

International Business Law: Intellectual Property Rights



Are the social benefits of Intellectual Property Rights commensurate with their costs?

Joseph Lynn MBA4 London, A4006828





i



Section One	To be completed by the student	Please tick as appropriate							
Name (s) Joseph Lynn		MBA FT		MIB		Undergrad	duate		
		MBA PT	Х	MSc		Diploma		Certificate	
	Specialization Management Consulting								
			Intake n Cohort 4						
Student ID Number (s) A4006828			Grenoble Main Campus \Box Off site (state which one) X						
Subject International Business Law		London							
Assignment X	Oral Presentation Exam								
Title Are the social benefits of Intellectual Property Rights commensurate with their costs?									
I hereby declare that the attached assignment is my own work and understand that if I am suspected of plagiarism or other form of cheating; my work will be referred to the Disciplinary Committee which may result in my exclusion from the program.									
Signature Joseph Lynn			Date 01-02-2009						
Signature Joseph	Lynn	Date 01-0	2-2009	9					

Section Two To be completed by the Professor I lecturer

Note below your comments on content, structure and presentation. Comments on specific points should be written on the assignment. Enter grade out of **20** on the bottom of this page. Please indicate whether this is a first or a second grading.

□ First grading…□ Second grading

Professor's name		GRADE
Signature		
Date received	Date returned to student	

Joseph Lynn

London School of Business & Finance

Contents	Page
Contents	ii
Introduction	1
Market Dynamics	1
Utilitarian Ethic	2
Copyright Terms Extension	3
Natural Rights	4
"Jefferson Warning"	5
Disclosure	5
Tragedy of the Anti-Commons	6
Extensions to Patent Rights	7
Ethics of Patentable Subject Matter	8
"Sony Axiom"	9
Intangible rights overriding tangible rights	10
Intellectual Property Rights Reforms	11
Conclusion	14
Bibliography	I

London School of Business & Finance



A4006828 Graduate School of

Introduction

Copyrights and patents have been a mainstay of legal systems around the world from before the Paris and Berne Conventions in the late 19th century. They allow creators and innovators to enjoy state sanctioned monopolies in order to claim remuneration for their contributions to society. As we move into the knowledge economy, new digital technologies are reducing the marginal cost of distribution of copyrighted media and hi-tech innovation is becoming ever more central to our lives. In a response to this threat, International legal consensus has tended towards increasing Intellectual Property Rights (IPR) shoring up the protection of rights holders. As the scope of legal systems of IPR have expanded, legal academics, economists and political commentators have begun to question whether the social contract between state and creator is equally balanced. There are two main arguments for the current IPR framework. The first argues that from a utilitarian conceit, the best interests of society are served by incentivising creation through applying property rights to intellectual property (IP). The other states that a creator has a natural right to the fruits of their work, based on Lockean labour theory of property (Palmer, 1990). This paper will address these two arguments for IPR through analysis of the development of the legal framework, relevant case studies and laws, along with evidence of the changes in the technological, social and cultural context. The paper will then consider alternative systems to the current IPR regimes and will conclude with a discussion of the long-term viability of these potential systems.

Market Dynamics

One of the main rationales for IPR is that in order to build a society with a thriving culture and an innovative economy, there should be incentives to create great works or share inventions with society (Boyle, 2008). A market economy allows decentralisation of decision-making on which goods and services to provide based on demand characteristics of the populace. In the case of IP, creations can be neither "exclusive" nor "rival"; once a book has been written, with the digital technology available today, it can be easily and cheaply copied and shared. The cost of reproduction tends towards a negligible amount making it essentially "non-rival", whilst excluding others from accessing digital





information is becoming increasingly difficult. Where goods are expensive to make, but cheap to copy, there is a high possibility of market failure because the costs of initial creation are







Joseph Lynn



absorbed by one party, whilst a third party can reproduce the design for a much lower marginal cost. IPR in this case become a "market-making" mechanism whereby the state confers a monopolistic right to the creator or inventor to exclude others from the invention or their specific forms of expression. This enables them to charge for privilege of accessing the creation. Through these social constructions, copyright enables people to risk their time and energy to explore the possibilities of creation and potentially be rewarded for their efforts by excluding others from most uses of their creation, whilst simultaneously decentralising the choices of cultural content to the consumers of content themselves. Patents offer a similar social contract that allows entrepreneurs to take on the risks of time and capital in order to solve a particular issue that affects society and, assuming it meets the criterion for patentable subject matter, trade disclosure of the invention to society for a state endorsed monopoly over its use. This has the effect of decentralising the information processing of market-need to business savvy individuals. Through these two market-making forces, creativity and

innovation should thrive, incentivising people to leverage their unique skills to the benefit of both themselves and society.

Utilitarian Ethic

This utilitarian ethical justification, focusing on the interrelation between the economy and society, underlies much of the legislative framework around IPR, and many people appear to believe that the current system or indeed, one with stronger rights serves this





purpose (Dickinson, 2000; Rivette & Kline, 2000; Choate, 2005; EC, 2008; Fig. 1). This is evident in the current proposal by the EC of extending copyright for musical creations from 50 to 95 years, claims for stronger governmental enforcement of copyrights, and strong-arm intimidatory tactics by the Recording Industry Association of America (RIAA) to sue alleged infringers for damages (Choate, 2005; EC, 2008; EFF, 2008). The EC proposal to extend copyright follows the 1998 Sonny Bono Act in the US. This act extended copyright terms

"A handful of industries create much of the intellectual property that drives the majority of economic innovation" – Shapiro and Pham (2007) beyond life of the author plus 50 years, as mandated by the Copyright Act of 1976, in harmonisation with the Berne Convention, to the life of the author plus 70 years (Fig. 2).

Similarly, Shapiro and Pham (2007) found that the majority of economic innovation was driven by IP generated by a few core industries. Their research suggested that IP-intensive industries produce

disproportionate economic benefits compared to non-IP-intensive industries, and contribute more to the competitive advantage of the nation. They conclude that policymakers should emphasise protection of IPR to retain innovative positioning.



