A BALANCED APPROACH TO DIGITAL PIRACY: COPYRIGHT, CODE, AND COMMERCE

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Digital piracy presents significant challenges to the media and software industries. The paper outlines how digital sharing affects media and software industries, then analyses three distinct, yet complementary approaches that have been taken to addressing digital piracy: copyright (using the recently amended New Zealand regime as an example), code (in the form of digital rights management) and commerce (market-based responses). The conclusion is that an appropriate balance between copyright, code and commerce is needed to mitigate the negative commercial effects of digital piracy. Before altering national intellectual property regimes, policymakers should consider this nexus carefully and thoroughly evaluate the domestic benefits of any new proposals.

Les multiples formes du piratage des données et logiciels informatiques sont une source de soucis constants pour les créateurs de logiciels ou encore pour les médias. Dans cet article, l'auteur dresse un premier bilan des principaux champs d'activités qui sont affectés. Puis il envisage successivement trois méthodes qui été retenues pour combattre ce fléau: Renforcement des droits d'auteurs (en prenant l'exemple des derniers textes qui régissent la matière en Nouvelle-Zélande), codification des textes déjà en vigueur, et enfin mesures d'encadrement du marché.En guise de conclusion, l'auteur indique que seule la mise en oeuvre simultanée de ces trois méthodes sera à même, à défaut de pouvoir l'éradiquer totalement, de contrôler le phénomène du piratage informatique.

I INTRODUCTION

A What is Digital Piracy?

The leading media companies base their business model around the licensing or sale of creative works, in which they retain copyright. But the ability to copy and share digital content online has

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provided a vehicle for copyright infringement on an unprecedented scale, causing a dramatic shift in the industry landscape.

The digital piracy which has emerged as a result of increased digital connectivity encompasses the copying and sharing of copyrighted digital content such as music, television, movies and software through peer-to-peer (P2P) systems. As such, it does not address traditional forms of commercial piracy that do not make use of the internet, although much of the discussion also applies to traditional piracy.

B What are the Effects of Digital Piracy?

Digital piracy involved an estimated 30 billion illegal downloads in 2007, and since 1999 there has been a marked decline in total unit sales of music.[1] Improved compression technologies and access to increased bandwidth make it likely that in the near future there will be a similarly large increase in illegal downloads of other forms of digital content, such as television, movies and computer software.[2]

Quantifying the industry cost of digital piracy in terms of lost revenue is complex. The music industry's declining revenues may be due to any number of factors, including a weakening economy, a decline in music quality,[3] or a reluctance to pay high prices for CDs.[4] Nonetheless, as matters stand, most empirical studies of digital piracy indicate that it plays an important part in the decline.[5] Diminishing movie revenues have also been attributed to digital piracy.[6]

Since a core rationale of copyright protection is to provide incentives for creative efforts, any decline in revenues may translate into diminished investment in creation. Such a decline could have negative effects throughout economies that are net producers of copyright, through decreased export earnings, reduced tax revenues, and unemployment in related industries.

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1 "IFPI Digital Music Report 2008" www.ifpi.org (accessed 22 September 2008).

2 William W Fisher III *Promises to Keep* (Stanford, Stanford Press, 2004) 33.

3 Fisher, above n 2, 34.

4 In 2000, several major music labels settled a restraint of competition suit with the FTC. The cartel cost US consumers as much as $480 million over three years in overpriced CDs. "Record Companies Settle FTC Charges of Restraining Competition in CD Music Market" www.ftc.gov (accessed 12 September 2008).

5 Stan J Liebowitz "File-Sharing: Creative Destruction or Just Plain Destruction?" (2006) 49 J Law & Econ 1. The exception is Oberholzer and Strumpf 2004, who read the data as indicating file-sharing has only a minimal impact.

6 However, the initial attribution of 44% of all losses cited in a privately-commissioned MPAA report was recently revised downward to 16%. "Revised MPAA piracy study puts less blame on students" Los Angeles Times at www.articles.latimes.com (accessed 12 September 2008).

