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# **Comments on the OECD Working Party on Information Economy Draft Report “Digital Broadband Content: Music”**

submitted by

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January 10, 2005

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## 1 Introduction

- [1] The Berkman Center for Internet & Society at Harvard Law School is grateful for the opportunity to comment on the draft report by the OECD Working Party on the Information Economy, “Digital Broadband Content: Music.” The Berkman Center’s Digital Media Project is an ongoing investigation of the impact of the transition from analog to digital media on citizens and consumers, the media and other industries, and shared culture. It has produced a number of research papers on subjects addressed in this report, notably copyright in the digital era and emerging online and digital business models for the music industry, and we cite them here in the hope that they may be an additional resource for the Working Party.<sup>1</sup>

## 2 Overall Assessment

- [2] The Report takes stock of the digital music sector. The Report first describes the music industry and market and relevant technological developments. Second, it analyzes the transition from offline to online music markets by discussing changes in value chains and business models as well as opportunities and challenges related to these shifts. Third, the Report presents research on file sharing. Against the backdrop of these analyses, it identifies obstacles and discusses current and emerging policy issues.

*Report content, foundation, and positioning*

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<sup>1</sup> For a selection, see Resources I-V. Further information is available via the Berkman Center’s Digital Media Project website at <http://cyber.law.harvard.edu/media>.

- [3] Overall, we conclude that the Report provides a thorough analysis of the digital music sector that is founded on in-depth research and a broad review of publicly available documents, articles, reports, data compilations, etc. The Report uses a representative collection of sources and considers existing analyses of major stakeholders and players in the digital music sector. In areas where specific data—such as information on the split of revenue streams—is not publicly available, the Report carefully uses estimates that are generally congruent with data suggested in other research projects, including reports authored by the Berkman Center’s Digital Media Project. Consequently, the comparison between physical and digital distribution value chains, in essence, comports with findings of other research initiatives.<sup>2</sup>
- [4] The Report is generally balanced in its qualitative description. For example, the Report provides an accurate description of file sharing and P2P technology and a balanced review of opinions of their impact, citing studies that find file sharing causes lower music sales and studies finding the contrary.<sup>3</sup> It points out that both types of studies as well as consumer surveys have been criticized for their methodology, and correctly concludes that effects of file sharing remain uncertain.<sup>4</sup>
- [5] The Report also includes a discussion of current and emerging policy issues. A close review of the relevant sections leads to the conclusion that the Report presents an accurate and balanced view on obstacles and regulatory issues. However, as to the discussion of policy objectives and the assessment of policy options, the draft Report takes a restrictive approach and often limits its analysis to the enumeration of divergent viewpoints.
- [6] Based on this positive assessment of these sections, we do not request changes to the existing text but rather suggest further exploration in three areas. First, emerging business trends and models offer insight into the potential evolution of the online music market that merits greater attention.<sup>5</sup> Second, the comparative legal standing of P2P platforms and the technologies and legality of measures used to render them less efficient are key attributes of the global response to file sharing. Finally, more in-depth evaluation of the costs and benefits of current developments on the marketplace

*Further exploration sought*

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<sup>2</sup> See, e.g., Resource IV.

<sup>3</sup> Report, at 72-75.

<sup>4</sup> Id.

<sup>5</sup> See *infra*, 3.1.

and all participants, as well as of possible regulatory responses, would enrich the discussion of attempts at (re-)balancing the interests of rights holders and users. The comments below set forth some suggestions in this regard.<sup>6</sup>

### 3 Specific Comments

#### 3.1 Business models and value chains

[7] In general, the Report’s assessment thoroughly and accurately describes the online market in its current state. The Report describes the dominant online business models based around central distribution retail websites that offer music streaming and downloading on à la carte and subscription bases. Record labels or rights holders license the music to these sites to sell digitally. By eliminating physical media and transportation these models, among other changes, involve significant alterations in the value chain and the cost structure of the industry. However, this is in some sense a close translation of the traditional model into the online context, and, as the Report indicates, at least at present, the relationship between artists and record labels remains rather stable. Although these models offer digital content and use the Internet for distribution, they do not make use of P2P technology, arguably one of the most important developments in the online environment in the last five years.

