

ESSAY

PUSHING FOR GREATER PROTECTION: THE TREND TOWARD GREATER PROTECTION OF INTELLECTUAL PROPERTY IN THE CHINESE SOFTWARE INDUSTRY AND THE IMPLICATIONS FOR RULE OF LAW IN CHINA

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1. INTRODUCTION

As China marches into the World Trade Organization (“WTO”), Chinese intellectual property (“IP”) industries have begun to worry about whether they can fulfill the promises the government has made on their behalf to comply with the Agreement for Trade-Related Intellectual Property Rights (“TRIPS”) standards embedded in China’s IP legislation. Some industries, such as the pharmaceutical industry, are concerned that the IP protection standards set in TRIPS are too high for a developing country like China and that compliance will mean sacrificing the interests of China’s young IP-related industries.¹ However, the software industry is singing a different tune regarding the protection of IP. As a non-Chinese lawyer observed, “[M]any indigenous [software] firms in China are yearning for better protection of their IP rights and they may well be the strength of China’s future economy.”² A

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¹ Xu Xiaoyun, *Zhongguo “Rushi” Qiye ruhe yingdui: WTO Yu Zhongguo Qiye Luntan Baodao* [How Industries Face the Challenges of the WTO], *ZHONGGUO ZHISHI CHANQUAN BAO* [CHINA INTELL. PROP. NEWS], Mar. 22, 2000, at 3.

² Andy Y. Sun, *Beijing Court Dismissed Microsoft for Lack of Evidence: Major Software End User Infringement Case in China May Return Later*, 1 *APLI UPDATE*, Feb. 2000, at 8.

Chinese writer, in an article opposing IP protection for software, lamented, "Certain Chinese software companies are always making a big commotion, saying that they have fallen behind the pack, far behind the cutting edge of the [international software industry], with no way to catch up, and this is entirely due to software piracy,"³ and even "Bill Gates is much more tolerant [to piracy] than our own software companies."⁴

Why does the Chinese software industry have a different attitude towards IP protection than other industries? In other words, why is the Chinese software industry more receptive to IP protection than other industries? How did this preference arise, and will the trend towards greater IP protection remain the same for the foreseeable future? What has the Chinese software industry done to foster this trend toward increased protection of IP and what is the role of the government in this movement? What implications does this trend have for the rule of law in China? More specifically, does this trend indicate that economic forces or interests will ultimately decide the fate of the rule of law in China? As economic reform proceeds, will the Chinese people, who have economic stakes in protecting their own rights, be more receptive to the rules governing their society? Will the rule of law therefore be more easily established in China? These are the issues I will explore in this Essay.

This Essay first summarizes a theoretical debate on what degree of IP protection for software is most beneficial to the growth of China's software industry. It then surveys the development of China's indigenous software industry to see what its strengths and weaknesses are and how China's government and the software industry have dealt with problems plaguing the industry. Finally, this Essay examines the implications of the industry's efforts in pushing for greater IP protection with regards to the establishment of the rule of law in China.

2. THE DEBATE: STRONG PROTECTION V. WEAK PROTECTION

The issue of whether stronger IP protection for software programs leads to more innovation, trade, and foreign direct investment ("FDI") in a developing country has been a hot topic among

³ Wang Xiaodong, *It Is Right to Pirate Software*, China and the World (Zhongguo yu Shijie), Nov. 1999, at 6, available at <http://www.uscc.gov/itisri.pdf> (last visited Nov. 13, 2002).

⁴ *Id.* at 8.

international IP experts. Many studies have been conducted to find a correlation between IP protection and these benefits. Generally speaking, patents confer stronger rights than copyrights and a patented program cannot be further developed without authorization of the patent-holder; therefore patenting software "may block a whole area of possible innovation."⁵ The United States is one of the very few countries that uses patents to protect algorithms and computer programs.⁶ However, because TRIPS does not define what an "invention" is, member countries can liberally interpret whether software constitutes an invention or not, and "[n]ational legislation may exclude the patentability of computer programmes or their constituent parts, as is the case under current law in European countries. . . ."⁷ China protects software under the copyright regime, but it does not explicitly protect it as "literary work," an issue discussed later in this Essay.

Studies carried out by Mansfield in 1993, Maskus and Eby-Konan in 1994, and Primo Braga and Fink in 1998 found no strong correlation between strict IP protection for software and a change in FDI.⁸ China and India are two countries often cited as examples supporting this finding.⁹ According to Paul Tackaberry's survey, many foreign investors in China indicated that the "size and potential" of the market "principally attract[ed]" their investment, allowing them "to put their significant concerns regarding the protection and enforcement [of IP] to one side . . ."¹⁰ The desire of many multinational corporations to occupy the market has often outweighed their investors' concerns about IP protection.¹¹ When

⁵ CARLOS M. CORREA, INTELLECTUAL PROPERTY RIGHTS, THE WTO AND DEVELOPING COUNTRIES: THE TRIPS AGREEMENT AND POLICY OPTIONS 152 (2000).

⁶ *Id.* at 134-37.

⁷ CARLOS MARIA CORREA, THE TRIPS AGREEMENT: A GUIDE FOR THE SOUTH: THE URUGUAY ROUND AGREEMENT ON TRADE RELATED INTELLECTUAL PROPERTY 72 (1997).

⁸ KEITH E. MASKUS, INTELLECTUAL PROPERTY RIGHTS IN THE GLOBAL ECONOMY 130 (2000) (discounting the strength of the Mansfield and Maskus/Eby-Konan studies).

⁹ Horacio Teran, *Intellectual Property Protection and Offshore Software Development: An Analysis of the U.S. Software Industry*, 2 MINN. INTEL. PROP. REV. 1, 2 (2001) ("Countries that have a poor record of enforcement of software intellectual property rights, such as China and India, receive overseas investments."), available at <http://mipr.umn.edu/archive/pdf/teran.pdf>.

¹⁰ PAUL TACKABERRY, INTELLECTUAL PROPERTY RISKS IN CHINA: THEIR EFFECT ON FOREIGN INVESTMENT AND TECHNOLOGY TRANSFER 34 (1999).

¹¹ *Id.*

asked whether his company would invest more heavily in China if IP protection improved, an American businessman replied:

That has nothing to do with it. We will invest in China because we feel it has a lot of potential for us. The [IP rights] problems we have will not stop us investing . . . this is a country that represents . . . a huge opportunity. And we want to be part of that.¹²

Bill Gates's famous remarks on why Microsoft is willing to bear millions of dollars of losses in China are more frank:

Although about three million computers get sold every year in China, people don't pay for the software. Someday they will, though. And as long as they're going to steal it, we want them to steal ours. They'll get sort of addicted, and then we'll somehow figure out how to collect sometime in the next decade.¹³

On the other hand, many investors are concerned about weak protection in China. "Rampant piracy of intellectual property in China has undermined foreign confidence in the Chinese market's ability to absorb foreign technology and copyrighted material without cannibalizing it."¹⁴ Jonathan Spierer, Chairman/CEO of DistanceVision, Inc., explained that while "it may be a good time for large software companies to establish themselves in the Chinese market through relations with domestic partners and infrastructure-based projects," small foreign companies depending heavily on one product that can be easily duplicated should wait until the IP regulatory climate improves before introducing their product in China.¹⁵

¹² *Id.* at 45.

