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Online copyright protection and innovation

International experiences and implications to China

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Abstract

Purpose – This study aims to explore the policy-making mechanism of the Organisation for Economic Co-operation and Development (OECD) on innovation and the US practice in identifying policies on online copyright protection and innovation. The research findings provide valuable implications for emerging economies like China.

Design/methodology/approach – For data collection, this study adopted field observation of online interactions. Guided by the democratic paradigm of the civil society, state, and market and the theory of the government's roles as a broker, advocator, and facilitator, thematic analysis was applied to analyze the 150 purposively selected comments of US internet stakeholders for emerging themes and implications.

Findings – While the USA exemplified the OECD guidance by reaching out to all internet stakeholders, most of whom call for a neutral internet and reduce innovation barriers through technological and market solutions, the US online copyright protection policies are expected to bring incentives fairly to all internet stakeholders rather than the historically weighted copyright holders and content industries.

Originality/value – This study is the first academic effort in exploring the US practice of the OECD innovation guidelines by identifying online copyright and innovation policies. The implications of this study are valuable to not only the internet policy-makers of the OECD member countries but also emerging economies, especially like China which desires long-term innovation but keeps censoring the internet with its growing firewall.

Keywords Online copyright protection and innovation, The democratic paradigm and the government's roles, Comments of internet stakeholders, Implications, Copyright, Innovation, China

Paper type Research paper

1. Introduction

Established in 1961 as the successor to the Organization for European Economic Cooperation to implement the Marshall Plan, the Organization for Economic Co-operation and Development (OECD, 2008a, p. 2) provides not only an international forum for its 34 member states to "compare policy experience, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies", but also a public place for other emerging economies like China through various programs. While the USA is taking the lead in supporting the OECD to launch its strong and robust Internet Policy Making Principles to ensure an open and dynamic internet, China has been cooperating with the OECD through the programs of dialogue since October 1995 and the program of enhanced engagement since May 2007. Just as

Gurrı'a (2012, p. i), the OECD Secretary-General remarked, "as China becomes a more prosperous country, the challenges it faces in its economic development are increasingly similar to those of many OECD countries".

At a high-level meeting on the "Internet Economy: Generating Innovation and Growth" in the OECD Conference Center in Paris, France, US Ambassador to the OECD Kornbluh (2011, para. 5) noted:

[...] just over the past five years, the internet has been responsible for 21 percent of the

growth in mature economies and has created 2.6 jobs for every job it has displaced.

In the words of the ambassador, "the internet is not just a generator of today's jobs, it is the biggest innovation incubator in the world" (Kornbluh, 2011, para. 6). Recent studies (China Internet Network Information Center, 2012; McKinsey Global Institute, 2011; Internet World Stats, 2011; US Department of Commerce (DOC), 2011) also revealed that two billion people are now connected to the internet, with an annual increase of 200 million. As of June 2011, while there are 245,000,000 internet users with the penetration rate of 78.2 percent in the USA, there are 538,000,000 internet users with the penetration rate of 39.9 percent in China.

As the impact of the internet penetrates all aspects of our social life throughout the world, governments in the OECD countries like the USA and developing countries such as China both find it imperative to launch and enforce relevant policies concerning effective internet administration. With regard to China, it has been criticized for "too much political concern about control of publications and too little attention to the economic interests of copyright owners" (Zhang, 1997, p. 8). Recently, the Office of the United States Trade Representative (2012, p. 26) singled out China again because many US knowledge-based industries remain concerned that "the Chinese Government is using certain policies intended to promote 'indigenous innovation' to disadvantage foreign enterprises". Some scholars also seconded, for effective regulation of the internet, China ought to face the dual challenges of addressing "apparent deficiencies in legislative control" (Zhao, 2008, p. 37) and "nurturing creativity and innovation by going beyond imitation" (Williamson and Zeng, 2008, p. 1).

In terms of guaranteeing continued innovation in the internet economy, the OECD adopted the Seoul Declaration on the Future of the Internet Economy in 2008. In June 2011 at the OECD's high-level meeting, where the US ambassador made the remarks as cited above, the OECD member countries agreed to 14 basic principles for internet policy-making. One of the goals for such concerted international efforts is to implement "innovative governance strategies in convening diverse groups of stakeholders to forge consensus-based policies" (OECD, 2011a, b, p. 3). In fact, one year earlier, the USA found it imperative to reinforce and identify policies that can both "combat online copyright infringement more effectively," and "sustain innovative uses of information and information technology" (US DOC, 2010, p. 61420).