II COPYRIGHT

A Enforcing Copyright

The music and movie industries seek to dissuade potential file sharers through advertising campaigns and litigation against file sharers, P2P operators, and internet service providers (ISPs). As of June 2006, the Recording Industry Association of America (RIAA) had sued 17,587 individuals for infringement.[7] Anecdotal evidence suggests this figure is being added to at a rate of 500-1,000 suits per month, with cases settling in the region of $3,500.[8] This approach forms part of a broader campaign to raise the risk profile of digital piracy.[9] However, file-sharing monitor Big Champagne suggests that P2P usage has continued to grow despite these efforts.[10]

P2P operators and ISPs have also been subject of litigation, often on the basis of 'authorising' their users' infringement. As a result of such actions, P2P services such as *Napster*, *Aimster* and *Grokster* have all been ordered to shut down or filter out infringing content. Meanwhile, Ireland's largest ISP has recently been sued by the Irish Recorded Music Association.[11]

As with litigation against primary infringers, though, targeting P2P operators is of limited effectiveness in reducing digital piracy, since users often migrate to newer P2P systems when others are shut down.[12] Policymakers also appear increasingly unwilling to make ISPs liable for customers' use of their services, as evidenced by 'safe harbour' legislation such as that recently introduced in New Zealand through the recent amendments to the Copyright Act 1994 (the Act).

B Copyright in New Zealand

1 Primary infringement

In New Zealand, copyright infringement occurs where one engages in a restricted act without a license.[13] Such acts include copying or communicating the work to the public.[14] This captures users

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7 RIAA Watch www.sharenomore.blogspot.com (accessed 31 August 2008).

8 Fred von Lohmann "P2P lawsuits" (Victoria University of Wellington, Wellington, 12 August 2008).

9 Declan McCullagh "RIAA's Next Moves in Washington" www.news.zdnet.co.uk (accessed 12 September 2008).

10 The number of active file sharers globally in September 2003 was 4,319,182, as compared with 9,284,558 two years later. "P2P Activity Doubles in Two Years" www.pcpro.co.uk (accessed 14 September 2008).

11 "Eircom Rejects Record Firms' Claims" www.rte.ie (accessed 12 September 2008).

12 For further discussion, see Marina Leplow "Copyright and Peer to Peer Technology" (LLM Research Paper, Victoria University of Wellington, 2005) 27.

13 Copyright Act 1994, s 29(1).

14 Copyright Act 1994, ss 30, 33.

of P2P software who actually copy or communicate copies of copyright works through their systems.

It remains unclear, however, whether New Zealand will adopt a 'making available' construction in relation to communicating the work. This approach, currently being argued in the USA, suggests a defendant may be made liable simply by having files in a folder that a P2P service can share, irrespective of whether sharing actually occurs.[15] As such, it amounts to 'attempted infringement'.

However, recent amendments to New Zealand copyright law partly reflect the new reality of digital media and explicitly remove some liability from copyright users. Section 81A of the Act permits the owner of a sound recording to transfer it to a different format, such as from CD to MP3.[16] This exception does not extend to video, however.

2 ISP liability

'Safe harbour' provisions now protect Internet Service Providers (ISPs) from liability for copyright infringement committed by their users, provided certain conditions are met. Under section 92C of the Act, knowledge imputed through a section 92D infringement notice may remove an ISP from this 'safe harbour', unless the infringing material is removed as soon as possible.[17] This is known as the 'notice and takedown' requirement.

Although a section 92D notice does not require immediate removal of the challenged material,[18] it may nonetheless unbalance the regime in favour of copyright owners. ISPs might amend their terms of service to exclude any liability to consumers for erroneously removing material. This would then leave them free to automatically take down any material subject to a section 92D notice, without further investigation, removing any risk of suit from copyright owners.[19] Numerous examples of abuse of a similar provision in the USA suggest that stronger protection of users' rights is required here.[20]

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15 David Kravets "Judge Says First-Ever RIAA Piracy Trial May Need a Do-Over" www.wired.com (accessed 14 September 2008).

16 Copyright Act 1994, s 81A.

17 Copyright Act 1994, s 92C(2)(a).

18 Copyright Act 1994, s 92C(3).

19 Tom Hallett-Hook "The Copyright (New Technologies) Amendment Act 2008 and New Zealand's Notice-Takedown Regime" AULR (forthcoming 2008).

20 "Unsafe Harbors: Abusive DMCA Subpoenas and Takedown Demands" www.eff.org (accessed 12 September 2008).

Another concern is the requirement that ISPs disconnect repeat copyright infringers.[21] Uncertainty around this provision has seen this amendment's enactment delayed until early 2009. It is unclear whether the cut-off applies to users who have repeatedly been convicted of copyright offences, or simply to those who had repeatedly been accused of infringement by companies or industry bodies.[22] If the former, then copyright owners may bear the costs of taking successful infringement prosecutions before requiring an ISP to disconnect an infringer. But if the latter reading is adopted, users risk having their access to the internet shut off on the basis of untested allegations. Such confusion provides further argument against requiring an agnostic service provider to police digital piracy.

