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Solutions to P2P copyright crisis

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SOLUTIONS TO P2P COPYRIGHT CRISIS

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Abstract: Recently, most countries face the problem of revising copyright law because of the introduction of Peer to Peer (P2P) technology on the internet which has badly aggravated the piracy of unauthorized file-sharing. This paper will first examine the traditional creative incentive theory of intellectual property under a new digital circumstance and find out the best position the law should take between P2P users, ISPs and copyright owners. It will discuss technology protection, fast piracy speed, new market models and free culture. Second, it will highlight and explain the legal uncertainties of primary and secondary liabilities. With regard to P2P users, it will review the dispute issues in Hong Kong Bit Torrent case, Tai Wan P2P case, discuss the tendency of other countries to revise unauthorized uploading and downloading liability. For Internet Service Providers (ISPs), it will explore four kinds of liabilities, contributory, vicarious, authorized and joint liabilities in representative jurisdictions, through studying series relevant cases, e.g. *Grokster* Case, *KaZaa* case. Third, it will compare scopes of these two liabilities with alternative solutions, in order to achieve an optimized model of solutions. Levy system, compulsory licensing and other possible solutions will be evaluated altogether. Considering the different legal traditions and national situations, the proposed solutions in different countries might be similar but not exactly the same.

Keywords: unauthorized uploading and downloading; criminal liability of P2P users; liability of ISPs; licensing

INTRODUCTION

Recently, the introduction of Peer to Peer (P2P) technology on the internet has badly aggravated the problem of unauthorized file-sharing. P2P technology involves interactions between machines of equal status on the network, which means that an internet user is downloading information while automatically uploading it. The extensive public piracy caused by the amazingly fast disseminating speed of P2P has led to a great amount of sales loss, which chilling the incentives of creative industries.

They keep bringing lawsuits against two types of parties, P2P users and internet service providers (ISPs) that facilitate file-sharing. However, no

satisfying results have come out. Because of the uncertainty and inability of national laws, most countries are struggling for copyright law revisions.

The purpose of this paper is to fashion appropriate legal amendments concerning the primary liability of unauthorized uploading and downloading activities of P2P users and secondary liability of ISPs, then propose an optimized combination of solutions for this piracy problem. Mainly based on an international comparative perspective, this paper will analyze several representative countries, including the US, the UK, Canada, Australia, China.

The first part of this paper will examine the traditional creative incentive theory of intellectual property under a new digital circumstance and find out the best position the law should take between P2P users, ISPs and copyright owners. It will discuss technology protection, fast piracy speed, new market models and free culture. Second, it will highlight and explain the legal uncertainties of primary and secondary liabilities. With regard to P2P users, it will review the dispute issues in Hong Kong Bit Torrent case, Tai Wan P2P case, discuss the tendency of other countries to revise unauthorized uploading and downloading liability. For Internet Service Providers (ISPs), it will explore four kinds of liabilities, contributory, vicarious, authorized and joint liabilities in representative jurisdictions, through studying series relevant cases, e.g. *Grokster* Case. Third, it will compare scopes of these two liabilities with alternative solutions, in order to achieve an optimized model of solutions. Levy system, compulsory licensing and other possible solutions will be evaluated altogether. Considering the different legal traditions and national situations, the proposed solutions in different countries might be similar but not exactly the same.

I. THE NATURE OF THE P2P PROBLEM

There are various answers the question that why give authors an exclusive right to their works. One of the most important answers is to provide an incentive for authors to create and disseminate their works which are of great value for the human development.[1] One justification for copyright protection is to prevent others from free riding on the copyright owners' efforts invested in the creative process for the sake of encouraging the creative incentive.[2] However, as information is essential for the social evolution, it should not give the author a fully exclusive right over their works. In order to limit the exclusive

[1] Stewart E. Sterk, "Rhetoric and Reality in Copyright Law," *Michigan Law Review,* (March 1996)

[2] Peter K. Yu, "DIGITAL PIRACY AND THE COPYRIGHT RESPONSE", in *Internet and Governance in Asia—A Critical Reader 340* (Indrajit Banerjee ed., 2007), available at: http://www.peteryu.com/piracy.pdf

power, copyright limitations, such fair use, terms of protection, compulsory licensing, are designed to ensure a sufficient public domain to serve as a good inspiration for other authors to recreate.

Under the traditional incentive theory, encouraging the creative incentives does not require the extreme copyright protection but requires it to stay in a proper level. There are two limitations of copyright protection of the incentives encouragement.[3]

First, the expanded copyright protection will increase the price of the existing copyright works which are the materials of recreation. Information in existing copyright works is the foundation for recreation and further development. The increased cost of the recreation leads to a constraining effects on the incentive of recreating activities.[4]

Second, the enforcement cost should not be too high to fail to achieve an optimized level.[5] In public domain regime, negotiation of licensing will rarely occur. And some enforcement against piracy will lead to an extremely high cost consequence so that the court is reluctant to recognize the infringement. For instance, in the *Sony* case,[6] considering the enforcement is difficult and conflicts with the private right of the citizens, the court held that home recording was not infringement but fair use.
In a word, it is necessary to keep the public domain and the copyrighted work to stay in stable proportion and make sure that it is not too costly or difficult to enforce any liabilities of infringement.

