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at Harvard Law School



Content and Control:

Assessing the Impact of Policy Choices on
Potential Online Business Models in the Music
and Film Industries

Research Team

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INTRODUCTION

New digital technologies and the online environment pose significant challenges to the traditional business models of the music and film industries. The digital era threatens current revenue models by changing the environment in which copyright operates. To prevent unauthorized copying of their works, copyright holders have traditionally relied on practical barriers as well as their legal exclusive rights to control reproduction and distribution. The new technologies vitiating those practical barriers—peer-to-peer (P2P) services, digital compression technologies, and others—are demonstrating just how empty those legal rights may be and how poorly matched they may be with cultural norms and practice. Consumers are exploiting the exciting potential for greater interactivity and involvement with content, but also the opportunity to acquire content illicitly, and are thus finding themselves in conflict with many of those who make content possible.

The industries have responded in two ways. First, incumbents, particularly the major record labels and studios and their respective trade associations, have focused their initial energies on protecting traditional roles and revenue streams through the legal system. Three areas of concern (which we will refer to as "policy nodes") have seen the greatest industry activity and ensuing public debate: technical interference with and potential liability of P2P services; the civil and criminal liability of infringing consumer distributors; and the implementation and legal reinforcement of digital rights management technologies (DRM). The industries have brought numerous civil suits against companies and consumers across these nodes, while lobbying vociferously for enhanced forms of government intervention and enforcement.

The second response consists of attempts by new industry players — and, more recently, some incumbents — to develop new business models designed to capitalize on novel features of the online environment. These new models range from slight variations of offline models to more radical re-conceptualizations of the roles of and relationships among content creators,¹ intermediaries, and consumers.

Government intervention to privilege any particular business model at this point would have significant effects beyond achieving private benefits for those following the model in question. Different business models offer disparate economic surplus and social costs and benefits, in terms of the quantity and diversity of content created and distributed; the public's rights in copyright, such as fair use and first sale; and technological innovation, among other factors. Legislation designed to support particular models or incumbents could suppress alternatives that would otherwise have proven better for society as a whole. Although government action may be necessary at some point, it should respond to empirically demonstrated problems — not predicted crises — and must be carefully designed to balance competing interests and concerns.

This paper seeks to identify potential implications of the actions sought from policymakers across the three policy nodes on the future of the music and film industry.² To do so, it describes the organizing principles and structures of four exemplar business models and how policymaker choices across the nodes would help or hinder their adoption and viability. The models represent a disparate range of responses to the industries' current challenges and are presented according to the degree of change they represent from the traditional business model.

¹ Throughout this paper we generally use the term "content creators" to refer to recording artists and the host of players involved in producing a sound recording or film. These may be the same or separate from "rights holders."

² This paper's analysis takes place in the context of a broader study, the Berkman Center's Digital Media Project, of the transition from analog to digital media and its impact on copyright and associated legal doctrines, the content industries, artists, consumers, and shared culture. See <http://cyber.law.harvard.edu/media>.

Digital Media Stores	<ul style="list-style-type: none"> • Store pays copyright holder for licensing work • Store distributes works to consumers; consumer purchases or rents copy on a per-unit, subscription, or other basis.
P2P Stores	<ul style="list-style-type: none"> • Intermediary pays copyright holder to license work for distribution and sale. • Commercial entities and consumers can distribute works to consumers; consumers purchase copies on per-unit, subscription, or other basis.
Collective Blanket Licensing	<ul style="list-style-type: none"> • Central collective blanket licensing (CBL) organization pays copyright holders on a per-use basis, though consumers pay flat fees. • All licensees can act as distributors; consumers pay, either directly or through intermediaries, a fee for unlimited, unrestricted downloading, distribution and use of all works.
Ancillary Products & Services	<ul style="list-style-type: none"> • Consumers pay copyright holders or intermediaries for other ancillary products and services but can use, download and distribute artistic works freely

The first model, the Digital Media Store, is essentially the offline, traditional retail model moved online. The P2P Store model embraces distribution technologies and authorized consumer distribution while continuing to seek per-copy revenues. The Collective Blanket Licensing model acknowledges the difficulties of controlling consumer access and use and offers flat-fee, blanket licenses for non-commercial distribution and copying. Finally, the Ancillary Products and Services model lets consumers distribute copies for free, leveraging file sharing to drive other revenue streams.

Organization and methodology

To contextualize our examination of the interaction of the policy nodes and the business models, we first consider why and how digital technologies challenge the traditional business models of the film and music industries. We then describe industry activity across the policy nodes to date and the social costs and benefits of their actions and proposals at each. These discussions provide a foundation for the analysis of each model and the impact of policy actions on it in turn. The discussion of each business model in the body of the paper is similarly structured to allow for ease of comparison. For each, there is also an appendix offering a more in-depth, standalone evaluation.

While evaluating each model on a range of dimensions, our analysis is limited in the following ways. The four models are not exhaustive of all potential outcomes and variations. We generally analyze the models as if adopted by the whole industry, but, just as some of the models co-exist today, it is possible, indeed likely, that different industry segments would pursue different models in the future. The paper also does not attempt to identify which model represents a better outcome or is a more likely one. Finally, this paper does not attempt to address the market for physical media of films and music except as it relates to the emergence of the online market.

The impact of digital technologies³

Increasingly efficient distribution and audio compression technologies threaten traditional business models by enabling consumers to distribute content easily and cheaply. The capabilities for copying and distributing

³ Please see Appendix I for further discussion of the impact of digital technologies on industry cost structures and roles.

content formerly reserved to well-capitalized entities with expensive equipment and expertise are now readily available to the general public. As obtaining high-quality copies for free becomes trivially easy, the ability to charge for access to copies becomes tenuous. Even though evidence that file sharing has caused losses to the music industry is controversial⁴ and film industry revenue is currently on the rise,⁵ online infringements reasonably can be expected to reduce revenues in the long run.⁶

Digital technologies can also reshape the roles of certain intermediaries within the industries and their relationships to content creators. A number of functions and entities currently stand between creator and consumer, with record labels and film studios being the most important. Within the existing dominant business structure, record labels and film studios provide the substantial sums necessary to create, distribute, and market content. For undertaking large capital investments and ensuing financial risks, the labels and studios often receive certain exclusive rights⁷ from creators and share in the works' returns. In the music industry, labels recoup all costs before artists see profits and, indeed, few artists ever do.⁸ A small minority of artists, heavily invested in and promoted by the labels, generates the vast majority of record sales and royalties. Similarly, major studios invest substantially in a few productions as well as star actors and directors; these productions make up large percentages of industry revenue, and creators' income is rather concentrated, though less so than in the music industry.⁹

The digital environment can reduce costs and alter or eliminate certain functions. Traditionally, the high costs of creation were accompanied by high costs for physically manufacturing the media, marketing the work, and distributing it, from packaging to shipping to retailing. In the digital environment, new production technologies have dramatically lowered the threshold cost for creating music content, and, to a substantially lesser extent, in films.¹⁰ The cost of manufacturing each additional digital copy is practically zero. The online environment provides myriad, potentially cheaper and better-targeted opportunities for marketing.¹¹ Finally,

⁴ See Stan Liebowitz, *Will MP3s Annihilate the Record Industry? The Evidence So Far*, (June 2003), at http://www.pub.utdallas.edu/~liebowit/knowledge_goods/records.pdf (arguing file sharing has caused decline); Koleman Strumpf and Felix Olberhozer, *The Effect of File-sharing on Record Sales; An Empirical Analysis*, (March 2004) at http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf (reaching conclusion file sharing has had no statistically significant impact); Stan Liebowitz, *Pitfalls in Measuring the Impact of File-sharing*, available at <http://www.utdallas.edu/~liebowit/intprop/pitfalls.pdf> (criticizing Strumpf and Olberhozer); Rafael Rob and Joel Waldfogel, *Piracy on the High C's: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students*, National Bureau of Economic Research Working Paper 10874, October 2004, available at <http://papers.nber.org/papers/W10874>; Kai-Leung Hui and Ivan Png, *Piracy and the Legitimate Demand for Recorded Music*, 2 Contributions to Economic Analysis, article 11 (2003); Justin Hughes, "Spin and Rinse in the Rhetoric of Peer to Peer" (unpublished paper 2004).

⁵ "Deluge of DVD in a watershed year: spending on the disc rose 40% in 2003," *Video Business* 24(2): 1 (Jan. 12, 2004) (discussing recent film industry success).

⁶ See Liebowitz, *Pitfalls in Measuring the Impact of File-sharing*, supra note 4 (arguing that this should be a rebuttable presumption given economic theory).

⁷ For a detailed analysis of copyright in the digital era, see *Copyright and Digital Media in a Post-Napster World*, Gartner | G2 and the Berkman Center for Internet & Society at Harvard Law School, available at <http://cyber.law.harvard.edu/home/uploads/254/2003-05.pdf>, update available January, 2005.

⁸ See William Fisher, *Promises to Keep*, (Stanford, CA: Stanford University Press, 2004), 54-58, 77-78 (hereinafter "Fisher, *Promises*").

⁹ See Fisher, *Promises*, at 78-79.

¹⁰ For music, see Fisher, *Promises*, at 22 (noting that "\$1000 worth of ... hardware and software" may be sufficient); Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. Chi. L. Rev. 263, 305-306 (2002). Harold Vogel notes that major releases have typically cost \$125 thousand, or upwards of \$300 thousand if substantial studio time is needed. Harold Vogel, *Entertainment Industry Economics*, (New York, NY, USA: Cambridge University Press, 2001, 5th ed.), 162. See also M. William Krasilovsky & Sidney Shemel, *This Business of Music* (8th ed. 2000), 23, cited in Mark S. Nadel, *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, Berkeley Technology Law Journal, Vol. 19, 785-856, 798 (Spring 2004) (hereinafter "Nadel, Impact of Marketing"), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=489762 (placing production costs at between \$80-150 thousand). For films, see the Motion Picture Association of America (MPAA) Worldwide Market Research, U.S. Entertainment Industry: 2002 MPA Market Statistics 19, 20 (2003) (claims that in 2002 the average cost of producing was over \$58.8 million with another \$30.62 million for marketing and advertisement); Peter Henderson, "Technology Lets Garage Studios Change Hollywood," *Reuters via USA Today* (Feb. 24, 2004), at http://www.usatoday.com/tech/news/techinnovations/2004-02-24-making-movies_x.htm (noting technological advances making it easier to create films, but noting that small budget films still cost in the tens of thousands).

¹¹ See Fisher, *Promises*, at 18-24. For music, major labels marketing standard releases often expend \$100,000 and over \$500,000 on premier acts, though independent labels' and artists' expenses are generally much less. See Vogel, id., at 163; RIAA, *Costs of a*

the Internet enables low cost distribution among content creators, retailers, and consumers, perhaps eliminating the need for standalone retailers altogether.¹²

These changes may enable greater independence for content creators as well as increased content diversity. Recording artists and film creators might improve their negotiating position with labels and studios if the up-front investment needed was less substantial. In some cases, it may enable content creators to act altogether independently of the traditional intermediaries. Moreover, the class of content creators who can achieve financial viability might also be larger given the reduced revenues needed to see a profit. In particular, the Internet may help make creators in niche genres more sustainable. The online environment can help content creators and consumers find one another and execute transactions that in the past would have been infeasible. The degree to which these possibilities may be realized is different for the film and music industries, of course, due to the generally significantly greater costs of creating films.

THE THREE POLICY NODES

Distribution technologies like P2P, which enable efficient consumer-to-consumer distribution, are the subject of the first node. Second and closely related is the treatment of consumers who illicitly distribute content. The use and enforcement of DRM is the final node.

P2P and other distribution mechanisms

P2P file sharing, among other online distribution mechanisms, enables individuals to find, acquire, and share content with great efficiency. Although the technology is equally advantageous for licit content, P2P is overwhelmingly used for infringement today. As a result, the industries' primary response to date has been to attempt to interfere with P2P in various ways. The industries try to reduce the ease and convenience of P2P through "spoofing"¹³—flooding P2P systems with bogus versions of files. Rights holders have also sued P2P service providers under theories of secondary copyright infringement.

The efficacy of these approaches is questionable. Technologies to counter spoofing have already been developed.¹⁴ Though the original Napster and other similar services were forced to shut down,¹⁵ courts have so far rejected suits against fully decentralized P2P providers, which have no control over their users.¹⁶ Even if these services were held liable (under current or newly legislated doctrines), they cannot be shut down, and suppressing the software's distribution, potentially by offshore companies or hobbyist programmers, may prove impossible.¹⁷

In response to these difficulties, the industries are in some cases working with new P2P services to try to capture revenues from users of the technology rather than simply trying to fight it.¹⁸ Of the four models considered here, only the Digital Media Store would benefit from entirely precluding P2P systems. In distinct

CD, <http://www.riaa.com/news/marketingdata/cost.asp> ("marketing and promotion costs [are] perhaps the most expensive part of the music business today."); Lynne Margolis, "Independent's Day," *Christian Science Monitor* (Apr. 21, 2003) available at <http://www.csmonitor.com/2003/0411/p13s02-alm.html> (discussing lower cost structure of independents). For films, see MPAA Worldwide Market Research, *id.*

¹² See Fisher, *Promises*, at 20.

¹³ See James Maguire, "Hitting P2P Where it Hurts," *Wired News* (Jan 13, 2003), at <http://www.wired.com/news/digiwood/0,1412,57112,00.htm>.

¹⁴ See Mike Linksvayer, "Morpheus with Bitzi Anti-spoofing," (Oct 7, 2004) at <http://gondwanaland.com/mlog/2004/10/07/morpheus-with-bitzi-anti-spoofing/>.

¹⁵ *A&M Records v. Napster*, 284 F.3d 1091 (9th Cir. 2002); Fisher, *Promises*, at 116-120.

¹⁶ *MGM v. Grokster*, 2004 U.S. App. LEXIS 17471 (9th Cir., 2004) (finding that the Grokster and Morpheus services, which have no control over their users, were not liable for the infringements of their users).

¹⁷ See Peter Biddle et al., *The Darknet and the Future of Content Distribution*, (October 15, 2002), available at <http://crypto.stanford.edu/DRM2002/darknet5.doc> (predicting that highly efficient distribution networks "will remain a fact of life").

¹⁸ See, e.g., John Borland, "Music rebels seek to tame P2P," *News.com* (Nov. 16, 2004) available at http://news.com.com/Music+rebels+seek+to+tame+P2P/2100-1025_3-5453788.html.

ways, the others embrace P2P networks for the marketing opportunities, decreased distribution costs, and large online consumer base they offer.

For policymakers, the options related to P2P must be assessed on a number of dimensions. The role of P2P in supporting or hindering the viability of certain online business models is important. P2P technology is essentially a tool for searching for and transmitting files which is indifferent to whether it is used for licit and illicit purposes. For this reason, along with threatening the legitimate uses of P2P, attaching liability to use of the technology will almost inevitably impact myriad related technologies. Fearing liability, technology creators will constrain their innovation and resultant technologies, potentially limiting novel legitimate uses and tools.¹⁹

Illicit consumer distributors of content

Beyond the distribution systems are the individual distributors themselves. Over 60 million Americans have participated in P2P file sharing.²⁰ Some consumer distribution is entirely legal, authorized by the copyright holder or otherwise permitted by law. Only the industries' reaction to infringing distribution and downloading is of concern here.²¹

Copyright law creates substantial civil and criminal penalties for unauthorized downloading and distribution of copyrighted content. The music and film industries have sought legal redress against thousands of allegedly infringing distributors ("uploaders").²² Their primary intent is to increase the true cost of "free" content, deterring consumers from file sharing. While criminal penalties could pose a more drastic threat to infringers, current standards under US law render criminal prosecutions difficult to pursue in most P2P file sharing cases.²³

The Digital Media Store, P2P Store, and Collective Blanket Licensing models continue to derive revenues from copies of artistic works and could benefit from deterrence through lawsuits. However, the latter two enable and embrace consumer distribution only in particular authorized ways. In the Ancillary Products and Services model, all non-commercial distribution is freely allowed.

For policymakers, evaluating the treatment of unauthorized consumer distributors is a complicated calculus. Infringing uploading and downloading violates the law²⁴ and thus should be subject to sanction. Lawsuits and prosecution could be beneficial not only in enabling business models, but also in reconciling norms with the law.

¹⁹ See Mark Lemley and R. Anthony Reese, *Stopping Digital Copyright Infringement Without Stopping Innovation*, forthcoming publication, available at http://intel.si.umich.edu/tprc/papers/2003/210/Stopping_Copyright_Infringement_Without_Stopping_Innovation.htm; "Testimony of Gary Shapiro on behalf of the Consumer Electronics Association" at the IICA hearing, available at <http://ce.org/s2560test.pdf> (discussing threat to innovation in light of bill proposing tougher liability standards); Briefs for Defendants in appeal to *MGM v. Grokster*, available at http://www.eff.org/IP/P2P/MGM_v_Grokster.

²⁰ Ipsos News Center, *American Consumers Continue to Embrace Digital Music*, (Dec. 4, 2002) available at <http://www.ipsos-na.com/news/pressrelease.cfm?id=1685>.

²¹ Estimates vary depending on system and estimator. See *A&M Records v. Napster*, 114 F.Supp.2d 896, 911 (N.D.Cal. 2000) ("as much as eighty-seven percent of the files available on Napster may be copyrighted and more than seventy percent may be owned or administered by plaintiffs."); Amicus Brief of ACLU in support of Defendants at 13-14, appeal to *MGM v. Grokster*, 259 F.Supp.2d 1029, available at http://www.eff.org/IP/P2P/MGM_v_Grokster/20030926_aclu_amicus.pdf (placing the percentage of infringement on Grokster and Morpheus systems at around 75%, in contrast to plaintiff's 90% estimation).

²² John Borland, "RIAA files new round of P2P lawsuits," *News.com* (Nov. 18, 2004) available at http://news.com.com/RIAA+files+new+round+of+P2P+lawsuits/2100-1027_3-5458594.html (music industry has sued 6,952); John Borland, "MPAA touts lawsuits, new P2P-fighting software," *News.com* (Nov. 16, 2004) available at http://news.com.com/MPAA+touts+lawsuits%2C+new+P2P-fighting+software/2100-1025_3-5454939.html.

²³ Infringement must be willful and "have a total retail value of more than \$1000." 17 USC 506(a). See also Fisher, *Promises*, at 147 (discussing this issue in greater detail).

²⁴ Of course, not all uploading may count as infringing distribution or reproduction. See Berkman Amicus Brief in *Capitol Records et al. v. Noor Alaujan*, available at http://cyber.law.harvard.edu/media/capitol_amicus. Similarly, some downloading may be legal, though some substantive defenses were rejected in *A&M Records v. Napster*, 284 F.3d 1004, 1013-1020 (9th Circuit 2001).

However, the legal regime is most successful when it is consistent with prevailing norms and practices, and the ability of lawsuits and prosecutions to reduce infringement significantly is controversial at best, futile at worst. Some surveys suggest that the initial barrage of lawsuits reduced P2P use, but studies have shown that P2P traffic has continued to increase,²⁵ and P2P systems are now adding anonymizing features that may impede the industries' efforts.²⁶

In turn, enforcement may do more harm than good. As millions violate the law as part of their daily lives, "respect for the law" in general may decline.²⁷ To some, it also seems excessive and unfair to levy heavy sanctions nearly at random on individual infringers.²⁸

Altering copyright law or copyright holders voluntarily licensing consumers as distributors could create the same social benefits of reconciling norms with law without the costs of aggressive enforcement. Indeed, enabling legitimate distribution may also create social benefits by transforming consumers into active participants in the shaping of culture, rather than passive recipients of artifacts created by a few institutions. Lateral rather than top-down distribution would be accompanied by an increase in the influence of peers' interests and tastes.

Digital rights management technologies (DRM)

Copyright holders can employ DRM to control how their intellectual products can be used, including restrictions on playing, copying, and distributing content. Its utility to the industries is potentially manifold: for example, it can theoretically limit infringing distribution and enable rights holders to price discriminate, exacting payment for various consumers' uses.

Current law and industry practice reinforce DRM in several ways. The Digital Millennium Copyright Act (DMCA) prohibits the manufacture and distribution of devices that circumvent DRM controlling access to or copying of a copyrighted work; it also prohibits the act of circumventing access controls. Though the DMCA has a limited set of exceptions, typical defenses to infringement, like fair use, do not apply.²⁹ Rights holders are pervasively implementing DRM in the offline and online markets and have successfully sued circumvention device creators under the DMCA.³⁰

The FCC has also recently mandated that all devices capable of receiving digital television programming manufactured in July 2005 and later must recognize a "broadcast flag"—information that specifies how received content can be copied. Devices may only output protected content in a degraded form or to other broadcast flag compatible devices and must be robust against user access or modifications that might permit access to the unmediated digital stream. Technology creators must receive permission from the FCC to distribute such digital television devices.³¹

²⁵ See Pew Internet & American Life Project, *Sharp decline in music file swappers: Data memo from PIP and comScore Media Metrix*, (Jan. 4, 2004) at <http://www.pewinternet.org/reports/toc.asp?Report=109>; Cachelogic, *The True Picture of P2P File-sharing* (Fall 2004), at <http://www.cachelogic.com/research/slide1.php>; Thomas Karagiannis et. al., *Is P2P dying or just hiding?*, Presented at Globecom (November 2004) available at <http://www.caida.org/outreach/papers/2004/p2p-dying/>; Hughes, supra note 4.

²⁶ See John Borland, "Covering Tracks: New privacy hope for P2P," *News.com* (Feb. 24, 2004) at <http://news.com.com/2100-1027-5164413.html>.

²⁷ See Lawrence Lessig, *Free Culture*, (Penguin Press: Mar. 25, 2004), 202, available at <http://blogspace.com/freeculture/Harms;Fisher,Promises>, at 243 (discussing "culturally unhealthy" impact of millions violating the law).

²⁸ See Lemley and Reese, supra note 19.

²⁹ 17 USC 1201-1205. Exceptions in 1201(d)-(j). Regarding the lack of a fair use exception, see *Universal v. Reimerdes*, 111 F. Supp. 2d 294, 321-324 (S.D.N.Y. 2000).

³⁰ See, e.g., *Universal v. Reimerdes*, 111 F. Supp. 2d 294 (precluding interoperability of DVD players without a license); *RealNetworks v. Streambox*, 2000 U.S. Dist. LEXIS 1889 (W.D. Wash. 2002) (prohibiting creating compatible program to access streaming media files).

³¹ 47 CFR 73.9002(b) et. seq. (Nov. 4, 2003) and see http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-273A1.pdf; EFF Digital Television Liberation Front, available at <http://eff.org/broadcastflag/>; DefCon12 slides, (July 31, 2004), available at <http://www.eff.org/broadcastflag/defcon12/> (describing these requirements).

Many believe that DRM is an illusory barrier to piracy. Even if DRM were able to preclude most people from distributing a given work, even one unencrypted copy can quickly propagate through a P2P system. No DRM is uncrackable, and, even without circumventing, files can be re-encoded into an unencrypted format once burned to CD or as they are outputted in analog form.³²

If DRM cannot prevent piracy, its usage restrictions may only diminish the value of acquired content and thus decrease consumer demand. Some in the content industries are seeking new business models that would not benefit from DRM. DRM may be of appeal to the Digital Media Store and P2P Store, but will be of no use to the other Collective Blanket Licensing and Ancillary Products and Services models, which allow and encourage unrestricted use of copyrighted materials.

Policymakers must weigh the potential of DRM to enable owners to protect their artistic works with its unintended consequences for consumer fair use and first sale rights.³³ DRM can effectively deny consumers their rights under fair use and first sale, limiting various personal and transformative uses. In this way, DRM may undermine the potential of the digital environment's enabling consumers to interact with and manipulate content.³⁴ Policymakers must also assess the impact on innovation. Rights holders and DRM standards creators may use DRM to "lock out" disfavored digital media device and software creators by refusing them licenses.³⁵ DRM mandates also limit technology creators' flexibility to design tools with novel uses.³⁶

THE BUSINESS MODELS

As described above, the four business models were developed to illustrate a spectrum of potential outcomes, not necessarily mutually exclusive but offering alternative responses to the challenges and opportunities of digital technologies and the online environment. The models, Digital Media Stores, P2P Stores, Collective Blanket Licensing, and Ancillary Products and Services, range from highly similar to vastly different from the traditional offline business model and from seeking a high degree of control over content and consumer behavior to none. Thus, as illustrated below, action across the policy nodes to enforce or diminish such control would have different impact on each.

³² See Biddle et al., *supra* note 17 (arguing that DRM does not affect the viability of P2P and that businesses might be better off avoiding DRM entirely); Cory Doctorow, *Microsoft Research DRM Talk*, (June 17, 2004), available at <http://www.craphound.com/msftdrm.txt>.

³³ See Dan Burk and Julie Cohen, *Fair Use Infrastructure for Rights Management Systems*, 151 *Harvard Journal of Law and Technology* 42, 43-54 (Fall 2001); R. Anthony Reese, *The First Sale Doctrine in the Age of Digital Networks*, 44 *Boston College Law Review* 577 (2003).

³⁴ See Fisher, *Promises*, at 28-31 (discussing enhanced abilities to interact with content).

³⁵ See Berkman Center Digital Media Project Team, *iTunes: How Copyright, Contract, and Technology Shape the Business of Digital Media*, (April 10, 2004), 44-48 (discussing lock-out in the current digital music market).

³⁶ See Paul Horn, Eliot Maxwell, and Susan Crawford, *Promoting Innovation and Economic Growth: The Special Problem of Digital Intellectual Property*, report from Committee on Economic Development, 31-43 (March 3, 2003), available at http://www.ced.org/docs/report/report_dcc.pdf.

Exhibit: Comparison of how seeking control across nodes could benefit models

	Sue illicit consumer distributors	DRM	Interfere with P2P	Potential policy responses to support model
Digital Media Store	Yes	Yes	Yes	Increase support for control across all three nodes
P2P Stores	Yes, but would enable legitimate distribution	Yes	No	Increase sanctions for infringement and reinforce DRM, but protect P2P systems
Collective Blanket Licensing	Yes, but would enable legitimate distribution	No	No	Compel licensing of consumer distributors as per the model; remove control across nodes supporting other models
Ancillary Products & Services	No, allow all distribution	No	No	Remove rights to non-commercial copying and distribution; remove control across nodes supporting other models

This paper assesses each of these models across a range of dimensions, evaluating them comparatively here in the body of the paper and then in more individual depth in the appendix for each model. To preserve equal treatment, we describe and evaluate them conceptually, although we do cite existing attempts to implement them in our discussion of supporting evidence. First, we consider how the model may alter the roles of players within the industry as well as affect the diversity of content produced. Second, we consider the model's potential for sustaining industry viability, describing reasons for and challenges to success. Third, we examine each model's interaction with the three policy nodes, noting the model's broader social costs and benefits in this regard. Finally, we suggest options across the three nodes that policymakers could employ to support the model, and then analyze the potential consequences of doing so.

DIGITAL MEDIA STORE³⁷

Overview

As a translation of the traditional brick-and-mortar retail model for physical media into the online market for digital media, the Digital Media Store (DMS) model would offer the least disruption to the traditional practices and structures of the media industries. In the model, retailers would offer licensed content for sale to consumers at websites or through software applications. By ensuring consumers have a reason to purchase content at online Stores, the industries would benefit from the suppression of piracy via technical and legal means.

Model structure

In this model, rights holders, whether content creators or intermediaries like record labels, would license their works to Stores. Consumers would go to centralized locations online to obtain works. Stores would offer

³⁷ For further discussion of the Digital Media Stores model, see Appendix II.

consumers access to works under pay-per-download (PPD), all-you-can-eat subscription services, or hybrid fee structures (e.g., subscriptions allowing a fixed amount of downloads per month). To increase their market share and sales, Stores might promote particular works or creators through advertising or recommendation systems just as brick-and-mortar stores do today. DRM might limit various uses of works, including portability or use of works after a limited time period (thus enabling rental models).

Potential impact on industry actors

This model has the potential to bring content creators and retailers closer together than they currently are, changing the roles and revenues of existing intermediaries. Although many content creators will continue to rely upon intermediaries for their specialized expertise, this model would contribute to the declining cost structure by enabling inexpensive distribution. As such, this model might reduce the need for well-capitalized intermediaries. Moreover, it could support a broader spectrum of creators than does the traditional physical system. Because digital storage and presentation are relatively inexpensive, Stores can host a practically infinite number of creators.³⁸

Requisites

To succeed, the DMS model must successfully "compete with free," or, in other words, convince consumers to pay for media content from the Stores rather than downloading it for free on P2P networks or other sources. To do so, the industries must increase the value of what they offer such that consumers find it worth paying for, or to increase the true cost of obtaining media content from other sources without paying for it. For example, the Stores may seek to be easier to use, more reliable and more convenient than P2P networks. The media industries may also continue to increase the true cost of obtaining unauthorized content using P2P and other vehicles through interference with P2P networks and infringing users and by employing DRM to inhibit infringing distribution.

Evaluation

The DMS model currently dominates online efforts to obtain revenues from films and music. Thus, the challenges and supporting evidence regarding it are the most specific and empirically well developed of any of the models. While at least a segment of online consumers appear willing to purchase legitimately through Stores, it is as yet unclear whether that segment will be sufficient to support the model and the industries. Further, as discussed in the Introduction, current evidence suggests that present efforts to fight piracy may be ineffective.

Challenges

Over the last year, numerous Music Stores have debuted with lower prices, larger catalogs, greater purchasing flexibility and lesser usage restrictions, allowing CD burning and portability. However, they continue to struggle to offer a product that can truly compete with what is available via P2P. For example, the iTunes Music Store (iTMS) has a one million-song catalog, the largest of any service, but that equals merely 20% of total released recordings and an even smaller portion of all recordings given the number of rare and live recordings one can find on P2P.³⁹ Purchasing options are also restricted in a variety of ways. Some record labels force Stores to sell only complete albums despite data showing that consumers prefer singles.⁴⁰

³⁸ Music Stores are already finding that almost all of their content is streamed or purchased at least once. "Post-Conference Report on Midem 2004," *Digital Media Wire*, at <http://www.digitalmusicforum.com/midemreport2004.htm>; Chris Anderson, "The Long Tail," *Wired* (Oct 2004) at <http://www.wired.com/wired/archive/12.10/tail.html>.

³⁹ See Leander Kahney, "Music Biz Buzzing Over iTunes," *Wired News* (May 2, 2003) at <http://www.wired.com/news/print/0,1294,58706,00.html>.

⁴⁰ See Brian Garrity, "All Aboard The Digital Train?" *Billboard* (Sept. 20, 2003); "Online music sales could be sad song for big record companies," *LA Times via Milwaukee Journal Sentinel* (April 28, 2004) available at <http://www.jsonline.com/bym/tech/news/apr04/225616.asp>.

Similarly, some songs are licensed for PPD purchasing but not for streaming through subscription services and vice-versa.⁴¹

Stores are also burdening content with DRM to control consumer behavior. Among other uses, DRM can be used to tie media to specific hardware or software; for instance, Apple's iTunes Music Store's (iTMS) songs can only be moved to an Apple iPod. Also, rental subscription services currently do not offer any portability. Research suggests that such restrictions dampen consumer interest.⁴² DRM is also likely to be used to enable the same product to be priced differently according to the uses a consumer can then put it to; for example, Napster 2.0 may use it to enforce a higher price for a portable version of a song in a forthcoming subscription service.⁴³ The potential benefits of such pricing or reducing piracy through DRM must be weighed against the extent DRM will drive consumers towards free, unencrypted content on P2P.

Finally, the Stores' pricing may still be too high. Based on higher purchasing volumes during Stores' temporary price cuts, some claim that the labels would be better off licensing at lower rates, allowing Stores to lower their prices.⁴⁴ While all-you-can-eat subscription models may provide a better choice for high-volume users, their prices are above the average consumer's spending on music.⁴⁵

The Film Stores face similar challenges in competing with free and are currently in a particularly primordial state. Of the two main film per-copy download services, Movielink and CinemaNow, only CinemaNow offers permanent downloads, albeit from an extremely limited portion of its already small catalog. Both services' prices are often above what one would pay at a brick-and-mortar Blockbuster. Recently, RealNetworks and Starz debuted a subscription service, but it too has a limited catalog. All services have DRM restrictions and are only beginning to offer limited portability.

Supporting evidence

Despite the Stores' limited success to date, survey data and the Music Stores' growing market share suggest reason for optimism. The launch of iTMS and other Music Stores has helped lead to a marked increase in the size of the legitimate market for music downloads. In 2003, it blossomed to \$36 million and \$47 million for US PPD and subscriptions revenues, respectively, and the market is expected to grow to \$271 million in 2004, according to Jupiter Research.⁴⁶ The significance of this growth should not be overstated, as the online market still represented merely 0.8% of gross music industry revenue in 2003; however, it does demonstrate that at least some consumers will pay rather than pirate given a compelling offering.

⁴¹ See Katie Dean, "New Napster Off to Solid Start," *Wired* (Nov 3, 2003) at <http://www.wired.com/news/digiwood/0,1412,61023,00.html>.

⁴² See Paul Gluckman, "Building Business on Legal Downloads Isn't Easy, Panelists Say" *Washington Internet Daily* (Feb. 10, 2004) (citing complaints about lack of interoperability); Berkman Center and GartnerG2, *Copyright and Digital Media in a Post-Napster World*, (Aug. 2003) at 17, available at <http://cyber.law.harvard.edu/home/uploads/254/2003-05.pdf> (discussing portability as expected use). See also *iTunes: How Copyright, Contract, and Technology Shape the Business of Digital*, supra note 35, at 53 (citing GartnerG2 statistics regarding declining demand if consumers cannot resell content).

⁴³ See "Napster Previews First Portable Digital Music Subscription Service," (Sept. 1, 2004) available at http://www.napster.com/press_releases/pr_040901.html (pricing at \$14.95, above current subscription rate of \$9.99).

⁴⁴ See Steven Levy, "Forecast: Song Costs May Fall like Rain," *Newsweek* (Sept 27, 2004) available at <http://www.msnbc.msn.com/id/6037780/site/newsweek/>; Amy Harmon, "What Price Music?" *New York Times* (Oct. 12, 2003) at <http://www.nytimes.com/2003/10/12/arts/music/12HARM.html?pagewanted=2&ei=5007&en=ccd1925d9ba7f1d2&ex=1381377600&partner=USERLAND>.

⁴⁵ See Census Bureau, *Statistical Abstract of the U.S., 2003: The National Data Book*, (January 2003) (projecting consumer spending at \$58.81 and \$57.27 for 2003 and 2004, respectively); "US per capita consumer spending on each of nine forms of entertainment / media forecast for 2002 in dollars," *Plunkett's Entertainment & Media Industry Almanac* (Jan. 7 2002) (placing consumer spending at \$71/person in 2002). Most subscription services currently charge \$9.99 per month or about \$120 per year. See http://www.mp3.com/tech/services_index.php for pricing information.

⁴⁶ Forrester Research, "For downloads, things are looking up", *News.com* (Feb. 4, 2004) at <http://news.com.com/2030-1069-5153314.html>; May Wong, "The downfall of downloads?" *AP via Kansas City Star* (Oct 3, 2004) available at http://www.kansascity.com/mld/kansascitystar/business/personal_finance/9803225.htm?1c.

Further, in polls taken recently and during the original Napster's existence, P2P-using consumers indicated that depth of catalog, flexibility of purchasing and use, and convenience are often just as important as price.⁴⁷ Thus, if the Stores can improve these features they may be able to increase their market share further. In 2003, Jupiter Research found that half of surveyed consumers reported they would pay if offered prices and DRM flexibility similar to those now offered by PPD services.⁴⁸ Moreover, competition in this emerging market is likely to produce improvements. Already, Music Stores are beginning to compete on price, exclusive content, and flexibility of content use.

The film market is much smaller, but that is to be expected in view of the facts that broadband connections are needed to download films quickly and that relatively few consumers as yet want to watch films on their computers. Technical improvements to Movielink and Cinemanow⁴⁹ and the Starz subscription service's debut may help bolster interest, just as the increasing variety of Music Stores did for music.

