-regulation on innovation of European Industry*. European Commission. Joint Research Centre.

Brown, A. E. L. (2013). *Intellectual property, human rights and competition: Access to essential innovation and technology*, Edward Elgar Publishing.

Brown, G. (Ed.). (2016). The Universal Declaration of Human Rights in the 21st Century: A living document in a changing world. Open Book Publishers.

Buccafusco, C. (2016). A theory of copyright authorship, *Virginia Law Review*, 102.

Buccafusco, C. & Lemley, M. A. (2016). Functionality screens. Stanford Public Law Working Paper No. 2888094; Cardozo Legal Studies Research Paper No. 509. Retrieved from https://ssrn.com/abstract=2888094.

Buccafusco, C. & Sprigman, C. J. (2011). The creativity effect. The University of Chicago Law Review, 78, 31.

Buchanan, A. & Golove, D. Philosophy of international law. In J. Coleman & S. Shapiro (Eds.), *The Oxford handbook of jurisprudence & philosophy of law*.

Burke, P. & Reitzing, M. (2007). Measuring patent assessment quality: Analyzing the degree and kind of (in)consistency in patent offices' decision making. *Research Policy*, 36(6), 1401-1430.

Calabresi, G. & Melamed, A. D. (1972). Property rules, liability rules, and inalienability: One view of the Cathedral. *Harvard Law Review*, 85(6), 1089-1128.

Canada's Human Right Commitments. (2015). History of the International Covenant on Economic, Social and Cultural Rights. Retrieved from 293 / 335

http://humanrightscommitments.ca/2015/11/history-of-the-international-covenant-on-economic-social-and-cultural-rights/

Carr, E. H. (1946). The twenty years' crisis, 1919-1939. London: Macmillan.

Carroll, M. (2016). Safe harbors from intermediary liability and social media. In J. Rothchild (Ed.), *Research Handbook on electronic commerce law* (pp. 168-184). Edward Elgar Publishing..

Carsten, F. & Maskus, K. E. (2005). Why we study intellectual property rights and what we have learned. In F. Carsten & K. E. Maskus (Eds.), *Intellectual property and development: lessons from recent economic research*. The World Bank & Oxford University Press.

Carter, T. F. (1955). The invention of printing in China and its spread westward (2d edn. Ronald Press Co.: New York.

Center for International Environmental Law (CIEL). (2007). The European approach to intellectual property in European Partnership Agreements with the African, Caribbean and Pacific Group of Countries. Discussion Paper of April 2007: Author

Centre for Intellectual Property and Information Law (2006). Review of the economic evidence relating to an extension of the term of copyright in sound recordings, University of Cambridge.

Chapman, A. (2001). Approaching intellectual property as a human right: Obligations related to Articles 15(1)(c). Copyright Bull.

Chapman, A. (2002). Core obligations related to the right to health. Core obligations: Building a framework for economic, social and cultural rights, 185-215.

Chapman, A. (2009) Towards an understanding of the right to enjoy the benefits of scientific progress and its applications. *Journal of Human Rights*, 8, 1-36.

Chapman, A. & Wyndham J. (2013). A human right to science. *Science*, 340(6183), 1291.

Chartrand, H. H. (2007). *The Compleat multilateral copyright & related 1886-2007*. Compiler Press: Saskatchewan, Canada.

Chen, J. (2016). Draft amendment to Pharmaceutical Affairs Act introduces patent linkage system and revised data exclusivity. Retrieved from http://www.lexology.com/library/detail.aspx?g=b50d0454-39c9-4694-a827-45d6d5acfe8d

Cheng, T-H. (2006). Power, norms, and international intellectual property law. *Michigan Journal of International Law*, 28, 109-155.

Cheongju Museum. (n.d.). The beginning of metal type printing. Retrieved from http://jikjiworld.cheongju.go.kr/app3/jikjiworld/content/english/metal/index.jsp?top=02&sub=0&left=02&url=mn020/mn020_010.jsp.

Cheung, S. N. S. (1973). The fable of the bees: An economic investigation. Journal of Law and Economics, 16(1), 11-13.

Chitonge, H. (2015). Beyond Parliament: Human Rights and the Politics of Social Change in the Global South. Brill.

Choe, K. S. (2013). Protection of Broadcast Signals in Korea from the Perspective of Copyright Law. *The Asian Business Lawyer*, 11, 107-124.

Choi, Y. (2003). Development of Copyright Protection in Korea: Its History, Inherent Limits, and Suggested Solutions. *Brooklyn Journal of International Law* 28(2).

Chon, S. (2015). *Uiyagpum teugheo muhyoyul gineseubug deungjae sujun:* 88.4% [Invalidation rate of pharmaceutical patent, 88.4%, high enough to be recorded in the Guinness Book of Records] [Press release].

Christensen, T. (2006). Did East Asian printing traditions influence the European Renaissance?. Retrieved from www.rightreading.com/printing/gutenberg.asia/gutenberg-asia-9-korea.htm.

Clapham, A. (2006). *Human rights obligations of non-state actors*. Oxford University Press.

Claude, R. P. (2002). *Science in the service of human rights*. University of Pennsylvania Press.

Clough, S. B. & Cole, C. W. (1952). *Economic history of Europe* (3rd edn.). Heath & Co.: Boston.

Coase, R. H. (1960). The problem of social cost. *The Journal of Law & Economics*, III.

Coleman, J. L. & Shapiro, S. (2002). *The Oxford handbook of jurisprudence and philosophy of law*. Oxford University Press.

Colston, C. & Galloway, J. (2010). *Modern intellectual property law 3/e*. Routledge.

Commission on Human Rights. (1951). Summary Record of the Two Hundred and Twenty-Eighth Meeting, Seventh Session, 5 May 1951, (E/CN.4/SR.228, Geneva).

Computer & Communications Industry Association (CCIA). (2008). Amicus Curiae in the Bilski case (April 7, 2008). Retrieved from http://cdn.ccianet.org/wp-content/uploads/library/CCIA-Bilski-Amicus.pdf.

Cook, T. M. (2000). The protection of regulatory data in pharmaceutical and other sectors. Sweet & Maxwell.

Coombe, R. J. (1998). Intellectual property, human rights and sovereignty: New dilemmas in international law posed by recognition of indigenous knowledge and the conservation of biodiversity. *Indiana Journal of Global Legal Studies*, 6, 59.

Cooper, W. H., Jurenas, R., Platzer, M. D. & Mark E. M. (2011). *EU-South Korea Free Trade Agreement and Its Implications for the United States*, DIANE Publishing.

Cornides, J (2004). Human Rights and Intellectual Property-Conflict or Convergence?. *Journal of World Intellectual Property*, 7 (2). 135.

Cornish, W. R. & Llewelyn, D. (2007). *Intellectual property: Patents, copyright, trademarks & allied rights*. Sweet & Maxwell: London.

Correa, C. M. (2000). *Intellectual property rights, the WTO, and developing countries: the TRIPS agreement and policy options*. Zed Books.

Correa, C. M. (2002). Unfair Competition Under the TRIPS Agreement: Protection of Data Submitted for the Registration of Pharmaceuticals. *Chi. J. Int'l L.*, 3, 69.

Cotropia, C. & Lemely, M. (2009). Copying in patent Law. N.C. L. Rev. 87

Cox, R W. & Schechter, M. G. (2002). *The political economy of a plural world: Critical reflections on power, morals and civilization*. Routledge: London.

Cox, R. W. (1987). *Production, power, and world order: Social forces in the making of history*. Columbia University Press: New York.

Cullet, P. (2004). Human Rights and Intellectual Property Rights: Need for a new Perspective. IELRC working paper 2004. Retrieved from www.ierlc. org/content/w0404. pdf.

Cullet, P. (2005). Seeds regulation, food security and sustainable development. *Economic and Political Weekly*, 40 (32).

Cullet, P. (2007). Human rights and intellectual property protection in the TRIPS era. *Human Rights Quarterly*, 29 (2). 403.

Dean, A. (2010). Unveiling the complexities surrounding the right to take part in cultural life: The effect of General Comment No. 21 on the legality of the French burqa ban under the ICESCR. *Am. U. Int'l L. Rev.*, 26, 1437.

Decreux, Y., Milner, C., & Péridy, N. (2010). The Economic Impact of the Free Trade Agreement (FTA) between the European Union and Korea, *Report for the European Commission*, *DG Trade http://trade.ec. europa.eu/doclib/docs/2007/may/tradoc 134706.pdf*.

Deere, C. (2009). The implementation game: the TRIPS agreement and the global politics of intellectual property reform in developing countries. Oxford University Press.

Deere, C. (2009a). The politics of intellectual property reform in developing countries. In N. W. Netanel (Ed.), *The development agenda* (pp. 111-133). Oxford University Press.

Demsetz, H. (1967). Toward a theory of property rights. *The American Economic Review*, 57(2).

Destler, I. M. (2007). American trade politics in 2007: Building bipartisan compromise. *Peterson Institute Policy Brief*. Retrieved from https://www.ciaonet.org/attachments/4500/uploads

Devaiah, V. (2004). A history of patent law. Retrieved from www.altlawforum.org/intellectual-property/publications/a-history-of-patent-law, accessed 18012010.

Dinwoodie, G. B. (2007). The architecture of international intellectual property system. In P. K. Yu (Ed.). *Intellectual property and Information wealth: issues and practices in the digital age.* (Volume 4: Greenwood Publishing Group). 481.

Dommen, C. (2002). Raising human rights concerns in the World Trade Organization: Actors, processes and possible strategies. *Human Rights Quarterly*, 24(1), 1.

Doners, Y. (2008). Cultural life in the context of human rights. Background paper for Day of General Discussion on the right to take part in cultural life, Committee on Economic, Social and Cultural Rights, Geneva, 8 May 2008 (E/C.12/40/13).

Donnelly, J. (2003). *Universal human rights in theory and practice*. Cornell University Press.

Donnelly, J. (2007). The relative universality of human rights. *Human Rights Quarterly*, 29, 281-306.

Drahos, P (1999). Intellectual property and human rights. *Intellectual Property Quarterly*, 349-371.