*Value chain and cost structure*

[8] The online music market is nascent, but P2P technology has already proven enormously popular with its consumers. Emerging trends suggest that the online market could evolve to be quite different from the offline market and its business model and relationships. To give a clearer sense of ongoing business model experimentation and evolving relationships along the value chain, we suggest a new subsection discussing two trends counter to the status quo. First, business models that leverage P2P technology to distribute and sell through consumer-to-consumer interaction have existed without major label support for some time. Their various permutations and difficulties licensing content from the major record labels merit discussion. Second, some independent artists are already achieving viability from Internet marketing and distribution, a development suggesting that digital technologies

*Emerging trends*

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<sup>6</sup> See *infra*, 3.3.

may enable many artists to pursue a business model in which they are not reliant on record labels to reach consumers and sustainable sales.

[9] The Report does note new industry attempts to harness legal sharing, like Snocap.<sup>7</sup> At the same time, it leaves out services that have existed for several years and enable selling songs through P2P. Unlike the limited sharing in services described in the Report like MusicMatch and Mercora, these services allow full downloads.<sup>8</sup> Weedshare and Altnet have licensed content from numerous independents<sup>9</sup> but have had difficulties licensing from the majors.<sup>10</sup> P2P service Wippit also gained some prominence, but, after obtaining major label licenses, shifted away from a P2P model.<sup>11</sup>

*P2P stores*

[10] The Report should consider how these services involve distinct value chains, possibly producing cost savings and changing industry roles. The three services leverage consumers as distributors of licensed content. In so doing, they can reduce hosting and distribution costs and build on the promotional capacity of sharing. These services vary in the degree to which they allow sharing and provide centralized functions and services.

*Analyzing similarities and differences*

[11] In its original incarnation, Wippit placed consumers in a centralized environment to maintain its own “closed” P2P network in which only licensed content could be shared.<sup>12</sup> Either rights holders or Wippit had to seed

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<sup>7</sup> Report, at 75-76.

<sup>8</sup> In this context, it is also important that the Report clearly categorize Mercora. Rather than negotiating licenses with the record labels, Mercora operates under the digital public performance compulsory license, coordinating a network of P2P non-interactive webcasts.

<sup>9</sup> 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](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](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](http://weedshare.com/web/releases/12-11-03_WEED_RELEASE.html);

<sup>10</sup> Report, at 74. See also Andy Sullivan “Labels blacklist song-swap companies,” Reuters July 15, 2004) available at <http://uk.news.yahoo.com/040715/80/ey4fj.html>; Michael McDonough, “Deal Puts EMI Music's Catalog Online,” Associated Press (Oct. 24, 2003), at <http://www.miami.com/mld/miamiherald/business/7089138.htm> (discussing resistance to Altnet because of close association with Sharman Networks, distributor of the KaZaA software).

<sup>11</sup> Michael Hill, “Small company has big peer-to-peer dreams,” Cnews (Dec. 27, 2004) at <http://cnews.canoe.ca/CNEWS/TechNews/TechInvestor/2004/12/22/793848.html>; 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).

<sup>12</sup> <http://www.wippit.com>.

this content in the network initially. Purchased content could only be shared within the Wippit network.

- [12] In contrast, Weedshare merely provides the DRM and billing capacities to enable consumer-to-consumer distribution ("superdistribution").<sup>13</sup> Weedshare does not provide the sharing environment or host files. Rights holders can use Weedshare to distribute their content through any means, whether in a website<sup>14</sup> or simply by placing files in a P2P shared folder. Likewise, consumers can redistribute licensed content through any distribution mechanism and receive a cut of the revenues from downstream sales. By doing so, Weedshare encourages its users to share and create community-building features.