Specifically, the US DOC created an Internet Policy Task Force (Task Force for short) in April 2010, which reached out to the public for comments to contribute to the US domestic and international policies on online copyright protection and innovation. From 5 October 2010 to 10 December 2010, all stakeholders of the internet in the USA were invited to respond electronically to the Notice of Inquiry (NOI) on Copyright Policy, Creativity, and Innovation in the Internet Economy issued by Task Force (2012), which then made all the comments to the NOI available to the public on its web site of http://ssl.ntia.doc.gov/comments/100910448-0448-01/

In order to facilitate the understanding of the policy-making mechanism of the OECD and draw empirical implications for emerging economies like China, we look into the US reaching-out efforts in identifying policies on online copyright protection and innovation. The reason to choose the USA is that it is one of the few OECD countries generally considered "at the cutting edge of technological change and taking the lead in the new economy" (Norris, 2000, p. 3). To this end, the present study searches for answers to the following two research questions:

- RQ1. What are the thematic patterns from the comments of the US rights holders, ISPs, and consumers on the NOI on Copyright Policy, Creativity, and Innovation in the Internet Economy?
- RQ2. What implications can we draw from the policy-making mechanism of the OECD as illustrated in the US reaching-out efforts?

2. Literature review

This study draws from and contributes to three major categories of existing literature:

- (1) the scholarship on online copyright protection and innovation;
- (2) the achievements and problems of online copyright protection and innovation in China; and
- (3) the progress and challenges of US online copyright protection and innovation policymaking.

2.1 The scholarship on online copyright protection and innovation

Online copyright protection and innovation means protecting copyright and fighting against copyright infringement for creativity and innovation on the internet. According to Alzouma (2011), the internet is a technology for storing, generating and exchanging information and for access to a state of well-being, development, and modernity, which helps users integrate into a modern world of economic opportunities and well-being via interactions in the cyberspace. As one major type of intellectual property rights (IPR), copyright refers to legal rights for the

copyright holders to protect their published or unpublished original works of authorship including literary, dramatic, musical, artistic, and certain other intellectual works (Copyright Law of the United States and Related Laws Contained in Title 17 of the United States Code, 2011). According to Liao (2006), copyright traditionally covers the protection of literature, music, arts, maps, and technical drawings as well as motion pictures. Today, computer software programs, domain names, web pages and their content, HTML, VRML, and other unique markup language sequences, and list of web sites compiled by an individual or an organization are also under the protection of copyright. Quite a few scholars (Bogers et al., 2010; Lemley and Reese, 2004; Tang, 2005; Tian and Chao, 2011; Weiser, 2009) noted that copyright protection safeguards the exclusive rights of the authors and keeps enriching the public domain to guarantee sustainable innovation at the same time.

To promote innovation via effective competition and continued internet connectivity, official policies and legal regulations have been established and implemented for the administration of the dynamic environment of the internet. Innovation has been around since the appearance of human beings, who have constantly been searching for new and better ways to do things in their everyday life. The word comes from the Latin noun innovatio, derived from the verb innovare, meaning to introduce something new. The OECD (2005, p. 46) defined innovation as "the implementation of a new or significantly improved product, or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations". With this generic definition, the OECD emphasizes the implementation of something new or significant improvement in an existing product, process, or service.

More recently, Kraemer-Mbula and Wamae (2010, p. 31) defined innovation as "the process of converting new or existing knowledge to value for the benefit of individuals, groups or communities". When value is created through new knowledge, it is technological innovation. When value is added via the use of existing knowledge, it is non-technological innovation. Since innovation is regarded as "the key ingredient of any effort to improve people's quality of life" (Gurri´a, 2010, p. 3), and "an engine of growth" (Kraemer-Mbula and Wamae, 2010, p. 31), it is important to find out how innovation can be managed differently and changed from the non-technological to the technological.

To scholars (Hansen and Birkinshaw, 2007; Jacobs and Snijders, 2008; Kraemer-Mbula and Wamae, 2010), innovation management refers to the active and conscious organization, control and execution of activities that lead to the development of ideas for innovation or the transformation of these ideas into innovation. This means innovation occurs within a system, in which such actors as policy makers, product manufacturers and service providers, consumers and investors interact and exchange knowledge and techniques for innovative activities. This is why the OECD (2007, p. 5) emphasized that government policies play essential roles in "supporting innovation by continually reforming and updating the regulatory and institutional framework within which innovative activity takes place". Gurrı´a (2010, p. 4) also stressed, innovation policies "need to be complemented by a horizontal – whole of government – approach", which

means that there should be a mechanism with leadership by policy makers at the highest level, stable platforms for co-ordinations and collaborations across borders, and the involvement of all concerned stakeholders.

