

**ADDRESSING CHINA'S NEEDS
IN THE GLOBAL INTELLECTUAL PROPERTY REGIME:
ALTERNATIVE KNOWLEDGE SHARING APPROACHES**

by

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ABSTRACT

Since its accession to the WTO, China has struggled to meet its commitments under the TRIPs (Trade-Related Aspects of Intellectual Property Rights) agreement which imposes strict intellectual property rights (IPRs), favouring the interests of developed countries. Despite internal and external pressure on Beijing to improve its standard of IPR protection, it remains the target of Western criticism for lax enforcement. Questioning the contemporary mainstream concept of intellectual property (IP), this study identifies alternative approaches to knowledge sharing that could address the needs of a developing country such as China. It argues that open IP initiatives could address some IPR problems within the Chinese context. They also could help to bridge the gap between developed countries like the U.S. and developing countries like China which have different perspectives on intellectual property.

Keywords

Intellectual property, Intellectual property – Developing countries, Intellectual property – China, World Trade Organization – TRIPs agreement, Open intellectual property movement, Open intellectual property initiatives

To my parents and my grandmother.

献给我的父亲母亲，和我的外婆。

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LIST OF ACRONYMS

| | |
|---------|---|
| BSA | Business Software Alliance |
| CORE | China Open Resources For Education |
| GATT | General Agreement On Tariffs And Trade |
| GNU GPL | GNU General Public Licence |
| GDP | Gross Domestic Product |
| IBM | International Business Machines |
| IET | International Engineering Technology |
| IIPA | International Intellectual Property Alliance |
| IP | Intellectual Property |
| IPC | Intellectual Property Committee |
| IPRs | Intellectual Property Rights |
| IT | Information Technology |
| MFA | Multifibre Arrangement |
| MIT | Massachusetts Institute Of Technology |
| NBA | National Basketball Association |
| NPO | Not-for-Profit Organization |
| OCW | OpenCourseWare |
| ODF | Open Document Format |
| RIAA | Recording Industry Association Of America |
| RIM | Research In Motion Ltd. |
| TRIPs | Trade-Related Aspects Of Intellectual Property Rights |
| USPTO | U.S. Patent & Trademark Office |
| USTR | U.S. Trade Representative |
| VER | Voluntary Export Restraints |
| WTO | World Trade Organization |

1. INTRODUCTION

Protection of intellectual property rights (IPR) has moved to the forefront of global economic policymaking in recent decades. Intellectual property rights are well outlined in regional and bilateral trade agreements. They have expanded in scope internationally especially since the adoption of the multilateral World Trade Organization (WTO)'s Trade-Related Aspects of Intellectual Property Rights (TRIPs) agreement (Maskus 2000, 1-3). International IPR regulations also have triggered tensions between trading partners, in particular, between intellectual property (IP) exporters and importers. The global IP regime's main architects are the developed countries led by the United States, who also are the main IP owners and exporters. They have been pushing for a strong IPR agenda, and most noticeably setting international standards through the TRIPs agreement (Sell 2003, 1-2). The current IP culture, therefore, is a system of laws and practices originating from post-industrial countries where IP holders, particularly multinational corporations, seek to maximize the return on their investments in intellectual property creation.

One of the major challenges confronting the players of the established IP regime is the gap between strong and restrictive IPRs advocated by developed countries, including the U.S., and the *de facto* climate of "loose", or less regulated, less

enforced/enforceable IPRs in developing countries, such as China¹. State efforts to implement stricter intellectual property rights in China have met limited success.

A closer look at the U.S. and China reveals that they are not unified actors with diametrically opposing views toward IPRs, as they often are portrayed in contemporary dialogue. There are subcultures of IP movements within each country that advocate a complementary approach towards intellectual property governance. This approach constitutes a shift of the mainstream concept of intellectual property, because while it attempts to accommodate the rights of IP owners, it also places a stronger emphasis on promoting technology transfer and knowledge sharing from IP owners to users. Efforts of this kind include open IP initiatives such as open source software and flexible copyright licensing, mostly at the grassroots level.

This study suggests a compromise approach to the current IP regime, one that allows developing countries to adopt open IP initiatives as complementary elements in conjunction with the existing global IP governance body such as TRIPs, in the hope that international trade rules could accommodate more IP needs of developing countries and IP users in general. Through investigating more flexible interpretations of IPRs, I will analyze the existing open IP initiatives and their application in China. I also will explore the rationale for employing these initiatives as a potential compromise option to address the causes of IPR problems and failures in the Chinese context.

¹ Whether China is still regarded as having “developing country” status or whether it should “graduate” from this status has been the centre of other debates. However, for the purpose of this study, we will assume China is still in a developing stage. In spite of its fast Gross Domestic Product (GDP) growth rate and increase of global market share, it shares the status of a relative newcomer to the international IP community with other developing countries.

Methodology and Argument

The methodology used in this study will concentrate on a literature review of books, journal articles, newspaper and online articles, and web based discussion forums. Chinese language sources including official government websites, Chinese online news sites, Chinese not-for-profit organizations (NPO) and universities' websites, and Chinese newspapers, will be an integral component of the study. I will research, analyze, and present a Chinese viewpoint that is not usually translated in Western media or accessible to Western scholars. Although these sources often are criticized for state censorship, and need to be scrutinized as such, it is important to acknowledge them in order to gain a better understanding of China's attitude towards IPRs. It also will be necessary to research web-based articles and discussion forums to obtain ideas from Information Technology (IT) professionals and law practitioners, as they often are the front-line thinkers for pursuing radical changes in IP governance. Websites of organizations and people who have originated, funded, and are in support of open IP initiatives will be examined to have a better understanding of which initiatives have emerged and what are the rationales behind them.

Literature Gaps and Contributions

In this study, I will use the term *open IP initiative* to refer to contemporary efforts against stringent IPR protection in favour of a more open model that emphasizes knowledge sharing for creative work. These efforts include open source software and copyright licences that are more flexible for IP holders to optionally relax some protection of their work, and to achieve goals such as wider distribution and contribution to society.

Dissemination of information is made much easier and less costly in cyberspace. Thus, the broadening usage of intellectual property in digital forms and on the internet has raised new issues and challenges for IPRs and IPR protection (Spinello and Tavani 2005). Open IP initiatives are not a simple rejection of IPR claims and protection. Rather, they are an attempt to retain the necessary and just protection for IP creators, while liberalizing the overly restrictive aspects of the current IP culture, in order to enable society at large to benefit from open information exchange.

Prior political science studies have not thoroughly investigated applying novel approaches such as open IP initiatives for knowledge/technology transfer to developing countries like China. Discussion of alternative IP licensing mostly has occurred within the internet community. Therefore, one of the reasons open IP initiatives have not received adequate attention in the mainstream IP regime is the lack of exposure outside this technical circle. This study will make a descriptive contribution to the current literature by emphasizing the ongoing discussion of open IP initiatives, and introducing some prominent open IP models.

The open IP approach is not envisioned to replace the TRIPs agreement, but to help bridge a perception gap between different trading parties in the current global IP regime, which is challenging for the existing system to address alone. It champions a more liberal IP regime whenever appropriate and plausible to incorporate open IP initiatives. It is intended to complement the existing regime and thus create a more positive IPR relationship (and an overall smoother trade relationship) between developed and developing countries. In the process, the original theoretical contribution of the

study is to consider open IP initiatives as a potential compromise option for China to pursue, besides its current efforts to comply with TRIPs.

China is a good starting point to demonstrate contemporary ideas about open IP initiatives. China's adoption of TRIPs but lack of enforcement of its provisions indicates a gap between what is demanded and what is needed for a practical, workable transition. Implementing demands placed by TRIPs could be costly and could reduce social benefits from knowledge transfer for developing countries like China. A more open IP system, on the other hand, addresses the problems of over protection and difficulty of technology transfer in the present system, especially for computer software and creative works in arts and literature, as well as simultaneously providing key protection to IP owners.

In addition, China's status as an emerging power could be fertile ground to experiment with a novel, yet positive path of IPRs that is different from the existing U.S. hegemony of an overly restrictive IP system: greater utilization of open IP initiatives wherever possible, in order to maximize public access and social benefits. China's high economic growth rate and vast market size could give it more bargaining power and allow it to take a strong position when confronting the current global IP regime. For example, Beijing has asserted that although it is aware of U.S. concerns and is committed to tackling IPR problems, they will be addressed on a Chinese, not American, timetable (Cooper and Dean 2005, A6).

Scope of Study

Intellectual property refers to knowledge (know-how), information, ideas, innovations, and inventions that are subject to ownership (May 2005, 165). When ownership can be determined, intellectual property grants its owners certain legal rights

and economic benefits to the use or reproduction of their work (Hoekman and Kostecki 2001, 276-277; Cohn 2003, 262-263). These include “the ability to charge rent for use; to receive compensation for loss; and [to] demand payment for transfer” (May 2005, 165)².

Intellectual property rights typically are divided into four widely recognized subdivisions: *patents* for industrial intellectual property; *copyrights* for artistic or literary intellectual property; *trademarks* for commercial products; and *trade secrets* for business information (Maskus 2000, 17-23; May 2005, 165-166). In almost all cases, IPRs are policies that “assign and protect the rights to earn income from innovative and creative activity [over a certain period of time]. These rights provide legal authority to control the dissemination and commercialization of new information and ideas and to enforce sanctions against their unauthorized use” (Jain 1996, 9).

Today, a wide range of ideas and inventions can receive IPR protection. The distinctions and applications between different categories of intellectual property rights are significant from sector to sector and product to product. When IPR protection is pursued, it is not reasonable to assess, for example, patents for plant genes and copyrights for music recording, or pharmaceutical products and Gucci trademarked bags, by the same standards.