Drahos, P (2002). Negotiating intellectual property rights: between coercion and dialogue. In P. Drahos & R. Mayne (eds.), *Global intellectual property rights: Knowledge, access and development* (pp. 161-182). New York: Palgrave Macmillan.

Drahos, P. (2003). Expanding intellectual property's empire: the role of FTAs. Regulatory Institutions Network. Research School of Social Sciences, Australian National University.

Drahos, P. (2005). An alternative framework for the global regulation of intellectual property rights. *Austrian Journal of Development Studies*, (1).

Drahos, P (2010). The global governance of knowledge: patent offices and their

clients. Cambridge University Press.

Drahos, P. & Braithwaite, J. (2002). *Information feudalism: Who owns the knowledge economy?*. Earthscan.

Drassinower, A. (2015). What's wrong with copying? Harvard University Press.

Drexl, J. (2014). Intellectual property and implementation of recent bilateral trade agreement in the EU. In J. Drexl, H. G. Ruse-Khan & S. Nadde-Phlix (Eds.), *EU Bilateral Trade Agreements and Intellectual Property: For Better Or Worse*? (pp. 265-291). Berlin: Springer.

Drexl, J. (2016). The concept of trade-relatedness of intellectual property rights in times of post-TRIPS bilateralism. In H. Ullrich, R. M. Hiltuy, M. Lamping & J. Drexl (Eds.), *TRIPS plus 20: From trade rules to market principles* (Vol. 25). Springer.

Dreyfuss, R. C. (2015). Patents and human rights: The paradox reexamined. New York University School of Law, Public law and legal theory research paper series, working paper No. 15-35.

Duffy, J. F. (2004). Rethinking the prospect theory of patents. *The University of Chicago Law Review*, 439-510.

Dusollier, S., Ker, C., Iglesias, M. & Smits, Y. (2014). *Contractual arrangements applicable to creators: Law and practice of selected member states*. European Parliament

Dutfield, G. & Suthersanen, U. (2008). *Global intellectual property law* (Cheltenham: Edward Elgar) ix, 370 p.

Dutfiled, G. & Suthersanen, U. (2005). Harmonisation or differentiation in intellectual property protection? The lessons of history, Prometheus, 23:2, 131-147

Eechoud, M. M. (2009). *Harmonizing European copyright law: the challenges of better lawmaking* (Vol. 19). Kluwer Law International.

Eko, L. S. (2013). *American Exceptionalism, the French Exception, and Digital Media Law*, Lexington books.

Epstein, S. R. (1998). Craft guilds, apprenticeship, and technological change in preindustrial Europe. *The Journal of Economic History*, 58(3), 684-713.

Epstein, S. R. (2004). Property rights to technical knowledge in premodern Europe, 1300-1800. *The American Economic Review*, 94 (2), 382-387.

Epstein, S. R. & Kuhlik B. N. (2004). Navigating the anticommons for pharmaceutical patents: Steady the course on Hatch-Waxman 1–14. Univ. of Chi. Law & Econ., Working Paper No. 209.

Erikson, T. (2001). Between universalism and relativism: a critique of the UNESCO concepts of culture. In J. Cowan, M. B. Dembour & R. Wilson (Eds.). *Culture and rights: Anthropological perspectives*. Cambridge University Press.

EuroISP (2015). EuroISP in South Korea to promote innovation-friendly intermediary liability environment, [Press Release]. Retrieved from http://www.euroispa.org/euroispa-president-addresses-south-korean-ict-community-benefits-innovation-friendly-intermediary-liability-environment/

European Commission. (2004). Notice to applications, procedures for marketing authorisation, Vol. 2A, Ch. 1, Marketing Authorisation.

European Commission. (2009) Pharmaceutical Sector Inquiry Final Report. SEC (2009) 952 final.

European Commission. (2011). Online services, including e-commerce, in the single market [Commission staff working paper]. (COM(2011) 942). (SEC(2011) 1640). Brussels: Author.

European Commission. (2011a). Answer given by Mr. De Gucht on behalf of the Commission. Retrieved from

http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=P-2011-002242&language=HU).

European Commission. (2013). Report from the Commission to the European Parliament and the Council: Annual Report on the implementation of the EU-Korea Free Trade Agreement. COM(2013) 100 final. Brussels: Author.

European Commission Staff Working Document (2014). "Trade, growth and

intellectual property - Strategy for the protection and enforcement of intellectual property rights in third countries" SWD(2014) 204 final, Strasbourg, 1. 7. 2014.

European Commission. (2014). Report from the Commission to the European Parliament and the Council: Annual Report on the implementation of the EU-Korea Free Trade Agreement. COM(2014) 109 final. Brussels: Author.

European Commission. Staff Working Document (2015) "Report on the protection and enforcement of Intellectual property rights in third countries" Brussels, 1. 7. 2015 SWD(105) 132 final

European Commission. (2015). Report from the Commission to the European Parliament and the Council: Annual Report on the implementation of the EU-Korea Free Trade Agreement. COM(2015) 139 final. Brussels: Author.

European Commission. (2015a). Guidelines on the analysis of human rights impacts in impact assessment for trade-related policy initiatives. Brussels: Author.

European Commission (2016). Commission Staff Working Document: Impact assessment on the modernisation of EU copyright rules (Part 3/3). SWD(2016) 301 final.

European Commission. (2016). Evaluation of the implementation of the Free Trade Agreement between the EU and its Member States and the Republic of Korea (Inception Report). p. 75. Retrieved from http://trade.ec.europa.eu/doclib/docs/2016/october/tradoc 155014.pdf

European Commission. (2016). Report from the Commission to the European Parliament and the Council: Annual Report on the implementation of the EU-Korea Free Trade Agreement. COM(2016) 268 final. Brussels: Author.

European Medicines Agency (2016) EMA Procedural advice for users of the centralised procedure for generic/hybrid applications.

European Medicines Agency. (2016a). European Medicines Agency preauthorisation procedural advice for users of the centralized procedure.

European Parliament. (2017). Implementation of the EU-Korea Free Trade Agreement: European Parliament resolution of 18 May 2017 on the implementation of the Free Trade Agreement between the European Union and the Republic of Korea. (2015/2059(INI)).

European Patent Office (EPO). (2015). Annual Report 2015 – Searches, examination, oppositions. Retrieved from

 $http://documents.epo.org/projects/babylon/eponet.nsf/0/4C30F69F33211B6EC1\\257F6A0049308F/\$File/searches_examinations_oppositions_en.pdf.$

European Union. DG for External Policies. (2013). Does ACTA still matter? Protecting intellectual property rights in international trade. Policy Briefing, EXPO/B/INTA?2013/26 (14 January 2013)

Farah, P. D. & Tremolada, R. (2015). Global governance and intangible cultural heritage in the information society: At the crossroads of IPRs and innovation. In D. Archibugi & A. Filippetti (Eds.), *The Handbook of Global Science*, *Technology, and Innovation* (pp. 458-475). John Wiley & Songs.

Faunce, T, et al. (2005). Assessing the impact of the Australia-United States Free Trade Agreement on Australian and global medicines policy. *Globalization and Health*, 1(1), 15.

Federico, P. J. (1929). Origin and early history of patents. *Journal of the Patent Office Society*, 11, 292-305.

Fellmeth, A. X. (2004). Secrecy, monopoly, and access to pharmaceuticals in international trade law: protection of marketing approval data under the TRIPs Agreement. *Harvard International Law Journal*, 45.

Ficsor, M., & Mihály, J. (2012, October). The WIPO "Internet Treaties" and copyright in the "cloud". In *ALAI Congress*.

Fink, C. & Elliott, K. A. (2008). Tripping over Health: U.S. policy on patents and drug access in developing countries. In N. Birdsall (Ed.), *The White House and the world: A global development agenda for the next U.S. President*. Center for Global Development: Washington, DC.

Fisher, W. (2001). Theories of intellectual property. In S. R. Munzer (Ed.) *New Essays on the Legal and Political Theory of Property. Cambridge*.

Fisher, W. (2016). Recalibrating originality. *Houston Law Review*, 54(2).

Fishman, J. P. (2015). Creating around copyright. *Harvard Law Review*, 128, 1333.

Flynn, S. M., Baker, B. K., Kaminski, M. E., & Koo, J. (2013). The US proposal for an intellectual property chapter in the Trans-Pacific Partnership Agreement, *American University International Law Review*, 28(1). 105-202.

Foley, S. (2010). Buffering and the reproduction right: When is a copy a copy?, *Cybaris Intellectual Property Law Review*, 1(99).

Forman, L. (2012). From TRIPS-Plus to Rights-Plus? Exploring right to health impact assessment of trade-related intellectual property rights through the Thai experience, *Asian Journal of WTO and International Health Law and Policy*, 7(2). 347-375.

Forman, L., & MacNaughton, G. (2016). Lessons learned: a framework methodology for human rights impact assessment of intellectual property protections in trade agreements. *Impact Assessment and Project Appraisal*, *34*(1), 55-71.

Forsythe, D. P. (2000) Human Rights in International Relations.

Frankel, S. (2012). The legitimacy and purpose of intellectual property chapters in FTAs.

Freeman, M. (2002). *Human rights: An interdisciplinary approach*. Polity: Oxford.

Fromer, J. C. (2010). A psychology of intellectual property. Northwestern University Law Review, 104(4).

Fu, Zhengyuan (1993). Autocractic Tradition and Chinese Politics (London: Cambridge University Press) 401 p.

Gallini, N. (2002). The Economics of Patents: Lessons from recent U.S. patent reform. Journal of Economic Perspectives, 16(2), 131-154.

Gana, L. (1996). The myth of development, the progress of rights: Human rights to intellectual property and development. *Law & Policy* 18(2-3). 315-354.

Ganea, Peter and Haijun, Jin (2009). 'China', in Paul Goldstein (ed.).

Intellectual Property in Asia: Law, Economics, History and Politics (Volume 9 of MPI studies on intellectual property, competition and tax law: Springer). 357.