GRENOBLE ECOLE DE ECOLE DE Business



Joseph Lynn

Furthermore, Rivette and Kline (2000) wax lyrical about the financial performance enhancements and profit-making strategies that businesses can employ through liberal deployment of patent protection of intellectual assets. They espouse achieving competitive advantage in the market through proprietary ownership of technologies; building "patent walls" around products to lock potential competitors out and leveraging unused patents for licensing revenue streams and attracting investment. They also recommend outflanking rivals through wily acquisitions of patent portfolios and, somewhat ironically, almost as an afterthought, exploiting new market opportunities. Their breathless reporting of a 3300% increase in patent licensing revenues in IBM from \$30million to \$1billion shows that IPR create wealth for the economy, suggesting that there are societal benefits from these state endorsed monopolies. These tactical uses of IPR, whilst no doubt good for company shareholders, do not necessarily show that these benefits are proportionate to the costs. For example, forming a patent wall around a product to lock out other competitors, does not inevitably lead to improved innovation, but rather a stagnant market, devoid of competition. Furthermore, when the espoused driver of patents is increased innovation, the fact that exploiting new market opportunities is offered almost as a last resort, suggests that the system is not functioning efficiently and may be more costly than beneficial to society.

Copyright Terms Extension

"An aggressive intellectual-property effort boosted annual patent-licensing royalties a phenomenal 3,300%" Rivette & Kline (2000)

The arguments of the staunchest proponents of the social benefits of IPR suffer from logical fallacies (Boyle, 2008). Industry lobbyists and defenders of copyright within the EC argue for an extension of the terms of copyright for musicians based on several propositions: to recoup investment in production, to recoup investment in new talent and to provide incentives to maintain and distribute (Helberger et al, 2008). A report commissioned by the EC systematically discredited these arguments. A CD generally recoups the costs of production within the first years after release and investment in new talent tends to be a minor (2%) cost of the total revenue. Moreover, they found that extending the term to incentivise production and distribution is untenable, for three reasons. Firstly, retroactive extension cannot possibly incentivise creation since the works already exist. Secondly, very few recordings generate wealth after 50 years copyright; indeed, estimates suggest that 80% of performers will only receive between \$0.50 and \$30 annually from the extension, hardly likely to inspire creativity 50 years earlier (Open Rights Group, 2008). Finally, and most importantly, this extends the length of time before the works enter into the public domain and are available for public consumption. Up to 95% of the back catalogue is no longer commercially available, and is therefore unavailable to the public. Locking society out of access stifles musical and cultural development and media content creation. Helberger et al (2008) also pointed out that there would be costs to consumers through higher prices, to competition and innovation through reduced investigation into alternative business models and for society in a reduced public domain. Ironically, in this way, it achieves the exact opposite of its intended purpose.





"It is good that authors should be remunerated; and the least exceptionable way of remunerating them is by a monopoly, Yet monopoly is an evil. For the sake of the good we must submit to the evil; but the evil ought not to last a day longer than is necessary for the purpose of securing the good." Macaulay (1841)

Joseph Lynn

London School of Business & Finance

> Macaulay (1841) argued against an extension of copyright terms for authors based on a similar complaint. He saw only two ways of rewarding authors for their works, patronage and copyright. Since patronage essentially devolves decision-making regarding content to the hands of the wealthy and removes literary independence, Macaulay felt it was an unacceptable option. In preference, he supported the monopoly in copyright to be sustained for only as long as necessary to secure the advancement in culture. From the existence of great works prior to these extensions, it is clear that creators were compensated enough for society to benefit from their genius. Whilst Macaulay won in the Houses of Commons, blocking the extension, since then, IPR have been consistently extended, and now, the EC have chosen to disregard the findings of their

experts, proposing the extension to music copyright, arguing based on a moral, natural rights case (Anderson, 2008).

Natural Rights

Kinsella (2001) addresses the natural rights case for IPR from a Libertarian ethical perspective. Much of the underlying ethical framework for our legislature of property rights

derives from Lockean philosophies of property (Dykes, 1995). To Locke, through the process of labouring to acquire or "homestead" a resource, an individual becomes its owner (Palmer, 1990). The act of creation of a work of art or an invention is the only contribution that adds to the available wealth, rather than utilising existing resources and, through labour, converting them into a more useful form. Diderot (cited in Boyle, 2008) argued that for this reason, and the investment of human spirit that

"He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me." (Jefferson, 1813)

expression requires, IPR should be stronger than tangible property rights. It was from this emphasis on means of expression that formed the French *droit d'auteur* forms of copyright that were influential in the ideology of the Berne Convention (Boyle, 2008).

Helprin (2007) argued on this basis that IPR should be perpetual. He felt that since a great idea is continually socially useful, the rights should last forever too. However, it would seem to be unfair to tangible labourers that intellectual labourers are able to receive pay from their works ad infinitum whilst others are only paid for their time. Furthermore, focusing IPR on creation ignores the issue of scarcity and conflict in property rights (Kinsella, 2001). Property rights exist to avoid conflict, and must be "visible" and "just" in order to be effective in their goals. In a situation such as copyright, since one party's use does not exclude another party's use, the resource is not economically scarce, and so there should be no issue of conflict over it. Moreover, labouring on a resource belonging to a third party to create a more useful resource is not sufficient to institute ownership, so basing IPR on creation and the natural rights of creators is not "just" and could lead to more conflict, incurring cost to society.







"Jefferson Warning"

Jefferson (1813) highlighted the delicate balance between the social costs and benefits of IPR in a letter often seen as one of the foundations for patent law in the US. He stated that society conferring property rights on inventors beyond those of tangible property creates several benefits, but also potential problems. Boyle (2008, p.21) deconstructs this missive into "The Jefferson Warning". This corollary makes 5 points. Firstly, IP is by nature different to tangible property. Secondly, there is no "entitlement" to "That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been... designed by nature... Inventions then cannot, in nature, be a subject of property." (Jefferson, 1813)

IPR – it is "a gift of social law". Thirdly, IPR should be time-bound, lasting only long enough to encourage innovation. Fourthly, monopolies based on IPR hold significant societal dangers and could produce "more embarrassment than advantage". Finally, building a system of IPR is the first choice in a long series. It is necessary to consider the Jefferson Warning when assessing the costs and benefits of any system of IPR.