Policy implications

While not inherently necessary to the model, the DMS would benefit from policies across the three nodes to help inhibit piracy. The potential benefits of successfully exerting such control over content must be weighed with the unavoidable social costs of seeking that control.

Impact from actions across the three nodes

The industries would benefit from preventing piracy through DRM, interference with P2P, and lawsuits against direct infringers. While enabling a viable model for the industries would be socially beneficial, as described in the Introduction, these tactics might not meaningfully decrease piracy and have negative social consequences in regard to the fairness of and respect for law; inhibition of innovation; and restrictions on legitimate consumer uses.

Policy options to support this model

Policymakers in favor of this model would support industry proposals to increase their ability to control content and increase the sanctions facing those who evade it. Total eradication of piracy would likely be the industry goal, but policy might also be aimed at the more modest goal of control over content for a short period after its initial release.⁵⁰

First, policy makers could increase the civil and criminal penalties facing consumer infringers and, to increase the likelihood of facing them, could increase Justice Department resources for criminal prosecutions and decrease the standard of proof required for a finding of guilt (proposed in the 2004 IP Protection Act⁵¹). Second, legislation could make it easier to sue P2P services (proposed in the 2004 INDUCE Act⁵²) and legalize interference with uploaders via "interdiction"⁵³ (proposed in the 2002 Berman Bill⁵⁴). Finally, policy

⁴⁷ See Phil Leigh, *Online Music Starts Rocking*, (December, 2003) at <http://insidedigitalmedia.com/research/rocking.pdf> (citing research by now defunct Webnoize that breadth of choice and convenience were more often cited than price); Horn, et. al., supra note 36, at 49 (citing research by now defunct Webnoize that breadth of choice and convenience were more often cited than price); Harris Interactive, "Reasons that Teens Downloaded Without Paying, 2003" (October 2003), reprinted by eMarketer in radio interview with Phil Leigh, at <http://www.insidedigitalmedia.com> (finding 59% wanted to get "one or two songs", 48% wanted music quickly, 46% found music too expensive, 44% wanted music for free, 40% wanted songs unavailable elsewhere).

⁴⁸ See "The Apple Music Store," *Jupiter Research* (May 30, 2003) at <http://weblogs.jupiterresearch.com/analysts/gartenberg/archives/Jupiter%20Apple.pdf>.

⁴⁹ See Paul Korzenioski, "Could It Finally Be Showtime For Online Movie Downloading Sites?" *Investor's Business Daily* (Dec. 9, 2003).

⁵⁰ The Digital Media Project is pursuing an on-going study of two scenarios related to these extreme and moderate policy solutions, the Technology Lockdown and Technology as Speed Bump Scenarios: <http://cyber.law.harvard.edu/media>.

⁵¹ See http://www.corante.com/copyright/archives/COE04B52_LC.pdf.

⁵² See http://www.lessig.org/blog/archives/COE04694_LC.pdf.

⁵³ Interdiction entails downloading a song from a P2P user such that no one else can download it at the same time. In this way, rights holders can effectively block transmission of the content. See Randy Saaf, Written Testimony for the Oversight Hearing on

makers could (proposed in the 2002 Hollings Bill and recent requests to the FCC)⁵⁵ pass DRM mandates that required all new analog and digital media devices to be DRM-enabled, perhaps even limiting the use of unencrypted content.⁵⁶

The efficacy of adding new technological tools or legal reinforcement to the industries' arsenal against piracy is far from given. Each attempt so far to impede piracy has resulted in technological counterattacks or workarounds and a continued arms race seems nearly inevitable.⁵⁷ However, to the extent such policy actions would actually increase the control the music and film industries were able to exert over copyrighted content, certain social benefits would accrue. Complete content lockdown and substantial reduction of piracy would allow the industries to deploy the Stores largely without having to compete with free, whereas a protected initial window would maintain control during the portion of a work's life when it is likely to garner a significant portion of its returns. In turn, the industries' outlook for the online future would be significantly improved. Such control would also enable much greater price discrimination; without competition from free and greater difficulty in evading DRM, consumers could be offered, for instance, one price to listen to a song once, with additional fees for extra listens, moving it to a portable player, backing it up on CD, and so on. Such differential pricing can be socially beneficial by increasing total consumer access to artistic works and by increasing rights holders' revenues.⁵⁸

The efforts to exert control would have significant social costs. The more severe penalties for file sharing as well as the heightened strictures on innovators and users of content would enhance the social costs across the three nodes. Tactics like interdiction may also interfere with legitimate activities.⁵⁹ DRM that tracks and exacts payment for each use may raise privacy concerns and restrict lawful consumer uses.⁶⁰ Such social costs increase as policies seek closer to total control of content and eradicating piracy. Furthermore, consumers' evasion of the legal and technical strictures may eventually require more severe measures, generating increased collateral damages.

Further, by seeking to advantage this business model over others, these policies may reinforce the traditional industry structure and at the expense of certain content creators. For example, if the industries rely on high sales during the limited initial period of impeded piracy, this approach might intensify the industries' current tendency to invest in a few immensely profitable hits while marginalizing the vast majority of content creators. Generating high initial sales will require large upfront costs for marketing and the technological impediments to piracy, and, in this way, this approach may make risk-spreading intermediaries like the record labels and film studios more valuable. In this way, the benefits of the dropping cost structure and greater independence of content creators might diminish.

"Piracy of Intellectual Property on Peer-to-Peer Networks" submitted to the House Judiciary Committee (Sept 26 2002), at <http://www.house.gov/judiciary/saaf092602.htm>.

⁵⁴ See H.R. 5211, available at <http://thomas.loc.gov/cgi-bin/bdquery/z?d107:h.r.05211>.

⁵⁵ S. 2048, "Computer Broadband and Digital Television Promotion Act", http://www.eff.org/IP/SSSCA_CBDTPA/20020321_s2048_cbdtpa_bill.pdf; MPAA, *Content Protection Status Report* (April 25, 2002) at http://judiciary.senate.gov/special/content_protection.pdf.

⁵⁶ The aim of such restrictions would be to render useless unencrypted content illicitly acquired via P2P or other distribution systems. Such restrictions were feared when the CBDTPA was proposed; see Electronic Frontier Foundation, "Alert: Congress Calls for Public Participation on Digital Media Technology Mandates," (Apr. 9, 2002), at http://www.eff.org/IP/SSSCA_CBDTPA/20020322_eff_cbdtpa_alert.html.

⁵⁷ See Testimony of Edward Felten on "Piracy of Intellectual Property on Peer-to-Peer Networks," submitted to House Judiciary Committee (Sept, 29 2002) (cautioning against technological arms race).

⁵⁸ See Fisher, *Promises*, at 167.

⁵⁹ See Electronic Frontier Foundation, "Comments on the Berman P2P Bill," (Aug. 2, 2002), at http://www.eff.org/IP/P2P/20020802_eff_berman_p2p_bill.php.

⁶⁰ See Julie Cohen, *A Right to Read Anonymously: A Closer Look at Copyright Management in Cyberspace*, 28 Conn. L. Rev. 981 (1996).

THE P2P STORE⁶¹

Overview

The P2P Store model would maintain the industries' reliance on selling copies and, in that sense, is closely related to and compatible with the DMS. (For that reason, this discussion in this section is more abbreviated, drawing substantially on the preceding analysis.) However, rather than resist P2P networks and other consumer-to-consumer distribution channels like the DMS, this model would accept that they will persist and attempts to embrace them. To do so, the model would harness consumers as lawful second-order distributors.

Model structure

The P2P Stores' primary role would be transactional, paying rights holders for works and accepting payment from consumers. Rights holders would individually negotiate licenses of their works to P2P Stores. Content hosting and distribution, while potentially P2P Store activities, would not be core to them.

At least two variations of the model can be imagined. In "superdistribution," consumers would host and distribute licensed content through any P2P network or other distribution systems. Consumers would then download content from each other; downloaded files might allow a certain number of free plays and then force the consumer to pay to retain access. To encourage consumers to distribute licensed content, they might receive a cut of the revenue or other rewards if those who receive the works "downstream" from them then purchase access. P2P Stores and rights holders could seed P2P networks to catalyze this scheme. In "closed networks," consumers would join a P2P network in which only licensed, authorized files can be shared with and downloaded from others. The P2P Stores would create and maintain this P2P environment. In both cases, consumers could be provided with PPD, subscription, or other payment options, and works could be encumbered by DRM.

Potential impact on industry actors

Widespread adoption of this model might affect the diversity of artists and the way money is allocated within the industry. This model empowers artists to provide their works directly to their consumers even more than does the DMS. By co-opting consumers to share distribution efforts and act as viral marketers, this model can reduce the financial investment and infrastructure required to achieve content sales, and in doing so reduces creators' need for large multifaceted intermediaries. Consumers may be exposed to a broader spectrum of creators and artistic works, as lower costs might enable creators to achieve financial viability without selling as many copies of their works as is currently required.

Requisites

As was the case with respect to the DMS model, the P2P Store model can succeed only if the opportunity to purchase content legally is valued by consumers more highly than the opportunity to access content illegally without payment. Because the P2P Stores model also relies on widespread consumer-driven distribution, consumers must be willing to share files that are not accessible without payment.⁶² Further, successful interference with P2P and other decentralized distribution networks would be counterproductive, though reducing piracy through direct infringement lawsuits and DRM would be beneficial.

⁶¹ For further discussion of the P2P Stores model, see Appendix III.

⁶² While DRM might be useful in enforcing payment in some instances, this model in no way requires DRM as a barrier to infringing redistribution. That is, once a consumer purchases the song, he could automatically receive an unencrypted copy (see, e.g., the superdistribution service, <http://www.faircopy.com/>). The consumer could then, quite easily, distribute that unencrypted copy, and thus DRM is posing no barrier to infringing distribution, nor does it pose any barrier to legitimate uses of lawfully purchased copies.

Evaluation

The viability of this model depends on its ability to compete with free. Although the reliance on selling copies is familiar to the industries, decentralized distribution is a new concept. Existing P2P Stores that do exist are currently less established than DMS. P2P Stores such as superdistribution services Weedshare and Altnet have only obtained licenses from independent artists; though closed network Wippit had licensed major record label content, it has now shifted towards a DMS service.⁶³ While the music industry reportedly will license new closed network ventures,⁶⁴ the extent to which they will embrace this model's strategy is unclear.⁶⁵ This model offers the industries the opportunity to work with new technologies and consumer preferences, but it also requires the industries to give up more control.

Challenges

Price, DRM restrictions (or lack thereof), size of catalog, consistency and convenience of products, and flexibility of purchasing options all factor into the P2P Store model's potential for success. It faces similar challenges to the DMS model in these regards. The industries may also be hesitant to license the P2P Stores because they may further diminish popular attitudes that unauthorized uses of P2P are wrong or unlawful. Moreover, to embrace the P2P Store, the industries would have to forfeit whatever benefits the DMS derives from legal and technical interference with P2P systems. The industries certainly could abandon such interference and employ the two models jointly, but the industries may not feel ready to take this step.⁶⁶

Supporting evidence

On the other hand, the P2P Stores may be a more attractive model for the industries and consumers. For the industries, this model offers reduced costs of distribution and content hosting, consumer participation in marketing, and the opportunity to work with their consumers and new technologies. For consumers, this shift to encouraging behavior they already engage in and perhaps prefer is a primary benefit. Consumers may enjoy the sense of community and opportunity to find content, recommendations, and individuals of similar tastes that file sharing enables. While consumers can obtain this benefit from unlawful sharing, payment or other rewards for lawful sharing may make P2P Stores more attractive. In a recent Gartner | G2 poll of online music service users, 25% indicated that a sharing capability increases a service's appeal.⁶⁷ Although some Digital Media Stores have incorporated limited sharing functionality,⁶⁸ some consumers may prefer to stay in P2P environments rather than participating through a centralized commercial site.

⁶³ See Amicus Brief of Altnet in support of Defendants, appeal to *MGM v. Grokster*, 259 F.Supp.2d 1029, available at http://eff.org/IP/P2P/MGM_v_Grokster/20030929_altnet_amicus.pdf (discussing Altnet's licensors); Weed, *CD Baby members use SML's Weed to sell Music*, (June 24, 2004), at http://weedshare.com/web/releases/06-24-04_WEED_RELEASE.html, "Music Producers Hail SML's Weed distribution service," (Dec. 11, 2003) at http://weedshare.com/web/releases/12-11-03_WEED_RELEASE.html (on Weed); Tony Smith, "Wippit adds 10,000 BMG tracks to catalog," *The Register*, (Mar. 15, 2004), at <http://www.theregister.co.uk/content/6/36254.html> (on Wippit's major label support); Michael Hill, "Small company has big peer-to-peer dreams," *Cnews* (Dec. 27, 2004) available at <http://cnews.canoe.ca/CNEWS/TechNews/TechInvestor/2004/12/22/793848.html> (discussing new Wippit download service).

⁶⁴ See Smith, id.; John Borland, "Music rebels seek to tame P2P," *News.com* (Nov 16, 2004) at http://news.com.com/Music+rebels+seek+to+tame+P2P/2100-1025_3-5453788.html?tag=nefd.pop.

⁶⁵ See Andy Sullivan "Labels blacklist song-swap companies" *Reuters* (July 15, 2004) available at <http://uk.news.yahoo.com/040715/80/ey4fj.html>.

⁶⁶ We also acknowledge that, with all channels that allow illegitimate distribution shuttered, closed networks and superdistribution could still exist in authorized channels. However, one cannot embrace distribution schemes like superdistribution today while still continuing to spoof those songs or sue the distribution networks out of existence. Truly embracing this model is thus incompatible with interference with P2P.

⁶⁷ Gartner | G2 internal presentation to Media Industry Advisory board, "Early Adopters of Paid Online Entertainment Services," (April 27, 2004). Data provided in email from Gartner | G2 research partner, Mike McGuire (Oct. 15, 2004).

⁶⁸ See Dinesh Sharma, "MusicMatch jazzes up jukebox," *News.com* (July 24, 2004) available at http://news.com.com/MusicMatch+jazzes+up+Jukebox/2100-1027_3-5285215.html.

Policy implications

The P2P Stores benefit from lawsuits against illicit file sharers and DRM to the extent they prevent piracy. However, the model relies on P2P systems and other distribution technologies being preserved. Policymakers may be asked to aid the P2P Stores in these regards.

Impact from actions across the three nodes

As noted in regards to the DMS, DRM and direct infringement lawsuits may be entirely inefficacious, and, despite the potential social benefit from enabling the model's viability, may cause net social harms. Unlike the DMS, this model may be socially beneficial by allowing consumers to actively participate in distribution and continue peer sharing, albeit in a for-fee form. Furthermore, by embracing distribution technologies like P2P, this model would enable innovation.

Policy options to support this model

Policymakers favoring this model should reject efforts to burden P2P networks through the imposition of secondary liability and the encouragement or specific legalization of technical tactics such as spoofing. However, strengthening penalties for illicit file sharing, DRM mandates and anti-circumvention laws, and other technical impediments to infringing distributors could support this model if they successfully diminish piracy. As noted in the DMS section, these greater strictures would enhance potential social harm.

COLLECTIVE BLANKET LICENSING⁶⁹

Overview

This model avoids fighting illicit consumer behavior as a primary strategy in favor of enabling consumers legitimately to continue their currently illicit activities. Accepting that consumers prefer and will continue to download unlimited, unencrypted content from decentralized distribution services like P2P, this model provides a mechanism by which rights holders can be compensated. Rights holders would form a collective blanket licensing (CBL) organization, and, rather than attempting to collect per-use fees for each specific item, would offer consumers a flat-fee license to access and use all works, without restrictions over copying or further distribution. The CBL organization would count the uses and remit payment to rights holders accordingly. Although CBL has functioned well for music performing rights organizations (PROs) such as ASCAP and BMI, moving to this model for the industries' primary revenue stream could have dramatic implications for industry structure and revenue distribution.⁷⁰

Model structure

The model's functioning would be roughly similar to the PROs' blanket licensing and Professor William Fisher's proposal for an "Entertainment Co-op."⁷¹ Rights holders would register their works with the CBL organization, permitting it to grant to consumers the right non-commercially to copy and distribute the works online. The organization would offer a license to these rights that covers the entire catalog of registered

⁶⁹ For further discussion of the Collective Blanket Licensing model, see Appendix IV.

⁷⁰ This analysis draws heavily on works proposing and criticizing this approach: Fisher, *Promises*, at 199-259; Neil Netanel, "Impose a Noncommercial Use Levy to Allow Free P2P File-sharing," 17 Harv. J. of L. and Tech. 1 (2003); EFF, "A better way forward: Voluntary Collective Licensing of Music File-sharing," at http://www.eff.org/share/collective_lic_wp.pdf (*hereinafter* "EFF White Paper"); Robert Merges, *Compulsory Licensing vs. the Three "Golden Oldies" Property Rights, Contracts, and Markets*, Policy Analysis No. 508 (January 15, 2004), available at <http://www.cato.org/pubs/pas/pa-508es.html>; Stan J. Liebowitz, "Alternative Copyright Systems: The Problems with a Compulsory License" (Aug. 21, 2003), available at <http://www.utdallas.edu/~liebowit/intprop/complpff.pdf>.

⁷¹ See EFF White Paper; Michael Einhorn, *Intellectual Property and Anti-trust: Music Performing Rights in Broadcasting*, 24 Colum.-VLA J.L. & Arts 349, 352-354 (Summer 2001); Fisher, *Promises*, at 252-258.

works in exchange for a flat fee, perhaps in the form of a monthly subscription. Individual consumers could purchase the licenses directly, or services such as P2P software distributors or ISPs could pay the fee for each of its users, enabling them to take advantage of the license and passing on the cost in some fashion. Licensed consumers might only be allowed to distribute files in systems that limit access to licensees;⁷² however, anyone would be allowed to offer such legitimate distribution systems, licensed consumers would be able to download from anyone, and no DRM or similar encumbrances would be employed. To determine payments to rights holders, the CBL organization would track usage of licensed content. Among other possible methods, it could measure what is being shared and downloaded on P2P networks; in addition, it could recruit users to allow software to track all usage, similar to the Nielson television surveys. Relative popularity based on this counting would determine remuneration for individual rights holders.

Potential impact on industry actors

By managing initial distribution and licensing, a CBL system could help engender financial returns for more content creators without need for approval or support from anyone other than fans. Without aid from other intermediaries, creators could produce their own recordings, register them, and receive compensation through CBL. Certainly, many creators might still need intermediaries to help produce and market their works, but the lower costs of the digital environment could mean that lower revenues could be achieved through the CBL while still achieving meaningful profits for creators. The CBL system and its lower cost structure could thus mean that a greater diversity of creators and works would be available to consumers. Further, consumers' ability to obtain all content for a set price could lead them to sample, and thus fund, a broader variety of creators, supporting greater diversity.

Requisites

For this model to prove viable for the media industries, the cost of licensing must be worth the value of becoming lawful. Consumers must prefer to pay for the license rather than illegally obtain the same unrestricted content for free. Even though this model is in part born out of the futility of suppressing illicit use altogether, the industries might still hold out the threat of infringement lawsuits to encourage consumers to become licensed. Finally, this model requires that the industries (or an independent organization that obtains licenses from the industries) are able technologically and administratively to set and collect fees and accurately to estimate consumption patterns.

Evaluation

This model would represent a radical change for the industry, and, for that reason alone, might incur significant resistance. Aggregating enough licensed content and effectively implementing the CBL's many functions are significant challenges. On the other hand, the model may be more attractive to consumers because they can continue to find and use music as many already do today, through P2P networks or other online means and unencumbered by DRM. While typical market mechanisms may be ideal, CBL might be the best practical option in the face of severe copyright enforcement difficulties.

Challenges

Rights holders, particularly industry incumbents like the labels and studios, may worry that the CBL will not maximize their revenue or that of the industry as a whole. By lumping all goods together at one preset price, the CBL may decrease value in the system by removing the market signals that allow for efficient pricing. The CBL would preclude rights holders' ability to set their own prices according to what the market would

⁷² Proponents disagree on whether this would be necessary. On the one hand, it would reduce attractiveness to licensees. On the other, if licensees are not limited to distributing to other licensed users, they might share files with unlicensed downloaders, who would be difficult to target for infringement suits. See Ernest Miller, "Thoughts on the EFF P2P Solution White Paper," *The Importance of...* (Feb. 26, 2004), at <http://www.corante.com/importance/archives/002098.html>.

bear, their individual cost of creation, and other factors.⁷³ In this way, joining the CBL may forfeit an individual rights holder's possible competitive advantages in favor of overall industry viability and cooperation. To the extent antitrust oversight would be necessary, as it is with the PROs, a CBL might further reduce copyright holders' control.⁷⁴ Incumbent labels and studios may also be hesitant to the extent enabling this model would reduce their importance.

In addition, the accuracy of the usage counting is a significant concern. Measuring downloads as well as Nielson-style sampling may provide sufficient estimates; however, users might attempt to "game" the system, using a creators' works simply to send money to them, and over- and under-compensation may occur due to counting inaccuracies. Under-compensation would be of significant concern to less popular creators, for sampling would be most likely to leave them out.⁷⁵

Consumer adoption will depend heavily on the price point. The flat fee must make a sufficient number of consumers feel that they are receiving more value than in a per-copy system and from illicitly downloading for free. The CBL organization must also have a broad and deep catalog to be compelling to consumers. Of course, rights holders may be hesitant to join the organization before evidence exists that consumers are willing to subscribe.⁷⁶

Supporting evidence

Even though the CBL has its imperfections, it could provide a relatively preferable option for the industries if it can capture substantial revenue from the many consumers who would otherwise download illegally. ASCAP was formed to enable joint copyright enforcement in the face of widespread infringement; however, it evolved to offer efficient blanket licensing for a pool of copyrights, a development that finally made obtaining licenses viable and compelling to radio stations and other performance outlets.⁷⁷ Even a low fee of \$5 per month would generate substantial revenues if collected from the current 60 million American file sharers.⁷⁸ Successfully charging such a low fee across a large subscriber base could also be more profitable because it is comparatively cheaper than charging a higher price with greater need for enforcement on non-subscribing infringers.⁷⁹

At an appropriately low price point, consumers may find compelling the opportunity to avoid the legal risk of file sharing. Moreover, all-you-can-eat access would empower consumers to try out more content, as each marginal consumption would be experienced at zero cost. Finally, many market mechanisms, like bundling fees into ISPs and other services, may help bring consumers into the fold.

Policy implications

This model is not unconcerned with control over content through DRM or interference with P2P, though it might still benefit from wielding the threat of infringement lawsuits. Rather than increasing restrictions across the nodes, policymakers eager to enable this model would limit copyright holders' control over content, compelling the model's adoption and licensing of file sharers.

⁷³ For instance, in discussing a similar compulsory model, Professor Fisher notes that counting usage would not account for the ways in which duration indicates value. He notes that, generally speaking, longer works sustain consumers' entertainment and thus are of greater value. The price system normally accounts for such differences; for instance, children's films and documentaries are often cheaper than feature-length films. Fisher suggests that these factors could be accounted for, but only in a way that approximates typical market mechanisms. See Fisher, *Promises*, at 229-231.

⁷⁴ See generally Einhorn, *supra* note 71 (discussing history of anti-trust regulation of performance rights).

⁷⁵ Given the "skew log normal distribution" of sales in the industries, Fisher, *Promises*, at 77-79, this effect could be substantial. See Aaron Swartz, "Privacy, Accuracy, Security; Pick Two," available at <http://www.aaronsw.com/weblog/001016>.

⁷⁶ Some critics have suggested that the usage tracking poses a privacy threat, which would also turn off consumers. However, there is no need to link the uses to an individual; the CBL organization is only interested in recording that the use occurred, not *who* made the use. While one might not trust that the CBL would protect privacy, this problem is not inherent in the model.

⁷⁷ See EFF White Paper; Merges, *supra* note 70, at 10

⁷⁸ See EFF White Paper.

⁷⁹ *Id.*

Impact from actions across the three nodes

By embracing distribution technologies and rejecting DRM, this model would enable technological innovation and sustain consumers' ability to interact with and manipulate digital media. It would also enable the benefits of engaging consumers as active participants in distribution. The industries' efforts to increase the real costs of infringement through lawsuits will likely continue in some form, and, although these may incur similar social costs of enforcement, they will likely be lower because the purpose of using this model is to accept consumer behavior and vitiate the need for aggressive enforcement. As noted, it may be cheaper to charge lower fees with low enforcement.

Policy options to support this model

The most aggressive policy option in support of this model is to mandate its adoption through government action. Along with securing the social benefits noted above, the value of this approach is that it would ensure a deep and broad catalog of works at a cost that provides profits to the industries but does not impose excessive monopoly rents on consumers. In one approach, the government would require that the industries form a CBL organization for non-exclusive blanket licenses. The grant of copyright rights would be conditioned on registering with the organization. The government would then directly set licensing rates or provide oversight to ensure the organization provides fair rates, perhaps by using rate court proceedings similar to those involved in ASCAP's or BMI's antitrust consent decrees.⁸⁰ Alternatively, the government could create a CBL-like organization and, rather than collect license fees, use taxes or levies on related digital media goods and services to fund distribution of payment for content usage to licensors. In so doing, the government would remove all prohibitions on non-commercial copying and distribution. Unlike the industry-run approach, the tax-based approach would eliminate infringement lawsuits for the covered rights and would guarantee a particular level of compensation to rights holders in aggregate, forcing consumers to pay into the system.

This kind of active government involvement presents several potential problems. Continued reliance on property rules, contracts, and markets is generally preferable to expansive government involvement.⁸¹ A government-run system could suffer from price stagnation in the licensing fees, enormous negotiation costs to determine the fees, and distortions from industry rent seeking. The stakes are high for a change of the magnitude of the CBL, and, once instituted, a compulsory license may be difficult to abandon if it does not prove viable or optimal.⁸² The government-run approach presents particularly serious concerns. Levies on associated goods and services (such as CD burners or ISP subscriptions) or using income tax receipts to fund the CBL will distort the market and impose costs on consumers regardless of their consumption of copyrighted content.⁸³ Finally, and perhaps most importantly, government control over the CBL would give the government a role in providing access to and compensation for intellectual content, a culturally uncomfortable if not dangerous structure.⁸⁴

A less aggressive policy approach in support of this model is simply to refuse to skew the balance of consumer rights and industry control in favor of the industries' piracy-fighting arsenal, thus adding to the industries' incentive to support (or acquiesce in) the emergence of a CBL. For instance, the DMCA's anti-circumvention provisions could be repealed, and secondary liability for P2P could be eased. Should either or both industries choose to organize in this fashion, the government could play an enabling role at that time.⁸⁵

⁸⁰ See generally Michael Einhorn, *supra* note 71. See also Julie B. Raines, *The Fairness In Musical Licensing Act: The Tavern Bill Casts a Shadow*, 20 Hastings Comm. & Ent. L.J. 183 (Fall 1997).

⁸¹ See generally Merges, *supra* note 70.

⁸² See Merges, *supra* note 70, at 11.

⁸³ See Liebowitz, *supra* note 70, at 18-19; Fisher, *Promises*, at 222-223.

⁸⁴ See Fisher, *Promises*, at 244-245 (considering this problem and noting ways to limit it).

⁸⁵ For example, antitrust oversight might be needed; see EFF White Paper ("Because a collective licensing solution will depend on a single collecting society issuing blanket licenses covering all (or nearly all) music copyrights, there will need to be some antitrust regulation of the collecting society to ensure that it does not abuse its market power.").

ANCILLARY PRODUCTS AND SERVICES⁸⁶

Overview

Abandoning attempts to control copying and distribution as expensive and futile, this model would essentially transform the economic role of digital recordings from revenue generators to marketing tools for alternative revenue streams. Content creators and rights holders would actually encourage the non-commercial digital redistribution of copies to promote ancillary products and services. Such revenue streams plausibly include but are not limited to: live performance and theatre exhibitions, merchandise sales, endorsements and other advertising roles, voluntary contributions, and fan club services. While some content creators might be able easily to adapt to this model, it would be a drastic change for most creators and current intermediaries. Industry-wide adoption faces significant obstacles.⁸⁷

Model structure

Along with creating and marketing their artistic works, content creators would have to provide and market revenue-generating ancillary products and services. Just as today, some creators would likely be comfortable doing these activities themselves, while others would outsource these activities to third-party intermediaries. To maximize the market size for their ancillary products and services, content creators and their intermediaries would allow and encourage their fans and consumers to redistribute works, thus provide marketing for the content creator. Websites that offered downloads would be only a starting point for distribution; among other ways, consumers might receive recordings attached to emails from friends, through P2P networks, or bundled with other digital or physical products.

Potential impact on industry actors

Under this model, the role of current labels and studios as intermediaries would change dramatically. Along with their already altered roles due to reduced production, distribution, and marketing costs, these intermediaries would no longer be able to derive any revenue from selling copies. Studios directly support various ancillary products' and services' production and promotion while capturing part of the revenue already, while labels have only begun to do so.⁸⁸ Labels and studios would have to transform themselves to focus primarily on these functions in order to survive. On the other hand, new intermediaries might emerge to supplant these displaced players, or creators might perform these functions themselves.

This model may also differentially impact the viability of content creators. As discussed more below, not all creators are well suited to these alternative streams. Creators who are currently able to sell copies and generate revenues from ancillary products and services without broad marketing campaigns would have an easier transition than the heavily marketed superstar recording artists and blockbuster films. Indeed, these creators might benefit significantly if the public's attention and thus dollars were less preoccupied by a small group of superstars.⁸⁹

Requisites

To match the industries' current net revenue levels, the total dollar value of the market for ancillary products and services would have to increase, either through increased prices or purchasing. The free access to copies must channel consumer purchasing into these other revenue streams. Especially in this model, offsetting the

⁸⁶ For further discussion of the Ancillary Products and Services model, see Appendix V.

⁸⁷ Though our conclusions are somewhat dissimilar, our assessment draws heavily on analyses of this model by Mark Nadel and Raymond Ku. Ku, *supra* note 10; Mark S. Nadel, *Questioning the Economic Justification for Copyright Law's Prohibition against Unauthorized Copying*, (Jan. 2003), available at <http://www.aei.brookings.org/publications/abstract.php?pid=302> (hereinafter "Nadel, Questioning"); Nadel, *Impact of Marketing*.

⁸⁸ For films, see Vogel, *supra* note 10, at 96; Fisher, *Promises*, at 69-70. For music, see Thomas Crompton, "Popstars Learn to Live with Pirates," *International Herald Tribune Online* (Feb. 21, 2003), at <http://www.iht.com/articles/87521.html>.

⁸⁹ See Nadel "Impact of Marketing."

lack of revenue from selling copies with reduced costs of producing, distribution, and marketing may be critical to viability.

Evaluation

The necessity of significant growth in the existing market for ancillary products and services to compensate for the loss of revenues from copies and to cover the continuing cost of creating and marketing copies presents a significant challenge. Though it is not clear whether this model could support the industries at their current size, current trends and some anecdotal evidence suggest that this model does present a provocative opportunity for at least some creators and segments of the media industries, especially the music industry due to its smaller cost structure.

Challenges

That recording artists rarely see any profit from selling copies is oft cited in criticisms of the traditional business model. However, record labels rely on revenue from recording sales to produce, distribute, and market the artist's music. For those artists who currently sell copies through record label contracts, even for those whose sales do not result in significant direct profits for the artist, the loss of the record label activities consequent to the loss of copy revenues could decrease the potential market for ancillary products and services.

The meaningful reduction in such costs that digital technologies can offer, as discussed in this paper's Introduction, is thus an important factor for this model's viability. If these costs were greatly reduced and the gross margins of the ancillary products and services were higher than those of copies of artistic works, the alternative products and services could offer profit levels even at reduced total revenue levels. In music, this factor creates the greatest problems for superstars; the labels heavily market these artists in order to drive sales and, likewise, generate substantial revenue from selling copies due to extensive marketing campaigns. If the total revenue pool and consequently marketing budgets were smaller, fewer artists and intermediaries would be able to invest in such marketing.

Similar problems exist for the blockbuster films. More generally, the magnitude of the cost structure for films may mean that even significant reductions would not reduce the total to a sum recoupable from ancillary products and services without copy revenues. The average production and marketing costs for a feature film in 2002 were \$58.8 million and \$30.62 million,⁹⁰ respectively; in contrast, for a major label record album, costs in 2001 were around \$125 thousand and \$100 to 500 thousand, respectively.⁹¹ Moreover, unlike in music, digital technologies do not create significant reductions in production costs for films.⁹²

Finally, some content creators may be ill suited to the alternative revenue streams. For instance, merchandizing by classical cellists and fan clubs for film directors seem awkward fits; also, many artists may wish to focus on their art rather than hawk the ancillary products and services. Meanwhile, creators who already have or can develop a substantial and avid fan base will be more able to profit from advertising participation, concert tours, and merchandise licensing. Although some creators already embrace and gain profits from the ancillary products and services, it is unclear how many of those who currently do not could begin to do so sufficiently to compensate for lost copy revenues.

Supporting evidence

Available evidence suggests that the alternative revenue streams' ability to support the entire industry at present levels is not entirely likely. On the other hand, the evidence suggests that reliance on profits from ancillary products and services is quite conceivable for some creators and can still provide for the industries,

⁹⁰ MPAA Worldwide Market Research, *supra* note 10, at 20

⁹¹ See *supra* notes 10-11.

⁹² See *supra* note 10.

albeit at lower profit levels. Markets exist for a number of ancillary products and services, which could be pursued further in light of the industries' abandoning revenue from selling copies. For the above reasons, creators who currently sell few copies and do not rely on high production and marketing investment will have the highest chance of success due to their indifference to the loss of copy revenues and the low copy costs they will need to cover with alternative revenue streams.

The most lucrative alternative revenue stream for films and many musicians may be live performances. In music, The Grateful Dead encouraged free copying and distribution of their live performances, yet grossed a reported approximately \$50 million per year from touring in 1990-1995.⁹³ Indeed, for most creators, live performance revenue already represents their greatest direct revenue source.⁹⁴ For films, even with perfect copies readily available, the theater experience may continue to be of desirably higher quality and to offer a communal and social experience difficult to replicate at one's home. Films have sometimes been re-released in theaters to great success, despite their availability in cheaper formats such as VHS.⁹⁵ The film industry may be able to retain, at least partially, a revenue stream that currently makes up about 25% of current revenues.⁹⁶

Licensed and direct merchandise sales also already represent a significant source of revenues for certain feature films and musicians. Total gross sales of licensed merchandise in 2002 are estimated at \$1.5 billion for the music industry and \$14 billion for licensed merchandise from films, TV and animation.⁹⁷ Although the subject matter and genres of some film and music works do not lend themselves to these revenue streams, niche markets have been developed for merchandise for even lesser known creators. The String Cheese Incident, for example, has had only modest album sales but generates \$3.5 million annually from merchandise orders as well as extensive touring.⁹⁸

Although total amounts for these industries are difficult to estimate, rights holders and creators have generated revenues from participating in advertising. Musicians and occasionally directors endorse products and services, appear in advertising campaigns, and have tours and concerts sponsored by advertisers.⁹⁹ Product placement deals have provided significant revenues for feature films. The most recent James Bond film, for example, had product placement deals worth \$70 million.¹⁰⁰ BMW's short films, all by well-known directors and all featuring BMWs as part of the action, are an example of the blending of artistic creation and commercial promotion.¹⁰¹

Creators are also generating non-sales revenues directly from fans. Membership in fan club sites can provide revenues for some creators. David Bowie, for example, charges a fee for access to his personal site, which offers information about him, chat rooms, his artwork for sale, and banking and ISP offerings from partner

⁹³ See Ted Drozdowski, "Jam Nation," *Providence Phoenix*, (June 20, 2003) available at http://www.providencephoenix.com/music/other_stories/documents/02965382.asp; "Bringing Back the Dead," *CBS News* (July 14, 2004) available at <http://www.cbsnews.com/stories/2003/11/11/6011/main582848.shtml>; Ku, supra note 10, at 306-309.