Regarding innovation policies for the internet economy and copyright protection, the OECD (2007, p. 12) claimed, "the key policy question remains how to strike a balance between providing incentives and rewards to innovators and providing access to new knowledge for users". Aware that "over the recent years the balance has been shifting more in favor of rights holders," the OECD (2011a, b, pp. 3-4) put forward the following 14 guidelines for online information and communication policy-making:

- (1) promote and protect the global free flow of information;
- (2) promote the open, distributed and interconnected nature of the internet;
- (3) promote investment and competition in high-speed networks and services;
- (4) promote and enable the cross-border delivery of services;
- (5) encourage multi-stakeholder co-operation in policy development processes;
- (6) foster voluntarily developed codes of conduct;

(7) develop capacities to bring publicly available, reliable data into the policy-making process;

- (8) ensure transparency, fair process, and accountability;
- (9) strengthen consistency and effectiveness in privacy protection at a global level;
- (10) maximize individual empowerment;
- (11) promote creativity and innovation;
- (12) limit internet intermediary liability;
- (13) encourage co-operation to promote internet security; and
- (14) give appropriate priority to enforcement efforts.

With the above guidelines or principles, the OECD recognizes the internet as an open and decentralized platform for communication, innovation, and economic growth. Meanwhile, it also highlights the dynamic strength of the internet based on easy and high-speed access to various information and different voices, to be guaranteed both technologically and administratively.

2.2 Achievements and problems of online copyright protection and innovation in China

Since the internet has exerted profound impacts on world economy and social progress and China has the largest number of internet users, the Chinese Government fully understands the irreplaceable role of the internet to boost its nationwide drive for innovation. Take the construction of the internet infrastructure, according to the Information Office of the State Council of the People's Republic of China (2010), China invested 4.3 billion Yuan (0.7 trillion US dollars) in the construction of a nationwide optical communication network from 1997 to 2009. Thus, 99.3 percent Chinese in urban areas and 91.5 percent Chinese in the rural areas have been ensured internet access.

Legally, China officially joined the World Intellectual Property Organization (WIPO) in 1980 and the Paris Convention in 1984. It has patterned its intellectual property laws, including the 1982 Trademark Law, the 1984 Patent Law, and the 1990 Copyright Law on the Berne Convention for the Protection of Literary and Artistic Works and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (Liu and Bates, 2008). According to Feng (2002, p. 61), China's Copyright Law, which was enacted in 1990:

[...] was revised substantially in 2001 to bring it into closer compliance with international standard, and the explicit extension of copyright protection into the network environment stood out as a drastic institutional change.

To promote industry self-regulation and public supervision of the internet services, China founded the Internet Society of China in 2001 followed by the establishment of China Internet Illegal Information Reporting Center, Press and Publication Copyright Joint Reporting Center, and Vulgar Information on the Internet and Mobile Media from 2004 to 2010 (Information Office of the State Council of the People's Republic of China, 2010).

Besides, China has been learning from the experience of the OECD countries by placing "its own policy experience on the table for scrutiny and discussion by the OECD members" (OECD, 2012, para. 1). According to Gurrı´a (2012), regardless of its non-membership position, China has been actively participating in OECD's multilateral work on science and technology, innovation policy, and Program for International Student Assessment (PISA) since the mid-1990s. While the OECD has been making close contacts with China through various programs, China has been invited to participate in some OECD committees and working groups as a regular observer. In 2004, China invited the OECD to make a review of its innovation policy and innovation system. The OECD review pointed out that, while learning and introducing various types of policy instruments from the OECD countries, Chinese policy makers and analysts:

[...] should pay more attention to gaining an in-depth understanding of how they work, improving their effectiveness by differentiating them to meet specific purposes, and adapting them to the national context (OECD, 2008b, p. 94).

Although China has made some noted achievements in regulating some aspects of the internet, there has been little effective legal enforcement against internet piracy. As a result, China is one of the biggest sources of illegal downloads in the world. Furthermore, China's copyright law focuses more on the regulations for traditional forms of creative content than online communication, online marketing, and the digital fields such as IPTV, mobile downloads, digital cinema, streaming media, and E-books (Liu and Bates, 2008). Thus, it is quite necessary for China to benefit more from international organizations like the OECD. Such mutually beneficial contacts and collaboration become all the more essential when:

[...] innovation has been identified as a main engine for this new growth model, and the Chinese Government has launched a national strategy to build an innovation-driven economy and society by 2020 (OECD, 2008c, p. 1).

2.3 Progress and challenges of US online copyright protection and innovation

policy-making

As one of the OECD founding members, the USA has been playing crucial roles in the OECD's missions, including the OECD's outreach to non-member states. For example, in 2007, the USA helped the OECD with its enhanced engagement program and made it possible to invite Brazil, China, India, Indonesia and South Africa to "systematically participate in the OECD's substantive work, thereby paving the way for their possible membership to the organization" (OECD, 2009, p. 4). The USA has also been using the OECD as a platform to "improve multilateral operations and help governments respond to new global challenges" (OECD, 2009, p. ii). In actuality, the USA is expected to "lead an OECD effort to encourage globally compatible innovation policies, by engaging its principal partners including major emerging innovators such as China and India" (OECD, 2009, p. 2). Thus, it is worth looking into the US reaching-out efforts in identifying policies on online copyright protection and innovation.