Clearly, producing and selling IP infringed goods for profit, which deny IP owners reasonable economic compensation, are wrong. These IPR violations should be met with strict penalties. However, what about those IP owners who are championing strong protection to receive more than what some would consider to be their fair share?

² Rent-transfer takes effect when firms pay licensing fees and royalties to intellectual property owners for the right to use their protected work (La Croix and Konan 2002, 766).

What about those “violations” that are conducted for the public benefit of society? What about those areas where sharing knowledge rather than protecting or restricting information are more advantageous to our common future?

It is difficult to determine how much compensation is a “fair share” for the IP owners, and how much protection is “unfair” for the IP users. This study will not be able to answer these questions comprehensively. However, it will attempt to address the questions by offering an IP system through examples of the more contentious IP issue areas concerning copyrights and industrial patents. Copyright and patent materials best demonstrate the knowledge-sharing concept of intellectual property because they are considered to be knowledge goods resulting from research and development, innovations and inventions (Hoekman and Kostecki 2001, 274-275). Specifically, the study will draw attention to intellectual property that offers high social benefits to the public and low technical challenge to distribute widely, such as computer software and other copyright products, or industrial patent products.

The diametrically opposing views on IPR standards, protection, enforcement, and treatment between developed and developing countries will highlight the current IP governance. In particular, the U.S. and China will be the focal points for investigation because they represent the most commonly cited examples of opposing attitudes and standards toward IPRs. Through this analysis, this study will highlight the IPR situation in China, directly from Chinese language sources that reflect its IPR-related efforts, attitudes, and problems.

While this study presents models of open IP initiatives, because this complementary approach towards IPRs has just begun to sprout in China, actual data is

not yet available to determine its influence on Chinese policies or policy makers.

Probing the effectiveness and impact of open IP initiatives in China is beyond the scope of this study, but they should be considered a focus for future research.

Structure and Organization

This study is organized into four parts. Part one introduces the general background, scope and research questions, contributions, and organization of the study. Part two illustrates that for developing countries to implement stricter IPR regulations, insisting on TRIPs' rules alone is not enough to bring about a smooth transition. Section 2-1 describes the current IPR situation in China, and the measures that it has taken to meet international standards since its accession to the WTO. Section 2-2 analyzes the external pressures responsible for IPR-related standards and problems, in particular, the Western IP framework that was imposed on China through the TRIPs agreement. It also describes failed efforts by China to enforce strict IPRs. Section 2-3 focuses on the domestic economic, social, and cultural factors responsible for these problems and failures.

In part three, attention shifts to alternative approaches toward IPRs as a novel means for addressing the problems described in the previous section. Section 3-1 introduces the concept of the open IP movement, its vision and support, and gives current examples. Section 3-2 explores open IP initiatives in China, their application, and the reasons why they should be encouraged. These initiatives will be analyzed as a potential way to address the domestic and external causes of China's IPR-related problems. The last part concludes the study by highlighting the open IP approach for China and its role in the global IP regime. It also offers the reader a final discussion on rebalancing the IPR

trade-off between the protection of creation and innovation against the dissemination of such creation for the broader good of society.

2.

MAINSTREAM CONTEMPORARY IPRS

2-1. Present Situation in China – State Efforts to Toughen IPR Protection

China is recognized as one of the largest emerging market powers internationally, yet it still is a relatively new player in the global IP regime. The central government recognizes IPRs as an issue area where improvement and official attention are much needed (Zhao 2006, 1). This section discusses the internal incentives for China's IPR protection. It also presents the state's official line on its most recent efforts to toughen IPR protection in compliance with the TRIPs agreement.

Internal Motivations for Stronger IPR Protection

Besides external pressure, the government and certain industries have significant internal incentives to establish strong IPR laws and institutions to protect foreign and domestic IP owners, such as industries that depend on foreign investment and licensing, and the country's burgeoning domestic technology sector (Hoekman and Kostecki 2001, 279). Lenovo Group Ltd., for example, is not only the number one PC seller in China, but also a global player since its May 2005 purchase of International Business Machines (IBM)'s PC business for US\$1.75 billion (Lenovo United States 2006). In doing so, Lenovo had to reform its original business operations from minimal to increased research and development spending, and from mostly domestic low-end system sales to

international high-end product sales (Spooner and Kanellos 2004). These new business operations will benefit from stronger IPR protection as Lenovo enters the circle of IP owners. Another company, Haier, the largest Chinese appliance manufacturer, is teaming up with the U.S. National Basketball Association (NBA) for brand building in order to gain a competitive edge in the U.S. market (Associated Press 2006a, 4). Increasing globalization especially affects large Chinese companies, which often have strong ties to the government, and have generated more “self-interest” in China to implement strong IPR protection and to follow international standards in order to compete in foreign countries (Batson 2006, B5).

Current State Efforts

In order to increase protection and to combat IPR violations, the National IPR Protection Working Group (*Guojia baohu zhishi chanquan gongzuozu*) has formulated the *2006 China's Action Plan on Intellectual Property Rights Protection (2006'Zhongguo baohu zhishi chanquan xingdong jihua)* as a comprehensive guide to national policies toward IPR resolution. The action plan involves 11 state departments, including the Ministry of Public Security, Ministry of Information Industry, Ministry of Commerce, Ministry of Culture, General Administration of Customs, State Administration of Industry and Commerce, Administration of Quality Inspection, Supervision and Quarantine, National Copyright Administration, State Food and Drug Administration, State Intellectual Property Office, and Legislative Affairs Office of the State Council. According to the action plan, China will formulate and revise 17 laws, regulations, rules and measures relating to trademark, copyright, patent and customs protection, covering the following nine areas: legislation, law enforcement, mechanism building, publicity,

training and education, international communication and cooperation, promoting business self discipline, services to right holders, and subject research (IPR in China 2006b; China Net 2006). For example, the National Legislature is planning to amend the Patent Law and is aiming at completing the changes by 2008. The amendments are a way to promote IPRs in China by making it easier for Chinese citizens to obtain patents, and simplifying the patent application and examination procedure (Associated Press 2005). Toughened laws will be introduced to increase fines or to apply criminal charges instead of civil penalties to IPR violators (Hitt and Batson 2006, 1-2).

State media also report that 50 IPR trial courts and 50 infringement reporting centres will be set up in major cities. Many cities, provinces, and regions now have established their own IPR working groups, including local government-run IPR-related websites (Bullock, 2006a). For example, at the 2006 World Intellectual Property Day (April 26), China officially celebrated the occasion and announced the opening of its *Intellectual Property Protection in China (Zhongguo baohu zhishi chanquan wang)* website. The objective of this website is to publicize the improvements made by the National IPR Protection Working Group and local government IPR managing departments through the internet, to communicate government news and policies, to popularize IPR awareness and provide public services, and to track global IPR development (IPR in China 2006c). Also on that day, as many as 400 delegates, including state leaders at the ministerial level, attended the China High Level Forum on IPR Protection (*Zhongguo baohu zhishi chanquan gaoceng luntan*), whose declared aim is to promote mutual understanding and cooperation between China and other countries

and international organizations, and to demonstrate the government's position and attitude towards IPR protection (IPR in China 2006a).

In other state efforts, Vice Commissioner Yan Xiaohong of the National Copyright Administration remarked that copyright protection in China is now focusing on executing instead of establishing IPR laws. The Copyright Administration officially designated 2005 as "Anti-piracy Year". According to official statistics, all levels of copyright offices nationwide were successful in combating piracy; 9644 cases of piracy were accepted for examination and 97 percent were resolved (Copyright Management Division 2006). Chinese media also reported that a system has been set up to reward those who report copyright violations. The General Administration of Customs of China stated that in 2005, China Customs made seizures on 1210 IPR violations. They further stated that seizure has been increasing at an average of 30 percent each year since China's accession to the WTO (Global Chinese Press 2006, A6).

Vice Commissioner Zhang Qin of the State Intellectual Property Office further noted that the government is trying various methods, such as providing IPR education, and imposing tougher market regulations on Chinese companies, in order to move society towards legal use of intellectual property (Li, 2006). One such effort was reported in May 2006 by the *Wall Street Journal* and *China Daily*. Chinese PC makers now are required to install licensed (legal) copies of Microsoft's Windows operating system on the computers they sell domestically. The top two PC makers in China will be spending about \$270 million dollars on purchasing Microsoft software for their China sales. The Chinese government effort was intended to address some of the piracy concerns straining commercial ties with the U.S. (Batson 2006, B5; Dai 2006, 1).

These efforts showcase state-sponsored efforts to promote and enforce IPRs, and Beijing's sense of "urgency" in resolving what it sees as a "serious situation". The legal framework to deal with IPR infringement is slowly being institutionalized and modified to improve implementation (Pattloch 2005, 285-287). But the numbers and percentages in the official statements do not indicate whether IPR enforcement is getting better, or there simply is more IPR infringement going on in China that leads to more cases being solved. IPR infringement is still a problem and enforcement is still being criticized as lax or weak.

2-2. External Factors – Motivations and Problems

External Pressure for Stronger IPR Protection in China

External pressure has had a major impact on the emergence of a more Western IPR legal framework in China. In particular, U.S. pressure and the threat of economic sanctions, and trade wars with the U.S. have triggered greater efforts by the Chinese government in enforcing IPR laws³ (Alford 1995, 113-116; Hoekman and Kostecky 2001, 277-278; La Croix and Konan 2002, 760; Dai 2006, 1). For instance, U.S. Commerce Secretary Carlos Gutierrez stated that the United States would like to keep its markets open to Chinese products and to prevent protectionism on the condition that China improves enforcement of IPRs, and that U.S. intellectual property is protected in China (Bullock 2006b).