⁹⁴ See Ku, supra note 10, at 305-306; Peter Kafka, "Concert Cash: Forget CD Sales, the Real Money for Hot Acts is in Concert Tours," *Abcnews.com* (July 7, 2001).

⁹⁵ See Andy Seiler, "Following the Force: Success of 'Star Wars' sparks interest in reissues," *USA Today* (March 3, 1997) (discussing success of re-releases).

⁹⁶ Estimation taken by comparing figures in the following publications. See Vogel, supra note 10, at 62. MPAA, supra note 10; Kate Bulkley, "DVDs force the movie business to rewrite its rules," *Financial Times* (Jan. 20, 2004); Fisher, *Promises*, at 212; "European Film Industry Report," available at http://www.factbook.net/wbglobal_rev.htm.

⁹⁷ "Rebound in Entertainment, Character, Sports Sectors Drive Licensed Product Sales up 2% in 2002," (Jan. 17, 2003) available at http://www.epmcom.com/html/press_releases.html?inc=2003052302; "'The Licensing Letter' Analyzes 10-Year Retail Trends; Unique Performances Of Entertainment/Character, Trademark/Brand, Sports Categories (June 11, 2004) available at http://www.epmcom.com/html/press_releases.html?inc=2004061101.

⁹⁸ See Marty Jones, "Business Unusual," *Denver Westword*, at <http://www.westword.com/issues/2000-07-06/music.html>; Alan Sculley, "Movin' on up," *Chico News and Review*, (Oct. 24, 2002) available at <http://www.newsreview.com/issues/chico/2002-10-24/music.asp>.

⁹⁹ See, e.g., Charles C. Mann, *The MP3 Revolution*, *The Atlantic Online*, (April 8, 1999), available at <http://www.theatlantic.com/unbound/digicult/dc991215.htm> (noting that JVC sponsors the Jazz Festival in New York, and Budweiser has sponsored Rolling Stones concerts).

¹⁰⁰ "New Bond film 'a giant advert'" at <http://news.bbc.co.uk/1/hi/business/2488151.stm>.

¹⁰¹ See <http://www.bmwfilms.com/>.

companies.¹⁰² Creators can also solicit voluntary contributions. Although music site Magnatune does charge for downloads, it resembles pure "tip jar" models in that all songs can be freely redistributed and can be listened to for free at Magnatune's website. The average musician on Magnatune currently receives \$1500 annually.¹⁰³ Other anecdotal evidence also suggests that fans are willing to be patrons for creators, donating a "ransom" for the creation of new content. Marillion, a popular band now independent after 20 years with a major label, was able to produce and market two albums with funds provided in advance by fans.¹⁰⁴

Policy implications

In this model, rights holders would give up control across the three nodes. Given that rights holders are free to license their rights to copying and distribution however they choose, policymakers would not need to take action to enable this model. However, they could take actions to prompt its acceptance.

Impact from actions across the three nodes

Because this model does not rely on the imposition of control across the three nodes, it could be very beneficial to the public. If this model could support the industries, it would sidestep the emerging conflict between copyright holders' business incentives and the digital era. The model would enable technological innovation; sustain consumers' ability to make personal and transformative uses of content; engage consumers as active distributors and allowing peer sharing; and avoid the potentially culturally damaging effects of the lawsuits.

Policy options to support this model

To encourage use of this model, policymakers could limit tools that aid rights holders in selling copies, like the DMCA and secondary liability rules that could affect P2P. In the extreme, policymakers could remove the prohibitions on the non-commercial reproduction and distribution of audio and video recordings. Such a policy would ensure the above societal benefits; however, given the alternative revenue streams' uncertain ability to support the industries, locking all content creators into this model could have potentially devastating consequences.

CONCLUSION

By examining four potential business models and how policy actions would impact them, this paper has sought to provide lawmakers with an improved understanding of the context and potential implications of the policy choices facing them across three key nodes. Decisions to act at each of these nodes will have important consequences for the music and film industries, for citizens as consumers and as members of a shared culture, and for the future of technology innovation.

Our analysis does not identify which model will succeed or is preferable because we believe available evidence is insufficient to justify confident judgments on these questions. Digital technologies and broadband access are still relatively new, and the opportunities they offer both the consumers and the producers of digital recordings have yet to be fully explored. Those online business models that exist are still in their infancy, and their long-term viability and impacts remain unclear.

¹⁰² See www.davidbowie.com. See also William Fisher, *Digital Music: Problems and Possibilities*, (Oct. 10, 2000), at <http://www.law.harvard.edu/faculty/tfisher/Music.html> (discussing the site's appeal to consumers).

¹⁰³ See John Buckman, "Magnatune: An Open Music Experiment," *Linux Journal*, (Feb. 2004) available at <http://delivery.acm.org/10.1145/970000/966071/7220.html?key1=966071&key2=3178011011&coll=GUIDE&dl=ACM&CFID=32053759&CFTOKEN=59647211d>.

¹⁰⁴ See George Webley, "Marillion: Doing Business With Their Fans," *Sound on Sound* (Sept 2003), available at <http://www.soundonsound.com/sos/sep03/articles/marillion.htm>; Jon Collins, "Marillion: appetite for resurrection," *The Register* (Apr. 28, 2004) available at http://www.theregister.co.uk/2004/04/28/marillion_comeback/.

Some view this uncertainty as a crisis needing immediate resolution. The music and film industries, particularly the major labels and studios, have claimed that copyright is failing to fulfill its mission of rewarding creators in the online environment and that piracy will eventually cripple their traditional business models. Thus, they clamor for government action across the three nodes to protect the industries – or, more realistically, industry incumbents.

We believe that seeing only peril in threats to the traditional business models and incumbents may be premature. As demonstrated by the models described in this paper, the industries' online future may be markedly different from their offline past, but that is hardly sufficient reason to seek to forestall it. Rather, the uncertainty presented by the future is reason for government caution, not preemptive action.

Aggressive legislative action to privilege any business model above others at this point would be problematic. Insulating the traditional business model would require re-imposing greater control on content and consumer behavior despite potentially liberating digital technologies, which, as discussed, would incur significant social costs. New business models would potentially be suppressed despite their potential to leverage technology to create even greater economic surplus and other net social benefits in terms of incentives for creativity, innovation, artistic diversity and fair use. At the same time, compelling adoption of another model because it requires less control (or for other reasons) would also distort the forces acting to optimize models. The industries are not collapsing today, and legislation in anticipation of a potential future collapse is likely to be at best poorly tailored given the nascent state of the online market. Observing the development of the models and their consequences would allow policymakers to act with superior information and better-targeted legislation, if legislation is necessary at all.

In the past, Congress has acknowledged these risks and chosen to forbear from immediate action to amend copyright and other doctrines when incumbent models have been threatened by new technologies.¹⁰⁵ For example, copyright law did not initially grant composers any rights in these reproductions when piano rolls were invented. When Congress eventually did act, it created a compulsory license that has been arguably critical in allowing the recording industry to blossom. When the Betamax and VCR were developed, the film and television industries called on Congress for aid; yet, Congress chose not to act, and today, VHS and DVD sales and rentals are the largest industry revenue streams.

We do not object to aggressive government intervention on principle, nor do we argue that it will never be necessary to alter copyright or other aspects of the legal framework to ensure an appropriate balance among rights holders and the public in the digital era. However, we do argue that it is currently premature. As current and new players experiment with business models, whether those described here or others not yet imagined, policymakers will have an opportunity to assess their viability and impact across all interests before they act.

¹⁰⁵ For an overview of various technological changes and policy responses, see Lessig, *supra* note 27, at 53-62.

Appendix I: The Impact of Digital Technologies

This appendix examines how the industries' business models of distributing and selling copies have functioned and how digital technologies affect them in ways beyond simply enabling infringement. This discussion provides a foundation for elements of the analysis in the rest of the paper.

THE MUSIC INDUSTRY

Increasingly efficient distribution and compression technologies threaten the music industry's largest revenue source: selling copies of musical recordings. The music industry's gross sales revenue dropped about 17% in the last three years, an approximately \$1.3 billion net loss.¹ The degree to which this is due to illicit file-sharing replacing sales of copies is controversial, but it is clear that illegal acquisition of content for free is becoming increasingly easy. Whatever the effect thus far, online infringement can reasonably be expected to reduce sales in the long run, particularly as broadband penetration deepens.²

Digital technologies may also reduce costs and reshape particular parties' roles along the music industry value chain. To understand these impacts, it is first necessary to identify the parties along the value chain. Exhibit AI-1 describes the functions and players in the industry's traditional business model and how digital technologies may impact them. Typically, recording artists create content and agree to assign their rights in this recording to a record label in exchange for certain services and a cut of the revenue. In the past, signing with one of the four major labels³ has been critical to reaching a large audience.⁴ Record labels principally locate talent, front production costs, and market artists' recordings. Their "risk spreading" function is also important: they underwrite production for numerous artists without being able to know which will be successful but take a high percentage of any profits generated from a work to compensate for the monies spent on loss-generating works. Once the work is produced, the record label will work with (often subsidiary) firms that manufacture and distribute the physical product to retail outlets.⁵

¹ See RIAA, *2003 Yearend Statistics*, at <http://www.riaa.com/news/newsletter/pdf/2003yearEnd.pdf>. Digital downloads are not included in the RIAA's estimate, so it is a little high. See Forrester Research, "For downloads, things are looking up", *News.com* (Feb. 4, 2004) at <http://news.com.com/2030-1069-5153314.html> (noting that the online market brought in \$83 million). To calculate the net loss, I estimated using Professor Fisher's estimates as the industry's cut from brick-and-mortar retail. See William Fisher, *Promises to Keep*, (Stanford, CA: Stanford University Press, 2004), 19 (hereinafter, "Fisher, *Promises*").

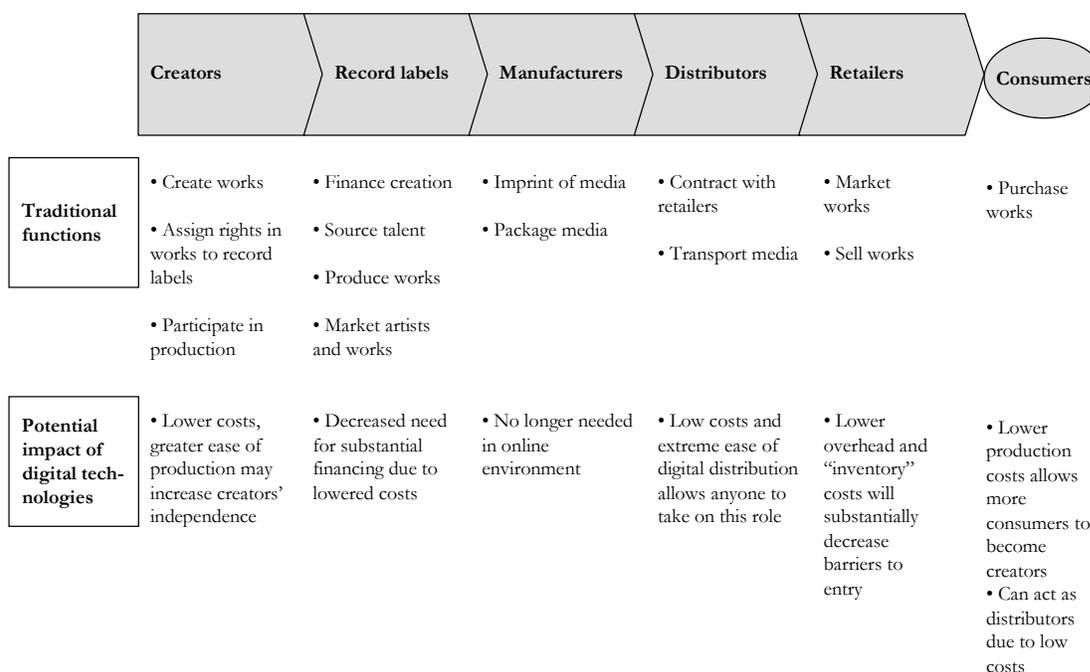
² See Stan Liebowitz, *Will MP3s Annihilate the Record Industry? The Evidence So Far*, (June 2003), at http://www.pub.utdallas.edu/~liebowit/knowledge_goods/records.pdf (reaching conclusion that P2P is partly responsible); Kolemian Strumpf and Felix Olberhozer-Gee, *The Effect of File-Sharing on Record Sales; An Empirical Analysis*, (March 2004) at http://www.unc.edu/~cigar/papers/FileSharing_March2004.pdf (reaching conclusion file-sharing has had no statistically significant impact); Stan Liebowitz, *Pitfalls in Measuring the Impact of File-sharing*, available at <http://www.utdallas.edu/~liebowit/intprop/pitfalls.pdf> (in part criticizing Strump and Olberhozer's methodology as well as several other similar studies. Also noting the theoretical basis to conclude that file-sharing will harm the industry and arguing that that should be a rebuttable presumption.); Rafael Rob and Joel Waldfogel, *Piracy on the High C's: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students*, National Bureau of Economic Research Working Paper 10874, October 2004, available at <http://papers.nber.org/papers/W10874>; Kai-Leung Hui and Ivan Png, *Privacy and the Legitimate Demand for Recorded Music*, 2 Contributions to Economic Analysis, article 11 (2003); Justin Hughes, "Spin and Rinse in the Rhetoric of Peer to Peer" (unpublished paper 2004).

³ "A look at four music 'majors' left following Sony-BMG merger," *AP via SFGate.com* (July 20, 2004) available at <http://www.sfgate.com/cgi-bin/article.cgi?f=/news/archive/2004/07/20/financial1409EDT0184.DTL>.

⁴ See Fisher, *Promises*, at 24.

⁵ See Fisher, *Promises*, at 19-22.

Exhibit AI-1: The impact of digital technologies on the traditional music industry value chain



Digital technologies can dramatically disrupt this value chain. First, manufacturers and distributors are no longer necessary, for creating a digital music file and sending it via the Internet is virtually costless. Second, brick-and-mortar retailers can now be replaced with cheaper Internet distribution methods. While artists and labels will still have to pay hosting or bandwidth charges, or perhaps pay other types of distributors, the overall cost can be far less than in CD retailing.⁶ Third, related to various elements of the chain though normally deducted from the artists' revenue share, the costs of packaging, distributing free promotional goods, product breakage, and returns, could clearly be eliminated.⁷

Fourth, some of the record label's roles may atrophy. Production costs have fallen drastically; professional-grade software is available for under \$1000.⁸ Marketing costs, though often the most costly aspect of releasing a record,⁹ may also be reduced. The Internet offers myriad marketing channels, often enabling

⁶ See Fisher, *Promises*, at 21. Fisher discusses this slightly differently, stating that the distributor's cut is reduced while the retailer is eliminated. This is merely a semantic difference. We choose this description, for distributors typically refer to intermediaries between record labels and outlets that distribute to consumers. Because record labels can now work directly with end-of-the-line distributors, it seems more accurate to say that the intermediaries are removed.

⁷ The "new technologies" fee could also be reduced, because new file formats will likely be cheaper than the new physical containers record labels adopted over the years. However, record labels have started charging for digital encoding and encryption. See Jon Healey, "Industry Seeks to Justify Huge Overhead on the Price of Compact Discs," *San Jose Mercury News*, (Sep. 3, 2000).

⁸ See Fisher, *Promises*, at 23. See also Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. Chi. L. Rev. 263, 305-306 (2002).

⁹ Major labels marketing standard releases often expend \$100,000 and over \$500,000 on premier acts, though independent labels' and artists' expenses are generally much less. Harold Vogel, *Entertainment Industry Economics*, (New York, NY, USA: Cambridge University Press, 2001, 5th ed.), 163; Mark S. Nadel *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, Berkeley Technology Law Journal, Vol. 19, 785-856, 798 (Spring 2004). See also RIAA, *Costs of a CD*, <http://www.riaa.com/news/marketingdata/cost.asp> ("marketing and promotion costs [are] perhaps the most expensive part of the

improved targeting at lower cost than traditional external channels such as through achieving rotation status with radio stations.¹⁰ The Internet also transforms fans into marketers far more effectively than in the offline world. For example, users on Garageband.com can download over 200,000 artists for free and then rate their music.¹¹ Several online music stores have developed recommendation systems based on consumers' expressed tastes, and people can use other P2P users' shared folders to find music they may like. Sites like Live365 enable people to create their own online radio stations.¹²

Chart A1-2 shows the revenue breakdown of a typical undiscounted CD album sold through this value chain.¹³ Two important attributes of the current business model emerge. First, although an artist's share of these revenues is formally 12%, costs recouped by record labels out of those royalties mean that the vast majority of artists receive no royalties or profits from the sales of their CDs.¹⁴ Indeed, artists frequently end up in debt to their record label.¹⁵ Second, as discussed above, over 50% of the industry's revenues from a CD's sales go to functions that can be dramatically altered or even eliminated by digital technologies.

As a result, these changes might reshape the relationship between artists and record labels. Artists may be able to cut ties with the record labels, as they can now potentially reach a large audience on their own. At the very least, the decrease in costs may provide artists with more leverage when negotiating their agreements with record labels.

Moreover, a broader and more diverse array of artists may be able to succeed. The major record labels have typically focused on producing hits, heavily marketing and pushing on radio stations only the limited subset of artists who appeal to mass audiences.¹⁶ As a result, revenues are concentrated among this small group. With enhanced marketing and distribution abilities, other artists may thrive. Even niche artists, who do not appeal to mass audiences, can expose their music to more people and will be more able to find potential fans.

music business today."); Lynne Margolis, "Independent's Day," *Christian Science Monitor* (Apr. 21, 2003) available at <http://www.csmonitor.com/2003/0411/p13s02-alm.html> (discussing lesser costs for independents).

¹⁰ See Fisher, *Promises*, at 58-59.

¹¹ See Michael Regan, "Musicians cheer return of Internet site for lesser-knowns, but can it survive?" *Associated Press* (June 7, 2002) (discussing Garageband.com and IUMA); Heather Green, "Downloads: The Net Generation," *Business Week* (Feb. 26, 2004).

¹² See Fisher, *Promises*, at 23.

¹³ Chart sources: Fisher, *Promises*, at 19, 76-78 (providing revenue split data, citing source stating that artists need to sell 500 thousand albums to break even, and discussing reductions from artists' cut); Jon Pareles, "Spit Out by the Star-Making Machinery," *New York Times*, (Feb. 3, 2002) (stating that 90% do not break even); Ku, supra note 8, at 308 (discussing one artist who did not break even on 500 thousand albums; Jenny Toomey, Comments on behalf of Future of Music Coalition to Congressional Black Caucus Forum on Piracy, (Sept. 13, 2002), available at <http://www.futureofmusic.org/news/blackcaucuscomments.cfm> (stating that a "a mere one percent of artists sold more than 10,000 albums in 1999, even before the music industry's losses started."); Healey, supra note 7, (stating that breakage costs still exist); Brian Garrity, "All Aboard The Digital Train?" *Billboard* (Sept. 20, 2003) (discussing deductions from artists' cut).

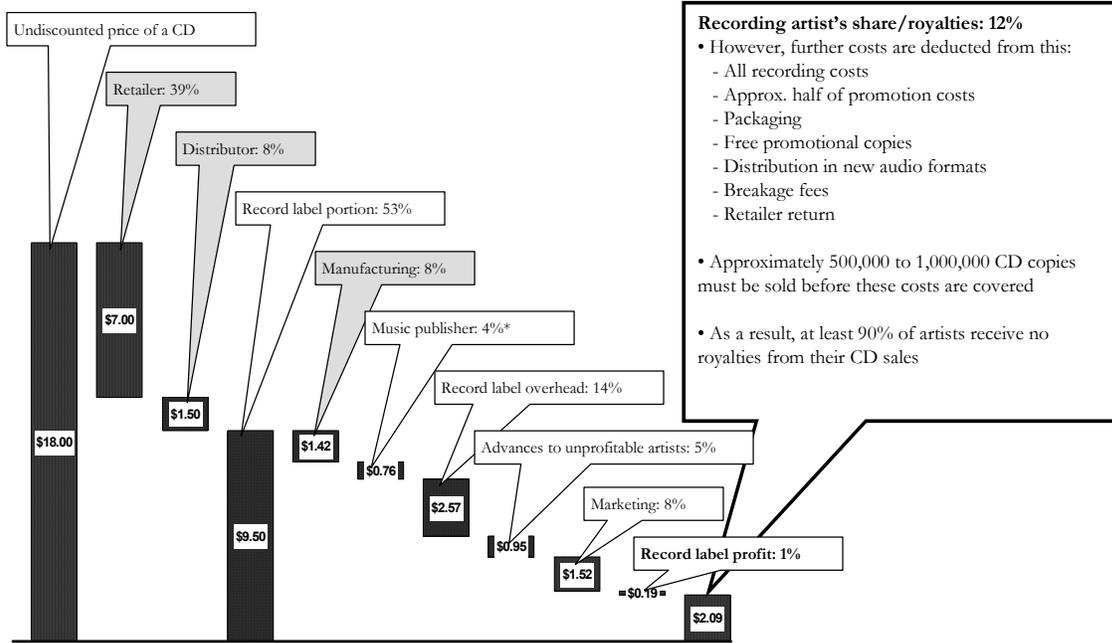
¹⁴ See Pareles, id.; Toomey, id. ("a mere one percent of artists sold more than 10,000 albums in 1999, even before the music industry's losses started"); Fisher, *Promises*, at 76-78.

¹⁵ See Fisher, *Promises*, at 58.

¹⁶ See Fisher, *Promises*, at 76-81 (discussing the hits-based nature of the industries); Jon Pareles, "Spit Out by the Star-Making Machinery," *New York Times*, (Feb. 3, 2002) ("the costs of marketing new [music] releases to a mass audience have grown prohibitive . . . [and] those costs have long helped limit competition from smaller companies."); Nadel, supra note 8, at 801.

Exhibit AI-2: Revenue split of a typical major record label CD

■ Greatest opportunities for cost reductions from digital technologies



* This right is originally held by whoever composed or wrote the music; it is separate from the right in a particular recording of the music. The publisher will generally pay 50% to the composer, who may also be the recording artist.

THE FILM INDUSTRY

Film production also involves numerous players. Generally, one of the seven major film studios provides a production company with the necessary funds and resources to produce, market, and distribute the film. The production company coordinates the actors, writers, directors, and other contributors to the film. The production company also acquires broad rights from these contributors and transfers them to the studio.¹⁷ The major studios accounted for around half of films domestically in 2002, but over 90% of box office revenues and a similarly substantial percentage of total film revenue.¹⁸

Studios distribute copies and authorize performances in several different forms in a staggered release cycle.¹⁹ After theatrical release domestically and abroad, the studios sell retailers VHS cassettes and DVDs for resale or rental. The studios also license the film to Pay-Per-View channels (PPV), "premium" cable channels and

¹⁷ See Fisher, *Promises*, at 59-64.

¹⁸ See Motion Picture Association of America (MPAA) Worldwide Market Research, U.S. Entertainment Industry: 2002 MPA Market Statistics (2003); Vogel, *supra* note 9, at 58.

¹⁹ We discuss these performance streams here, where we did not in our discussion of the film industry, because they are more directly threatened by freely available copies (with a caveat below about theater performances) and more central to the film industry's business model.

airlines, followed by broadcast TV.²⁰ The downstream, post-theater markets are approximately 75% of revenues.²¹

Like the music industry, distribution and compression technologies threaten these revenue streams. However, at least in the short run, the damage is likely to be less acute. In fact, the film industry's revenue has grown recently.²² Broadband connections are needed to download films quickly, and it is unlikely that most consumers want to watch films on their computers.²³ Also, the theater experience may continue to be of desirably higher quality and to offer a communal and social experience difficult to replicate at home. On the other hand, in time, more people will have broadband,²⁴ and computers will become a more integrated and sophisticated part of the home entertainment system.²⁵

Furthermore, like the music industry, the film industry may be able to take advantage of new technologies to reduce distribution and marketing costs. However, costs are significantly higher in the film industry.²⁶ The Motion Picture Association of America (MPAA) claims that in 2002 the average cost of producing a motion picture was over \$58.8 million with another \$30.62 million for marketing and advertisement.²⁷ Furthermore, production costs have not fallen in the film industry. While improved digital technologies may benefit lower budget independent films, even independent films typically require tens of thousands of dollars to produce.²⁸

In turn, the relationship between producer, studio, and the various contributors is unlikely to change drastically in the foreseeable future. As such, compared to the music industry, the changing cost structures will be less significant in creating better opportunities for broader base of filmmakers to succeed. At the same time, though income is concentrated among a small minority of star individuals and film productions, the "distributive inequality" is less than in the music industry.²⁹

²⁰ See Fisher, *Promises*, at 67-68; Kate Bulkley, "DVDs force the movie business to rewrite its rules," *Financial Times* (Jan. 20, 2004). Bulkley's order is slightly different, putting DVD and VHS before PPV; we use it for it is more recent (Fisher's analysis is as of 1990).

²¹ Estimation taken by comparing figures in the following publications. See Vogel, *supra* note 9, at 62. MPAA, *supra* note 18; Bulkley, *id.*; Fisher, *Promises*, at 212; "European Film Industry Report," *available at* http://www.factbook.net/wbglobal_rev.htm.

²² See MPAA, *supra* note 18; "Deluge of DVD in a watershed year: spending on the disc rose 40% in 2003," *Video Business* 24(2): 1 (Jan. 12, 2004) ("Consumers spent a record \$22.2 billion renting and buying DVDs and videocassettes in 2003, a 9.3% jump from 2002.... Spending on DVD comprised more than half of rental revenue, and the format dominated sales. Of the \$14 billion consumers spent buying videocassettes and DVDs, \$11.9 billion was spent on discs. Combined sales were up 15.7% from 2002.").

²³ See Fisher, *Promises*, at 214.

²⁴ See Robyn Greenspan, "Broadband's Reach Gets Broader," *Clickz.com* (Feb. 7, 2003) at <http://www.clickz.com/stats/markets/broadband/article.php/1580601> (discussing growth in broadband penetration and citing market research analyses).

²⁵ Home theater systems in general are getting cheaper and more sophisticated. See Keith Reed, "Coming Soon To A Den Near You Technology, Competition Make Home Theater Systems Newly Affordable," *Boston Globe* (Mar. 22, 2004).

²⁶ See Peter Henderson, "Technology Lets Garage Studios Change Hollywood," *Reuters via USA Today* (Feb. 24, 2004), at http://www.usatoday.com/tech/news/techinnovations/2004-02-24-making-movies_x.htm.

²⁷ See MPAA, *supra* note 18 (placing costs at on average \$102.9 million to produce and market a film).

²⁸ See Henderson, *supra* note 26 (noting that even with technological advances, small budget films still cost in the tens of thousands).

²⁹ Fisher, *Promises*, at 78-79.

Appendix II: Digital Media Stores

The Digital Media Store (DMS) model attempts to recreate in the online market the basic structure for selling physical copies in brick-and-mortar stores—copyright holders sell or license to vendors who store music or films on their servers, and customers then "go" to the Store to download or stream digital media.¹ In today's market, the model is already becoming familiar, with Apple's iTunes Music Store, Napster 2.0, and Movielink among the many existing offerings.

While this model has the potential to succeed and sustain the film and music industries in the online environment, the DMS's future is not certain: from the consumer's perspective the current Stores may be deficient in several ways when compared to free alternatives on P2P. Even to the extent that Stores can improve, P2P may remain a more attractive option. While technologies and laws aimed to inhibit piracy may improve the industries' chances, they will come with many drawbacks.

Part I below explains the premises of the DMS in greater detail. Part II will then discuss the Digital Music Stores and their outlook in the current environment. The film industry will be treated in abbreviated form, because the present potential for harm facing it is less acute and because many of the insights about the Music Store apply to it as well. Part III will consider the costs and benefits of leveraging technology and the law to inhibit piracy. The discussion will assess two possible scenarios in which technology is an effective deterrent.

PART I: THE DMS IN THEORY

The P2P-era mantra "you can't compete with free" has always implied that price is the only factor that influences consumers' choosing P2P over for-pay services. The DMS model starts from the premise that many other features are important drivers of consumer purchasing, and that some of them can be matched and even improved compared to P2P. When coupled with a reasonable price, these features will lead more people to choose legitimate services over piracy. In addition, the Store model contemplates legal and technical measures making P2P comparatively disadvantageous.

To compete with free, Stores must first focus on competing with P2P's ease-of-use and deep catalogs, providing users whatever they want, whenever they want it. P2P interfaces are generally quite simple, with searching and downloading possible in a few steps. Because complex-pricing arrangements can confuse consumers, price can factor into ease-of-use as well. An immense spectrum of popular and obscure artists can be found on P2P along with rare, live, and back-catalog items.² Second, Stores must minimize—or even

¹ To be clear, our definition of the Digital Music Store business model does not encompass online selling of physical copies of media.

² See Leander Kahney, "Buck A Song, or Buccaneer?" *Wired News* (October 21, 2003) at http://www.wired.com/news/business/0,1367,60901,00.html?tw=wn_story_page_prev2 (quoting researcher asserting that most of the typically 700 million total files available on KaZaA are music); Gwendolyn Mariano, "Study College Students Would Pay for Napster," *News.com* (April 10, 2001) at <http://news.com.com/2100-1023-255610.html?legacy=cnet> (reporting research about Napster users finding "26 percent of the students download rare, live or out-of-print recordings; 50 percent download songs considered alternative, mainstream or older works"); Carly Carioli, "The iCollector," *The Boston Phoenix* (October 2, 2003) available at http://www.bostonphoenix.com/boston/supplements/online_music/documents/03187231.asp (discussing rare recordings available on P2P system Soulseek); Lawrence Lessig, *The Future of Ideas*, (New York: Random House, 2001), 131, citing Testimony of the Future of Music Coalition on "Online Music and Copyright Law," submitted to Senate Judiciary Committee (April 3, 2001) 13

eliminate—digital rights management (DRM) usage restrictions that decrease the utility of their product when compared to that found in P2P networks. The more DRM intrudes upon legitimate uses, the more likely users will turn to P2P's unencrypted content. Third, Stores can offer ancillary services that leverage their operational capacities, such as customer chat rooms and instant-messaging; recommendation systems; special deals and information on live performances; and other services that add value for the consumer beyond what decentralized P2P provides.

That said, the Store model does not ignore the importance of price. Rather, it assumes that a low but non-zero price, combined with these other features, will attract sufficient consumers and purchases to achieve a sustainable margin.

Stores also have a source of competitive advantage in that their consumers avoid certain costs of using P2P. P2P systems are filled with incomplete and poor-quality files, along with viruses and other harmful content,³ and P2P software is sometimes bundled with bothersome adware and spyware.⁴ Rights holders can also actively diminish the ease of file sharing by flooding P2P systems with bogus versions of files ("spoofing").⁵ By using DRM to limit uploading, the industries can try to limit the availability of content. The biggest stick in the deterrence bundle may be purely legal rather than technical: suing file sharers for direct copyright infringement and P2P systems for secondary copyright infringement.

The Store model does not depend on any one factor, nor does it require that copyright holders employ DRM, spoofing, or lawsuits. The model's key idea is simply that a substantial number of users will weigh these variables and choose to purchase media legitimately.

PART II: EVIDENCE AND OUTLOOK

A. The Digital Music Store in practice

Before Apple's iTunes Music Store debuted, Music Stores experienced meager growth. MusicNet, Pressplay, and Rhapsody, the three leading players, initially had small catalogs that did not include all major record labels. Their interfaces were criticized to varying degrees, and they all used a subscription revenue model rather than a-la-carte downloads. Furthermore, the usage restrictions were onerous, requiring additional payments for CD burns and permanent downloads.⁶

By focusing on creating an experience comparable, and in some ways superior, to P2P in the ways described in the previous section, the iTunes Music Store (iTMS) re-invigorated the market. First, iTMS has exceptional ease of use and a deep catalog that includes songs from all major labels and 450 independents.⁷ Purchasing and searching through its originally two hundred thousand and now one million song catalog is simple to understand and perform, seamlessly integrated into the iTMS music player software package. Second, iTMS' DRM is relatively unobtrusive, allowing unlimited audio CD burning and copying to portable

("Research reports have confirmed that one of the major reasons that [adults] are [using Napster] is to access commercial recordings that are no longer commercially available.").

³ See, e.g., http://www.kazaa.com/us/help/known_virus.htm (list of known P2P viruses); PestPatrol, *KaZaA: The Hidden Threat from P2P Networks* (June 2003) at <http://www.pestpatrol.com/Whitepapers/PDFs/KaZaA.pdf> (discussing adware, spyware, and viruses in KaZaA).

⁴ See Pestpatrol, id.

⁵ See James Maguire, "Hitting P2P Where It Hurts," *Wired News* (Jan 13, 2003) at <http://www.wired.com/news/digiwood/0,1412,57112,00.htm>.

⁶ See, e.g., Jim Hu, "Labels Defend MusicNet, Pressplay," *News.com* (July 8, 2002) at <http://news.com.com/2100-1023-942066.html>; John Borland, "Listen.com lands last Big Five label," *News.com* (July 1, 2002) at <http://news.com.com/2100-1023-940841.html>.

⁷ See <http://www.apple.com/itunes/>.

players as well as copying to four other computers.⁸ Third, iTunes provides special features, including free samples, music videos, album art, and recommendations to customers based on others' purchases. Finally, iTunes' pay-per-download (PPD) pricing (\$.99/song, and generally \$9.99/album⁹) is comparatively cheap¹⁰ and flexible. By selling singles at low prices, Apple can attract P2P users who would normally download a song on a whim. Indeed, Apple reports that 55% of its sales are singles.¹¹

Apple had 2 million downloads in its first sixteen days and 70 million after one year,¹² encouraging many other firms to create substantially similar offerings. About a dozen Stores are open as of August 2004, with some offering prices beneath Apple's.¹³ Many Stores also require or offer integrated software, but some are stand-alone websites.¹⁴

Though the PPD market is growing faster, subscription models are also developing. For instance, Napster 2.0 and Rhapsody offer unlimited access to their entire catalogs for \$9.99/month. High-volume customers might prefer this service because they experience each song at close to zero marginal cost as they would on P2P. At the same time, current subscription services like Napster 2.0 and Rhapsody charge additional fees to shift songs to a CD or a portable player and to keep songs after the subscription has ended. In contrast, eMusic used to provide unlimited, unencrypted MP3 downloads for a flat fee, though large licensing fees and a limited catalog hampered its success and led to a change in pricing.¹⁵

Though the international market is smaller and more fragmented,¹⁶ it has some similar Digital Music Stores. OD2 operates numerous PPD Stores, which are branded by various firms, including Microsoft and Coca-Cola.¹⁷ Each Store acts as a stand-alone website, but OD2 is creating a software component with a new recommendation feature.¹⁸ Typical DRM and prices are relatively similar to the domestic Stores. Recently, the iTunes and Napster 2.0 expanded into Europe.¹⁹

⁸ These restrictions have been slightly modified since iTunes' first offering. Before, one could only move music onto two other computers. While one can only burn the same playlist seven times now, earlier versions allowed ten burns. This restriction was easily evadable before, as one could simply rearrange the playlist slightly, but apparently that workaround is not possible now. Even so, one can still copy a burned CD infinitely.

⁹ Some albums have begun to have higher prices, though this is not consistent throughout the catalog. See John Borland and Ina Fried, "iTunes Ushers in Year of Change," *News.com* (April 26, 2004) at http://news.com.com/2100-1027_3-5199227.html?part=rss&tag=feed&subj=new; Steven Levy, "iTunes and Lawsuits," *MSNBC.com* (May 3, 2004) at <http://msnbc.msn.com/id/4891711/>.

¹⁰ Typical CDs cost between \$13 and \$18. See William Fisher, *Promises to Keep*, (Stanford, CA: Stanford University Press, 2004), 2 (placing the average price at \$18) (hereinafter "Fisher, *Promises*"); Andrew Weschler and George Schink, *CDs: A Better Value than Ever*, prepared for the RIAA (May 21, 2002) available at <http://www.riaa.org/news/newsletter/pdf/CDValueStudy2002.pdf> (placing average cost in 2001 at \$14.64 per album); Paul Festa, "Music Giant Slashes CD prices," *News.com* (Sept. 3, 2003) at <http://news.com.com/2100-1027-5071138.html> (noting Universal cutting suggested retail price to \$13 from \$17-19).