Ganguli, P. (2014). The issue of working of patents and its implications for domestic trade, economic development and technology transfer. WIPO-WTO Colloquium Papers: Research papers from the WIPO-TWO colloquium for teachers of intellectual property law 2014.

GATT. (1992). The Uruguay Round: A giant step for trade and development and a response to the challenges of the modern world. Geneva: GATT Publication Services.

Geiger, C. (2012). Criminal Enforcement of Intellectual Property: A handbook of contemporary research, Edward Elgar Publishing

Geiger, C. (2014). Assessing the implications of ACTA for the European Union: Legitimate aim but wrong means. In Roffe, P., & Seuba, X. (Eds.). (2014). *The ACTA and the plurilateral enforcement agenda: genesis and aftermath.* Cambridge University Press.

Geiger, C. (2015a). Copyright as an Access Right, Securing Cultural Participation Through the Protection of Creators' Interests, *What if We Could Reimagine Copyright*, 15-07.

Geiger, C. (2016). Towards a balanced international legal framework for criminal enforcement of intellectual property rights. In Ullrich, H., Hilty, R. M., Lamping, M., & Drexl, J. (Eds.). (2016). *TRIPS plus 20: From Trade Rules to Market Principles* (Vol. 25). Springer. (pp. 645-680).

Geiger, C., Gervais, D. & Senftleben, M. (2014). The three-step test revisited: How to use the test's flexibility in national copyright law. *American University International Law Review*, 29(3).

Geist, M. (2007, February 6). The fact and fiction of camcord piracy. *BBC News*. Retrieved from http://news.bbc.co.uk/2/hi/technology/6334913.stm.

General Secretary of the Council of the European Communities. (1981). Records of Luxembourg Conference on the Community patent. ECSC-EEC-EAEC (Luxembourg) George A. (2015). The metaphysics of intellectual property. WIPO Journal 7(1). 16-28.

Gerhardsen, T. I. (2007, January 31). Japan resurfaces global enforcement framework; EU refers to FTAs. Retrieved from http://www.ip-watch.org/2007/01/31/japan-resurfaces-global-enforcement-framework-eurefers-to-ftas/.

Gervais, D. (1998). *The TRIPS agreement: drafting history and analysis*. London: Sweet & Maxwel.

Gervais, D. (2015). The protection of performers under U.S. law in comparative perspective. *IP Theory*, 5(1), Retrieved from http://www.repository.law.indiana.edu/ipt/vol5/iss1/8

Gervais, D. (2015a). How intellectual property and human rights can live together: an updated perspective. In P. Torremans (Ed.), *Intellectual property law and human rights*. Wolter Kluwer

Gervais, D. (2015b). Human rights and the philosophical foundation of intellectual property. In C. Geiger (Ed.), *Research handbook on human rights and intellectual property* (pp. 89-97). Edward Elgar Publishing.

Ghosh, S. (2003). Globalization, patents, and traditional knowledge. *Columbia Journal of Asian Law*, 17, 73.

Giblin, R. (2013). Evaluating graduated response. Colum. JL & Arts, 37, 147.

Gibson, J. (2006). Creating selves: Intellectual property and the narration of culture. Ashgate Publishing.

Gibson, J. (2011). The Directive proposal on criminal sanctions. Retrieved from https://ssrn.com/abstract=1857174

Ginsburg, J. C. (2015). The author's place in the future of copyright. *Columbia Law School Working Paper* No. 512.

Godoy, A. (2013). *Of medicines and markets: intellectual property and human rights in the free trade era*, Stanford University Press.

Gold, E. R. (2013). Patents and human rights: A heterodox analysis, The

Journal of Law, Medicine & Ethics, 41(1). 185-198.

Goldstein, P. (2001). International intellectual property law: Cases and materials. New York: Foundation Press.

Goldstone, J. A. (2009). Why Europe?: The rise of the West in world history 1500-1850. McGraw Hill

Gordon, W. J. (2010). Current patent laws cannot claim the backing of human rights. In W. Grosheide (Ed.), *Intellectual Property and Human Rights: A Paradox*, (pp. 155-171). Edward Elgar.

Gorlin, J. (1999). An analysis of the pharmaceutical-related provisions of the WTO TRIPS (Intellectual Property) Agreement. London: Intellectual Property Institute.

Gorman, M. E. & Carlson, W. B. (1990). Interpreting invention as a cognitive process: The case of Alexander Graham Bell, Thomas Edison, and the telephone. *Science, Technology & Human Values*, 15(2), 131-164.

Government of Canada. (1998). Regulatory impact analysis statement, Canada Gazette Part 11, Vol. 132, No. 7.

Government of Republic of Korea. (2007). *Hanmi FTA gyeongjejeok hyogwa bunseok* [Economic impact assessment of the Korea-US FTA]

Government of Republic of Korea. (2010). *Han-EU FTA ju-yo nae-yong* [Main contents of the Korea-EU FTA].

Grabowski, H. (2014, June). Pharmaceutical Patent Challenges and Their Implications for Innovation and Generic Competition. In *Health & Healthcare in America: From Economics to Policy*. Ashecon.

Grabowski, H. & Kyle, M. (2007). Generic competition and market exclusivity periods in pharmaceuticals. *Managerial and Decision Economics*, 28, 491-502

Green, M. (2000). Drafting history of the Article 15(1)(c) of the International Covenant on Economic, Social and Cultural Rights. U.N. Doc. E/C.12/2000/15.

Griffin, J. (2011). Inconsistencies between the TPP and U.S. Law, Public Knowledge

Griffiths, M., O'Callaghan, T. & Roach, S. C. (2008). *International relations: The key concepts*. London: Routledge.

Grosheide, F. W. (2010). *Intellectual property and human rights: a paradox*. Edward Elgar Publishing.

Gwen, H. (2007). Latest U.S. Free Trade Agreement contains new twist [Web log post]. Retrieved from https://www.eff.org/deeplinks/2007/06/latest-u-s-free-trade-agreement-contains-new-twist.

Halbert, D. J. (2006). The World Intellectual Property Organization: Past, Present and Future. *J. Copyright Soc'y USA*, *54*, 253.

Handler, M. & Mercurio, B. (2016). Intellectual property. In S. Lester, B. Mercurio & L. Bartels (Eds.), *Bilateral and regional trade agreements:*Analysis and commentary. Cambridge University Press.

Harhoff, D. et al. (2007). The strategic use of patents and its implications for enterprise and competition polices. *Report for the European Commission*.

Harrison, J. & Goller, A. (2008). Trade and human rights: What does 'impact assessment have to offer?. *Human Rights Law Review*, 8(4).

Hart-Landsberg, M. (2011). Capitalism, the Korea–US Free Trade Agreement, and resistance, *Critical Asian Studies*, 43(3). 319-348.

Haugen, H. M. (2007). Patent rights and human rights: Exploring their relationship. *The Journal of World Intellectual Property*, 10(2), 97-124.

Haugen, H. M. (2007a). The right to food and the TRIPS Agreement: With a particular emphasis on developing countries' measures for food production and distribution. Brill: Linden.

Haunss, S., & Kohlmorgen, L. (2010). Conflicts about intellectual property claims: The role and function of collective action networks, *Journal of European Public Policy*, *17*(2). 242-262.

Helfer, L. R. (2007). Toward a human rights framework for intellectual property. *UC Davis Law Review*, 40, 971.

Helfer, L. R. (2016). Human rights and intellectual property: Mapping an

evolving and contested relationship. In R. C. Dreyfuss & J. Pila (Eds.), *The Oxford handbook of intellectual property*. Oxford University Press (forthcoming), Retrieved from https://ssrn.com/abstract=2832417

Helfer, L. R. & Austin, G. W. (2011). *Human rights and intellectual property: Mapping the global interface*, Cambridge University Press.

Hemel, D. J., & Ouellette, L. L. (2016). Knowledge Goods and Nation-States. *Minnesota Law Review*. Retrieved from https://ssrn.com/abstract=2745632.

Hemphill, C. S. & Sampat, B. N. (2012). Evergreening, patent challenges, and effective market life in pharmacetuicals. *Journal of Health Economics*, 21, 327-339.

Hesse, C. (2002). The rise of intellectual property, 700 BC-AD 2000: An idea in the balance. *Daedalus*, 131(2), 26-45.

Hestermeyer, H. P. (2007). *Human rights and the WTO: the case of patents and access to medicines* (Oxford: Oxford University Press) xxxvi, 369 p.

Hestermeyer, H. P. (2013). The notion of "trade-related" aspects of intellectual property rights: from world trade to EU law – and back again. *IIC International Review of Intellectual Property and Competition Law* Vol. 44 No. 8 (pp. 925-931).

Hilaire-Perez, L. (1991). Invention and the state in 18th-century France. *Technology and Culture*, 32(4). 911-931.

Hilty, R. M. (2016). Ways out of the trap of Article 1(1) TRIPS. In H. Ullrich, R. Hilty, M. Lamping & J. Drexl (Eds.). (2016). *TRIPS plus 20: From Trade Rules to Market Principles* (Vol. 25). Springer. (pp. 185-210).

Ho, C. M. (2009). Current controversies concerning patent rights and public health in a world of international norm. In T. Takenake (Ed.) *Patent Law and Theory*. Edward Elgar Publishing.

Hoeknam, B. M., Maskus, K. E. & Saggi, K. (2004). Transfer of technology to developing countries: Unilateral and multilateral policy options. Institute of Behavioral Science, Working Paper PEC2004-0003.

Hughes, J. (2012). A short history of "intellectual property" in relation to copyright. *Cardozo L. Rev.*, *33*(4), 1293-1340.

Hulme, E. W. (1900). The history of the patent system under the prerogative and at common law: A sequel. *Law Quarterly Review*, 16, 44.

IBM Belgium in association with DMI, TAC & TICON (commissioned and financed by DG Trade). 'Trade Sustainability Impact Assessment of the EU-Korea FTA: Final Report – (Phase 3)', March 2008 Revised June 2008, URL http://trade.ec.europa.eu/doclib/docs/2008/december/tradoc_141660.pdf

International Federation of the Phonographic Industry (IFPI) (2014). A written contribution of IFPI for the public consultation on the impact of intellectual property regimes on enjoyment of the right to science and culture (5 November 2014). Retrieved from

http://www.ohchr.org/Documents/Issues/CulturalRights/ConsultationIntelectual property/IFPI recording industry.pdf.