China's strong desire to join the WTO encouraged it to promise to comply with existing WTO rules, including enforcing the IPR standards detailed in the TRIPs

³ For discussion of U.S. influence on IPR protection prior to China's accession to the WTO, see Alford, "No Mickey Mouse Matter: U.S. Policy on Intellectual Property in Chinese Society," in *To Steal a Book is an Elegant Offense: Intellectual Property Law in Chinese Civilization*, 1995, 112-123.

agreement (Long 2000; La Croix and Konan 2002, 760). Without obligation to its WTO membership, IPR laws and regulations would likely have been adopted at a much slower rate (Dreyfuss 2004, 21-22). The TRIPs agreement, however, does not adequately address the needs of a developing country like China. It is mainly rooted in Western intellectual property right concepts, and the business interests of multinational corporations based in developed countries. Thus, TRIPs has had limited success in inducing China to enforce strict IPR rules.

Contemporary Concept of IPRs

Intellectual property rights, as we define them today, derives from the Western concept of legal rights⁴. The first patent law was created in Europe and was in force in the 14th and 15th centuries (Rines 2003, 5-9). The first copyright act was established in England in the 17th Century (UK Patent Office 2005). The first international treaties dealing with IPRs, the Paris Convention for the Protection of Industrial Property of 1883 and the Berne Convention for the Protection of Literary and Artistic Works of 1886, were designed and developed based on the European cultural and legal framework (WIPO 2006). TRIPs aims to implement these international IPR conventions and even to go beyond them⁵. It is a binding agreement with a stronger enforcement mechanism than these international conventions (Hoekman and Kostecki 2001, 280, 284; WTO 2006a).

⁴ For a more complete discussion of the historical development and expansion of intellectual property rights, see Rines, *Create or Perish: The Case for Inventions and Patents*, 2003, and Fisher, *The Growth of Intellectual Property: A History of the Ownership of Ideas in the United States*, 1999. Also see May and Sell, *Intellectual Property Rights: A Critical History*, 2005.

⁵ For example, TRIPs follows the Paris Convention on patent protection of 20 years. It also strengthened the Berne Convention on copyrights to include computerized databases and rental rights of IP owners (South Centre 1997; Hoekman and Kostecki 2001, 287-288; WTO 2006c).

Multinational Corporations Strengthen Contemporary IPRs

The advocates for the contemporary Western concept of IP and IPR protection most often are the developed countries, since they are the net IP producers and exporters (Hoekman and Kostecky 2001, 284). The role of multinational corporations must be taken into account when examining what and how IPRs are considered. With headquarters mostly in developed countries, especially the U.S., multinational corporations are the main IP proprietors. They own approximately 80 percent of the patents in developing countries (WTO 2001a; Cohn 2003, 263)⁶. When there is overly strict IPR protection, power shifts to the market and private enterprise, where IP proprietors are able to set monopoly prices for their products. IP proprietors with excessive power could result in a loss of market efficiency, as they could restrict the availability and increase the cost of existing creative products (La Croix and Konan 2002, 766).

Multinational corporations often are equipped with superior resources and organization, which allow them to lobby directly at the domestic and international levels for their home governments to represent their interests in IP trade agreements (Doern and Sharaput 2000, 125). They also receive frequent, extensive subsidies, in one form or another, from their governments to support research and development (Gerrard 1996, 29). Therefore, it is not entirely true that limited IPR protection takes away their research and development investment returns.

Patent policies are especially important to big corporations with a vested interest in international IP trade, such as pharmaceutical companies, biotechnology and computer

⁶ As shown in the Global Fortune 500 (2005), U.S.-based companies comprise 176 of the top 500 companies and five out of the top ten. Half of the world's twelve largest pharmaceutical companies are U.S.-based (Fortune Magazine 2005).

firms, and telecommunications and information-service industries (e.g. banks and financial institutions). In many ways, they are the driving force behind the international IP agenda and protection function, since they have a far greater stake in a strict IP regime (Warhovsky 1994, cited in Doern & Sharaput 2000, 124). They usually enjoy stringent domestic laws regarding patents, copyrights, and trademark protection and wish to extend these measures at the international level to safeguard their knowledge-based products and services (May 2005, 179).

Global IP Regime – the TRIPs Agreement

Origin of TRIPs – Based On Contemporary Concept of IPRs

At the international level, the only binding global governing IPRs accord is the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights⁷. TRIPs was first negotiated in the 1986-94 Uruguay Round of the General Agreement on Tariffs and Trade (GATT) between the developed and developing countries. It introduced intellectual property rules into the multilateral trading system for the first time (WTO 2005b). Advocates of strict IPRs argue that TRIPs could limit trade distortion due to IP infringements by introducing an enforcement mechanism to control violations. Through the WTO dispute settlement body, violating countries can be identified and held accountable for infringements; in turn, this procedure could encourage governments to expose and to penalize violators within their jurisdiction (WTO 2005a). Thus, TRIPs is a regulated framework that provides protection to the international intellectual property trade.

⁷ Other than the WTO, the World Intellectual Property Organization (WIPO) is another important piece of the global IP regime, with 183 member-states (WIPO 2004). However, it has a much lower profile than the WTO since it has no binding power comparable to the WTO Dispute Settlement Body (May 2004, 63).

The central players and main architects of TRIPs are developed countries and the private sector in those countries. One of the most notable is a U.S.-based group known as the Intellectual Property Committee (IPC), which joined with its counterparts in Europe and Japan in shaping the TRIPs agreement, and in setting the standards for global IPR protection based on industrialized countries' existing laws. Comprising representatives from the pharmaceutical, entertainment, and software industries, the IPC represents the private sector in knowledge-based industries of developed countries⁸ (Sell 2003, 96-108).

Thus, the TRIPs agreement, in large measure, represents the interests of the powerful private sectors in developed countries. Its rules, such as long periods of patent and copyright protection, are primarily based on the laws of developed nations. Developing countries had scarcely any input in establishing IP trade rules and regulations (Subramanian 2003).

Ratification of TRIPs – Single Undertaking for Developing Countries

The eventual acceptance of TRIPs by the developing countries in the Uruguay Round reflected the “single-undertaking” approach, which is a package deal containing a mixture of compromises from both developed and developing countries. Concessions from developing countries included accepting the TRIPs agreement in exchange for compromises from developed countries in the form of agreeing to phase out the Multifibre Arrangement (MFA) and Voluntary Export Restraints (VER) (WTO 2005b).

⁸ According to a World Bank estimate, the four major beneficiaries of stronger intellectual property within the WTO are the U.S., Germany, Japan, and France because they hold the majority of IP ownership. The World Bank estimates are: U.S. annual gain of U.S. \$19.1 billion; Germany \$6.8 billion; Japan \$5.7 billion; France \$3.3 billion. These figures represent the potential gain of stronger intellectual property rules, most of which were in effect by 2005 (Engler 2003, 32).

Developing countries feared that refusal to compromise might lead to increased vulnerability to U.S. and EU sanctions (Hoekman and Kostecky 2001, 279-280).

An important provision in the TRIPs agreement for the developing countries is that “intellectual property protection should contribute to technical innovation and the transfer of technology. Both producers and users should benefit, and economic and social welfare should be enhanced” (WTO 2005a). This rule assumes that stronger IPR protection provides a more favourable environment for IP holders because the host country would honour and protect proprietary interests. Therefore, intellectual property holders would be more likely to share technological information with local affiliates that are legally restrained from infringing on their protected work (Maskus and Penubarti 1995; La Croix and Konan 2002, 768-769).

However, technology transfer or technical assistance from developed countries does not always occur. When countries are in a position to provide assistance, they often do so on their own terms and in a way that suits their own interests (McCalman 2002, 23-26; Subramanian 2003). Developed countries more often help developing countries establish their domestic legislation to achieve a highly protectionist IP regime rather than facilitating technology transfer⁹ (Dreyfuss 2004, 25). Chinese Vice Premier Wu Yi has reiterated that the U.S. should lift security restrictions on high technology exports to China (Dai 2006, 1). Yet, IP owners are often reluctant to support an approach that fosters the development of new manufacturing capacity in developing countries, especially in sectors that will be in direct competition with their own industry (Dreyfuss 2004, 24).

⁹ For example, copyright law drafted for Iraq, see Orłowski, *RIAA's Rosen "Writing Iraq Copyright Laws"*, 2003. <http://www.theregister.co.uk/content/6/30441.html> (accessed March 25, 2006).

The TRIPs agreement is, in contrast to the other free trade GATT negotiations, about setting a *high* minimum standard to protect IP goods for all jurisdictions of the contracting parties (Hoekman and Kostecki 2001, 284; WTO 2006a). In essence, since developed countries are the main architects of TRIPs, they have fewer changes to make in order to adopt TRIPs rules¹⁰. The major implications are for the developing countries (May 2004, 63-65). For example, a patent right of twenty years is a close approximation of the developed countries' domestic standards, but its adoption will force more substantial changes in legislation in most developing countries (South Centre 1997). Therefore, the TRIPs negotiation entailed an asymmetric rather than balanced multilateral process between developed and developing countries¹¹. These internationally accepted IP trade rules are only *international* in a limited way. As the origin of TRIPs suggests, most of its rules were unilaterally based on a Western legal framework and the domestic business interests of developed countries.

Outcome of TRIPs for China

China's accession to the WTO required full compliance with and full implementation of the TRIPs agreement from the date of accession, including amendments to its copyright, patent and trademark laws¹² (WTO 2001b). According to Western critics, more than four years after its accession, China still has not produced the anticipated extent of protection of foreign and domestic intellectual property, especially

¹⁰ See South Centre, *The TRIPs Agreement: A Guide for the South: The Uruguay Round Agreement on Trade-Related Intellectual Property Rights*, 1997. <http://www.southcentre.org/publications/trips/toc.htm> (accessed May 24, 2006).