According to Strickling (2010), assistant secretary of the US DOC, the Task Force for the reaching-out efforts pools together the expertise of staff members from five agencies of the US DOC. They are the National Telecommunications and Information Administration (NTIA), the International Trade Administration (ITA), the National Institute of Standards and Technology (NIST), the Patent and Trademark Office (PTO), and the Commerce Department's Office of Policy and Strategic Planning, the last of which coordinates in the Task Force and reports to the Secretary of the Department of Commerce. Within 2010, the Task Force consecutively issued four relevant Notices of Inquiry (NOI) on:

- (1) Information Privacy and Innovation in the Internet Economy on April 23.
- (2) Cyber-security, Innovation and the Internet Economy on June 15.
- (3) Global Free Flow of Information on the internet on September 29.

(4) Copyright Policy, Creativity, and Innovation in the Internet Economy on October 5.

Although each NOI has attracted numerous public comments on the US online copyright protection and innovation policies, we will focus our analysis on just the public comments of the fourth NOI. Before doing so, it is necessary to discuss the various challenges, which the US copyright protection and innovation policy-makers have to face.

Historically, the US copyright policy makers have been influenced by lobbyists of either the rights holders or content providers. Scholars (Boyle, 2003; Hart, 2010; Lessig, 2004; Litman, 2001; Samuelson, 2007) described such one-sided strengthening in the US copyright law as over-protectionism, which not only brought about abusive use of the legal rights for the rights holders but also stifled free speech and exuberant innovation in the USA. Just as Lessig (2001, p. 64) remarked, "in the push to give copyright owners control over their content, copyright holders also receive the ability to protect themselves against innovations that might threaten existing business models". Samuel (2012, para. 11) also affirmed:

The current system is without doubt weighted in favor of commercial interests in copyright [...] A system that overly protects IPR can be both socially and economically counter-productive as it can hinder the dissemination of cultural works, and also reduce innovation by stifling opportunities to explore and develop new models that exploit the internet and digital services.

Thus, past changes to the US copyright system have mostly resulted in the strengthening of copyright rules to the benefit of rights holders. This means that the US Government faces the dual challenges of both updating such copyright policies and identifying new copyright policies, especially concerning copyright protection on the internet.

Actually, McChesney (1996, para. 44) touched upon the nature of contemporary US policymaking on internet economy and communication by saying:

This is a business-run society, and the communication system is tailored to suit corporate interests. The role of the citizenry is to conform its ambitions and goals to satisfy the needs of business and profit maximization.

The scholar raised two sets of fundamental questions for consideration:

(1) Who will control the technology and for what purpose?

(2) What is the social, cultural, economic, and political impact of the new communication technology on the overall society (para. 5-6)?

The two sets of questions are really insightful and significant when we try to understand the essence of the US online copyright protection and innovation policy-making process.

3. Theoretical frameworks and research methods

It involves multiple players of the government, market, copyright holders, and consumers and the optimum application of the government's roles to identify online copyright protection and innovation policies. Therefore, we applied the democratic paradigm of the civil society, state, and market and the theory of government's roles in shaping internet policies as the macro and micro theoretical guidance for this study.

3.1 Macro theoretical guidance

In his seminal work titled "Copyright and a democratic civil society," Netanel (1996, p. 341) explicated the democratic paradigm as a theoretical framework, which advocates "a strong but limited copyright to reinvigorate the preservation of a free Constitution". In this paradigm, the civil society refers to "the sphere of voluntary, nongovernmental association in which individuals determine their shared purposes and norms" (p. 342). Composed of unions, churches, community associations, educational institutions, and various economic organizations, the civil society is fully engaged in public communication and social discourse. Through numerous forms of cultural expression and various channels of mass media such as internet user groups, bulletin boards, blogs and other means of social media, the civil society has become "an independent manifestation of civic association, the space in which political, social, and aesthetic norms are debated and determined" (p. 342).

However, it is the state that provides the civil society with legal, political, and educational support. With the legal existence and survival of civil institutions, an increasing number of citizens "discover, refine, and articulate their interests" and learn "to vote with deliberative judgment and petition government officials with greater effectiveness" (Netanel, 1996, p. 344). Moreover, the state provides educational and material resources and facilitates the democratization of associational and communicative frameworks for an active and politically competent citizenry. Through a combination of state involvement and private initiative, citizen engagement has become popularized in public debate over and determination of government policies and social norms.