Inside US Trade (August 1, 2014) Korea moves to resolve issues flagged by U.S. as hurdles to TPP entry

Inside US Trade (March 17, 2014). Official: U.S. hopes to consult further with Korea on TPP within weeks

Inside US Trade (March 17, 2016). Hatch Claims KORUS Violation On Reimbursement; Others Cite Progress

Inside US Trade (March 2015) Korea accuses U.S. of failing to provide 'patent linkage' for biologics

Inside US Trade, (October 15, 2015) Froman says TPP cannot be renegotiated; Announces enforcement plan

Intellectual Property Alliance (IIPA). (2006). 2006 Special 301 Report: South Korea. Retrieved from

http://www.iipawebsite.com/pdf/IIPA_KoreaFTA_TPSCRequest_to_Testify_0 306.pdf.

Intellectual Property Alliance (IIPA). (2009). 2009 Special 301 Report: South Korea.

Intellectual Property Alliance (IIPA). (2013). 2013 Special 301 Report on copyright protection and enforcement: Appendix B: Methodology. Retrieved from http://www.iipawebsite.com/pdf/2013spec301methodology.pdf.

Intellectual Property and Human Rights: Report of the Secretary-General, ESCOR, Sub-Commission on the Promotion and Protection of Human Rights, 52nd Sess., Provisional Agenda Item 4, U.N. Doc. E/CN.4/Sub.2/2001/12 (2001).

International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) (2000). Encouragement of new clinical drug development: The role of data exclusivity. Retrieved from http://www.eldis.org/go/home&id=29224&type=Document#.WFJn 6KLQUE.

International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) (2011) Data Exclusivity: Encouraging development of new medicines. Retrieved from http://www.ifpma.org/wp-content/uploads/2016/01/IFPMA 2011 Data Exclusivity En Web.pdf.

International Federation of the Phonographic Industry (IFPI). (2013). IFPI Comments on the partial amendment of the Copyright Act in the Republic of Korea. Retrieved from http://opennet.or.kr/wp-content/uploads/2013/04/IFPI-Comments-on-Partial-Amendment-of-Copyright-Act-in-South-Korea-March-20131.pdf.

IPWatch (2012, January 31) Brief: European Commission orders Italy to drop patent linkage delaying generics. Retrieved from http://www.ipwatch.org/2012/01/31/european-commission-orders-italy-to-drop-patent-linkage-delaying-generics/.

Ishay, M. R. (2004). The history of human rights: From ancient times to the globalization era. University of California Press.

Ivus, O. (2010). Do stronger patent rights raise high-tech exports to the developing world?. *Journal of International Economics*, 81(1), 38-47.

Jaeger, T. (2014). IP enforcement provisions in EU Economic Partnership Agreements, In EU Bilateral Trade Agreements and Intellectual Property: For Better or Worse? (pp. 189-205). Berlin Heidelberg: Springer.

Japan Patent Office. (2016). History of opposition to grant of patent. Submission to the WIPO Standing Committee on Patent. Retrieved from http://www.wipo.int/export/sites/www/scp/en/meetings/session_25/comments_r eceived/japan 3.pdf

Jeon, S. (1974). *Science and Technology in Korea*. Cambridge, Mass.: MIT Press. 406 p.

Joan, C. (2016). Law in and as Culture: Intellectual Property, Minority Rights, and the Rights of Indigenous Peoples. Rowman & Littlefield.

Jong, S. (2013). Fair use: a tale of two cities. In T. Takenaka (Ed.), *Intellectual property in common law and civil law* (pp. 176-194). Northampton: Edward Elgar.

Junod, V. (2004) Drug marketing exclusivity under United States and European Union. *Food & Drug Law Journal*. Vol. 59.

Kang, D. (2016, December 10). Korea United Pharm accelerates development of incrementally modified new drugs. (the Korea Post). Retrieved from http://www.koreapost.com/news/articleView.html?idxno=2011)

Kang, J-H. (2007). Understanding of Data Protection System, [presentation]

Kapczynski, A. (2008) The access to knowledge mobilization and the new politics of intellectual property. *Yale Law Journal*, 117(5).

Kapczynski, A. (2010). A conceptual genealogy. In G. Krikorian & A. Kapczynski (Eds.), *Access to knowledge in the age of intellectual property* (pp. 17-56). Brooklyn, NY: Zone Books.

Kapczynski, A. (2012). The cost of price: Why and how to get beyond intellectual property internalism. *UCLA Law Review*, 59.

Karjala, D. S. (2003). Distinguishing patent and copyright subject matter. *Connecticut Law Review*, 35.

Kawohl, F. (2010). The Berlin publisher Friedrich Nicolai and the reprinting sections of the Prussian Statute Book of 1794. In R. Deazley, M. Kretschmer & L. Bently (Eds), *Privileges and property: Essays on the history of copyright*. Open Book Publishers.

Keck, M. E. & Sikkink, K. (1998). *Activists beyond borders: Advocacy networks in international politics*. Cornell University Press.

Kenneally, M. E. (2014). Intellectual property rights and institutions: a pluralist account. Doctoral dissertation, Harvard University.

Keßler, F. (2009). Article 7. In P-T. Stoll, J. Busche & K. Arend (Eds.), WTO - Trade-Related Aspects of Intellectual Property Rights. Max Planck Commentaries on World Trade Law, 7: Martinus Jijhoff Publishers.

Khan, B. Z. (2005). *The democratization of invention: Patents and copyrights in American economic development, 1790-1920.* Cambridge University Press.

Kieff, F. S. (2006). Coordination, property & intellectual property: An unconventional approach to anticompetitive effects & downstream access. *Emory Law Journal*, 56.

Kim, C. (2017, May 11). Labor, drugmakers not sold on new trade accord rules. *Bloomberg*.

Kim, H. C. (2012). Some consideration about the applicability of biologics to the approval-linkage system in KORUS FTA, *Ewha Law Journal*, 17(1).

Kim. G. (2012a, June 1). Heming-wei jeojaggwonlyo 0 won... seojeom-en 'noingwa bada' milmul [Hemingway royalty rate of KRW 0 ... tide of 'The Old Man and Sea' in bookstore]. *Chosun Ilbo*. Retrieved from http://news.chosun.com/site/data/html dir/2012/05/31/2012053103020.html.

Kim, W. (2009). A Study on the Agreement Scheme of Trademark and Design Regimes in light of the Negotiation for the FTA between the Republic of Korea and the European Union. (Research Report for the Korean Patent Office, 31 August 2009).

Kitch, E. W. (1977). The nature and function of the patent system. *The Journal of Law and Economics*, 20(2), 265-290.

Kohn, M. (2008). How and why economies develop and grow: Lessons from preindustrial Europe and China. *Penn Economic History Forum*.

Kolakowski, L. (1983). Marxism and human rights, DAEDALUS 112(4) Human Rights (Fall, 1983) 81-92.

Korea Patent Office. (2016). Teugheobeob sil-yongsin-anbeob ilbu gaejeong beoblyul seolmyeongjalyo [Guide for amended laws on patent and utility model].

Korean Publishers Association. (2006). Statement on the Korea-US FTA intellectual property negotiations. Retrieved from http://www.kpa21.or.kr.

Korean Publishers Association. (2007). The second statement on the Korea-US FTA intellectual property negotiations. Retrieved from http://www.kpa21.or.kr.

Krauss, M. I. (1999). Property rules vs. liability rules. *Encyclopedia of Law and Economics*.

Krikorian, G. (2010). Free-trade agreements and neoliberalism: how to derail the political rationales that impose strong intellectual property protection. In G. Krikorian & A. Kapczynski (Eds.), *Access to knowledge in the age of intellectual property* (pp. 293-328). Brooklyn, NY: Zone Books.

Krikorian, G. & Dorota, M. S. (2007). Intellectual property rights in the making: the evolution of intellectual property provisions in US free trade agreements and access to medicine, *The Journal of World Intellectual Property* 10.5, pp. 388-418.

Ladas, S. P. (1975). *Patents, trademarks, and related rights: national and international protection* (Vol. 1). Harvard University Press.

Lakatos S. & Nilsson L. (2016). The EU-Korea Free Trade Agreement: Anticipation, trade policy uncertainty and impact. Retrieved from http://trade.ec.europa.eu/doclib/docs/2015/july/tradoc_153601.pdf.

Landman, T. (2006). Studying human rights. London: Routledge.

Lang, A. (2007). Re-thinking trade and human rights. *Tulane Journal of International and Comparative Law*, 15(2), 335-413.

Lang, A. (2013). World Trade Law after Neoliberalism: Reimagining the Global Economic Order. Oxford University Press.

Langus, G., Neven D. & Shier, G. (2013). Assessing the economic impacts of adapting certain limitations and exceptions to copyright and related rights in the EU. Charles River Associates study report commissioned by DG MARKT,

European Commission.

Latif, A. (2010). The emergence of the A2K movement: Reminiscences and reflections of a developing-country delegate. In G. Krikorian & A. Kapczynski (Eds.) *Access to knowledge in the age of intellectual property* (pp. 99-125). Brooklyn, NY: Zone Books.

Latreille, A. (2009). From idea to fixation: A view of protected work. In E. Derclaye (Ed.), *Research Handbook on the Future of EU Copyright*, Edward Elgar Publishing.

Leaffer, M. A. (1990). *International Treaties on Intellectual Property*. Bureau of National Affairs.

Lee, I. B. (2000) In search of a theory of state liability in the European Union. Harvard Jean Monnet Working Paper 9/99.

Lee, S. (1999). Ib-beob-eul tong-han sa-hoe-byeon-dong-jeon-lyag-ui yu-yong-seong-gwa han-gye [Usefulness and limitations of social reform strategy through legislative movements]. *Democratic Legal Studies*, 15. Retrieved from http://delsa.or.kr/xe/index.php?mid=dls&page=39&document srl=4460.