¹¹ The developing countries were able to preserve the possibility of regulating some key aspects such as compulsory licensing and the scope of patentability of biotechnological inventions (South Centre 1997). The implication of these matters is discussed later in this study.

¹² China has been a member of the WTO since December 11, 2001.

to the satisfaction of the U.S. It still is notorious for manufacturing, selling, and buying products that infringe on intellectual property rights (IIPA 2005; USINFO 2006).

Western companies estimated that in 2005 their annual lost sales due to commercial piracy in China was US\$16 billion (Associated Press 2005). Concerns are mounting about whether Chinese legal institutions have viable commitments to, and mechanisms for, IPR enforcement¹³.

The Office of the U.S. Trade Representative (USTR) estimates that products subject to IPR infringement in China include almost all industrial products traded between the two countries. Pirated products account for 85 to 93 percent of all sales of copyrighted products in 2005 (IIPA 2005, 3; Odessey 2006). According to U.S. Customs, in 2005, US\$64 million worth of IP infringed products from China were confiscated in the U.S. (Zhang 2006, A16). Ambassador Peter Allgeier, U.S. trade representative to the WTO, commented on the situation in April 2006 in Geneva during the Trade Policy Review of China. He stated that one of the main reasons for the U.S. US\$100 billion trade deficit with China is IPR infringement (USINFO 2006). The U.S. elevated China to its "priority watch list" in 2005 for failing to give adequate IPR protection in the area of patents and trademarks (USINFO 2005). The USTR also was reported to have been considering the WTO dispute settlement option for the first time to deal with China's limited progress in addressing IPR protection and enforcement (Odessey 2006).

According to the International Intellectual Property Alliance (IIPA), a private sector coalition representing U.S. copyright-based industries, there are two main reasons

¹³ For a detailed outline of IPR enforcement, the legal system, and judiciary procedure in China, see the case study of Pattloch, "The Enforcement of Patent Rights in China," in *Patent enforcement worldwide: A survey of 15 countries*, edited by Christopher Heath and Laurence Petit, 2005, 285-321.

why the piracy rate has not declined in China: “lack of deterrent penalties for piracy as well as a lack of a coordinated, transparent enforcement program” (IIPA 2004, 31).

These observations were made in an IIPA report to the USTR, which did not consider another possible reason: the built-in “deficiency” of TRIPs. TRIPs is an unbalanced agreement. There is no ceiling for the expansion of IPR protection, but less protection than the minimum standard can be challenged through the WTO. The agreement tells developing countries what to do in order to reach the minimum standard, but it does not provide any compensatory benefits in the form of new resources or revenue to replace short run losses caused by compliance with strict IPR rules (Dreyfuss 2004, 21-22).

As the China case demonstrates, demanding strong IPR protection to ensure compliance with TRIPs does not produce real change in the form of reduced violations nor does it generate a significant attitude change toward IPRs. While efforts to comply with WTO have helped to reduce China's institutional deficiency in the IPR field, enforcement of IPR rules still is lax in comparison with the Western standard. The laws have barely affected the economic and cultural structures behind IPR implementation (Alford 1995, 7; Associated Press 2005).

2-3. Internal Factors for Problems and Failures

To build an IPR structure comparable to the Western standard requires changes in attitudes and economic interests of the Chinese government and citizens themselves. Although a legal framework can be set up in a given time frame, perceptions and attitude changes toward economic, social, and cultural issues cannot easily be achieved in a short period of time. From the Chinese perspective, it might not be in China's best interest to

adopt the Western standard completely at its current stage of development, nor is the Western standard considered the most appropriate model for the Chinese cultural context.

State's "Dual" Reactions to External Criticism

On the one hand, Beijing wants to demonstrate its commitment to IPR protection. On the other hand, it often exhibits contradictory attitudes when it comes to the alleged seriousness of violations in China. IPR problems often are downplayed by state officials, although they admit problems do exist. The following software piracy example demonstrates well the state's stance. The Business Software Alliance (BSA), a U.S.-based international organization representing the commercial software industry, asserted that software piracy has reached as high as 90 percent in China (BSA 2006; Li 2006). Although this percentage has declined by four points recently due to the state's effort to enforce copyright law, piracy still is seriously impeding the development of the Chinese software industry (Associated Press 2006b).

Commerce Minister Bo Xilai, Vice Commissioner Zhang Qin of the State Intellectual Property Office, and Vice Commissioner Yan Xiaohong of the National Copyright Administration each dismissed the alleged high piracy rate in China¹⁴ (Global Chinese Press 2006, A6; Hitt and Batson 2006, 1-2; Li 2006). While Zhang acknowledged "a certain degree" of software piracy, he said the actual ratio still is under investigation (Li 2006). Yan also commented that piracy exists only in consumer PC software, which accounts for just one-third of the Chinese software industry. He stressed

¹⁴ National Copyright Administration of China used the following calculation: if software piracy in China is around 90%, that means pirated software is 11-12 times more than legal copies. In 2005, China software industry output value was around RMB 390 billion. If pirated copies were included, it would be around RMB 4 trillion, or 25% of the GDP, which was an impossible proportion of a country's GDP (Li 2006). According to this calculation, Zhang remarked that China's software piracy could not have been 90%.

that as a developing country, China hopes to shorten the time required to achieve more comprehensive IPR protection, but it cannot succeed overnight. Both Zhang and Yan emphasized that no country in the world, including the U.S., is 100 percent piracy-free; it is only a matter of degree. Therefore, they point out this is not China's problem alone, but one that China will cooperate with other countries to resolve (Global Chinese Press 2006, A6; Li 2006).

There could be numerous reasons for party officials' mixed messages regarding IPR violations in China. The party may have economic or social incentives to downplay the seriousness of the problem, and to report positive results and hide negative ones. Regardless of the reasons, Beijing's mixed reaction demonstrates that it does not accept all IPR criticism and it is not eager to agree with the external critics.

Economic Benefit vs. Economic Cost

Advocates of strict IPR protection argue that the natural rights of the creator should be protected for their inspiration and innovation (Maskus 2000, 27; May 2005, 167). Expansion of IP trade with insufficient international protection has led to increased free riding in the form of copying, counterfeiting, and piracy, in particular when IPR protection is weak or not unified among trading countries. Therefore, IP owners' share of economic rewards is not guaranteed or reduced, especially if the intellectual property is costly to produce and can be easily copied or used by others (Maskus 2000, 28-29). According to this argument, the same rule of law we follow to protect physical property should be extended to intellectual property as well.

While the U.S. was developing, it was more interested in "copying" patented or copyrighted materials from other countries than in protecting intellectual property rights.

After the U.S. was transformed from a net IP consumer to a net producer, it became vigorously interested in protecting IPRs against other countries (Fisher III 1999). Thus, it could be argued that when countries are at an early stage of development, they benefit from infringing intellectual property, because technology and knowledge can be collected cheaply through imitation of foreign expertise.

China remains largely a net importer of intellectual property products. Therefore, the incentive to resist the pressure to enforce strong IPR laws still is great (La Croix and Konan 2002, 766). Although some big Chinese companies have been supporting strong IPR protection in China, they still are a minority. The many small and medium-sized enterprises depend on the use of technology invented by others. Greater IPR protection means more restriction and higher cost to access technology and know-how (La Croix and Konan 2002).

Traditionally, China's low level of IPR protection has encouraged low-cost imitation (Batson 2006, B5). China's labour-intensive industry has the capability to imitate new foreign technologies, enabling many Chinese firms to compete in the global and domestic markets (La Croix and Konan 2002, 766-767). Economic gains are generated both for industries and companies that produce the infringed products, such as computer programs or compact discs, and for individual consumers (Kwong et al. 2003). For instance, when illegal copies of Microsoft's products can be bought for a few dollars on the Chinese street, there is little incentive to buy the official version for a few hundred dollars. Economic motives could outweigh the pressure for stronger IPR enforcement in China. The economic cost associated with IPR enforcement, on the other hand, means higher consumer prices and a large transfer of revenue (in copyright and patent royalties)

to the Western industrial countries, because at China's current stage of development, it cannot yet compete effectively with foreign produced intellectual property.

In a recent report to the National People's Congress, Minister of Science and Technology Xue Guanhua stated that since China's accession to the WTO, Chinese companies have paid more than US \$1 billion in what he called economic compensation due to IPR disputes, including products ranging from DVDs, colour television sets, motorcycles, digital cameras, and computer chips, to automobiles and telecommunication equipment. Beijing sees this as a huge loss to the country. More critical is the fact that many multinational corporations are receiving a large volume of patents in China, which causes many core technologies to be owned by foreign companies (Ni, Xue, and Meng 2006). According to Xue's report, in the computer and pharmaceutical industries, more than 60 percent of patents in China are controlled by foreign owned or foreign invested corporations. In wireless telecommunication, this proportion is over 90 percent. In Xue's view, the low level of IPR awareness hurts Chinese companies by remitting large amounts of royalty and licensing fees to foreign companies (Ni, Xue, and Meng 2006).

Social Benefit of Accessibility and Affordability

The fundamental trade-off in IPRs is balancing the "right" amount of control to protect proprietary interests against safeguarding the social benefit of public access through information dissemination (Doern and Sharaput 2000; Dreyfuss 2004, 21; May 2005, 164-182). Advocates of strict IPRs assert that society benefits in the long run from IPR regulations that provide protection for IP owners over the use or reproduction of their work, and serve as an incentive for them to engage in costly research and development (Hoekman and Kostecky 2001, 276-277). The absence of appropriate IPR protection

would distort trade because certain technical information and industry inventions would be kept secret and not shared (WTO 2005a).