Similarly, Altnet provides a superdistribution service in which sharers receive prizes for distribution, though files can only be distributed through the FastTrack P2P network (which P2P services KaZaA and Grokster use).<sup>15</sup> Also unlike Weed, Altnet seeds the file sharing networks with the content.

- [13] As stated at various points in the Report, falling distribution, marketing, and production costs may provide benefits for independent artists. The Report correctly points out that significant marketing investments from major labels remain crucial to achieve mass popularity.<sup>16</sup> However, the Internet and digital technologies may decrease costs such that more artists can achieve sustainable returns without mass popularity and outside the traditional industry structure. At the least, Internet distribution has already and may continue to spur exploration of alternative approaches.

*Independent artists*

- [14] Even though initially high expectations of artists selling directly to consumers through websites have not come to fruition thus far,<sup>17</sup> the new online stores already provide important opportunities for independent artists. The inventory limitations of brick-and-mortar stores' restricted access for independent artists, but online sites can cheaply host a practically infinite number of works. The iTunes Music Store and Rhapsody report that almost all of

*New opportunities*

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<sup>13</sup> <http://www.weedshare.com>.

<sup>14</sup> Ozmusicweed, mentioned briefly in the Report at 28, is such a site.

<sup>15</sup> <http://www.altnet.com>.

<sup>16</sup> Report, at 42.

<sup>17</sup> Report, at 52.

their content—even content from independents—has been purchased or streamed at least once.<sup>18</sup>

- [15] More significantly, the changing cost structure can also reshape the artist-label relationship. For instance, Universal has recently launched an online-only label focused on artists with small, established audiences. Artists receive higher royalties than in traditional contracts but must pay for production themselves.<sup>19</sup> The artists of online music label Magnatune are also responsible for production costs but split sales 50-50 with the label and sign non-exclusive distribution agreements. Along with selling songs and merchandise through its website, Magnatune facilitates placing artists in stores like iTunes. The average musician received \$1500 per year and the most popular received \$6000.<sup>20</sup> For the niche artists and genres on which Magnatune focuses, those relatively small sums may still be significant.

*Artist-label relationship*

- [16] Falling costs may change business models in a more fundamental way. The Report discusses how record sales revenues primarily go to record labels and most artists see little direct profit. If the functions provided by record labels can be provided at lower cost by other entities or the artist himself, there will be less need for the record sales that sustained the labels. Instead, artists might rely mainly on ancillary products and services, like tours and merchandise, to cover their own costs and the now-lower costs of music production and distribution and provide profits. Some artists already view people trading their works freely to be vital to driving these revenue streams.<sup>21</sup> Although artists may choose to pursue these alternative revenue streams independently, labels are also recognizing their importance and seeking a role, as exemplified by EMI’s relationship with Robbie Williams.<sup>22</sup>

*Ancillary products and services model*

#### Further Reading

For further discussion of these issues, see the Berkman Center’s “Content and Control: Assessing the Impact of Policy Choices on Potential Online Business Models in the Music and

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<sup>18</sup> 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>.

<sup>19</sup> Jeff Leeds, “Music Industry is Trying out Digital-Only Releases,” New York Times (Nov. 22, 2004) available at <http://www.nytimes.com/2004/11/22/business/media/22music.html?ex=1105160400&en=d53b71a2917105c7&ei=5070>.

<sup>20</sup> See John Buckman, “Magnatune: An Open Music Experiment,” Linux Journal, (Feb. 2004).

<sup>21</sup> See Brian Mansfield, “When Free is Profitable,” USA Today (June 11, 2004) available at [http://www.usatoday.com/tech/webguide/music/2004-05-20-file-sharing-main\\_x.htm](http://www.usatoday.com/tech/webguide/music/2004-05-20-file-sharing-main_x.htm).

<sup>22</sup> Report, at 34.

Film Industries.” Appendix I discusses generally the changing cost structure and value chain, and this is considered in relation to the centralized stores in Appendix II. Appendix III discusses services that sell through P2P, while Appendix V considers business models relying on ancillary products and services.