¹³ Sun, *supra* note 2, at 7. According to Andy Sun, this is "no different from what the British did to China in the mid-19th century—i.e., first to get people addicted to opium and then to reap windfall profit with full armory in hand . . ."

¹⁴ Jonathan C. Spierer, *Intellectual Property in China: Prospectus for New Market Entrants*, HARV. ASIA Q., Summer 1999, at 46, available at <http://www.fas.harvard.edu/~asiactr/haq/199903/9903a010.htm>.

¹⁵ *Id.* at 46.

Even if foreign investors are more carefree with FDI in China, they may also be more cautious about moving their research and development ("R&D") centers there. In 1996, Lee and Mansfield found that a country's weak IP protection has "a significant negative impact on the location of U.S. FDI."¹⁶ Maskus found that many foreign enterprises are disinclined to locate R&D facilities in China out of concern for patent infringement and misappropriation.¹⁷ For example, one firm established design and engineering centers in Singapore and Taiwan while producing and distributing their products in China, and they declared, "[W]e won't set up any in China unless we are sure that people in China will take enforcement actions seriously."¹⁸ Only a few investors like Microsoft, who are confident and powerful enough in guarding their technologies and bearing losses, have established research institutes in China "despite the fact that nine out of ten software copies sold in China are pirated."¹⁹ Most of them transfer outdated (e.g., five years behind) technologies or technologies that will be obsolete within a few years. Among the foreign companies surveyed in China, forty-three percent admitted that they transfer outdated, rather than state-of-the-art technology.²⁰

Thus, although strong protection of software under patent law like in the United States may not be a good model to follow, weak protection is even more harmful to the growth of the Chinese software industry. It not only hurts foreign investors' confidence in importing their latest technologies, but also harms the incentives for and ability of the indigenous industry to further develop, an issue discussed in more details below. Determining how to strike a balance between long-term goals and short-term gains is a difficult task for China. As Spierer pointed out, "Leaders enforcing both national and regional Chinese laws would be well-served by asking themselves what is more important for China's future: a pirating industry capable of stealing and undercutting other firms' innovations or a legitimate software industry capable of competing on an international level?"²¹

¹⁶ MASKUS, *supra* note 8, at 130.

¹⁷ *Id.* at 155.

¹⁸ TACKABERRY, *supra* note 10, at 39.

¹⁹ Teran, *supra* note 9, at 15.

²⁰ TACKABERRY, *supra* note 10, at 32.

²¹ Spierer, *supra* note 14, at 51.

3. THE DEVELOPMENT OF AN INDIGENOUS SOFTWARE INDUSTRY

The software industry is one of the fastest growing sectors in China, with a twenty-eight percent average annual growth rate.²² In 1984, there were only about 20,000 software designers nationwide, but by year 2000, the number of software industry employees had increased to 500,000, and annual sales had grown to RMB 23.5 billion (U.S. \$2.85 billion).²³ By May 2001, there were 30 million Internet users in China, indicating a high demand for software.²⁴ Software companies, first appearing in the late 1980s, mushroomed in the 1990s and provided 61,346 jobs and generated U.S. \$219.8 million in tax revenues in 1997 alone.²⁵ According to a study by PricewaterhouseCoopers, "[i]n China, few sectors of the economy can expect to exceed the performance of the software industry."²⁶ In Scott Kennedy's words, "[S]oftware has woven itself into the fabric of Chinese society."²⁷

In the meantime, there is substantial room for further development of the industry. For example, three million computers are sold every year in China, but only three out of every 1000 people own personal computers and there are only 0.2 Internet hosts for every 10,000 people in the country.²⁸ The software market also has great potential for further expansion. It is estimated that China's software exports and application development services will grow from the current U.S. \$850 million to U.S. \$27 billion in 2006.²⁹ Therefore, "[m]any software moguls have classified China as 'perhaps the world's most interesting market. . . . [I]t is not only a large

²² PRICEWATERHOUSECOOPERS, CONTRIBUTION OF THE SOFTWARE INDUSTRY TO THE CHINESE ECONOMY 1 (Nov. 1998), available at http://www.bsa.org/usa/globalib/econ/china_study98.pdf.

²³ Scott Kennedy, In the Company of Markets: The Transformation of China's Political Economy 212-13 (2002) (unpublished dissertation submitted to the Faculty of Columbian College of Arts and Sciences of the George Washington University) (on file with author).

²⁴ *Id.* at 214.

²⁵ PRICEWATERHOUSECOOPERS, *supra* note 22, at 1.

²⁶ *Id.* at 1-2.

²⁷ Kennedy, *supra* note 23, at 214.

²⁸ This is a 1996 statistic. See MASKUS, *supra* note 8, at 72, tbl. 3.5 (illustrating "[i]ndicators of demand for copyright products in China, the United States, India and other countries").

²⁹ ChinaBiz.org, *China to Become Worldwide Software Player by 2006 - Study*, Sept. 23, 2002, at <http://www.chinabiz.org/articles/show.asp?id=1665>.

purchasing market, but also a large potential labor and entrepreneurial market for software development and service.”³⁰

4. PROBLEMS PLAGUING THE INDUSTRY

While experiencing rapid development, the Chinese software industry also faces many serious problems, such as low sales volume, insufficient R&D input, shortage of software developers and rampant software piracy. These problems have greatly impeded the industry’s growth.

4.1. Lack of Competitiveness

First of all, software sales in China remain substantially lower than in other countries. For example, in 2000, total worldwide software sales profits reached U.S. \$540 billion, while Chinese sales only totaled RMB 22.5 billion (U.S. \$2.7 billion).³¹ While India exported U.S. \$4 billion worth of software in 2000, China exported only U.S. \$1.3 million worth.³²

Furthermore, China’s software industry has been suffering from “brain drain,” perhaps the most serious problem facing the industry. Human capital is vital to the competitive strength of the software industry.³³ In the United States, software firms are very aggressive in recruiting and offer generous financial rewards to the skilled programmers attracted there from all over the world.³⁴ In China, the numbers and qualifications of well-trained programmers simply cannot meet the demand of the nation’s industry. There are too few software programmers trained in Chinese universities and too many of those programmers are going abroad.³⁵

³⁰ Spierer, *supra* note 14, at 50.