Lee, T. J. (2016). Uiyakpum heogateukheoyeongyejedo yeonghyangpyeongga [Impact assessment of pharmaceutical approval and patent linkage system]. Report commissioned by the Korean Ministry of Food and Drug Safety.

Leepuengtham, T. (2017). *The protection of intellectual property rights in outer space activities*. Edward Elgar Publishing.

Lemley, M. A. (2012). Contracting around liability rules, Calif. L. Rev., 100.

Lemley, M. A. (2015). IP in a world without scarcity. *New York Law Review*, 90.

Lemley, M. A. (2015a). Faith-based intellectual property. *UCLA L. Rev.*, 62, 1328.

Lever, A. (2012). *New frontiers in the philosophy of intellectual property*, (Vol. 18). Cambridge University Press.

Liivak, O. & Peñalver, E. M. (2013). The right not to use in property and patent

law, Cornell Law Faculty Publications, 98, 1437-1493.

Limenta, M. (2012). Open trade negotiations as opposed to secret trade negotiations: From transparency to public participation. *New Zealand Yearbook of International Law*, 10, 73-95.

Liu, B. P. (2012). Fighting poison with poison? The Chinese experience with pharmaceutical patent linkage. *John Marshall Review of Intellectual Property Law*, 11, 623.

Liu, D. (2009). Reflections on lack of a patent system throughout China's long history. *The Journal of World Intellectual Property*, 12(2), 122-136.

London, L., Cox, H. & Coomans, F. (2016). Multidrug-resistant TB: Implementing the right to health through the right to enjoy the benefits of scientific progress, *Health and Human Rights Journal*, 18(1), 25-41.

Long, P. O. (1991). Invention, authorship, "intellectual property," and the origin of patents: Notes toward a conceptual history. *Technology and Culture*, 32(4), 846-84.

Machlup, F & Penrose, E (1950). The patent controversy in the nineteenth century. *The Journal of Economic History*, 10 (1). 1-29.

Machlup, F. (1958). *An economic review of the patent system* (Study No. 15 of the U.S. Senate Subcommittee on Patents, Trademarks and Copyrights). U.S. Government Printing Office.

Machnicka, A. A. (2016). TRIPS and climate change in the international economic order. In H. Ullrich, R. Hilty, M. Lamping & J. Drexl (Eds.), *TRIPS plus 20: From Trade Rules to Market Principles* (pp. 416-443). Springer.

MacLeod, C (1988). *Inventing the industrial revolution: The English patent system, 1660-1800.* Cambridge University Press.

MacLeod, C (1991). The paradoxes of patenting: Invention and its diffusion in 18th- and 19th-century Britain, France, and North America. *Technology and Culture*, 32 (4). 885-910.

Malcolm, J. (2010). *Access to Knowledge: A Guide for Everyone*. Consumers International.

Mandich, G. (1948). Venetian patents (1450-1550). *Journal of Patent and Trademark Office Society*, 30, 166.

Manta, I. D. (2016). Branded. Southern Methodist University Law Review, 69, 713-757.

Manyin, M. E. & Cooper, W. H. (2006 - [CRS-Report 2006]) The proposed South Korea-U.S. Free Trade Agreement (KORUSFTA). CRS Report for Congress.

Marchesoni, E. (2011). Commission commences action against Italy over to Article 68.1*bis* IPC. Retrieved from

http://www.twobirds.com/en/news/articles/2012/commission-commences-action-against-italy.

Martin, H-L. (2011). Capitalism, the Korea-U.S. Free Trade Agreement, and resistance. *Critical Asian Studies*, 43(3), 319-348.

Marx, J. (2010). Path dependency and change in international relations: Institutional dynamics in the field of intellectual property rights. *Historical Social Research*, 35(3), 175-199.

Maskus, K. E. (2014). Assessing the development promise of IP provisions in EU economic partnership agreements, In J. Drexl, H. G. Ruse-Khan & S. Nadde-Phlix (Eds.), *EU Bilateral Trade Agreements and Intellectual Property:* For Better or Worse? (pp. 171-188), Springer.

Maskus, K. E. & Saggi, K. (2015). International technology transfer: An analysis from the perspective from developing countries. WIPO CDIP/14/INF/11, Annex I.

Matthews, D. (2002). *Globalising intellectual property rights: The TRIPs agreement*. London: Routledge.

May, C. (2000). A global political economy of intellectual property rights: The new enclosures?. New York: Routledge.

May, C. (2006). The Venetian moment: New technologies, legal innovation and the institutional origins of intellectual property. In D. Vaver (Ed.), *Intellectual property rights: Critical concepts in law*, (pp. 7-30). Routledge.

May, C. (2007). The World Intellectual Property Organization: Resurgence and the Development Agenda. Routledge.

May, C. & Sell, S. (2006). *Intellectual property rights: A critical history*. Lynne Rienner Publishers.

McMullin, E. (1985). Openness and secrecy in science: Some notes on early history. *Science, Technology & Human Value*, 10 (2). 14-22.

Médecins Sans Frontières (MSF). (2005). Data exclusivity in international trade agreements: What consequences for access to medicines?

Meltzer, E. K. (2015). TPP: What the government use of software provisions mean, IPWatchdog. Retrieved from

http://www.ipwatchdog.com/2015/11/02/tpp-what-the-government-use-of-software-provisions-mean/id=62801/

Mendenhall, J. (2005). Testimony of James Mendenhall (General Counsel for the Office of the USTR) before the US Senate. Retrieved fromhttps://www.judiciary.senate.gov/imo/media/doc/Mendenhall%20Testimon y%20052605.pdf.

Menell, P. S. (1999). Intellectual property: General theories. In B. Bouckaert & G. de Geest (Eds.) *Encyclopedia of law and economics*. Elgar: Northampton, UK. 129-188.

Menke, C., & Pollmann, A. (2007). *Philosophie der Menschenrechte zur Einführung*. Hamburg: Junius.

Merges, R. P. (1994). Of property rules, Coase, and intellectual property, *Columbia Law Review*, 94, 2655.

Merges, R. P. (1996). Contracting into liability rules: intellectual property rights and collective rights organizations, *CALIF. L. REV.*, 84.

Merges, R. P. (2011). *Justifying intellectual property*. Harvard University Press.

Meshbesher, T. M. (1996). Role of history in comparative patent law. *Journal of Patent and Trademark Office Society*, 78, 594.

Milly, T. (2015). The constitutionalization of the European legal order: Impact

of human rights on intellectual property in the EU. In C. Geiger (Ed.) *Research Handbook on Human Rights and Intellectual Property*. Edward Elgar Publishing. (pp. 103-131).

Minero, G. (2015). Intellectual property rights and human rights: Coinciding and cooperating. In P. Torremans (Ed.), *Intellectual Property and human rights*. (Vol. 34, Third Edition). Kluwer Law International (pp. 163-184).

Mokyr, J. (1990). *The lever of riches: Technological creativity and economic progress*. Oxford University Press.

Monteiro, G. & Pereira, A. (2010). From growth spurts to sustained growth. Discussion Papers in Economics. Retrieved from www.lse.ac.uk/collections/economicHistory/seminars/pereira.pdf.

Moon, S. & Wolfgang H. (2013). *Informal norms in global governance: Human rights, intellectual property rules and access to medicines*, Ashgate Publishing, Ltd.

Moore, A. D. (2003). Intellectual property, innovation, and social progress: The case against incentive based arguments. *Hamline L. Rev.*, 26, 601-713.

Morgan, M. R. (2010). Regulation of innovation under follow-on biologics legislation: FDA exclusivity as an efficient incentive mechanism. *Colum. Sci. & Tech. L. Rev.*, 11, 93-100.

Morgera, E. (2015). Fair and equitable benefit-sharing at the cross-roads of the human right to science and international biodiversity law, *Laws*, 4(4), 803-831.

Morijn, J. (2008). The place of cultural rights in the WTO system. In M. Scheinin (Ed.), *Cultural human rights*. Martinus Nijhoff Publishers.

Morin, J. F. (2009). Multilateralizing TRIPs-plus agreements: Is the US strategy a failure?. *The Journal of World Intellectual Property*, 12(3), 175-197.

Morin, J. F. & Bannerman, S. (2015). Tigers and dragons at the world intellectual property organization. In *Rising Powers and Multilateral Institutions* (pp. 219-237). Palgrave Macmillan UK.

Morsink, J. (1999). *The Universal Declaration of Human Rights: Origins and intent*. University of Pennsylvania Press.

Mun, S. H. (2008). Culture-related aspects of intellectual property rights: A cross-cultural analysis of copyright. PhD Dissertation, University of Texas at Austin.

Mungan, M. C. (2015). Less protection, more innovation? *Supreme Court Economic Review*, 22(1), 123-146.

Munzer, S. R. (2012). Corrective justice and intellectual property rights in traditional knowledge. In A. Lever (Ed.) *New frontiers in the philosophy of intellectual property*. Cambridge University Press.

Mylly, T. (2011). Criminal enforcement and European Union Law. In Geiger C. (Eds.). *Criminal enforcement of intellectual property: A handbook of contemporary research*. Edward Elgar Publishing.

Mylly, T. (2015). The constitutionalization of the European legal order: Impact of human rights on intellectual property in the EU. In C. Geiger (Ed.), *Research Handbook on Human Rights and Intellectual Property*. Edward Elgar Publishing.

Nam, H. (2013). National human rights body recommends abolishing three-strike-out rule [Web log post]. Retrieved from http://hurips.blogspot.kr/2013/03/national-human-rights-body-recommends.html.

Nam, H. (2015). US Ambassador confirmed patent linkage under FTA includes biologics [Web log post]. Retrieved from http://hurips.blogspot.kr/2015/03/us-ambassador-confirmed-patent-linkage.html.

Nam, H., Lee, E., Kim, J. & Oh, B. (2007). *Comprehensive analysis report on the Korea-US FTA*, Korean National Assembly.