As for the creative industries, the incentives of creation will be mainly encouraged by the economic earnings. Fast and broad piracy may serious lower the income of sales in creative industries which result in a depression on their creative incentives. In the P2P situation, the problem is caused by two factors. First, the fast piracy speed badly increases the amount of the infringement. Second, invisibility of internet uploading and downloading makes it difficult to detect the infringement. Like the *BMG* case in Canada, the court pointed out:

> 'They wish to bring action against the infringers but do not have their identity…There is a risk that the information as to identity may be inaccurate. Apparently this is because an IP address may not be associated with the same individual for long periods of time. Therefore it is possible that the privacy rights of innocent persons would be infringed and

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[3] Stewart E. Sterk, "Rhetoric and Reality in Copyright Law", *Michigan Law Review*, (March 1996)
[4] William W. Fisher III, Reconstructing the Fair Use Doctrine, 101 Harv. L. Rev. 1659, 1702-03 (1988)
[5] Mark A. Lemley, Intellectual Property and Shrinkwrap Licenses, 68 S. Cal. L. Rev. 1239 (1995)
[6] Sony Corp. v. Universal City Studios, 464 U.S. 417, 429 (1984)

legal proceedings against such persons would be without justification.' [7]

But it is not deemed to result in imposing heavier liabilities of infringers. First, it should be analyzed that how harmful the piracy will cause to the creative industries. It has been reported that there is a great loss of sales in creative industries since the introductions of P2P technologies. However, a piracy downloading piece of work does not directly equal to a piece of loss of sales because of the distinct market. One type of P2P users will not purchase the goods any more once they can get them from the internet for free. Another type of P2P users, by contrast, will purchase the goods once they get a good impression of the downloading copyright work and desire to gain a better quality of this work.[8] Piracy P2P fire-sharing may not be the real cause of the decline in music sales. Other causes may exist, for example, the entertainment industries inflate the price of CDs above market equilibrium, artificially lowering demand and creating deadweight loss.[9] There is possibility that P2P technologies can deliver copyright works in a more desirable way both to make P2P technologies and copyright works more desirable. Under the distinction theory of substitute and complementary goods, the definition of complementary goods is that an increase in the purchases of one good will lead to an increase in demand for the other good, like bread and butter. If the relationship between P2P technologies and copyright works is complementary goods relationship, then P2P increases the demand of copyright works. It is the fact that one of the consumers exists and certainly brought the loss of the copyright industries. However, the piracy did not totally destroy the creative industries which can still earn profits from the copyright creation and survive in the severe copyright piracy as a result of the distinctive market.[10] As sharing is not necessary a bad thing, sometimes may even foster the development, the courts always take a tough attitude to accord overwhelmed protection on the copyright owners.

Second, the creative industry may be able to seek for a new business model to solve this problem. In the history of file sharing technology, it is not the first time that there has been conflict between copyright holders and copying technology.[11] The introduction of FM radio, cable television and the VCR all

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[7] *BMG Canada Inc. v. Doe,* 2005 FCA 193, available at: http://www.canlii.org/en/ca/fca/doc/2005/2005fca193/2005fca193.html

[8] Lawrence Lessig, Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity, Penguin Books, New York, 2004

[9] Oscar S. Cisneros, States: Labels Fixed CD Prices, Wired News, available at: http://www.wired.com/news/politics/0,1283,38103,00.html (Aug. 8, 2000); Stephen Labaton, Five Music Companies Settle Antitrust Case on CD Price-Fixing, N.Y. Times, May 11, 2000, at A1.
James Boyle, Taking Stock: The Law and Economics of Intellectual Property Rights: Cruel, Mean or Lavish? Economic Analysis, Price Discrimination and Digital Intellectual Property, 53 Vand. L. Rev. 2007.

[10] Neil K. Komesar, Imperfect Alternatives: Choosing Institutions in Law, Economics, and Public Policy (1994).

[11] Lawrence Lessig, supra note 8;Adam Liptak, Is Litigation the Best Way to Tame New Technology?, N.Y. Times, Sept. 2, 2000, at B9 (quoting Jack Valenti), available at: http://partners.nytimes.com/library/tech/00/09/biztech/articles/02napster.html; William Fisher, Don't Beat Them, Join Them, N.Y. Times, June 25, 2004, at A23.

caused the recording and motion picture industries to seek the legal protection. Legislature and the courts consistently allowed the market to set a new equilibrium by itself. It is possible for the creative industry to shift their focus from sales of products to live performance or decrease the cost of production with the help of technology development.[12]

Therefore, it is reasonable for the law to give up taking extremely high protection on creative industries, and seek for setting up limited liability on a balancing and fair standard. Generally, there are two types of legal revisions on this problem, transferring civil liability into criminal liability of unauthorized uploading and downloading activities of P2P users, and imposing heavier liability of ISPs.

II. LIABILITY OF P2P USERS

1. Liability of unauthorized uploading

Chan Nai Ming case[13] in Hong Kong is a representative case where Chan Nai Ming was convicted for using Bit Torrent (BT) software to upload three movies onto the internet. BT software is a program which uses P2P technology to share files. On May 18th, 2007, the Supreme Court gave its final sentence on this case which is the first criminal case in the world and shocked the public.

The key issue in this case is whether uploading something onto the internet constituted distribution. This paper will compare *Chan Nai Ming* case with *BMG* case in Canada, another case concerning this issue. These two cases reached opposite results.