### 3.2 Actions taken against file sharing

- [17] The Report surveys the actions taken by the music industry against file sharing.<sup>23</sup> In essence, the text focuses on legal actions such as lawsuits, criminal proceedings, etc. In this context, the Report distinguishes among three types of action: lawsuits against P2P platforms such as Napster, Kazaa, Grokster, etc.; suits against Internet Service Providers (ISPs); and legal actions against individual file sharers. In addition, the Report notes educational campaigns aimed at reducing file sharing on P2P networks. *Legal actions and educational campaigns*
- [18] The Report accurately describes important legal developments and adequately summarizes recent case law in the above-mentioned areas. However, we suggest that the Report include analysis of two important issues. First, the Report should give further consideration to the legal basis of the actions taken by rights holders against P2P providers. Second, the Report should not neglect the efficacy and legality of technological countermeasures against file sharing—such as spoofing or interdiction—that have been taken by rights holders and anti-piracy companies. *Emerging issues*
- [19] Decisions in P2P cases may have broader consequences for other technology providers, because P2P is not easily distinguishable from myriad other tools that facilitate transmission of files. Thus, in addition to the existing descriptive information in Annex 2 and 3, we suggest that the Report provide a more detailed discussion about the legal basis of the claims against P2P platforms. It is important to note whether rights holders and courts appeal to P2P-specific or more general liability standards. A comparative legal analysis in particular could shed light on the question of what liability standards are likely to apply to global file sharing platforms and services. *Lawsuits against P2P distributors, liability standards*
- [20] Besides filing legal actions, the music industry seeks to reduce the ease and convenience of acquiring content for free on P2P systems, thus increasing the relative attractiveness of legitimate services. *Techno-defenses*
- [21] Rights holders and anti-piracy companies have started spreading bogus files onto P2P networks to reduce online piracy (“spoofing”). The files appear to *Spoofing*

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<sup>23</sup> Report, at 75 and Annex 3.



be music files, but are in fact defective copies. The industry can also program computers sharing the spoofed files to upload at slow rates, thereby tying up the P2P user's connection.<sup>24</sup> Generally, spoofing has been considered to be a lawful form of technological self-defense. Critics, however, have disputed its efficacy, since several techniques have been developed to weed out the fake files.<sup>25</sup>

[22] Interdiction<sup>26</sup> is another method of techno-defense that aims to inhibit online piracy substantially for at least a limited period of time (e.g. after the release of a new song.) Interdiction targets uploaders of pirated material. By continuously downloading the same shared file from the file sharer's computer, it seeks to absorb a significant percentage of uploader's bandwidth and block access to that file by a potential downloader. While supporters of interdiction praise its efficacy and minimally intrusive characteristics, critics argue that such attacks on alleged infringers may harm innocents and affect other computers that share an Internet connection; others warn of software failures. The legality of interdiction is questionable,<sup>27</sup> too, because the technique could be qualified as a "denial of service attack" as outlawed by the Computer Fraud and Abuse Act and analogous pieces of legislation in other jurisdictions.<sup>28</sup>

*Interdiction*

[23] Still other techno-defenses may be on the way. Companies have allegedly been developing files that would freeze a computer or even delete files, which would be of questionable legality.<sup>29</sup> Recently, spoofed files released by the company Overpeer were found to install ad-ware on the user's PC.<sup>30</sup>

*Trends*

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<sup>24</sup> BayTSP Corporation, "Combating Online Software Piracy in an Era of Peer-to-Peer File-sharing," at <http://www.baytsp.com/downloads/WhitePaperFinal.pdf>.

<sup>25</sup> See, e.g., Johan Pouwelse, "The BitTorrent P2P file-sharing system," *The Register* (December 18, 2003), available at [http://www.theregister.co.uk/2004/12/18/bittorrent\\_measurements\\_analysis/](http://www.theregister.co.uk/2004/12/18/bittorrent_measurements_analysis/).