Nam, Y. (2008). Han-EU FTA hyeob-sang-ui jeo-jag-gwon non-ui-e gwan-han so-go [A study on negotiation of copyright at the Korea-EU FTA]. *Copyright Quarterly* Vol. 82 (pp. 4-19).

Nard, C. A. & Morriss, A. P. (2006). Constitutionalizing patents: from Venice to Philadelphia. *Review of Law and Economics*, 2(2).

Nard, C. A., Barnes, D. W. & Madison, M. J. (2008). The law of intellectual

property (2nd edition). Aspen Publishing.

Needham, J. & Tsien, T. (1985). *Science and civilisation in China*. Volume 5, Chemistry and chemical technology. Cambridge University Press.

Nersessian, N. J. (2005). Interpreting scientific and engineering practices: Integrating the cognitive, social, and cultural dimensions. In K. Gorman, R. Tweney, D. Gooding & A. Kincannon (Eds.), *New directions in scientific and technical thinking*. Erlbaum.

New, W. (2013, November 28). USTR says its TPP proposal on IP and public health shows flexibility. IP-Watch. Retrieved from http://www.ip-watch.org/2013/11/28/ustr-says-its-tpp-proposal-on-ip-and-public-health-shows-flexibility.

Nimmer, D. (2001). Copyright in the dead sea scrolls: Authorship and originality, *Hous. L. Rev.*, 38.

Noh, J. H. (2006, October 26). Ooetongbu, daleun jeongbubucheoe 'jijaegwon' ablyeog [Trade Ministry's pressure on other government departments for IPRs]. *Pressian News*.

North, D. C. & Thomas, R. P. (1973). *The rise of the Western world: A new economic history*. Cambridge University Press.

Nussbaum, M. C. (1997). Capabilities and human rights. *Fordham Law Review*, 66(2).

Nussbaum, M. C. (1997a) Flawed foundations: The philosophical critique of (a particular type of) economics. *The University of Chicago Law Review*, 64(4).

Oddi, A. S. (2002). Assault on the Citadel: Judge Rich and computer-related inventions. *Houston L. Rev.*, 39, 1033

Oguamanam, C. (2009). Beyond theories: Intellectual property dynamics in the global knowledge economy. *Wake Forest Intellectual Property Law Journal* 9(2).

Ohly, A. (2009). Economic rights. In E. Derclaye (Ed.), *Research Handbook on the Future of EU Copyright*. Edward Elgar Publishing.

Ohly, D. (2010). Hatch-Waxman Act: Prescriptions for innovative and inexpensive medicines. First presented at the AIPLA 2010 Spring Meeting, 2010.

Okediji, R. (2007). The limits of development strategies at the intersection of intellectual property and human rights. In D. J. Gervais (Ed.), *Intellectual property, trade and development*. Oxford University Press.

Oliar, D. (2004). The origins and meaning of the intellectual property clause. Retrieved from cyber.law.harvard.edu/ip/oliar_ipclause.pdf.

Otieno, N. C. (1970). Science and culture. In UNESCO. (Ed.). *Cultural rights as human rights: Studies and documents on cultural policies*.

Pagano, U. (2014). The crisis of intellectual monopoly capitalism. *Cambridge Journal of Economics*, beu025.

Park, M. (2009). Framing free trade agreements: The politics of nationalism in the anti-neoliberal globalization movement in South Korea. *Globalizations*, 6(4), 451-466.

Patterson, L. R. (1968). *Copyright in historical perspective*. Vanderbilt University Press.

Peng, M., Aslstrom D., Carraher, S. & Shi W. (2017). History and the debate over intellectual property. *Management and Organization Review*, 13(1), 15-38.

Petersmann, E-U. (2005). Human rights and international trade law: Defining and connecting the two fields. In T. Cottier, J. Pauwelyn & E. Burgi. (Eds.). *Human Rights and International Trade*. Oxford University Press.

Pharmaceutical Research and Manufacturers of America (PhRMA) (February 11, 2016). Written Submission, Trans-Pacific Partnership Agreement: Likely impact of on the U.S. economy and on specific industry sectors, Investigation No. TPA-105-001.

Picciotto, S. (2002). Defending Public Interests in TRIPS and WTO. In P. Drahos & R. Mayne (Eds.). *Global Intellectual Property Rights: Knowledge, Access and Development* (pp. 224-243). Palgrave Macmillan UK.

Picciotto, S. (2007). The WTO as a node of global governance: economic 321 / 335

regulation and human rights discourses, Law, Social Justice & Global Development Journal (LGD), 2007:1.

Pila, J. (2010). Copyright and its categories of original works. *Oxford Journal of Legal Studies*. 30(2), 229-254.

Pila, J. & Torremans, P. (2016) *European intellectual property law*. Oxford University Press.

Pitschas, C. (2014). Economic Partnership Agreements and EU trade policy: Objectives, competences, and implementation. In J. Drexl, H. G. Ruse-Khan, & S. Nadde-Phlix. (Eds.). *EU Bilateral Trade Agreements and Intellectual Property: For Better Or Worse?* (pp. 209-240). Berlin: Springer.

Plomer, A. (2013). The human rights paradox: Intellectual property rights and rights of access to science. *Human Rights Quarterly*, 35(1), 143-175.

Plomer, A. (2015). *Patents, human rights and access to science*. Edward Elgar Publishing.

Pohlmann, H. (1961). The inventor's right in early German law: Materials of the time from 1531 to 1700. *Journal of Patent Office Society*, 43, 121-39.

Posner, R. A. (1998). Economic analysis of law. Aspen Publisher.

Prager, F. D. (1944). A history of intellectual property from 1545 to 1787. *Journal of Patent Office Society*, 26(11), 711-760.

Prager, F. D. (1961). Historical background and foundation of American patent law. *Am. J. Leg. Hist*, 5.

Prost, A., & Winter, J. (2013). *René Cassin and human rights: from the Great War to the Universal Declaration*. Cambridge University Press.

Prott, L. (1998). Understanding one another on cultural rights. In H. Niec. (Ed.). Cultural rights and wrongs – A collection of essays in commemoration of the 50th anniversary of the Universal Declaration of Human Rights. UNESCO Publishing: Paris.

Pugatch, M. P. (2004). Intellectual property and pharmaceutical data exclusivity in the context of innovation and market access. *ICTSD-UNCTAD Dialogue on*

Ensuring Policy Options for Affordable Access to Essential Medicines, Bellagio, Italy.

Rahmatian, A. (2009). Dealing with rights in copyright-protected works: assignments and licenses. In E. Derclaye (Ed.) *Research Handbook on the Future of EU Copyright*, Edward Elgar Publishing.

Rajagopal, B. (2003). International law and social movements: Challenges of theorizing resistance. *Colum. J. Transnat'l L.*, 41, 397.

Ramalho, A. (2016). The competence of the European Union in copyright lawmaking: A normative perspective of EU powers for copyright harmonization. Springer.

Ramello, G. B. (2008). Access to vs. exclusion from knowledge: Intellectual property efficiency and social justice. In A. Gosseries, A. Marciano & A. Strowel (Eds.) *Intellectual property and theories of justice* (pp. 73-93). Palgrave Macmillan.

Randall, T. (2013). Patent harmonization in the 21st century: Narrowing the issues. Virginia State Bar

Report of the Special Rapporteur in the field of cultural rights: Patent policy and the right to science and culture (2015) UN Doc A/70/279

Report of the Special Rapporteur in the field of cultural rights: Copyright policy and the right to science and culture (2014) UN Doc A/HRC/28/57

Richardson, G. (2004). Guilds, laws, and markets for manufactured merchandise in late-medieval England. *Explorations in Economic History*, 41(1), 1-25.

Riegel, J. (2008). Confucius. In E. N. Zalta. (Ed.) *The Stanford Encyclopedia of Philosophy*.

Rodolfo, A. R. Manuel Perez Rocha L.m (2007) "The EU-Mexico Free Trade Agreement Seven Years On - A warning to the global South" Transnational Institute Mexican Action Network on Free Trade (RMALC) ICCO, June 2007

Roffe, P. (2014). Intellectual property chapters in free trade agreements: Their significance and systemic implications. In J. Drexl, H. G. Ruse-Khan, S. Nadde-323 / 335

Phlix. (Eds.). EU Bilateral Trade Agreements and Intellectual Property: For Better Or Worse? (pp. 17-40) Berlin: Springer.

Roffe, P. & Vea, G. (2009). The WIPO Development Agenda in an historical and political context. In N. W. Netanel. (Ed.). *The development agenda: Global intellectual property and developing countries*. Oxford University Press, 79-110.

Romainville, C. (2015). Defining the right to participate in cultural life as a human right. *Netherlands Quarterly of Human Rights*, 33(4), 405-436.

Rosenbaum, A. S. (1980). *The philosophy of human rights: International perspectives*. Aldwych: London.

Rubin, P. H. & Klumpp, T. (2012). Property rights and capitalism. In D. C. Mueller (Ed.) *The Oxford handbook of capitalism*. Oxford University Press.

Rubinson, M. (2017). Exploring the Trans-Pacific Partnership's complexities through the lens of its intellectual property rights chapter. *Emory Int'l L. Rev.*, *31*, 449.

Rucker, P. (2017, April 28). Trump: 'We may terminate' U.S.-South Korea trade agreement. *The Washington Post*, Politics News.

Ruse-Khan, H. G. (2009). Time for a paradigm shift?: Exploring maximum standards in international intellectual property protection. *Trade, Law and Development*, 1 (1). 56-102.

Ruse-Khan, H. G. (2011). The international law relations between TRIPS and subsequent TRIPS -plus free trade agreements: towards safeguarding TRIPS flexibilities? *Journal of Intellectual Property Law*, 18(2), 1.

Ruse-Khan, H. G. (2011a). A trade agreement creating barriers to international trade?: ACTA border measures and goods in transit. *American University International Law Review* 26 no. 3 (2011): 645-726.

Ruse-Khan, H. G. (2016) IP and trade in a post-TRIPS environment. In H. Ullrich, R. Hilty, M. Lamping & J. Drexl (Eds.), *TRIPS plus 20: From Trade Rules to Market Principles* (pp. 163-184). Springer.