Disclosure

One of the social benefits of patents is the "quid pro quo" proliferation of information through disclosure of new inventions (Roin, 2005). However, there is evidence that due to changes in the IPR system, the patent database is rarely a source for new ideas. Roin (2005) provides evidence that the three main claims for the social benefits of disclosure are flawed. These claims are that information that would remain secret is disclosed through patents, that innovators read through patents to find new ideas and that innovators can find valuable information in the database. To address the first claim, he argues that the economic incentive to patent is strongest for an easily reverse-engineered innovation, where disclosure does not benefit society since access to the technology would come from the process of the release of the innovation. He also points out that in cases where reverse engineering is difficult they also tend to be the cases where infringement is difficult to detect, so there would be little reason to register the patent. Furthermore, he argues that innovators are restricted from reading patents for R&D cross-fertilisation due to wilful infringement rules. The Federal Circuit is likely to impose punitive damages when a defendant had notice of the infringed patent rights, so for many innovators, the risks involved in searching through patents is not worth the potential benefits. Finally, Roin mentions 3 reasons why reading the patent database tends not to offer useful information, but the most pertinent of these is that rather than focusing on the clarity of the writing, patents are often written in a style aimed to cover as much breadth as possible. If interpreted using the Jefferson Warning, it appears that the balance of the social contract is reliant on the benefits offered by disclosure. In that case, many patents have been more of an embarrassment than a boon, and the ethical groundings for IPR are under threat.





"In an anticommons... multiple owners are each endowed with the right

to exclude others from a scarce resource, and no

one has an effective

privilege of use."

(Heller, 1998)



Tragedy of the Anti-Commons

Joseph Lynn

London School of Business & Finance

> As stated earlier, the other commonly cited economic justification for the patent system is that it incentivises enhanced innovation (Boyle, 2008). The US Constitution (1787) empowers Congress "to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective

Writings and Discoveries". It is presumed that a patent holder will contribute to society through increased innovation based on the right that has been conferred. However, there is evidence that as the proliferation of patents increases, and the restrictions on patentable subject matter weaken, rather than enhancing, patents may be hindering innovation. Heller (1998) coined the phrase "Tragedy of the Anti-Commons" to describe a situation where too many parties have claims to a property right over a shared resource. Economic theory had long considered that resources in the public domain would be over-utilised in an unsustainable fashion; "The Tragedy of the Commons" (Hardin, 1968). Heller (1998) saw that the converse was true in Moscow where dissolution of Socialist rule left many parties with control over commercial access to shop fronts, which led to many properties remaining unoccupied. He extended this concept into IPR with the rights of diverse parties controlling patents in biomedical having the potential to deter innovation (Heller & Eisenberg, 1998). Pharmaceutical research is often considered one of the best cases for patents (Boldrin & Levine, 2008). Due to the high fixed costs of innovation, estimated to be up to \$800million per drug, and the relative ease with which the final product can be reverse engineered, there is a need to ensure continued innovation in the biomedical sphere by protecting developers from loss of revenue to generic providers through IPR. However, Heller & Eisenberg (1998) states that increased proliferation of patent applications in the field could block future research opportunities. One example is patent applications for newly identified DNA sequences in the human genome. It is plausible that an anti-common could form as the number of patented gene fragments increase and therapies requiring access to multiple fragments also increases. This could lead to blocking of development opportunities for treatments by one or more parties demanding higher license charges higher than the funds available. This is more likely to happen due to cognitive biases suggesting any owner would overestimate the possibility that their patent will be central to any advancement, increasing the likelihood that they would overvalue, and overcharge for it.

Another development in biomedical patent licensing is the advent of reach-through license agreements (RTLA) on research tools (Heller & Einsenberg, 1998). RTLA are applied to development tools extending property rights into the subsequent discoveries. They can take the form of royalties, exclusive or non-exclusive licenses or and option to acquire such a license. There could be a situation where a development, based on several different research tools, would be "owned" by several parties, all with a right to block release. DuPont Corporation's "oncomouse" was licensed on terms that require licensees to submit new







London School of Business & Finance discoveries resulting from the use of the genetically engineered mouse to DuPont for

Joseph Lynn

approval. This license creep would potentially give DuPont property rights over any advances that were developed, which could form an economically inefficient anti-common. From these fears of growing anti-commons, there is evidence that the current patent system may not be serving its economic purpose of supporting innovation. Boldrin and Levine (2008) support this with findings from the British Medical Journal which states that of the 15

discoveries regarded as the most fundamental milestones in medicine, only 2 were linked to patents.

Extensions to Patent Rights

"Patent offices throughout the world are not accustomed to rejecting applications. They are clearinghouses for patents, granting up to 100,00 patents a year of which only 100 to 200 may get litigated." (Cohen, 1998)

These RTLA are exemplary of the ongoing extension of IPR, alongside a proliferation of patent applications and a concurrent weakening of patentable

subject matter exclusions (Boyle, 2008). The criterion for whether an invention is patentable is that it must be novel, and there must be no "prior art". It must also be non-obvious to a person skilled in the art (US) or requiring an inventive step (EU), useful (US) or susceptible to industrial application (EU) and it must be of patentable subject matter. In recent years there have been patents awarded for applications that appear to break both the non-obvious and novel criterion. As an example, the US Patent and Trademark Office (USPTO) awarded patents 5443036, 6505576, 6557495, 6651591, 6701872, all of which are issued for exercising a pet by enticing it to chase a laser point on the floor (FreePatentsOnline, 2009). Aside from the obviousness of these patents, they were all predated by prior art in a 1982 book that proposed using a torch to amuse a cat. Cohen (1998) points out that patent offices are clearing houses for patents applications and tend to reject very few. Whilst poor quality patents such as these are not much cause for concern since, if the monopolies were leveraged it is unlikely they would be upheld in court, they suggest a systemic problem with the patent system. Patent offices are supported by fees for licensing, so they have a conflict of interest when considering whether to accept the application. More importantly, if simple patents such as these are awarded, then it raises questions about more complex applications with a wider-ranging impact on innovation.