Finally, the market, according to Netanel (1996, p. 346), "presents both a threat and promise to the democratic character of civil society". The threat results from the differences in power, resources, and associational capability of the citizens in a free market that may influence their participation in civil life and subsequently the political and social agenda-setting processes. The promise comes from the opportunities for individual choice and political autonomy and associational diversity among the democratic citizenship as provided by the market or market institutions. Thus, for the threat, "significant state involvement may be required to prevent such market-based hierarchy" (Netanel, 1996, p. 346). For the promise, the state "may define and allocate proprietary entitlements in a manner that diversifies private power structures, lessens

dependency on state largess, and augments citizens' capacity for independent-minded participation in public discourse" (Netanel, 1996, p. 346).

As a summary, Netanel (1996, p. 363) noted, copyright is "a state measure that uses market institutions to enhance the democratic character of civil society". The copyright law or copyright protection policies should be made with the purposes of promoting the creation and distribution of information and educational resources, enhancing civil society's participatory character, and nurturing the plurality, independence, and vitality of civil society's communicative sphere.

3.2 Micro theoretical guidance

The theory of government's roles in shaping technology policies was based on Faber et al. (2008) and Fu and Xiong (2011). Faber et al. (2008) introduced the theory of the government's three roles as a broker, advocate, and facilitator in shaping technology and innovation policies. Fu and Xiong (2011) applied the theory in their discussion about the policies and practices concerning open innovation in China. As a broker, the government commits itself in pooling together all potential players into the policy-making mechanism. As an advocate of demand articulation, the government creates the anticipated markets and set relevant standards for the optimal relationship between demand and supply. As a facilitator, the government provides incentives for all the stakeholders to guarantee continuous and dynamic innovation and creativity. To this end, the government's policies need to be designed and tailored to fit the typical patterns of innovation practices in a changing environment.

3.3 Research methods

In this study, we used extensive literature review as seen in the above section and field observation of online interactions for secondary and primary data collection. Among the 900 comments the Task Force of the US DOC has received, we have randomly selected 150 at the interval of every sixth of the comments from the stakeholders of the rights holders, ISPs, and consumers. We adopted thematic analysis to analyze the selected 150 comments, with the intentions to reveal the operating process of the OECD policy instruments via the US case study, make the grassroots voices of the US internet stakeholders heard, and provide some practical references for China.

Thematic analysis is defined as "a method for identifying, analyzing, and reporting themes within qualitative data" (Braun and Clarke, 2006, p. 79), and themes refer to "units derived from patterns such as conversation topics, vocabulary, recurring activities, meanings, feelings, or folk sayings and proverbs" (Taylor and Bogdan, 1989, p. 131). There are three criteria for the generation of a theme (Owen, 1984). To meet the first criterion of occurrence, at least two parts of a report or comment should have the same thread of meaning, which may be indicated by different wording. The second criterion is the repetition of key words, phrases, or sentences, which is an extension of the first criterion in that it is an explicitly repeated use of the same

wording. The third criterion is forcefulness, which refers to the underlining of words or phrases in a written comment or vocal inflection, volume, or dramatic pauses in a recording.

To generate themes via thematic analysis, we used open coding according to Strauss and Corbin (1998). By separately going over the selected comments thoroughly and repeatedly, we two authors examined each selected comment and highlighted the relevant information to form categories based on the similarities of the statements and the implied intent of each statement. To emerge as a theme, the relevant information in terms of similar words or implied intent ought to arise several times in the comments. As the themes emerged, we identified and categorized the relevant portions of the comments into classified folders by following the "cut up and put in folders approach" proposed by Lindlof (1995, p. 225). Then, we further examined the classified data and combined them into any necessary number of sub-themes so as to obtain a comprehensive view of the information. Finally, by referring back to the three categories of literature and two theoretical frameworks, we tried to build a valid argument for the themes.

4. Analysis and findings

Through the application of thematic analysis, three major themes have emerged from the randomly selected 150 comments of the US rights holders, ISPs, and consumers. Among them, we have found that 25 percent of the comments are in support of and 20 percent in opposition to the US DOC's efforts in identifying and issuing more policies on online copyright protection and innovation. We have found 55 percent of the comments calling for a balanced approach to the relationship between online copyright protection and innovation via technical and market solutions rather than aggressive legal regulations and government's restrictive policies (since the US DOS report based on the 900 comments is in its preliminary stage and still calls for additional input, we will not analyze the report itself in the study). The three major themes are discussed and analyzed in detail below.

4.1 Support of the US DOC's efforts

Of the comments supporting the US DOC's efforts, the majority is from the rights holders. Below are two examples.