However, unlike physical goods, intellectual property is characterized by non-rivalrous use (Hoekman and Kostecki 2001, 274-275). This means that one person's use of the information does not diminish another person's use. Therefore, intellectual property can be shared and disseminated broadly, because the marginal cost of distributing an additional unit of information could be very low or even zero (Spinello and Tavani 2005, 4-6). Dissemination through the internet is a good example of this non-rivalrous attribute. For instance, in contrast with physical CDs, one person enjoying a CD from a computer network does not mean there is one less CD to be enjoyed by others. It may seem optimal, therefore, to allow wide access to intellectual property¹⁵.

Yet the tendency to expand intellectual property rights enforcement in many areas has damaged the public interest (Boyle 1996, 139-143). Stronger IPRs do not always produce social gains in terms of knowledge accumulation and building the stock of human capital¹⁶. It makes it harder to build on earlier work, thus limiting the spillover of knowledge in a skilled labour force (La Croix and Konan 2002, 768; Dreyfuss 2004, 21). For example, expensive copyrights could increase the cost of foreign literature translated into Chinese, making it too expensive to use in Chinese schools, thus increasing the cost of education and impeding the development of a skilled labour force. If education is viewed as a public interest, then subjecting it to "private intellectual property" could be

¹⁵ However, because of private ownership entitlement, intellectual property may be exclusive in the sense that it could prevent people from using the information without authorization and/or rent payment (Maskus 2000, 28-29; Lessig 2004, 63-65). As the CD example illustrates, although internet downloads are intangible, they still are considered property, which gives the owner the right to decide the terms under which content is shared.

¹⁶ Other kinds of IPR over protection, such as patents on medicines, seeds, or genes, also hurt the public interest.

limiting future creators' access to knowledge. Complementary approaches, such as openly shared educational material and information, should be introduced and utilized to bypass IPR restrictions and to offer easier access to learning and knowledge sharing.

Historical and Cultural Attitudes

Historical factors have helped in constructing the cultural context in which Chinese attitudes toward IPRs were formed. In its imperial past, China did not develop a counterpart to Western intellectual property laws (Alford 1995, 2). Western notions of IPR laws were introduced in China at the turn of the 20th Century through commercial treaties with the United Kingdom and the U.S. The Nationalist government later also tried to implement foreign IPR laws in China. However, both attempts were unsuccessful because the Western concept of IPRs did not exist in the Chinese cultural consciousness. Western laws and legal institutions were introduced into China without regard for any local cultural and value differences (Alford 1995, 53).

Statism is a recurring theme from Confucian China to the Imperial period, and from the Marxist era to the contemporary age of “socialism with Chinese characteristics” (Groombridge 2000, 12). The political culture generated by statism is the subordination of the individual to the interests and goals of the state or the leaders who represent the state (Groombridge 2000, 28-32). The state's emphasis was focused more on political order and stability than on issues of ownership and private interest (Alford 1995, 24). The current progress towards IPR protection in China also reflects statism in terms of its “nation building” goal. It could be one explanation for the mixed reactions in Beijing toward IPRs. That is, the efforts of the Chinese leadership to implement IPRs could be

aimed less at promoting individual rights and more at supporting economic reform and increasing the leadership power of the state.

Traditional Chinese thinking encourages sharing proprietary creative work with society. Resolving problems of the present builds on knowledge of the past (Alford 1995, 22). These historical and cultural views help to explain why increasing public awareness of IPR protection in China is not an easy task. Chinese IP creators may not know about the extent of IPR protection that is available to them. If they are aware of IPR laws in China, they may not want to initiate lawsuits which could harm their reputation. Or they may even think that pirating is a good indicator of the popularity of their work (Groombridge 2000, 22-23). Reproduction of others' work often is thought of as an acceptable way of promoting learning, and admiring others' talents (Kwong et al. 2003, 226).

Even top officials in Beijing have acknowledged the lack of IPR awareness. In the area of patents, for example, statistics from the State Intellectual Property Office show that in 2005, China's patent application rate increased by 44 percent. However, Commissioner Tian Lipu pointed out that 46 percent of those applications were from foreign countries, one-third were from joint ventures with foreign countries, and only one-third were domestic applications. Only 0.3 percent of Chinese companies have some kind of intellectual property, and 99 percent of domestic companies have never applied for patents (Wang Shiling, 2006). Compared to the "patent everything in sight" mentality in the U.S., there is very weak patenting practice and mindset in China. Poor IPR awareness may not be the only reason leading to this imbalance, but it does reflect the fact that domestic attitude toward IPRs is still weak.

A recent IP dispute case in Beijing demonstrates the attitude towards copyright. A law professor, Zhou Yezhong of Wuhan University with close links to powerful government officials, was accused of plagiarism by Wang Tiancheng, a political prisoner. Zhou defended his action as “justified plagiarism”, claiming that he could not identify Wang as a source because of his “special background” (York 2006, A3). When a law professor with a national reputation who gives advice to the Politburo himself does not comply with the intellectual property rights of others, and when the Chinese government was trying to keep the scandal quiet, it is difficult to achieve IPR attitude change in an inconsistent environment.

This case also revealed the underlying structure of Chinese scholarly life that could easily lead to academic corruption and routine plagiarism. Many scholars, professors and students disclosed that they have paid bribes to publish in academic journals or copied others’ works, since salaries and promotion are based on numerical quotas of publications (York 2006, A3). Although more sophisticated IPR laws now are established in China, they operate within a larger socio-cultural framework. They cannot be effective unless consideration also is given to the overall Chinese cultural and political context.

The more encouraging news in this story is that, against all odds, Wang was able to persuade Beijing No. 2 Intermediate Level People’s Court (Beijingshi dier zhongji renmin fayuan) to accept his lawsuit for hearing (Beijing No. 2 Intermediate Level People’s Court 2006). Thus, we could hope cases like this would at least receive media attention, and lead to a chance of fair hearings and increased consideration of appropriate IPRs.

3. COMPLEMENTARY APPROACHES TO IPRS

3-1. Introducing Open IP Initiatives

What is the optimal amount of IPR protection to induce positive growth in economic activity as well as to safeguard the public interest? To answer this question, the suitability of integrating open IP initiatives should be investigated as part of the process of developing effective IPR regulations. Government policies on intellectual property are important but are no longer a pre-condition for non-governmental efforts to initiate alternative IP systems. Grassroots organizations have taken steps where possible to create a more flexible IP environment, one that picks up where current restrictive IP laws leave off, and attempts to mitigate the dominance of multinational corporations.

As such, open IP initiatives often include efforts to develop licences that fit within the current legal framework, at the same time allowing IP creators relaxed protection of their work at their own discretion. Open IP initiatives are most commonly known in the technical specialists' circles in developed countries, although they also are starting to gain a presence in developing countries. This study will introduce some of the more significant initiatives at the forefront of the open IP movement to illustrate their motives and impact. These case examples include open source software, open document format, open courseware through the internet, and Creative Commons for copyright materials.

Calls for IPR Reform

Aside from causing international disputes, current stringent intellectual property laws have received domestic criticism within the U.S. (Buchanan and Campbell 2005). Increased IP protection could be observed over the past fifty years, reflecting a parallel expansion in utilizing IP laws (Landes and Posner 2006, 2-10). For example, new patent applications are being filed at a rate of 400,000 per year¹⁷. In 2004, the U.S. Patent & Trademark Office (USPTO) issued 181,000 patents, double the number issued in 1990 (Orey 2006). Many observers have said that this is indicative of a “patent everything in sight” mentality, which could lead to a patent-choked environment. Over protection can restrict new creation and innovation, and hinder intellectual freedom and human development¹⁸ (Boyle 1996; Lessig 2004; Buchanan and Campbell 2005, 227-237). Businesses have to navigate an increasingly complicated IP minefield in their day-to-day operations. Patent litigation such as the NTP Inc. vs. BlackBerry maker Research In Motion Ltd. (RIM) case demonstrates that while it is relatively easy to obtain a patent, the vast majority of them have no real significance except to put a restriction on what others can do, and to collect licensing fees or to seek damages through litigation¹⁹ (Wu 2006).

¹⁷ For statistics on the patent increase trend in the U.S., see USPTO, *Table of Issue Years and Patent Numbers, for Selected Document Types Issued Since 1836*, 2005. <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/issuyear.htm> (accessed May 25, 2006).

¹⁸ Intellectual freedom, as defined by the American Library Association (2006), “is the right of every individual to both seek and receive information from all points of view without restriction. It provides for free access to all expressions of ideas through which any and all sides of a question, cause or movement may be explored. Intellectual freedom encompasses the freedom to hold, receive and disseminate ideas.” <http://www.ala.org/ala/oif/ifissues/Default883.htm> (accessed February 25, 2006).

¹⁹ Also see McKenna, Waldie, and Avery, “Patently Absurd: The Inside Story of RIM’s Wireless War,” *Globe and Mail*, B4-6, Jan. 28 2006.

The “obviousness test” at the patent office often is unable to prevent patents on things people routinely invent that do not represent a *real* value-added or “non-obvious” improvement from prior inventions, such as a business method of billing clients or hiring employees²⁰. Not only does this trend force companies to redesign their products, it also creates an environment of licence fees for technology that should be free, and even deters some research altogether (Orey 2006).

Patent legal wars have triggered patent reform debates with support from big corporations like Amazon, IBM, and Microsoft. They support limiting the number of patents issued, their duration and quality, because they want to change aspects of USPTO’s patent procedure that make litigation too easy to conduct²¹ (Wu 2006). However, these patent reforms are tackling a different set of problems than open IP initiatives. The call from big corporations essentially is to consolidate patents in order to secure a market that could guarantee continued economic compensation for them. Open IP initiatives, on the other hand, call for the *sharing* of intellectual property, for example,

²⁰ The “obviousness test” for patents refers to the test that a new invention should pass to demonstrate that it is not obvious enough such that other people could suggest the same thing; it should represent a novel improvement from prior inventions (Wu 2006). However, the USPTO has been known to grant patents on obvious inventions such as *method of exercising a cat* with a laser pointer (PatentStorm 2006). Another example, the KSR International Co. General Motors Corp. vs. Teleflex Inc. case also demonstrates that the U.S. Federal Circuit Court’s test for “non-obviousness” allows too many obvious patents, and in turn, it creates a “patent-choked” environment that limits new innovation and development, and restricts the use of routine business process (Ross 2005; Orey 2006).