Throughout the history of patent law, there has been a systematic widening of the definition of invention and patentability (Fisher, 1999). Software patents have been exemplary of this

"The words "by means of a computer" are - in the eyes of the Federal **Circuit - an incantation** of magical power, able to transubstantiate the ideas and formulae of the public domain into private property." (Boyle, 2008)

expansion in recent years. In the EU, Article 52 (2) (c) specifically excludes "programs for computers" from patentable inventions, and although in 2005 there was an attempt to pass software patents through the European Parliament, it failed (BBC, 2005; European Patent Office, 2007). In the US, there was no exclusion and after several landmark cases, software patents became a reality.

One of the first such cases was Diamond v. Diehr, 450 US 175 (1981) whereby the respondents filed an application for a patent on a process for





Joseph Lynn

GRENOBLE ECOLE DE ECOLE DE Business

curing rubber using a mathematical algorithm implemented through a computer. The patent examiner rejected it as unpatentable subject matter under 35 USC 101, based on the precedent of Gottschalk v. Benson, 409 US 63 (1972) which determined that the patent of a software implementation of an algorithm would be tantamount to a patent, and therefore, control over the algorithm itself. The Court of Customs and Patent Appeals reversed the decision to reject arguing that an invention involving a computer did not become unpatentable due to the involvement of a computer. This was upheld by the US Supreme Court on the basis that if the invention involves "transforming or reducing an article to a different state or thing", it is eligible subject matter.

This decision was followed by State Street Bank & Trust Co. v. Signature Financial Group, Inc. 149 F.3d 1368 (1998), which provided a precedent for patentability of business methods. In State Street Bank, a patent was granted for a data processing model since it produces "a useful, concrete and tangible result". Although, after this ruling, the Head of USPTO claimed that you could not patent your business model, it was seen as allowing patents of specific ways of doing business (Dickinson, 2000). Following this decision, there was a massive growth in the number of software patents awarded, and the USPTO has begun to allow almost any non-obvious, novel software patent (Fisher, 1999; Figure 3). If these patents were used to enhance innovation, this increase in the number of patents would not necessarily be a concern. However, there is evidence that rather than being a tool spurring innovation, they are used as to stifle innovation in competitors, through "patent walls" and threats of potential

infringement (Rivette & Kline, 2000; Parloff, 2007; Red Hat, 2008). One example of this is the growth of "Patent Sharks" (Henkel & Reitzig, 2008). Patent sharks are firms that keep their IP hidden in order to sue for damages when their IPR are inadvertently infringed. They tend not to invest in developing their IP, and instead, just sue for damages when another company infringes. The economy as a whole does not benefit from these sharks, as viable, innovative businesses can be slowed down or become bankrupt through this process.



Ethics of Patentable Subject Matter

Figure 3 - US Patents on Computer **Implemented Inventions** (Source: Nowotarski, 2006)

Kinsella (2001) analysed the ethical grounding for the arbitrary division between what constitutes patentable subject matter. From a utilitarian perspective, although "creations" can be patented, it is necessary to ensure that "discoveries" such as mathematical algorithms and scientific truths are available in the public domain or the information-driven world of commerce would cease to function. However, there is no such clear reasoning when arguing for an IPR framework based on a natural rights approach. If one idea is subject to ownership and property rights, then from a libertarian standpoint all ideas should be subject to







ownership. Even if it is assumed that the distinction between "creation" and "discovery" is valid, there are difficulties in assessing the difference, as Diamond v. Diehr demonstrates. The only way to avoid the difficulties of this arbitrary distinction whilst retaining property rights is to allow all IP is subject to property rights. Contemplating this possibility for a moment, it is clear that this would inevitably lead to a Tragedy of the Anti-Commons.

"Sony Axiom"

There has been a congruent extension in the rights of copyright holders, with a reduction of the right to "fair use" and corresponding increasing in enforcement of IPR against infringers (Boyle, 2008). The right to fair use is defined in the Copyright Act of 1976, 17 USC § 107 as a limitation on exclusive rights. It provides provisions for reproduction "for purposes such

"Sony Axiom: Without those limitations, copyright law will bloat and metastasize into a claim of monopoly, or at least control, over the very architectures of our communications technology." (Boyle, 2008)

as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research" as exceptions to copyright. In Sony Corp. of America v. Universal City Studios, Inc., 464 US 417 (1984), Sony was sued for liability for potential copyright infringement through use of their invention the Betamax video recorder. In the District Court Sony won based on the decision that non-commercial home use was not infringement under the doctrine of fair use. The US Court of Appeals for the Ninth Circuit (USCANC) reversed the decision, arguing that Sony was liable for contributory infringement, since it considered that Betamax's main purpose was copying. The Supreme Court overruled the USCANC that copying with the Betamax was fair use, since "private non-commercial time-shifting in the home" was legitimately excluded from copyright infringement and there were substantial non-infringing purposes. The Supreme Court also pointed out that the logic of the argument against Sony would suggest that the copyright holder's rights of ownership would extend to control over any technology that could be used to infringe copyright, which would clearly be against the best interests of society. Boyle (2008) calls this decision the "Sony Axiom"; as technology for cheaper copying becomes more readily available limitations on copyright

"It seems extraordinary to suggest that the **Copyright Act confers** upon all copyright owners collectively... the exclusive right to distribute [Video Tape **Recorders**] simply because they may be used to infringe copyrights. That, however, is the logical implication of their claim." (Justice Stevens, 464 US 417, 1984)

become more important or it could extend to copyright holders having control over innovative new technologies.

In the case of A&M Records, Inc. v. Napster, Inc. 239 F. 3d 1004 (2001), the defendant, manufacturer of new digital peer-to-peer file sharing technology which had the potential to be used for copyright infringement, and the plaintiff was claiming for contributory infringement. Since this example appeared to fit the Sony precedent, where the technology had substantial non-infringing purposes, including providing a forum for new artists to advertise their work, Napster could not be considered to be infringing. Their second argument was that since the file sharing was "private, non-commercial" copying it must be allowed under fair use, as prescribed by the Sony case. The court disagreed, arguing that since

GRENOBLE ECOLE DE ECOLE DE Business



Joseph Lynn

there was evidence that Napster knew that their users were infringing copyright, and through redefining "commercial" not as "for a profit", but as whether the consumer of the copy received it for free. This argument seems to fly in the face of the ethical drivers of exclusions for fair use from the government supported monopoly (Boyle, 2008).