Example 1:

There are too many overseas sites handing out pirated copies of books and other copyrighted works and we can't stop them as they aren't covered by US laws [...] We can't as a nation just ignore the internet. In the US, that has to stop somehow, and we need Federal help to make that happen [...] We need the same thing for the internet. We want freedom to go down any street, and to speak our minds online, but we should not allow people to take things online that do not belong to them. We're smart. We can figure out a way to police that Net (Melton, Wednesday, 13 October 2010).

Example 1 is a comment from an executive editor of the Etopia Press. The editor is not speaking alone; the comment represents the voices of many others who suffer from the same problem. As individuals or small agencies of rights holders, they need the Federal assistance dealing with overseas web sites pirating IPR of the Americans and selling the pirated content back to the USA. Besides, the editor believes that the Americans are smart enough to find a way to safeguard the internet.

Example 2:

In recent years, the combination of broadband internet access and cheap storage has led to a growing increase in digital piracy, which harms the US economy, US businesses and US consumers. There is no legitimate reason for web sites that directly enable piracy to exist. The internet was not meant to be a gigantic piracy machine. It was not designed or built for the primary, sole, or major purpose of facilitating unlawful transactions. Policymakers must do more to protect IPR domestically and internationally by providing new tools to combat digital piracy and enforce copyright protections online (The Information Technology and Innovation Foundation, Thursday, 27 October 2010).

Example 2 is typical in the expression of opinions representing the organizational IPR rights holders. While listing the harms digital piracy has brought about, the comment is strongly supporting the Federal Government to take measures and make more and more strict internet policies to protect IPR both at home and abroad. To these organizations or copyright industries, law is a must and panacea for ensuring innovation and creativity and eradicating copyright piracy on the internet.

4.2 Opposition to the US DOC's efforts

Of the comments opposing the US DOC's efforts, most of them come from consumers and some from rights holders as well, as can be seen from the following examples.

Example 3:

Considering the vital importance of the internet in today's society, the Department of Commerce should worry less about copyright and protection of "rights." If you really want to encourage innovation, concentrate first on encouraging the free flow of information of all sorts. Copyright has been and should be about a temporary benefit granted to an innovator to benefit the public good. Now it has morphed into a permanent crutch to benefit the select few. As a stifling point for innovation in all fields, copyright is wielded as a hammer to stop creativity in the arts and sciences, and the government has played along for too long. The fashion industries generate a thousand new looks every season and have done so since the first cavewoman chose the woolly mammoth wrap over the deer hide one. Look at every industry where copyright is nonexistent or more observed in the breach and see the vibrant, thriving world built upon a marketplace of ideas (Pierce, Wednesday, 6 October 2010).

In Example 3, Pierce came straight to the point that the US DOC should concern more about innovation and the free flow of information on the internet rather than the benefit and rights of the few rights holders. To the respondent, copyright has been abused and has become a stifling force for innovation in all fields with the help of the government. Oppositely, there has been the vibrant and thriving fashion industry, where copyright is nonexistent and prosperity is built upon a marketplace of ideas. Therefore, the government should make sure that the idea, together with sweat, multiplies and turns into something beneficial to the general public.

Example 4:

In response to the three goals of the NOI, we hold: (1) Rights holders already have significant protection in place. Many argue that the protections in place today are onerous and detrimental to society, and inhibit the growth and quality of creative works. (2) Experiments such as the "Great Firewall of China" demonstrate that attempting to restrict the flow of information are unlikely to succeed, and only place the acting party in a position of being seen by the world as petty and totalitarian – totally anathema to the values we hold most dear as Americans. (3) Transparency, such as the recently closed ACTA negotiations? So long we allow the text of these laws to be crafted by industry insiders, intent on extending and expanding their opportunities for profit at all expense, we will continue to see the intent of copyright – to promote progress trampled upon.

Please consider carefully your goals and intent when crafting these policies. Since 1998, with the unfortunate passage of the Sonny Bono Copyright Term Extension Act, we have increased a monopoly to the benefit of a few, while stifling the innovation and creativity that the copyrights were originally intended to promote [...] (Heiniluoma, 2010).

In Example 4, Heiniluoma warns the government that the rights holders have already had sufficient protection, and any more attempts to issue laws like ACTA to restrict the free flow of information on the internet will not only fail but also turn the USA into a petty totalitarian. The respondent concludes by saying that more laws like the Sonny Bono Copyright Term Extension Act will only benefit a selected few while stifling innovation and creativity.

4.3 Calling for a balanced approach

Comments calling for a balanced approach to the relationship between online copyright protection and innovation through technical and market solutions come from all the stakeholders, but most of them are from ISPs. Below are two examples.

