

3-1-2003

# Debating over the Proposed Peer-to-Peer Piracy Prevention Act: Should Copyright Owners Be Permitted to Disrupt Illegal File Trading over Peer-to-Peer Networks

James S. Humphrey

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## Recommended Citation

James S. Humphrey, *Debating over the Proposed Peer-to-Peer Piracy Prevention Act: Should Copyright Owners Be Permitted to Disrupt Illegal File Trading over Peer-to-Peer Networks*, 4 N.C. J.L. & TECH. 375 (2003).

Available at: <http://scholarship.law.unc.edu/ncjolt/vol4/iss2/5>

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**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?**

*James S. Humphrey*<sup>1</sup>

On July 25, 2002, Representative Howard Berman (D-Calif.) introduced a bill that would protect copyright owners from legal action stemming from “blocking, diverting or otherwise impairing the unauthorized distribution, display, performance, or reproduction of his or her copyrighted work on a publicly accessible peer-to-peer (“P2P”) file trading network.”<sup>2</sup> The bill, known as H.R. 5211, has been greeted by a swirl of controversy in the Internet community.<sup>3</sup> This article explores the potential pitfalls of enacting H.R. 5211, and discusses possible alternatives to the bill.

Part I of this article examines the technology of P2P networks and the copyright infringement problems they present for copyright owners. Part II is a thorough explanation of H.R. 5211, with a focus on the heart of the bill—the safe harbor provision and its exceptions. Part III examines the many ambiguities and possible difficulties presented by H.R. 5211, and argues that its enforcement may go beyond the scope that Representative Berman intended. Part IV provides three feasible alternatives to H.R. 5211 for copyright owners that could be combined to protect their works. Finally, Part V concludes that although Representative Berman’s motivations in proposing the bill may have been sound, it is necessary to explore these alternatives before considering enacting H.R. 5211.

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<sup>1</sup> J.D. Candidate, University of North Carolina School of Law, 2004.

<sup>2</sup> H.R. 5211, 107th Cong. §1 (2002).

<sup>3</sup> See Christopher Fazekas, *Vigilantes v. Pirates: The Rumble Over Peer-to-Peer Technology Hits the House Floor*, 2002 DUKE L. & TECH. REV. 20, \*1 (2002).

## I. Introduction

To fully understand H.R. 5211, it is first necessary to understand the technology it addresses. P2P networks allow computer users running the same networking program to connect with each other and directly access files from each other's hard drives.<sup>4</sup> Kazaa and Gnutella are current examples of this kind of networking program. Prior to Kazaa and Gnutella, the widely publicized Napster program was the most popular of these file-sharing applications. Napster allowed computer users connected to its network to download copyrighted songs from each other in an MP3 file format.<sup>5</sup> Napster's technology required that a computer user seeking a specific file first request that file from a centralized control server before they could locate it on another user's computer.<sup>6</sup> Record companies have efficiently used lawsuits to stop centralized file-swapping services like Napster from infringing upon copyrights.<sup>7</sup> Today's P2P networks, however, are another matter—there is no centralized server<sup>8</sup> and, therefore, no one to sue.

In contrast to Napster, P2P networks like Kazaa and Gnutella are not strictly MP3 file sharing applications—they allow file traders to trade *any* file that is stored on their computer. P2P networks thus affect owners of all kinds of copyrighted materials—copyrighted songs, movies, books, and pictures are all available with the click of a mouse. This versatility also means

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<sup>4</sup> *Definition of P2P networks on searchNetworking.com* (Aug. 12, 2001), at [http://searchnetworking.techtarget.com/sDefinition/0,,sid7\\_gci212769,00.html](http://searchnetworking.techtarget.com/sDefinition/0,,sid7_gci212769,00.html) (on file with the North Carolina Journal of Law & Technology).

<sup>5</sup> David Barkai, *An Introduction to Peer-to-Peer Computing*, Intel Developer Update Magazine (Oct. 2000), available at <http://cnscenter.future.co.kr/resource/hot-topic/p2p/it02012.pdf> (on file with the North Carolina Journal of Law & Technology).

<sup>6</sup> *Id.*

<sup>7</sup> *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1014 (9th Cir. 2001).