¹¹ See John Borland, "How much is digital music worth?" *News.com* (December 8, 2003) at http://news.com.com/2100-1027_3-5117275.html.

¹² See Evan Hansen, "Microsoft, again: Apple's Old Nemesis," *News.com* (May 29, 2003) at <http://news.com.com/2009-1027-1009538.html?tag=toonav>; Dawn Kawamoto and Ina Fried, "On 1st birthday, iTunes unwraps new features," *News.com* (April 28, 2004) at http://news.com.com/2100-1027_3-5201598.html.

¹³ See, e.g., <http://musicdownloads.walmart.com/catalog/servlet/MainServlet>. Buymusic.com offers variable pricing on its tracks that sometimes are beneath \$0.99.

¹⁴ Again, see the Wal-Mart and Buymusic.com stores, id.

¹⁵ See John Borland, "Emusic sold; unlimited MP3 downloads nixed," *News.com* (Oct. 10, 2003) at <http://news.com.com/2100-1027-5089830.html> (discussing eMusic's shift from unlimited to limited downloads service, citing large licensing fees).

¹⁶ See *IFPI Online Music Report*, published by IFPI, 4-5, available at <http://www.ifpi.org/site-content/library/online-music-report-2004.pdf>.

¹⁷ See <http://www.ondemanddistribution.com>.

¹⁸ See Krishna Roy, "OD2 Trials New Jukebox Service," *Net Imperative* (Jan. 29, 2004) at http://www.netimperative.com/cmn/viewdoc.jsp?cat=all&docid=BEP1_News_0000061743.

¹⁹ See Urs Gasser et al., *iTunes Europe: A Preliminary Analysis*, (June 2004) available at http://cyber.law.harvard.edu/media/itunes_Europe.

B. Digital Music Store outlook

In 2003, the domestic PPD market blossomed to \$36 million and subscriptions grew to \$47 million,²⁰ while the market is expected to grow to \$271 million in 2004 according to Jupiter Research.²¹ Though the online market was still only 0.8% of gross revenues in 2003,²² some statistics suggest that the tide is turning for the entire industry. The industry's gross revenue declined 6.0% in 2003 compared to 8.2% the previous year, and sales were actually up by 5.6% in the 4th quarter 2003 when many new online services launched.²³ Though this is simply a correlation, progress over the past two years has provided reason for optimism.

Optimism is not only warranted by the market's growth, but also by survey data suggesting that the model's premises are sound. Polling taken recently and during the original Napster's existence suggests that depth of catalog, flexibility, and convenience are often just as important as price for consumers who download via P2P.²⁴ A Harris Interactive poll of teen P2P downloaders found that only 44% reported that they did so to get music for free,²⁵ and in 2003 Jupiter Research found that half of surveyed consumers reported they would pay if offered prices and DRM flexibility similar to those now offered by PPD services.²⁶

The industry will also benefit from what can be learned by the comparative success of the varying new services. Competition will help sort out strengths of subscription and PPD models, and all services can continue to differentiate themselves by price, DRM flexibility, catalog, and special features. Napster 2.0, for instance, is unique in its mimicking of P2P users' ability to comb through each other's music collections.

The emergence of the new services will also benefit independent artists and labels. As noted, falling production costs and Internet distribution make subsisting outside the major labels easier. Sites like MP3.com, IUMA, and Garageband.com have shown great promise for independents selling their music online, but the sites have not proved financially successful.²⁷ The excitement surrounding the Stores featuring major label content could rub off on the indie sites, and, by placing their music in the new Stores, independent artists can increase their exposure. While physical limitations contributed to brick-and-mortar

²⁰ See Forrester Research, "For downloads, things are looking up", *News.com* (Feb. 4, 2004) at <http://news.com.com/2030-1069-5153314.html>. For a breakdown by service, see "Tracking Online Music Services," *Online Reporter* at <http://www.onlinereporter.com/torbackissues/TOR371.htm#Tracking%20Online%20Music%20Services>. For an upbeat general report on the last year domestically and internationally, see *IFPI Online Music Report*, supra note 16.

²¹ Forrester Research, "For downloads, things are looking up", *News.com* (Feb. 4, 2004) at <http://news.com.com/2030-1069-5153314.html>; May Wong, "The downfall of downloads?" *AP via Kansas City Star* (Oct 3, 2004) available at http://www.kansascity.com/mld/kansascitystar/business/personal_finance/9803225.htm?1c.

²² See "For downloads things are looking up," id.

²³ See RIAA, *2003 Yearend Statistics*, at <http://www.riaa.com/news/newsletter/pdf/2003yearEnd.pdf>. This figure does not include digital downloads. Others have placed the figure lower, see Phil Gaslo, "Music biz fails to hit higher notes in 2003," *Daily Variety* (Jan 2, 2004) (3.6% sales drop). Brian Hindo, "Did Big Music Really Sink the Music Pirates," *Business Week Online* (Jan. 16, 2004) at http://www.businessweek.com/technology/content/jan2004/tc20040116_9177_tc024.htm (2% drop; 5.6% sales growth in fourth quarter).

²⁴ See Phil Leigh, *Online Music Starts Rocking*, (December, 2003) at <http://insidedigitalmedia.com/research/rocking.pdf> (citing research by now defunct Webnoize that breadth of choice and convenience were more often cited than price); Paul Horn, Eliot Maxwell, and Susan Crawford, *Promoting Innovation and Economic Growth: The Special Problem of Digital Intellectual Property*, report from Committee on Economic Development (March 3, 2003) 49, available at http://www.ced.org/docs/report/report_dcc.pdf (citing same study); Harris Interactive, "Reasons that Teens Downloaded Without Paying, 2003" (October 2003) reprinted by eMarketer in online radio interview with Phil Leigh, at <http://www.insidedigitalmedia.com> (finding 59% wanted to get "one or two songs", 48% wanted music quickly, 46% found music too expensive, 44% wanted music for free, 40% wanted songs unavailable elsewhere).

²⁵ See Harris Interactive, id.

²⁶ See "The Apple Music Store," *Jupiter Research* (May 30, 2003) at <http://weblogs.jupiterresearch.com/analysts/gartenberg/archives/Jupiter%20Apple.pdf> (survey noting that, as long as the music can be copied to multiple devices, 49% would buy an album at \$9.99 and 47% would buy a single for \$.99. Also noting that while 23% and 17% would buy those priced albums and singles if they could not be copied.).

²⁷ See Michael Regan, "Musicians cheer return of Internet site for lesser-knowns, but can it survive?" *Associated Press* (June 7, 2002) (discussing Garageband.com and IUMA); Jon Healey, "MP3.com to Change Owner and Format," *Los Angeles Times* (Nov. 15, 2003) (discussing MP3.com's demise).

stores relegating independents to less prominent and lucrative placement (if placed at all),²⁸ the online Stores can host a practically infinite number of artists. Recommendation systems will help consumers find indie artists who would normally be drowned out by stars' advertising, and sales data suggests that consumers will seek out lesser-known material.²⁹ As a result, one can expect a greater diversity of music available in the long run, as more artists leverage these tools to prosper as independents.

Based on the foregoing evidence, it seems the Store model does have promise and will grow substantially beyond its 2004 size. But, beyond that broad assessment, many questions remain: To what extent can the Stores sustain and stabilize the industry, curbing their losses and even generating renewed growth? Moreover, can the market grow fast enough to limit more severe industry losses in the near future? Several variables cumulatively suggest a difficult transition for the industry, particularly in the short run.

First, creating a sustainable online music market will depend on the industry's ability to adapt to and leverage the Stores' qualities. For instance, the industry will have to adapt to consumers' ability and desire to buy singles rather than albums.³⁰ Creating a sixty-minute album—with perhaps several "filler" songs—could be a poor tactic. Limiting the ability to purchase singles—as many Stores do at the behest of licensors³¹—may only frustrate consumers. In addition, the Store's special features can be used to support additional revenue sources. For instance, by selling access to Store-based artist fan clubs, with advance access to albums and tour tickets, the industry could add value to the Store and increase revenue. Such ancillary sources would complement selling copies.

Making those types of changes in business practices will be important to the industry generally, and the changes' speed will be especially important to the current labels' roles. Their business model is currently structured around manufacturing and selling albums, not singles or services. To some degree, the industry's need to maintain physical distribution until more CD buyers shift to the online Stores will constrain this model's adoption. The faster this shift happens, the better chance the current labels have to survive in some form. Where the current labels fail, others may eventually succeed; however a lengthier transition will create more industry instability, probably leading to short run adverse effects on the entire online music market.

The current Store implementations may also have to improve, as the current offerings still fall short of P2P's benefits in several respects. Most significantly, DRM³² impairs legitimate activities, decreasing the product's value and frustrating consumers. Along with aiming to impede piracy (a potential benefit we will discuss further in Part III), DRM enables the Stores to charge for certain uses. For instance, Napster 2.0 may use DRM to charge a higher price for a portable version of a song in a forthcoming subscription service.³³ Whatever benefit the industry gets in this regard must be weighed against the possible decline in consumer interest.

Of the utmost concern currently is DRM's limiting compatibility with software and hardware players.³⁴ For instance, because of how Apple has chosen to license its proprietary DRM, iTunes songs can only be played on

²⁸ The major record labels often pay for prominent placement through "cooperative advertising" agreements. See Michelle Wilson-Morris, "28 States Sue Major Labels and Retailers Over Alleged Price Fixing Conspiracy," *Musicrodish* (August 8, 2000), at <http://www.musicdish.com/mag/index.php3?id=1411> (discussion of this phenomenon in its relation to recent price fixing case).

²⁹ See "Post-Conference Report on Midem 2004," *Digital Media Wire*, at <http://www.digitalmusicforum.com/midemreport2004.htm>; Chris Anderson, "The Long Tail," *Wired* (Oct 2004) at <http://www.wired.com/wired/archive/12.10/tail.html>.

³⁰ Concerns abound about this transition. See Brian Garrity, "All Aboard The Digital Train?" *Billboard* (Sept. 20, 2003).

³¹ See Garrity, *id.*

³² It is worth noting that contract may be similarly restricting. See Berkman Center Digital Media Project Team, *iTunes: How Copyright, Contract, and Technology Shape the Business of Digital Media*, (April 10, 2004) available at <http://cyber.law.harvard.edu/media/itunes>, (hereinafter "iTunes Case Study"). However, given that DRM is self-enforcing, it generally poses a greater threat. In turn, we focus on that restriction.

³³ See "Napster Previews First Portable Digital Music Subscription Service," (Sept. 1, 2004) available at http://www.napster.com/press_releases/pr_040901.html (pricing at \$14.95, above current subscription rate of \$9.99).

³⁴ See Paul Gluckman, "Building Business on Legal Downloads Isn't Easy, Panelists Say" *Washington Internet Daily* (Feb. 10, 2004) (citing a Universal exec describing "the multitude of mutually inoperable codecs and DRM solution as 'the hand that's pushing

the Apple iPod among portable players, and the iPod cannot play songs locked by other services' DRM.³⁵ As more services continue to enter the fray, many bring with them new formats, leading inevitably to more incompatibility and fracture.³⁶

What interest would the services have in a fragmented marketplace? By tying the Store's songs to a portable player and excluding competitors, Apple and others like them can sell songs at a loss but still make a profit overall.³⁷ According to various sources, record companies take about 65-70 cents of every song sold in a PPD service.³⁸ Credit card costs eat up another 10-12 cents, but decrease with greater volume. Staffing, bandwidth, and hosting can cost another 10-20 cents. To turn a profit on these thin margins, many services sell songs to drive sales of more profitable services and products.³⁹ Apple and others can pursue this strategy with regard to portable players because distributing a device that can unlock the DRM would violate the Digital Millennium Copyright Act (DMCA).⁴⁰

Though the labels have put pressure on the Stores to forge compatibility, a solution in the short term seems unlikely given market trends.⁴¹ The incompatibility might help early leaders among Stores, but will slow consumer adoption of the services and thus harm the music industry overall. Many consumers will likely continue to opt for P2P because all players support the unencrypted, easier-to-license MP3 format. As new player manufacturers and Stores face barriers to attracting a broader consumer base, incompatibility may also inhibit innovation and competition in those markets.⁴² Unlike in instances such as the MP3 compression

down the market' for licensed downloads to portable devices that could work with one another. He said incompatibility was the leading subject of consumer complaints noted at eLabs.); Brian Garrity, "Music Biz Urges Download Harmony," *Billboard via Reuters* (Feb. 1, 2004) (discussing industry's concern about this issue); John Borland, "iPod undermines Microsoft on copy-protected CDs," *News.com* (July 12, 2004) at http://news.com.com/iPod+undermines+Microsoft+on+copy-locked+CDs/2100-1027_3-5263842.html (CEO of copy-protection service Sunncomm stating that most consumer complaints relate to iPod incompatibility).

³⁵ Apple could support WMA, but it has chosen only to support FairPlay-locked AAC, unencrypted AAC, and MP3, so in this sense the iPod's incompatibility problem could be easily reduced. However, restriction on format-shifting in locked WMAs also contributes to the problem. Also, Real has created some limited interoperability, see *infra* note 40.

³⁶ Most other services use the proprietary WMA format. RealNetworks's Music Store has its own Helix DRM, see John Borland, "Real offers new tech, song store," *News.com* (Jan. 7, 2004) at <http://news.com.com/2100-1027-5136275.html>, and Sony's new Connect service will use the proprietary ATRAC format and OpenMG DRM, see Richard Shim, "Sony unveils music store, gadgets at CES," *News.com* (Jan. 7, 2004) at <http://news.com.com/2100-7353-5137127.html>.

³⁷ See Ina Fried, "Will iTunes Make Apple Shine?" *News.com* (Oct. 16, 2003) at <http://news.com.com/2100-1041-5092559.html?tag=nl> (Apple Senior Vice President Phil Schiller stated bluntly in an interview: "The iPod makes money. The iTunes Music Store doesn't.").

³⁸ See Hansen, *supra* note 12. See also Chris Gaither "Online Music May Finally Play a Tune of Profit," *Boston Globe* (Oct. 16, 2003) at http://www.boston.com/news/nation/articles/2003/10/16/online_music_may_finally_play_a_tune_of_profit/; Claire Neesham "All played out" *Belfast Telegraph* (Feb. 9, 2004).

³⁹ See Scott Kessler, "The Mighty Lure of Online Music," *Business Week Online* (Feb. 27, 2004) at http://www.businessweek.com/investor/content/feb2004/pi20040227_2390_pi044.htm.

⁴⁰ See 17 USC 1201; *Universal v. Reimerdes*, 111 F. Supp. 2d 294 (precluding interoperability of DVD players without a license); *RealNetworks v. Streambox*, 2000 U.S. Dist. LEXIS 1889 (W.D. Wash. 2002) (prohibiting creating compatible program to access streaming media files); *Sony Computer Entertainment America Inc. v. Gamemasters*, 87 F.Supp.2d 976 (N.D. Cal. 1999) (restricting creation of chips that would allow foreign games to be played on video game system). But see *Chamberlain v. Skylink Technologies*, 381 F3d 1178. (Fed. Cir. 2004) (rejecting a claim made against an interoperable garage door manufacturer). See also iTunes Case Study, at 33-47.

⁴¹ See Brian Garrity, *supra* note 30. Some are also pursuing "open" DRM standards which are only beginning to be developed, see, e.g., *Content Reference Forum*, at <http://www.crforum.org/index.html>, Faultline, "Phillips leaks Intertrust 'open' DRM details," *The Register* (Jan. 6, 2004) at <http://www.theregister.co.uk/content/4/34725.html>.

⁴² See iTunes Case Study, at 33-47. In addition, RealNetworks has decided to allow songs sold at its Music Store to be converted into WMA or into a format playable on an iPod. It is not clear whether Real violated the DMCA in the latter regard. In any case, this is not the fullest extent of interoperability, for it only works one way; songs sold at the iTunes Music Store still cannot be played on non-iPod players. What's more, Apple may simply reengineer its product to preclude usage of RealNetworks' converted songs. See John Borland, "RealNetworks breaks Apple's hold on iPod," *News.com* (July 26, 2004) at http://news.com.com/RealNetworks+breaks+Apple%27s+hold+on+iPod/2100-1027_3-5282063.html?tag=nefd.pop; Apple statement regarding Real's Harmony (July 29, 2004) available at <http://www.prnewswire.com/cgi-bin/stories.pl?ACCT=109&STORY=/www/story/07-29-2004/0002221065&EDATE=>.

codec contending with Windows Media Audio, the DRM standards' technical capabilities generally do not affect the actual content's quality in any meaningful way,⁴³ and thus little is gained technically from the standards competition.

Consumer frustration will be compounded by the likely demise of many current Stores. Unless the volume of users grows significantly this year, the market might not be able to bear a dozen services.⁴⁴ Indeed, as Stores like Wal-Mart's⁴⁵ undercut the competition and sell music as a loss leader, services that are trying to profit simply from selling music will be squeezed even tighter. Formats from defunct Stores will inevitably go unsupported in newer hardware players, and consumers will be forced to confront the incompatibility.

While the compatibility problems are most stark, many other DRM restrictions may also depress consumer demand. Even permissive DRM like iTunes' will encumber uses such as making multiple back-up copies in data formats, creative appropriations (e.g., sampling), and reselling purchased copies.⁴⁶ Regarding services that restrict the latter, a 2004 GartnerG2 survey shows that 28.8% of teens and 32% of adults are "much less likely to subscribe."⁴⁷ In addition, the subscription services' current lack of portability conflicts with consumer expectations.⁴⁸ One could argue that, particularly in regard to the iTunes-like PPD services, these limits will not significantly impact the market, for they might not be too bothersome or even noticeable to most people; however, to the extent they do impact users, they provide another reason to turn to P2P.

Just as current DRM implementations are less intrusive but still potentially impede adoption of legitimate services, the Stores' catalogs are improving but are still nowhere near what P2P has to offer.⁴⁹ Even iTunes' one million song catalog—the largest of any service—is only approximately equal to the number of songs in print, just 20% of total released recordings,⁵⁰ and far less when factoring in the many other recordings one can find on P2P. Some songs are licensed for PPD purchasing but not for streaming through subscription

Also, at least in Europe, regulatory changes have been suggested to rectify this problem. See Berkman Center-GartnerG2, *Copyright and Digital Media in a Post-Napster world*, update for December 2004 (forthcoming) available at <http://cyber.law.harvard.edu/media>.

⁴³ They might differ slightly in terms of their rights languages, and how flexibly they can set usage rules. In this way, they might eventually affect the way Stores and the industry can specify certain complex uses. However, all current DRM can express equally well the relatively simple rules of today's services, such as those for burning and portability. One exception to this is the forthcoming Janus DRM, see John Borland, "Microsoft unveils new anti-piracy tools," *News.com* (May 3, 2004) at http://news.com.com/2100-1025_3-5203004.html?part=rss&tag=feed&subj=news (discussing Microsoft's Janus DRM, which allows subscription services to disable access to downloaded files once the subscription ends).

⁴⁴ See Bernhard Warner, "CDs will die but Net music may be a business bubble," *USA Today* (Jan. 26, 2004) available at http://www.usatoday.com/tech/techinvestor/2004-01-25-music-bubble_x.htm; Neesham, *supra* note 38.

⁴⁵ Wal-Mart sells all singles for \$.88 and albums for \$9.44. For a discussion of their strategy, see "Wal-mart Sells Songs for 88 cents," *AP via Wired News* (Dec. 18, 2003) at http://wired.com/news/digiwood/0,1412,61659,00.html?tw=wn_tophead_5.

⁴⁶ Of course, the impact of DRM varies depending on the service and the severity of the restriction. Most PPD services are substantially similar to iTunes, but differences do exist. For instance, iTunes allows unlimited CD burning, while Wal-Mart only allows ten burns per song (though see *supra* note 8 regarding easy evasion of such restrictions). For a summary of how various services restrict some personal uses, see Deirdre Mulligan, John Han, and Aaron Burstein, *How DRM-based Content Delivery Systems Disrupt Expectations of 'Personal Use,'* published by ACM in *DRM '03*, available at http://www.sims.berkeley.edu/~john_han/docs/p029-mulligan.pdf. The summary does not include the numerous services with similar DRM to iTunes.

⁴⁷ See iTunes Case Study, at 53.

⁴⁸ See Berkman Center and GartnerG2, *Copyright and Digital Media in a Post-Napster World*, (Aug. 2003), 17, available at <http://cyber.law.harvard.edu/home/uploads/254/2003-05.pdf> (arguing that consumers have expectations of portability based on data stating that 82%, 77%, and 60% of consumers think it is legal to make a copy for back-up, to move to a portable device, and to share with a family member, respectively). See also Jupiter Research, *supra* note 26 (showing people's reduced demand with less portability in PPD services).

⁴⁹ See *supra* note 2.

⁵⁰ See Leander Kahney, "Music Biz Buzzing Over iTunes," *Wired News* (May 2, 2003) at <http://www.wired.com/news/print/0,1294,58706,00.html>.

services and vice-versa.⁵¹ Gaps in the catalog may harm the entire industry, for they lessen the Store's value to consumers and thus make it more likely that they will primarily turn to P2P.

To grow the Stores' catalogs, the industry can adjust at several layers. Though a legal change may ultimately be necessary, publishers themselves can take steps to make mechanical licensing as easy as possible for Stores. The Copyright Act does not clearly delineate whether streaming services must pay mechanical (in addition to performance) fees, the compulsory licensing system is outdated and burdensome, and the Harry Fox Agency, the principal private licensing organization, is sometimes no better.⁵² Meanwhile, the Stores can greatly increase their connections with independents, and the record labels can try to convince artists to end their online holdouts in spite of fears that singles sales will eat away at album revenue.⁵³

Finally, and perhaps most importantly, labels and artists should accommodate downloaders' demonstrated interest in out-of-print, live, and obscure recordings.⁵⁴ Some recordings (like live bootlegs) might exist only in P2P users' collections, but many songs exist in the record companies' archives, waiting to be digitized and distributed.⁵⁵ Today, sites like Nugs.net record live performances and place them online for purchase within 48 hours,⁵⁶ and there is little reason why the entire industry could not do the same for more artists. The industry has started to do so, but only in a limited fashion.⁵⁷ Leaving these potential sales on the table is to the industry's disadvantage both from a revenue-capture perspective and from a consumer-relationship perspective.

Even if the Stores could improve those aspects, current price points will still turn off many consumers. Of course, some consumers will still be willing to pay no more than zero and that will be a continual barrier; however, even for those willing to pay, prices might not be low enough to drive substantial growth. For PPD Stores, growth in user volume could lead to more pricing flexibility, but in the short run the tight margins will likely preclude significant discounts. With decreasing demand for albums and thus potentially lower revenue opportunities in the near term, the labels are also unlikely to reduce their royalty rates. The labels benefit from reductions in manufacturing and distribution costs, but the lower prices for online music basically offset these savings.⁵⁸

⁵¹ See Katie Dean, "New Napster Off to Solid Start," *Wired* (Nov 3, 2003) at <http://www.wired.com/news/digiwood/0,1412,61023,00.html>.

⁵² See Testimony of Jonathan Potter on "Section 115 of the Copyright Act: In need of update?", before subcommittee on Courts, the Internet, and Intellectual Property, (Mar. 11, 2004) available at <http://www.house.gov/judiciary/potter031104.htm> (making these criticisms and others); Jonathan Potter, Keynote Speech at Digital Music Forum, (Mar. 1, 2004) available at <http://www.digimedia.org/whatsnew/ACF113C.pdf>. See also Testimony of Marybeth Peters, <http://www.house.gov/judiciary/peters031104.pdf> (discussing the many issues involved, noting proposed rule changes to streamline compulsory licensing procedures). But see Testimony of Carey Ramos, <http://www.house.gov/judiciary/ramos031104.pdf> (supporting current legal and private licensing systems); Testimony of Cary Sherman, <http://www.house.gov/judiciary/sherman031104.htm> (making some criticisms, but generally supporting current licensing relationship with Harry Fox Agency). For the compulsory license, see 17 USC 115.

⁵³ See Frank Ahrens, "Music Fans Find Jukebox Half-Empty," *Washington Post* (Jan 19, 2004) at <http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A27954-2004Jan18¬Found=true>; Garrity, supra note 30.

⁵⁴ See supra note 2 (Napster data on consumers downloading these types); Harris Interactive, supra note 24.

⁵⁵ See Kahney, supra note 50; see also Bill Holland, "New Tech Requires Old Masters; Rise Of DVD," *Billboard* (Nov. 6, 1999) (discussing the industry's trouble digitizing quickly).

⁵⁶ See Seth Schiesel, "Seeing Payday, not Piracy, Musicians Put Concerts on the Web," *New York Times* (Jan. 22, 2004) at http://web1.nugs.net/about/press/nyt_040122.pdf.

⁵⁷ See Ethan Smith, "Net music sales get boost with outtakes, mixes," *Wall Street Journal via Baltimore Sun* (Mar. 8, 2004) at <http://www.baltimoresun.com/technology/bal-onlinemusic030804,0,5954638.story?coll=bal-business-headlines> (discussing release of non-studio album recordings exclusively online).

⁵⁸ For PPD services, sources have speculated that record labels receive 65% of each dollar see supra note 38. The difference between 54% of a \$15 CD (\$8.10) and 65% of a \$10 downloaded album (\$6.50) is mostly made up by removing manufacturing costs (8%, \$1.20). Essentially all of the lower cost comes from a lesser cut for the retailer (typically 38%, \$5.70) and absence of a distributor (8%, 1.20). For approximations CD costs, see Appendix I.

However, some have suggested that if the record industry reduced royalty rates and the Stores reduced prices, they would make up their losses in higher volume. In a recent survey, Jupiter Research found that 54% of adults would pay \$.51 to \$1.00 while 74% would pay \$.50 or less.⁵⁹ When Real's Rhapsody cut in half its per-song CD burning rates, CD burning tripled; when the Real Music Store cut its per-song and per-album download prices in half, purchases increased six-fold.⁶⁰

The all-you-can-listen subscription services offer more attractive pricing to many consumers and might grow into market leaders, but they are unlikely to do so in the near term. Their profit margins are better, with lower credit card costs and royalties reportedly at one cent or less per stream.⁶¹ For high volume downloaders, the services are comparatively much cheaper and, just as on P2P, every marginal download will feel free. On the other hand, prices might still have to come down to achieve broad appeal, for they are currently significantly above the average consumer's yearly spending on music.⁶² Also, until the services allow greater portability and consumers become more accustomed to renting their music, these services might only have limited market penetration.⁶³ At least the former will change in the long run as DRM evolves⁶⁴ and as services become capable of sending music directly to Internet-enabled devices.⁶⁵

The foregoing variables suggest an uncertain future for the Digital Music Store model. The Store model does provide hope for a growing online music market, but it may be a difficult transition for the industry.

C. The Digital Film Store?

The Digital Film Stores are in a more primordial state, approximating where Music Stores were when MusicNet and Pressplay first arrived in 2001. Just as labels owned MusicNet and Pressplay, the studios own Movielink; CinemaNow is the only other licensee, but it does not have agreements with all major studios. Both services' prices are generally above what one would pay at Blockbuster, and only CinemaNow allows permanent downloads, albeit from an extremely limited portion of its catalog. Recently, RealNetworks and Starz debuted a subscription service, but it has been criticized for a small catalog and poor design.⁶⁶

⁵⁹ See Spencer Ante, "What Price Online Music?" *Business Week Online* (Oct. 17, 2003) at http://www.businessweek.com/technology/content/oct2003/tc20031017_1991_tc078.htm.

⁶⁰ See Steven Levy, "Forecast: Song Costs May Fall Like Rain," *Newsweek* (Sept 27, 2004) available at <http://www.msnbc.msn.com/id/6037780/site/newsweek/>; Amy Harmon, "What Price Music?" *New York Times* (Oct. 12, 2003) available at <http://www.nytimes.com/2003/10/12/arts/music/12HARM.html?pagewanted=2&ei=5007&en=ccd1925d9ba7f1d2&ex=1381377600&partner=USERLAND>.

⁶¹ See John Borland, "Betting it all on Napster," *News.com* (Sept. 1, 2004) at http://news.com.com/Betting+it+all+on+Napster/2008-1027_3-5331890.html?tag=nefd.lede (Napster CEO agreeing that subscription margins are 40% while PPD margins are 10%). Knowledge@Wharton, "Online music's winners and losers," *News.com* (Dec. 27, 2003) at <http://news.com.com/2030-1027-5133561.html> (noting the low royalty rates and suggesting stronger long term potential). Given that the record labels set their rates for the PPD stores at about the amount needed to approximate CD sales, one can infer that the subscription royalty rates are set up similarly. However, that is not entirely clear. Assessing the total record label cut is more complicated because the labels are paid per stream rather than per song or album purchase, and consumers pay for access to a catalog rather than for a particular song or album.

⁶² See Census Bureau, *Statistical Abstract of the U.S., 2003: The National Data Book*, (January 2003) (projecting consumer spending at \$58.81 and \$57.27 for 2003 and 2004, respectively); "US per capita consumer spending on each of nine forms of entertainment / media forecast for 2002 in dollars," *Plunkett's Entertainment & Media Industry Almanac* (Jan. 7 2002) (placing consumer spending at \$71/person). The subscription services currently charge \$9.99/month = ~ \$120/yr. See http://www.mp3.com/tech/services_index.php for pricing information.

⁶³ See Knowledge@Wharton, *supra* note 61; PJ McNealy, "Commentary: RealOne a good step," *News.com* (December 4, 2001) at <http://news.com.com/2009-1023-276603.html?legacy=cnet> (noting that consumer expectations to own music take time to change).

⁶⁴ See John Borland, "Microsoft unveils new anti-piracy tools," *News.com* (May 3, 2004) at http://news.com.com/2100-1025_3-5203004.html?part=rss&tag=feed&subj=news (discussing Microsoft's Janus DRM, which allows subscription services to disable access to downloaded files once the subscription ends).

⁶⁵ See Knowledge@Wharton, *supra* note 61.

⁶⁶ See Ronald Grover, "Online Movies: Not Ready for Prime Time," *Business Week* (Nov. 10, 2003) (noting high prices and small catalogs, along with Cinemanow's licensing); Stefanie Olsen, "Cinemanow debuts download-to-own movies," *News.com* (Jan. 15,

Of course, the market for downloading films—legitimately or not—is still relatively small. Broadband connections are needed to download films quickly, and it is unlikely that most consumers want to watch films on their computers. In time, more people will have broadband, and computers will become a more integrated part of the home entertainment system, but the film industry is unlikely to suffer significant losses from P2P downloading for now.

Eventually, the industry will face many of the same challenges that the music industry faces now. Though downloading films may be relatively difficult today, P2P systems are already evolving in ways that aid film downloading.⁶⁷ As such, Film Stores and the film industry also face an uncertain future.

In anticipation, the film industry has made some limited headway. First, Movielink and CinemaNow recently upgraded such that users do not have to finish downloading before beginning to view the film. They are also beginning to allow limited portability and experiment with new pricing schemes, including the Real/Starz service.⁶⁸ Second, the industry has begun to pursue new distribution technologies, even though they might siphon revenue from other more profitable streams. For instance, Disney recently introduced Moviebeam, a set-top box for the TV that receives films on-demand via analog TV signals.⁶⁹ If the industry can continue shifting towards alternative, more flexible distribution schemes, they will be better prepared for widespread P2P downloading.

PART III: TECHNOLOGY, THE LAW, AND POLICY ANALYSIS

A. Baseline of technology and the law

So far, we have primarily discussed technologies aimed at impeding infringement in terms of their impact on consumers' willingness to pay for restricted content. The following sections will expand the scope in two ways. First, how can technology and the law be used to reduce infringement? Second, what broader social costs and benefits do such technologies have? This section will address these questions in relation to the current environment and the DMS model.

Both record companies and film studios have begun to sue infringing P2P users. While success in these lawsuits could vastly improve the industries' prospects, they might be entirely inefficacious. One study asserted that P2P usage dropped by 18 million users after the record industry's suits began,⁷⁰ but other studies suggest that P2P usage and traffic went up⁷¹ and that 75% of people still believe that downloading should not

2004) at http://news.com.com/2100-1026_3-5141683.html; Rafat Ali, "Exclusive: Starz to Launch Online Movie Service with RealNetworks," *Paidcontent.org* (June 10, 2004) at <http://www.paidcontent.org/stories/starrzreal.shtml>; Paul Boutin, "The Verdict: No Starz" *Slate.com* (June 16, 2004) at <http://slate.msn.com/id/2102504/> (criticizing the new service).

⁶⁷ See Paul Boutin, "Caveat MPAA," *Slate* (Feb. 27, 2004) at <http://slate.msn.com/id/2096316/> (discussing BitTorrent, which breaks files into many pieces that can be downloaded simultaneously); John Borland, "File swapping shifts up a gear," *News.com* (May 27, 2003) at <http://news.com.com/2100-1026-1009742.html> (discussing eDonkey, which has a similar multi-source feature).

⁶⁸ See Paul Korzenioski, "Could It Finally Be Showtime For Online Movie Downloading Sites?" *Investor's Business Daily* (Dec. 9, 2003) (discussing the services generally, including recent upgrades); Chris Marlowe, "Movielink upgrading, marketing," *Hollywood Reporter* (Sept. 3, 2003); Ali, *supra* note 66.

⁶⁹ See Gale Daikoku, "Disney's New Moviebeam Service Creates Many Opportunities," *GartnerG2.com* (Sept. 29, 2003) at <http://gartnerg2.com/na/na-0903-0053.asp>.

⁷⁰ See Pew Internet & American Life Project, *Sharp decline in music file swappers: Data memo from PIP and comScore Media Metrix*, (Jan. 4, 2004) at <http://www.pewinternet.org/reports/toc.asp?Report=109>.

⁷¹ See Cachelogic, *The True Picture of P2P File Sharing*, at <http://www.cachelogic.com/research/slide1.php>; Thomas Karagiannis et al., *Is P2P dying or just hiding?*, Presented at Globecom, (November 2004) available at <http://www.caida.org/outreach/papers/2004/p2p-dying/>; "Did Big Music Really Sink the Pirates?," *supra* note 23 (citing BayTSP and BigChampagne data on this point); Marguerite Reardon, "Oops! They're swapping again," *News.com* (Jan. 10, 2004) available at <http://news.com.com/2100-1027-5142382.html?part=dtx&tag=ntop> (stating that usage is up after an initial decline).

be illegal.⁷² The suits might simply be shifting users toward more secretive systems while angering potential customers⁷³; P2P services and other software vendors have begun to introduce features that hide the user's address such that they cannot be readily identified.⁷⁴

Beyond potential benefits in terms of supporting industry viability, lawsuits could be beneficial in aligning mores with the law. On the other hand, many question whether the sanction's benefits are worth the cultural downsides. As people violate the law as part of their daily lives, "respect for the law" may decline.⁷⁵ To some, it also seems excessive and unfair to levy heavy sanctions nearly at random on particular infringing uploaders.⁷⁶

Before launching these lawsuits against direct infringers, the industries had tried to sue P2P systems themselves. While they managed to force the shutdown of Napster and other centralized P2P services, the 9th Circuit Court of Appeals in *MGM v. Grokster* recently affirmed the legality of decentralized systems, Grokster and Morpheus.⁷⁷ Even if their creators were held liable, the effect would be unclear; the current decentralized P2P networks cannot be shut down, software created and distributed by companies offshore already exist, and it is easy enough for a hobbyist programmer to create and distribute decentralized P2P software.⁷⁸

These suits also cause social harms, impeding innovation and legitimate uses of technology. Beyond limiting legitimate uses of P2P itself, liability for this tool could apply to myriad other technologies, because P2P is simply a tool for searching for and transmitting files. As such, innovation in general and, more particularly, the Internet as a platform for innovation is put in jeopardy by severe secondary liability standards. Fearing liability, technology creators will have to constrain their technologies, potentially limiting novel, and legitimate uses.⁷⁹

The industries' hopes for DRM and its protection under the DMCA have seemed similarly mismatched. The DMCA prohibits the manufacture and distribution of DRM that controls copying of or access to a copyrighted work; it also prohibits circumvention of the DRM that controls access. Typical defenses to copyright infringement, like fair use, do not apply.⁸⁰ Intended to prevent piracy, DRM with the aid of the

⁷² See Robert Leitman, "Americans Think That Downloading Music for Personal Use is an Innocent Act," *Harris Interactive* (Jan. 28, 2004) at http://www.harrisinteractive.com/harris_poll/index.asp?PID=434.