In the case of MGM Studios, Inc. v. Grokster, Ltd. 545 US 913 (2005), there was a new peerto-peer file sharing technology which was decentralised so that the defendant did not know what files were being shared, thus they could not be held liable for infringement based on the Napster case. The Supreme Court overruled the previous decisions of the USCANC and the District Court that they were not liable, arguing that they were liable for copyright infringement based on evidence that they had "intended to induce copyright violation" since they advertised

themselves as alternatives to the services of Napster, which was well known for trading in illicit material (Boyle, 2008).

Intangible rights overriding tangible rights

These extensions of copyright, systematically reducing the public domain rights of fair use, and concurrently increasing the rights of private ownership of IP have an impact on the freedom to innovate in communications technologies. Rather than achieving the goal of enhancing cultural creations, copyright was used to limit innovation and The argument of the DMCA is that : "As copying costs approach zero, intellectual property rights must approach perfect control. We must strengthen the rights, lengthen the term of the rights, increase the penalties, and make noncommercial illicit copying a crime." (Boyle, 2008)

invention, in direct contrast with the goals of IPR. Since these new technologies were aborted due to fears of copyright holders, the opportunities that they offered were not exploited to the full. Had Universal Studios won in the Sony case, they would have foregone the massive revenues that they achieved through video sales following the decision. In general, as each new technology has made copying more available to consumers, moving from printing presses to photocopiers, to video recorders, to computers, to the internet, copyright holders have lobbied to increase their ownership rights moving their intended targets from industrial reproduction to more consumer-based copying. The Digital Millennium Copyright Act (DMCA) provided extensions to the rights of owners rather than consider the cost of losses from the public domain (Boyle, 2008). Similarly, rather than see innovation as an opportunity and attempt to exploit the revenue making potential of tools like Napster and Grokster, instead the incumbent organisations saw them as a threat and used legalisation to block the development of the technology and the market. It is difficult to argue that this use of copyright, ostensibly a tool to incentivise cultural development was in the best economic interests of society. Considering this interpretation of the reach of IPR, the rights of control that are conferred to the owner of intangible rights are beyond those of tangible ownership (Kinsella, 2001). A copyright holder has a state endorsed monopoly over a particular form of expression, but it is unreasonable to expect a third party not to perform certain acts upon their own property. In the case of tangible property, ownership conveys the right to use that property as is seen fit, assuming that this act does not violate the rights of others. However, IPR puts arbitrary limits



GRENOBLE ECOLE DE MANUACE DE AL



Joseph Lynn

on the rights of use of a particular property. As Palmer (1990) points out, the argument for ownership of IP relies on emphasising the right to self-ownership, but has the consequential effect of limiting what others can do with resources that they own "morally and legally". To apply an argument of *reductio ad absurdum*, a party could be limited in the actions they could perform with their own body if a third party owned the IP of a particular dance or athletic manoeuvre (Fisher, 1999). These rights, and those which lead to claims of logical control of a form of technology, do not respect the moral rights of tangible property holders, nor do they recognise the social contract that IPR are awarded as a "gift of social law".

These analyses lead to the conclusion that the balance of social cost to benefit has become skewed in favour of the IPR holders. The question arises from this interpretation, what can be done to resolve this situation?

Intellectual Property Rights Reforms

There are clear issues with the current system of IPR. Opinions on potential improvements to the system will depend on perspective. Organisations such as the RIAA feel that stronger rights and tougher enforcement would improve their situation, whilst economists may have a different opinion. Rivette & Kline (2000) recommend that businesses audit their patent portfolio and build patent walls to act as a competitive weapon to maximise their profit-making potential. This suggestion may increase licensing revenues, but could lead to reduced innovation for society overall due to the Tragedy of the Anti-Commons.

Anand and Galetovic (2004) propose that rather than leverage IPR, businesses develop "market smarts" to protect their IP. They recommend market strategies that range from out innovating competition through bundling complementary products with IP assets to redefining the business model by reallocating resources to best deal with the threat. It could be suggested that the RIAA's desperate and indiscriminate suing of their own customers demonstrates a failure to adapt to changes in the technological environment and rethink their business model whilst continuing to cling to a dying business model.

A more socially responsible way to address the issue is to build patent pools for crosslicensing initiatives (Heller & Eisenberg, 1998). Where multiple rights have been necessary to

"Copyleft says that anyone who redistributes the software, with or without changes, must pass along the freedom to further copy and change it. Copyleft guarantees that every user has freedom." (Stallman. 2002) develop new products, patent pools have tended to develop, so that innovations can continue. However, this solution only benefits those organisations that are willing and able to contribute to the pool. New companies who do not have access to patents may not have the leverage to join the pool, and so may be locked out of accessing the technology, reducing the total innovation for society. Indeed, some organisations stockpile patents to protect themselves against patent aggression, whilst offering promises not to enforce them against infringers (Red Hat, 2008).





Open source copyleft licenses are another way to address the failure of the IP system to encourage innovation. The most widely used open source license is the General Public License (GPL). The GPL is designed to ensure that users have the freedom "to distribute copies of free software... that [they] receive source code... that [they] can change the software... and that [they] know [they] can do these things" (FSF, 2007). These freedoms come at the price of protecting these freedoms for others meaning that a party who wishes to utilise the right to modify and distribute provided by the license, must also distribute or make available the source code with the program. Through this reciprocal license, there is a thriving community of open source developers, who have deliberately given up their rights to exclude others in exchange for the benefits that they gain from sharing their IP. Linux is one of the most well known projects under the GPL, and it has become the core technology of world leading brands such as Google, Facebook and IBM. The success of Linux and other open source projects provide evidence that IPR in the form of patents and monopolistic exclusion from access are unnecessary to encourage innovation. Furthermore, the growth of Wikipedia as one of the most useful information resources in the world is also due, in part, to the Free Document License which allows and encourages users to modify, contribute and develop the content. Stallman (2002) points out that a society is best served by the free flow of information to its citizens and that IPR are not consistent with a digitally-enabled knowledge powered

world. Through copyleft, IP owners leverage the power of their rights, to ensure the freedoms of others to have access to the information in the future for the good of culture, innovation and society.