<sup>8</sup> Barkai, *supra* note 5, at \*4. In a P2P network, each file trader's computer functions as its own server with the help of a middleware application. Barkai distinguishes these "pure" P2P networks from Napster, which is considered a "hybrid" P2P network.

P2P networks have a tremendous upside, and need to be protected.<sup>9</sup> P2P networks empower each user to maintain autonomy and control over their own computers, which act as individual file servers.<sup>10</sup> This unique feature of P2P networks can be utilized for the good of society. In a workplace environment, for example, a P2P office network could greatly simplify new developments and ongoing change.<sup>11</sup> Individual employees could have control over how, when, and what files were shared, without worrying about affecting other employees. Moreover, because there is no centralized server with P2P networks, there would not be a loss of mass networking capabilities due to server failure. Preserving and implementing P2P networks could result in timesavings and lower implementation and maintenance costs.<sup>12</sup>

In *A & M Records, Inc. v. Napster, Inc.*, the Ninth Circuit held that posting and downloading unauthorized songs infringes upon two exclusive rights of a copyright owner: the right of distribution and the right of reproduction.<sup>13</sup> Thus, there is no doubt that copyright owners need legal protections to combat online piracy.<sup>14</sup> Some of the methods for stopping illegal online file trading, however, may be illegal under current anti-hacking laws.<sup>15</sup> For instance, allowing a copyright owner to employ “technological

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<sup>9</sup> Representative Berman acknowledged this when he introduced the bill. See 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman introducing the bill to the House).

<sup>10</sup> Steve Stephansen, *The Benefits of a Peer-to-Peer Architecture*, ebiz (Sept. 10, 2001), at [http://e-serv.ebizq.net/p2p/stephansen\\_1.html](http://e-serv.ebizq.net/p2p/stephansen_1.html) (on file with the North Carolina Journal of Law & Technology).

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1014 (9th Cir. 2001).

<sup>14</sup> Although it is clear that the rights of copyright owners are being violated, the actual economic impact of the violations is in dispute. See, e.g., Stan Liebowitz, *Policing Pirates in the Networked Age*, 438 Pol’y Analysis 1, 1 (2002), available at <http://www.cato.org/pubs/pas/pa-438es.html> (on file with the North Carolina Journal of Law & Technology) (asserting that there is no evidence “that Napster had a negative impact on the compact disk industry . . .”). This article assumes that protection of intellectual property is warranted on legal and moral grounds, not just economic grounds.

<sup>15</sup> 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman).

self-help”<sup>16</sup> including “[i]nterdiction, decoy, redirection, file-blocking, and spoofing”<sup>17</sup> is Representative Berman’s solution to this problem. This solution, however, has sparked intense debate and may create several problems of its own.

## II. H.R. 5211

Representative Berman’s proposed bill would create a new Section 514 in Title 17 of the United States Code entitled “Remedies for Infringement: Use of Technologies to Prevent Infringement of Copyrighted Works on Peer to Peer Computer Networks.”<sup>18</sup> H.R. 5211 would make available a “safe harbor” to copyright owners, shielding them from liability under state or federal law for actions designed to prevent the unauthorized distribution of their works over public P2P file trading networks.<sup>19</sup> The safe harbor provision provided by H.R. 5211 would not allow the alteration or deletion of files or data from a P2P user’s computer,<sup>20</sup> but H.R. 5211 does not specify the particular technologies that a copyright owner may use pursuant to the safe harbor.<sup>21</sup> Rather, it would allow the use of any technology that stops the illegal file trading subject to certain exceptions.

The first major exception to this safe harbor is contained in the safe harbor itself: the actions of the copyright owner must not “without authorization, alter, delete, or otherwise impair the integrity of any computer file or data residing on the computer of a

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<sup>16</sup> Representative Howard Berman, Address to the Computer and Communications Industry Association Regarding Solutions to Peer to Peer Piracy (June 25, 2002), *available at* <http://www.house.gov/berman/p2p062502.html> (on file with the North Carolina Journal of Law & Technology).

<sup>17</sup> *Id.*

<sup>18</sup> H.R. 5211, 107th Cong. (2002).

<sup>19</sup> *Id.* § 514(a).