The problems of a 'notice and takedown' framework are best addressed by adopting a 'notice and notice' approach. Instead of taking action against the user, the ISP would instead simply relay the copyright owner's infringement notice. Under such a system in Canada, court ordered removal of material is rarely required; in 2004, over 90% of complaints resulted in voluntary removal by the ISP customer.[23] This approach minimises the costs to society of addressing such disputes.

3 P2P operator liability

The position of a P2P operator under New Zealand law is uncertain. Some suggest that 'authorising' its users' infringement[24] will be the nearest a P2P operator will come to liability.[25] However, there is no useful New Zealand case law on the point of authorisation.[26]

The *Grokster*[27] and *Kazaa*[28] cases, though, from the USA and Australia respectively, provide P2P operators with some guidance: such operators should avoid encouragement of infringing file-sharing through advertising, and should install software capable of filtering out copyright works. Insertion of file filtering software is one example of code interacting with copyright to regulate

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21 Copyright Act 1994, s 92A.

22 Tom Pullar-Strecker "Government wavers on Web cut-offs" (22 September 2008) Dominion Post, Wellington C6.

23 Internet NZ "Submission to the Commerce Select Committee on the Copyright (New Technologies and Performers' Rights) Amendment Bill 2008" 11.

24 Copyright Act 1994, s 16(1)(i).

25 Leplow, above n 12; Paul Apathy "Napster and New Zealand: authorisation under the Copyright Act 1994" 33 (2002) VUWLR 287.

26 The Court of Appeal limited its discussion of the matter strictly to the facts of the case before it, and made clear it was not making any finding in relation to P2P liability. *Heinz Wattie's Ltd v Spantech Property* (2005) 67 IPR 666 (CA).

27 *MGM Studios Inc v Grokster Ltd* (2005) 545 US 913.

28 *Universal Music Australia Pty Ltd v Sharman License Holdings Ltd* [2005] FCA 1242.

piracy. Given the decentralised nature of modern P2P systems, it is likely these steps may be sufficient to avoid liability.

4 Technological protection measures

Under the newly amended Act, supplying or manufacturing devices, or providing information, specifically designed to circumvent technological protection measures (TPMs) for the purposes of infringing copyright is itself treated as infringement.[29] Obtaining a circumvention device for such purposes will also be deemed infringement.[30]

In contrast to the USA and Australian regimes, in New Zealand there is no liability for the act of circumvention.[31] While this has been praised in some quarters as preserving fair dealing rights,[32] it still shifts the balance between owner and user. Since dealing with TPM circumvention devices is treated as infringement, copyright owners can now take advantage of a new infringement action. On the other side of the coin, copyright users must seek out a 'qualified person' if they wish to engage in a permitted act, placing further restrictions on the public's access to digital content.[33]

This is especially unsatisfactory given that the reform process was not intended to shift the balance between owner and user.[34] Furthermore, the amendment was unsupported by any empirical evidence that protecting TPMs would decrease online piracy. This was despite the fact that jurisdictions such as the USA and UK had protected TPMs for some years, and so evidence on such measures' effectiveness was available.[35]

A further difference from the USA's approach is that access controls are not deemed to be TPMs.[36] This supports New Zealand's economic interests as an importer of intellectual property.

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29 Copyright Act 1994, s 226.

30 Copyright Act 1994, s 226A.

31 17 USC § 1201(a)(1A); Copyright Act 1968 s 116AN (Aus).

32 Michael Geist "New Zealand's Digital Copyright Law Demonstrates Anti-Circumvention Flexibility" www.michaelgeist.ca (accessed 12 September 2008).

33 Copyright Act 1994, s 226D(2).

34 Copyright (New Technologies and Performers' Rights) Amendment Bill 2007, no 102-2 (Commerce Select Committee report) 2.

35 The DMCA was enacted in 1998. See also Susy Frankel "Digital Copyright Reform in New Zealand: An Own Interest Approach for a Small Market Economy" in Mark Perry and Brian Fitzgerald *Knowledge for the 21st Century* (Irwin Law, forthcoming, 2008) 10.