"What does society need? It needs information that is truly available to its citizens" (Stallman, 2002)

Another possible solution to this societal exigency would be for states to weaken the monopolistic rights afforded by IPR (Boyle, 2008).

There is some evidence that governments are recognising copyright and patent abuse and moving to address these issues. In re Bilski, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (2008), in an en banc decision, the Appeals Court overturned the ruling of State Street that producing a

"Affording patent protection to business methods lacks constitutional and statutory support, servers to hinder rather than promote innovation and usurps that which rightfully belongs in the public domain... State Street has launched a legal tsunami... Patents granted in the wake of **State Street have ranged** from the somewhat ridiculous to the truly absurd." (Judge Mayer, cited Groklaw, 2008)

"useful, concrete and tangible result" was sufficient for the criterion of patentability, rejecting business method patents. This will mean that many of the software and business method patents will be unenforceable, is likely to reduce the risk of patent sharks and may mean more patents are used to support rather than stifle innovation. Furthermore, recent news has suggested that the flow of ever increasing rights to copyright holders may also be slowing (Beckerman, 2009). In re Sony BMG vs Tenenbaum 09-1090, an RIAA litigation for damages, the court has decided to allow the case to be televised. It is likely that the Harvard Law Professor defending the case will use the opportunity to raise the underlying ethical issues of the RIAA's claims in the eye of the media. In another case, USA vs. Dove, 2:07CR00015, in the opinion of the Judge, 17000 downloads did not equal 17000 lost sales, as had previously been argued by the RIAA. Moreover, there have been recent







reports that a study showed that file sharing has a net positive effect on the economy, that making IP available in the public domain can increase sales, that new business models are forming around relaxed attitudes to copyright infringement and that organisations are finding innovative ways to add value to content in the public domain (Slashdot, 2009; Schroeder, 2009; Lister, 2009; McKie, 2009). Conversely, there is also evidence that this watering down in rights assigned to copyright and patent holders has not been all pervasive nor has it repaired the lost strength of public domain access to fair use or slowed the relentless privatisation IP (IFPI, 2009; IBM, 2009; USPTO, 2009). Although it appears that there is a move towards cultural change in the IPR system, there are many incumbent organisations with vested interests in slowing this progression, against the best interests of society. Kinsella (2001) posits the possibility of IP as a contract, like those formed in End User License Agreements, rather than as a natural right or ownership of property. Whilst, in the first instance, this appears to offer a potential solution to IPR issues by ensuring that both parties have the choice to enter into the contract rather than a mandated ruling, there are logical difficulties with the implementation. As third parties external to the contract come into contact with the IP, they cannot be held to the contract signed between the original two parties. Thus, the IP owner could find that a third party external to the contract had infringed the terms of their contract, but would have no recompense to enforce their rights against the third party. Another logical flaw would be if an IP owner sold one book under contractual agreement not to copy, and one book sold without that stipulation, there would be no way to know which book was imbued with the right to distribute, and which was not. Assuming that property rights must be "visible" and "just" in order to be effective and enforceable, this form of property would be untenable.

Boldrin and Levine (2008) argue for complete abolition of IPR. They feel that there is considerable evidence that IPR do not support innovation, but rather lead to "rent-seeking behaviours" from rights holder and a reduction in development. Whilst IPR benefit a small number of entrenched monopolists who stand to lose considerable wealth from this change, a large number of consumers could achieve small levels of personal gains through their abolition. There are also significant and untold benefits that may develop for society as a whole through greater access to information within the public domain that can be utilised through new business models like the open source development community to enhance innovation. This argument takes an economic perspective, and recognises the catastrophic impact that an overnight abolition of IPR would cause to the incumbent IP dependent business models. They map out a set of progressive incremental reforms that could be implemented to move towards a world without IPR.

"In summary. dismantling our intellectual property system... has major barriers to reform. A few, well-organised and coordinated monopolists on the one side are bound to lose a lot if the protective barriers are lifted. A very large number of uncoordinated consumers on the other side, would receive very small personal gains from the adoption of freer competition." (Boldrin & Levine, 2008)

London School of Business & Finance GRENOBLE

Conclusion

If we support Milton Freidman's (1970) claims that the only social responsibility of business is to increase the wealth of its shareholders, then IPR may have a place. However, if unlike Friedman, we consider that the social responsibility of business is to innovate, to contribute to the sustainable development of society and to promote a greater level of well-being for the community as a whole, then the current IPR framework does not support that. There are two main arguments for IPR based on moral and ethical perspectives. The first is a utilitarian argument, encouraging innovation through both incentives and disclosure, and the second is based on the natural right of creators to ownership of their creations.

In weighing up the case for evidence for the utilitarian benefits of IPR, the legislature is generally influenced by lobbying from incumbent powers who stand to gain from any change towards greater control, rather than considering the opportunity costs of the system. Consumers and the public domain that stand to gain from relaxation of the rights, and a return to a more reasoned attitude towards IPR, tend to be less organised and less motivated to argue for a reduction in the rights. The argument is rarely framed in terms of the innovations lost due to their removal from the public domain. However, there is mounting evidence that IPR are not an effective incentive for innovation due to "rent-seeking" behaviours, that the "quid pro quo" of disclosure does not lead to cross-fertilisation of ideas, and that businesses founded on IPR are particularly susceptible to the Tragedy of the Anti-Commons. Furthermore, there is also evidence for market-based business models that function innovatively and efficiently without the support of IPR.

On the issue of natural rights, it can be seen that the ethics and moral logic of IP ownership is inconsistent and conflicts with the logic of tangible property ownership. The market making social construction of IPR should not lead to violations of other more tangible rights. Since IPR limit the freedoms and rights of others to perform actions on their own property, this moral argument is untenable within the social framework. Moreover, the arbitrary distinction in patentable subject matter leads to a questionable argument from a moral perspective. Since the evidence suggests that the social costs outweigh the benefits, the system should be assessed for possibilities for reform.

Several possibilities for reform have been addressed within this paper. These range from strengthening enforcement of IPR through to complete abolition of IPR. Strengthening IPR and utilising market smarts are ways that will only support the status quo and those who are already benefiting from the system. Reforming IP as voluntary contracts rather than rights appears to offer possibilities for improvement, but the issue of being unable to enforce ownership over property of third parties who have not entered into the contract would make implementation nigh impossible.