Both holdings of *Chan Nai Ming* case and *BMG* case admitted that the uploading conduct can at least satisfy the meaning of 'making available to the public', included in the World Intellectual Property Organization: Performances and Phonograms Treaty (WCT). In *BMG* case, the court held that 'the mere fact of placing a copy on a shared directory in a computer…merely presented evidence that the alleged infringers made copies available on their shared drives…the exclusive right to make available'.[14] In the *Chan Nai Ming* case, Chen Nan Ming 'incurred civil liability … for making them available to the public contrary to section 26.'[15]

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[12] Peter K. Yu, P2P and the Future of Private Copying, 76 U. Colo. L. Rev. 653 (2005), available at: http://ssrn.com/abstract=578568

[13] *CHAN NAI MING v. HKSAR* - [2007] HKCFA 35; FACC000003/2007, 18 May 2007, available at: http://www.hklii.org/cgi-hklii/disp.pl/hk/jud/eng/hkcfa/2007/FACC000003%5f2007%2d57111.html?query=%7e+chan+nai+ming+v+hhsar

[14] *BMG*, supra note 7

[15] *Chan Nai Ming*, supra note 13

However, Canada court and Hong Kong court take two opposite attitudes towards liability of uploading conduct. In *BMG* case, the court held that WCT had 'not yet been implemented in Canada and therefore does not form part of Canadian copyright law',[16] and there was no such a exclusive right of making available to the public in Canada, the uploader thus should not be liable under copyright law. And the court took a very strict approach to explain the scope of the existing exclusive rights related to the uploading conduct: 'No evidence was presented that the alleged infringers either distributed or authorized the reproduction of sound recordings. They merely placed personal copies into their shared directories which were accessible by other computer users via a P2P service.'[17] Different from Canada, Hong Kong has already established the exclusive right of making available to the public, which seems to be suitable to catch the uploading conduct. However, as *Chan Nai Ming* case is a criminal case, the Copyright Ordinance did 'not create any criminal offence based simply on "making available" infringing copies',[18] the court took a very broad approach to extend the scope of distribution, which was enacted as a criminal offence, to cover the uploading act.

The primary dispute in *Chan Nai Ming* case is that which exclusive right the infringer violated, distribution right or right of making available to the public. I will explore the difference between the distribution right and right of making available to the public.

(1) Copy

One distinction between the right of distribution and the right of making available to the public may be whether it involves copies or not. In traditional copyright regime, the copyright is mainly divided into two types of rights, reproduction right and public performance right. Distribution right is the exploitation of reproduction right, while the right of making available to the public is one further development of the communication right which is originated from public performance right.[19] Generally, distribution may have the meaning of giving out the copies which are reproduced first, while making available to the public is lack of the reproduction of any copies.
However, with regard to the internet dissemination, the concept that temporary copy should be considered as 'copy' in copyright builds up the gap between the distribution right and the right of making available to the public. Any uploading and downloading activities have to take reproducing temporary copies in the RAM of the computer as the first step. For example, both online

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[16] *BMG*, supra note 7
[17] *BMG*, supra note 7
[18] *Chan Nai Ming*, supra note 13
[19] JANE C. GINSBURG, The (New?) Right of Making Available to the Public, *INTELLECTUAL PROPERTY IN THE NEW MILLENNIUM, ESSAYS IN HONOUR OF WILLIAM R. CORNISH,* David Vaver, Lionel Bently, eds., pp. 234-47, Cambridge University Press, 2004, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=602623

viewing and downloading a permanent copy in the hard disk have to reproduce one transient copy in the RAM first. Once the transient copy in the RAM is taken as the 'copy' in the copyright law, it seems that the distribution right and the right of making available to the public are combined together. For this reason, it is currently under dispute that whether a temporary copy should be considered to satisfy the traditional meaning of 'copy' in copyright law. As the nature of temporary copy is not exactly the same as the permanent one, many countries are reluctant to recognize that the temporary copy is equal to 'copy' in copyright law.

In the *Chan Nai Ming* case, the court held that the transient copy constituted the traditional meaning of 'copy'. Under Section 23 of the Copyright Ordinance in Hong Kong,[20] copying and copies are construed as follows:

> '(2) Copying of a work means reproducing the work in any material form. This includes storing the work in any medium by electronic means.'
>
> '(6) Copying in relation to any description of work includes the making of copies which are transient or are incidental to some other use of the work.'

It means that one transient copy in RAM should be considered as 'copy' in copyright law.

In Hong Kong, the criminal offence, section 118(1)(f) of the Copyright Ordinance[21] which provides as follows:

> 'A person commits an offence if he, without the license of the copyright owner ... distributes (otherwise than for the purpose of, in the course of, or in connection with, any trade or business) to such an extent as to affect prejudicially the owner of the copyright, **an infringing copy** of a copyright work.'

In *Chan Nai Ming* case, the copies distributed to others refer to the transient copy in the RAM of the uploader's computer.

> 'The appellant's computer **reproduced** the infringing electronic copy (which remained on his hard disk) **in the form of packets of digital information** which were sent to the downloaders and reassembled by their computers in the correct sequence to constitute an entire infringing copy of that film…establishing that **electronic copies duplicating that initial infringing copy were generated by the appellant's** computer and were then sent to the downloaders as a stream of digital packets designed to be reconstituted as entire, viewable films…the findings were to the effect that the appellant did create and did have possession of such a copy **(transiently or otherwise**) for distribution to the downloading swarm.'[22]

It means that the copies which were distributed are referred to the transient copy existing in the form of 'packets of digital information' in the RAM of Chan

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[20] Copyright Ordinance in Hong Kong, available at: http://www.hklii.org/hk/legis/en/ord/528/
[21] Id.
[22] *Chan Nai Ming*, supra note 13

Nai Ming's computer. Chen Nan Ming first made the reproduction from the copy in his computer hard disk into copies in the RAM of his computer.

And the transient copies which were distributed were infringing copies for the following reasons:

> 'In the present case, when the appellant electronically copied a film from the VCD and stored the copy made on his computer's hard disk, he was "reproducing the work in [a] material form" as provided by section 23(2). The copy was an infringing copy since its making was an infringement of the copyright in the film, as stipulated by section 35(2). Each copy was also a copy in electronic form as it was only usable by electronic means. If it were to be further reproduced, the resultant electronic copies would also be infringing copies of the protected work.'[23]

Because the copy in the hard disk was already an infringing copy, any further copies reproduced from this copy would also be infringing copies.