³¹ Zong Jian, *Ruanjian Chanye de Shiji Huati—Yu Zhongxiao Qiye Quanli Ruanjianshang Yixitan* [Software Enterprises’ Century Talk: Interview with Software Entrepreneurs of Small and Medium Enterprises], XINYANG RIBAO [XINYANG DAILY], Apr. 9, 2001, at 11, available at http://www.wisenews.net/wisenews-cgi/enterprise/doc.pip?misspath=/god/raw/dtp/txt/sy_sydaily.

³² *Id.*

³³ Teran, *supra* note 9, at 26.

³⁴ *Id.* at 27.

³⁵ Thirteen percent of Qinghua University graduates and twenty percent of Beijing University graduates, students from the two best universities in China, go abroad each year. See ZHONGGUO KEJI FAZHAN YANJIU BAOGAO YAJIUZU, [CHINA SCIENCE AND TECHNOLOGY DEVELOPMENT RESEARCH GROUP], ZHONGGUO KEJI FAZHAN YANJIU—KEJI QUANQUHA JI ZHONGGUO MIANLING DE TIAOZHAN [THE

Among those who do remain in China, only very few are engaged in local software development, as most want to be CEOs of local firms or to form their own firms in order to make quick money within one or two years after graduation from the universities,³⁶ or to work for foreign firms.³⁷

Many multinational corporations establish R&D units in China, obviously for the purpose of attracting local programmers who are highly qualified but can be paid much less than their American counterparts. As mentioned earlier, these corporations are very successful at recruiting qualified Chinese nationals and include Motorola, Intel, Microsoft, and Edison.³⁸

4.2. Software Piracy

Another serious problem plaguing China's software industry is software piracy. In fact, according to a survey conducted by the Chinese government, software piracy is the number one factor impeding the development of the software industry.³⁹ It is estimated that only four percent of the software currently used in China is legitimate.⁴⁰ On average, each computer owner spent only one dollar on legitimate software in 1993 and 1994.⁴¹ According to a study by the Business Software Alliance, the software piracy rates in

REPORT ON CHINA'S SCIENCE AND TECHNOLOGY DEVELOPMENT (2000)—THE GLOBALIZATION OF SCIENCE AND TECHNOLOGY AND THE CHALLENGES CHINA IS FACING] 111 (2000). Chinese universities have not offered curricula on software development and comprehensive training materials are unavailable. As a consequence, China's information technology industry is short 420,000 personnel. Re Feng, *Zhongguo de Guigu Zai Nali?* [Where Is China's Silicon Valley?] DONG XIANG [TREND MAG.], Mar. 2002, at 42.

³⁶ Re Feng, *supra* note 35, at 42.

³⁷ The Research Institute of Microsoft (China) employs sixty people, all graduates from the best Chinese universities. See ZHONGGUO KEJI FAZHAN YANJIU BAOGAO YAJIUZU, [CHINA SCIENCE AND TECHNOLOGY DEVELOPMENT RESEARCH GROUP], *supra* note 35, at 111.

³⁸ *Id.*

³⁹ *Zhongguo Ruanjian Chanye Shehui Huanjing Diaoyan Baogao Zhengshi Fabu* [The Publication of the "Survey Report on Social Environment of Chinese Software Industry"], ZHONGGUO ZHISHI CHANQUAN BAO [CHINA INTEL. PROP. NEWS], Sept. 15, 2000, at 1.

⁴⁰ TACKABERRY, *supra* note 10, at 7.

⁴¹ *Id.*

China were ninety-four percent in 2000 and ninety-two percent in 2001.⁴² Only Vietnam had higher rates.⁴³

Some scholars point out that piracy happens with packaged software and because developing countries have made little progress in the production of packaged software,⁴⁴ the software industries in most developing countries are “working in areas that are not sensitive to the local level of copyright protection.”⁴⁵ Despite the fact that China is a developing country lacking competitiveness as discussed earlier, China’s domestic packaged software industry “is valued at US \$1-1.5 billion and is growing at thirty-two percent per annum.”⁴⁶ Therefore, piracy is a concern for China’s domestic firms as well, perhaps even more than for foreign firms. Many foreign observers have repeatedly pointed out that software piracy hurts China and the Chinese software industry as much as it harms foreign investors.⁴⁷ This is because piracy of foreign software may help to increase the market share of foreign software companies

⁴² International Planning and Research Corporation, *Seventh Annual BSA Global Software Piracy Study*, BUS. SOFTWARE ALLIANCE 4 (2002), available at <http://www.bsa.org/usa/policyres/admin/2002-06-10.130.pdf>.

⁴³ *Id.* (citing Vietnam as having a ninety-seven percent piracy rate in 2000 and a ninety-four percent rate in 2001).

⁴⁴ See Catalin Cosovanu, *Piracy, Price Discrimination, and Development: The Software Sector in Eastern Europe and other Emerging Markets 10* (2001) (unpublished J.S.M. thesis, Stanford Law School) (on file with Stanford University) (explaining why piracy effects packaged software and what local software developers work on instead), available at <http://www.columbia.edu/~cc2134/Cosovanu2.pdf>.

⁴⁵ *Id.* at 13. See also CORREA, *supra* note 5, at 152 (“Developing countries have a marginal role in the production of computer software. The capacity to produce packaged software is one of the most important indicators of the degree of development of the software industry in a particular country.”).

⁴⁶ Spierer, *supra* note 14, at 49.

⁴⁷ For example, Alford points out, “[t]he most significant rationale for intellectual property law lies with the welfare of the Chinese people themselves. They are now, and seem likely in the foreseeable future to continue to be, the greatest victims of the infringement of intellectual property that is rampant throughout that vast nation.” William P. Alford, *Making the World Safe for What? Intellectual Property Rights, Human Rights, and Foreign Economic Policy in the Post-European Cold War World*, CHINESE INTELLECTUAL PROPERTY LAW AND PRACTICE 147, 148 (Mark A. Cohen et al. eds., 1999). Stephanie Mitchell, Vice President of the Business Software Alliance, explained, “The rapid development of China’s own software industry depends upon full protection for software producers under the law. . . . [T]he fact is, piracy is a form of stealing that hurts China and Chinese software producers as much as it hurts their foreign counterparts.” Spierer, *supra* note 14, at 50.

and thus to "mak[e] it more difficult for local competitors to establish themselves" in the market.⁴⁸ Piracy also makes local software firms "unable to sell enough software to prosper."⁴⁹