²¹ See Wolverton, *Amazon CEO sees solutions in patent reform*, 2000. http://news.com.com/Amazon+CEO+sees+solutions+in+patent+reform/2100-1017_3-237801.html (accessed April 2, 2006); Chase, *IBM calls for patent reform*, 2005. <http://www.zdnet.com.au/news/0,39023165,39187609,00.htm> (accessed April 2, 2006); PressPass, *Q&A: Microsoft Calls for Reforms to the U.S. Patent System*, 2005. <http://www.microsoft.com/presspass/features/2005/mar05/03-10PatentReform.mspx> (accessed April 2, 2006); CBS Staff Writer, *Microsoft calls for action on “patent litigation lottery”*, 2005. http://www.cbronline.com/article_news.asp?guid=9A9AC12F-365C-4C58-8C6A-5E5348F90FD4 (accessed March 15, 2006). For an example of efforts by academic advocates for patent reforms, see Lemley, Lichtman, and Sampat, “What to Do About Bad Patents,” *Regulation* 28 (2005-2006) 10-13.

software code, as a way to encourage further research and innovation, and to inspire future creators.

Advocates of a more open IP system are gaining influence within the mainstream IP regime. For example, many in the European Commission advocate “free software” and oppose the American model of “patent everything in sight”²² (European Parliament News 2005, 2). The largest groups of advocates of open IP initiatives are specialists in information technology and related areas, because they can use their technical skills and legal expertise to help advance knowledge dissemination. For instance, many intellectual property law professors have voiced concern about the growing danger of massive over patenting, and have identified it as one of the major killers of innovation.

Among these voices is Robert Barr, the current executive director of the Berkeley Center for Law & Technology and former Vice President for Intellectual Property and Worldwide Patent Counsel for Cisco Systems. Barr observes that under the present patent system, it is too easy for engineers inadvertently to infringe patents just by doing their routine work; that is not what the law intended (Orey 2006).

Michael Geist, University of Ottawa law professor and internationally recognized expert in internet and copyright issues, is another critic of over protection. Geist believes that stakeholders representing the public interest should receive active support to make sure their views are heard, so that they are not drowned out by corporate interests

²² As early as the 1990s, the League for Programming Freedom, an American organization, has campaigned against software patents so they are “free” (Epperly 1994). Following this trend, the European Commission has proposed in the Community Patent legislation in May 2006 that it will abolish software patentability. This law also applies to the European Patent Office (Marson 2006). As the Gartner report predicted, open source software will likely change business strategy and even restructure the IT industry (Driver 2005, 3-11).

lobbying government. He argues that a model should be developed to avoid damaging litigation, and to strike a balance between IP owners and users (p2pnet 2006).

Stanford Law professor Lawrence Lessig has written many volumes warning against IP monopolization by big corporations, and advocating that governments protect the public against overly long monopolies on creative work. He also is a strong supporter of building public knowledge and sharing creativity and knowledge (Lessig 2006). Lessig is one of the founding persons and chair of the board of directors at Creative Commons, a leading open IP organization (Creative Commons 2006a).

Supporters of open IP initiatives also include creators of intellectual property, such as artists, writers, and engineers, who want to spread their creative work. This is in contrast to business interests that often are advocates for more restrictive IPR protection, since they stand to gain the most in profit from rent collecting²³. IP creators could be more interested in dealing with knowledge creation and sharing instead of the economic benefits of IPRs. This mentality undermines the argument that lax IPR enforcement stifles innovation by depriving the creators of adequate compensation. It is important to consider the impact of this shift in mentality from using IP for rent collecting to one that focuses on the non-economic fulfillment of contributing to and participating in an intellectual common that benefits society as a whole.

²³ As the earlier section suggests, while large corporations often are the *owners* of intellectual property, the *actual creators* of IP typically are individuals or businesses whose main interest often is innovation instead of licensing. Yet it is the big companies that use IPRs so expansively and make it more difficult for future independent creators actually to create. For more discussion of the power relationship between creators and owners, see Rines, *Create or perish: The case for inventions and patents*, 2003. Also see Boyle, *Shamans, Software, and Spleens: Law and the Construction of the Information Society*, 1996.

Current Efforts – Main Examples

Open Source Software

One of the first successful demonstrations of an information-sharing model was in the software development community. These models are based on the idea that the source code for a computer software program should be open and made available to people who want to read it or to modify it²⁴. Open source often also means free redistribution without royalty fees. Typically, open source licences explicitly allow for modifications and derived works, so long as they are distributed under the same terms as the licence of the original software (Open Source Initiative 2006).

Several open source software projects have enjoyed widespread adoption. For example, under the GNU project (which stands for “GNU’s Not Unix”) founded in the mid-1980s, the GNU General Public Licence (GNU GPL) is one of the most widely adopted open-source licences. Sometimes it is known as “*copyleft*” licence to differentiate it from the mainstream *copyright* licence. Under this licence, the GNU/Linux operating system was created and can be used for free, as an alternative to proprietary products such as Microsoft Windows (Free Software Foundation 2006; GNU Project 2006). Linux runs the majority of web servers in the world.

The alleged benefits are that open source software improves at a faster speed than the conventional closed model in which only a few programmers have access to source code, because more people can now read the code and fix the bugs; in turn, no one person

²⁴ For discussion of how open source software could be justifiable from a liberalist position, see Kimppa, “Intellectual property rights in software - Justifiable from a Liberalist position? Free Software Foundation's position in comparison to John Locke's concept of property,” in *Intellectual Property Rights in a Networked World: Theory and Practice*, 2005, 67-82.

or group claims ownership over the software code, and any person or group in any field can utilize the program.

Initially, the audience for open source software was primarily in the academic and technical community. It was mostly limited to science, computer science, and academic applications. However, as the use of the internet and the World Wide Web grows, products of open source development have begun to challenge mainstream commercially licenced software with a major economic impact. Now open source software has begun to compete with mainstream closed-source commercial applications such as word processing, computer operating systems, and internet servers. For example, open source licensed products are breaking into mainstream markets and taking market share from traditional industry giants like IBM and Microsoft (Driver 2005, 3-4).

Open Document Format

As an extension to the free exchange of software applications and source code, the open source movement also is interested in promoting free exchange of documents. The rationale is that the widespread use of proprietary document formats such as Microsoft Word's creates a dangerous situation where a corporate IP owner could control access to all documents created using its software; thus users are locked into using a specific software product. As an alternative, the OpenDocument format (ODF), was created and is free to download/use for text documents, spreadsheets, and presentations (Fioretti 2005). ODF was developed by OASIS, a not-for-profit international consortium founded in 1993 which provides many other software programs to the public on a royalty-free basis (OASIS 2006). ODF has been adopted by multiple vendors, other than Microsoft,

and also can be adopted by developers using open source software licences, such as GNU GPL.

So far Microsoft has no plan to support ODF, since it is not aligned with its business interest of collecting royalties and charging licensing fees. But there is growing interest in ODF (Fulton 2005; McAllister 2005). For example, the State of Massachusetts announced that starting in 2007, it will adopt ODF to store all its government files, as an alternative to using a single commercial software product. Critical public access to electronic records would be safeguarded against the risk of the proprietary vendor abandoning the software that is required to view the documents. (Information Technology Division 2006).

Both open source software and open document format provide possible solutions to the problem described previously, that people in China are buying pirated Microsoft products either because they do not want to pay or cannot afford to pay the high price for access to the technology. By making open source software and ODF more accessible in China, it would be possible for people to obtain a legal copy at a cheaper price.

MIT OpenCourseWare (OCW) Project

Another movement towards using open IP for greater social benefit, in this case, in the education field, is the Massachusetts Institute of Technology (MIT) OpenCourseWare (OCW) initiative. Launched in 2001, OCW aims to provide free access to MIT course materials on the web and to share them with users worldwide (CORE 2003; MIT 2006a). OCW began with 50 available courses on its website, and the number grew to 1400 as of May 2006. The MIT project has attracted attention from

web communities and universities around the world, including China (MIT 2006a)²⁵.

The project could be especially appealing to developing countries as the OpenCourseWare concept could potentially provide a viable, low cost way to expand access to higher education by harnessing the inexpensive and non-competitive nature of information distribution using the internet.

Creative Commons

Founded in 2001, Creative Commons International is a non-profit organization with branches worldwide, whose aim is to promote public domain and open content copyright licensing other than software. The organization states that it is not against copyrights, but encourages people to think in terms of "permitting all uses unless specifically prohibited," rather than "a restrictive regime in which nothing is allowed unless expressly permitted" (Creative Commons, 2006a). Creative Commons endorses a complementary, internet-inspired copyright licensing system that is more open for creative works, so that some rights are reserved at a level deemed reasonable by the content creator. Since not all creators and inventors want to exercise their right to fully restrict access to the content all the time, this system gives IP owners a flexible method to determine to what extent they want their creative works to be protected and used by others (Lessig 2004, 282-286).