<sup>20</sup> *Id.*

<sup>21</sup> Representative Howard Berman, *Peer-to-Peer Prevention Act Section-by-Section Analysis* (July 25, 2002) *at* <http://www.house.gov/berman/p2psection.html> (on file with the North Carolina Journal of Law & Technology).

file trader.”<sup>22</sup> The other exceptions are outlined by § 514(b), which lists specific circumstances in which a copyright owner cannot rely on the safe harbor provision of H.R. 5211. According to § 514(b), the safe harbor is unavailable if:

- (1) The copyright owner impairs the trading of files that do not contain any portion of her copyrighted work, unless such impairment is “reasonably necessary” to impair the trading of her copyrighted work;<sup>23</sup>
- (2) The actions of the copyright owner cause economic loss to anyone other than the file trader;<sup>24</sup>
- (3) The actions undertaken by the copyright owner cause more than fifty dollars of economic loss to the file trader, other than loss involving the copyrighted works;<sup>25</sup> or
- (4) The copyright owner does not provide the notification required by § 514(c).<sup>26</sup>

The notification requirement of § 514(c) requires that the copyright owner notify the Attorney General of whatever method she intends to use to stop infringement of her copyright.<sup>27</sup> This provision is aimed, Berman says, at enabling the Department of Justice to be a “watchdog” over the technology used by copyright owners.<sup>28</sup> Section 514(c) also provides that upon request of the file trader or the file trader’s Internet Service Provider (“ISP”),<sup>29</sup> a copyright owner must provide 1) the reason for the impairment of a file, 2) the name and address of the copyright owner, and 3) the

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<sup>22</sup> H.R. 5211 § 514(a).

<sup>23</sup> *Id.* § 514(b)(1)(A).

<sup>24</sup> *Id.* § 514(b)(1)(B).

<sup>25</sup> *Id.* § 514(b)(1)(C).

<sup>26</sup> *Id.* § 514(b)(2).

<sup>27</sup> *Id.* § 514(c).

<sup>28</sup> Representative Howard Berman, *Peer-to-Peer Prevention Act Section-by-Section Analysis* (July 25, 2002) at

<http://www.house.gov/berman/p2psection.html> (on file with the North Carolina Journal of Law & Technology).

<sup>29</sup> An ISP is a company (like America Online) that provides computer users with Internet access through the company’s servers.

right of the file trader to bring the cause of action created for them by § 514(d).<sup>30</sup>

H.R. 5211 would enforce these exceptions to the safe harbor provision against copyright owners by creating two new causes of action. The first new cause of action allows a file trader to sue a copyright owner that falls out of the safe harbor provision for “economic loss in excess of \$250 as a result of the act by the copyright owner.”<sup>31</sup> This cause of action does not preclude any remedies for the file trader available under current law.<sup>32</sup> The second new cause of action would allow the United States the power to seek an injunction to prevent a copyright owner who falls out of the safe harbor provision from availing herself of the provision at a later date.<sup>33</sup> Representative Berman asserts that the protection these two new causes of action would give to file traders provides copyright owners “with strong incentives to operate within the strict limits of the safe harbor.”<sup>34</sup>

### III. Potential Problems

Many of the potential problems with H.R. 5211 fall within these limits of the safe harbor clause and the provisions designed to enforce them. In addition, under this proposed law, the definitions of “copyright owner”<sup>35</sup> and “peer-to-peer file trading network”<sup>36</sup> have the potential to make H.R. 5211 much more expansive than Representative Berman intended.

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<sup>30</sup> H.R. 5211 § 514(c)(2).

<sup>31</sup> *Id.* § 514(d)(1).

<sup>32</sup> *Piracy of Intellectual Property on Peer-to-Peer Networks: Hearings Before the Subcomm. on Courts, the Internet, and Intellectual Property of the House Comm. on the Judiciary*, 107<sup>th</sup> Cong. (Sept. 26, 2002) [hereinafter *Hearings*] 2002 WL 31151471, \*5 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>33</sup> H.R. 5211 § 514(e).

<sup>34</sup> *Hearings*, *supra* note 32, 2002 WL 31151471, \*5 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>35</sup> H.R. 5211 § 514(h)(2).

<sup>36</sup> *Id.* § 514(h)(6).

## A. The Safe Harbor and Safe Harbor Exceptions

The safe harbor provision is the heart of H.R. 5211, and this provision and its named exceptions have several pitfalls that may have sweeping consequences in the bill's implementation.