The views about piracy among the Chinese themselves are mixed. Some think that, as a developing country, China should not give software programs strong protection because the price for authentic software far exceeds affordability for Chinese consumers. Piracy is beneficial because it provides Chinese people with opportunities both to use the software and to learn new technologies.⁵⁰ However, Xu Chao, a Deputy Director of the Copyright Administration Department of the National Copyright Administration ("NCA"), strongly objects to this view. He points out that while it is understandable if an ordinary consumer opts for pirated software because of its low price, it is unforgivable for people who are responsible for enforcement of IP rights to have the same mentality.⁵¹ For local software companies, it is a matter of life or death if piracy is not stopped. Again, piracy is by far the number one impediment to the expansion of the Chinese software industries. For example, Kingsoft, a local software firm, estimated in 1999, that twenty million pirated copies of its word processing software were installed on Chinese computers. The firm had sold only forty thousand legitimate copies.⁵²

5. TOP-DOWN CAMPAIGNS

Knowing that software is vital to the development of a country's sciences and technologies, the Chinese government has made

⁴⁸ Emily Thornton, *At China's Gates: Microsoft Boss Conquers a Key Asian Market*, 159 FAR E. ECON. REV., Dec. 28, 1995 & Jan. 4, 1996, at 54-55, cited in TACKABERRY, *supra* note 10, at 8. An associate counsel at Microsoft stated that the company had no choice in deciding whether to market their products in China because their "products were already in China, and they were being supplied by software pirates." Teran, *supra* note 9, at 15.

⁴⁹ This is a view expressed by Bo Liu, former Deputy General Manager of Microsoft China. Bo Liu, *China: Protecting the Knowledge-Based Economy and Intellectual Property Rights*, Remarks at Country Panel IV, Harvard Asia Business Conference (Feb. 2-3, 2001) [hereinafter Harvard Asia Business Conference], at <http://www.fas.harvard.edu/~asiactr/haq/200102/0102a001cp5.htm>.

⁵⁰ Wang Xiaodong, *supra* note 3, at 1.

⁵¹ Xu Chao, *Daji Daoban Shizai Bixing [Piracy Must be Suppressed]*, STATE INTELLECTUAL PROPERTY OFFICE OF PRC, Nov. 20, 2001, available at <http://www.sipo.gov.cn/sipo/ywdt/jdlt/200111200018.htm>.

⁵² Kennedy, *supra* note 23, at 253 n.54.

conscious efforts to improve the following aspects of software protection: legislation, law enforcement, and financial assistance.

5.1. Legislative Developments

Chinese copyright law protects computer software as a "work."⁵³ In addition, the State Council enacted the *Regulations for the Protection of Computer Software* ("Regulations") in 1991. On December 20, 2001 the State Council issued the amended Regulations, effective as of January 1, 2002. The new Regulations made the following changes: (1) the protection term for software programs was extended from twenty-five years to fifty years; (2) authors have been granted the exclusive right to lease computer software; and (3) judges were given discretion to award damages based on either losses or profits, or on a statutory damage range from RMB 5,000 (U.S. \$604.81) to RMB 50,000 (U.S. \$6,048.07).⁵⁴

It is worth noting that only foreign computer programs are treated as "literary works," and domestic programs are not.⁵⁵ This

⁵³ Zhonghua Renmin Gongheguo Zhuzouquan Fa [Copyright Law of the People's Republic of China] [hereinafter PRC Copyright Law], art. 3, Sept. 7, 1990 (China), translated in COPYRIGHT LAWS AND TREATIES OF THE WORLD (Supp. 2000).

⁵⁴ NTD Patent & Trademark Agency Ltd., *Regulations for the Protection of Computer Software*, 43 NTD NEWSLETTER (Mar. 2002), at <http://us.chinantd.com/e-news/43.html#en43-3>.

The Regulations [also] specifically provide that anyone who commits any of the following acts that infringes [sic] the rights of [a] software copyright owner shall bear corresponding civil or criminal liability: (1) Reproducing or partly reproducing a piece of software without the consent of the software copyright owner; (2) Distributing, renting and transmitting on [the] information network to the public a piece of software without the consent of the software copyright owner; (3) Intentionally evading or destroying the technical measures that are taken by the software copyright owner to protect its software; (4) Intentionally deleting or changing the electronic information of [a] software copyright; (5) Assigning or licensing others to exploit [a] software copyright without the consent of the software copyright owner.

Id.

⁵⁵ Article 7 of Implementation of the International Copyright Treaties provides that "[f]oreign computer programs shall be protected as literary works, shall not be subject to registration and shall enjoy a term of protection of fifty years commencing from the end of the year of their first publication." Implementation of the International Copyright Treaties, art. 7, Sept. 30, 1992 (China), translated in COPYRIGHT LAWS AND TREATIES OF THE WORLD (Supp. 2000). But TRIPS Article 10(1) required that computer programs be protected as "literary work." Agreement on Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994,

is arguably a discrimination against local software developers because a "literary work" can receive copyright protection without going through any formalities such as registration.⁵⁶ On June 24, 2000, the State Council issued *Several Policies for the Encouragement of the Development of Software and Integrated Circuit Industries*, also known as Document No. 18, to "encourage the registration of software copyright, and provide strengthened protection for registered software according to the national law."⁵⁷ The objective of the Document is to "place present and future national priority on the development of the IT industry, especially the software and integrated circuit industries . . ."⁵⁸ However, the emphasis on registration of software programs seems to have undermined this objective. Xu Chao explained that the Document does not "require" people to register, but only "encourages" them to do so, although registration can, in fact, save costs in the adjudication of software disputes.⁵⁹

The two articles in Document No. 18, nonetheless, had the effect of strengthening the protection for software developers. Article 33 provides that "any entity shall not use any software product in its computer system without authorization."⁶⁰ This seems to place a strict liability on the end-users of computer software. But it

Marrakech Agreement Establishing the World Trade Organization, Annex 1C, art. 10, LEGAL INSTRUMENTS—RESULTS OF THE URUGUAY ROUND vol. 31, 33 I.L.M. 320 (1994).

⁵⁶ A local software developer's computer program, as a "non-literary work," was "required" to register to receive protection under the Regulations for Computer Software Protection, which provided in Article 24 that:

The registration of the copyright in software with the body responsible for software registration and administration shall be the condition for the filing of a request for administrative intervention or the institution of legal proceedings in a software right dispute. A registration certificate granted by the body responsible for software registration and administration shall be the initial certification of the validity of the copyright in the software or of the verification and confirmation of the facts stated in the application for registration.

Regulations for the Protection of Computer Software, June 4, 1991, translated in COPYRIGHT LAWS AND TREATIES OF THE WORLD (Supp. 2000), [hereinafter Regulations]. In practice, though, courts have not enforced such a stringent requirement. Xu Chao, *Recent Developments in Copyright Protection of Computer Software in China*, 3 CHINA PATS. & TRADEMARKS 57 (2001).