⁷³ See NPD Group, *Consumers Delete Large Numbers of Digital Music Files from PC Hard Drives*, (Nov. 5, 2003) at http://www.npd.com/press/releases/press_031105.htm ("A MusicLab survey fielded by NPD in September noted that consumers' overall impressions of the recording industry were negatively affected by threats of litigation. Two-thirds of consumers who had recently shared files on P2P networks reported that the lawsuits caused them to have a 'much more' or 'somewhat more' negative opinion of record companies in general. Just over 40 percent of consumers who had not downloaded music in the previous four weeks felt similarly."); Richard Shell, "Suing Your Customers: A Winning Business Strategy?" *Knowledge@Wharton* (Oct. 22, 2003) at <http://knowledge.wharton.upenn.edu/articles.cfm?catid=7&articleid=863> (arguing that lawsuits will only anger customers and drawing an analogy to a patent fight between Ford and Seldon that created consumer outrage against the users).

⁷⁴ See John Borland, "Covering Tracks: New privacy hope for P2P," *News.com* (Feb. 24, 2004) at <http://news.com.com/2100-1027-5164413.html>. Consumers are also becoming savvier about avoiding uploading, while continuing to download, for the industry can only track and sue the former, see Patrick Day, "So not deterred," *Los Angeles Times* (Feb. 15, 2004) available at <http://www.latimes.com/features/lifestyle/la-ca-day15feb15,1,1149916.story?coll=la-home-style>.

⁷⁵ See Lawrence Lessig, *Free Culture*, (Penguin Press: Mar. 25, 2004), 202, available at <http://www.free-culture.cc>; Fisher, *Promises*, at 243.

⁷⁶ See Mark Lemley and R. Anthony Reese, *Stopping Digital Copyright Infringement Without Stopping Innovation*, forthcoming publication, available at http://intel.si.umich.edu/tprc/papers/2003/210/Stopping_Copyright_Infringement_Without_Stopping_Innovation.htm (noting this drawback).

⁷⁷ *MGM v. Grokster*, 2004 U.S. App. LEXIS 17471 (9th Cir., 2004).

⁷⁸ See Peter Biddle et al., *The Darknet and the Future of Content Distribution*, (October 15, 2002), available at <http://crypto.stanford.edu/DRM2002/darknet5.doc> (predicting that highly efficient distribution networks "will remain a fact of life"). For one off-shore P2P company see, e.g., <http://www.earthstation5.com/>.

⁷⁹ See Lemley and Reese, *supra* note 76; "Testimony of Gary Shapiro on behalf of the Consumer Electronics Association" at the IICA hearing, available at <http://ce.org/s2560test.pdf> (discussing threat to innovation in light of bill proposing tougher liability standards); Briefs for Defendants in appeal to *MGM v. Grokster*, available at http://www.eff.org/IP/P2P/MGM_v_Grokster.

⁸⁰ See 17 USC 1201-1205. The DMCA does contain certain limited exceptions, 17 USC 120(d)-(j).

DMCA makes little difference to piracy today. Even setting aside the certainty that DRM will be cracked in spite of the DMCA, files can be ripped and encoded in an unencrypted format once burned to CD or as they are outputted in analog form. While DRM may reduce the initial number of uploaders, merely one copy can quickly propagate through a P2P system.⁸¹

DRM's practical benefit seems unclear, but its costs from consumer and societal perspectives are quite apparent. Limits on copying reduce the important social benefits derived from the public's freely accessing and manipulating creative material under the fair use and first sale doctrines.⁸² Consumers lose the greater flexibility and control that the digital media environment enables; for instance, iTunes-like DRM stunts the sampling, editing, and other creative appropriations that digital technology makes easy. What's more, DRM will never allow for all fair use because it is an evolving legal doctrine, applying a balancing test on a case-by-case basis rather than protecting a discrete set of uses.⁸³

DRM and the DMCA also hinder legitimate uses in ways that have little relation to preventing piracy. Among the many collateral damages,⁸⁴ control exerted over secondary markets like portable players impedes technological innovation and competition.⁸⁵ If digital media device creators must license DRM to play dominant media formats, copyright holders can shut out technology pioneers if their inventions threaten existing business models. Lawsuits have already enjoined compatible DVD and streaming media products.⁸⁶ The DMCA can also be invoked to lock up technologies and non-copyrightable materials simply by including a trivial amount of copyrighted content, potentially forcing many industries and actors unrelated to copyrighted entertainment to contend with the DMCA's restrictions.⁸⁷ The DMCA has obstructed legitimate research on such matters as software security and website filtering lists.⁸⁸

⁸¹ See Biddle et al., *supra* note 78 (arguing that DRM does not affect the viability of P2P and that businesses might be better off avoiding DRM entirely); Cory Doctorow, *Microsoft Research DRM Talk*, (June 17, 2004), available at <http://www.craphound.com/msftdrm.txt>; iTunes Case Study, at 40-44 (discussing DRM's limitations and how it has not impacted piracy). This logic does not apply to distribution via CD burning, where one copy cannot easily spread beyond a limited group and locale. In that case, DRM might have a more substantial effect. However, given that the current music services allow audio CD burning, this effect is limited. More to the point, CD burning does not appear to be as great a threat as P2P, and the recording and film industries certainly do not treat it as such. In turn, the matter is not treated in further detail here. For discussion of why DRM might work for this threat model, see Ed Felten, "DRM, and the First Rule of Security Analysis," *Freedom-to-tinker* (March 19, 2003) at <http://www.freedom-to-tinker.com/archives/000317.html>. See also iTunes Case Study, at 35-44.

⁸² See, e.g., Glynn Lunney, *Fair use and Market Failure: Sony Revisited*, 82 B.U.L. Rev. 975 (Oct. 2002) (interpreting *Sony* to mean and normatively supporting an idea of fair use as "public interest balancing"); Dan Burk and Julie Cohen, *Fair Use Infrastructure for Rights Management Systems*, 151 Harvard Journal of Law and Technology 42, 43-54 (Fall 2001) (discussing the importance of fair use and how DRM impacts it); R. Anthony Reese, *The First Sale Doctrine in the Age of Digital Networks*, 44 Boston College Law Review 577 (2003) (discussing effects of digital technology, including DRM, on first sale, and outlining costs and benefits of first sale under traditional model and in the digital era).

⁸³ See Fred von Lohmann, "Fair Use and DRM," *EFF.org* (Nov. 1 2003) at http://www.eff.org/IP/DRM/fair_use_and_drm.html. It is, however, possible that DRM could be adjusted to be more flexible than it currently is, see Samuelson Clinic, *Supporting Limits on Copyright Exclusivity in a Rights Expression Language Standard*, (Aug. 13, 2002), available at http://www.law.berkeley.edu/cenpro/samuelson/papers/other/OASIS_Submission_090602.pdf. The law could also be changed to encourage more flexible adjudication of where circumvention would be legitimate, see Burk and Cohen, *supra* note 82.

⁸⁴ See "Unintended Consequences: Five Years Under the DMCA," *EFF.org*, at http://www.eff.org/IP/DMCA/unintended_consequences.php.

⁸⁵ For portable player context, see iTunes Case Study, at 33-47. For broader discussion of threat to innovation and competition, see Dan Burk, *Anti-circumvention Misuse*, Minnesota Public Law Research Paper No. 02-10 (July 31, 2002) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=320961 (discussing DMCA cases locking out competing technologies); "Unintended Consequences," *supra* note 84; Ernest Miller, "Why Use DRM If It Doesn't Work?" *Copyright* (May 7, 2004) at <http://www.corante.com/copyright/archives/003559.html> (discussing how DRM can be used to stop disruptive technologies and thus preserve business models).

⁸⁶ See Reimerdes, *RealNetworks*, *supra* note 40.

⁸⁷ Non-copyrightable and public domain works are not protected by the DMCA. However, if circumvention to access such works also enables access to copyrighted works, the circumvention would still be illegal. Recently, the Copyright Office rejected petition for an exemption for such a use. See Marybeth Peters, *Recommendation of the Register of Copyrights in RM 2002-4; Rulemaking on Exemptions from Prohibition on Circumvention of Copyright Protection Systems for Access Control Technologies*, 98-102 (Oct. 28, 2003) available at <http://www.copyright.gov/1201/docs/register-recommendation.pdf>.

⁸⁸ See "Unintended Consequences," *supra* note 84.

To make it more difficult for people to circumvent DRM, the industries have been pushing for DRM mandates, forcing technology creators to embed protections in hardware. At the behest of the MPAA, the FCC mandated that all devices capable of receiving digital television respond to a "broadcast flag"—information embedded in received content that describes how it can be copied.⁸⁹ Devices can only output protected content in a degraded form or to devices that also respond to the flag. To receive FCC approval to create digital television devices, technology creators must meet "robustness" requirements that ensure the restrictions cannot be easily evaded.⁹⁰

Such mandates may do little to ameliorate the weakness of DRM as a protection method. Moreover, by mandating that devices embed DRM, technology creators lose flexibility to design tools with novel features.⁹¹ Rather than general purpose tools that users can experiment with, manufacturers will have to allow only a discrete, authorized set of uses. Robustness requirements for the DRM will inhibit open source software, for it is by definition not tamper proof.⁹² The full extent of the innovations and legitimate uses that might be precluded will never be known, given that technology evolves unpredictably.

Finally, the benefits of spoofing in terms of making infringement more time-consuming are also uncertain. It might be more effective than DRM, for spoofing's impact persists beyond the creation of one unencrypted copy. At the same time, its effect diminishes as legitimate copies spread, and its use thus far has not seemed to slow P2P usage, though that may be attributable to limited deployment. Because P2P systems are now implementing counterattacks,⁹³ copyright holders cannot rely on this strategy forever. Along with the potential benefits of reducing piracy, spoofing causes negligible social harm, cluttering P2P systems and slowing file searches for legitimate content.

In sum, lawsuits and technologies currently deployed to inhibit piracy do not markedly improve the industries' chances and may be a net loss for society. The following sections will imagine two scenarios in which technologies have a more substantial positive impact for the industries.

B. An alternative: Technology as Speed Bump Scenario

The Digital Media Project's Technology as Speed Bump Scenario envisions copyright holders being able to inhibit piracy substantially for a limited time period after content's initial release.⁹⁴ The technologies that could create such a window of opportunity would evolve over time, but the currently plausible options include interdiction, DRM, watermarking, and spoofing. Interdiction entails downloading a song from a P2P user such that no one else can download it at the same time.⁹⁵ DRM's ability to reduce the initial number of uploaders, currently of little significance as described above, could decrease the number of users who must be

⁸⁹ FCC Broadcast Flag ruling, (Nov. 4, 2003), at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-273A1.pdf.

⁹⁰ See EFF Digital Television Liberation Front, available at <http://eff.org/broadcastflag/>; DefCon12 slides, (July 31, 2004), available at <http://www.eff.org/broadcastflag/defcon12/> (describing these requirements).

⁹¹ See Fisher, *Promises*, at 169-172; EFF, *Comments on the Final Record of the Broadcast Protection Discussion Group*, (May 30, 2002) available at <http://bpdg.blogs.eff.org/archives/000116.html> (making this point in the digital television broadcast flag context); Paul Horn, Eliot Maxwell, and Susan Crawford, *Promoting Innovation and Economic Growth: The Special Problem of Digital Intellectual Property*, report from Committee on Economic Development (March 3, 2003), 31-48 (March 3, 2003), available at http://www.ced.org/docs/report/report_dcc.pdf.

⁹² See *Comments on the Final Record of the Broadcast Protection Discussion Group*, id.

⁹³ See Mike Linksvayer, "Morpheus with Bitzi Anti-spoofing," (Oct 7, 2004) at <http://gondwanaland.com/mlog/2004/10/07/morpheus-with-bitzi-anti-spoofing/>; Joseph O. Patterson, *A Matter of Trust: Reputation Management in Peer-to-Peer Networks*, available at http://csci.mrs.umn.edu/Personal/pub/Patterson/SeminarIIPaperDevelopment/sem2_draft.doc (describing a technique to do so). See also Stuart Schecter, et al., *Trusted Computing, Peer-To-Peer Distribution, and the Economics of Pirated Entertainment*, (May 29, 2003) at <http://www.eecs.harvard.edu/~stuart/papers/eis03.pdf> (discussing how hardware that would benefit DRM may also benefit spoofing counterattacks).

⁹⁴ <http://cyber.law.harvard.edu/media/scenario2>.

⁹⁵ See Randy Saaf, Written Testimony for the Oversight Hearing on "Piracy of Intellectual Property on Peer-to-Peer Networks" submitted to the House Judiciary Committee (Sept 26 2002) at <http://www.house.gov/judiciary/saaf092602.htm>.

interdicted and thus increase interdiction's efficacy.⁹⁶ In hopes of further deterring initial uploaders, unique watermarks for each sold copy could help copyright holders identify and sue these P2P users.⁹⁷ Spoofing would create an even greater nuisance, as the fake files could more easily outnumber the real versions.

These technologies may require or benefit from supporting laws. A bill to allow interdiction has been proposed,⁹⁸ as it currently could be construed as an illegal denial of service attack subject to the Computer Fraud and Abuse Act.⁹⁹ Legal penalties could also be targeted at those who distribute infringing materials during the initial release period.¹⁰⁰ The DMCA already protects DRM and copyright information embedded in watermarks.¹⁰¹

Though this scenario assumes *arguendo* that technology could create a meaningful window of time in which copying and distribution can be controlled, they will realistically form an imperfect barrier. The scenario only imagines that gaining illicit access will be tremendously more difficult for most users during the initial release period, becoming less difficult as the speed bumps' effectiveness degrades. Furthermore, copyright holders will go through a continual cycle of creating technological measures and having them evaded.

Three reasons suggest that creating this window would provide an important boost to the industries' revenues. First, to frame it in terms used at this paper's beginning, the speed bumps create non-monetary costs to using P2P that consumers will have to weigh along with the other incentives to choose the Store instead. For some, waiting to get something for free might be such a nuisance that they will abandon P2P entirely, while others might selectively decide to buy early.

Second, creative products lend themselves to a business model that focuses on early returns. Creative products typically exhibit "network effects," increasing in value with increasing popularity.¹⁰² Consider the many conversations one has with friends about new art, or the various pop culture references one experiences daily; forgoing consumption of the art means not participating in those interactions as well. If sales simply trickle in, there will be less buzz, less shared excitement, and thus less network effects. In turn, it is to the industries' advantage to hype a product's release, attracting a multitude of consumers whose interest will draw in others.

Third, reliance on early returns already exists in the music and film industries to some extent. In general, initial sales periods are critical because the industries desire a quick return on expensive investments.¹⁰³ Most albums sell well for only a short time, and the major record labels position their releases to maximize initial sales.¹⁰⁴ Though record companies derive about a third of total sales from albums older than 18 months,¹⁰⁵

⁹⁶ As noted in the iTunes Case Study, at 41-44, DRM's potential in this regard is rather uncertain and requires more study.

⁹⁷ See Neil Johnson et al., *A Role for Digital Watermarking in Electronic Commerce*, at <http://cs.gmu.edu/~zduric/WebPages/Papers/ACM-CS.pdf>; John Borland, "Tech hides data, ID inside songs," *News.com* (Mar. 20, 2003) at <http://news.com.com/2100-1027-993588.html>. As noted in both documents, watermarks can also be used for DRM, but I do not treat that use distinctly here.

⁹⁸ See H.R. 5211, available at <http://thomas.loc.gov/cgi-bin/bdquery/z?d107:h.r.05211:>.

⁹⁹ See 18 USC 1030(a) available at <http://www4.law.cornell.edu/uscode/18/1030.html>.

¹⁰⁰ A bill that recently passed the Senate would criminalize online distribution before a work's commercial release. See "Senate passes scaled-back copyright measure," *Reuters via News.com* (Nov. 22, 2004) at http://news.com.com/Senate+passes+scaled-back+copyright+measure/2100-1028_3-5462655.html?tag=nefd.top.

¹⁰¹ See 17 USC 1201 and 17 USC 1202, respectively.

¹⁰² See Mark S. Nadel, *Questioning the Economic Justification For Copyright*, 16 (Feb. 14, 2003), available at <http://www.serci.org/2003/nadel.pdf>; Robert H. Frank, *When Less is Not More*, *New York Times* (July 17, 2000); Richard E. Caves, *Creative industries : contracts between art and commerce*, (Cambridge, Mass.; London: Harvard University Press, 2000), 77, 178-82.

¹⁰³ See Harold Vogel, *Entertainment Industry Economics*, (New York, NY, USA: Cambridge University Press, 2001, 5th ed.), 84 (discussing in context of film industry).

¹⁰⁴ See Wendy Moe and Peter S. Fader, *Modeling Hedonic Portfolio Purchases*, 4-5 (Mar. 2000), available at <http://www.mcombs.utexas.edu/faculty/Wendy.Moe/Music.pdf> (focusing primarily on data from a sample of 20 albums, and noting "[F]or the most part, the dominant feature for this [album] and most other albums is the relatively smooth exponential decline that

ensuring that all early experiences of the works were captured as sales revenues would still provide a meaningful boost. For films, the situation is a bit more complicated, but still favorable to this business strategy. Studios concentrate on a film's opening week, which typically accounts for 40% of total box-office revenue; initial sales are taken as good predictors of total revenue and help generate greater success in downstream markets.¹⁰⁶ Still, an altered sales timeline will challenge the film industry because the downstream markets are approximately 75% of revenues,¹⁰⁷ and, by the time those sales periods occur, copies made from the theatrical release will already be available on P2P. Moving up those markets' release dates may cannibalize theatrical revenue. On the other hand, the film industry is already eager to move up DVD releases to take advantage of its high profit margins.¹⁰⁸ Moreover, though it has often done so hesitantly, the industry has always been able to integrate technologies that upset current sales strategies, such as satellite and PPV.¹⁰⁹

Shifting to a greater focus on early returns may occur to some degree regardless of technology acting as a speed bump. In part because many new music and film releases have been available on P2P prior to their release,¹¹⁰ release timetables are being adjusted. For example, the theatrical debuts of *X-Men 2* and *Matrix: Revolutions* each had simultaneous releases across global locations.¹¹¹ Meanwhile, several labels have begun releasing music online before the in-store release to ensure online shoppers have a legitimate option.¹¹² In

occurs over time."); Wendy Moe and Peter S. Fader, *Using Advanced Purchase Orders to Forecast Product Sales*, 5 (July 2002), available at <http://www-marketing.wharton.upenn.edu/ideas/pdf/Fader/Using%20Advance%20Purchase%20Orders.pdf> (repeating the same point but also recognizing certain exceptions); Vogel, supra note 103, at 163 ("all but the most successful recorded music products [have] a relatively short life cycle"); Sonia Murray, "Music industry mimics Hollywood style of marketing," *Atlanta Journal Constitution* (Oct. 20, 2003) ("album release dates are routinely changed so that an artist known to draw a particular audience doesn't have to go head to head with a comparable act for that No. 1 chart spot"); David Bauder, "Boom is the sound of pop market exploding," *Vancouver Sun* (June 5, 2000) ("First-week sales have become a measuring stick like the first weekend's box office receipts are for films, and only add to the hype."); See also Edna Gundersen, "Stakes are high for fall albums," *USA Today* (Sept. 21, 2001) (focusing on first week sales as horse race).

¹⁰⁵ See Phil Hardy, "Changes in US and UK sales patterns demand a new back catalogue market strategy from the major record cos.," *Music & Copyright* (Aug. 26, 2003) (noting this and recent drops in catalog sales); Ed Christman, "Hit-Driven Album Sales Lead In '99 Report," *Billboard* (Jan. 15, 2000) ("Catalog product totaled 33.6% of all album sales" in 1999).

¹⁰⁶ See Natash Foutz and Vrinda Kadiyali, *Competitive Dynamics in the Release Date Pre-announcements of Motion Pictures*, 9-10 (October 2003), available at http://www-1.gsb.columbia.edu/divisions/marketing/research/speakersPapers/natasha_paper.pdf (discussing positioning of release dates in order to avoid competing films. Providing data demonstrating the "exponential decay in box office revenues," with about 40% of revenue coming in first weekend, 80% over first four weeks. Industry takes early revenue as best predictor of success in theatrical and later markets, and studios obtain highest cut (70-90%) in early period.); Liran Einav, *Seasonality and Competition in Time: An Empirical Analysis of Release Date Decisions in the U.S. Motion Picture Industry*, 5-6 (Aug. 12, 2003), available at http://www.stanford.edu/~leinav/Release_Dates.pdf (making similar points); Vogel, supra note 103, at 85 (noting sliding scale for film studios' cut, starting with 70% or more); Benjamin Compaine and Douglas Gomery, *Who owns the media?: competition and concentration in the mass media industry*, (Mahwah, N.J.: L. Erlbaum Associates, 2000, 3rd ed.) 377, 415 (discussing first weekends' importance to overall returns and connection between box office success and downstream markets); Charles Weinberg, *Marketing Models Improve Profit Picture: It's About Time*, (July 19, 2000), available at <http://www.sauder.ubc.ca/Marketing/Weinberg/movies2000.pdf> (discussing various research and noting that video rentals also experience exponential decline of 6% per week in sales, at 10); Phinjo Gombu, "Ranking movies by their big bucks is an inexact science," *Toronto Star* (May 15, 2002) (discussing how studios focus so much on opening weekends that they sometimes provide inaccurate data).

¹⁰⁷ Estimation taken by comparing figures in the following publications. See Vogel, supra note 103, at 62. MPA, *2002 MPA Market Statistics*, at http://mpaa.org/useconomicreview/2002/02%20Economic%20Review%20w-cover_files/frame.htm; Kate Bulkley, "DVDs force the movie business to rewrite its rules," *Financial Times* (Jan. 20, 2004); Fisher, *Promises*, at 212; "European Film Industry Report," available at http://www.factbook.net/wbglobal_rev.htm.

¹⁰⁸ See Bulkley, id; Paul Sweeting, "Windows leave open too many opportunities," *Daily Variety* (March 3, 2003).

¹⁰⁹ See Bulkley, supra note 107.

¹¹⁰ See, e.g., Brian Briggs, "Copies of Spiderman Already on the Web," *Bbspot* (May 29, 2002) at <http://www.bbspot.com/News/2002/05/spiderman2.html>; "Thief Caught Online," *NME.com* (March 31, 2003) (discussing Radiohead's album appearing online).

¹¹¹ "Bell Tolls for 'Zero Hour'" *Video Age International* (November 23, 2003) available at <http://www.videoageinternational.com/2003/articles/Nov/zerohour.htm>.

¹¹² See, e.g., Joe D'Angelo, "Warner Responsible for Record Hitting the Net Months Before Release," *MTV.com* (Feb. 2, 2004) at http://www.mtv.com/news/articles/1484749/20040202/secret_machines_1.jhtml?headlines=true.

this scenario, the industries' greater opportunity to exploit the initial sales window will intensify and expand these changes.

While the speed bumps would ease the industry's effort to make these business changes and induce consumers to pay, this scenario has several deficiencies. To begin with, although they might boost industry revenues in the aggregate, the speed bumps are unlikely to benefit all artists. Generating high initial sales will require large upfront costs for marketing as well as for implementing the speed bumps, which will only be worth investing in if there is a high probability of success. For content creators who do not have large established audiences, it might be impossible or simply impractical to spend large sums before the release. Many such creators today can rely on word-of-mouth and promotional tours to increase sales and build audiences gradually, but, by the time they have built up their market, the speed bumps' window may already be past.

Indeed, intensifying reliance on early returns may reinforce the industries' current tendency to heavily invest in and promote a few immensely profitable hits while marginalizing the vast majority of artists.¹¹³ Inasmuch as the industries have focused on works with the broadest possible audiences, thus concentrating both investment and profitability in a small number of releases, it has arguably created greater homogeneity.¹¹⁴ Under this scenario, the major labels and studios might invest even less in riskier artists and productions, contributing even less to artistic diversity. Still, to the extent content creators can subsist outside of the record labels and major studios, this pernicious effect will be ameliorated, especially as production and marketing costs decline.¹¹⁵

The speed bumps themselves will add to the social costs discussed above. Interdiction will limit other activities of the targeted user, and, when on a shared bandwidth connection (like cable broadband), the legitimate activities of others.¹¹⁶ Given copyright holders' misidentification of infringing material in past instances,¹¹⁷ this technology will likely accidentally target innocents, though penalties for mistakes can ease this problem. Interdiction and watermarks, like DRM and spoofing, will increasingly be evaded,¹¹⁸ and, as the inevitable technological arms race proceeds, more severe speed bumps will be needed generating increased collateral damage¹¹⁹ as well as spending innovation investment in areas arguably lacking significant social utility.

For these reasons, while this scenario might create a better environment for the Store model, it might not be better overall. Even assuming that this scenario would be preferable to today's environment, one must ultimately take into account the probability it can be achieved in practice to determine whether it is worth pursuing. After all, this scenario will not simply evolve by itself, but will rather require coordinated legislative and private actions. Some would argue that consumers will easily outmaneuver the speed bumps and the law will not be able to change fast enough to support them; thus, speed bumps may never create a meaningful

¹¹³ See Fisher, *Promises*, at 76-81 (discussing the hits-based nature of the industries); Jon Pareles, "Spit Out by the Star-Making Machinery," *New York Times* (Feb. 3, 2002) ("the costs of marketing new [music] releases to a mass audience have grown prohibitive . . . [and] those costs have long helped limit competition from smaller companies."); Bauder, *supra* note 104 ("Some executives worry that such explosive [music] successes may be so distorting that the industry loses patience for promoting acts over a long term.").

¹¹⁴ See Fisher, *id.*

¹¹⁵ See Appendix I (discussing declining costs).

¹¹⁶ See "Comments on the Berman P2P Bill," *EFF.org*, at http://www.eff.org/IP/P2P/20020802_eff_berman_p2p_bill.php.

¹¹⁷ See, e.g., Benny Evangelista, "Download Lawsuit Dismissed," *San Francisco Chronicle* (Sept. 25, 2003) available at <http://sfgate.com/cgi-bin/article.cgi?f=/c/a/2003/09/25/BUGJC1TO2D1.DTL>.

¹¹⁸ See Biddle et al., *supra* note 78 (discussing evasion of watermarks); Seth Schoen, *Analog Reconversion Discussion Group General Comments of the Electronic Frontier Foundation*, (Nov. 24, 2003) at http://www.eff.org/IP/Video/ardg_eff_comments.pdf (discussing flaws in watermarks, in particular ones for analog recordings); Testimony of Edward Felten on "Piracy of Intellectual Property on Peer-to-Peer Networks," submitted to House Judiciary Committee (Sept. 29 2002) (discussing evasion of interdiction).

¹¹⁹ See Felten Testimony, *id.*

sales window.¹²⁰ From a policymaker's perspective, this possibility must also be weighed along with the potential costs and benefits.

C. A second alternative: Technological Lockdown Scenario

The previous scenario is in the middle of a broader spectrum. On one end is a scenario where no legal or technological impediments are used to impede P2P. On the other is the Technological Lockdown scenario,¹²¹ which envisions the law and technology being leveraged in an attempt to eliminate infringing file sharing.

Like the previous scenario, this scenario's exact make-up would have to evolve with technology, but it would likely involve at least the following components. First, it would incorporate and enhance the speed bumps. Congress would legislatively mandate that all digital and analog media hardware devices incorporate DRM, making it much tougher for the average person to evade the strictures. Technologies' features would be restricted to stop potentially infringing uses and perhaps the use of potentially infringing content by restricting the use of unencrypted files.¹²² Second, statutory change or court rulings would reverse *MGM v. Grokster* and make technology providers liable if they do not design their systems to prevent infringement.¹²³ Third, Congress could increase the civil and criminal penalties facing infringing P2P users and, to increase the likelihood of facing them, could add Justice Department resources for criminal prosecutions and decrease the standard of proof required for a finding of guilt.¹²⁴

This slate of legislative measures would not necessarily substantially reduce infringement.¹²⁵ Again, it may be impossible to eliminate P2P, prosecuting or suing infringers might not be a sufficient deterrent, and no DRM is foolproof. The design of the technological mandate and its practical effect on the use of illicitly acquired content are the most critical factors for this scenario to be possible. For the sake of argument, this Scenario does imagine, however, that the combined limitations on how people can use digital media, along with the shuttering of current P2P services and the threat to companies who continue to support illicit use of P2P, will have a significant impact. Under this Scenario, large-scale infringement will become much more difficult for most people.¹²⁶

¹²⁰ For skepticism about copyright holders' abilities in the technological arms race, see Felten Testimony, *id.* See also Ed Felten, "Can P2P Vendors Block Porn or Copyrighted Content," *Freedom-to-tinker* (Feb. 6, 2004) at <http://www.freedom-to-tinker.com/archives/000510.html>; Ed Felten, "The Future of File sharing," *Freedom-to-tinker* (June 23, 2004) at <http://www.freedom-to-tinker.com/archives/000627.html>.

¹²¹ <http://cyber.law.harvard.edu/media/scenario3>.

¹²² See S. 2048, "Computer Broadband and Digital Television Promotion Act", http://www.eff.org/IP/SSSCA_CBDTPA/20020321_s2048_cbdtpa_bill.pdf (proposing such a wide ranging mandate); FCC Broadcast Flag ruling, (Nov. 4, 2003), at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-273A1.pdf; MPAA, *Content Protection Status Report* (April 25, 2002) at http://judiciary.senate.gov/special/content_protection.pdf (proposing protections for analog devices as well); FCC Digital Audio Notice of Proposed Rulemaking, (Apr. 15, 2004) available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-99A4.pdf (asking for comments on digital radio mandate proposal). The broadcast flag mandate allows players to still play unmarked content. However, one could imagine a mandate that required digital media products to only play encrypted formats, as the EFF suggested the proposed CBDTPA might have done; see http://www.eff.org/IP/SSSCA_CBDTPA/20020322_eff_cbdtpa_alert.html.

¹²³ Perhaps this rule would be the recently proposed and extremely controversial Inducing Infringements of Copyrights Act, see <http://thomas.loc.gov/cgi-bin/bdquery/z?d108:s.02560>: and http://www.lessig.org/blog/archives/COE04694_LC.pdf. Or, this rule could be a negligence standard, as expressed in *In re: Aimster*, 334 F.3d 643 (7th Cir. 2003). Either way, the consequences for innovation, as discussed below will be similar.

¹²⁴ The proposed Intellectual Property Protection Act would have done this. See <http://www.publicknowledge.org/issues/hr2391>.

¹²⁵ See *supra*, section III.A; Peter Biddle et al., *supra* note 78 (arguing that DRM does not affect the viability of P2P and that businesses might be better off avoiding DRM entirely).

¹²⁶ Biddle et al., *supra* note 78, also argue that even technological restrictions aimed at the use of infringing content acquired from P2P are also bound to fail. Their paper does lend some very limited credence to the possible impact of forcing users into "small worlds networks," in which people share with trusted people, rather than strangers, and thus only have access to a limited database of music and films. However, the paper also notes that such small networks could still allow for massive infringement, particularly for popular files, as the networks are interconnected and individuals share and download in multiple groups.

The major benefit is obvious: the affected industries could employ the Store model largely without having to "compete with free." With industry losses due to piracy slowed, the Stores and the content industries would not need to adjust their models as urgently. At the same time, the Store model's increased viability will provide an incentive to adjust quickly to obtain the large cost savings possible by reducing manufacturing and distribution costs. The result will soon be a flourishing of Stores that will be cheaper and more convenient than the alternative options, online or offline purchases of physical media. For the short term, the labels might appropriate most of the cost-savings from online distribution, but, as production costs fall, more artists will be able to go independent and obtain these benefits themselves. With a model viable for more independent content creators, this scenario could eventually make possible a more diverse artistic culture.

This scenario could also provide greater revenue through enhanced price discrimination.¹²⁷ Price discrimination entails selling different consumers the same good at different prices. For instance, the film industry price discriminates by releasing films first to theaters and then in secondary markets at different prices. Although the contextual attributes of the transaction – its location and timing – differ, the good exchanged remains the same while the price differs. They could release the film in the theater and on DVD at the same time, but some consumers unwilling to pay the higher theater price would simply rent the DVD.

Copyright holders can price discriminate some of the times because creative products are imperfect substitutes for each other. DRM provides the second necessary component by preventing people from reselling goods at a different price. DRM also enables price discrimination by allowing copyright holders to monitor and profit from typically private consumer activities. Consumers could be offered, for instance, one price to listen to a song once, with additional fees for extra listens, moving it to a portable player, backing it up on CD, and so on. This tactic, combined with aggregated data from other sources about the individual's purchasing habits, would help copyright holders approximate the amount the consumer is willing to pay for a good. Such price discrimination is possible and employed today to some extent, but free alternatives, a lack of robust information, and the greater possibility of DRM evasion act as a significant constraint.

Price discrimination will certainly generate additional revenue for the film and music industries, and it might also be beneficial from a social welfare perspective. While consumers willing to pay a high price for an album would pay it, price discrimination will also enable consumers to pay lower amounts to acquire the good. The market would in this sense work more efficiently and expand access to entertainment products.¹²⁸

Though this scenario improves on the current environment in those ways, it also generates severe costs. First, there will likely be greater constraints on fair use and first sale. With free alternatives diminished and the ability to profit from consumer uses, there would be stronger motivation to institute stricter controls than exist today. If the technological mandates and secondary liability rules restrict uses of unencrypted content that might be infringing, these restrictions would indeed be far reaching. To many, this will mean further jeopardizing important consumer rights and socially beneficial uses.¹²⁹

To others, however, this may seem less problematic, for fair uses will simply become licensed rather than free. If fair use is justified only by market failure, then enhanced licensing and efficient price discrimination abilities seemingly render it irrelevant.¹³⁰ But, even if one accepts this limited view of fair use, price discrimination through DRM will not cure all inefficiencies and will still impede important uses. Payment mechanisms integrated into DRM will help reduce transaction costs, but they will not affect the non-

¹²⁷ The introduction to the topic is largely based on that of Fisher, *Promises*, at 163-169. See also Julie Cohen, *The Perfect Curve*, 53 Vand. L. Rev. 1799 (2000); Tom W. Bell, *Fair Use Vs. Fared Use: The Impact of Automated Rights Management on Copyright's Fair Use Doctrine* 76 N. Carolina L. Rev. 557 (1998); Michael J. Meurer, "Copyright Law and Price Discrimination," 23 Cardozo Law Review 55 (2001); James Boyle, *Cruel, Mean of Lavish? Economic Analysis, Price Discrimination, and Digital Economic Property*, 536 *Vanderbilt Law Review* 2007 (2000).

¹²⁸ See Fisher, *Promises*, at 163-169.

¹²⁹ See supra note 82.

¹³⁰ See Bell, supra note 127; Wendy Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and Its Predecessors*, 82 *Columbia Law Review* 1600 (1982).

economic incentives for refusing to license.¹³¹ Artists might prevent copying for parody because they see it as an insult to their integrity.¹³² Also, copyright holders might charge socially inefficient prices for uses that would produce non-monetary social benefits exceeding what they (and licensees) can capture in profit.¹³³ Copying for educational and critical purposes, for example, produces social benefits beyond the producer and consumer in the form of conversational topics and an informed populace.¹³⁴

Price discrimination and DRM could also breach the privacy and autonomy of consumers.¹³⁵ In a pay-per-use system, access to one's own goods might indefinitely be in someone else's control. Even without this monitoring harming the consumer overtly, it might feel rather uncomfortable to experience media in this way.¹³⁶

Technological innovation would also greatly suffer. With DRM mandates legislated to cover all digital media devices, the problems discussed in relation to the broadcast flag mandate would be many magnitudes greater. Heightened third-party liability would be similarly harmful to innovation. These impediments to innovation would limit the legitimate ways in which consumers could engage with content.