### 1. Breadth of the Safe Harbor Provision

The proposed bill takes an interesting approach towards the methods employed by copyright owners to stop the illegal trading of their copyrighted files. Instead of specifying technologies and approaches that will be made legal, H.R. 5211 presumptively makes all methods legal as long as they are used for "disabling, interfering with, blocking, diverting, or otherwise impairing the unauthorized distribution, display, performance, or reproduction of his or her copyrighted work on a publicly accessible peer-to-peer file trading network," and the "impairment does not, without authorization, alter, delete, or otherwise impair the integrity of any computer file or data residing on the computer of a file trader."<sup>37</sup> Representative Berman considers this provision the "most important limitation in the bill" since a copyright owner would be liable for any action that has a different result than those specified.<sup>38</sup>

Although this is one way to interpret the wording of the safe harbor provision, it is not the only way. Opponents of H.R. 5211 have read the safe harbor provision as allowing a copyright owner to claim immunity for any action that has the *effect* of stopping the illegal trading of the copyrighted works.<sup>39</sup> Although some of the possibilities created by reading the provision this way seem outlandish,<sup>40</sup> it is possible that without further clarification,

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<sup>37</sup> *Id.* § 514(a).

<sup>38</sup> *Hearings, supra* note 32, 2002 WL 31151471, \*4 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>39</sup> *See, e.g., Hearings, supra* note 32, 2002 WL 100237623, \*11 (statement of Gigi B. Sohn, President Public Knowledge) ("[S]ubsection (a)-conceivably would not prevent a copyright owner from cutting a user's DSL line or even his phone line, or knocking his satellite dish off his roof.").

<sup>40</sup> *See id.*; *see also Hearings, supra* note 32, 2002 WL 31151471, \*4 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary)



the safe harbor may leave the door open to less absurd possibilities. An example would be an action resulting in “denial-of-service,”<sup>41</sup> where the file trader would be prevented from accessing the Internet for any purpose.<sup>42</sup> Representative Berman created a “Frequently Asked Questions” (“FAQ”) web page that affirmatively denies that such an attack would be legal under H.R. 5211 “even though such disruptions were the unintended consequence of stopping infringements,”<sup>43</sup> and has stated further that “no judge or disinterested party could read” the bill otherwise.<sup>44</sup> There is room enough in the safe harbor provision to debate the validity of that statement, although it is likely that many damaging anti-piracy methodologies would fall under one of the safe harbor exceptions, e.g. if the actions undertaken by the copyright owner caused more than fifty dollars of economic loss to the file trader.<sup>45</sup>

## 2. What is “Reasonably Necessary”?

The first safe harbor exception in § 514(b) holds the copyright owner liable if she impairs the trading of files that do not contain any portion of her copyrighted work, unless that impairment is “reasonably necessary.”<sup>46</sup> This term, not defined elsewhere in the statute, is a focal point for many of H.R. 5211’s opponents<sup>47</sup> and a potential loophole in the safe harbor protections given to file traders.

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(“By [this] logic, the bill allows a copyright owner to burn down a P2P pirate’s house if the arson stops the pirate’s illegal file trading.”).

<sup>41</sup> See discussion of interdiction *infra* Part III.D.

<sup>42</sup> See, e.g., *Hearings, supra* note 32, 2002 WL 100237623, \*7 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>43</sup> Representative Howard Berman, *Frequently Asked Questions about the P2P Piracy Prevention Act* (July 25, 2002), at [http://www.house.gov/berman/p2p\\_faq.html](http://www.house.gov/berman/p2p_faq.html) (on file with the North Carolina Journal of Law & Technology).

<sup>44</sup> *Hearings, supra* note 32, 2002 WL 31151471, \*4 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>45</sup> H.R. 5211 § 514(b)(1)(C).

<sup>46</sup> *Id.* § 514(b)(1)(A).

