

A CALL FOR BALANCES BETWEEN INTELLECTUAL PROPERTY RIGHTS AND PUBLIC INTERESTS IN THE FIELD OF INFORMATION IN DIGITAL AGE^{*}

Chen Chuanfu

Information Resources Research Center
Wuhan University, China

Abstracts With the rapid advancement of information technology, vast information is being produced and information is being an essential part for people's life and for economy. In today's digital age, compared with the large amount of money invested in the production of such information as government information, commercial database, etc, access to information through net, is very cheap, easy and fast thought net. The changing environment is posing new problems to challenge the existing subtle balance between intellectual property rights and social public interests. The paper is with particular to China to covers the following aspects: where the imbalance exists, the reasons for the imbalance, and some suggestions for government's action.

Introduction

In the legal framework of national informationization, intellectual property rights, a part of private rights, represent individual's benefits. Sharing the interests from culture is part of the rights granted by constitution. Access to information is a basic civil rights for every citizen. In the process of global informationization, the opportunities for people to possess and utilize information are very different in different countries and area. Even in different parts of a country, the opportunities for individuals differ greatly. In China, most big libraries and information infrastructures are located in metropolises.

The rapid advancement of information technology as a result of establishing information infrastructures more global and strengthening intellectual property makes it possible for common people to access information easier than ever before. On the other hand, the information technology poses a new legal dilemma. One of such problems is the contradiction between intellectual property protection and public

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information access. As a country heading into national, economic and social informationization, to keep the balance between intellectual property protection and public information access is of immense social importance to China.

I Where the imbalance lies

The core of intellectual property protection is to balance the interests between the right owner and the social public. In the digital environment today, there exist lots of imbalances between the two, the main of which as follows:

1. The imbalance between the benefits earned by the right owner and the social public. Firstly, price causes the imbalance between the benefits derived by right owner and the public. The price of some computer software, which is copyright work, is too high for the public to accept in some places. The price ratio between some legal software and the piracy fake reaches 1000:1. The price of a common computer operation system reaches unexpectedly the income level per year of a common employee. Secondly, the standard of intellectual property protection is continuously increasing. The government in many countries, with the pressures coming from the fields of knowledge industries, continuously jacks up the threshold of copyright, which squeezes the public benefits seriously. It is necessary to strengthen the intellectual property protection, but the key is how to maintain the balance between the public interests and those of the intellectual property owners. Emphasizing the benefits of the right owner alone without considering the public benefits will inhibit knowledge creation, block knowledge diffusion, run against the original intention of the intellectual property protection.

2. The imbalance in the benefit distribution among the interrelated right owners. There exists the benefit imbalance between the originator and the spreader of knowledge information. In a country with undeveloped market economy, especially in a country in which the planned economy existed long time, the benefits between the writer and the publisher imbalance seriously. With information diffused by national planning and with the existence of monopoly, the regulating ability of price is limited, thus causing the disorder in the copyright market.

3.the imbalance in enjoying of information benefits between different countries and region. There exist big gaps in the information technique and the infrastructure between the developed country and the developing country. The globalization of trade, finance and information fluxion increases the hazard of the poor country on region being dropped out. Some nations are dealing with the problems caused by

information surplus while other countries are handling the problems about the textbooks of primary education. The global imbalance of need and supply demonstrates knowledge gaps and information problems. So introducing uniform standards in international intellectual property legislation will place the developing country in a very disadvantageous position. The difference in information between developed country and the developing country is huge. And in addition to difference in enjoying benefits between the developed country and the developing country, the degree in which people in the different regions in a country acquire information is also different. And the chance to gain information is very different for the people in urban area than for the people in remote regions. Means of communication, such as telephone, computer network, etc, concentrates mainly in the big and the middle cities.

4. The imbalance between the economic right and the right of personality of a right owner. In network-oriented age, the economic right of intellectual property owner is expanding, but the right of spirit is weakened. The economic right expansion is on the basis of traditional rights, such as the right of replication, the right of communication to the public, the copyright management information right; the new rights have come being in the form of “*SUI GENESRIS RIGHT*”, such as the right of database, the right of integrated circuit designing, etc. The right of spirit is being weakened. For example, the TRIPS don't prescribe the compulsory duty to protect the right of spirit and the contracting member of TRIPS can exempt the right and duty of spirit set by the Agreement according to member's domestic law, whereas the member must granted the economic rights set by the Berne Convention to the citizen of the other member in terms of its domestic law. The excessive expansion of economic right is squeezing the benefits of the public, and the right of spirit as a kind of human rights shouldn't be weakened, the intellectual property system should achieve the balance between the two aspects.