36 Copyright Act 1994, s 226.

Without such a permission, the authorisation of parallel importation under the Act would be meaningless – a DVD could be parallel imported, but not played back due to a region-lock.[37]

5 Possible developments

The Ministry of Economic Development in New Zealand is scheduled to review the Act's amendments in 2013. The key principle guiding the review is likely to be the "enhancement of the public interest", as stated in the recent amendment Bill.[38]

However, the meaning of 'public interest' is open to interpretation. If it is acknowledged that New Zealand is a net importer of copyright works, then it would be in the New Zealand public's interest to favour users' rights. Yet the New Zealand regime defines copyright in terms of the copyright owner's rights, and only then does it carve out exceptions for users.[39]

This inconsistency may be based in a wider reading of the 'public interest'. Tightening the New Zealand intellectual property regime may be a *quid pro quo* for securing preferential market access for other products, with major trading partners.[40] Australia amending its intellectual property regime to facilitate a free trade agreement with the USA is a recent precedent for such a strategy,[41] and reports indicate that New Zealand could soon be faced with a similar compromise, with the USA discussing entry into the Trans-Pacific Strategic Economic Partnership trade agreement.[42] However, from a trade negotiation standpoint, it is arguably be more rational to hold back on such reform so that it can be used as a bargaining chip at future negotiations, rather than unilaterally acceding to a trade partner's request.

Conformity with international instruments that favour copyright owners, such as the Berne Convention for the Protection of Literary and Artistic Works may also be justified on these grounds of a broader 'public interest'. But numerous submissions to the Ministry of Economic Development in New Zealand regarding a mooted Anti-Counterfeiting Trade Agreement maintain that any further amendments must be based on evidence of a tangible benefit to New Zealand.[43] Further extending

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37 Copyright Act 1994, s 12(5A).

38 Copyright (New Technologies and Performers' Rights) Amendment Bill 2007, no 102-1.

39 Frankel, above n 36, 4.

40 Internet NZ, above n 23, 4-5.

41 Frankel above n 36, 3; David Richardson *Research Paper No 14 2003-04 Intellectual property rights and the Australia – US Free Trade Agreement* (prepared for DFAT) www.aph.gov.au (accessed 26 August 2008).

42 The Partnership (P4) is a free-trade bloc comprising New Zealand, Brunei, Singapore and Chile. Paula Oliver "US trade move big news for NZ: Clark" www.nzherald.co.nz (accessed 23 September 2008).

43 MED "Summary of Submissions about ACTA" www.med.govt.nz (accessed 30 August 2008).

owners' rights in the name of combating digital piracy may ultimately have a detrimental effect, where such piracy only marginally affects the New Zealand economy.

III CODE

TPMs, in the shape of digital rights management (DRM), moderate digital piracy by practically limiting the uses that may be made of a copyright work. However, DRM treads a fine line between being unduly easy to circumvent on one hand, and preventing fair dealing and intruding into users' privacy on the other.

One example on the first point is the *FairPlay* DRM that restricts playback of iTunes files to authorised computers. The DRM allows the music file to be copied, but the audio content is encrypted. Nevertheless, within 18 months, *FairPlay* had been cracked by the *QTFairUse* program.[44] Apple CEO Steve Jobs has since acknowledged that any company using DRM must continually update it, in a cat-and-mouse game with hackers, and he believes that this is an unrealistic approach to future technology development.[45]

But creating hack-proof DRM has its own pitfalls. Rather than controlling access or copying, the Sony XCP Rootkit DRM sought to simply record the use that was made of its CDs by surreptitiously installing an application on the host computer. Besides violating the users' privacy, the application increased the host's vulnerability to external attacks.[46] As a result of consumer backlash most music CDs no longer contain DRM.[47]

Protecting DRM through legislation such as New Zealand's Copyright Act also removes users' ability to make legitimate use of copyright works. Instead, it is the author of the code who decides the permitted scope of use.[48] Such protection, combined with a belief that DRM unduly impinges upon users' rights, has led to widespread consumer dissatisfaction with DRM.

In some cases, the presence of DRM has arguably increased piracy. Electronic Arts was recently forced to relax the DRM attached to *Spore*, a new video game, after widespread protest at the measures saw a pirated version downloaded more than 500,000 times, becoming possibly the most

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44 "iTunes Copy Protection Cracked" www.news.bbc.co.uk (accessed 26 August 2008).

45 Steve Jobs "Thoughts on Music" www.apple.com (accessed 30 August 2008).

46 "More Pain for Sony over CD Code" www.news.bbc.co.uk (accessed 14 September 2008).