<sup>47</sup> See, e.g., Electronic Frontier Foundation, *Copyright Holders Want to Hack Your PC!*, (Mar. 3, 2003), at

One of Representative Berman's stated goals in introducing H.R. 5211 is to reduce the costs of litigation over copyright infringements, which in the case of P2P networks would be "staggering for all parties" in "an already overcrowded federal court system."<sup>48</sup> However, the ambiguity of the words "reasonably necessary" paves the road to future litigation over the issue, bringing it in direct conflict with that goal. Representative Berman has acknowledged that there have been "concerns" raised over this provision, and that he is considering "alternative language that could resolve" those concerns.<sup>49</sup> Although he has referred to the "reasonably necessary" exception as "certain necessary circumstances,"<sup>50</sup> Representative Berman has yet to reveal what those circumstances are or what alternative language he is considering. Considering that H.R. 5211 explicitly allows copyright owners to navigate around existing state and federal law,<sup>51</sup> Representative Berman's desire to create legislation that is "narrowly crafted, with strict bounds on acceptable behavior by the copyright owner"<sup>52</sup> will not be achieved until this provision is made more clear and the ability of file traders to trade legally is adequately preserved.

### 3. Notification

Possibly the most noticeably deficient portion of Representative Berman's bill is the notification requirement.<sup>53</sup> Copyright owners need only to notify the Department of Justice as to "the specific technologies" they intend to use to stop the trading of their works.<sup>54</sup> This notification must be done one week in

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<http://action.eff.org/action/index.asp?step=2&item=1776> (petitioning against the bill) (on file with the North Carolina Journal of Law & Technology).

<sup>48</sup> 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman).

<sup>49</sup> *Hearings, supra* note 32, 2002 WL 31151471, \*4 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>50</sup> *Id.*

<sup>51</sup> H.R. 5211 § 514(a).

<sup>52</sup> 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman).

<sup>53</sup> H.R. 5211 § 514(c).

<sup>54</sup> *Id.* § 514(c)(1)(A).

advance of the employment of the technology.<sup>55</sup> The purpose of the notification is not to gain approval of the technology from the Department of Justice, but rather to keep it both “aware of all impairing technologies that copyright owners intend to deploy” and “abreast of the latest developments in interdiction technologies.”<sup>56</sup>

There is apparently no approval necessary before a copyright owner uses the technology, and, therefore, no technology will be unauthorized, at least initially. Only after the fact will the technology be qualified as permissible or impermissible based on the damage it has caused, as long as that damage is over \$250 or there is another cause of action under existing law.<sup>57</sup> This outcome-determinative test transforms guidelines into justifications and shifts the burden of deciding what is legal and illegal from the legislator to the consumer.<sup>58</sup> More specifically, the legality of interdiction technologies will depend on the willingness of damaged file traders to bring a lawsuit against copyright owners, with the possibility that file traders may decide that it is not worthwhile to sue.<sup>59</sup>

Even if the file trader elects to bring suit, the notification requirement does not make it evident how that process should proceed. A copyright owner does not need to tell the Department of Justice when they plan to employ their technology, how long they plan to use it, or even the file trader the technology will target.<sup>60</sup> The file traders themselves are also not notified.<sup>61</sup> Most

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<sup>55</sup> *Id.* § 514(c)(1)(B).

<sup>56</sup> Representative Howard Berman, *Peer-to-Peer Prevention Act Section-by-Section Analysis* (July 25, 2002) at <http://www.house.gov/berman/p2psection.html> (on file with the North Carolina Journal of Law & Technology).

<sup>57</sup> H.R. 5211 § 514(d)(1).

<sup>58</sup> *Hearings*, *supra* note 32, 2002 WL 100237623, \*11 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>59</sup> *Id.*

<sup>60</sup> Heather Green, *Hollywood Vigilantes vs. Copyright Pirates*, BusinessWeek Online, July 31, 2002, at [http://www.businessweek.com/technology/content/jul2002/tc20020731\\_4889.htm](http://www.businessweek.com/technology/content/jul2002/tc20020731_4889.htm) (on file with the North Carolina Journal of Law & Technology).

<sup>61</sup> *Hearings*, *supra* note 32, 2002 WL 100237623, \*11 (statement of Gigi B. Sohn, President Public Knowledge).

casual P2P users will not be aware of what is happening if they are targeted, and will not know how to respond.<sup>62</sup> Even an affected file trader who *does* figure out that she is being targeted must request information from the copyright owner before she can figure out exactly who is targeting her and why<sup>63</sup>—all such information is necessary to bring a lawsuit.