⁵⁷ Xu Chao, *supra* note 56, at 56.

⁵⁸ *Id.*

⁵⁹ *Id.* at 58.

⁶⁰ *Id.*

is worth noting that this may be in conflict with Article 32 of the *Regulations for the Protection of Computer Software* ("Regulations"), which provides, "Where the holder of software does not know or has no reasonable means of knowing that the software is an infringing object [upon an existing copyright], liability for the infringement shall be borne by the supplier of the infringing software."⁶¹ One of the main concerns of foreign software firms is that the Chinese government may not place strict liability on end-users of software programs.⁶²

In addition, it seems that the characterization "end-users" does not include individuals because, according to Xu Chao, the "end-user" or "any entity," means the entity that purchases the software for use in its production, sale, or other operational transactions, but not for reproduction and distribution of such software.⁶³ Therefore, some Chinese scholars argue that under Document No. 18, all individual (and family) end-users should be exempted from infringement liability.⁶⁴ The cases in the next section illustrate that the ambiguities and inconsistent provisions embedded in Chinese legislation concerning software end-user liability have been, and will continue to be, the main cause of software disputes.

Document No. 18 also specifically requires all government bodies related to IP rights enforcement to intensify the crackdown campaign on software piracy.⁶⁵ To implement the Document, the

⁶¹ Regulations, *supra* note 56, art. 32.

⁶² See Spierer, *supra* note 14, at 47 (explaining the loophole left by Article 32 of the Computer Software Protection Regulations for the Chinese Government in terms of imposing strict-liability on end-users). See also Sun, *supra* note 2, at 5 (stating that the only official interpretation of Article 32 provides that end-users should not be targeted for IP infringement violations).

⁶³ Xu Chao, *supra* note 56, at 58.

⁶⁴ Shou Bu, *Ruanjian Qinquan Ruhe Jueding: Cong Weiruan Su Yadu an Shuoqi [How to Determine Software Infringement: Comments on the Case of Microsoft v. Yadu]*, JISUANJI SHIJI RIBAO [COMPUTERWORLD DAILY], Aug. 9, 1999, at A14-18, available at <http://www2.ccw.com.cn/99/9930/cin.asp>.

⁶⁵ Article 34 of the Document No.18 provides:

Efforts shall be intensified to crack down on software smuggling and pirating, and to firmly investigate and punish acts of organized production, manufacture and sale of pirating software. From the second half of 2000, the Ministry of Public Security, the Ministry of Information Industry, the State Administration for Industry and Commerce (SAIC), the State Intellectual Property Office (SIPO), the National Copyright Administration (NCA) and the State General Office of Taxation shall jointly

NCA issued Notice No. 1, further clarifying responsibilities of various government departments at different levels. For example, for general administrative penalty cases, local governments have jurisdiction over local cases, while the NCA has jurisdiction over foreign-related cases. However, for software related cases, both local governments and the NCA have jurisdiction. As to end-user issues, the Notice urges all entities to use authentic software and sets a timetable for compliance. If the entities continue to use pirated software at the local level the NCA can issue warnings, order software deleted, confiscate illicit income, impose fines of two to five times the price of the authentic copy, or require some other administrative sanction.⁶⁶ Whether these provisions are effective or not remains to be seen, but they show an effort on the part of government to combat software piracy.

5.2. *Judicial and Administrative Enforcement*

It is common knowledge that although China has extensive legislation, it has a poor record when it comes to law enforcement. According to Maria Lin, a lawyer at Morgan & Finnegan, "While China has many laws to protect intellectual property, . . . enforcement of such laws has been problematic as the court system is still in the process of reform, and relevant administrative bureaus have problems delegating authority."⁶⁷ However, others are more positive and optimistic about the enforcement situation in China. For example, many foreign companies surveyed said that they are happy with the performance of local Administration of Industry and Commerce officials responsible for cracking down on piracy because "[t]hey can raid almost immediately and . . . we had about 95% success which is very high by any standard."⁶⁸ As for the Chinese courts, while there are many complaints, especially about evidence gathering, some foreign companies describe them as "very efficient" if you "work within the system."⁶⁹

launch special campaign, on a regular basis, to crack down on software piracy.

Xu Chao, *supra* note 56, at 56.

⁶⁶ *Id.* at 59.

⁶⁷ Harvard Asia Business Conference, *supra* note 49.

⁶⁸ TACKABERRY, *supra* note 10, at 42.

⁶⁹ *Id.* at 43.

The following statistics and cases may shed some light on the real status of IP law enforcement in China. "In March 1992, Chinese authorities raided the Shenzhen Reflective Materials Institute, and found 650,000 Microsoft holograms for use in pirated copies of Microsoft software."⁷⁰ The court found that the defendant had infringed on Microsoft's rights and imposed a fine of U.S. \$260.⁷¹ In *Business Software Alliance v. Beijing Ju Ren Computer*, the Beijing No. 1 Intermediate Court issued a judgment on April 1, 1996, ordering the defendant to pay the Business Software Alliance ("BSA") over RMB 600,000 (U.S. \$70,000) in damages, and ordered law enforcement officials to confiscate all computers and software seized during the raid.⁷² In yet another case in which foreign software giants, Microsoft, AutoDesk, and WordPerfect, sued Beijing Giant Computer for software infringement, the plaintiffs were awarded a total of U.S. \$43,000 in damages.⁷³ There was clearly a big leap in damages awarded in the latter two cases when compared to the first. This shows, to some extent, the Chinese courts' commitment to protect the IP rights of software owners, whether they are domestic or foreign. The following two cases, on the other hand, demonstrate that courts are still very cautious in deciding issues concerning end-user violations.

When Pacific Unidata and Beijing Jingyan Electronics sued Avon Products (Guangzhou) for infringing the copyright of their computer software in 1996, it was called the first and biggest Chinese lawsuit brought against a U.S. company over IP rights infringement.⁷⁴ The case was first decided by the NCA, which imposed a penalty on the defendant of RMB 490,000 (U.S. \$59,250) in May 1997. The Guangdong Higher Court then awarded the plaintiffs damages of U.S. \$12 million in June 1998. Finally, the judicial committee of China's Supreme People's Court ("SPC") repealed the verdict and retried the case in 1999. The SPC decision was interpreted to mean that "end-users would not be held accountable for copyright infringement," and that ordinary consumers would

⁷⁰ Spierer, *supra* note 14, at 49.

⁷¹ *Id.*

⁷² *Id.*

⁷³ TACKABERRY, *supra* note 10, at 23.