(2) Positive or passive

Another distinction between distribution and making available to the public should be the positive degree. Although some argued that making available to the public contains positive meaning, it at least covers passive conduct. But distribution should involve some active steps. A question needed to be asked that to what extent of positive degree should be contained in the infringing act in order to satisfy the meaning of distribution. Both Canadian and Hong Kong courts still can not reach the same result. In *BMG* case, the court held that:

> 'The mere fact of placing a copy on a shared directory in a computer where that copy can be accessed via a P2P service does not amount to distribution. Before it constitutes distribution, there must be a positive act by the owner of the shared directory, such as sending or the copies or advertising that they are available for copying.' [24]

Therefore, most P2P uploading acts which are merely placing something into a shared folder can not satisfy the positive requirement of distribution act.

In *Chan Nai Ming* case, the court also held that 'Distribution' required some active elements:

> ' "Distribution" is not defined in the Ordinance and should be given its ordinary meaning.'
>
> '"Distribution" in its ordinary meaning, is clearly capable of encompassing a process in which the distributor **first takes necessary steps** to **make the item available** and the **recipient then takes steps of his own to obtain it.** A simple example involves distribution of soft drinks or other consumer items by means of coin-operated vending machines.'[25]

However, unlike *BMG* case, the Hong Kong court held that merely uploading

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[23] Id.
[24] *BMG*, supra note 7
[25] *Chan Nai Ming*, supra note 13

was enough to meet the requirement of 'positive' because 'distribution' is not a pure positive acts, instead, 'first takes necessary steps' is enough.[26] The steps taken to make copy available to the public are enough to positive act requirement of distribution. It means that the positive degree of making available to the public equals to the one in distribution.

However, it is hard to explain why Hong Kong introduced the right of making available to the public and also recognized that transient copy is traditional copy. Concerning the uploading act, it is difficult to draw a line between distribution and the making available to the public. When solving this unclear situation, the court in Hong Kong chose to protect the copyright owner at a highest level and impose the heaviest liability on the P2P users.

2. Liability of unauthorized downloading

In Taiwan, criminal liability covers the non-commercial infringement. *Kuro* case in Taiwan[27] is another P2P case imposing the criminal liability on the P2P users with regard to unauthorized downloading. The P2P user, Chen Jia Hui was convicted for his unauthorized downloading conduct which was held to constitute the meaning of 'reproduction'. The court referred to Article 91 Paragraph 2 of the 2003 Copyright Act[28] which provides that:

> 'A person who infringes on the economic rights of another person by means of reproducing the work without the intent to profit, where the number of copies reproduced exceeds five…shall be punished by imprisonment'.

The key issue in this case is that whether private and non-commercial downloading activity fell into the scope of fair use. Article 51 of Copyright Act provides:

> '**Within a reasonable scope**, where for nonprofit use by an individual or a family, a work that has been publicly released may be reproduced by a machine that is either located in a library or is not provided for public use.'[29]

And this reasonable scope can be determined by Article 65 as follows:

> 'Fair use of a work shall not constitute infringement on economic rights in the work. In determining whether the exploitation of a work complies with the provisions of Articles 44 through 63, or other conditions of fair use, all circumstances shall be taken into account, and in particular the following facts shall be noted as the basis for determination: 1. The purposes and nature of the exploitation, including whether such exploitation is **of a commercial nature** or is **for nonprofit educational purposes**. 2. The nature of the work. 3. **The amount and substantiality** of the portion exploited in relation to the work as a whole. 4. **Effect of the exploitation**

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[26] Id.
[27] *Kuro,* Taibei District Court, Decision No. 2146, Sep., 9th, 2005
[28] 2003 Copyright Act, http://db.lawbank.com.tw/Eng/FLAW/FLAWDAT01.asp?lsid=FL011264
[29] Id.

on the work's current and potential market value. '[30]

The court held that the purpose of P2P downloading was for non profit purpose, but can not be considered as 'for nonprofit educational purposes' because downloading songs were used for self entertainment in order to avoid paying the fees of purchasing new CDs. Therefore, it could be considered as 'of a commercial nature'. Moreover, a great amount of the unauthorized downloading clearly reduced the sales of the plaintiff, and caused an influence on the creative incentive of copyright owners and their exploration of the digital music downloading market.[31] Based on these two factors, the downloading activities did not constitute the fair use.

However, the process of evaluating the 'reasonable scope' is full of policy consideration without definite answer. Based on four factors of Article 61, it is not necessary to reach the conclusion that unauthorized downloading is definitely outside the scope of fair use. And there are no previous cases addressing the legal liability of P2P downloading in Tai Wan.[32] Therefore, it is lack of guideline for the public who can not be aware that unauthorized downloading is a criminal offence before the sentence of *Kuro* case. The law is unclear and it is up to the court to decide which interest it wants to protect. And this policy consideration could reach different results. For example, in *BMG* case, the court clearly stated that: 'downloading a song for personal use does not amount to infringement.'[33] And under copyright law in China, for the purpose of 'the user's own private study, research or self-entertainment', 'a work may be exploited without permission from, and without payment of remuneration to, the copyright owner.'[34] It is possible that some unauthorized downloading can be protected by the fair use exemption.