Under the proposed notification requirement, neither the file trader nor the Department of Justice will have knowledge of which copyright owner was targeting the file trader, so fulfilling file traders' requests would be an exhausting effort, if possible at all.<sup>64</sup> In the meantime, innocent consumers who use the same network the file trader is using could end up having their service halted or significantly slowed down.<sup>65</sup> Moreover, innocent file traders and P2P services alike would be subject to attack by copyright owners without first being able to rebut a claim of copyright infringement.<sup>66</sup> Although Representative Berman is probably correct that the "predominant use" of P2P networks is the "theft of copyrighted works,"<sup>67</sup> this shoot-first-and-ask-questions-later technique has the potential to curb not only the illegal use of P2P networks but also the legal use.<sup>68</sup> The notification requirement in H.R. 5211 needs to be altered to prevent these potential abuses and safeguard the legal uses of P2P networks.

## B. Potential Problems in the New Cause of Action

Procedural and definitional problems in the new cause of action created for damaged file traders reveals the unusual nature of H.R. 5211. H.R. 5211 removes legal barriers to remedy aggrieved copyright owners and places them in front of aggrieved

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<sup>62</sup> *Id.*

<sup>63</sup> H.R. 5211 § 514(c)(2)(A).

<sup>64</sup> *Hearings, supra* note 32, 2002 WL 100237623, \*11 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>65</sup> Green, *supra* note 60.

<sup>66</sup> *Id.*

<sup>67</sup> *Hearings, supra* note 32, 2002 WL 31151471, \*2 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>68</sup> *Hearings, supra* note 32, 2002 WL 100237623, \*5 (statement of Gigi B. Sohn, President Public Knowledge).

file traders.<sup>69</sup> The barriers are so severe that they render the new cause of action toothless.

### 1. Procedural Issues

Although the \$250 threshold created in the new cause of action<sup>70</sup> for an affected file trader is relatively low,<sup>71</sup> H.R. 5211 “erects procedural hurdles” that make it difficult for the wronged party to obtain damages in excess of that amount.<sup>72</sup> In addition to the problem presented by the faulty notification requirement of identifying the copyright owner to be sued, a claim under the new cause of action must be submitted to the Attorney General within one year after the date of the incident.<sup>73</sup> The Attorney General has four months to approve or deny the claim,<sup>74</sup> and the affected file trader may only be able to recover under the cause of action after the Attorney General approves the claim or the four months have expired without a decision.<sup>75</sup> Once in court, the file trader can recover for both losses and attorney’s fees, but the losses are limited to economic losses.<sup>76</sup> This does not cover any possible non-economic loss to a file trader, although the value of the files and data at risk would likely be difficult to quantify.<sup>77</sup> Taken together these requirements force a damaged party to work much harder for a remedy under this cause of action than under those already in existence.<sup>78</sup> Although other remedies under existing law

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<sup>69</sup> See *Hearings*, *supra* note 32, 2002 WL 100237623, \*12 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>70</sup> H.R. 5211 § 514(d)(1).

<sup>71</sup> See *Hearings*, *supra* note 32, 2002 WL 100237623, \*11 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>72</sup> *Id.* at \*12.

<sup>73</sup> H.R. 5211 § 514(d)(1)(A)–(C).

<sup>74</sup> *Id.* § 514(d)(1)(D).

<sup>75</sup> *Id.* § 514(d)(1)(E).

<sup>76</sup> *Id.* § 514(h)(1). Economic loss is defined as “monetary costs only.”

<sup>77</sup> See *Hearings*, *supra* note 32, 2002 WL 100237623, \*11 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>78</sup> See *id.*

are not precluded,<sup>79</sup> this new cause of action is apparently the only remedy for harmful actions directly supported by H.R. 5211.<sup>80</sup>

## 2. A “Reasonable Basis”

Opponents of H.R. 5211 have circulated rumors that the safe harbor provision allows copyright owners to attack file traders with only a “reasonable basis” belief that the file trader is engaging in copyright infringement.<sup>81</sup> Representative Berman’s FAQ website makes it clear that this is not the case, stating that there is “no ‘reasonable basis’ language in the safe harbor created by H.R. 5211.”<sup>82</sup> While this is true, the “reasonable basis” language did find its way into the new cause of action.<sup>83</sup> A damaged file trader can prevail only if they can show that the copyright owner acted without “reasonable basis” for believing the file trader was infringing his copyrights.<sup>84</sup> Because there is no clarification for what a reasonable basis might be, this language leads to the same ambiguity issues created by the “reasonably necessary” language used in the safe harbor exceptions. The result of the ambiguity this time, however, would be that the burden would shift to the wronged file trader to prove that the copyright owner acted improperly. The file trader would then be held to a standard so nebulous that it could inspire carelessness in the self-help techniques used by copyright owners.<sup>85</sup>

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<sup>79</sup> *Hearings, supra* note 32, 2002 WL 31151471, \* 5 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>80</sup> See H.R. 5211 § 514(d)(2).