Ryan, M. P. (1998). *Knowledge diplomacy: global competition and the politics* 324 / 335

of intellectual property. Washington, D.C.: Brookings Institution Press.

Saez, C. (2017, June 15). TRIPS Council members: Defining IP rights and the public interest. Retrieved from https://www.ip-watch.org/2017/06/15/trips-council-members-defining-ip-rights-public-interest/

Samuelson, P. (2015). Justifications for copyright limitations & exceptions. Forthcoming chapter in R. Okediji. (Ed.). *Copyright Law in an Age of Limitations and Exceptions*. Retrieved from https://ssrn.com/abstract=2476669

Samuelson, P. & Wheatland, T. (2009). Statutory damages in copyright law: A remedy in need of reform. *William & Mary Law Review*, 51, 439; UC Berkeley Public Law Research Paper No. 1375604.

Saul, B., Kinley, D., & Mowbray, J. (2014). The international covenant on economic, social and cultural rights: commentary, cases, and materials. OUP Oxford.

Sawyer, R. K. (2012). *Explaining creativity: the science of human innovation*. (2nd edition). Oxford University Press.

Scellato, G. et al. (2011). Study on the quality of the patent system in Europe. *Report to the European Commission*.

Schankerman, M. & Schuett, F. (2017). Screening for patent quality: Examination, fees, and the courts. *Written submission to the USPTO*. Retrieved from

https://www.uspto.gov/sites/default/files/documents/Schankerman_patent_scree ning_final.pdf.

Scotchmer, S. (2004). *Innovation and incentives*. The MIT Press.

Secretary-General, U. N. (2016). The United Nations Secretary-General's High-Level Panel on Access to Medicines Report: promoting innovation and access to health technologies. Retrieved from http://www.unsgaccessmeds.org/final-report/.

Seel, N. M. (2013). Mental models and creative invention. In E. G. Carayannis (Ed.), *Encyclopedia of Creativity, Invention, Innovation, and Entrepreneurship* (pp 1244-1251). Springer.

Sell, S. K. (2003). *Private power, public law: the globalization of intellectual property rights* (Cambridge studies in international relations; Cambridge: Cambridge University Press) xv, 218 p.

Sell, S. K. (2010). TRIPS was never enough: Vertical forum shifting, FTAs, ACTA, and TPP. *J. Intell. Prop. L.*, *18*, 447.

Sell, S. K. (2010a). The global IP upward ratchet, anti-counterfeiting and piracy enforcement efforts: The state of play. *PIJIP Research Paper no. 15*. American University Washington College of Law, Washington, DC.

Sell, S. K. (2013). Revenge of the "Nerds": Collective action against intellectual property maximalism in the global information age, *International Studies Review*, *15*(1). 67-85.

Sen, A. K. (2009). The ideas of justice. Penguin Books.

Seuba, X. (2008). Human rights and intellectual property rights. In C. M. Correa (Ed.). *Intellectual property and international trade: The TRIPS Agreement*. Kluwer Law International.

Seville, C. (2016). *EU intellectual property law and policy*. (2nd edition) Edward Elgar Publishing.

Sganga, C. (2015). Right to culture and copyright: Participation and access. In C. Geiger (Ed.). *Research Handbook on Human Rights and Intellectual Property*, Edward Elgar Publishing.

Shao, K. (2005). Alien to copyright?: A reconsideration of the Chinese historical episodes of copyright. *Intellectual Property Quarterly*, 4, 400.

Shao, K. (2006). What may validate intellectual property in the traditional Chinese mind?: Examining the US-China IP disputes through a historical inquiry. *Journal of Information, Law & Technology*, 1, 1-22.

Shaver, L. (2010). The Right to science and culture. *Wisconsin Law Review*, 6(1), 121-184.

Shaver, L. (2016). Intellectual property and the right to science and culture: The reports of the Special Rapporteur in the field of cultural rights. In C. Geiger. (Ed.). *Intellectual property and access to science and culture: Convergence of* 326 / 335

conflict? (pp. 30-41). CEIPI-ICTSD publication series.

Shaver, L. & Sganga, C. (2009). The right to take part in cultural life: Copyright and human rights. *Wis. Int'l LJ*, 27, 63.

Shi, J. (2013). *Free trade and cultural diversity in international law*. Bloomsbury Publishing.

Shi, W. (2008). *Intellectual property in the global trading system: EU-China perspective*. Berlin: Springer.

Shin, H. E. (2014). Ulinala jeyagsan-eob siljeong-e buhabhaneun hangughyeong heoga-teugheoyeongyejedoui sihaengbang-an [Implementation scheme of the Korean-type patent-approval linkage system in accordance with Korean pharmaceutical industries]. *Anam Law Review*, 43(0), 1083-1118.

Shugurov M. V. (2015). Perspectives of international technology transfer in the TRIPS-plus era: Problems and solutions. *Europen Journal of Social and Human Societies*, 5(1).

Silbey, J. (2010). Comparative tales of origins and access: Intellectual property and the rhetoric of social science. *Case Western Reserve Law Review*, 61(1), 195-267.

Simon, B. (2003). Analysis of security vulnerabilities in the movie production and distribution process. The 2003 ACM Workshop on DRM.

Smiers, J. (2008). No copyright and no domination of cultural markets: Two conditions for realizing active participation in cultural life. UN CESCR E/C.12/40/6

Sohn, P. (1997). Invention of metal movable type in Goryeo. In Korean National Commission for UNESCO (Ed.), *Ancient Printing Culture in the West and the East*, 139.

Spinello, R. A. & Tavani, H. T. (2005). *Intellectual property rights in a networked world: theory and practice*. Idea Group Pub.

Stamatopoulou, E. (2008). The right to take part in cultural life. UN CESCR E/C.12/40/9

Stavenhagen, R. (2001). Cultural rights: A social science perspective. In A. Eide, C. Krause & A. Rosas (Eds.) *Economic, social and cultural rights*. The Hague: Kluwer Law International.

Stilwell, M & Tuerk, E. (2010). Non-violation complaints and the TRIPS Agreement: Some consideration for WTO members. Retrieved from www.ciel.org/Publications/Nonviolation Paper1.pdf.

Storton, G. (2012). Patent linkage and the TPP: Commercial considerations relevant to TPP [PowerPoint slides]. Retrieved from http://infojustice.org/wp-content/uploads/2012/03/Storton-Geraldine-HSP-TPP-Patent-Linkage-the-hypothetical-case.pptx.

Summers, S., Schwarzenegger, C., Ege, G., & Young, F. (2014). *The emergence of EU criminal law: Cyber crime and the regulation of the information society*. Bloomsbury Publishing.

Sun, H. (2010). TRIPS and non-violation complaints: From a public health perspective. Retrieved from www.cid.harvard.edu/cidtrade/Papers/Sun-TRIPS.pdf.

Sunder M. (2006). IP³. Stanford Law Review 59. 257-332.

Susan, S. (1988). States and markets. London: Pinter.

Suthersanen, U. (2005). The future of copyright reform in developing countries: Teleological interpretation, localized globalism and the "public interest" rule. In UNCTAD-ICTSD dialogue on IPRs and sustainable development: Intellectual property and sustainable development: revising the agenda in a new context. (Bellagio, Italy).

Suttmeier, R. P. & Yao, X. (2011). China's IP transition: Rethinking intellectual property rights in a rising China. NBR Special Report 29. Seattle: National Bureau of Asian Research.

Syam, N. & Tellez, V. M. (2016). *Innovation and global intellectual property regulatory regimes: The tension between protection and access.* South Center.

Sykes, A. O. (2002). TRIPS, pharmaceuticals, developing countries, and the Doha solution. *Chicago Journal of International Law*, 3(1), 47-68.

Tamura, Y. (2009). Rethinking copyright institution for the digital age. *The WIPO Journal*, 2009(1). 63-74.

The Advisory Committee for Trade Policy and Negotiations (2007). Report to the President, the Congress and the United States Trade Representative on the U.S.-Korea Free Trade Agreement (KORUS). April 26, 2007

The Committee on Economic, Social and Cultural Rights (1990). General Comment No. 3: The Nature of States Parties Obligations (Art. 2, Par. 1). ¶ 10, U.N. Doc. E/1991/23 (Dec. 14, 1990).

The Committee on Economic, Social and Cultural Rights (2001). Substantive issues arising in the implementation of the international covenant on economic, social and cultural rights: Human rights and intellectual property, UN Doc. E/C. 12/2001/15.

The Committee on Economic, Social and Cultural Rights (2006). General Comment No. 17: The Right of Everyone to Benefit from the Protection of the Moral and Material Interests Resulting from Any Scientific, Literary or Artistic Production of Which He Is the Author (Art. 15(1)(c)). U.N. Doc. E/C.12/GC/17 (Jan. 12, 2006).

The European Patent Office (EPO). (2016). Unitary patent & Unified Patent Court. Retrieved from https://www.epo.org/law-practice/unitary.html.

The Industry Trade Advisory Committee on Intellectual Property Rights (ITAC-15). Advisory Committee Report to the President, the Congress and the U.S. Trade Representative on the Trans-Pacific Partnership Trade Agreement, December 3, 2015

Thomas, J. R. (2015). End of patent medicines: Thoughts on the rise of regulatory exclusivities. *Food & Drug LJ*, 70, 39.

Thornberry, P. (2008). Cultural rights and universality of human rights. Background paper for Day of General Discussion on the right to take part in cultural life, Committee on Economic, Social and Cultural Rights, Geneva, 8 May 2008 (E/C.12/40/15).

Timmermann, C. (2014). Sharing in or benefiting from scientific advancement?. *Science and Engineering Ethics*, 20(1), 111-133.

Torremans, P. (2004). Copyright as a human right. In P. Torremans (Ed.), *Copyright and human rights: Freedom of expression, intellectual property, privacy.* Kluwer Law International.

Torremans, P. (2015). Copyright (and other intellectual property rights) as a human right. In P. Torremans (Ed.), *Intellectual Property and human rights*. Kluwer Law International.