In Singapore, willful illegal downloading attracts criminal liability if the infringement is significant. In the US, criminal liability may occur where willful infringement is for the retail value of the downloaded material exceeds certain amount. In a word, once the limitation of criminal liability is not commercial purpose, but quantity requirement, it is possible to hold the P2P users criminal liable for their unauthorized uploading and downloading.[35]

3. Benefits and costs

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[30] Id.
[31] Kuro case
[32] 崔国斌，P2P 软件背后的版权责任认定——台湾飞行网案评析，*台湾元照《月旦民商法》* 2006 年第 11 期, available at: http://www.fengxiaoqingip.com/case/082056475.html
[33] *BMG*, supra note 7
[34] Article 22 of Copyright Law of the People's Republic of China, http://www.sipo.gov.cn/sipo_English/laws/relatedlaws/200204/t20020416_34754.htm
[35] Consultation paper in Hong Kong, http://www.cedb.gov.hk/citb/ehtml/pdf/consultation/Consultation_document.pdf

One question needed to be asked is that whether it is reasonable for the court to impose the heaviest liability on unauthorized uploading and to what extent it can effectively deter the piracy. This part will evaluate the benefits and costs of criminal liability.

(1) Benefits

A. Chilling effect

One of the considerations of Tai Wan court may be that since it is a difficult job to detect the unauthorized downloading, it has to enhance the pirate liability to ensure the certain level of piracy deterrence. It is the far-remote detection that calls for a chilling effect and justifies the introduction of harsh criminal sanctions. The public will not comply with the law once they perceive the fact that the probability of detection is minimal. A solution to this problem is to increase the punishment to achieve a chilling effect.[36]
However, it is the far-remote detection that destroys the chilling effect of piracy deterrence. Given the remote possibility of sever criminal sanctions, P2P users is unlikely to be scared off.[37] Fairly remote possibility of being sued makes the private users continue to pirate files.

As the rate of enforcement will certainly not be equal to 0%, the chilling effect does exist. It needs further investigation to struggle for the optimal position on determining how heavy the liability should be, based on the compare between the rate of the enforcement and the marginal chilling effect for marginal heavier liability. Empirical research regarding to particular situation in each country is needed to make a suitable decision on what punishment should be imposed.

General speaking, the rate of detection will be determined by two factors.[38] First factor is the invisible degree brought in by digital technology mentioned above. The development of detecting technology is of great influence on this result. The second factor is the enforcement efficiency of the government. Compared with situation in mainland China, Hong Kong has good efficiency on the intellectual property enforcement so that the detection rate in Hong Kong will be much higher than it in mainland China. And sometimes when policy, prosecutors and courts, which have the considerable discretion in legal application, view the criminal liability as disproportionate to culpability, they will be reluctant to enforce the criminal sanctions and find ways to circumvent conviction.[39] For example, although Hong Kong takes an extreme broad

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[36] R. Kagan, "On the Visibility of Income Tax Law Violations" in J. Roth and J. Scholz eds., *Taxpayer Compliance*, vol. 2 (Philadelphia: University of Pennsylvania Press, 1989); S. Shavell, "Criminal Law and the Optimal Use of Nonmonetary Sanctions as a Deterrent" (1985), 85 Colum. L. Rev. 1232 at 1246
[37] Steven Penney, CRIME, COPYRIGHT, AND THE DIGITAL AGE, *What Is a Crime? Defining Criminal Conduct in Contemporary Society,* (Vancouver: UBC Press, 2004), available at: http://ssrn.com/abstract=439960
[38] Id.
[39] N. Katyal, "Deterrence's Difficulty" (1997), 95 Mich. L. Rev. 2411 at 2451-52; J. Andreoni, "Reasonable Doubt

explanation on the scope of the exclusive right, few of P2P users have been prosecuted. And the government disregards the liability of the subsequent downloaders whose automatically uploading acts seems to be the same as the uploading conduct of the initial P2P uploaders, for the reason that the government may have the concern on serious result of putting the public into the prison. However, this indifferent attitude towards downloaders badly decreases the efficiency and effects of enforcement.

B. Education effect

Through indicating the minimum standards of behavior, criminal punishment has education effects which can change and shape the social norms.[40]

However, social norms are not determined by the criminal law.[41]There is a principle that the less gap between the criminal liability and the social norms, the better shaping effects that the criminal conviction can receive.

The broad piracy, which causes the loss of the sales, shows the evidence that the public do not consider the P2P unauthorized file sharing as a serious crime. Under the traditional criminal theory, the word 'felon' could only refer to the serious crimes, like murder and rape. Even in the US, the country with a high copyright protection level, there is no such a notion that unauthorized uploading and downloading is a serious crime which is against moral sense, as this file-sharing activity is a common and popular one among the public. One example is that one student may not feel uncomfortable about unauthorized uploading and downloading, by contrast, he/she may be upset by stealing some money because of the self discipline and conscience which has been built up since his/her childhood.

In the P2P situation, the fact is that most people are aware that the unauthorized file sharing is wrong, but not criminal serious wrong. Once it is criminalized, there are too many people bear the mark of conviction. When people perceive that many others are still engaging in the unauthorized file sharing, it is hard for them to establish the notion that P2P piracy is one type of felon.[42] In order to carry out the education effects, the government had better not take a big step from the existing law to enhance criminal liability.

(2) Costs: losing respect of the law

Professor Steven Penney stated that 'criminal law should not be used for

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and the Optimal Magnitude of Fines: Should the Penalty Fit the Crime?" (1991), 22 RAND J. Econ. 385

[40] K. Dau-Schmidt, "An Economic Analysis of the Criminal Law as a Preference-Shaping Policy," [1990] Duke L.J. 1.

[41] R. Ellickson, Order Without Law: How Neighbors Settle Disputes (Cambridge, Mass: Harvard University Press, 1991)

[42] D. Kahan, "Social Influence, Social Meaning, and Deterrence" (1997), 83 Va. L. Rev. 349 at 356-57

things most people reckon not really wrong or, if wrong, merely trivial.'[43] Without a culture to support the enforcement of this criminal liability, people will obey the law just for fears but not for truly recognition of this crime in their hearts. Lawrence Lessig pointed out that 'The more often, and more repeatedly, we as citizens experience violating the law, the less we respect the law.'[44] Citizen should be treated different from the felons. Otherwise, the law will lose its own respect among the citizens, and thus, result in a high cost of imposing the heavy criminal liability.