<sup>26</sup> Note that we use this in a slightly different sense than in the BayTSP report, *id.*

<sup>27</sup> See, e.g., Curtis Karnow, "Launch on Warning," available at [http://islandia.law.yale.edu/isp/digital%20cops/papers/karnow\\_newcops.pdf](http://islandia.law.yale.edu/isp/digital%20cops/papers/karnow_newcops.pdf); Orin S. Kerr, *Cybercrime's Scope: 'Interpreting 'Access' and 'Authorization' in Computer Misuse Statutes*, "excerpt available at [http://cyber.law.harvard.edu/digitalmedia/KERR-78\\_N\\_Y\\_U\\_L\\_Rev\\_1596-edit.htm](http://cyber.law.harvard.edu/digitalmedia/KERR-78_N_Y_U_L_Rev_1596-edit.htm).

<sup>28</sup> In the U.S., a bill was proposed to allow various techniques for stopping piracy ("Peer-to-Peer Piracy Prevention Act", HR 5211.) Although the bill does not specifically endorse any technology, interdiction has been mentioned as one possible technique that will presumably be legal under the bill.

<sup>29</sup> See Andrew Ross Sorkin, "Software Bullet Sought to Kill Musical Piracy," *New York Times* (May 4, 2003).

<sup>30</sup> See Andrew Brandt and Eric Dahl, "Risk Your PC's Health for a Song," *PCWorld* (Dec. 29, 2004) available at <http://www.pcworld.com/news/article/0,aid,119016,00.asp>.

#### Further readings

For an overview of legal actions taken against file sharing platforms and ISPs, see Section 3 of the Gartner|G2 & Berkman Center’s Whitepaper “Copyright and Digital Media in a Post-Napster World” (updated edition 2005), discussing case law and legal developments.

For an overview of the relevant case law in Europe and Asia/Pacific, see Sections 3, 4, and 5 of the Berkman Center’s International Supplement to the Whitepaper.

For further discussion of technological defense measures, see Appendix II, Part III B, of the Berkman Center’s “Content and Control: Assessing the Impact of Policy Choices on Potential Online Business Models in the Music and Film Industries,” which analyzes the means by which technology and the law can be used to reduce copyright infringement.

For a summary, see also the Berkman Center’s overview of the “Digital Media Speedbumps Scenario.”

### 3.3 Policy Issues

[24] The Report identifies obstacles and important policy issues in the realm of online music distribution and considers both market-based solutions as well as government action to support the development of the online music market. It discusses important issues at the intersection of broadband infrastructure, innovation, and technology.<sup>31</sup> The Report further addresses concerns and problems related to access to digital content and explores issues like complex rights negotiations in the multi-jurisdictional online environment. Finally, it outlines some of the key policy questions regarding the protection of Intellectual Property Rights (IPR) and Digital Rights Management (DRM), and takes a descriptive approach to government actions that relate to file sharing.

*Main obstacles and policy issues*

[25] The Report reflects an understanding that the online music policy agenda should not be merely reactive-driven by concerns about how phenomena like file sharing or loss of revenues in CD sales may disrupt traditional business models and industry relationships. However, three policy areas critical to a balanced assessment of social costs and benefits of online alternatives merit greater discussion in the Report. First, new technologies and business models increasingly seek to limit traditional users’ rights. Second, normative evaluation is an important dimension to any analysis of both self-help measures and governmental actions against P2P platforms and services. Third, a

*Areas of concern*

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<sup>31</sup> Report, at 77-80.

well-balanced online music policy offers significant promise to enrich cultural diversity and semiotic democracy.

[26] The need for regulatory frameworks that balance the interests of rights holders and users in areas such as IP protection and DRM—based on the OECD Council Recommendations on Broadband Development—is noted at various points in the Report. However, the Report provides only a reticent analysis<sup>32</sup> of current business practices that limit traditional users’ rights such as fair use and first sale and lacks a thorough discussion<sup>33</sup> of their consequences for users and society at large.