Causes of imbalance

1 The pressures coming from knowledge industries are increasing standards of intellectual property protection continuously and squeezing the public benefits. To promote the development of economy is the dynamic factor of copyright protection for a rational government. Urged by industries, such as audiovisual industry monopolies, publishers, film industry, database industry, software industry, etc, many governments and international organizations have adjusted international or domestic law. The standards of intellectual property are being constantly raised globally and the public benefits suffer squeezing. For example, adopted by the European parliament and the council of the European Union the Directive 2001/29/EC of the European

Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society. Frits Bolkestein, Internal Market Commissioner, welcomed the Directive. But Bernt Hugenholtz from University of Amsterdam noted “the copyright Directive is unimportant, and possibly invalid”¹ The effort at raising standards of IP is going on, e.g. WIPO Audiovisual Performances Treaty, and Database Treaty

2 *Different stakeholders' bargain.* Information's creation, producing, spread and utilization forms an information chain in which different interests owners form interests groups by helping each other. And different interests groups have respective information benefits demands.

- a. The group of primitive knowledge originators. The group formed by intellectual investors, which include the freelance writers, the cooperative writers, the original writers, the deductive writers, etc. They are the originators of the primitive information. However, they have a lot of worries. First, they worry about their fruits to be spread and exploited illegally because they can't control the results caused by digital transmission, distance access. Second, they worry about their works to be uploaded by some organizations, such as the digital library, without their permission. Last but not least, they worry their intangible assets can not get appropriate aegis in the network-oriented environment. So they request to have their original information interests protected on the Internet. If the traditional contracting and pricing principles are adopted to trade intellectual property, their interests will be impaired, for lots of works can't bring about obvious economic benefits, but the network can make the works increase in value. Resorting to strong economic basis and co-operating with other investors, some network enterprises replicate and process these works to occupy the realistic and potential information market share which should have belonged to the originators.
- b. The group of information investors. The group can be divided into four smaller benefit groups, including the mini-type databases fabricators, information analysts, medium persons in the technique, and multi-media fabricators. They are the investors of adding value information increasing in values. And they hope they can legally make use of the current data and the production to make information increase in values. They request to have their packaging product protected, such as telephone code, broadcast program forecast. The purpose of investors is to get returns, so they request to have themselves investments, services protected. If intellectual property system neglects to protect their benefits, their enthusiasm for investment would ebb away.
- c. The group of developers of the computer software and the engineering drawing. They think their works are intended for, rather than for reading. Copyright cannot protect their interests by copyright and the patent law cannot help either. So they emphasize greatly self-protection and technique

¹ Bernt Hugenholtz. Why the copyright Directive is Unimportant, and Possibly Invalid. 2000, EIPR 11

measures of protection, which they think is a better way to protect their benefits.

- d. The group of the public. The public is the terminal consumer of information knowledge. They hope they can use information resources freely or gain than at in reasonable prices so as to obtain information easily in library and not to change the style of family consumption of information.
- e. The group of public-spirited organization. Public-spirited organizations including universities, science institutes, medical and health establishments, libraries, museums, cultural centers, news agencies, meteorological departments, disaster-reduction services etc., which are social benefits and particularly the reasonable use of information, are against making further the strict provisions. For example, the lacking money to invest in library, library hope to get more privileges to satisfy the information demands of the teacher, the student and the library reader.
- f. The group of the governments (local and central), the legislative, the judiciary and the media. The group is at the edge of different benefits. They need to protect intellectual property to create a sound environment for investment as well as to protect the public benefits so as to guarantee the social justice and the judicatory fairness.
- g. At international level, the developed countries own the monopolized advantage in the field of information resources. Their have important benefits at stake. So they hope China will take part in more international treaty and undertake more duties so as to maintain their superiority in information field.

As has been mentioned above, the benefits of different groups must be considered when we establish the intellectual property policy to push the information development and acquisition for the public so as to guarantee the investment repays. According to the author's survey, at present, the digital library development is facing the challenge coming from the law and the right owners. In order to avoid the infringement of right, some digital libraries refuse to provide the services on the foreign periodical. Some just provide the services on the classic works and the catalogue of foreign books in the library. As for the foreign periodicals, some digital library can provide the catalogue; almost the entire digital library can't provide the full text services. So the value of the digital library has not been developed. We know it is very important to use the latest international research results for reference. Although, the science and technology documents in China occupied 1/8 of the world total its actual technology strength just ranks the twenty-eighth or so.