<sup>81</sup> See, e.g., Declan McCullagh, *Hollywood Hacking Bill Hits House*, (July 25, 2002), at <http://news.com.com/2100-1023-946316.html> (on file with the North Carolina Journal of Law & Technology).

<sup>82</sup> Representative Howard Berman, *Frequently Asked Questions about the P2P Piracy Prevention Act* (July 25, 2002), at [http://www.house.gov/berman/p2p\\_faq.html](http://www.house.gov/berman/p2p_faq.html) (on file with the North Carolina Journal of Law & Technology).

<sup>83</sup> See H.R. 5211 § 514(d)(1).

<sup>84</sup> *Id.*

<sup>85</sup> See *Hearings, supra* note 32, 2002 WL 100237623, \*11–12 (statement of Gigi B. Sohn, President Public Knowledge).

### C. Definitional Issues

As stated earlier, some of the potential pitfalls of H.R. 5211 also lie in its “definitions” section.<sup>86</sup> Problems in this section may have a profound impact on the effect of H.R. 5211, regardless of the drafter’s intent.

#### 1. How Does H.R. 5211 Define Who is a “Copyright Owner?”

Under United States law, a copyright automatically extends to the creator of “original works” in “any tangible medium of expression.”<sup>87</sup> The scope of a copyright extends to such commonly used mediums as e-mail and photography, two forms of expression exchanged in abundance over the Internet.<sup>88</sup> Because the definition of “copyright owner” in H.R. 5211 is extended to all copyright owners,<sup>89</sup> theoretically even the author of an e-mail would have the right to stop the trading of that e-mail over a P2P network. Although H.R. 5211 is directed primarily at stopping the illegal trading of pirated songs, by not limiting the scope of the term “copyright owner” the bill empowers anyone who has ever created anything. A bill with such expansive scope has the potential to go beyond what is necessary to stop illegal file trading by granting copyright owners too much power. Other avenues should thus be explored before adopting such drastic measures as those contained in H.R. 5211.<sup>90</sup>

#### 2. What is a “Peer-to-Peer Network?”

One misconception of H.R. 5211 among Internet circles is that it would allow copyright owners to “hack” into a file trader’s

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<sup>86</sup> H.R. 5211 § 514(h).

<sup>87</sup> Copyright Act of 1976, 17 U.S.C. § 102(a) (2002).

<sup>88</sup> See F. Gregory Lastowka, *Free Access and the Future of Copyright*, 27 RUTGERS COMPUTER & TECH. L.J. 293, 318 (2001).

<sup>89</sup> H.R. 5211 § 514(h)(6).

<sup>90</sup> See *Hearings*, *supra* note 32, 2002 WL 100237623, \*12 (statement of Gigi B. Sohn, President Public Knowledge).

computer, infiltrating personal file systems to seek out pirated works.<sup>91</sup> H.R. 5211 is very clear on this point: the pirated work must be distributed, displayed, performed, or reproduced “on a publicly accessible peer-to-peer file trading network.”<sup>92</sup> In other words, H.R. 5211 adequately limits the targets of copyright owners to works that have already been opened up to the world. A copyright owner would only be allowed to explore a file trader’s computer to the same extent as anyone else on the P2P network where the illegal file was being traded.<sup>93</sup> Any potential claims to privacy would be undercut by the fact that the file trader had already “advertised” their piracy to the public at large.<sup>94</sup>

However, there may be a problem in H.R. 5211’s definition of where this advertisement takes place. According to the bill, the network on which the pirated work is being traded must be “substantially open to the public,”<sup>95</sup> and it must “enable the transmission of computer files or data.”<sup>96</sup> Centralized file servers like Napster are not included in the scope of H.R. 5211.<sup>97</sup> The Internet itself, however, functions identically to a standard P2P network, making it possible that, as written, H.R. 5211 “authorizes ‘self help’ attacks on the World Wide Web.”<sup>98</sup> This result makes H.R. 5211 enormous in scope, beyond even what Representative

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<sup>91</sup> See, e.g., McCullagh, *supra* note 81.