In a word, as the nature of criminal law, which involves serious punishment on the public, the government should not take a big step far away from the current culture. Broad piracy indicates that the current culture of the citizens does not regard unauthorized uploading and downloading as a serious crime. This culture shows the fact that serious punishment should not be imposed on this piracy, and the degree of the criminal punishment should be evaluated by the specific situation in the particular country. As Feinberg recognizes that as criminalization entails profound social cost, it should be used reluctantly and under full consideration.[45]

Therefore, it can draw to a conclusion that, as it is not reasonable to establish a wide gap between the criminal liability and the social norms, the deterrence effect of piracy by the criminalization is limited to certain level which can not totally prevent all piracy, and should be considered as just one solution working with other solutions together to deal with this piracy problem.

III. LIABILITY OF ISPs

As the difficulties of enforcement is to fight against all the direct infringers in a widely pirate scope, one of the practical solutions is to go against the producer of these technology, the ISPs. Under the incentive theory, the incentive to create new innovation is facing threat of the strong and unclear legal liability imposed on the ISPs. The subject of fashioning this indirect liability is to balance between the creative incentives of the copyright owner by protection and those of the technology innovation through limitation of liability.

The 'safe harbor' clauses in Digital Millennium Copyright Act of the United States and EU E-commerce and Copyright Directives are not applicable in P2P

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[43] Steven Penney, supra note 37
[44] Lawrence Lessig, supra note 8
[45] J. Feinberg, Doing and Deserving: Essays in the Theory of Responsibility (Princeton: Princeton University Press, 1970) at 98

service.[46] The law is struggling for a new type of liability which is suitable to achieve balance. In traditional theory, there are mainly four kinds of liabilities, contributory, vicarious, authorized and joint liabilities, relating to the ISPs.

In the US, traditional liabilities of ISPs are contributory liability and vicarious liability. Under the contributory liability, two requirements should be met. First, the ISPs should have 'Knowledge of the infringing activity'. Second, the ISPs should 'induces, causes, or materially contributes to the infringing conduct of another'. As for vicarious liability, the ISP should have the right and ability to supervise infringing activity and a direct financial interest in that infringement.[47] In the first generation of P2P, Napster, one P2P service provider, has central index server which contains the name list of the sharing content and assists the P2P users to search for files.[48] When Napster was held liable, new generation of P2P technology is developed to escape from these two liabilities. Grokster does not have the central index server and succeeds in providing only P2P software to their client without any searching help. Therefore, Grokster is lack of knowledge of the infringing activity or ability to supervise to supervise infringing activity. It can be observed that with the fast development of technology, the ability of ISPs to circumvent the law is rather strong.

However, the Supreme Court brought in a new liability, inducement liability. 'The distribution of a product can itself give rise to liability where evidence shows that the distributor intended and encouraged the product to be used to infringe.'[49]

In Anglo-commonwealth, authorization and joint tortfeasor liabilities are the two main types of liabilities for ISPs. Joint tortfeasor liability may not be able to catch the ISPs on the basis of lack of common design between the ISPs and P2P users because of the decentralized feature of new P2P technology. In Australia, authorization liability was applied to *KaZaa* case[50] whose decision resemblance to the one in US *Grokster* case is striking.[51]

Both the *Grokster* case and *KaZaa* case still leave some uncertainties and controversy in how to apply this inducement standard correctly. The recognition of the inducement is a matter of fact. In *Grokster and Streamcast* case, the court gave a broad interpretation on the standard of inducement:

> 'The question is under what circumstances the distributor of a product capable of both lawful and unlawful use is liable for acts of copyright

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[46] *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004,1022(2001)
[47] Id.
[48] Id.
[49] *METRO-GOLDWYN-MAYER STUDIOS INC. V.GROKSTER, LTD.* [2005] USSC 58 (27 June 2005), available at: http://www.worldlii.org//cgi-bin/disp.pl/us/cases/federal/USSC/2005/58.html?query=Grokster
[50] *Universal Music Australia Pty Ltd v Sharman License Holdings Ltd* [2005] FCA 1242.
[51] Jane C Ginsburg and Sam Ricketson, Inducers and Authorisers: A Comparison of the US Supreme Court's *Grokster* decision and the Australian Federal Court's *KaZaa* ruling, available at: http://ssrn.com/abstract=888928.

> infringement by third parties using the product. We hold that one who distributes a device **with the object of promoting its use to infringe copyright**, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties.'[52]

This unlawful objective of promoting infringement is testified by three factors as follows:

First, both Grokster and Kazza promoted the infringement-facilitating features of its service. The *Grokster* decision held that:

> 'each of the respondents showed itself to be **aiming to satisfy a known source of demand for copyright infringement**, the market comprising former Napster users. Respondents' efforts to supply services to former Napster users indicate a principal, if not exclusive, intent to bring about infringement.' [53]

The *KaZaa* decision is similar:

> 'Far from taking steps that are likely effectively to curtail copyright file-sharing, Sharman Networks and Altnet have included on the KaZaa website **exhortations to users to increase their file-sharing** and a webpage headed 'Join the Revolution' that criticises record companies for opposing peer-to-peer file-sharing. **They also sponsored a 'KaZaa Revolution' campaign attacking the record companies.** The revolutionary material does not expressly advocate the sharing of copyright files. However, to a young audience, and it seems that KaZaa users are predominantly young people, **the effect of this webpage would be to encourage visitors to think it 'cool' to defy the record companies by ignoring copyright constraints.'**[54]

The evidence to testify this intention includes both external and internal ones. The external ones in this case are the advertisements, e.g. 'Napster Inc. has announced that it will soon begin charging you a fee. That's if the courts don't order it shut down first. What will you do to get around it?'[55] It is feasible for the ISPs to avoid any external expression of inducement, as long as they take good care of their behavior in the public.