3.The Information Investor's Rational Pursuit at Maximum Interests and the Social Appeal to Information-sharing. Discussing intellectual property questions, by considering only the benefit demands of the different interests groups, we can't get the reasonable answers. Information is a special article, and also a kind of resource. There are two main ways to regulate information resource. One is government planning, the other is market price mechanism. The latter is a most important way. By this mechanism, private factory respond to the price decided by the market supply and demand and take appropriates economy action. The assembly of factories that move

by obeying this kind of market mechanism is called “private sector”, while the “public sector” is the institution which by disposition by imposing taxes, imposing the kain, serving disbursement, and formulating regulations for the market behavior of private sector. The premise of judging the validity of private market is that we must establish a certain standard to evaluate the resources distribution. The private sector usually regards " efficiency" as the standard, and the public sector," fairness". Information product can at the same time be consumed by many individuals and benefit them all. So information is one kind of public product.

Information sometimes comes in the form of pure public product, such as the public news, and sometimes non-pure public product, business database for example. As for the pure public information, any individual can consume it with others. That is to say, one individual’s consumption of the product can’t decrease the other individual’s benefit from the product. Anyone shouldn’t be denied the public information consumption and it is impossible to exclude particular individuals in the event of exclusion, will outnumber gains. There exists plenty of information. There are a lot of information with the public attribute on the Internet, which constitutes one part of the pure public product, such as news, government bulletins, law, standards, software and academic article, etc. Obviously, any individual can consume these forms of information without decreasing the other individual’s interest. And it is impossible to exclude any individual on line. For attracting browse, many network suppliers may spontaneous only announce abundant information, even allow the infringement. But public product consumption pushes the market price mechanism to predicament. The mechanism which excludes the individuals who refuse to pay can guarantee the balance of market supply and need. Without exclusion, the seller (such as the network supplier) can't give the user a compulsory price under any circumstance because the user can completely consume it freely(such as in the public library).The non-exclusion throws the market mechanism out of order. It is inevitable to appear the “to hitch a ride” phenomenon appears. At the same time, from the view of efficiency, one individual being added to consumption, the marginal cost is zero. So any price regulation excluding some individuals is invalid. The total income and the limited income earned by everybody’s consuming the same public product are different. The price imposed on each consumer should vary accidentally. So it is very difficult to carry out the pricing project. It is just become there are lots of public information on the Internet make it is unacceptable to any rational user to take any measure to prevent particular individual loading network and to charge strongly them nearly. Due to the common consumption and the non-exclusion, the rational individuals will not pay according to the product price and their actual gain when they make use of the public products. On one hand, if the government levy taxes according to individual’s inclination of public production consumption, the individual, will not announce their respective inclination. On the other hand, if the government tries to know individual’s inclination for the sake of money decision on production quantity and those inclinations have nothing to do with the tax, the individuals will be encouraged to exaggerate their benefits from information. While the decision-making on the production quantity comes from vote and the public investment, it appears more efficient. Therefore, if we formulate the policy on the intellectual property without taking the public attribute of information resources into account, the policy is bound to be inefficient. The national information infrastructure is a typical public product, so it is inevitable to encounter difficulties when we try to protect intellectual property. It is true of road facilities. The public road invested by government can’t

deny any pedestrian. It is inefficient to establish toll stations to charge pedestrians compulsorily, which will cost more than gain. The public products are not always supplied by the public sector. A special attribute of public production is that it can be consumed by many people at the same time and benefit from them all. The one who gets benefit from it can't obviously reduce the others' benefit from it.

According to the viewpoint of information economists, the information superhighway, newspaper, television program, telephone net and television broadcasting are all public products. They are subsidized by consumers and consumed together.

The conflict between the monopoly of copyright and their public attribute of information resources decreases the efforts and efficiency of production. Such conflict is inevitable. So we must handle well the relationship between the public rights and the private rights in the field of information, between the digital library and the copyright owner, between the right of spirit and the property right, and deal well with those problems about charging and paying of information as the public product, the commonweal attribute and market quality of library, the payoff way and policy of the digital library.

In China, state library, province library or the academic library is public cultural and educational institutions, which is funded by central or local government. Information sharing is not only China's, but also the world's target. The issue of copyright law in China has motivated cultural creation but readers respond passively to high pricing by publishers and public library has decreased their purchase. High price books, software, and audiovisual product are lonely in the store while low price pirated products seem to be endless though government has taken measures to crash piracy. This is an embarrassing of copyright law.

Suggestions for balance no barrier in public access to information

Keep the balance between individual's benefit and public interests is a basic principle in the process of national informationization. Since the entry into WTO, China has been implementing its duties as a contracting member. The author suggests the following action:

1. *Give the public an easy access to information resources should be considered as a priority policy.* The development of information resources is not only the key to achieve the practical results in the course of national information industrialization in China, also an important symbol to measure the industrialization of the national information. In order to maintain in China an economic development in a steady, fast and healthy way, we must place the development of the information resources in a strategic position.