Finally, one should question whether it is worth treating 60 million Americans as felons. Whatever the benefit of deterring some people, approaching infringement like the war on drugs (a comparison the Attorney General recently made¹³⁷) seems disproportionate. Like the civil suits, prosecutions might also have an unfortunate impact on respect for the law.¹³⁸

Like the Technology as Speed Bump scenario, this scenario might better support the Store model, but is far worse in other respects compared to the current trajectory. Because Technological Lockdown might not be feasible, that possibility must also be taken into account when evaluating this option from a policymaker's perspective.

CONCLUSION

Until this year, "you can't compete with free" often seemed to be industry orthodoxy. Now, the Store model's capacity to aid the industry seems plausible. Though the Stores' current implementations have deficiencies, including restrictive DRM, limited catalogs, and price points, these aspects can change over time. Altered business practices that leverage the Stores to match consumer demand and create additional revenue streams could also improve the industries' prospects. However, so long as these existing shortcomings and free alternatives remain, the extent to which the Stores can stabilize and sustain the industries is uncertain. The rush to open new Digital Music Stores is not truly indicative of the music industry's making it over the hump in facing the online environment. Rather, it simply exemplifies the industries' desperate hope and new faith that they can indeed "compete with free."

¹³¹ See Mark Lemley, *The Economic of Improvement in Intellectual Property Law*, 75 Texas Law Review 989, 1059-1061 (1997).

¹³² See Lemley, *supra* note 131; Robert P. Merges, *Are You Making Fun of Me? Notes on Market Failure and the Parody Defense in Copyright*, 21 Am. Intell. Prop. L. Ass'n Q.J. 305 (1993).

¹³³ See Fisher, *Promises*, at 163; Cohen, *supra* note 127, at 1812; Lemley, *supra* note 131, at 1056-1058; Lydia Pallas Loren, *Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems*, 5 J. Intell. Prop. L. 1, at 49-53 (1997).

¹³⁴ *Id.*

¹³⁵ See Julie Cohen, *Copyright and a Jurisprudence of Self-help*, 13 Berkeley Tech. L. J. 1089 (1998); Julie Cohen, *A Right to Read Anonymously: A Closer Look at Copyright Management in Cyberspace*, 28 Conn. L. Rev. 981 (1996); Boyle, *supra* note 127, at 2033. For a more dramatic (and exaggerated) portrayal of this potential problem, see Richard Stallman, *The Right to Read*, Communications of the ACM (Volume 40, Number 2; February 1997), available at <http://www.gnu.org/philosophy/right-to-read.html>.

¹³⁶ See Fisher, *Promises*, at 168-169 (discussing how recording of purchases to charge different prices will feel uncomfortable).

¹³⁷ "Feds plan crackdown on intellectual property theft," *AP via SiliconValley.com* (Oct. 16, 2004) at <http://www.siliconvalley.com/mld/siliconvalley/news/editorial/9853099.htm>.

¹³⁸ See *supra* note 75.

Furthermore, as discussed in Part III, using technology to diminish infringement might make the DMS model more successful and sustainable, but will come with significant social costs. The more technology and the law aid the industries, the more they are likely to curb technological innovation and legitimate uses. Though one might consider the net effect positive, the costs should give reason for pause.

Appendix III: The P2P Stores Model

Although file sharing remains suspect to the music and film industries, some artists have begun to embrace P2P as a promotional tool for their content. For example, Steve Winwood recently released his song "Dear Mr. Fantasy" for free on KaZaA through a sponsorship deal with the television program *Access Hollywood*. Since then, sales for his new album have increased.¹ Songwriter Janis Ian reported in 2002² that her website received around 100 hits a month from curious file sharers, about 15 of whom then bought CDs from her old catalog. In her words, "every time we make a few songs available on my website, sales of all the CDs go up. A lot."³

This model posits that P2P can be used as more than a promotional tool. Rather than resist P2P networks and other consumer-to-consumer distribution channels, the model accepts that they will persist, and attempts to embrace them. To do so, the model harnesses consumers as lawful second-order distributors.

Services that sell through P2P (which will be referred to hereafter as "P2P Stores") are related to the general Digital Media Store (DMS) approach and could potentially be used as an adjunct to the DMS. As such, P2P Stores will face many similar challenges in "competing with free", including pricing, depth of catalog, and DRM restrictions. Likewise, this model will not spare the industry the kinds of business changes (e.g., selling singles rather than albums) that the Media Store model also heralds.

While the two models are similar and we discuss the P2P Store model specifically in light of our discussion in the DMS, we treat the P2P Stores separately for three reasons. First, selling through P2P potentially has some unique advantages compared to selling through DMS. Second, the P2P Stores interact differently with the technological and legal impediments to piracy discussed in regards to the DMS. Third, the P2P Store approach has been marginalized during the recent surge in DMS growth, and thus it seems worth highlighting this under-recognized approach.

Part I describes in slightly more detail the idea behind the P2P Stores and considers the possible advantages of pursuing the model. To provide a more concrete idea of how the model could function, Part II examines three prominent P2P Stores: Alnet, Weed, and Wippit. Part III evaluates the prospects for the model and its implications for the industries and content creators. The incompatibility between this model and technologies that impair P2P to aid the DMS (e.g., spoofing) is considered among possible downsides. Part IV notes how technology and law could aid this model and discusses related social benefits and harms of the model.

PART I: P2P STORES IN THEORY

The thrust behind the DMS is that consumers must be taken away from P2P and won back to legitimate services. But P2P and legitimate services are not mutually exclusive. P2P Stores attempt to leverage the benefits of P2P while selling copies much like the DMS.

¹ See Katie Dean, "Winwood: Roll with P2P, Baby," *News.com* (July 9, 2004,) at <http://www.wired.com/news/digiwood/0,1412,64128,00.html>.

² Janis Ian, "The Internet Debacle," originally written for *Performing Songwriters Magazine* (May 2002), available at http://www.janisian.com/article-internet_debacle.html.

³ Ian, id.

There are two main approaches to P2P Stores. In "superdistribution," consumers host and distribute licensed content through any P2P network or other distribution systems. Consumers would then download content from each other; downloaded files might allow a certain number of free plays and then force the consumer to pay to retain access. To encourage consumers to distribute licensed content, they might receive a cut of the revenue or other rewards if those who receive the works "downstream" from them then purchase access. P2P Stores and rights holders would seed P2P networks to jumpstart this scheme. In "closed networks," consumers join a P2P network in which only licensed, authorized files can be shared with and downloaded from others. The P2P Stores would create and maintain this P2P environment. In both cases, consumers could be provided with PPD, subscription, or other payment options, and works may be encumbered by DRM.

Some benefits of this model are not inherent to P2P as a technology, but rather flow from P2P's current prevalence. P2P Stores can take legitimate content to millions of consumers in what has become their natural habitat, so to speak. Around sixty million Americans alone have used P2P systems.⁴ In September 2004, eDonkey and KaZaA averaged 2.54 and 2.48 million simultaneous users each day, respectively.⁵ Consumers are already accustomed to this particular environment, and, though the P2P Stores require payment, consumers would continue to perform functionally similar activities. The key idea behind the DMS is that if payment is sufficiently affordable and convenient, consumers will go legit. The P2P Stores simply takes this idea a step further.

The potential advantage of P2P Stores over the DMS rests on an important assumption, of course: consumers will continue to appreciate P2P for reasons other than illegitimate content. While one could credibly argue in the negative, there may be several benefits to the P2P environment. In a recent Gartner | G2 poll of online music service users, 25% indicated that a sharing capability increases a service's appeal.⁶ Many users may find the community features of the P2P services attractive.⁷ Sharing files naturally forms connections among users, who can discover others with similar interests or obtain recommendations about new content from people who appear to share similar tastes. The files each user shares implicitly act as a recommended playlist; others may be motivated to try and purchase content endorsed by consumers with similar tastes. Many P2P services also provide messaging and chat systems to connect users. Though consumers can gain these community benefits from sharing illicitly, rewards for doing so legitimately may create compelling incentives.

Rights holders and digital media services generally recognize consumers' interest in sharing. DMS Napster 2.0 allows people to browse each other's music folders, and, recently, music service MusicMatch introduced limited sharing features. A MusicMatch user can share his files with non-subscribers, allowing them to listen to a song up to three times without having to join the service.⁸ Rather than recreating these features in other Media Stores, it may be more convenient for consumers if they are embedded within the P2P environment.

A related point can also be made regarding one illicit but potentially beneficial use of P2P. Since the original Napster's arrival, many have argued that P2P users download as a form of sampling before purchase.⁹

⁴ Ipsos News Center, *American Consumers Continue to Embrace Digital Music*, (Dec. 4, 2002) available at <http://www.ipsos-na.com/news/pressrelease.cfm?id=1685>.

⁵ See John Borland, "Kazaa loses P2P crown," *News.com* (Oct. 11, 2004) available at http://news.com.com/Kazaa+loses+P2P+crown/2100-1038_3-5406278.html. See also Borland, *infra* note 48 (citing usage data as from January-June 2004).

⁶ GartnerG2 internal presentation to Media Industry Advisory board, "Early Adopters of Paid Online Entertainment Services," (April 27, 2004). Data provided in email from GartnerG2 research partner, Mike McGuire (Oct. 15, 2004).

⁷ See Matthew Fagin et al., *Beyond Napster: Using Antitrust Law to Advance and Enhance Online Music Distribution*, 8 B.U. J. Sci. & Tech. L. 451, 503-04 (2002) (exploring the value of P2P communities for individual interaction and generating consumption preferences).

⁸ See Dinesh Sharma, "MusicMatch jazzes up Jukebox," *News.com* (July 27, 2004) available at http://news.com.com/MusicMatch+jazzes+up+Jukebox/2100-1027_3-5285215.html.

⁹ Napster argued that its users sampling was a fair use, though the court rejected this argument; *A&M Records v. Napster*, 239 F.3d 1004, 1018 (9th Circuit, Feb. 2001). Surveys have suggested that some consumers use P2P in this way; InsightExpress Press

Content creators like Steve Winwood have begun releasing free versions of songs to get people to buy their other works. Again, it could be more convenient for consumers to acquire the file through P2P and then simply click a button to purchase it or other works by the same content creator.

The distributed nature of P2P systems may also reduce the costs of distributing content.¹⁰ Rather than having to store content on their own servers and sustain high user traffic, P2P Stores can offload storage to their users. Unlike the DMS, a P2P Store's network's capacity to deliver content may increase as the number of users increase. While each additional user creates demand on the network, she also adds content (her collection of digital media files), storage (space on her computer's hard drive), and bandwidth (her Internet connection). Consumers may experience variable performance since access to content depends on the current shared files from participating users, though this is partly offset by file redundancy, i.e., people may share content that duplicates files available from other users, making it easier to balance the workload of finding and downloading files. Even if P2P Stores or rights holders must provide some servers at all times, they might still decrease their total file-serving costs.

Beyond convenience and technical benefits, the P2P Store model may be advantageous because it tries to leverage—rather than combat—emerging norms as well as technologies. Consumers are becoming accustomed to sharing music in this way using these particular technologies. The content industries have fought other uphill battles against new technologies that impact consumer expectations and threaten their business models; the new technologies have persisted and the industries have eventually been forced to adjust.¹¹ The potential threat of P2P technology is more dire, and thus it seems even more urgent for the industries to adapt to it. Moreover, by working within consumers' preferred environment, these industries might be able to influence emerging norms by offering reasonable, legitimate alternatives that respect consumer preferences. In this sense, rewards for legitimate distribution by consumers would act as positive reinforcement.

PART II: P2P STORES IN PRACTICE

To particularize the discussion of this model, this section outlines the functioning of three prominent P2P Stores: Altnet, Weed, and the original version of Wippit. These descriptions are intended to demonstrate how this model can—and does—function in practice. Analyses of how this model might progress, including challenges to it aiding the industries, will be discussed in Part III.

A. Altnet

Debuting in May 2002,¹² Altnet is a "superdistribution" service that offers digital media files protected by DRM¹³ over the FastTrack network accessed by the KaZaA and Grokster P2P services. This P2P Store's

Release, *Music Industry is Off Beat When It Comes to Music Swapping*, (Sept 30, 2003) available at http://www.insightexpress.com/pressroom/release_093003a.asp.

¹⁰ See Ann Bartow, *Arresting Technology*, 1 Buff. Intell. Prop. L.J. 95, 105 (2001) (explaining value of P2P in reducing network congestion and improving search efficiency); ACLU Brief in *MGM v. Grokster*, available at http://eff.org/IP/P2P/MGM_v_Grokster/20030926_aclu_amicus.pdf, 9-11 (discussing benefits to Project Gutenberg and the Internet Archive in terms of reduced bandwidth expenses); Altnet Brief in *MGM v. Grokster*, available at http://eff.org/IP/P2P/MGM_v_Grokster/20030929_altnet_amicus.pdf (discussing benefits for Altnet).

¹¹ For summaries of the various conflicts, see generally Lawrence Lessig, *Free Culture*, (Penguin Press: March 25, 2004), 53-62, available at <http://free-culture.org/>. Lessig describes several instances in which the law has also changed to ease this shift, but the industries have had to adjust nonetheless.

¹² Benny Evangelista, "KaZaa to offer option to share music legally" *San Francisco Chronicle* (May 20, 2002).

¹³ See Altnet Support Central, *How do I protect my content?*, at <http://www.altnet.com/support/rightparent.asp?c=4&c2=14&fn=9&id=54&kw=TopSearch> (last visited Mar. 25, 2004).

method of distribution is roughly analogous to the pay-per-download DMS. Seventy independent labels have signed up with Altnet to distribute music, and the service has attracted limited film licensors.¹⁴

Users who search for content see results displaying Altnet files with a gold icon,¹⁵ indicating that the files are available for lawful download and use in exchange for a fee.¹⁶ The search results list Altnet content before other results.¹⁷ Users who download and access these files are prompted to accept license terms, which may require payment via credit card or, in the future, billing to a phone number.¹⁸ When users share these files with others, they accumulate Gold Points that can be exchanged for prizes and other awards.¹⁹ These rewards provide an added incentive for consumers to purchase and distribute music legitimately.

Rights holders benefit from highly granular control over Altnet files, including the ability to set pricing,²⁰ license duration, and how a file can be shared.²¹ Altnet files have different life spans depending on the content owner's specifications.²²

B. Weed

Weed's business model is a "superdistribution" system similar to Altnet, but it relies more explicitly on viral marketing. The service, which launched in September 2003,²³ provides DRM and billing capabilities, but relies on users and intermediaries to provide distribution.²⁴ Unlike Altnet, these files can be distributed in any way the user chooses, including P2P, websites, or email. Weed has so far attracted numerous independent music licensors.²⁵

To take part in this system, rights holders must "Weedify" files, a process that clears rights to the content, converts it to Windows Media format, wraps it in DRM, establishes information such as title and artist, and sets pricing.²⁶ Consumers who launch a Weed file can play it three times for free, but must then pay a fee to activate it for further use.²⁷ After payment, a user can transfer the Weed file to an unlimited number of portable digital media players, CDs, and up to three computers.²⁸

¹⁴ Dawn C. Chmielewski, "Music sellers build fan base using file sharing services," *San Jose Mercury News* (June 25, 2004); Altnet Amicus, supra note 10.

¹⁵ See Altnet Support Central, *How Does TopSearch work?*, at <http://www.altnet.com/support/rightparent.asp?c=4&c2=14&fn=9&id=51&kw=TopSearch>.

¹⁶ See Altnet Support Central, *How do people buy my content?*, at <http://www.altnet.com/support/rightparent.asp?c=4&c2=13&fn=9&id=45&kw=TopSearch>.

¹⁷ See Jon Healey, *Artemis Records to License Songs to Altnet*, *Los Angeles Times*, (Feb. 13, 2004), at C5.

¹⁸ See Altnet, *Sell Your Content – Step 6*, at <http://www.altnet.com/contentPromotion/sellYourContent/step6.asp>.

¹⁹ See Altnet Support Central, *How do I earn points?*, at <http://www.altnet.com/support/rightparent.asp?fn=1&c=2&c2=7&expand=>.

²⁰ See Altnet Support Central, *How do I charge people to get my content?*, at <http://www.altnet.com/support/bottomright.asp?c=4&c2=15&id=&fn=1&expand=&kw=#1>.

²¹ See Altnet Support Central, *How do I protect my content?*, at <http://www.altnet.com/support/rightparent.asp?c=4&c2=14&fn=9&id=54&kw=TopSearch>.

²² See Altnet Support Central, *How long does a Gold Icon file license for?*, at <http://www.altnet.com/support/> (noting that the "period of time an audio or video file licenses for can vary from 1 day to forever" because it "is the content owner (movie studio, artist, record label, etc.) who determines how their [sic] files can be used and how long it [sic] can be played for").

²³ See Weed, *Seattle Group uses profit motive to solve file sharing*, (Sept. 3, 2003), at http://weedshare.com/web/releases/09-09-03_WEED_RELEASE.html.

²⁴ See Weed, *Frequently Asked Questions*, at <http://www.weedshare.com/web/faq.html#sec1Q15> (last visited April 4, 2004) (stating that "Weed does not distribute music"; instead, the company "provide[s] the service and technology that makes it possible for people to share files and get rewarded for respecting artists' rights" and the "music files are provided by a growing legion of distributor websites").

²⁵ See Weed, *CD Baby members use SML's Weed to share music*, (June 24, 2004), at http://weedshare.com/web/releases/06-24-04_WEED_RELEASE.html, Weed, *Music producers hail SML's Weed distribution service*, (Dec. 11, 2003) at http://weedshare.com/web/releases/12-11-03_WEED_RELEASE.html.

²⁶ See Weed, *Get Weedified*, at <http://www.weedshare.com/web/getweedified.html>.

²⁷ See Weed, *Music Guide*, at <http://www.weedshare.com/web/musicGuide.html>.

²⁸ See *Frequently Asked Questions*, supra note 24.

Though rights holders set their own prices, Weed has a standard distribution agreement for all content.²⁹ Content creators receive 50% of each Weed purchase payment. Agreements with Weed's Independent Content Providers assign non-exclusive digital distribution rights, allowing content owners to use other distribution arrangements as well.³⁰ Rather than prizes, those who distribute Weed files that are then purchased by initial recipients receive 20% of the purchase price. When the consumer shares the content with a second user who activates the file, the first distributor receives 10%, and when a third user downloads the file from the second and activates it, the first distributor gets 5%.³¹

C. Wippit

In the summer of 2004, Wippit shifted towards a centralized downloads model.³² However, since its launch in October 2001,³³ Wippit originally used a "closed" P2P network that allowed users to share content in popular formats such as MP3³⁴ while also providing Windows Media Audio DRM controls to content owners.³⁵ The Wippit system used a "whitelist" filtering technology to ensure that only authorized files are swapped over its network.³⁶ The service offered both pay-per-download purchasing and all-you-can-eat subscriptions.³⁷ Wippit's subscription model is roughly analogous to the concept used by DMS like Napster 2.0 and Rhapsody. In addition to music, Wippit offered ringtones and audiobooks.³⁸ "Wireless Wippit" enabled subscribers to identify a song using their cell phone and queue the user's home computer to download it.³⁹ Wippit derived revenue not only from subscriptions and sales of individual files, but from advertising placed in its P2P client.⁴⁰

Users could transfer PPD-purchased files to portable devices and burn them to removable media such as CDs.⁴¹ Wippit's DRM enforced the length of a license's validity, whether files could be shared, and what geographic restrictions were placed on sharing.⁴²

The service also offered 60,000 songs from independent record labels.⁴³ Significantly, Wippit reached a deal with EMI in 2003, providing access to the record label's 175,000-song catalog,⁴⁴ and last year it concluded an

²⁹ See Weed, *Weed Pays You to Share Music Files*, at <http://www.weedshare.com/web/filessharing.html> (last visited April 4, 2004).

³⁰ See, e.g., Weedfiles.com FAQ, *What happens to the songs I sign with Weedfiles.com if I later sign to an old school record deal?*, at <http://www.weedfiles.com/faq#artist12> (noting that if a content owner "sign[s] with Weedfiles.com you are only signing your non-exclusive digital rights for those specific songs" and "can sell your digital rights to the signed songs to another buyer," thus allowing the owner to "sign with an old school label for old school distribution").

³¹ See *Frequently Asked Questions*, supra note 24.

³² See Michael Hill, "Small company has big peer-to-peer dreams," *Cnews* (Dec. 27, 2004) available at <http://cnews.canoe.ca/CNEWS/TechNews/TechInvestor/2004/12/22/793848.html>; Review of Wippit, *Group Test* (November 2004) available at http://www.wippit.com/press/What_MP3_November_2004.pdf; <http://www.wippit.com/FAQ/general/general.aspx>.

³³ See Wippit, *Wippit Announces Launch Date and Subscription Price*, (Aug. 23, 2001) at <http://www.wippit.com/press/pr-230801.html>.

³⁴ See Wippit, *MP3 Downloads*, at <http://www.wippit.com/wippitmusic.aspx>. However, to access files in Windows Media format, users must register with Wippit. Wippit, *Welcome to Wippit*, at <http://www.wippit.com/FAQ/general/general.aspx>.

³⁵ See Wippit, *How Does It Work?*, at <http://www.wippit.com/how.aspx>.

³⁶ Id.

³⁷ See Wippit, *About Wippit*, at <http://www.wippit.com/aboutwippit.aspx> (noting that users can purchase content "one a time from as little as .29p" or opt for yearly or monthly subscriptions).

³⁸ See Wippit, *MP3 Downloads*, at <http://www.wippit.com/wippitmusic.aspx>.

³⁹ See Wippit, *Wireless Wippit*, at <http://www.wippit.com/wippitwireless.aspx>.

⁴⁰ See Wippit, *Advertising Opportunities*, at <http://www.wippit.com/advertising.aspx>.

⁴¹ See Wippit, *Wippit Version 2 Launches*, at <http://www.wippit.com/press/Wippit%20PR%20Version%202%20020404.htm>.

⁴² See Wippit, *Information for rights owners*, at <http://wippit.com/company.aspx>.

⁴³ Id.

⁴⁴ See Chris Lake, "Wippit finally seals first major," *Netimperative* (Oct. 27, 2003), at http://www.netimperative.com/cmn/viewdoc.jsp?cat=all&docid=BEP1_News_0000058728 (noting that "EMI will distribute tracks across the P2P network from its central server farm to help it keep tabs on downloads and manage rights"); see also EMI, *EMI Announces New UK Download Deal With Wippit*, (Mar. 3, 2004), at <http://www.wippit.com/press/EMIWippitDigitalEurope030304.doc>

agreement with Bertelsmann Music Group that adds 10,000 songs to the download service.⁴⁵ Before shifting away from the P2P Store model, Wippit claimed to be in negotiations with two of the remaining major record labels.⁴⁶

PART III: P2P STORE PROSPECTS FOR AND IMPACT ON THE INDUSTRIES

The music and film industries have only begun to experiment with these models, and thus there is only a rough empirical basis to project the P2P Stores' potential success and impact. The available evidence paints a rather mixed picture. Altnet claims to have distributed 75 million legal files to KaZaA users, 18 million of which required payment.⁴⁷ Content owners may be profiting from this service, but Altnet's parent company Brilliant Digital Entertainment is not yet profiting; continuing to suffer quarterly losses, the company is over two million dollars in debt.⁴⁸ Detailed financial results for Wippit and Weed were not available. While Wippit has subsisted for several years, its shift away from the P2P Store model indicates that its closed network service was not sustainable. Finally, Weed had a notable breakthrough recently, with the famous rock band Heart's new album selling 2,000 copies, more than it has at the iTunes Music Store.⁴⁹

The music industry has recently begun to license certain closed network P2P systems.⁵⁰ In turn, greater evidence regarding this model will likely be available in the near future. However, whether the industries will fully embrace this model, including by using superdistribution through open P2P networks, is unclear.

Looking at this approach's prospects on a general level, the success of the industries using the P2P Stores will hinge on resolving many of the same challenges faced by the DMS. Price, DRM restrictions,⁵¹ size of catalog, flexibility of purchasing, and the ability of the industries to adjust their business strategies to the digital environment will all play into the potential success of this approach.

Besides those challenges and the potential benefits discussed in Part I, several issues are particularly worth focusing on in assessing the P2P Stores' prospects. First, a variety of technical impediments to success are possible. As noted, the variable performance related to the availability of files may weaken the consumer experience, though file redundancy and rights holders' seeding of networks can lessen this problem. Also, transaction costs for the superdistribution services may rise for content owners if consumers are dispersed amongst several P2P applications or for consumers if content is offered exclusively through different applications. However, significant fracture is unlikely to persist because of network effects: the appeal of a

(noting that "EMI repertoire will be served centrally by Wippit directly to Wippit customers and will not be made available on a peer-to-peer basis").

⁴⁵ Tony Smith, "Wippit adds 10,000 BMG tracks to catalog," *The Register* (Mar. 15, 2004) at <http://www.theregister.co.uk/content/6/36254.html> (last visited Mar. 23, 2004) (noting that BMG granted Wippit distribution rights only in the United Kingdom and Republic of Ireland).

⁴⁶ Id.

⁴⁷ John Borland, "Kazaa's Altnet tops 75 million downloads," *News.com* (March 17, 2003) at http://news.com.com/Kazaa%27s+Altnet+tops+75+million+downloads/2110-1027_3-992959.html?tag=st.rn.

⁴⁸ Brilliant Digital Entertainment financial information, available at <http://finance.yahoo.com/q/is?s=BDEI.OB>; Dawn C. Chmielewski, "Music sellers build fan base using file sharing services," *San Jose Mercury News* (June 25, 2004) (Woodland Hills-based Brilliant is more than \$ 2.2 million in debt and lost \$ 354,000 in its most recent quarter.); John Borland, "Does KaZaA Matter?" *News.com* (June 30, 2004) at http://news.com.com/Does+Kazaa+matter/2100-1027_3-5253431.html ("However, revenue from this venture remains small, and may even be shrinking. According to documents from the Securities and Exchange Commission, Brilliant made just \$124,000 from its online content distribution in the first quarter of this year, down from \$171,000 in the first quarter of 2003.").

⁴⁹ Tony Smith, "P2Pers: we can make file sharing legit and outsell iTunes," *The Register* (July 22, 2004) at http://www.theregister.com/2004/07/22/p2p_vs_itunes/.

⁵⁰ See John Borland, "Music rebels seek to tame P2P," *News.com* (Nov 16, 2004) at http://news.com.com/Music+rebels+seek+to+tame+P2P/2100-1025_3-5453788.html?tag=nefd.pop.

⁵¹ While DRM might be useful in enforcing payment in some instances, this model in no way requires DRM as a barrier to infringing redistribution. That is, once a consumer purchases the song, he could automatically receive an unencrypted copy (see, e.g., the superdistribution service, <http://www.faircopy.com/>). The consumer could then, quite easily, distribute that unencrypted copy, and thus DRM is posing no barrier to infringing distribution, nor does it pose any barrier to legitimate uses of lawfully purchased copies.

P2P system rises as more consumers join the system and share content. Concentration has occurred throughout P2P's short history; users concentrated in Napster until it was shut down, at which point they started to move to KaZaA, until KaZaA users were targeted by RIAA lawsuits, at which point a shift to eDonkey started.⁵²

On the other hand, P2P Stores may reduce costs of marketing and distribution and, in so doing, enhance content creators' ability to sell their works outside of the current industry model. Rather than working with a label or studio to distribute content, creators can reach potential consumers directly, and by encouraging sharing, transform their fans into marketing and distribution agents. Sharers' cut of the revenue in systems like Weed are not simply lost profits, but rather marketing investments, with the added benefit of providing an incentive to share legitimately. P2P Stores may also streamline clearing rights to content as Weed does.⁵³ As with the DMS generally, these cost-savings might produce important benefits for creators and lead to a more diverse artistic culture.

Certainly, many content creators outside of the major labels and studios have begun embracing this system of distribution.⁵⁴ However, besides recent reports of labels' licensing of new closed networks, the major labels and studios have been quite resistant to the P2P Stores. To the extent this marginalizes P2P Stores in general, it may diminish the chances of success for all rights holders and content creators using this model. A small catalog may affect an entire service's potential for success, for consumers may become frustrated with it if they can only inconsistently find what they want.

The labels and studios may fear the P2P Stores simply because the model might diminish their importance to content creators. But other industry concerns point to plausible downsides in the P2P Store approach itself. First, the industries fear that treating the P2P Stores as an approved distribution model will actually increase piracy. The P2P Stores may diminish remaining social perception that infringing uses of P2P are wrong or unlawful.⁵⁵ Users might not differentiate between legitimate and illegitimate services since they are technically similar and would offer much of the same content. Also, industry actors fear that P2P Stores will support the businesses behind P2P systems on which infringement occurs (e.g., Altnet working with KaZaA and Grokster). EMI Executive Vice President John Rose offered a colorful analogy in a recent statement before the Senate Commerce Committee: "There is a big difference between exploring a new business model in a legitimate and open business manner ... and going into business with the taxicab driver who just ran the red light and hit me."⁵⁶

Second, the P2P Stores model may be incompatible with legal and technological impediments to piracy that are aimed at supporting the DMS. Fully embracing this model would mean eschewing secondary liability lawsuits against P2P. Seeding the network with spoofed files would compete with legitimate P2P Store copies.⁵⁷ Indeed, because part of the industries' legal argument thus far against P2P systems has been that they do not have substantial non-infringing uses,⁵⁸ the P2P Store model would weaken their case.⁵⁹ Though

⁵² See Borland, "Does Kazaa matter?" supra note 48.

⁵³ See, e.g., Weed, *Become an Independent Content Provider*, at http://www.weedshare.com/web/beprovider.html?src=getweedified_topNav (stating that "Independent Content Providers (ICPs) introduce content into the Weed system... by working directly with artists and rightsholders to verify ownership of content").

⁵⁴ For Weed, see supra note 25. For Altnet, see Altnet Brief, supra note 10, at 11 (discussing relationship with independent musicians) and "Altnet Indie Labels Serve Up Holiday Feast," (Dec. 9, 2003) at http://www.altnet.com/about/articles/press_release16.asp; For Wippit, see supra notes 43-46.

⁵⁵ See Michael McDonough, "Deal Puts EMI Music's Catalog Online," *Associated Press* (Oct. 24, 2003), at <http://www.miami.com/mld/miamiherald/business/7089138.htm> (stating that "major recording companies have shunned offering their catalogs" on KaZaa or Altnet because they are "fearful of legitimizing Kazaa, which they blame for declining CD sales, and worry that people would download large amounts of music and then stop paying the monthly fees").

⁵⁶ See Andy Sullivan "Labels blacklist song-swap companies" Reuters (July 15, 2004) available at <http://uk.news.yahoo.com/040715/80/ey4fj.html>

⁵⁷ We acknowledge that, with all channels that allow illegitimate distribution shuttered, closed networks and superdistribution could still exist in authorized channels. However, one cannot embrace distribution schemes like superdistribution today while still continuing to spoof those songs or sue the distribution networks out of existence.

⁵⁸ See Plaintiffs' briefs in *MGM v. Grokster*, available at http://eff.org/IP/P2P/MGM_v_Grokster/.

the industries could drop these measures and employ the P2P Store and DMS jointly, doing so would carry these opportunity costs.

For any or all of the above reasons, the record industry has "blacklisted" certain P2P networks and P2P Stores. Record companies have shunned Altnet because of its association with KaZaA.⁶⁰ Wippit was forced to abandon a deal to sell and advertise music on Grokster after labels threatened not to license their content. Even uses of P2P that would direct users to the DMS have been scorned. RealNetworks, which operates PPD and subscription Media Stores, was in negotiations to bundle its music-playing software with Morpheus, but abandoned the deal at the labels' behest.⁶¹

PART IV: TECHNOLOGY, THE LAW, AND POLICY ANALYSIS

In this section, we discuss how technology and the law could be used to impede piracy, as well as discuss related social benefits and harms of the model.

As with the DMS, the P2P Store model would benefit from reductions in piracy through DRM and lawsuits against individual infringers, though neither is inherently necessary to the model. Though these measures might be beneficial in sustaining the industries, DRM's impairment of legitimate uses and technological innovation will harm consumers and innovators alike.⁶² Lawsuits may also cause social harm, decreasing "respect for law," insofar as they impose liability where consumer mores see no wrongdoing, and potentially imposing unfair and excessive penalties.⁶³

Unlike with the DMS, however, this model would enable innovation by eschewing interference with distribution technologies like P2P. Moreover, by enabling lawful forms of consumer-to-consumer distribution, the P2P Stores may create additional societal benefit by engendering a participatory, active role in the way users experience digital media. Rather than content being distributed exclusively top-down, from a centralized source, distribution would occur bottom-up—consumers would relate their tastes and interests to each other in the process of sharing legitimately. Shades of such participation already exist in the DMS' recommendation and suggestion systems. To the extent consumers enjoy such sharing, they would benefit. Moreover, as people more fully participate in shaping their cultural environment, society may benefit.

Regarding possible policies to support this model, P2P Stores would not comport with elements of the Speed Bumps and Lockdown Scenarios. While the P2P Stores encourage legitimate uploading, the Speeds Bumps Scenario attempts to handicap distribution on P2P for a limited period of time. However, to the extent this could be accomplished without tools like spoofing, this model would benefit. The Lockdown Scenario's heightened secondary liability would conflict with this model; on the other hand, the P2P Store could benefit from DRM mandates and criminal prosecution of infringements. Like in the DMS, whatever benefit these measures provide would carry significant social harms.

CONCLUSION

P2P Stores offer a business model in which the industries can collaborate with their consumers for the benefit of all. As a complement to or replacement for the DMS, they may increase the industries' ability to compete with free. While the industries might have to forgo their attempts to cripple P2P services through legal and technological impediments, the P2P Stores might be worth it on balance.

⁵⁹ With a new line of liability, this of course may become less significant.

⁶⁰ See Sullivan, *supra* note 56.

⁶¹ *Id.*

⁶² See Appendix II, Part IIIA.

⁶³ See *id.*

Embracing P2P in this way might also be beneficial as a model for how the industries can confront new technologies in the future. The model offers content providers a strategy for adopting P2P distribution, but the general concepts of building on the technology's advantages and working with emerging consumer norms can be applied to future innovations as well. If the industries were to adopt this approach, it would likely not only benefit them, but society as a whole. It would create a less litigious environment, more likely to support digital media innovations.

Appendix IV: Collective Blanket Licensing

This model abandons fighting consumer online behavioral preferences as a primary strategy in favor of seeking revenues from them to legitimately continue currently illicit activities. Accepting that consumers prefer to download unlimited, unencrypted content from decentralized distribution services like P2P, it provides a mechanism—collective blanket licensing (CBL)—by which rights holders can be compensated.

Several incarnations of CBL have been articulated. The Electronic Frontier Foundation (EFF) sees the "[m]usic industry form[ing] a collecting society, which then offers file sharing music fans the opportunity not to be sued for file sharing copyrighted works in exchange for a regular payment of \$5 per month."¹ The dues collected would be divided among the content owners according to the popularity of their music. A second variation might entail a file sharing service or an ISP purchasing a bulk per-user blanket license and then passing on the cost to consumers in some way, through ads or subscription fees. Yet another variation is Harvard Law School Professor William Fisher's "Entertainment Co-op," in which rights holders would register their work if they wished to be part of the Co-op. Users of the Co-op would pay a subscription fee for full access to all of the media registered with the Co-op via whatever services the Co-op wished to enable, including P2P services.² Fisher proposes the Entertainment Co-op as a voluntary version of his more comprehensive "Alternative Compensation System," a government-run reward system that would mandate registration of a copyrighted digital work for the content creator to have any right to compensation from distribution.³

Important differences between the CBL and traditional models of selling copies are apparent. First, whereas other models envision a system in which customers and rights holders continue to negotiate with one another on an individual basis, CBL reduces transaction costs by having a "one-stop-shop" collecting society that offers non-exclusive licenses of that work. Hence, in a CBL model, there would be no more one-to-one transactions, no bargaining between the labels and the services selling the music (and through them the downloaders). Instead, a licensed member would purchase a blanket license at a pre-set price, and then do what he wanted with the licensed media, including sharing that music with other licensed members.