⁷⁴ *China's First Lawsuit Against the U.S. over Intellectual Property*, CHINAONLINE, Nov. 3, 1999, at <http://www.chinaonline.com/refer/legal/NewsArchives/cs-protected/1999/december/C9102708-SS.doc.asp>.

not "have to pay damages a thousand times higher than the original price of the goods they purchased."⁷⁵

Microsoft Corporation (China), Ltd. v. Beijing Yada Science and Technology Group is another major case involving disputes between U.S. and Chinese parties. On December 17, 1999, the Beijing No. 1 Intermediate Court summarily dismissed the plaintiff's case for lack of sufficient evidence and claimed the defendant was not the proper party.⁷⁶ According to a commentator, "[b]y ruling on this procedural ground, the court apparently avoided, at least for the time being, the need to address the substantive and fundamental question of the case, i.e., whether an end user of pirated software is directly or indirectly liable for infringement under the current copyright regime."⁷⁷

In addition to infringement cases, there are also cases regarding other software program issues. For example, there was a case concerning whether the defendant had breached a contract to design a software program when the program could not meet the requested specifications. A court in Guangzhou decided in 1998 that because the program was not fully developed to the stage where it could be handed over to the customer for use, the defendant breached the agreement and was ordered to pay RMB 140,000 (U.S. \$17,000) as compensation to the plaintiff.⁷⁸

Despite the above cases and countless statistics on successful raids conducted by Chinese administrative authorities, people still view enforcement problems as the main failure of the Chinese IP system.⁷⁹ The problems include, inter alia, inefficient and corrupt courts, overlapping responsibilities and insufficient budgets for administrative enforcement agencies, inadequate damages and fines, and the requirement that plaintiffs establish the burden of proof.⁸⁰ In addition, while courts have been doing their best to handle IP cases and often reach judgments favorable to plaintiffs,

⁷⁵ *Id.*

⁷⁶ See Sun, *supra* note 2, at 2 (setting out the facts and outcome of this case in further detail).

⁷⁷ *Id.* at 2.

⁷⁸ China IP Express Team, *News and Developments of Intellectual Property Protection & Enforcement in the Peoples (sic) Republic of China*, CHINA IP EXPRESS, July 27, 2001 ("Software developer ordered to pay RMB 140,000 in compensation."), available at http://www.iprights.com/our_publications/chinaipexpress/ciex_77.asp (last visited Nov. 20, 2001) (on file with author).

⁷⁹ TACKABERRY, *supra* note 10, at 21.

⁸⁰ *Id.*

ninety-five percent of IP owners still prefer administrative agencies to courts in seeking redress.⁸¹ I will discuss the reasons why these problems still plague China's IP regime in Section 7 of this Essay.

5.3. State Assistance

In July 1999, the Ministry of Finance and the State Tax Administration issued a notice adjusting the tax policy for the software industry within the Zhongguan Science and Technology District and giving the industry preferential treatment on enterprise income tax and value added tax (*zhengzhishui*), reducing the value added tax from seventeen percent to six percent.⁸² This was due to the relentless lobbying effort of the software industry, and not because of a government initiative.⁸³ In addition, municipal governments are also establishing special funds for software development and providing preferential bank loans and employee benefits to software developers.⁸⁴ Municipal governments are also investing heavily in the establishment of software R&D districts or production areas around the country, especially in Beijing, Shanghai, and Shenzhen.⁸⁵

6. BOTTOM-UP EFFORTS

6.1. Strengthening Competitiveness

The domestic software firms have realized that they must strengthen themselves technically and financially in order to compete in the world market. There are some, although not many, success stories among Chinese software firms. "SuDa2000" is a software program that is used for remote designation.⁸⁶ It has oc-

⁸¹ *Id.*

⁸² ZHONGGUO KEJI FAZHAN YANJIU BAOGAO YAJIUZU [CHINA SCIENCE AND TECHNOLOGY DEVELOPMENT RESEARCH GROUP], *supra* note 35, at 70.

⁸³ According to Scott Kennedy, "The larger software firms deserve a great deal of the credit for finally persuading the government to enact the tax reduction. Without their regular criticism, there would have been no incentive on the part of government to make the changes." Kennedy, *supra* note 23, at 250.

⁸⁴ ZHONGGUO KEJI FAZHAN YANJIU BAOGAO YAJIUZU, [CHINA SCIENCE AND TECHNOLOGY DEVELOPMENT RESEARCH GROUP], *supra* note 35, at 70.

⁸⁵ For example, Beijing, Shanghai, and Shenzhen have established several such districts such as the Zhongguan Science and Technology District, Beida Qingniao, Shanghai Zhangjiang, and Shenzh Sai Bo Wei Er. *Id.*

⁸⁶ Zhong Jian, *supra* note 32, at 11.

cupied half of the Chinese market and has been voted the best product in its class of software programs.⁸⁷ The SuDa Corporation planned to penetrate into industries including pharmaceuticals, car parts, and real estate. The CEO of SuDa, Zhou Qixiong, attributed the firm's success to the following three aspects: (1) high quality of the software;⁸⁸ (2) large-scale and good service;⁸⁹ and (3) cooperation with foreign companies.⁹⁰ It has also been reported that Kingsoft, a Chinese provider of office applications, recently released a highly competitive software program called WPS Office 2002, a word processing system expected to challenge Microsoft's Chinese-language version of Office 2000.⁹¹

In addition to developing software on their own, the Chinese software industry has also lobbied the Chinese government, along with foreign software companies, to adopt policies to assist the industry. However, according to Scott Kennedy, the government is probably more willing to adopt policies favoring industries that are economically and politically more powerful than the software industry.⁹²

6.2. Anti-piracy Campaign

As Maskus has rightly pointed out, "In China, the domestic software industry has grown rapidly in particular business applications that do not suffer much copying, but has faced obstacles in developing larger and more fundamental program platforms. Thus, domestic commercial interests in stronger copyrights are now playing a role in promoting enforcement."⁹³ As the piracy grows, the Chinese software firms have begun to fight for stronger IP protection. Twelve Chinese software firms formed associations

⁸⁷ *Id.*

⁸⁸ SuDa has 600 software developers and, on average, can develop a new program every three weeks. *Id.*

⁸⁹ SuDa bought out Jiabei Corp. in Beijing and set up training and service centers like "Xinyan Hope" and "Xinyan Lianbang." *Id.*

⁹⁰ For example, SuDa's board of directors consists of people from Intel, IDG, Intuit, etc. *Id.*

⁹¹ ChinaBiz.org, *Local Software Competes with Microsoft for Government Contracts*, June 30, 2002, available at <http://www.chinabiz.org/articles/show.asp?id=1616>.

⁹² Scott Kennedy, *Between a Rock and a Soft Place: The Political Economy of China's Software Sector*, Remarks at the Asia/Pacific Research Center at Stanford University (Apr. 29, 2002).