The internal ones are the private materials in the company which are not expressed out in the public, such as the Emails communication between the staffs of the company. The internal evidence in *KaZaa* is even stronger than the one in *Grokster*. The plaintiff spent plenty of time in going through Emails and materials inside the company to collect evidence to prove the intention of

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[52] Grokster, supra note 49
[53] Id.
[54] KaZaa, supra note 50
[55] Grokster, supra note 49

inducement.[56] It leads to uncertainty about the requirement of inducement. A question needed to be asked that which type of the standard should be adopted in the future legal application, induce or intent to induce. Once the materials which are not expressed are taken into account in testifying the intention of inducement, it will lead to a result that the copyright owners waste a lot of time in detecting the internal materials of the company. It is unnecessary and becomes a nightmare for the ISPs.

Second, the ISPs deliberately failed to take any filtering technology against the pirate content. The *Grokster* court held that 'neither respondent attempted to develop filtering tools or other mechanisms to diminish the infringing activity using their software.'[57] Filtering tools is technology protection which can eliminate the pirate activities to a small amount unless the technology is circumvented. And the *KaZaa* court defined that the filtering technology should be effective ones:

> 'despite the fact that the KaZaa website **contains warnings** against the sharing of copyright files, and an end user licence agreement under which users are made to agree not to infringe copyright, **it has long been obvious that those measures are ineffective to prevent**, or even substantially to curtail, copyright infringements by users. The respondents have long known that the KaZaa system is widely used for the sharing of copyright files'
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> 'There are technical measures … that would enable the respondents to curtail – although probably not totally to prevent – the sharing of copyright files. The respondents have not taken any action to implement those measures. It would be against their financial interest to do so.'[58]

Although adopting effective filtering technology is one consideration of evaluating the inducement, it is unclear that whether it is one of obligation needed to be fulfilled in the future. If yes, then the number of piracy will be definitely significantly decreased. It is possible to design some detecting and filtering technology which can effectively control the piracy tide.

Third, ISPs' business model earns profit from infringe usage. Grokster made 'money by selling advertising space, then by directing ads to the screens of computers employing their software. The more their software is used, the more ads are sent out and the greater the advertising revenue.'[59] And it is in the KaZaa's 'financial interest to maximise, not to minimise, music file-sharing. Advertising provides the bulk of the revenue earned by the KaZaa system, which revenue is shared between Sharman Networks and Altnet.'[60] The ISPs

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[56] KaZaa, supra note 50
[57] Grokster, supra note 49
[58] KaZaa, supra note 50
[59] Grokster, supra note 49
[60] Id.

could hardly escape from this feature for the reason that the motivation of ISPs to provide the software is to earn business profits. And it is inevitable that any of the distributing technology, like photocopy machines, always causes certain infringing acts, which compose part of the market demand for that kind of technology.

Under the incentive theory, it is not deemed to prevent every free ride on others' investment. For instance, 'Sony' test emphasizes that technology which is capable of substantial non-infringing uses can be exempted from liability. However, the meaning of 'substantial' is difficult to be defined clearly. Justice Ginsburg and Justice Breyer gave different interpretations on that meaning. Ginsburg considered that the evidence in *Grokster* was not sufficient to constitute the substantial non-infringing uses and brought in one question what evidence would have been sufficient to establish the existence of substantial non-infringing uses. However, Breyer gave his opinion that the evidence was enough, and described Judge Ginsburg's approach as too 'strict' one.[61]

'Distinct market' theory may be utilized to examine whether new technology is capable of substantial non-infringing uses. If P2P technologies can create new distinct market from the old product market, it means that some users are more inclined to purchase copyright products because P2P technologies allow them to share it with others. One factor which shows that the markets are distinct is independence of the price of the New Service from particular the old product. [62] To be specific, users value the P2P programs depending on the facilities with which they enable transfers of content in general, not for their ability to enable fast infringement speed.

However, in the inducement liability, the court does not have this consideration. It seems that any profits which come from the infringing uses should not be justified.

Ginsburg and Ricketson pointed out that, both *Grokster* and *KaZaa* cases seemed to establish the principle that 'neither was an innovator 'innocently' developing a new technology which might inevitably spawn infringements in its wake.'[63] Once the technology revenue involves the infringing use of the technology, producers should take certain effective steps, such as filtering and other mechanisms, to prevent and eliminate the piracy to a reasonable small scale, and they should be careful not to show their bad intention on promoting the infringement. Therefore, it seems to lead to a requirement that ISPs should take every possible and effective step, like monitoring and filtering technology, to prevent the piracy. This standard is much higher than the take down notice in the safe harbor. Although this kind of liability is still questionable that

[61] Grokster, supra note 49
[62] Supra note 9
[63] Ginsburg and Ricketson, supra note 51

whether it is suitable to impose such a heavy liability for ISPs, it does have certain deterrence effects on the broad piracy.

IV. ALTERNATIVE SOLUTIONS

Compulsory Licensing is another proposed solution requiring legal revision that unauthorized uploading and downloading become legitimate activities instead of infringement. Through relieving the public from the liability of unauthorized uploading and downloading for private and non-commercial use, compulsory licensing tries to impose a levy system for the purpose of providing compensatory royalties to copyright owners.