Example 5:

Digital Society believes that the only viable approach to combating online copyright infringement more effectively and sustaining innovative uses of information is a policy based on three pillars: (1) Strong and well-defined property rights. For centuries the common law has worked to define what should and should not be within the scope of copyright, and the rules are sensible, in that facts are excluded from protection, as are

basic plotlines and similar expressions. These assessments must adapt to changing technology, but the adjustments should be carefully done to promote clear and effective property rights, not to undermine them or add uncertainty. (2) Markets. It is fundamental that creators want their works to be available to as broad a public as possible. With this incentive, it is crucial to allow free-wheeling, market-based experimentation and discovery. Problems will indeed arise, but these will be corrected over time, often over a surprisingly short time, as the market adapts. (3) Low transaction costs. Markets are also enhanced by low transaction costs. Therefore, new institutional structures and rules ought to develop and reduce transaction costs, not to eliminate or undermine copyright (DeLong, 2010).

Representing Digital Society, DeLong holds that the two imperatives of online copyright protection and innovation are complements instead of contradictions. To realize the dual policy imperatives, three things are essential:

(1) strong and well-defined property rights in the common law, adaptable with the changing technology;

(2) innovation incentives, business models, and pricing points from free-wheeling and market-based experimentation and discovery; and

(3) low transaction costs from new institutional structures and rules from market experience, with copyright neither eliminated nor undermined.

Example 6:

In considering the relationship between copyright and innovation, it is critical to remember that copyright is fundamentally a balance between the rights of the creator and the rights of the public at large. The best way to encourage creativity and innovation in the internet economy is to reduce barriers to creativity and innovation. Services like iTunes and Netflix show that copyright infringement is best addressed through innovation, not restrictive rights management schemes or by making it harder for the public to access works.

Aggressive, government backed copyright enforcement efforts can have unintended repercussions. We urge the Department of Commerce to identify and promote copyright policies that recognize the extraordinary public benefits of online innovation and creativity, and seek to ensure that those benefits are not lost in the name of policing infringement (Glaisyer et al., 2010).

Representing Public Knowledge, the Electronic Frontier Foundation, and New America Foundation, Glaisyer, Weinberg, Siy, and McSherry in Example 6 emphasize that copyright is originally created to balance the rights of the rights holders and the rights of the general public. To them, the best way for the Federal Government to maintain the balance is to encourage more creation and innovation from more people. In the case of boosting internet economy, a better way is to "reduce barriers to creativity and innovation," rather than adding "aggressive, government backed copyright enforcement efforts" (Glaisyer et al., 2010, para 1-2). Therefore, they suggest that policies that police the internet copyright infringement should neither restrict nor undermine online creativity and innovation.

Having described the research findings above, we then analyze our research findings against the theoretical frameworks. First and foremost, Netanel's (1996, p. 341) democratic paradigm of the civil society, state, and market advocates "a strong but limited copyright to reinvigorate the preservation of a free Constitution". Our research findings match well with this principle of the macro theoretical framework. Of the 150 randomly selected comments, 55 percent of them call for a balanced approach to the nexus between online copyright protection and innovation. Their solution to the knot of the issue via technology and market instead of aggressive legal regulations and restrictive official policies is not a compromise between the 20 percent opponents and 25 percent proponents of the US DOC's efforts. Instead, the solution represents the majority's correct voices while combining the rational elements of the two extreme voices.

More importantly, what is happening between the US DOC and all the stakeholders of the internet economy best demonstrates the democratic nature of the paradigm of civil society, state, and market. As mentioned earlier, each of the four notices of inquiry (NOI) of the Task Force of the US DOC has attracted numerous public comments to contribute to the US policies on domestic and international internet administration. Although the analysis of this study focuses on just the public comments in response to the fourth NOI on Copyright Policy, Creativity, and Innovation in the Internet Economy, the reaching-out efforts of the US DOC fully revealed the spirit of the democratic paradigm by facilitating the democratization of associational and communicative frameworks for an active and politically competent citizenry (Netanel, 1996). When making their comments in response to the fourth NOI, all the rights holders, ISPs, and consumers presented before us "an independent manifestation of civic association, the space in which political, social, and aesthetic norms are debated and determined" (Netanel, 1996, p. 342).

Simultaneously, the theory of the government's roles of a broker, advocate, and facilitator in shaping technology and innovation policies also provides this study with a useful, micro theoretical guidance. Acting as a broker, the OECD unites 34 member countries and provides them with an effective mechanism, in which "governments work together to address the economic, social and environmental challenges of globalization" (OECD, 2011a, b, p. 2). Likewise, the Task Force of the US DOC pools the wisdom of five agencies and seeks comprehensive comments from all stakeholders throughout the country. As feedback to the fourth NOI, 900 submissions were received during the designated time period. The above analysis of the three themes emerged from the comments does reveal diversified, genuine, and valuable contributions to the policy-making of the US DOC. Therefore, the US DOC has completed the first role as a broker without doubt and set a good example of democratic administration.