According to Creative Commons, an open IP system could also provide economic benefits to IP owners. Many entrepreneurs and artists have begun to embrace business models that focus on new innovations rather than relying strictly on copyright royalties to

²⁵ The OCW project has received news coverage internationally, for example, in the U.S., Italy, India, Vietnam, Mexico and Brazil (MIT 2006b). For a list of media coverage, see MIT, *MIT OCW Media Coverage*, 2006. <http://ocw.mit.edu.proxy.lib.sfu.ca/OcwWeb/Global/AboutOCW/medicoverage.htm> (accessed May 12, 2006).

secure a return on their creative investment. For instance, in the early open source software example, open source products often are offered at higher quality but lower cost than products made by traditional manufacturers. They are forcing fundamental change in the IT industry by moving the focus of revenue from licence fees to services and support for products (Driver 2005, 3-5). Other IP creators have concluded that overly restrictive copyrights do not help them gain the desired exposure and widespread distribution (Creative Commons 2006a; Lessig 2004, 64-65). If they want to share their work with others on more generous terms, they could find support through Creative Commons for an easy, yet reliable, way to publish their work under the provision of “some rights reserved” or even “no rights reserved” (Creative Commons 2006a).

Science Commons

A notable spin-off of Creative Commons is Science Commons, launched in 2005. It believes that progress in science depends on the free flow of information instead of overly protected intellectual property. Therefore, it aims to lower barriers, such as legal and technical costs, which prevent sharing scientific knowledge and information among scientists, universities, and enterprises. The rationale is that by creating an area of standardized licences, scientific literature, data, and materials could be accessed more easily and less expensively. In turn, scientific research and advancement could achieve faster progress because of fewer unnecessary IPR restrictions (Science Commons 2006).

Recording Labels

There also is evidence of budding support among intellectual property businesses for novel licensing schemes. While the Recording Industry Association of America

(RIAA), an industry association of large, multinational record companies, has been filing high-profile lawsuits against individuals in the U.S. and other countries accused of file sharing, record label and artist management company Nettwerk Music Group has openly embraced an “open source” music policy to encourage fans to promote its artists by sharing music. Nettwerk Music Group is an interesting example because it is not a label on the radical fringe; it has a stable of big name artists including Sarah McLachlan and Avril Lavigne. Currently, the company’s website includes a direct jab at typical protectionist record industry policies, noting that litigation with fans is not in their interest (Nettwerk 2006). When IP owners and creators are willing to disseminate their work at low cost or to allow IP users to share their work with each other, this type of “copying” for individual use would no longer violate IPRs.

3-2. The Promise of Open IP Initiatives in China

A New Concept in China

Open IP initiatives are recent phenomena associated with the growth of the internet in the last 15 years, and they still are at the grassroots level even in developed countries like the United States. The stage of their development in China can best be described as nascent. Since open IP is such a new concept in China, its influence on government leaders and its impact on the society at large have yet to be seen. However, open IP initiatives have caught the attention of influential technical specialists and policy observers who were involved with their launch in China. Moreover, open IP concepts align well with a number of economic and cultural attributes of China, indicating a strong potential for successful and widespread adoption.

Open Source Linux Operating System in China

One of the earliest open IP initiatives in China was the open source Linux operating system. The government has embraced Linux over Microsoft's Windows as its preferred operating system. Linux has gained a substantial share of the software market in China, with a number of contracts from Chinese government agencies, including the Beijing municipal government and the Beijing City Commerce Bank (Hou 2002).

Since Linux is nonproprietary, it answers the piracy problem; as well it is more accessible to those who cannot afford legal copies of commercial software. By learning from Linux's open source code, Chinese software developers could be better equipped to build China's own IT industry (BBC News 2002). Some Chinese officials were concerned about possible collaboration between Microsoft and the U.S. government on intelligence issues, because there is little control over proprietary products. By adopting the open source Linux operating system, Beijing feels that it will enhance the security of Chinese networks. They presumably will be less vulnerable to the risks of Microsoft's "secret" security defects (Loyola 2002). The open source movement led by Linux has made headway in promoting other open IP initiatives to the Chinese public.

MIT OpenCourseWare Project in China

In 2003, MIT presented the OpenCourseWare project to more than 100 Chinese universities at the International OCW Forum in Beijing. The forum received support from the Ministry of Education and 11 large universities in China. It helped to introduce the concept of free knowledge sharing through the internet to the Chinese public (CORE 2003). The forum served as the first step in advancing OCW in China.

China Open Resources for Education (CORE), based at Beijing Jiaotong University, is MIT OCW's partner in China. It is responsible for translating MIT course materials into Chinese and vice versa, and for promoting interaction and sharing educational resources between Chinese and foreign universities (CORE 2006b). According to the MIT newsletter, CORE now offers more than 450 courses developed by Chinese universities to share nationally and globally (MIT 2006c). China's Ministry of Education plans to publish 1500 courses using OpenCourseWare by the end of 2007 (CORE 2006a). OCW could make a valuable contribution to China's higher education as well as to the individual participating institutions. It could enhance the quality of learning by lowering the rent collecting copyright barriers, thus providing a new, free resource for knowledge sharing.

Creative Commons China

The MIT OCW project was targeted at academia and education. Creative Commons, on the other hand, has the potential to influence a wider audience, since it is based on copyright licensing that could be applied to all creative work. As recently as March 29, 2006, Creative Commons had completed the development of the *Creative Commons Licences* for Chinese jurisdictions, which means Chinese creators can now enjoy these licences adapted to comply with Chinese local law. It is working in collaboration with Renmin University Law School, with the support of Beijing University Law School, International Engineering Technology (IET) Educational Foundation, and CORE, to provide creators an opportunity to release their work under the Creative Commons Licence for China. As its name in direct Chinese translation "knowledge-share/enjoy together" (*zhishi gongxiang*) suggests, Creative Commons now has been

integrated as part of China's knowledge delivery network (Creative Commons China, 2006). On the same day that Creative Commons China was officially announced, iMagine Ltd. released the first CD in China under the Creative Commons Non-Commercial No Derivatives 2.5 Mainland China Licence²⁶ (iMagine 2006).

The Creative Commons Licence is employed in many developed countries and is gaining recognition in other developing regions of Asia. It promotes creative activity and innovation within the region, at the same time enhancing communication and exchange between the Chinese people and other cultures in the world (Wang Chunyan 2006).

Active Spokesman

Jiang, Scholar and Party Official: A "Double Track" Parallel IP System in China

Secretary General of the China Academy of Social Science, Center for Informatization Study, Jiang Qiping, is advocating a "double track" system of IP governance in China. A "double track" system refers to an arrangement that places importance on both IP protection and knowledge sharing, allowing them to coexist and to compete with mutual respect. He argues that in the long term, China will not achieve sustainable economic competitiveness based on GDP growth alone, and that a restructuring of the current IPR regime is necessary to support future development (Jiang 2006). That is, as China moves toward further economic development, simply following

²⁶ Under the Non-Commercial No Derivatives 2.5 Mainland China Licence, the user is free to "copy, distribute, display, and perform the work" under the conditions that:

1. The work must be attributed "in the manner specified by the author or licensor".
2. The work is not used for commercial purposes.
3. The work cannot be altered, transformed, or built on.
4. The user must make clear to others the licence terms of the work for any reuse or distribution.
5. "Any of [the above] conditions can be waived if [the user obtains] permission from the copyright holder" (Creative Commons 2006b).

the footsteps of the U.S. or other developed countries is not enough to surpass or even catch up to them. Therefore, China needs to pursue an alternative that allows the government to implement a realistic development plan relying heavily on technology advancement. In order to do so, an IP environment for sharing IT knowledge would most likely be essential to ensure fast-paced progress. If China could position itself to value knowledge sharing as much as IP protection by adopting a “double track” system, such an initiative could be China’s most prudent decision, and an area in which it could surpass the U.S. in the long run (Jiang 2006).

The China Academy of Social Science is a research centre for the central government and regularly makes policy recommendations to government leaders (Chinese Academy of Social Sciences 2006). When a key person such as Jiang advocates a “double-track” system of IP governance, one can see the potential for these ideas to be passed on to government leaders and policy makers.

Gartner’s Predictions

Gartner, an information technology research and analytical firm, has drawn up several possible scenarios for the future development of China’s IT industry. These scenarios focus on two critical issues: the adoption of open-source vs. proprietary software and the openness of the Chinese economy. The “open-source, open-market” scenario was rated as the most optimistic for China. In this scenario, the government would lead an open market approach to become an IT provider internationally, encouraging and adopting domestic open-source products, thus limiting its reliance on foreign vendors or payment of licensing fees. The most likely alternative scenario is the

“proprietary-dominant, open-market” case where open-source is not yet ready for large-scale commercial use due to lack of training and system support (Liu et al. 2003, 1-3).

In order to maximize the value of open IP initiatives and to ensure their success in China, it is essential for the leaders to have an open mindset towards the open IP concept and a willingness to endorse it in key industries. So far, the government has identified the IT industry as a strategically important area for China’s future economic development (Lemon 2005). It also is supporting the industry by investing significantly, including allocating at least 30 percent of government agencies’ software procurement budgets for domestic products (Liu et al. 2003, 4-5).

China’s authoritarian regime could make it easier to develop an open IP system. If the government supports open IP policies, it may not encounter strong business opposition with extensive lobbying power as would be the case in the U.S. In addition, successful open IP initiatives need support not only from the grassroots level but also from big companies. In China, big companies often are wholly or partly state-owned, or at least they have strong ties with the government. Therefore, it is especially crucial that the government is willing to implement policies that encourage knowledge sharing and an open IP framework, as well as invest in educating companies, IP owners, creators, and the public alike.

Rationale for Applying Open IP Initiatives in China

Similar to developed countries, China is entering an age of rapid information technology development that brings fast-paced transformation and social change. Creative work produced in a network environment (internet) becomes easy and simple to disseminate, and challenges the traditional Western way of copyright protection. Facing

copyright infringement, no protection is unacceptable, yet stringent protection also impedes academic research and exchange. China is facing an IPR trade-off dilemma similar to developed countries (Wei 2006). But China can observe and learn from Western development and avoid the mistake of overly protective and overly restrictive IPRs.