2. At the international level, the network pushes information resources to increase rapidly. So far March 2002, there have been 31,850,000 domain names registered in the world and the AltaVista databases have reached 300,000,000 web pages on line.

At home, want of information resources has been eased. According to the finding of CNNIC, by June 30, 2002, there had been 1613 million computer hosts in China.

4580 million Internet users 126146 domain names registered under ".cn" 293,213 websites and over 45,598 databases on line. During the Ninth Five-year Development Period, China's investments in information industrialization are roughly hundreds of billions in Yuan. "Chinese Digital Library Project", with an increase of twenty thousand web pages of digital documents per day, has already been listed as a key item in the National Fifteen-year Development Plan, and the investment will reach 11.42 billion Yuan. Now China National Knowledge Infrastructure (CNKI) has already developed a super document database in which 1.5TB and nine million full-text documents can be stored and three thousand original texts are renewed or added everyday. So with the rapid increase of information resources on the Internet, the owners of intellectual property, the authors, for instance, have been lodging litigation on intellectual property tort. But the increasing investment and the rich resources has not eradicated the difficulties in gaining information for the public. The shared-information resources have not been realized. On the contrary, information gaps with serious information dissymmetry are still extending. According to the statistics of the National Statistical Commission the national information competence is 8.6% of the United States, 15.2% of Korea, and 40.2% of Brazil. In the 28 main nations and areas, China ranked the next to the last and was one of the lowest in the world. The China's total science data resources occupy 10% of the world, but the benefits produced by shared-data 0.1% of the whole world. The development of information resources involves, many different interest groups with respective interests, which causes complicated and special intellectual property problems whichever section can't solve alone. So the problems on information intellectual property should be solved guided by a special policy. This paper suggests that to solve the problems about intellectual property of information on the Internet priorities should be given to the follows:

- ◆ *Encourage the openness of governmental information.* Public access to information resources is in the interest of the public. But the steady increase of information investment from the nation and the abundant information resources have not solve all the problems in getting information for the national public. To facilitate public access to information push information has far-reaching meaning, because it is essential to realizing industrialization of information as well as to serving the public by industrialization of information. How can the national investment in the industrialization of information produce maximum benefits? The key is to let the public get information quickly, freely and at a reasonable price. At present, over eighty percent of the country's information is owned by the government. Just as the Xinhua News Agency cementation says: information industrialization should serve the civilian. The investigation from Xinhua News Agency show the public gets little service from information industrialization. Different cities, areas, and institution systems have their own information systems, which are isolated islands and blocks to information development. To facilitate public access to information, government should provide freely the state-owned information resources for the public, so as to help realize the shared-information resources among all levels of government, institutions, and the society. The public access to information can eliminate the information dissymmetry; information waste and information rent, and cut down the social cost in obtaining information.
- ◆ *Delimits information divide.* Information gaps are quite big among different

regions, different people in china and between China and the developed counties. It is a social duty to eliminate the gaps. The Internet is an important way to realize the shared-information resources between the poor western regions and the rich eastern regions. But in the western, the average income of one person per year is only 500 Yuan, there is even no telephone in some remote countryside. In a high school website in Gansu province, the students' application of the Internet still stayed in the primary phase to brose the web page which teacher chose and to send E-mail to thank the citizens who help them go to school. So it is very important for those people in those areas to realize public access to information. However, according to investigation among, the information which can be opened and owned by the government, some are left unused, some is confined, the other is being traded illegally by the way of renting.

- ◆ *Promote legislation for information access.* Facilitating public access to information has been paid attention to by the government and the university of many counties, and quite a few scholars. The research of organizations, such as the American Computer Institute, the American University Association, the IFLA and the American Research library Association, mainly concentrates on the reasonable use of the digital library. The IFLA thinks that information belongs to everyone; whatever information should be obstacle to the public. The copyright should not be an obstacle to obtaining information and to exchanging thought It should not be a block to those who can afford it. The provisions concerning reasonable use of information in the national and in the international copyright law should be modified appropriately to make the digital information as obtainable as the printed. The international pact should guarantee the equilibrium between the technique control of multinational information communication and the information access for the legal user.