*Users’ rights*

[27] At the analytical level, we suggest that the Report further analyze how traditional users’ rights are restricted or eliminated through key business models that are discussed in the Report. Our in-depth analysis of Apple’s iTunes Music Store, for instance, reveals how the interplay between restrictive contractual provisions (Terms of Service) and DRM systems in tandem with supporting laws can significantly limit users’ access to and use of digital content.<sup>34</sup> Beyond supporting anti-competitive practices as discussed in the Report, DRM systems such as Apple’s FairPlay and DMCA-like laws limit in numerous ways what would in many jurisdictions be potential fair uses, including making copies on additional computers and extracting clips for transformative uses. Moreover, the DRM schemes of online music stores typically limit users’ ability to space-shift and format-shift music for players of their choosing. Similarly, online stores eliminate first sale rights—if applicable to the online environment at all—by contractual or technological means.

*Digital media stores, fair use, and first sale*

[28] Against this backdrop, the Report should discuss the benefits of traditional doctrines such as fair use and first sale from a normative perspective. For instance, fair use sometimes allows transformative uses in which a second author appropriates a work in some way to give it additional value or meaning. Such transformative uses not only benefit users but also the public as a whole by fostering the creation of new works, ultimately, copyright's core objective. As a consequence, what are the ramifications—including social costs—if DRM systems of online music stores limit such uses by preventing

*Assessing users’ rights developments*

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<sup>32</sup> See, e.g., Report at 47 (paragraph 183), 84 (paragraph 352), and 85 (paragraph 354). See also paragraph 309.

<sup>33</sup> Especially if compared to the discussion of the importance of strong IP protection and enforcement, see, e.g., Report at 81-83.

<sup>34</sup> See Berkman Center’s case study “iTunes: How Copyright, Contract, and Technology Shape the Business of Digital Media,” June 2004, Resource III.

users from extracting and redistributing copied sound clips? Similarly, the lack of a digital first sale doctrine or the exclusion of its applicability by contractual or technological means, to take a second example, decreases the overall availability of copyrighted works and is likely to constrain retail price competition at the expense of individual consumers and the public as a whole.

[29] The Report correctly describes online music piracy in general and illegal file sharing on P2P networks in particular as important policy issues. However, the policy issues arising from P2P and file sharing ought not end with a discussion of how to suppress illegal activity most effectively. Given the strong interrelations between broadband policy and file sharing, an evaluation of alternative policy approaches to file sharing through P2P networks and other distribution technologies seems particularly important.

*Approaches to P2P file sharing*

[30] In this context, the Report should analyze the costs and benefits associated with technological approaches for illegal file sharing via P2P. It should provide an evaluation of technological self-help actions against P2P networks such as “spoofing” and “interdiction,” including their impact on legal uses and users. Critics of interdiction, for instance, warn of a potential “technical arms race” between the different interest groups as users’ and P2P services implement defenses against these attacks.<sup>35</sup> Similarly, spill-over effects and potential damages to the network infrastructure should be taken into consideration.

*Costs of techno-defenses*

[31] The Report should outline the key policy considerations likely to motivate governmental actions relating to file sharing in general and P2P in particular. We have elsewhere argued that policymakers’ options related to P2P must be assessed on a number of analytically distinct dimensions. As outlined in the Report and noted above, P2P technology is likely to play an important role in the emergence of alternative online business models. Further, P2P is a neutral technology in the sense that it is a tool for searching and transmitting digital files that is indifferent to whether it is used for licit or illicit purpose.<sup>36</sup> Attaching liability to manufacture and distribute this particular technology will therefore not only threaten the legitimate uses of P2P, but ultimately constrain innovation and resultant technologies and potentially limit

*P2P policy*

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<sup>35</sup> James S. Humphrey, “Recent Development: Debating the Proposed Peer-to-Peer Piracy Prevention Act: Should Copyright Owners be Permitted to Disrupt Illegal File Trading Over Peer-to-Peer Networks?,” *N.C.J.L. & Tech.*, Vol. 4/2 (Spring 2003), 376, available at <http://www.jolt.unc.edu/Vol4I2/PDF/V4I2-Humphrey.pdf>.