As an advocate of demand articulation, The OECD Innovation Strategy: Getting a Head Start on Tomorrow, published in 2010, highlighted the experience and good practices from countries around the world and indicated that innovation policies "need to move beyond R&D and specific technologies to a more systemic approach that takes account of the many factors and actors that influence innovation performance" (OECD, 2010, p. 11). This revelation means that the scope for innovation policies broadens, and it also indicates new market demands. The US DOC also endeavors to create the anticipated markets and set relevant standards for the optimal relationship between demand and supply. Although there is room for improvement in its internet management policies, the reach-out efforts of the USDOC are valuable signs of a responsible advocate articulating an internet with freer flow of information and innovative ways to meet the demands of the market.

Finally, as a facilitator, the OECD launched an innovation strategy to establish "a coherent and comprehensive approach to policies for innovation that can help underpin an innovation-led recovery and strengthen the role of innovation in the long run" (OECD, 2010, p. 11). Regarding the USA, apart from government funding in basic research, R&D projects, and IPR protection, few internet stakeholders seem pleased with the current practice of online copyright protection and Federal incentives for continuous and dynamic innovation and creativity. Both the literature review and comment examples above indicate that copyright protection in the USA has been historically weighted towards the interests of the content industries and copyright holders. Therefore, the US Federal Government still has a long way to go to effectively bring incentives to all internet stakeholders as an ideal facilitator.

5. Conclusion

This study was aimed to explore the OECD policy-making mechanism on innovation in general and the US practice in identifying policies for online copyright protection and innovation in particular to shed light on emerging economies like China. Through the theoretical frameworks of the democratic paradigm of the civil society, state, and market and the theory of the government's roles as a broker, advocator, and facilitator and via the research methods of extended literature review and field observation of online interactions and thematic analysis, we have found the following.

5.1 Three major themes

As the answer to RQ1, three major themes were found from the randomly selected 150 comments. The supporting comments are mostly from the rights holders as they strongly believe in more and more stringent online copyright protection measures from the Federal Government, especially concerning illegal overseas web sites. The opposing comments are from mostly consumers and a few rights holders because they faithfully trust that the free flow of information on the internet is essential for creative activities and booming online economy. Therefore, they

believe that more aggressive and restrictive measures on the internet will be in vain and may bring more harm. The third category of comments comes from all the stakeholders, but mostly from ISPs. Based on their market experience, these organizations hold it as truth that the best way to boom the internet economy is to keep the internet neutral, guarantee the free flow of information, and reduce barriers to creativity and innovation through technological and market solutions.

5.2 Two implications

Two implications were found as the answer to RQ2. On the one hand, the present study further proves that the two theoretical frameworks are really useful in shaping technology and innovation policies. To craft effective and appropriate internet administration policies, the civil society, state, and market need to collaborate with one another in the spirit of democracy and governments ought to play their roles well as brokers, advocates, and facilitators. Since the internet "still represents a 'black box' of unknowns" (OECD, 2008c, p. 7), all governments should learn from one another, observe the OECD's guidelines, and take a whole of government approach by listening to the voices of all stakeholders when making and implementing internet policies for innovation. Although it still has room for improvement, the US DOC has set an example by taking the initiative and reaching out for input of comments from all potential stakeholders. Patience is also needed to find out if the US Federal Government will finally identify, pass, and enforce online copyright protection and innovation polices by taking the benefits of all the internet stakeholders into consideration.

On the other hand, the present study indicates that innovation policies should go beyond a particular field, sector, technology, or location like R&D. The scope of the innovation policies has been broadened into a system or network including not just policy makers, but product manufacturers and service providers, consumers and investors. All the stakeholders at the local, national, and international levels are expected to interact and exchange knowledge for innovative activities in an operation mechanism composed of organizations, institutions, and linkages. Such a horizontal – whole of government – approach to innovation policy making will be more likely to "strike a balance between providing incentives and rewards to innovators and providing access to new knowledge for users" (OECD, 2007, p. 12). The above are valuable implications for China, which desires long-term innovation but keeps censoring the internet with its growing firewall.

5.3 Limitation and suggestion for future study

One obvious limitation of this study is that our research findings are based on a qualitative thematic analysis of the randomly selected 150 comments. During the process of selection and analysis, we had to leave out many other meaningful comments. Given more time and space, they might have enriched our findings. Future studies may either provide empirical evidence for

the OECD's leading roles in guiding innovation policies or make a quantitative content analysis of the US stakeholders' online comments.

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