- ◆ *International cooperation to promote information inclusion.* Free information access has been a global dream. As early as in 1995, The United States Department of Commerce, National Telecommunication and Information Administration published Falling Through the Net; the report on information poverty in the city and in the remote region , in 1998, announced Definition Digital Divide, in 2000, announced Towards digitalization Inclusion, in 2002 announced Online Nation. The University of Washington has establishes the DDP. The university of Arizona has established the DDS forum on the net. The Eight Power Summit Conference held on February 2000 in Japan, announced the globe social information Okinawa charter, and emphasizes taking measures to overcome the digital gaps so as to guarantee that world-wide people can share the benefits brought by information technique. In August 2002, the Internet and Multimedia international conference will be held in Switzerland, in which the problem on information divide will be discussed. Intellectual property represents the individual benefits of knowledge originators, and the public access to information represents the social public benefits. Perfect intellectual property system will encourage information spreading, and, contrariwise, can block the information social access. Where is the divide line? The globe intellectual property law does incline to the right owner. Such as the TRIPs Agreement, the WIPO Copyright Treaty, the Directive on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society. At the same time, many scholars address the benefit balance between right owners and social

public. In 2000, the group formed by the representatives of the United States National science Academy, the United States Engineering Academy, physicists, mathematicians and application scientists, with the support of the National Science Foundation, announced Digital Dilemma: intellectual property in information age report. European scholar published View copyright from the user: user's access right (F. Willem Grosheide,2001) and the Why Lawmaking for Global Intellectual Property is Unblance (Peter M. Gerhart,2000,7). South African scholar published Offering Cake for the South (Judge L. T. C. Harms, 2000), Pamela Samuelson, professor of the University of California, Law School and the Information Management School, published a lot of articles included Anticirculation Rules: Threat to Science in Science Magazine (2001) to study the problems.

The concerning department in the country are pressing for sharing information resources. China Internet Management Center and National Information Center also announced a series of statistic reports with high value. Academically, there are quite a few documents to study information construction and intellectual property protection of information resources in the country, whereas the theoretical research on public access to information demand in practice. The problems of information segmentation and information monopoly have not been solved and there is still a big gap in information access in different regions. There are more appeals to information resources sharing than the theory research. In August 2001, China decided to reestablish a top-level leading group of national information industrialization. The chief of which is Mr. Zhu Rongji, The Premier of PRC. Mr. Hu Jintao, Vice-Chairman of PRC and the other central government leaders are vice-chief. On the twenty-sixth of December 2001, Premier Zhu hosted the first meeting. Zhu said: Don't practices informationization just for the sake of informationization. Information with not benefit will not do. Be practical instead of showy. The informationization that can not serve the public is just like a flower stand that has no practical value. In March 2002, the fifth meeting of Ninth National People's Congress was held, in which loud calls for government opening information and facilitating public information resources access so as to realize information resources sharing were repeated. The members of the Chinese People's Politic Consultative Conference (C.P.P.C.C.) appeal that obstacles which block information sharing and equal right in information access be removed. The deputies to the NPC requested the establishment of government information open-up law. In January 2002, on the Forum of Chinese Digital Library Project and that of Shanghai Library and Information Management, several information experts and library directors coming from the public system, the university, the fields of science and of engineering paid close attention to the problems concerning intellectual property protection of the digital library. Access to information represents the public benefits and were concerned in the fields of library. In 1994, American Research Library Association announced seven principles on intellectual property protection under the digital environment. One of them is copyright should also be in the public benefits. The basic purpose of the copyright law is to push knowledge development and to serve the public. In march 1997, library and intellectual property committee under the United States National Humanities Alliance stated the basic principles under the digital environment, which include that copyright law for the digital information material should maintain the benefits balance among the writer, the copyright owner and the public and new copyright law should hold discreet attitude to carry out every kind of provisions to confine the monopoly so as to push the science and the useful art to develop.

The national information resources construction has been well on the road. The digital library construction has reached climax. It is very important to lay down policy on intellectual property for information infrastructure to maintain the rapid and sound development of the information construction. The core of information resources policy is the unity of the investor's rational pursuit of maximum interests and the social demand for information resources sharing. So at present, the emphasis is on constituting intellectual property policies for uploading information, obtaining information and managing information. This paper also suggests that the Government should draft regulations on information-opening, information-licensing, intellectual property rights collective managing management, liquidation of royalty on copyright works, refereeing, and that supervisory system of information sharing to encourage the copyright market and the exploitation of information resources.

In spite of great difference in information field between developed and developing countries, there exist common interests in the world as the flow of information has no boundary and people all over the world aims at peace and development: guarantee public access to information, fight against poverty with the aid of information, raise literacy, promote sustained development. All countries should take active measures to establish a harmonious mechanism for protecting intellectual property right and for facilitating information resources sharing.