<sup>36</sup> See also Report, at 68.

novel legitimate uses and tools.<sup>37</sup> Against the backdrop of these normative dimensions, the Report should outline the possible impacts of divergent liability standards that apply to file sharing platforms and services across the globe and consider the interplay between law, technology, and the information environment.

[32] Finally, the Report touches on how new music distribution technologies as well as structural changes in the digital value chain might promote the diversity of music genres and services.<sup>38</sup> We suggest that the Report engage in a broader discussion of cultural diversity and interactivity as a possible policy objective in OECD countries. In this light, the Report should also include an assessment of the identified policy developments, such as actions against file sharing platforms with regard to their effects on cultural diversity and semiotic democracy, including users' autonomy. Similar considerations should apply to the evaluation of emerging business models mentioned in the relevant section of the Report and discussed above.

*Diversity, semiotic democracy*

#### Further Readings

For an analysis of the impact of Online Music Stores on user rights, see the Berkman Center's case study, "iTunes: How Copyright, Contract, and Technology Shape the Business of Digital Media," discussing and evaluating interactions among copyright law, contract law, and DRM, with Part II.C.2. on Reverse Engineering and Interoperability, Part III on the Digital First Sale Doctrine, Part IV on Fair Use, and general assessment of the findings in Part V.

For a stocktaking of the evolving regulatory environment aimed at protecting technological measures such as DRM, see the Gartner|G2 & Berkman Center's Whitepaper, "Copyright and Digital Media in a Post-Napster World" (updated edition 2005) (U.S.); the Berkman Center's International Supplement to the Whitepaper, Sections 2, 3, and 5 (EU and Asia/Pacific); and the Berkman Center's report "Transposing the Copyright Directive: Legal Protection of Technological Measures in EU-Member States."

For an overview of developments regarding P2P liability in the U.S., see Sections 3 and 6 of the Gartner|G2 & Berkman Center's Whitepaper, "Copyright and Digital Media in a Post-Napster World" (updated edition 2005). For Europe and Asia/Pacific, see Sections 3, 4, and 5 of the Berkman Center's International Supplement to the Whitepaper.

For a comprehensive analysis of online business models from a policy perspective, see Berkman Center's "Content and Control: Assessing the Impact of Policy Choices on Potential Online Business Models in the Music and Film Industries," which includes—*inter alia*—a dis-

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<sup>37</sup> See, e.g., Mark Lemley and R. Anthony Reese, "Stopping Digital Copyright Infringement Without Stopping Innovation," available at [http://intel.si.umich.edu/tprc/papers/2003/210/Stopping\\_Copyright\\_Infringement\\_Without\\_Stopping\\_Innovation.htm](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>; Briefs for Defendants in appeal to *MGM v. Grokster*, available at [http://www.eff.org/IP/P2P/MGM\\_v\\_Grokster](http://www.eff.org/IP/P2P/MGM_v_Grokster).

<sup>38</sup> See, e.g., Report, at 23 (paragraph 72) and 52 (paragraph 202).

cussion of P2P policy choices, and an evaluation of the social costs and benefits of technological defense measures in Appendix II, Part III.B.

#### **4 Resources**

Note: The following five resources are available for download at <http://cyber.law.harvard.edu/media/oecd>.

- Resource I: Gartner|G2 & Berkman Center, “Copyright and Digital Media in a Post-Napster World,” updated edition, January 2005.
- Resource II: Berkman Center & Gartner|G2, “International Supplement to the Whitepaper,” January 2005.
- Resource III: Berkman Center, “iTunes: How Copyright, Contract, and Technology Shape the Business of Digital Media,” June 2004.
- Resource IV: Berkman Center, “Content and Control: Assessing the Impact of Policy Choices on Potential Online Business Models in the Music and Film Industries,” January 2005.
- Resource V: Berkman Center, “Transposing the Copyright Directive: Legal Protection of Technological Measures in EU-Member States,” November 2004.