Whilst hoping for governmental reduction in power would seem to be extremely hopeful, given the practically consistent growth in enclosure of properties from the public domain, there is





some evidence that there are moves away from strengthening IPR. In re Bilski was a step away from software and business methods patents. Also, the decision of the WTO that China's IP border measures and enforcement systems were in compliance with TRIPS, and UK choosing not to legislate on enforcement of anti-piracy measures against file sharers¹ suggest that there may be some minor steps away from ever increasing enforcement (Geist, 2009; BBC, 2009).

Patent pools and copyleft licensing currently seem to be the most effective way to increase innovation and development within the IPR framework. Whilst these two techniques help to achieving innovation, it is quite telling that they are both effectively placing IPR into the ownership of a wider group, sometimes into the public domain. They are essentially using ownership of IP to undo the inefficiencies that IPR themselves introduce into the market, but they still work within the current framework. The Boldrin and Levine (2008) recommendation of abolishing IPR in this perspective seems to be the most sensible option. Rather than companies having to fight against the system of IPR by utilising licenses that ensure freedom of access and distribution, a system whereby all distributed IP was held in the public domain would surely lead to enhanced levels of collaboration and innovation. This reform would clearly require a long-term planned and gradual approach. Ultimately, rather than our current system, formed during the days of the printing press, it would be more fitting for today's world where the digital information superhighway drives the economy and growth is becoming increasingly reliant more on collaborative knowledge sharing than competition.

"If I have seen further than others, it is only by standing upon the shoulders of Giants." Newton (1676)





¹ It is questionable whether it is legitimate to impose a £20 broadband tax for music and film on all broadband users, whether or not they download content, in order to support failing business models instead of recognising the doctrine of fair use. Nevertheless, this is clearly a step down from locking offenders away from access to the Internet or charging massive fines (Times, 2009).





Bibliography

Anand, B. & Galetovic, A. (2004). How market smarts can protect property rights, Harvard Business Review, December, pp. 72-79.

Anderson, N. (2008). UK ignores logic, backs 20-year music copyright extension. [Online]. Ars Technica. http://arstechnica.com/news.ars/post/20081212-uk-ignores-logic-backs-20-year-musiccopyright-extension.html

[Accessed 12 December 2008].

BBC (2005). EU software patent law faces axe. [Online]. BBC News. http://news.bbc.co.uk/1/hi/technology/4274811.stm [Accessed 15 January 2009].

BBC (2009). UK will not legislate on piracy. [Online]. BBC News. http://news.bbc.co.uk/1/hi/technology/7854494.stm [Accessed 29 January 2009].

Bell, T. W. (2001). Escape from Copyright: Market Success vs. Statutory Failure in the Protection of Expressive Works. [Online]. Tom W. Bell. http://www.tomwbell.com/writings/(C)Esc.html [Accessed 24 January 2009].

Beckerman, R. (2009). Recording Industry Vs. The People. [Online]. Recording Industry Vs. The People. http://recordingindustryvspeople.blogspot.com/2009 01 01 archive.html#767667725233847 1769 [Accessed 22 January 2009].

Boldrin, M. & Levine, D. K. (2008). Against Intellectual Monopoly. [Online]. Against Intellectual Monopoly. http://levine.sscnet.ucla.edu/general/intellectual/againstfinal.htm [Accessed 12 December 2008].

Boyle, J. (2008). The Public Domain: Enclosing the Commons of the Mind. [Online]. The Public Domain. http://www.thepublicdomain.org/wp-content/uploads/2008/11/the-public-domain.pdf

[Accessed 4 December 2008].

Choate, P. (2005). Hot Property: The Stealing of Ideas in an Age of Globalization. Knopf: New York.

Cohen, L. (1998). Intellectual Property Rights, Harvard Business Review, January-February, pp. 185.

Dickinson, Q. T. (2000). Can you patent your business model? Harvard Business Review, July-August, pp. 16.

Dykes, J. M. M. (1995). Intellectual Property on the Net, Ethics and Law on the Electronic Frontier, Fall. [Online]. MIT. http://groups.csail.mit.edu/mac/classes/6.805/student-papers/fall95-papers/dykes-IP.html [Accessed 15 January 2009].

EC (2008). Copyright – Term of Protection. [Online]. European Commission. http://ec.europa.eu/internal market/copyright/term-protection/term-protection en.htm [Accessed 24 January 2009].





I





EFF (2008). *RIAA v The People – 5 Years Later*. [Online]. Electronic Frontier Foundation. <u>http://www.eff.org/wp/riaa-v-people-years-later</u> [Accessed 24 January 2009].

European Patent Office (2007). *European Patent Convention (EPC)*. [Online]. European Patent Convention. http://www.epo.org/patents/law/legal-texts/html/epc/2000/e/ar52.html [Accessed 15 January 2009].

Friedman, M (1970). The Social Responsibility of Business is to Increase its Profits, *The New York Times Magazine*, September 13.

Fisher, W. W. (1999). *The Growth of Intellectual Property: A History of the Ownership of Ideas in the United States*. [Online]. <u>http://cyber.law.harvard.edu/people/tfisher/iphistory.pdf</u> [Accessed 15 January 2009].

FreePatentsOnline (2009). *List of Crazy Patents*. [Online]. Free Patents Online. <u>http://www.freepatentsonline.com/crazy.html</u> [Accessed 24 January 2009].

FSF (2007). *GNU General Public License*. [Online]. GNU Project. <u>http://www.gnu.org/licenses/gpl.html</u> [Accessed 27 January 2009].

Geist, M. (2009). *Why the US lost Its WTO IP Complaint Against China. Badly.* [Online]. Michael Geist. <u>http://www.michaelgeist.ca/content/view/3645/125/</u> [Accessed 28 January 2009].

Groklaw, (2008). *The Bilski Decision Is In: Buh-Bye [Most] Business Methods Patents – As text & updated 6Xs* [Online]. Groklaw. <u>http://www.groklaw.net/article.php?story=20081030150903555</u> [Accessed 15 January 2009].

Hardin, G. (1968). The Tragedy of the Commons, *Science*, 13 December, Vol. 162, no. 3859, pp. 1243-1248. [Online]. http://www.sciencemag.org/cgi/reprint/162/3859/1243.pdf [Accessed 14 January 2009].