47 Cory Doctorow "EMI Abandons CD DRM" www.boingboing.net (accessed 15 September 2008).

48 Lawrence Lessig Free Culture: The nature and future of creativity (2004, Penguin Books, New York) 160.

rapidly pirated game ever.[49] As a result, DRM-free content is increasingly seen as a USP, as in the cases of eMusic,[50] and EMI's link with iTunes to offer DRM free downloads.[51]

IV COMMERCE

The development of digital content has challenged established non-digital value chains,[52] but while it may appear counter-intuitive, piracy can often stimulate increased demand for the original or related works. Mashups or remixes may provide new relevance to material that had dropped out of circulation. Monitoring of P2P networks can help publishers target products and events effectively; where an artist has downloads clustered in a particular locale, for example, concerts and merchandise can be directed toward a proven fan base.[53]

Meanwhile, network externalities in software markets suggest that proprietary firms may benefit from extensive piracy, as Bill Gates recently acknowledged: "[i]t's easier for our software to compete with Linux when there's piracy than when there's not".[54] The proliferation of pirated *Windows* copies in China creates a customer base that will be reluctant to retrain on a new system when it eventually opts for non-infringing software.

The media and software industries have lately responded to consumers' desire for quality, convenient, and diverse access to content through online retail, with online music sales tripling between 2005 and 2007 to account for 15% of the total market.[55] But it remains the case that 20 songs are downloaded illegally for every one sold legally;[56] no matter how sophisticated the copy protection, or how integrated the publisher is with the online market, there remains a market for illegal downloading.

V RECOMMENDATIONS

The approaches to piracy discussed above appear unlikely to halt the downward trend in overall sales. It is impossible to completely prevent people who have not paid from enjoying the benefits of digital content; yet at the same time, one person's use of digital content does not hamper another

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49 Christopher Lawton and Ben Charny "EA Relaxes Rules on Installing Spore" www.online.wsj.com (accessed 14 September 2008).

50 "eMusic beats the competition" www.emusic.com (accessed 15 September 2008).

51 "EMI Music launches DRM-free superior quality sound downloads across its entire digital repertoire" www.emigroup.com (accessed 22 September 2008).

52 OECD "Information Technology Outlook 2006 Highlights" www.oecd.org (accessed 22 September 2008) .

53 "Internet Piracy: Thanks Me Hearties" *Economist* (July 19th 2008) 67.

54 David Kirkpatrick *How Microsoft Conquered China* www.cnnmoney.com (accessed 12 September 2008).

55 IFPI, above n 1.

56 Ibid.

person's simultaneous use of that content. As a result, alternative means will be needed to ensure provision of what is essentially a public good, being non-excludable and non-rivalrous.[57] Copyright, code and commerce will need to be amalgamated in any such scheme.

Industry groups might enter licensing agreements with popular P2P operators, who would pay a licensing fee in exchange for the copyright owner's forbearing to sue the P2P operators' users. This approach depends, however, on P2P operators generating sufficient revenue to meet the licensing costs, and may also undermine the owner's copyright claim in the work.

More bold, yet perhaps ultimately more coherent over the long term, is Fisher's proposal for the registration and tracking of all copyright works, with a tax on the means of distribution, such as blank CDs or ISP connections. The downloading of works would be centrally tracked, and each work could be assigned value based on its popularity. The tax revenues raised could then be allocated proportionately as royalties.[58] While initially administratively expensive to establish, this would ultimately reduce the transaction costs inherent in the court-based copyright enforcement regime.

However, the protectionist bent of industry incumbents, as evidenced by their conduct to date,[59] presents a real challenge to such a proposal, as do the potential risks of such a system being exploited or manipulated. It is also unclear whether governments are prepared to take on the fiscal implications of such a scheme.

VI CONCLUSION

Efforts to stamp out digital piracy have to date proved ineffectual, suggesting a significant adjustment in copyright law is urgently required. Media industries are becoming increasingly aware that any effort to address digital piracy must strike a balance between copyright, code, and commerce, for fear of alienating consumers. However, they remain reluctant to acknowledge that digital piracy presents challenges that cannot be effectively addressed through traditional business models.

Bearing this in mind, it is essential that, when deciding how to address concerns around digital piracy, policymakers acknowledge the nexus between copyright, code, and commerce. Rather than adopting industry proposals at face value, it is essential that any adjustment to a domestic IP regime must be carefully considered and supported by robust evidence of the benefits for those affected by the regime.

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57 Fisher, above n 2, 34.

58 Fisher, above n 2, 202-3.

59 Lessig, above n 47, 9.