Tso, C-D. (2014). The role of the United States in cross-strait economic integration [presentation paper at the Conference on "The Politics of Polarization: Taiwan in Comparative Perspective", Center on Democracy, Development, and the Rule of Law, Stanford University, October 17 - 18, 2014] retrieved from https://cddrl.fsi.stanford.edu/sites/default/files/tso.us-role-in-cross-strait-economic-integration-1018.pdf.

Tully, S. R. (2016). Free Trade Agreements with the United States: 8 Lessons for Prospective Parties from Australia's Experience. *British Journal of American Legal Studies*, 5, 395.

U.N. Econ. & Soc. Council (2000). Sub-Commission on the Protection and Promotion of Human Rights, 'Intellectual Property Rights and Human Rights', Res. 2000/7, E/CN.4/Sub/2/2000/L.20, para 3. (2000)

U.N. Econ. & Soc. Council (2001). Sub-Commission on the Promotion & Prot. of Human Rights, 'The Impact of the Agreement on Trade-Related Aspects of Intellectual Property Rights on Human Rights: Report of the High Commissioner', U.N. Doc. E/CN.4/Sub.2/2001/13.

U.N. Econ. & Soc. Council (2003). 'Economic, Social and Cultural Rights: Globalization and its Impact on the Full Enjoyment of Human Rights' (Final Report submitted by J. Oloka-Onyango and Deepika Udagama, in accordance with Sub-Commission decision 2002/105, 25 June 2003). E/CN.4/Sub.2/2003/14.

U.S. Chamber of Commerce. (2017). *The roots of innovation: International IP Index* (Fifth Edition. Retrieved from http://www.theglobalipcenter.com/wp-content/uploads/2017/02/GIPC_IP_Index_2017_Report.pdf.

U.S. Copyright Office. (2017). Study on the moral rights of attribution and

integrity. Federal Register Vol. 82, No. 13 [Docket No. 2017-2].

U.S. Department of Justice. (USDoJ) (2013). *Prosecuting intellectual property crimes* (4th Ed.).

U.S. Federal Trade Commission. (2009). Emerging health care issues: follow-on biologic drug competition. *Federal Trade Commission, Washington*.

Ueno, T. (2009). Rethinking the provisions on limitations of rights in the Japanese Copyright Act – Toward a Japanese-style "fair use" clause. *AIPPI Journal*, July 2009.

Ueno, T. (2009). Rethinking the provisions on limitations of rights in the Japanese Copyright Act – Toward a Japanese-style "fair use" clause –. *AIPPI Journal*, July 2009.

UK Patent Office. (2012). *Analysis of the responses to the UK consultation on grace periods for patents* (April 30, 2002). Retrieved from http://webarchive.nationalarchives.gov.uk/20140603093549/http:/www.ipo.gov.uk/response-grace.pdf.

UNCTAD-ICTSD, United Nations Conference on Trade Development & The International Centre for Trade Sustainable Development (2005). *Resource Book on TRIPS and Development*. (Cambridge University Press) 829p.

UNCTAD, United Nations Conference of Trade and Development. (2014). Transfer of technology and knowledge sharing for development: Science, technology and innovation issues for developing countries. United Nations Publication.

United Nations Conference on Trade and Development, UNCTAD (1974). 'Major issues arising from the transfer of technology. A Case Study of Spain', Report by the UNCTAD secretariat.

United Nations. (1950). *Yearbook of the United Nations 1948-1949*. United National Publications: U.S.A.

United State Copyright Office. (2017). Study on the moral rights of attribution and integrity. Notice of Inquiry: January 23, 2017. Retrieved from https://www.copyright.gov/policy/moralrights/.

United States Copyright Office. (2015). Section 1201 Study: Notice and request for public comment. *Federal Register*, 80(249).

United States Federal Trade Commission (USFTC). (2003). *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*.

United States Government Accountability Office (USGAO). (2007). Intellectual property: U.S. trade policy guidance on WTO declaration on access to medicines may need clarification (Report to congressional requesters).

United States Government Accountability Office (USGAO). (2016). Intellectual property: Patent Office should define quality, reassesses incentives, and improve clarity (Report to the Chairman, Committee on the Judiciary, House of Representatives).

United States Trade Representative (USTR). (2007). The Advisory Committee for Trade Policy and Negotiations, Report to the President, the Congress and the United States Trade Representative on the U.S.-Korea Free Trade Agreement (KORUS), April 26, 2007, The U.S.-Korea Free Trade Agreement: Economic Opportunity, Strategic Imperative.

United States Trade Representative (USTR). (n. d.). TPP Made in America: the Trans-Pacific Partnership. Retrieved from https://ustr.gov/sites/default/files/TPP-Promoting-Digital-Trade-Fact-Sheet.pdf.

Valdés, R. & McCann, M. (2014). Intellectual property provisions in regional trade agreement: revision and update. (WTO Staff Working Paper ERSD-2014-14).

Vallés, R. C. (2009). The requirement of originality. In E. Derclaye (Ed.) Research Handbook on the Future of EU Copyright, Edward Elgar Publishing.

Van Overwalle, G. (2010). Human rights limitations in patent law, *Intellectual Property and Human Rights: A Paradox* (2010): 236-271.

Vanheusden, E. (2007). Performer's rights in European legislation: situation and elements for improvement. Retrieved from http://www.aepo-artis.org/usr/AEPO-

 $ARTIS\% 20 Studies/Study\% 20 Performers\% 20 Rights\% 20 in\% 20 Acquis_AEPO-ARTIS.pdf.$

Vincent, R. J. (1986). *Human rights and international relations*. Cambridge University Press.

von Lewinski, S. (2008). *Indigenous heritage and intellectual property: genetic resources, traditional knowledge, and folklore.* Kluwer Law Intl.

Walker, S. (2006) A human rights approach to the WTO's TRIPS Agreement. In F. M. Abbott, C. Breining-Kaufmann & T. Cottier (Eds.). *International trade and human rights: Foundations and conceptual issues* (pp. 171-180). The University of Michigan press.

Wallace, R. W. & Williamson, J. B. (1900). *The law and practice relating to letters patent for inventions*. W. Clowes and sons, limited.

Wallot, M. (2016). The proportionality principle in the TRIPS Agreement. In H. Ullrich, R. M. Hiltuy, M. Lamping & J. Drexl (Eds.). *TRIPS plus 20: From trade rules to market principles* (Vol. 25). Springer.

Walterscheid, E.C. (1993). Novelty in historical perspective (Part II). *J. Pat. & Trademark Off. Soc'y*, 75, 689-777.

Watal, J. (2014). Is TRIPS a balanced agreement from the perspective of recent free trade Agreements? In J. Drexl, H. G. Ruse-Khan, S. Nadde-Phlix (Eds.). *EU Bilateral Trade Agreements and Intellectual Property: For Better Or Worse*? (pp. 41-57) Berlin: Springer.

Weatherall, K. G. (2015a). Section by section commentary on the TPP final IP Chapter published 6 November 2015 – Part 1 – General provisions, trade marks, GIs, designs. Retrieved from http://works.bepress.com/kimweatherall/31/.

Weatherall, K. G. (2015b). Section by section commentary on the TPP final IP Chapter published 6 November 2015 – Part 2 – Copyright. Retrieved from http://works.bepress.com/kimweatherall/32/.

Weatherall, K. G. (2015c). Section by section commentary on the TPP final IP Chapter published 5 November 2015 – Part 3 – Enforcement. Retrieved from http://works.bepress.com/kimweatherall/33/.

Wechsler, A. (2009). The quest for balance in intellectual property law: An emerging paradigm or a fad?. Retrieved from http://hdl.handle.net/11858/00-

001M-0000-0014-C52D-8.

Weissbrodt, D. & Schoff, K. (2003). Human rights approach to intellectual property protection: The genesis and application of Sub-Commission Resolution 2000/7. *Minn. Intell. Prop. Rev.*, *5*, i.

Welkowitz, D. S. (2013). Privatizing Human Rights; Creating Intellectual Property Rights from Human Rights Principles, *Akron L. Rev.*, *46*, 675.

Westkamp, G. (2005). Overlapping intellectual property protection and the proportionality principle in international trade regulation. In F. W. Groshelde & N. N. Brinkhof (Eds.), *Intellectual Property Law 2004*. Intersentia.

WIPO (World Intellectual Property Organization). (2003). *What is Intellectual Property?* (No. 450). WIPO.

Wittel, A. (2016). Digital Mark: Toward a political economy of distributed media. In C. Fuch & V. Mosco (Eds.). *Marx in the age of digital capitalism* (pp. 68-104). Brill: Leiden, The Netherland.

Wong, MWS. (2008). Toward an alternative normative framework for copyright: From private property to human rights. *Cardozo Arts & Ent. L. J.*, 26, 775.

World Trade Organization [WTO] (2015). Draft decision agreed on "non-violation" cases in intellectual property. Retrieved from https://www.wto.org/english/news_e/news15_e/trip_ss_23nov15_e.htm

Worrel, C. J. (2011). Improving the patent system: Community sourcing and pre-grant opposition. *University of Toledo Law Review*, 42, 833-858.

Wyndham, J. (2013). Defining the right to benefit from science: purpose and progress. *Professional Ethics Report*, 26(2).

Yamane, H. (2011). *Interpreting TRIPS: globalisation of intellectual property rights and access to medicines*. Bloomsbury Publishing.

Yang, D. (2003). The development of intellectual property in China. *World Patent Information*, 25 (2). 131-42.

Yu, P. K. (2004). Introduction-Intellectual Property at a Crossroads: Why

History Matters. Loy. LAL Rev., 38, 1.

Yu, P. K. (2014). EU Economic Partnership Agreement and international human rights. In J. Drexl, H. G. Ruse-Khan & S. Nadde-Phlix (Eds.). *EU Bilateral Trade Agreements and Intellectual Property: For Better Or Worse?* (pp. 110-129). Berlin: Springer.

Yu, P. K. (2016). The anatomy of the human rights framework for intellectual property. *SMU Law Review* 69.