Helberger, N., Dufft, N., Van Gompel, S. & Hugenholtz, B. (2008). *Never Forever: Why Extending the Term of Protection for Sound Recordings is a Bad Idea*. [Online]. IVIR. <u>http://www.ivir.nl/publications/helberger/EIPR_2008_5.pdf</u> [Accessed 24 January 2009].

Heller, M. A. (1998). The Tragedy of the Anticommons: Property in the transition from Marx to Markets, *Harvard Law Review*, January, Vol. 111, No. 3, pp. 621-688.

Heller, M. A. & Eisenberg, R. S. (1998). Can Patents Deter Innovation? The Anticommons in Biomedical Research, *Science*, 1 May, Vol. 280, no. 5364, pp. 698-701. [Online]. <u>http://www.sciencemag.org/cgi/content/full/280/5364/698</u> [Accessed, 15 January 2009].

Helprin, M. (2007). *A Great Idea Lives Forever. Shouldn't its copyright?* [Online]. The New York Times. http://www.nytimes.com/2007/05/20/opinion/20helprin.html?_r=2 [Accessed 15 January 2009].







Henkel, J. & Reitzig, M. (2008). Patent Sharks, Harvard Business Review, June, pp. 129-133.

IBM (2009). IBM Shatters US Patent Record. [Online]. IBM. http://www-03.ibm.com/press/us/en/pressrelease/26471.wss [Accessed 27 January 2009].

Jefferson, T. (1813). The Letters of Thomas Jefferson: To Isaac McPherson. [Online]. From Revolution to Reconstruction. http://www.beartronics.com/writings/jefferson/odur.let.rug.nl/usa/P/tj3/writings/brf/jefl220.htm

[Accessed 24 January 2009].

Kinsella, N. S. (2001). Against Intellectual Property, Journal of Libertarian Studies, Spring, Vol. 15, No. 2., pp. 1-53.

Lister, J. (2009). YouTube steps up advertising deals. [Online]. Blorge. http://tech.blorge.com/Structure:%20/2009/01/22/voutube-steps-up-advertising-deals/ [Accessed 22 January 2009].

Macaulay, T. B. (1841). A Speech delivered in the house of commons on the 5th of February 1841. [Online]. Baen Free Library. http://www.baen.com/library/palaver4.htm [Accessed 24 January 2009].

McKie, R. (2009). Classics corner: The Picture of Dorian Gray by Oscar Wilde. [Online]. The Observer. http://www.guardian.co.uk/books/2009/jan/25/classics-picture-dorian-gray-wilde [Accessed 27 January 2009].

Newton, I. (1676). Isaac Newton guotes. [Online]. Thinkexist.com http://thinkexist.com/quotes/isaac newton/ [Accessed 25 January 2009].

Nowotarski, M. (2006). Software Patents. [Online]. Wikipedia. http://en.wikipedia.org/wiki/File:Software patents2.JPG [Accessed 24 January 2009].

O'Hara, S. U. (1998). Economics, ethics and sustainability: redefining connections, International Journal of Social Economics, Vol. 25, No. 1, pp. 43-62.

Open Rights Group (2008). Proposal to extend the term of copyright protection on sound recordings: Response of the Open Rights Group. [Online]. Open Rights Group. http://www.openrightsgroup.org/wpcontent/uploads/080829 ukipo ectermextension amended.pdf [Accessed 24 January 2009].

Palmer, T. G. (1990). Are patents and copyrights morally justified? The philosophy of property rights and ideal objects, Harvard Journal of Law & Public Policy, Vol. 13, No. 3, Summer, pp. 816-865.

Parloff, R. (2007). Microsoft takes on the free world. [Online]. CNN Money. http://monev.cnn.com/magazines/fortune/fortune archive/2007/05/28/100033867/ [Accessed 24 January 2009].

Red Hat (2008). Brief of Amicus Curiae Red Hat, Inc. In Support of Appellee. [Online]. Red Hat http://www.redhat.com/f/pdf/federal circuit brief.pdf [Accessed 15 January 2009].







Rivette, K. G. & Kline, D. (2000). Discovering New Value in Intellectual Property, *Harvard Business Review*, January-February, pp. 54-66.

Roin, B. (2005). Note: The Disclosure Function of the Patent System (Or Lack Thereof), *Harvard Law Review*, Vol. 118, April, No. 6.

Schroeder, S. (2009). *Can Free Content Boost Your Sales? Yes, It Can.* [Online]. Mashable. <u>http://mashable.com/2009/01/22/youtube-boost-sales/</u> [Accessed 22 January 2009].

Shapiro, R. J. & Pham, N. D. (2007). *Economic Effects of Intellectual Property-Intensive Manufacturing in the United States*. [Online]. The Value of IP <u>http://www.the-value-of-ip.org/ip_report.pdf</u> [Accessed 24 January 2009].

Slashdot (2009). *Dutch study says Filesharing Has Positive Economic Effects*. [Online]. Slashdot. <u>http://yro.slashdot.org/article.pl?sid=09/01/19/1440254&from=rss</u> [Accessed 19 January 2009].

Stallman, R. (2002). *Free software, free society: Selected Essays of Richard M. Stallman.* Gnu Press: Boston MA [Online]. Free Software Foundation. <u>http://www.gnu.org/philosophy/fsfs/rms-essays.pdf</u> [Accessed 27 January 2009].

Times (2009). £20 broadband charge to fight online music and film piracy. [Online]. Times Online. http://technology.timesonline.co.uk/tol/news/tech_and_web/article5607744.ece [Accessed 29 January].

US Constitution (1787). *US Constitution*. [Online]. US Constitution Online. <u>http://www.usconstitution.net/const.pdf</u> [Accessed 24 January 2009].

USPTO (2009). Touch screen device, method, and graphical user interface for determining

commands by applying heuristics. [Online]. USPTO.

http://patft.uspto.gov/netacgi/nph-

Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-

bool.html&r=1&f=G&I=50&co1=AND&d=PTXT&s1=multi-touch&s2=multitouch&OS=multi-

touch+AND+multitouch&RS=multi-touch+AND+multitouch

[Accessed 27 January 2009].





IV