However, according P2P users compulsory licensing has some conflict against the current nature of copyright law. As discussed above, legalization of unauthorized downloading may be a reasonable step to revise the law. But it will bring in conflicts in current copyright law when legitimizing the unauthorized uploading. Under incentive theory, the nature of the compulsory licensing is mainly designed to lower the cost for recreation and social development, e.g. education or research. Self entertainment is not one justification of compulsory licensing. As Peter K.Yu addressed this conflict, 'compulsory licensing may create a culture that assumes everything should be licensed.'[64] Also, Jane Ginsburg expressed her concern: 'a generalization of the levy technique could lead to an even greater feeling on consumers' parts that they're entitled to copy and 'share' anything they want'[65]. As a result, it will create a wide scope of compulsory licensing which even ruins one excusive right of copyright owners to freely decide what manners they will give license to. The copyright owners will have inability to make a business plan to choose which party they want to cooperate with and lose the power to negotiate the terms of any contractual arrangement.[66] Compulsory licensing of unauthorized uploading and downloading causes great controversy and a big challenge to the traditional copyright law where balance has been built through a long historical test. Therefore, the law may be reluctant to recognize this compulsory license.

Moreover, it may not be practical feasible to execute compulsory licensing, an immature proposed solution which includes some practical difficulties, such as the 'difficulty in dividing the royalty pool; the lack of sufficient funds to compensate artists, songwriters, and copyright holders; the requirement that low-volume users subsidize copyright holders and high-volume users'.[67] As Peter K.Yu pointed out, first, compulsory licensing will lead to an unfair and

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[64] Peter K. Yu, supra note 2
[65] Id.
[66] *A&M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004,1022(2001)
[67] Peter K.Yu, supra note 12

disproportional result in dividing the royalty among the copyright owners because of lack of accurate monitoring technology.[68] Second, the government may not have the capacity of determining the reasonable amount of the levy fees.[69] Too heavy fees will result in the chilling effects on the technology innovation as there would be no consumers willing to purchase this innovation, while too light fees will lead to insufficient compensation of copyright owners and still discourage the creative incentive of them. As the compulsory licensing eliminates the free market choice, without the help of the market, it is difficult for the government to determine an optimized levy fees on its own. Third, it will lead to an unfair result that low-volume users subsidize copyright holders and high-volume users.[70] There is a requirement that a levy should be imposed on all the distributing devices, otherwise, it would be meaningless to bring in this levy system, because customers are able to use free levy device to escape from charge. The levy price is integrated into the whole price of the device purchased by the consumers. On purchasing the device, every consumer should pay the same levy price because there is no way to determine how often they will use this device to share the copyrighted works after purchasing it.

As a result of these practical difficulties, the copyright owners may not consider compulsory licensing as a best choice. And as discussed above, the legal liabilities of P2P users and ISPs do have some deterrence effects on the piracy, the copyright owner thus may not be willing to give up their rights and turn to the compulsory licensing. It should be up to the copyright owners to decide what solutions they would like to take, pursuing liabilities of P2P users and ISPs or taking the licensing levy system.

This paper supports that voluntary collective licensing solution should be introduced first, and give the copyright owners the free choice of solutions.
Voluntary collective licensing is that copyright owners jointly give licensing to P2P users or ISPs on condition that the copyright owners can receive negotiated license fees.[71] First, different from the compulsory licensing, voluntary collective licensing does not have to solve the theoretical conflicts in copyright law for the reason that it does not require any modification of the existing copyright law. Second, faced with the some similar practical difficulties with the compulsory licensing, voluntary collective licensing can serve as a good example for executing the compulsory licensing. Third, voluntary collective licensing will leave the market to decide the relevant issues, like levy fees and licensing manner. Although it may be expensive to execute this solution because of the fact that not every copyright holders and P2P users

[68] Id.
[69] Id.
[70] Id.
[71] Meghan Dougherty, VOLUNTARY COLLECTIVE LICENSING: THE SOLUTION TO THE MUSIC INDUSTRY'S FILE SHARING CRISIS?, *Journal of Intellectual Property Law Association, Journal of Intellectual Property Law,* 13 J. Intell. Prop. L. 405, Spring, 2006

and ISPs are willing to join in, it will give them free choice to decide based on the market principle. They will probably join in voluntary collective licensing if the cost of litigation is higher than the one in this collective licensing. Moreover, there is a historical case, the broadcasting licensing, succeeding in this type of licensing when dealing with piracy of distributing technology.[72] 'Copyright holders could get together to offer their music in an easy-to-pay, all-you-can-eat set. We could get there without the need for changes to copyright law and with minimal government intervention.'[73]

CONCLUSION

One justification for copyright protection is to prevent others from free riding on the copyright owners' efforts invested in the creative process for the sake of encouraging the creative incentive. Fast and broad piracy may serious lower the income of sales in creative industries which result in a depression on their creative incentives. But it is not deemed to result in imposing heavier liabilities of infringers. Each of the proposed solutions analyzed above has its own benefits and limitations, a set of combined solutions with variety of characteristics should be selected by particular country based on its specific situation. As for the criminal liability of P2P users, the government should not impose serious punishment without support of the current culture. With regard to liability of ISPs, the law should hold a clear attitude to keep ISPs from the uncertain risk of being sued, and the incentive of innovation should be protected from overwhelmed liability. Alternative solution, compulsory licensing, may be too immature to be executed at this current stage, and voluntary collective licensing should be introduced first to give the creative industries the free choice on the selection of the solutions.

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[72] Electronic Frontier Foundation, A Better Way Forward: Voluntary Collective Licensing of Music File Sharing "Let the Music Play" White Paper (Feb. 2004), http://www.eff.org/share/collective lic wp.pdf.

[73] Id.