Second, the CBL represents a more fundamental change in how the industry receives compensation from the previous models. While examples of blanket licenses do currently exist in the form of the performing rights organizations like ASCAP,⁴ for example, such licenses only cover secondary revenue streams. A collective licensing system that provides the main revenue stream for the industries is a tectonic shift with possibly unpredictable ramifications.

On the other hand, the history of ASCAP's collective licensing offers a useful precedent for the problems the industries face today. Radio stations, along with restaurants, hotels, and other establishments, balked at licensing individual songs from each copyright holder for each performance. ASCAP was formed to enable joint copyright enforcement but evolved to offer efficient blanket licensing for a pool of copyrights, a

¹ EFF, "A better way forward: Voluntary Collective Licensing of Music File Sharing," at http://www.eff.org/share/collective_lic_wp.pdf (hereinafter "EFF White Paper").

² William Fisher, *Promises to Keep*, (Stanford, CA: Stanford University Press, 2004), 252-258 (hereinafter, "Fisher, *Promises*").

³ Fisher, *Promises*, at 199-258.

⁴ Radio and television stations "pay [ASCAP and BMI] a percentage of their revenues which the performing rights societies distribute among their members." Stan J. Liebowitz, *Alternative Copyright Systems: The Problems with a Compulsory License*, (Aug. 21, 2003), 4, available at <http://www.utdallas.edu/~liebowit/intprop/complpff.pdf>.

development that made obtaining licenses viable and compelling to radio stations and other performance outlets.⁵ A CBL might similarly create efficiencies in licensing that would engender licit behavior by online users.

Problems involved in implementing the model and possible deficiencies compared to typical market mechanisms do reduce the model's prospects, and the CBL would still face the problem of competing with free. On the other hand, should more traditional models of selling copies entirely fail, this model could provide a stellar alternative. Moreover, if the CBL were to function well and sufficiently compensate artists, it would have significant benefits for society as a whole. Consumers would be unencumbered in their digital media usage, and technology innovators would likewise be able to create without barriers from DRM and potential liability.

Part I of this section will briefly describe the general theory of CBL. Part II will examine the most important prerequisite to the realization of a widespread CBL: consumer and industry adoption of the new model. Part III considers an important design question regarding how entitlements might be allocated in the system. Part IV will analyze the advantages and disadvantages of a CBL, from the perspective of artists, rights holders, consumers and society as a whole. Finally, Part V will explore in more depth government-mandated approaches, setting out the general approaches and looking at comparative advantages and disadvantages.

PART I: COLLECTIVE BLANKET LICENSING IN THEORY

The group or consortium that establishes a CBL⁶ will need to decide on the scope of the license and the size and composition of the licensing group. The CBL planner must also create an organization for day-to-day administration, which will serve the four necessary CBL functions: registration, payment collection, counting remunerable uses, and revenue distribution. This CBL organization is created to be similar to ASCAP and other such licensing organizations. Under Fisher's plan, the CBL organization is called the "Entertainment Co-op."

Notably, the EFF plan would allow subscribers to use any means they wished to obtain their media. Fisher's plan would only allow subscribers to distribute and download music and films from the Entertainment Co-op. However, the Co-op would not necessarily create services itself; it could allow other organizations to offer licensed services to Co-op members. Such a system would still be a blanket, non-exclusive license, but the license would be slightly more restrictive.⁷

The first element performed by the CBL organization is registration. Only works that rights holders choose to make available under the licensing scheme would be available to licensees. The rights holders would be granting rights to subscribers to copy and distribute their works non-commercially (though the CBL could encompass more, as discussed in Part III below).

⁵ EFF White Paper. See also Robert Merges, *Compulsory Licensing vs. the Three "Golden Oldies" Property Rights, Contracts, and Markets*, Policy Analysis (January 15, 2004), 10 ("Radio broadcasters found themselves liable for copyright infringement for the public performance of song compositions. There was serious concern about the costs of locating and dealing with all the individual holders of song copyrights...[T]he copyright holders formed ASCAP ... and offered a single 'package license'...") (hereinafter "Merges, Compulsory Licensing"). See also Robert Merges, *Contracting into Liability Rules: Intellectual Property Rights and Collective Rights Organization*, 84 Cal. L. Rev. 1293, 1328-1340 (October 1996); Julie B. Raines, *The Fairness In Musical Licensing Act: The Tavern Bill Casts a Shadow*, 20 Hastings Comm. & Ent. L.J. 169, 175-184 (Fall 1997) (discussing ASCAP and BMI's history).

⁶ Throughout, we consider the formation of a single CBL group. While potentially creating some negative, monopolistic effects, having one licensing body would likely create efficiencies for licensors and licensees. The EFF recommends anti-trust oversight as ASCAP and BMI currently have to deal with potential problems; see EFF White Paper. In theory, however, there could be multiple licensing agencies, just as there are multiple performing rights organizations.

⁷ Proponents disagree on whether this would be necessary. On the one hand, it would reduce attractiveness to licensees. On the other, if licensees cannot clearly limit distribution to other licensed users, they might share files with unlicensed downloaders, who would be difficult to target for infringement suits. See Ernest Miller, "Thoughts on the EFF P2P Solution White Paper," *The Importance of...* (Feb. 26, 2004), at <http://www.corante.com/importance/archives/002098.html>.

How the CBL organization sets rates will be interrelated with at what point on the value chain it collects fees. For example, the CBL organization could tailor the price of its licenses directly for the end consumer, setting them at a relatively low price. Another method might be to make P2P systems or ISPs the target of the licenses, giving them the means to provide two-tiered Internet access plans: one for non-licensed, and one for licensed, users.⁸

The CBL organization would need to set appropriate levels of the fees. It would have to perform a careful balancing act to ensure that rights holders receive appropriate compensation, but that fees were also low enough to encourage adoption. According to the EFF White Paper, if the CBL organization started by charging "the 60 million Americans who have been using file sharing software... \$5 a month [the system] would net over \$3 billion of pure profit annually to the music industry."⁹ The EFF notes that this would be almost solid profit as there would be no need to make and ship CDs and no percentages to be paid to online retailers.

Once the money is collected, it needs to be allocated. To do so in a way that rights holders will accept as fair and accurate, it is necessary to know the frequency of use of each work. Frequency of use is not a straightforward function of times the work is accessed from a downloading service, however. A system that counted only downloads would not record any difference in use between a consumer who downloaded on a whim and listened once and one who listened over and over. Ideally, a CBL system could take these different valuations into account. The EFF plan suggests the use of monitoring services like Big Champagne¹⁰ and BayTSP¹¹ to take a good sample of what people are sharing.¹² One could also imagine—and Fisher proposes¹³—the digital entertainment equivalent of Nielsen families: consumers that are given software to track the amount of times they play individual songs and films. Unobtrusive and anonymizing software might achieve consumer acceptance and thus generate a sufficiently large sample size for robust data.¹⁴

The CBL organization would probably want to address other issues involved in allocation. For example, should duration of the copyrighted work count for how much that artist is compensated? Fisher thinks it should, but not in a way that would make compensation directly proportional to length.¹⁵ A thornier problem is intensity of enjoyment; if the CBL organization should address this metric at all, it could try to use voting mechanisms or price signals from other contexts, such as the cost of tickets to different types of concerts, but these approaches might be difficult to implement.¹⁶ Finally, the CBL organization will have to decide on an equitable disbursement strategy for the money collected. The EFF points out that the process of disbursing the money will need to be very transparent if content creators, copyright holders, and the public are to trust and accept the system.¹⁷

⁸ See EFF White Paper; Fisher, *Promises*, at 252-253.

⁹ EFF White Paper.

¹⁰ <http://www.bigchampagne.com/>.

¹¹ <http://www.baytsp.com/>.

¹² See EFF White Paper.

¹³ See Fisher, *Promises*, at 226-229. Fisher also suggests consideration of various voting mechanisms, at 223-234. For example, a portion of the funds could be apportioned based on voting by members, while another portion would be divvied up based on usage. Fisher indicates that the voting method might be able to take into account more than just actual usage, but intensity of experience. Voting, however, does increase the potential for abuse.

¹⁴ It is worth distinguishing the privacy issues here from those discussed in Appendix II, part IIIC. There, actions are monitored and recorded, and then linked to a particular individual. Here, there would be no need to link the uses to an individual; the CBL organization is only interested in recording that the use occurred, not *who* made the use. Thus, even though the CBL organization would know which people are in the Nielsen group generally, there is little reason why the counting could not be done anonymously.

¹⁵ See Fisher, *Promises* at 229-231.

¹⁶ See Fisher, *Promises*, at 232-234.

¹⁷ See EFF White Paper.

PART II: FACTORS INVOLVED IN CONSUMER AND INDUSTRY ADOPTION

The success of a voluntary collective licensing system seems to require a "critical mass" of consumers willing to pay the access fee. In other words, a certain level of consumer acceptance is a necessary element of the system. For one thing, copyright holders would not receive compensation if only some consumers sign up. Also, if consumer acceptance fell short of the critical amount, few additional people would join and pay out of a belief that there were too many file sharers to deter through lawsuits, and reasoning that the industries would not get to them.

There are reasons to think that consumer acceptance will in fact be significant. First, consumers may sufficiently value security from liability for file sharing. As discussed in the Digital Media Store (DMS) model, at least some consumers appear willing to pay for content. Moreover, this business model would leverage consumers' norms and current practices. The opportunity to gain unlimited access to digital media and the use of any (or, in the Co-op scheme, a vast array of) software to distribute and acquire content for a low fee more closely mimics what consumers seem to be trying to achieve with illegal downloading than does the DMS. Similarly, consumers would benefit from the removal of DRM and other restrictions on usage.

Second, many market mechanisms will be available to bring consumers into the fold of legal file sharing. The EFF cleverly suggests that enterprises such as ISPs bundle the fee into a "downloads all the music you want" ISP package, for example.¹⁸ The EFF also states that universities could bundle the fee into the cost of providing Internet access, thus relieving themselves of a current liability threat.

To achieve a critical mass of consumers, CBL must also achieve a critical mass of available music and films. Sufficient labels, studios, and other rights holders would have to sign up with the CBL organization in order to provide this stock of content. Again, there are reasons to think that these parties would eventually participate in collective licensing. As long as consumer adoption is substantial, content providers would not want to be left out of an "evergreen revenue stream."¹⁹ If some labels and studios provide collective licensing options, others may feel pressure to follow suit. Fisher makes the key point that rights holders are "no worse off" under a collective licensing regime than they are with P2P eroding their revenue and stand only to gain by participating in the system.²⁰ Finally, a CBL will be attractive to rights holders seeking online distribution because it would avoid the problem of micropayments that characterize PPD services like the iTunes Music Store,²¹ and would also eliminate the transaction costs incurred by current DMS in individual contract negotiations with multiple rights holders.

There are, of course, reasons to think that industry adoption of the voluntary CBL will not be widespread. For one thing, it has not happened yet; if the benefits would be so great, why would a sophisticated industry eschew a new stream of profits? One possible explanation is that incumbent rights holders do not want to or are not practically able to work together (though a single studio or label could conceivably launch its own CBL). Another interpretation would reflect the industries' previous reluctance to adapt to new technologies in presuming that the industries are simply refusing to consider radical change. The industries' initial negative reaction to VCRs²² and radio, and its slow adoption of the Internet as a means of content distribution²³ exemplify the industries' possibly irrational²⁴ fear of new technologies and business models. Alternatively, perhaps the industry is well aware of the benefits of a CBL but individual participants believe it would lead to

¹⁸ EFF White Paper.

¹⁹ EFF White Paper.

²⁰ See Fisher, *Promises*, at 257.

²¹ See Appendix II, Part IIA.

²² See *Sony Corp. v. Universal City Studios*, 464 U.S. 417 (1984).

²³ See *Merges, Compulsory Licensing*, at 5 (stating that music fans "have had to wait almost 10 years since the advent of the popular, commercial Internet for the rollout of cheap, simple music downloading sites such as Listen.com and Applemusic.com.").

²⁴ The industry argues that its fears have been anything but irrational. See Derek Slater, "Valenti's Views," *Harvard Political Review* (Jan. 25, 2003) (MPAA president Valenti asserts that "[w]e lose \$3.5 billion a year in videocassette analog piracy.").

their demise over the long term. Fisher writes that "marketing and promotion would remain crucial functions in the brave new world," but the traditional distribution function of record companies would likely atrophy.²⁵

More concrete worries for the industries may slow adoption of CBL. One worry is that counting would be imprecise, particularly for less popular content. While sampling and Nielsen families may be effective in estimating the number of times a popular song is used, it succumbs to inaccuracy as the number of times the song is used becomes smaller.²⁶ This would not only undermine the success of the model in general, but it would particularly hurt the diversity of music available as less popular artists find their revenues do not sustain their activity. A related counting problem is the possibility of "gaming" the system. People could download and play content simply to give an artist—possibly the user himself—money; because the user has already paid a subscription fee, this activity is practically costless. The counting of usage must be sufficiently large, random, and specific to minimize these dangers.²⁷

Another potential problem is large costs incurred by a voluntary CBL. The CBL organization would have to maintain fairly complex records of when content was registered, how often that recording was downloaded or listened to, addresses of the rights holders, and other data; it would also need to collect money from subscribers, divide it up, and transfer it to the rights holders. Other costs include the costs of collectively agreeing on such CBL terms as the access fee. For example, one music label in the CBL might charge high rates for its music products and therefore want a higher access fee, while another might want the opposite. Or, one studio might find that the elasticity, or consumer demand, for its films supports a higher access fee.

Another legitimate concern is that CBL sacrifices too much of the efficiency that results from traditional market mechanisms. Typically, companies decide whether to create a good and how to price it using standard supply-and-demand models whose parameters fluctuate over time. Markets tend to be more efficient than a centralized system, they tend to be far more flexible, and they tend to optimize value exchange. By lumping all goods together at one preset price, the CBL may decrease value in the system by removing the market signals that allow for efficient pricing of the many different entertainment goods available in the marketplace. Though performance rights are licensed this way, it is not clear that those rights are priced efficiently either.²⁸

Despite the possible market inefficiencies, there are serious problems with the current content market that CBL would address, most notably widespread illegal downloading of music. The CBL solution is akin to songwriters' creating ASCAP and adapting to radio. In this way, it reflects the music industry's past best efforts at grappling with copyright infringement and achieving fair compensation. It might not be the first choice of the film and music industries, but it might be more likely to succeed than the other models.

PART III: HOW SHOULD ENTITLEMENTS BE ALLOCATED IN THE NEW SYSTEM?

Before proceeding with further analysis of the business model's advantages and disadvantages, it is worth considering an important variation on the theme.

Whether by changing underlying law or through private arrangements, consumers will be permitted to exercise certain rights that copyright entitles copyright owners. Under the proposals discussed thus far, the industries would simply layer private contract arrangements over the underlying rights in order to allow licensed users to distribute and copy works freely.²⁹ For a compulsory, government-run CBL, changes in the

²⁵ Fisher, *Promises*, at 242.

²⁶ See Aaron Swartz, "Privacy, Accuracy, Security; Pick Two," *available at* <http://www.aaronsw.com/weblog/001016>. While Swartz makes the case using sampling web pages, the argument could translate to music and films. As discussed in Appendix A, the music and film industries have a few massive hits that far outnumber the other released, less popular works.

²⁷ See Fisher, *Promises*, at 223-234.

²⁸ See Liebowitz, *supra* note 4, at 22-23.

²⁹ Under the EFF proposal, the music industry would simply covenant not to sue file sharers for reproducing copyrighted works. See EFF White Paper.

law could directly alter copyright holders' bundle of rights and would carry certain advantages and disadvantages, to be discussed more in Part V.

Positing an alternative compensation system could present an opportunity for a broader reconsideration of what rights should be retained by copyright holders in the new model. The question for CBL implementers and policymakers is to what extent. Volumes have been written on the question of how properly to allocate copyright entitlements to promote social goals.³⁰ Implementers and policymakers can take their pick as to which approach is best.³¹

While the right to public performance and display could also be included in the CBL, the entitlement to make derivative works has garnered particular attention. Both Fisher and Professor Neil Netanel advocate granting this entitlement to consumers in slightly different ways.³² Fisher concludes that "whatever modest weight the right of integrity [to control derivative works] might have in this context is more than offset by the competing value of semiotic democracy – of enabling the public at large to participate more actively in the construction of their cultural environment."³³

Whether to grant a derivative works entitlement to copyright holders or consumers need not be a black-and-white decision, however. In discussing a compulsory regime, Netanel suggests that users only be allowed to make and distribute derivative works non-commercially, with the creator of the original work receiving compensation through the CBL for the derivative work.³⁴ Fisher points out that copyright holders in a compulsory regime could be given a choice whether to authorize derivative works.³⁵ To encourage such authorization, rights holders who refused could be penalized some amount of what they would otherwise be entitled to under the system.³⁶

If the right to create derivative works were included in the CBL, providing rights holders such an option would likely encourage greater adoption and success of CBL. However, the penalty for disallowing derivative works is still problematic from the standpoint of restitution, on which Fisher's system is based. This is because the penalty acts as the functional equivalent of a tax on some copyright holders based on a distinction that did not exist in law or industry previously. Encouragement of derivative works is probably better viewed as a distinct policy goal, and better implemented as a pure subsidy to those copyright holders that choose to allow derivative works.³⁷ This approach would increase the cost of the system, but would better serve the fundamental goal of making copyright holders whole, while pursuing the ancillary goal of encouraging derivative works. Ideally, the pot of money used to encourage derivative works would remain distinct from the pot used to make copyright holders whole, in the sense that the determinants of one's value would not necessarily be the same as the determinants of the other's value.

³⁰ See William W. Fisher, *Property and Contract on the Internet*, 73 Chicago-Kent Law Review 1203 at 1212-1218 (1998), for a thoughtful and broad survey of approaches to the entitlements problem and related social goals.

³¹ A common and important thread in the literature is the notion of well-working markets. For elaborations of the "market failure" approach to fair use, see Wendy J. Gordon, "Market Failure and Intellectual Property: A Response to Professor Lunney," 82 Boston U. L. Rev. 1031 (2002) (showing that the set of market failures justifying fair use encompasses more than just insurmountable transaction costs); Fisher, "Property and Contract on the Internet," supra note 34, at 1247 (describing free rider problems with respect to the supply of parody and criticism). For a criticism of this approach, see Glynn S. Lunney, "Fair Use and Market Failure: Sony Revisited," 82 Boston U. L. Rev. 975, 976 ("Despite gaining widespread acceptance, the market failure account of Sony does not accurately reflect either Justice Stevens's reasoning for the majority in the case or a sound application of the relevant economic principles.").

³² See Fisher, *Promises*, at n. 58 and accompanying text (noting that the right to create derivative works could be bestowed by copyright law or private contract); Neil Netanel, *Impose a Noncommercial Use Levy to Allow Free P2P File Sharing*, 17 Harv. J. of L. and Tech. 1, 57 (2003), (allowing derivative works but restricting compensation to the author of the underlying work).

³³ See Fisher, *Promises*, at 28-31.

³⁴ See Netanel, supra note 32, at 29-30.

³⁵ See Fisher, *Promises*, at 241-242.

³⁶ Id.

³⁷ Cf. Paul Goldstein, *Copyright's Highway: From Gutenberg to the Celestial Jukebox*, (Stanford, CA: Stanford University Press, 2003), 208 (advocating a direct subsidy to consumers to purchase fair uses).

PART IV: LIKELY EFFECTS OF COLLECTIVE BLANKET LICENSING

Collective blanket licensing would mark a fundamental change in the way the industries are paid for use of content. This part will first examine the effect of a CBL business model on the current business participants in the media industry: content creators, studios and labels, as well as innovators and ISPs. Then it will analyze the effect of the business model on consumers. Finally, it will look at the effect a shift to CBL would likely have on society as a whole.

Effects on the Entertainment Industry

At first, CBL would likely not affect the studios or the labels significantly. The labels and studios would continue to receive the revenues from all of the content to which they own the rights. They would also continue to be motivated to market productions and recording artists in order to encourage downloading of that artist's music. Furthermore, the film studios would continue to be necessary to provide the up-front funding for big budget films and handle distribution to film theaters.

Over time, however, the industries could look quite different. Digital technologies are reducing costs for distribution, marketing, and, particularly for music, production.³⁸ This trend, combined with content creators' ability to receive compensation via the CBL, could spell trouble for record labels. The Internet and P2P would alter the playing field, and the industry giants would need to watch out for "newer, leaner enterprises, better able to develop and exploit the different kinds of marketing tactics enabled by the Internet."³⁹ The record labels would likely have to adjust or be rendered irrelevant. While major motion pictures would likely be tethered to studios that would cover production costs,⁴⁰ independent and short filmmakers would now have greater access to a worldwide market as well.

What may be bad news for labels or studios comes as good news for content creators, whom Fisher notes would see their incomes protected, and, in the long term, enjoy "greater artistic freedom and financial independence..." if the CBL succeeds.⁴¹ Under the new regime, content creators could create their own recordings, register them, and then put them out on peer-to-peer networks for distribution, receiving compensation automatically. While it is certainly feasible for content creators to sell tracks directly over the Internet using the DMS, the greater popularity and efficacy of P2P as a distribution tool would finally be directly harnessed for their benefit.

Effects on the Technology Industry

Technology companies would benefit from a more certain and less hostile legal environment. Copyright holders have attempted to sue out of existence numerous copying and distribution technologies. Along with suing the P2P services for indirect infringement,⁴² they have also attempted to stifle technologies such as the MP3 player⁴³ and digital VCR.⁴⁴ Under the CBL, copyright holders would no longer be in conflict with technological innovators. Rather, given subscribers' freedom to copy and distribute content as they like, copyright holders would only benefit from improved digital media technologies that enhance the consumer experience.

³⁸ See Appendix I.

³⁹ Fisher, *Promises*, at 242.

⁴⁰ See Appendix I.

⁴¹ Fisher, *Promises*, at 238.

⁴² *MGM v. Grokster*, 2004 U.S. App. LEXIS 17471 (9th Cir., 2004); *In re Aimster Copyright Litigation* 334 F.3d 643 (7th Cir. 2003), cert. denied, 124 S.Ct. 1069 (2004).

⁴³ *RIAA v. Diamond*, 180 F.3d 1072 (9th Cir. 1999).

⁴⁴ *Newmark et al. v Turner Broadcasting System et al.*, http://www.eff.org/IP/Video/Newmark_v_Turner/.

Moreover, because files would be unfettered by DRM, companies would no longer have to worry about changing their hardware to include protections,⁴⁵ and instead, could focus on features and functionality that create direct value for consumers. The barriers to entry and innovation created by DRM and discussed in the DMS section would also fade away.

Finally, the voluntary CBL would likely positively impact sales for software innovators and consumer electronics manufacturers.⁴⁶ As more media becomes cheaply and legally available online under the CBL, consumers will want more hardware and software capable of fully taking advantage of that media. The demand for better portable electronics, CD burners and DVD burners, already on the rise, would likely increase; computers would become a more valuable tool as the CBL legitimized and facilitated their role in consumer enjoyment of music and films.

Similarly, ISPs would benefit. The CBL would drive more consumption of digital media, which would require broadband capacity. Plus, subpoenas received regarding copyright infringement lawsuits would likely decline, relieving ISPs of this strain on their resources.

Effects on Consumers

Consumers would greatly benefit from a CBL. Fisher notes that the average American household "spends approximately \$470 per year on purchases, rentals, and subscription access to audio and video recordings."⁴⁷ Though a license for music as well as films would obviously have to exceed the \$5 the EFF suggests for just music, consumers would benefit from the opportunity to pay a modest fees for unlimited access to a large stockpile of entertainment.⁴⁸

Essentially, music and films would seem free and would be consumed in greater amounts. In addition, consumers would feel free to try out songs and films, giving them a better opportunity to find the music that they prefer. This demand would in turn likely lead to a wider variety and quality of music and films. Of course, this wider variety might decrease the compensation individual artists receive,⁴⁹ but the increased variety might also convince consumers to pay higher licensing fees for the content.

Consumers would also benefit in that they could more easily become compensated creators. CBL fees would provide incentives for everyday people to invest the time and energy in creative works that they think others would enjoy and gain value from. If their gambit proved correct, they would be paid. If not, they would only have suffered the cost of creating their work and putting their work in the CBL database.

Finally, consumers would benefit from the absence of DRM and greater technological innovation. Fair use and first sale rights would not be impinged by digital restrictions as discussed in the DMS section. With the greater flexibility of digital technology, consumers would be more able to actively interact with and manipulate, not just consume, digital media.⁵⁰ Even without the CBL allowing distribution of derivative works as discussed above, potential benefits from semiotic democracy would still be present. People would be unobstructed by DRM in their editing, sampling, and reconstructing of digital media. With the ability to distribute derivatives, this benefit would be obviously increased.

⁴⁵ See, e.g. FCC Broadcast Flag ruling, (Nov. 4, 2003), at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-273A1.pdf (the "broadcast flag" digital television mandate).

⁴⁶ Whereas voluntary CBL would exert significant positive effects on the technology industry, the mandatory CBL would exert more ambiguous effects. See *infra*, part V.

⁴⁷ Fisher, *Promises*, at 236.

⁴⁸ Films need not make the fee that much higher. In discussing a mandatory version of this model, discussed more below, Fisher suggests a tax on broadband ISPs and their 30.2 million users that would cause an average rise in fees per customer of \$5.36/month. See Fisher, *Promises*, at 222. Broadband users are the most likely to take advantage of a voluntary CBL, and thus one could assume a relatively small fee would be possible.

⁴⁹ As the overall sum of compensation is split into more and more pieces, each piece would become smaller.

⁵⁰ See Fisher, *Promises*, at 238.

CBL and Society

Many of the benefits described above would also be clear societal benefits, due to such factors as the elimination of transaction costs and middlemen, and the efficiency resulting from increased variety of and ability to try out music. Transaction costs would likely decrease because CBL-authorized uses of media would be presumptively legitimate.

With the CBL, the industries might still wield the threat of lawsuits to induce people into the system. However, the practice is not likely to carry with it the same social costs as in other models. The CBL is born out of an acceptance that aggressive enforcement is not efficacious in stopping piracy. The industries would likely be better off charging a low fee across a large subscriber base because it is comparatively cheaper than charging a higher price with greater need for enforcement on non-subscribing infringers.⁵¹ As such, it would seem that lawsuits would play a less prominent role in this model.

Indeed, like the P2P Store model, this model would have the benefit of enabling a participatory role for consumers in distribution. Rather than content being distributed exclusively top-down, from a centralized source, distribution would occur bottom-up. In so doing, consumers would play a more active role in shaping the cultural environment.

As noted in Part II, the CBL may have some pricing inefficiencies. Then again, that inefficiency is relative; given that DMS and P2P Stores might not succeed in generating sufficient revenue using typical market mechanisms, the CBL may be a more efficient model. An ideal CBL, in which the collecting society fairly and accurately collected money and usage statistics, and properly disbursed the money to rights holders, would almost certainly be an improvement on the current state of affairs. However, these practical hurdles, such as securing a critical mass of content, pricing the access fee appropriately, usage counting, and the other problems discussed in Part II, present the unfortunate prospect of eroding the social surplus gained by a switch to the CBL system.

PART V. COMPELLING ADOPTION

This paper thus far has focused on a voluntary CBL. This section analyzes ways in which the system could be compelled by the government. If one accepts that CBL is in fact better for society than are the current business models, it might be beneficial for the government to step in and mandate the creation of a CBL organization, with which rights holders would need to sign up if they wanted compensation from distribution of their works. The EFF envisions a system, run by industry, but for which the government mandated its creation; this is the compulsory industry-run CBL. Alternatively, in the mandatory government-run CBL, money would be raised through taxes or levies on other goods, and the government would setup an agency to distribute the funds. In this section, we explore both types.

Industry-run CBL

The main advantage of compelling CBL is that it forces the industries to employ this model immediately and thus avoids critical mass issues and ensures the model's benefits are realized immediately as well. The government would compel non-exclusive grants of blanket rights and either set rates itself or use a rate court proceeding similar to that involved in ASCAP's consent decree.⁵²

Critics note that the stakes are high for a change of the magnitude of the CBL and continued reliance on exclusive rights, contracts, and markets is preferable to getting the government involved. As Professor Robert Merges points out, any legislation that is passed would be difficult to get rid of later. Merges argues that "[t]he widely touted advantages of a compulsory license will very likely materialize without putting

⁵¹ See EFF White Paper.

⁵² See Michael Einhorn, *Intellectual Property and Anti-trust: Music Performing Rights in Broadcasting*, 24 Colum.-VLA J.L. & Arts 349 (Summer 2001)(discussing anti-trust oversight for ASCAP and BMI).

content providers into a legal straightjacket that will under compensate some of them and lock all into a rigid structure that will be difficult to change as time goes on."⁵³ If the CBL turns out not to be the right solution, the consequences could be disastrous for the industries and value destroying for society as a whole.

The CBL could easily create price stagnation and enormous negotiating transaction costs. If the government set consumer purchase rates, the government would have to make sure that it stayed alert to pricing signals and made necessary price changes. If the example of mechanical reproduction is representative, with no change in compensation between 1909 and 1976, price stagnation seems likely.⁵⁴ Also, in view of the difficulty of negotiating webcasting royalties through the Copyright Arbitration Royalty Panel (CARP) procedure,⁵⁵ the requisite negotiation for any price change could be quite costly. According to Merges, if the DMCA is an accurate example of legislation meeting copyright, then CBL oversight will be "the result of interest group deal-making so Byzantine that it boggles the mind..."⁵⁶

A compulsory CBL with terms set out largely by the government may hamper the development of some types of innovation. Merges gives the example of a webcaster who would not be able to deal for the exclusive use of some music in return for granting a premium royalty rate.⁵⁷ This would allow webcasters not only to compete on the type of advertisements they use to fund their station, but also on the content available.⁵⁸ However, as a compulsory CBL would make all content equally available to everyone, such innovation will not be fostered.⁵⁹

Industry rent-seeking and resulting distortions may also occur.⁶⁰ Even with a CBL forced on them, the industries could lobby to obtain rates that are ultimately too high. Still, Fisher suggests procedural protections could help ameliorate this problem.

Finally, compelling the creation of a CBL does not mean that consumers will start using licensed services. If consumers truly will not pay for content, then the compulsory CBL will make no difference.

Government-run Alternative Compensation System

Rather than simply compelling the creation of a collecting society, the government could create what Fisher and the Digital Media Project deems an "Alternative Compensation System" (ACS) for digital media.⁶¹ Unlike the other business models discussed in this paper, the government-run ACS would require fundamental changes in copyright law. Rights holders would no longer hold the reproduction right or the distribution right,⁶² and they would be compensated for use of their works by a government-mandated tax. Meanwhile, consumers would be able to copy and distribute copyrighted content however they like. The approach is reminiscent of the Audio Home Recording Act (AHRA) of 1992, which established a levy on digital audio recording devices such as digital audiotapes (DATs).⁶³ It would also be a variation on the current Canadian system that makes it legal to download (but not upload) music and compensates the recording industry through a tax on recordable CDs and CD burners.⁶⁴

⁵³ See Merges, *Compulsory Licensing*, at 11.

⁵⁴ *Id.*

⁵⁵ *Id.*, at 8.

⁵⁶ *Id.* at 9.

⁵⁷ *Id.* at 10.

⁵⁸ *Id.*

⁵⁹ See Liebowitz, *supra* note 4, at 12-14 (making a similar point).

⁶⁰ See Fisher, *Promises*, at 244-245.

⁶¹ The ACS is the subject of Digital Media Project Scenario 4, <http://cyber.law.harvard.edu/media/scenario4>. The Entertainment Co-op is the subject of Scenario 5, <http://cyber.law.harvard.edu/media/scenario5>.

⁶² Fisher suggests that all rights be part of the system. Netanel suggests that merely non-commercial use be included. One could further imagine it limited just to non-commercial reproduction and distribution.

⁶³ 17 U.S.C. §§ 1001-1010.

⁶⁴ See "Music licensing would be viable for all", *The Toronto Star* (March 8, 2004), at D02.

Two types of taxation would be possible in the compulsory government-run CBL. The first would be applied to everyone, whether or not they downloaded films and music. Two benefits of such a tax are that it could be progressive (the rich pay more) and, since every taxpayer would participate, it would result in the lowest per person cost (hence, closer to the marginal cost). On the other hand, the government could tax digital media devices and services so that those engaging in digital media activities would bear the burden of funding the ACS.⁶⁵

The major advantage of this compulsory approach is that it would effectively solve the piracy problem in the United States. Everyone would be paying for content through taxation, no one would be getting a free ride, and artists would be compensated. There would be the corresponding benefit of having restructured copyright law that better met prevailing social norms. Like the compulsory model previously discussed, this system would also push past the lack of interest on the part of the music and film industry, guaranteeing that all content was licensed. In general, the other advantages would be the same as discussed above.

On the other hand, this approach also shares the downsides of involving the government as discussed above. The risks of locking in a bad system, transaction costs, rent-seeking, and improper pricing all remain.

Furthermore, taxation comes with its own problems. A major complaint with including the fee in the income tax is that most Americans do not download music or films, so the income tax would force many people to pay for something they do not directly benefit from. This makes an across-the-board tax politically troublesome. On the other hand, an ACS funded by levies on technology products would create negative distortions on the markets for those products, thereby hurting those industries. Netanel proposes taxing "any consumer product or service the value of which... P2P file sharing substantially enhances."⁶⁶ Fisher, citing Netanel, proposes that if an income tax is politically infeasible, then a "tax on the goods and services used to gain access to music and film" should be used.⁶⁷ Both professors recognize the problem of distorting markets, and offer ways to ameliorate the problem. The important point is that the net effect of a levy-funded CBL is possibly negative but still ambiguous; it would depend on whether the increase in demand inspired by an ACS proves greater than the aggregate loss of demand created by a levy on technology products and Internet access services.

Critics also note that the government would have possibly dangerous control over the entertainment industry, much more so than in the other compulsory CBL, or indeed, than in any of the previous models in this paper. The government would be setting all the standards for compensation, while determining who was paid and how.⁶⁸ This would give the government power and influence in determining the compensation that artists would receive for the creation of content. Fisher's selected guiding criterion of "sustaining a vibrant and flourishing entertainment culture,"⁶⁹ may be the most appropriate, but it is also vague and may create unnecessary discretion for government actors. It is true that the United States already gives great power to agencies like the FDA, the FCC, the NSF and the NIH. Nonetheless, none of these agencies controls an entire industry's revenue stream or directly sets and pays incentives for specific incidents of expression.

CONCLUSION

The likelihood of a CBL being implemented depends largely on the extent to which illegal downloading plagues the industry in the future and what measures arise to combat it. If the copyright holders try to exert too much control through DRM and the Digital Media Stores and P2P Stores do not succeed, compulsory CBL could appear as a legislative response. Regardless, whether voluntary or compulsory, implementing the system could be exceedingly difficult and costly.

⁶⁵ See Fisher, *Promises*, at 216-223.

⁶⁶ Netanel, *supra* note 32, at 2.

⁶⁷ See Fisher, *Promises*, at 217.

⁶⁸ See Fisher, *Promises*, at 244-245.

⁶⁹ See Fisher, *Promises*, at 244.

However, if the theoretical advantages of CBL are accurate and would prove superior to the other business models, its failure to arise would be unfortunate indeed. CBL has the power to spur innovation and enhance the ways people interact with digital media, all while compensating rights holders. While these advantages are untested, society may suffer if content owners hold fast to their traditional models of selling copies.