Addressing IPR problems in China Due to External Factors – A More Flexible TRIPs

Although TRIPs sets the standard for IPRs protection among WTO members, and provides legal mechanisms for enforcement, it is far from establishing a foolproof system that can regulate and monitor member economies' enforcement. The TRIPs agreement oversees trade in IP and compliance of member economies IPRs protection, but it does not determine national IPR legislation; each country has its own national laws (May 2005, 164). TRIPs stipulates conditions in which exceptions can be made from normal patent and licensing requirements. When public order or morality is at risk, patentability requirements can be relaxed.

“Article 27.2 Patentable Subject Matter. Members may exclude from patentability inventions, whose commercial exploitation within their territory would inhibit efforts to protect public order or morality, human, animal or plant life or health, or would entail serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

Article 30 Exceptions to Rights Conferred. Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.

Article 31 Other Use Without Authorization of the Right Holder. Where the law of a Member allows for other use of the subject matter of a patent

without the authorization of the right holder, including use by the government or third parties authorized by the government” (WTO 2006b).

At a time of national emergency, compulsory licensing under *Article 31* is allowed, as is parallel importing, which permits shopping around in the international market for the cheapest price of the same product.

“Compulsory licensing is when a government allows someone else to produce the patented product or process without the consent of the patent owner. In current public discussion, this is usually associated with pharmaceuticals, but it could also apply to patents in any field.

The agreement allows compulsory licensing as part of the agreement’s overall attempt to strike a balance between promoting access to existing drugs and promoting research and development into new drugs.

The TRIPs Agreement does not specifically list the reasons that might be used to justify compulsory licensing. In Article 31, it does mention national emergencies, other circumstances of extreme urgency and anti-competitive practices — but only as grounds when some of the normal requirements for compulsory licensing do not apply, such as the need to try for a voluntary licence first” (WTO 2003).

China could, in theory, develop IPR laws within the TRIPs framework that provide the benefits of foreign patents at a lower price (McCalman 2002, 5-13; Drahos and Braithwaite 2003, 10-13). If the Chinese government sets as its priority allowing a more open knowledge sharing environment, this would be a reasonable starting point to lessen the burden of international IPR rules.

Thinking back to the U.S. development model, it is possible to imagine that China will also become more protective in the long run as its self-interest in protection rises with the growth of domestic IP. However, since China joined the WTO and signed the TRIPs agreement, the development route of “copying” used by the U.S. during its own industrialization is no longer a “legal” method. China’s best bet is to work with the

global IP regime and at the same time develop available sources that allow for “legal copying” of information. An open IP system is one such mid-way compromise option. Anticipating a long-term knowledge-based economy, pursuing alternative open IP system is more advantageous than practicing only the closed and more restrictive contemporary IP governance. This way, knowledge and information sharing could be the building blocks for creating a knowledge-based economy, supported by skilled labour who would benefit from the sharing process.

Addressing IPR problems in China Due to Domestic Factors

Economic and Social Incentives

As a developing country, China would receive an even greater economic benefit than the West by adopting open IP initiatives. When the Western media reports billions of dollars of losses in sales due to IPR infringement, one has to wonder whether those people who pay a few dollars for a pirated copy would have paid a few hundred dollars for the legal copy or not. If not, then there is no significant harm (as measured in billions of dollars) to the industries because they would not have made the same sales volume in the first place (Lessig 2004, 43-64). Nevertheless, regardless of the harm done to the industries, IPRs still were violated.

Open IP initiatives offer a way to obtain legal intellectual property at reduced cost with the consent of the IP owners. Since new creative work and inventions could bypass the strong IPR protection and be made available for greater public access, an open IP system could stop big corporations from monopolizing the market with their stringent copyrights or patents.

Ultimately, an open IP system rejects outright copying that does not credit the creator, such as plagiarism, piracy and other forms of IP infringement. It hopes to achieve an environment where the creators are willing to share their inventions, creations and innovations with others on the premise that they still have control (e.g. using Creative Commons Licensing) over their intellectual work and will be given credit for their work. IP infringed products would lose their commercial value as open IP becomes more available and attainable, so that there is less reason for IP users to resort to imitations.

Since China still is at an early stage of development compared to the West, regulations and the rule of law also are developing as new challenges and new opportunities arise. China could take this opportunity to test open IP initiatives that may complement its current conditions and cultural standards in a more harmonious way.

Culturally, Open IP Model Fits Traditional Chinese Attitudes

Open IP initiatives rely on the IP creators (and owners)' willingness to share their creative work with others; this characteristic complements the Chinese cultural tradition. Jiang Qiping argues that knowledge sharing has not become mainstream in the United States where society is based on individualism. This is a weakness in the U.S. system. As far as knowledge accumulation is concerned, the current U.S. system places all bets on IP protection. However, China could promote the intangible capital of knowledge achieved through sharing. This concept is especially suitable for the Chinese culture of collectivism (Jiang 2006).

Associate Professor Wang Chunyan of Renmin University Law School supports knowledge sharing through a lawful system such as that of Creative Commons. She points out that historically, there has been a gap between strict Western IPR protection

and the Chinese tradition of sharing the fruits of creation within society. Therefore, knowledge sharing and dissemination efforts are especially important to China's academic exchange and scientific activity (Wang Chunyan 2006). China could be a leading example to other developing countries (or even developed countries) by presenting an open IP approach and considering IP governance from a new angle.

4. CONCLUSION

This study documents the growth of open IP initiatives and their emergence in China. It introduces open IP initiatives as a potential to help China strike a better balance between protecting the rights of creators and innovators and encouraging the dissemination of knowledge.

While it still is too early to assess the impact of open IP initiatives in China, there are compelling reasons for their adoption. Historically, protection of intellectual property has not been a high priority in China. Beijing's pledge to implement strict intellectual property rights in the TRIPs agreement was made as a condition for joining the World Trade Organization. TRIPs is backed by developed countries and especially U.S.-based multinational corporations and political forces seeking to strengthen IP protection at the international level. It sets IPR standards that were defined by the developed, mature model of the West.

China has found itself to a large extent on the receiving end of international IP policies that were not well enforced for both economic and cultural reasons. As a developing country that consumes more intellectual property than it produces, China benefits from lax enforcement. Strict IPRs are not well supported by Chinese traditional culture that stresses collectivism, not individualism, and that perceives imitating someone else as a sign of respect.

China is obliged to comply formally with TRIPs' explicitly laid out terms. At the same time, the government could utilize exceptions allowed by TRIPs rules in the areas of patent protection and licensing to protect the public interest, and to promote open IP initiatives complementary to TRIPs. Some Chinese scholars have proposed that their government adopt policies that encourage knowledge sharing, so that China can build a knowledge-based capital and catch up to or even surpass developed countries in the long run.

Open IP initiatives are likely to work well in China because they bring down the cost of disseminating information, reducing reliance on foreign technical sources. In turn, they bring social benefits to the public by addressing the “digital-divide” issue in a more cost-effective way. They also conform to the ‘public ownership’ mentality of Chinese history and culture.

Future research could explore the extent to which open IP initiatives are gaining ground in China. Will the Chinese government be more influenced by large companies such as Lenovo and Haier with an interest in strict IP regulations? Or will proponents of open IP initiatives become more influential?

Another subject for future research is the connection between proponents of open IP initiatives in developed countries and in China. Not all IP owners in the West are interested primarily in royalty fees or profiting from their intellectual property. Many owners and creators would be happy to set conditions for sharing their knowledge and creative work, at a lower cost or no cost to users, so that a common intellectual future can be built. These creators and innovators have been the driving force behind open IP initiatives in the West. Will the supporters of open IP initiatives in China and in the West

become a growing global force with the potential to influence official policy and the global IP regime?

As the China case demonstrates, uncritical acceptance of an expanding global IP regime has revealed the gap in IP perception between developed and developing countries. Implementing a comprehensive legal system does not guarantee IPR enforcement or narrow the gap. Human factors, such as economic and social costs, and different histories and cultural attitudes of various nations must be incorporated into IPR protection.

Open IP initiatives are not magical answers. It is hardly conceivable that at the primary stage they could transform the established IP system. However, the open IP concept presents an alternative approach to the current overly restrictive IP regime, one that incorporates open IP initiatives as a complementary element to TRIPs by working within the TRIPs framework while offering a compromise option with a more flexible and relaxed licensing system. Thus, it could make possible a smoother transition for developing countries committed to the implementation of TRIPs.

Through alternative knowledge sharing approaches, such as open IP initiatives, we could reconsider whether “knowledge” should be subject to “ownership” as the property of an individual/entity or not. Economic incentives are needed to stimulate innovation and research and development. Inventors and creators should be granted compensation for their knowledge, which was the original intention of IPRs, rather than being given the right to “own” knowledge/information for an extended time period²⁷.

²⁷ For more detailed arguments that the period of patent or copyright protection granted to IP owners is longer than necessary and should be adjusted, see Boyle, 1996, 192-200, and Lessig, 2004, 292-296.

While protecting basic IPRs, open IP initiatives stimulate questions about the aims of IP protection and what should really be protected. IPRs should encompass more than regulating and protecting proprietors from commercial copying. It is important to recognize that a learning aspect of “copying” inspires the overall growth of knowledge in a given society. The real value and meaning of intellectual property protection should be using information and know-how for the purpose of disseminating, sharing, and accumulating knowledge. In turn, IP protection should assist instead of impeding future technological development and human progress. If the suggestions in this study are discussed in an open dialogue between developed and developing countries, they could work together to define what international IPR standards should be like. To be truly international, the global IP regime should reflect inputs from all parties and consider the interests of all players.

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