⁹³ MASKUS, *supra* note 8, at 149.

such as the China Software Alliance (“CSA”) in March 1995 with objectives similar to those of the international Business Software Alliance. Their activities include, *inter alia*, promoting the industry to consumers; facilitating business cooperation among software companies; self-regulating; and representing their interests to the government.⁹⁴

For example, CSA successfully lobbied during NPC’s legislative session to emphasize the importance of separate software protection regulations; they also convinced the NPC “to add clauses that prohibit purchasers from trying to decipher software that makers had encrypted to prevent piracy.”⁹⁵ For enforcement purposes, CSA cooperated with BSA to operate a national hotline for people to report piracy, and wrote newspaper articles to promote public awareness of enforcement of IP laws.⁹⁶ In addition to the controls provided by CSA, larger local firms have also established internal controls such as hiring IP attorneys to protect their own copyrights and to plead their cases for greater protection against piracy to the NPC.⁹⁷

The software industry’s campaign for greater software protection has, however, been limited by its small size and recent entry into the economy.⁹⁸ Therefore, China’s software industry still has a long way to go before gaining the influential and powerful status of more traditional industries such as steel and electronics in China and of the American software giant Microsoft. That said, its bottom-up approach in promoting enforcement of IP rights does have many positive implications for the rule of law in China, as I will discuss in the following section.

7. THE IMPLICATIONS FOR RULE OF LAW IN CHINA

As discussed above, in contrast to other Chinese industries, the Chinese software industry is pushing for greater and stronger IP

⁹⁴ Kennedy, *supra* note 23, at 254-55.

⁹⁵ *Id.* at 257.

⁹⁶ *Id.* at 254.

⁹⁷ The heads of User Friend and Legend jointly issued a resolution on the piracy issue to the second plenum of the Ninth NPC in March 1999. *Id.* at 255.

⁹⁸ The software industry is particularly limited by its size and recent entry into the economy when compared, for example, to the steel and electronics industries. The Chinese government and ordinary consumers are also not enthusiastic about paying the higher prices for legal copies of software that would result under a strengthened IP protection regime. *Id.* at 259.

protection and it has achieved some impressive results with the government's assistance. This raises the core issue of this Essay: What are the implications of the trend towards greater protection of software on the rule of law in China? Does the trend indicate that the fate of rule of law in China will ultimately be decided by economic forces or interests? As economic reform deepens, will the Chinese people who have economic stakes in protecting their own rights be more receptive to the rules governing their society, making the rule of law more attainable in China? Does the case of the software industry apply to other industries and to the rest of Chinese society at large? In short, does the trend toward greater IP protection in the Chinese software industry imply that China is in transition from a society ruled by men (a pre-modern governance) to a society ruled by law (modern governance)?⁹⁹

7.1. *Economic Bird v. Legal Bird*

Stanley Lubman observed that, "[In China] the economic bird has already escaped from its cage, the economic plan, but the legal bird remains in its own cage, although it is stirring and the dimensions of the cage may be changing."¹⁰⁰ Professor Lubman's conservative assessment of the legal development in China is based on his deep understanding of the Chinese party-state system.¹⁰¹ He explained:

The doctrine that the current leadership espouses, which urges replacement of the "rule of man" by the "rule of law," implies that the relations between state and Party must change and that the CCP must surrender at least some of its authority to law. Whether that transformation can occur and, if so, how, is at the moment unclear.¹⁰²

⁹⁹ This is the question repeatedly posed by Professor Thomas C. Heller. Thomas C. Heller, *Practicing International Law: Legal Uncertainty and Business Transactions in Developing Economies*, Lecture at Stanford Law School (Spring 2002).

¹⁰⁰ STANLEY LUBMAN, *BIRD IN A CAGE, LEGAL REFORM IN CHINA AFTER MAO 2* (Stanford University Press 1999).

¹⁰¹ *Id.* at 3.

¹⁰² *Id.* at 5.

His observation touched on the root of the problems embedded in Chinese legal development: law plays a secondary role to the Party in governing the society. Under the Party's absolute authority, the independence of the judiciary has been compromised; judges' roles blurred; judicial corruption widespread; and local protectionism has flourished.¹⁰³ These problems have, directly or indirectly, led to the problems that plague the software industry, such as ineffective enforcement of IP laws, rampant piracy of software products, and distrust of courts in solving software disputes among software owners. While insightful, Professor Lubman's assessment may be too pessimistic. According to Professor Lubman, China does not yet have a legal "system," but merely a cluster of legal institutions.¹⁰⁴ It is therefore not even qualified for Fuller's "thin" theory of rule of law.¹⁰⁵

From the discussion throughout this Essay, however, it is clear that some forms of rule of law (or at least a "legal system") do exist in China, although they may not meet the liberal democratic version of rule of law which, according to Randall Peerenboom, "refers to a system in which law imposes meaningful limits on the state and individual members of the ruling elite, as captured in the notions of a government of laws, the supremacy of the law and equality of all before the law."¹⁰⁶ The form of rule of law in China will be analyzed not only in the political context but also in the social and economic contexts. The trend of the Chinese software industry's pushing for greater legal protection demonstrates that it will take some time for the software industry to be fully aware of the importance of IP protection and that economic incentives do play a large role in promoting consciousness of IP rights. The U.S. experience proves this. Before the 1980s, most U.S. software companies had a "casual view" of IP protection, and "[t]he view that software should be given away was not uncommon in the industry."¹⁰⁷ Since the 1980s, however, the U.S. trend has changed. "[E]ven the onetime 'pirates' became zealous guardians of their in-

¹⁰³ *Id.* at 2-5.

¹⁰⁴ *Id.* at 3.

¹⁰⁵ For further discussion of "thin" and "thick" theories of rule of law, see Randall Peerenboom, *Seek Truth from Facts: An Empirical Study of Enforcement of Arbitral Awards in the PRC*, 49 AM. J. COMP. L. 249 (2001).

¹⁰⁶ *Id.* at 282.

¹⁰⁷ Teran, *supra* note 9, at 30.

tellectual property, particularly when their revenues dropped, as suggested by the experience of Apple."¹⁰⁸

The definition of rule of law has therefore changed over the past fifty years and we may now have to view rule of law in relation to the stage of development, to specific areas of governance, or even to particular property rights (e.g., IP rights). According to Professor Heller, rule of law is an evolving and spreading discourse that is, more than ever before, multifaceted and particular in relation to specific areas of law, such as property and corporate governance, and that now covers more things including, for example, human rights.¹⁰⁹ It is too simplistic to view China (or Asia at large) as operating under a fundamentally different regime from the West in terms of governance without taking the country's stage of development into consideration.¹¹⁰ Weber's 1947 conclusion that a rational market requires rational law to govern is still applicable to China, despite the fact that some parts of the Chinese economy are thriving in a less than ideal legal environment.¹¹¹ The experience of the Chinese software industry in seeking stronger protection to strengthen its competitiveness proved that, "as business transactions become more complex and, in particular, as they become more internationally integrated, a transparent, impartially administered, legal framework might be crucial."¹¹² This should be applicable to China's other industrial and commercial sectors as well, although with some variations. It gives us some perspectives for the future development of rule of law in China. When more industries and commercial sectors reach the stage of the software industry, there will be more demand for rule of law in China.