Appendix V:

The Ancillary Products and Services Model

This business model begins with the assumption that the music and film industries cannot control the distribution of copies in the digitally networked environment. As a result, selling copies can no longer be relied upon as the principal source of revenue for the industries. In this model, the industries would derive revenues from alternative revenue streams, including live performances, merchandise sales, advertising, tip jars, and other means. They would actually encourage the free and unfettered digital redistribution of copies to promote these alternative sources.

Whether the alternative streams could succeed on a broad basis, compensating for the forgone revenue from selling copies and providing sufficient incentive for content creators, is difficult to predict. It is unclear whether consumers would transfer the dollars no longer spent on sales and rentals to purchase these ancillary products and services, thus maintaining the overall revenue pool for the industries or whether the pool would shrink from the loss of some or all current revenues. Moreover, the obviation of copy revenues would not mean the obviation of copy costs. The alternative revenue streams would have to cover the costs of creating and offering artistic works as well as the costs of creating and offering the ancillary products and services before creators and intermediaries achieve profits.

At the same time, numerous artists have experienced some success experimenting with alternative revenue streams, providing evidence for the model's potential, as scholars Raymond Ku and Mark Nadel have discussed in great detail.¹ Given falling costs of creating and offering content, this model's potential may be bolstered. Particularly, falling costs in the music industry could enable content creators to employ this model successfully.

The next section will outline some potential alternative sources of revenue. Part II addresses how this model might reshape roles within the industries. Part III examines the prerequisites for the model's success and possible effects on the industry. Part IV discusses various effects the model may have on consumers and society at large as well as policy options to support the model.

I. ALTERNATIVE SOURCES OF REVENUE

To examine the consequences of embracing this business model, it is useful to outline some alternative sources of revenue. Sources already important for at least some industry players include: 1) concerts and other forms of live performance, 2) merchandise, 3) advertising and product placements, 4) voluntary contributions, and 5) fan club memberships. These alternatives are not an exhaustive list of all revenue streams, but rather provide a foundation upon which to evaluate this business model. Artists will choose a mix of alternative sources of revenue appropriate to them, depending on numerous factors, such as their medium, genre, and audience.

¹ Though our conclusions are somewhat dissimilar, our assessment draws heavily on analysis of this model by Mark Nadel and Raymond Ku. Raymond Shih Ray Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. Chi. L. Rev. 263 (2002) available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=266964; Mark S. Nadel, *Questioning the Economic Justification for Copyright Law's Prohibition Against Unauthorized Copying*, (Jan. 2003) available at <http://www.aei.brookings.org/publications/abstract.php?pid=302> (hereafter "Nadel, Questioning"); Mark S. Nadel *How Current Copyright Law Discourages Creative Output: The Overlooked Impact of Marketing*, Berkeley Technology Law Journal, Vol. 19, 785-856, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=489762 (hereafter "Nadel, Impact of Marketing").

Concerts and other forms of live performance

Revenue from live performances could be a significant source of income for musical artists in this model. Concert revenue already is the primary source of revenue for many musicians.² Scott Welch, the manager for recording artists such as Alanis Morissette and LeAnn Rimes explains that, "The top ten percent of artists make money selling records – the rest go on tour."³ The Grateful Dead encouraged free copying and distribution of recorded live performances, yet grossed a reported approximately \$50 million per year from touring in 1990-1995.⁴ A top artist can receive up to 35% of the revenue from a concert's ticket sales and as much as 50% of the revenue from merchandise sold at the concert.⁵ While substantially less than the \$11.3 billion of retail value of CDs and tapes in 2002,⁶ the \$2.1 billion that concerts grossed that year is not insignificant.⁷ Gross revenues taken in from concerts have posted double-digit growth throughout most of the past decade, although some analysts believe 2004 may represent a slow down or even a halt in growth.⁸

Similarly, the film industry may generate revenues from theater showings even in the face of limitless distribution of copies. This business model assumes that bootleg copies will be made of theatrical versions and recognizes the availability of increasingly sophisticated and affordable home theater systems.⁹ However, the theater experience is likely to continue to be of desirably higher quality and to offer a communal and social experience consumers will pay to share. Films have sometimes been re-released in theaters to great success, despite their availability in cheaper formats such as VHS.¹⁰ For these reasons, the film industry may be able to retain, at least partially, a revenue stream that currently makes up about 25% of current revenues.¹¹

Merchandise sales

Merchandise sales, including of licensed clothes, posters, and toys, is also already providing a significant source of revenue for these industries. In 2002, music industry licensing brought in approximately \$1.5 billion dollars in gross sales.¹² Anecdotal evidence suggests that even artists who do not have large record contracts or sales may be able to achieve meaningful revenues from merchandise: The String Cheese Incident, which has had only modest album sales, has used the Internet to establish a substantial fan base and earned over \$3.5 million in 2000 from merchandise orders as well as from extensive touring.¹³

² See Ku, *supra* note 1, at 305-306.

³ See Peter Kafka, "Concert Cash: Forget CD Sales, the Real Money for Hot Acts is in Concert Tours," *ABCNews.com*, (July 7, 2001).

⁴ See Ted Drozdowski, "Jam Nation," *Providence Phoenix* (June 20, 2003) available at http://www.providencephoenix.com/music/other_stories/documents/02965382.asp; "Bringing Back the Dead," *CBS News* (July 14, 2004) available at <http://www.cbsnews.com/stories/2003/11/11/6011/main582848.shtml>; Ku, *supra* note 1, at 306-309.

⁵ See Robert Deutsch, "Concerts singing sad song over ticket sales" *USA Today* (July 14, 2004) at http://www.usatoday.com/life/music/news/2004-07-14-concert-sad-sales_x.htm See also Ku *supra* note 2, 306 (John Perry Barlow, a lyricist for the Grateful Dead, explained that "the live experience that only the actual band can provide has significant commercial value").

⁶ See RIAA, *2003 Yearend Statistics*, at <http://www.riaa.com/news/newsletter/pdf/2003yearEnd.pdf>.

⁷ See Kafka, *supra* note 3.

⁸ See Deutsch, *supra* note 5.

⁹ See Keith Reed, "Coming Soon To A Den Near You Technology, Competition Make Home Theater Systems Newly Affordable," *Boston Globe* (Mar. 22, 2004).

¹⁰ See Andy Seiler, "Following the Force: Success of 'Star Wars' sparks interest in reissues," *USA Today* (March 3, 1997)(discussing success of re-releases).

¹¹ Estimation taken by comparing figures in the following publications. See Harold Vogel, *Entertainment Industry Economics*, (New York, NY: Cambridge University Press, 2001, 5th ed.), 62; MPAA, *2002 MPA Market Statistics*, at http://mpaa.org/useconomicreview/2002/02%20Economic%20Review%20w-cover_files/frame.htm; Kate Bulkeley, "DVDs force the movie business to rewrite its rules," *Financial Times* (Jan. 20, 2004); William Fisher, *Promises to Keep*, (Stanford, CA: Stanford University Press, 2004), 212 (hereinafter Fisher, *Promises*); "European Film Industry Report," available at http://www.factbook.net/wbglobal_rev.htm.

¹² See "Rebound in Entertainment, Character, Sports Sectors Drive Licensed Product Sales up 2% in 2002," (Jan. 17, 2003) available at http://www.epmcom.com/html/press_releases.html?inc=2003052302.

¹³ See Marty Jones, "Business Unusual," *Denver Westword* (July 6, 2000), available at <http://www.westword.com/issues/2000-07-06/music.html>; (The SCI merchandise team explains that it sells "fifteen different versions of T-shirts, SCI-branded Frisbees, fleece

Merchandise sales tied to films, TV, and animation combined have averaged around \$14 billion annually in the last three years.¹⁴ While merchandising is not effective for all genres, it has generated revenue for rights holders of numerous children's and action films.¹⁵ Films like *Star Wars*,¹⁶ *Harry Potter*,¹⁷ and *The Lion King*¹⁸ have proven enormously lucrative in this regard. At the same time, though revenue from merchandising for visual media has somewhat stabilized, it has declined approximately 20% over the last ten years.¹⁹ Revenue has also increasingly shifted away from films and towards TV.²⁰ Finally, these revenue streams are more concentrated in the visual media industries than in music: most merchandise is created for films designed and expected to be blockbusters or else installments of established franchises.²¹

Advertising: product placements, endorsements, and product tie-ins

Artists could also derive revenues by providing a venue for various forms of advertising. Advertisers currently spend \$130 billion annually through various media.²² At the most basic level, advertisers seek to bring products to the attention of consumers. By gathering consumers to experience their works, artists create an audience that advertisers could target.

Product placement, the presentation of brand-name items as part of the context of a media presentation, is a potential revenue stream for many artists. Films included product placement as early as the 1950s and it is now very common in both TV and film.²³ Broadcasters and advertisers have negotiated on occasion to televise mainstream television shows, including *24* and *Alias* without commercials in exchange for high-visibility product placement.²⁴ In the film industry, product placements and endorsements are even more common. For instance, the last James Bond film had agreements with twenty different companies generating \$70 million in product placement revenue.²⁵ Among the most noteworthy examples of product placements in films is the role of Reese's Pieces in *E.T.*, which apparently increased the candy's sales by 65%.²⁶

hats and vests and other products that bear the SCI name. . . [they're] now marketing a hula hoop that fans can purchase and customize at shows." SCI even runs a ticketing service and travel agency "to accommodate the band's swelling will-travel fans"); Alan Sculley, "Movin' on up," *Chico News and Review* (Oct. 24, 2002) available at <http://www.newsreview.com/issues/chico/2002-10-24/music.asp>.

¹⁴ "'The Licensing Letter' Analyzes 10-Year Retail Trends; Unique Performances Of Entertainment/Character, Trademark/Brand, Sports Categories," (June 11, 2004) available at http://www.epmcom.com/html/press_releases.html?inc=2004061101.

¹⁵ Discussing general context of film merchandising, see James Surowiecki, "Toy Story," *Slate* (Dec. 26, 1997) available at <http://slate.msn.com/id/2634/>; Deepak Halan, "The magic of movie memorabilia," *Rediff* (May 20, 2003) available at <http://www.rediff.com/money/2003/may/20guest.htm>; Abigail Goldman, "The reviews are in: Some licensed toys are real flops," *Los Angeles Times via Pittsburghlive Tribune Review* (April 21, 2002) available at http://www.pittsburghlive.com/x/tribune-review/business/s_67180.html.

¹⁶ See Libby Brooks, "Phantom Menace Merchandise Puts Toy Shops on Alert," *The Guardian* (June 18, 1999) available at http://film.guardian.co.uk/News_Story/Guardian/0,4029,59239,00.html (George Lucas expected to net \$2 billion from *The Phantom Menace*); Surowiecki, supra note 15 (asserting that *Star Wars* launched the film merchandising market).

¹⁷ See David Finnigan, "Hooray for Harry! As Classic Heroes Rule," *Brandweek.com* (June 2002) available at http://www.brandweek.com/brandweek/features/superbrands/toys_01.jsp.

¹⁸ See Goldman, supra note 15 (noting that *Lion King* set records with \$1 billion in licensed product revenues).

¹⁹ "'The Licensing Letter'," supra note 14.

²⁰ "'The Licensing Letter,'" supra note 14. See also Mark Lacter, "Trouble in Toyland," *Forbes* (Feb. 5, 2001) available at <http://www.forbes.com/global/2001/0205/052.html>. <http://www.forbes.com/global/2001/0205/052.html>.

²¹ See Goldman, supra note 15; Halan, supra note 15.

²² See Nadel, Questioning, at 24 (This includes: \$44 billion in newspapers, \$36 billion on TV, \$18 billion on radio, \$17 billion in magazines).

²³ See Katherine Neer, "How Product Placement Works," *HowStuffWorks.com* at <http://people.howstuffworks.com/product-placement.htm> (For example, the film "Josie and the Pussycats" has over 27 product placements in its 2.5 minute trailer alone).

²⁴ See Neer, id.

²⁵ "New Bond film 'a giant advert'" *BBC News* (Nov 18, 2002) available at <http://news.bbc.co.uk/1/hi/business/2488151.stm>. The budget for the film apparently was \$142 million, see <http://imdb.com/title/tt0246460/business>, with another 38 million allotted for marketing, see <http://www.boxofficemojo.com/movies/?id=dieanotherday.htm>. \$70 million is a substantial in relation to these sums, but a relatively small portion of the total revenue generated by the film, see http://www.rottentomatoes.com/m/die_another_day/numbers.php (noting the approximate 160 million from domestic box office and 9 million from initial VHS rentals alone); <http://www.pnnewswire.com/cgi-bin/stories.pl?ACCT=104&STORY=/www/story/06-04->

Product placement might not be as viable in music. Recording artists could mention particular products in their songs, but referencing a product in a way that consumers will clearly identify without detracting or distracting from the song's other content is much more problematic than simply displaying the product as part of a set in a film. Perhaps product placements can be integrated into music videos just as easily as TV or films. For music videos, advertisers may be willing to pay more when videos are freely shared because the free distribution may lead to more impressions than limited television exposure could.

To avoid influencing artistic content, musical artists could include advertisements alongside their freely distributed copies, as has been tried a number of times already. For example, Mjuice displayed advertisements on subscribers' screens while they downloaded MP3 files, while Internet Underground Music Archive (IUMA) tried embedding advertising in streaming audio tracks. EverAd proposed embedding advertisements within MP3s so that banner ads would appear on the computer monitors whenever users play a track.²⁷ However, none of these efforts to embed commercials within music has thus far proved to be a viable driver of advertising revenues.²⁸ Consumers can strip the artistic content of the commercials and redistribute it on P2P, leaving little imperative for people to continue viewing the ads or advertisers to pay for them.

Rather than incorporating a product mention directly into or alongside the content, content creators could more directly endorse it for payment and to garner exposure. For instance, musical artists sometimes appear in commercials, like Britney Spears in Pepsi's 2002 Super Bowl commercial spot and ad campaign.²⁹ McDonald's and 'N Sync entered into an endorsement arrangement, while Burger King and the Back Street Boys reached a similar deal.³⁰

Content creators can also obtain revenues from companies by allowing them to associate and market their products jointly with their works and events. For example, JVC sponsors the Jazz Festival in New York, and Budweiser has sponsored Rolling Stones concerts.³¹

In examining the potential pros and cons of advertising as an alternative revenue stream, it is worth noting that, among the possible difficulties, it might alienate certain creators and consumers. Content creators may dislike the use of advertising because the scope of their expression is constrained by having to incorporate irrelevant products. Blatant advertising might also reflect poorly on the content creator's skill or integrity, turning off consumers.³²

2003/0001958972&EDATE= (\$430 million in worldwide box office and 16 million DVD sales); <http://www.imdb.com/boxoffice/rentals?date=2003-08-24> (rental gross over 70 million after 11 weeks).

²⁶ See Dale Buss "A Product-Placement Hall of Fame" (June 11, 1998) *available at* <http://www.businessweek.com/1998/25/b3583062.htm>.

²⁷ See William Fisher, *Digital Music: Problems and Possibilities*, (Oct. 10, 2000) *at* <http://www.law.harvard.edu/faculty/ffisher/Music.html>. See also Pamela Paul, "Hurry Up and Wait," *American Demographics*, (June 2003), 5 (Espn.com already employs such advertising tactics: users can watch video quality interviews and game highlights on "espn motion" for free – the catch is that every segment has a brief commercial halfway through it).

²⁸ See, e.g., <http://www.mjuice.com> (Mjuice now only exists as an online magazine); See also, <http://www.iuma.com> (IUMA is now a service similar to garageband.com).

²⁹ See "Tivo: Super Britney Replays Ruled," *AP via Wired News* (Feb. 4, 2002) *available at* <http://www.wired.com/news/culture/0,1284,50226,00.html> (discussing how the Spears commercial was most replayed by TiVo users).

³⁰ See "N'sync heads to McDonalds," *Allpop* (July 17, 2000) *available at* http://www.canoe.ca/AllPop-NSync/000717_mac.html; "Backstreet Boys sign a burger deal," *BBCNews.com* (Jan. 21, 2000) *available at* http://news.bbc.co.uk/1/hi/english/entertainment/newsid_613000/613133.stm.

³¹ See Charles C. Mann, "The MP3 Revolution," *The Atlantic Online* (Apr. 8, 1999) *at* <http://www.theatlantic.com/unbound/digicult/dc991215.htm>.

³² See John Kelsey and Bruce Schneier, *Electronic Commerce and the Street Performer Protocol*, 4, (Sep. 15, 1998), *at* <http://www.schneier.com/paper-street-performer.pdf>.

Voluntary contribution models

Voluntary contribution models rest on the premise that, even if consumers can get music for free, many are willing to compensate artists whose works they appreciate. The viability of voluntary contribution models does not seem as farfetched when one considers that restaurant patrons voluntarily leave \$20 billion in tips a year.³³ Voluntary contribution models are quite common: museums, historical sites, concert halls, member-supported radio stations, theatres, and churches all survive financially by voluntary donations.³⁴

Two distinct types of voluntary contribution models may succeed: 1) the "ransom" model and 2) the "tip jar" model.

The ransom model

Under the "ransom model," a content creator attempts to charge a price for the first copy of a work, while allowing uninhibited distribution thereafter.³⁵ First, he would approach his audience before his creative work is published or maybe even created. Then he would announce that once he receives a certain amount of donations, he will publish the work, making it freely available to everyone. The donations could be held in an escrow account by an intermediary to ensure that the artist publishes upon the threshold being reached or the donations are returned if it is not met or he fails to produce the promised work.³⁶

The prog-rock band Marillion, after over twenty years of success using traditional major record label channels, employed this tactic with its albums in 2001 and 2004. With no label backing anymore, the band asked fans for an advance before starting production. Thousands obliged, providing enough to produce and market the albums to great success.³⁷

This example suggests that this model works best for established artists who already have a significant fan base.³⁸ Consumers often prefer to preview content—for instance, by listening to music on the radio, in a club, on MTV—before they purchase it. Newer artists would likely have to release samples ahead of time, and thus for them this model could be most effectively implemented for creative works that can be released in segments.³⁹ Even then, artists would have to contend with the inherent difficulty of ensuring consumers do not attempt to free ride by waiting for others to donate sufficient money.⁴⁰

The tip jar model

In contrast to the "ransom" model, under the "tip jar" donation model an artist makes his work freely available to the public. Users are not required to make any donations in order to download songs, but are encouraged to contribute voluntarily in order to support the artists.

Snarfzilla is a file sharing service that provides users with the opportunity to tip an artist whose work they are downloading.⁴¹ Although some artists have received nominal income from this service, the total amount

³³ See Nadel, *Questioning*, at 17.

³⁴ See Fisher, *Digital Music: Problems and Possibilities*, supra note 27.

³⁵ Though this strategy might seem out of place with the overall business model, content creators using the ransom model would still accept that distribution cannot be controlled and is simply trying to make money on the initial distribution.

³⁶ See Kelsey and Schneier, supra note 32.

³⁷ See George Webley, "Marillion: Doing Business with Their Fans," *Sound on Sound* (Sept 2003), available at <http://www.soundonsound.com/sos/sep03/articles/marillion.htm>; Jon Collins, "Marillion: appetite for resurrection," *The Register* (Apr. 28, 2004) available at http://www.theregister.co.uk/2004/04/28/marillion_comeback/.

³⁸ See Nadel, *Impact of Marketing*, at 826.

³⁹ This would generally apply to a music album, but the future of the album concept is in doubt. See Brian Garrity, "All Aboard The Digital Train?" *Billboard* (Sept. 20, 2003).

⁴⁰ See Ku, supra note 1, at 310. See also Fisher, *Problems and Possibilities*, supra note 27 (Professor Fisher contends, "Would people pay? The anarchic culture of the Internet, combined with the anonymity of downloading (the absence of the embarrassment one feels walking by the museum guard without depositing anything in the basket), suggest no. Gratitude toward the musician, respect for the modesty of the fee, and a recognition of the benefits of keeping such a system alive suggest yes").

⁴¹ See Ku supra note 1, at 310.

included in most tips has been low.⁴² If consumers could be convinced to donate, the potential of such a model is substantial: if just one percent of the registered users of Napster (at its peak) had tipped for each download at the same levels as users of Snarfzilla, those tips would have amounted to half a million dollars in revenue per song.⁴³

The online record label and store, Magnatune, also provides a model for this strategy. Admittedly, Magnatune is not a true tip jar, in that it requires mandatory payment of \$5 to \$18 for downloads.⁴⁴ However, Magnatune allows free redistribution of purchased content—allowing the music to end up on P2P networks—and users can listen to every song (without downloading) on the website in full without ever paying. Interestingly, the average donation per album is \$8.93 and the most popular albums receive average donations in excess of \$10.⁴⁵ This past year, the average musician on Magnatune earned \$1500 and the most popular musicians received over \$6000.⁴⁶ Although this income pales in comparison to that of top music stars, this revenue may be quite substantial for the niche artists⁴⁷ that Magnatune targets.

Fan clubs

Content creators may also provide special services to their fans. Online fan clubs allow members to be eligible for special promotions, merchandise and activities, and to gain access to interviews and supplemental content.

Few have implemented this concept as effectively as musician David Bowie. Visitors to David Bowie's website are invited to become "members" of the Bowie "community." In return for signing up, members are provided information about David Bowie, encouraged to participate in chat rooms with other fans and are offered a wide variety of products and services related to Bowie's artistry. For example, DavidBowieStore.com features traditional merchandise such as Bowie-related T-shirts, posters, videos, sheet music, and mouse pads. Bowie also offers less traditional services, including BowieNet, an ISP offering Internet access, unlimited email addresses, and twenty megabytes of personal web space; Bowieart.com, offering Bowie's own paintings, prints, and sculpture; and BowieBanc, a partnership with USABancShares.com, which offers various financial services. Fans' decision to purchase these services from Bowie's site, despite being able to do so more cheaply elsewhere, suggests they derive value from their support for Bowie and their interaction with other fans.⁴⁸

Content creators could offer a variety of services as well. For instance, they could offer fans advance concert or theatrical tickets. The best seats at every show could be reserved for fan club members and seating assignments could be determined by the length of time an individual has been a member of the fan club.⁴⁹ In the same vein, content creators could release copies of recordings or films first to their fans. Although fans would be able to easily acquire the file later anyway, they nevertheless might enjoy the right to be among the first to hear a new recording or see a new film.

⁴² See Ku, *supra* note 1, at 310. See also David Kushner, "The Digital Beat," *Rolling Stone* (March 7, 2001) available at <http://www.rollingstone.com/news/newsarticle.asp?nid=13427> ("David Bowie, Ani DiFranco, and U2 have all cashed checks . . . checks, alas, that are usually less than a hundred bucks a pop.").

⁴³ See Ku, *supra* note 1, at 311.

⁴⁴ See John Buckman, "Magnatune: An Open Music Experiment," *Linux Journal*, (Feb. 2004) available at <http://delivery.acm.org/10.1145/970000/966071/7220.html?key1=966071&key2=3178011011&coll=GUIDE&dl=ACM&CFID=32053759&CFTOKEN=59647211ld>.

⁴⁵ See John Buckman, *Information about Magnatuns*, at <http://magnatune.com/info>.

⁴⁶ See Buckman, "Magnatune: An Open Music Experiment," *supra* note 44.

⁴⁷ Magnatune defines niche music to include: new age, early classical, Indian classical, heavy metal, baroque, and renaissance classical. Buckman, *Information about Magnatune*, *supra* note 45.

⁴⁸ See www.davidbowie.com; Fisher, *Problems and Possibilities*, *supra* note 27.

⁴⁹ In fact, the rock band Pearl Jam already offers this service through its fan club (the "Ten Club.") Fans purchase the tickets for "the best seats in the house" directly from the fan club before they go on sale to the general public. See <http://www.tenclub.net>.

II. IMPLEMENTING THE MODEL AND INDUSTRY STRUCTURE

The industries would not only focus on generating revenue through the above sources and other ancillary products and services, but they would also attempt to derive benefits from allowing free distribution. The objective would be to expose works to the maximum number of consumers in order to drive the other revenue streams. By encouraging their fans and consumers to redistribute content widely, the industries would gain free marketing. Websites, offering downloads for one or many artists, would be only a starting point for initiating distribution to consumers. Consumers might also receive copies attached to emails from friends, through P2P networks, or bundled with other digital or physical products. In all cases, the industries would attempt to use the distribution to point consumers to the alternative revenue streams. For instance, the website for a particular work or content creator would also be used to sell concert tickets and merchandise.

Focusing on these revenue streams would also have important consequences for intermediaries within the industries' structures. Perhaps some content creators who are already more independent from labels or studios due to declining costs would pursue this model alone as well. Of course, going it wholly alone would require significant resources and expertise. For example, The String Cheese Incident employs a full-time tape archivist, a publicity wing, twenty full-time employees, a handful of interns, and hundreds of volunteers to manage its alternative revenue streams.⁵⁰ Many content creators may choose to outsource the coordination of these activities to a third-party service provider. Such service providers could take over for or evolve from labels to some degree. A third party would set up a website with music from numerous artists of similar genres, along with other means to distribute their music. The service provider could organize concert tours, take and fill merchandise orders, and set up a fan club.

Economies of scale would be among the benefits of using such intermediaries. For example, the production of t-shirts could all be outsourced to the same manufacturing company. Thus, the service provider can manage these revenue streams at a lower cost than an independent artist. In exchange, the service provider would keep a portion of the revenue from the alternative sources. Along similar lines, if a service provider represents many artists, the service provider may have the leverage to negotiate contracts that an unproven artist might not otherwise be able to achieve.

The role of current labels and studios as intermediaries is rather uncertain under this model. Along with their already altered roles due to declining costs, these intermediaries would no longer be able to derive any revenue from selling copies. These intermediaries may evolve to fill the content creators' new needs under this model. Studios already directly support the alternative revenues streams' production and promotion while capturing part of the revenue, while labels have just begun to do so.⁵¹ Labels and studios would have to transform themselves to focus further on these functions in order to survive.

III. INDUSTRY VIABILITY

Having considered potential revenue streams for this model and relevant cost savings that the industries can realize, it is worth considering the plausible impact on the quantity and diversity of content produced. While the specific impact is unclear, the model is much more likely to sustain the music industry than the film industry.

Music industry evaluation

The success of this business model rests on numerous contingencies, particularly the potential for offsetting costs. While the model's ability to sustain the quantity of music produced is unclear, it will at the least lead to

⁵⁰ See Jones, *supra* note 13.

⁵¹ For films, see: Vogel, *supra* note 11, at 96; Fisher, *Promises*, at 69-70. For music, Thomas Crompton, "Popstars Learn to Live with Pirates," *International Herald Tribune Online*, (Feb. 21, 2003) at <http://www.iht.com/articles/87521.html>.

a restructuring of the sustainable artists and genres. There might be fewer massively successful artists, but there may also be more room for local, niche, and moderately successful artists to prosper.

Many musicians already rely on the alternative revenue streams, and thus the quantity of music produced by these artists might not change significantly. Concert revenue is a primary source of revenue for many recording artists,⁵² and the vast majority of artists rarely achieve profits from sales of their recordings.⁵³ To the extent this is the case, the new business models do not represent a significant change in how many artists earn a living. In fact, with other reductions in costs and greater focus on the totality of alternative revenue streams, many artists may be in a superior position with this business model. If artists can rely on alternative revenue streams to become independent of the record labels, they may realize greater income. At the very least, the decrease in costs may provide artists with more leverage when negotiating their agreements with intermediaries.

On the other hand, there are many reasons to question whether the alternative streams would provide sufficient economic returns for artists.⁵⁴ While the streams outlined above seem promising, they have not been implemented on a wide enough scale to provide more than a speculative assessment. Many artists and genres may also not be a good fit for many of the revenue streams. Artists whose passion is their art and who have little interest in or aptitude for these other products and services would not be financially viable. Experiencing ambient electronic music live rather than recorded does not offer the same advantage that similarly experiencing a rock concert would. Also, to the extent that advertisers and consumers care more about an artist's image than their music, numerous musicians might not benefit. Finally, established audiences are greatly beneficial, if not in fact necessary, to achieving many revenue streams, especially the ransom model and fan clubs.

Moreover, the revenues from these ancillary products and services might not be sufficient to cover their own costs and those of the creation and distribution of the artistic works. While production and distribution costs have sharply declined, the decline in marketing costs is more uncertain.⁵⁵ Although many albums prove unprofitable to artists and record labels, the revenues their sales generate offset the costs of producing, distributing, and marketing the artist's music. Many artists rely on these record label activities to drive demand for the other streams. If alternative funding or means cannot be found to continue these activities, less music would likely be created and distributed.

Given these challenges and the anecdotal nature of the supporting evidence, it is somewhat unlikely that this model could support the industry at its present size. However, the impact of these changing cost structures is likely to be unevenly distributed. Artists who rely on significant promotional investment to promote their new releases would be the ones most adversely impacted by the new business model. The lessened ability to invest large amounts in marketing may make it more difficult to reach a broad audience, and thus pop superstars may find this environment more difficult. Superstar artists tend to make much more from concert revenue than other artists;⁵⁶ however, part of the reason they do so may be that they have established audiences and ticket sales benefit from album marketing. Using this model, it might be harder to establish such an audience in the first place.

This is not to say that the alternative revenue streams will definitely support non-superstar artists. The quantity of music produced by artists who do not require exorbitant marketing costs could also decrease. However, as a group considered relative to others, artists who have in the past achieved success without significant expenditure on marketing are likely to have an easier time transitioning to the model.

⁵² See Ku, *supra* note 1, at 308-09.

⁵³ See Appendix I.

⁵⁴ Certainly, non-economic incentives also exist for artists. See Nadel, *Questioning*, at 7-8. At the same time, whether these are the foremost reasons for most artists is questionable. Moreover, if such non-economic incentives are present on a large scale, the financial prospects offered by any business model are rather irrelevant.

⁵⁵ See Appendix I; Fisher, *Promises*, at 22-24.

⁵⁶ See Kafka *supra* note 3.

What's more, less marketing for the star artists might present great advantages for less popular artists.⁵⁷ Moshe Adler, an economist at Columbia University, argues that, "Records that are hits around the world inevitably draw listeners' attention from music by local artists that might be equally pleasing . . . the money is made by reducing diversity."⁵⁸ To the extent the industry has focused on promoting massive hits, other artists have been squeezed out.⁵⁹ Ending the disadvantage that large-scale marketing campaigns present to those who cannot afford them could thus increase the diversity of artists obtaining a share of consumer attention and dollars.⁶⁰

Furthermore, the new tools for marketing may produce a more democratized music environment. One industry observer notes,

The industry harvests the aggregate taste of music lovers and sells it back to us as popularity, without offering anyone the chance to be heard without their approval. The industry's judgment, not ours, still determines the entire domain in which any collaborative filtering will subsequently operate. A working "publish, then filter" system that used our collective judgment to sort new music before it gets played on the radio or sold at the record store would be a revolution.⁶¹

Niche artists may be especially likely to develop the type of strongly affiliated fan bases willing to make voluntary contributions, buy merchandise, and join fan clubs, as demonstrated by the success of artists associated with Magnatune. Artists in niche genres are by definition rare, and thus fans may recognize that supporting a given artist may mean the difference between hearing a type of music or not.

Film industry evaluation

Given the much higher starting cost structure of the film industry and less reduction possible from digital technologies, the film industry would not see benefits from this model. Most "blockbuster" films would derive significantly lower revenues while still requiring enormous investment, but some independent and low-budget films might achieve reasonable rates of return. As with the music industry, the revenues currently generated disproportionately by blockbusters might instead flow from a greater array of films. However, even independent and lower budget films will likely suffer from decreased revenues.

Most films do not generate the type of long-term fan base necessary to establish certain revenue streams, like fan clubs. Perhaps such streams might be centered around franchises, actors, directors, screenwriters, or producers instead, but this would be far more complex than for music; a person's importance in making a film and the revenue he actually receives might be completely disproportionate, and such revenue streams would have to be coordinated amongst many disparate parties.

The film industry does have greater opportunities to profit from advertising and merchandising than does the music industry due to the nature of the media. However, although increasing viewership by freeing copying and distribution would increase the value of films as advertising venues, the film industry already derives substantial revenues from this activity as well as from merchandising and more forceful targeting is unlikely to provide a significant boost.

⁵⁷ See Nadel, *Impact of Marketing*, at 797-803.

⁵⁸ See Mann, *supra* note 31.

⁵⁹ See Appendix I; Fisher, *Promises*, at 77-80 (discussing the hits-based nature of the industries); Jon Pareles, "Spit Out by the Star-Making Machinery," *New York Times* (Feb. 3, 2002) ("the costs of marketing new [music] releases to a mass audience have grown prohibitive . . . [and] those costs have long helped limit competition from smaller companies."); David Bauder, "Boom is the sound of pop market exploding," *Vancouver Sun* (June 5, 2000) ("Some executives worry that such explosive [music] successes may be so distorting that the industry loses patience for promoting acts over a long term."); Nadel, *Impact of Marketing*, at 801.

⁶⁰ See Ku, *supra* note 1, at 315.

⁶¹ See Clay Shirky, *The Music Business and the Big Flip*, (Jan. 21, 2003), at http://www.shirky.com/writings/music_flip.html.

IV. SOCIETAL EFFECTS AND POLICY OPTIONS

To the extent this business model cannot sustain the industries' production of content, it is not simply the industries that would suffer. Consumers would also suffer from the lack of enjoyment of the content. While this model could in some ways create a more diverse artistic culture, it might also squeeze out various genres that consumers currently enjoy. Just as the effect on the industries is indeterminate, so too is the effect on society.

In some ways, however, this business model would clearly benefit society. First, consumers would have increased access to digital media. Inasmuch as society values the free flow of information, this would be clearly beneficial. Libraries and museums have long played a role in democratizing access to art. This model would make such access even easier.

Not only would consumers have increased access to digital media, they would enjoy greater flexibility in the use of digital media. Technologies that copy and distribute content would be allowed to exist, for the content industries would no longer treat them as a threat. Because DRM would no longer be necessary, consumers' fair use and first sale rights would also no longer be at risk, as discussed in greater detail in the Digital Media Store section.⁶²

Similarly, these benefits would extend to innovators at large. They would now be able to produce new digital technologies in a safer technological environment. DRM would no longer be used to limit what sorts of technologies can access and manipulate creative works.

Finally, this business model would eliminate the impetus for lawsuits against infringing P2P users. Many question whether the sanction's benefits are worth the cultural downsides of treating 60 million Americans as law-breakers. As people violate the law as part of their daily lives, "respect for law" may decline.⁶³ Singling out a few unlucky infringers for heavy sanction may seem unfair and excessive.⁶⁴ Though the law itself would not change, the lawsuits would end in this business model. In this respect, a business model that coheres better to prevailing social norms may be better for society.

If policymakers felt this model would maximize net social benefits, what might they do to encourage its adoption? Policymakers might encourage the model by removing supports for alternative approaches. That is, the DMCA could be repealed and secondary liability for P2P systems could be eased. In the extreme, policymakers could take a radical step and remove the exclusive rights to copying and distribution. Indeed, if this model were widely successful, such a policy could be quite prudent. Laws like the DMCA's DRM anti-circumvention provisions, discussed more in the Digital Media Store section, could be removed without even arguably endangering the industries. Such legal changes would enhance the societal benefits discussed above. However, given the alternative revenue streams' uncertain ability to support the industries, locking all content creators into this model could have potentially devastating consequences.

CONCLUSION

This model would resolve—or at least avoid—many of the current dilemmas regarding DRM and lawsuits against infringers and technology creators. Though that might seem like a fantasy, this business model is more than mere wishful thinking; the alternative revenue streams have been implemented successfully by many content creators as discussed in Part I. On the other hand, whether the model can provide for broader sustenance is far less predictable.

⁶² See Appendix II.

⁶³ See Lawrence Lessig, *Free Culture*, (Penguin Press: Mar. 25, 2004), 202, available at <http://www.free-culture.cc>; Fisher, *Promises*, at 243.

⁶⁴ See Mark Lemley and R. Anthony Reese, *Stopping Digital Copyright Infringement without Stopping Innovation*, forthcoming publication, available at http://intel.si.umich.edu/tprc/papers/2003/210/Stopping_Copyright_Infringement_Without_Stopping_Innovation.htm (noting this drawback).