7.2. Incentives for Enforcement

Another issue relating to rule of law is the incentives for enforcement of laws. According to Dr. Peter Feng, there are incen-

¹⁰⁸ *Id.* at 31.

¹⁰⁹ Heller, *supra* note 99.

¹¹⁰ ASIAN DEVELOPMENT BANK, EMERGING ASIA: CHANGES AND CHALLENGES 34-35 (1997).

¹¹¹ Carol Jones pointed out that the remarkable economic successes of Singapore, Taiwan, Hong Kong and South Korea suggest that Weber's theory may be flawed, at least as it relates to Chinese societies. See Carol A.G. Jones, *Capitalism, Globalization and Rule of Law: An Alternative Trajectory of Legal Change in China*, in 3 SOC. & LEGAL STUD. 195 (1994).

¹¹² EMERGING ASIA, *supra* note 110, at 35.

tives to enforce laws, as well as incentives to break laws; currently enforcement is weak and the incentives to break laws are high (e.g., readily available illegal imitations, and prohibitively expensive legal products). Feng predicts that only when China becomes an IP exporter will the Chinese have enough incentives to enforce IP laws.¹¹³ This is true in most developing countries. As Teran argues, since the “enforcement priority” of enforcing the rights of the software industry is lower as compared to other industries, governments in developing countries protect software only “to avoid U.S. trade sanctions, or to obtain a favorable U.S. response to a policy initiative. . . . [T]hese incentives are short lived and lead to an inconsistent pattern of improvements in intellectual property protection.”¹¹⁴ The situation can be changed only “if developing countries believe that enforcement of intellectual property rights will stimulate their local software industries.”¹¹⁵

The situation in China relating to the software industry demonstrated that the incentives on the government side are still primarily to please the West, and especially the United States, while on the software industry side, the protection of IP rights has become a matter of life or death. The activities of software associations have been instrumental in encouraging communications between the two sides in hopes of bringing them together.

Using private and independent associations to communicate the industry’s policy objectives to the government is another improvement from the rule of law perspective. Scott Kennedy argues that, unlike other industries in China, the relationship between the government and the software industry has been pushing in the direction of “pluralism.” The “clientelism” or the utility of “*guanxi*” is in decline. This change has been evidenced by software associations’ independence and activism on behalf of their members, as well as their direct ties to policy matters and their increased transparency.¹¹⁶ The change in importance of personal ties to organized communication in the relationship between government and corporations indicates, to some extent, that some parts of Chinese society, or at least specifically, the governance of the software industry, are transforming from a “pre-modern governance” model to a

¹¹³ Harvard Asia Business Conference, *supra* note 49.

¹¹⁴ Teran, *supra* note 9, at 35.

¹¹⁵ *Id.* at 33.

¹¹⁶ Kennedy, *supra* note 23, at 215-16.

“modern (or western) governance” model, as Professor Heller’s chart demonstrates.¹¹⁷

7.3. *What Can Foreigners Do to Help?*

Alford points out that the U.S. government has treated the question of China’s respect for American IP as a matter of “political will, not ability,” and imposed sanctions whenever IP-related trade disputes arose between the two nations, only to find that Chinese leaders’ will to improve IP protection under U.S. threats of sanction often resulted in more widespread piracy.¹¹⁸ In his view, the U.S. government has ignored the historical, social, and economic background of Chinese disrespect for IP rights, undermining ordinary Chinese people’s interests in IP protection. For example, Chinese software developers’ “dependence on their domestic market makes them far more vulnerable to piracy than their American counterparts in China.”¹¹⁹ Alford’s view is echoed by Oksenberg, Potter, and Abnett who rightly stated, “Over the long run, providing incentives to Chinese firms and changing the norms (values, beliefs, rules, and structures) that determine Chinese behavior are more effective for eliciting cooperation than the threat and exercise of punishment, although the latter is occasionally necessary in order to make the former credible.”¹²⁰

How can western countries help improve China’s incentives to enforce IP laws? Teran suggests they “take steps in this direction by providing assistance to local software suppliers to defend their intellectual property rights and develop associations of software suppliers.”¹²¹ Microsoft has set a good example in this respect.

[It] invests heavily in such projects as Guangdong Education and Research Network and the China Education and Research Network, [and] has donated hundreds of NT

¹¹⁷ Thomas C. Heller, *Chart: Rule of Law Transition*, Reader for Practicing International Law (Spring 2002) (on file with author) (describing the rule of law transition from pre-modern governance (driven by economics) to modern governance (driven by constitutional structure)).

¹¹⁸ Alford, *supra* note 47, at 149-50.

¹¹⁹ *Id.* at 154.

¹²⁰ MICHEL OKSENBURG, PITMAN POTTER, & WILLIAM ABNETT, *ADVANCING INTELLECTUAL PROPERTY RIGHTS: INFORMATION TECHNOLOGIES AND THE COURSE OF ECONOMIC DEVELOPMENT IN CHINA* 6 (1996).

¹²¹ Teran, *supra* note 9, at 33.

servers, MS Chinese Office and Windows 95 packages to Chinese organizations. Microsoft has also invested in four training centers in Beijing, Shanghai and Guangzhou, and has decided to make it easier for original equipment manufacturers to license the MS operating system software. These measures have helped consolidate the positions of MS DOS and MS Windows as the preferred operating systems.¹²²

Microsoft's move has certainly resulted in a win-win situation.

8. CONCLUSION

Although still in its infancy, the Chinese software industry has demonstrated sufficient economic incentives for greater IP protection for its products. Mainly through private associations, the industry has pushed the government to provide more legislative assistance, law enforcement, and financial support. This, in turn, has pushed rule of law in China in a specific area. Although the software industry is distinct from other industries, its bottom-up approach demonstrates that some systems of rule of law can be achieved through the efforts of ordinary citizens and corporations. The software industry's experience also illustrates that the concept of rule of law is changing. When considering whether a country has rule of law, it is necessary to examine not only the political context, but also the economic development context, and sometimes even the context of particular property rights, such as IP rights. With this broad approach in mind, I believe that one can be more optimistic about the overall development of rule of law in China.

¹²² Spierer, *supra* note 14, at 7.

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