<sup>92</sup> H.R. 5211 § 514(a).

<sup>93</sup> Representative Howard Berman, *Frequently Asked Questions about the P2P Piracy Prevention Act* (July 25, 2002), at [http://www.house.gov/berman/p2p\\_faq.html](http://www.house.gov/berman/p2p_faq.html) (on file with the North Carolina Journal of Law & Technology).

<sup>94</sup> See *id.*

<sup>95</sup> H.R. 5211 § 514(h)(3)(A).

<sup>96</sup> *Id.* at § 514(h)(3)(B).

<sup>97</sup> *Id.* at § 514(h)(2)(B).

<sup>98</sup> *Hearings, supra* note 32 (statement of Edward W. Felten, Associate Professor of Computer Science at Princeton University), available at [http://freedom-to-tinker.com/Felten\\_testimony\\_092602.pdf](http://freedom-to-tinker.com/Felten_testimony_092602.pdf) (on file with the North Carolina Journal of Law & Technology). Mr. Felten states that “there is very little difference at a technical level between the Web and peer-to-peer systems like Kazaa and Gnutella” because “[t]he World Wide Web itself is a peer-to-peer file sharing system.” *Id.*



Berman intended.<sup>99</sup> Because the only functional difference between the dozen or so P2P networks that are intended targets of H.R. 5211<sup>100</sup> and the World Wide Web is in how they are used, it seems as though rewording the bill to carve out the Internet as a target for copyright owners would be difficult without also carving out a loophole for the P2P networks.<sup>101</sup>

#### D. Interdiction

Although H.R. 5211 does not specifically endorse any technology, Representative Berman has mentioned several techniques for stopping piracy that will presumably be legal under the bill—“[i]nterdiction, decoy, redirection, file-blocking, and spoofing.”<sup>102</sup> Most of these technologies are perfectly legal without the enactment of H.R. 5211 and are already starting to be widely used, in one form or another, by copyright owners.<sup>103</sup> Interdiction is one such technology used by both copyright owners and anti-piracy companies hired by copyright owners. Unlike the rest of the technologies, however, interdiction falls within “the grey area of the law,”<sup>104</sup> and with good reason.

Interdiction is the only advocated technology that is used proactively by the copyright owner, instead of in response to an actual illegal transaction between file traders.<sup>105</sup> Interdiction works by continuously downloading the same file from a particular

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<sup>99</sup> See generally 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman introducing the bill to the House).

<sup>100</sup> *Id.*

<sup>101</sup> *Hearings, supra* note 32 (statement of Edward W. Felten, Associate Professor of Computer Science at Princeton University).

<sup>102</sup> Representative Howard Berman, *Address to the Computer and Communications Industry Association Regarding Solutions to Peer to Peer Piracy* (June 25, 2002), at <http://www.house.gov/berman/p2p062502.html> (on file with the North Carolina Journal of Law & Technology).

<sup>103</sup> See *Hearings, supra* note 32, 2002 WL 31151473, \*4 (statement of Randy Saaf, President of MediaDefender, Inc.).

<sup>104</sup> *Id.*

<sup>105</sup> See *Hearings, supra* note 32, 2002 WL 100237623, \*7 (statement of Gigi B. Sohn, President Public Knowledge).

file trader, thus blocking anyone else's access to that file.<sup>106</sup> Although at present an interdiction only disables the sharing of files on an interdicted network,<sup>107</sup> there is potential for the escalation of interdiction under H.R. 5211. An "arms race" could ensue that would require copyright owners to conduct broader interdiction attacks to overcome the software revisions of P2P designers.<sup>108</sup> P2P designers, in turn, would revise their software<sup>109</sup> to compensate for the new attacks. Such an arms race would force copyright owners to either abandon interdiction or intensify the severity of interdiction attacks.<sup>110</sup> The second option may lead copyright owners to completely jam the file trader's Internet connection with an overload of interdiction attacks, resulting in "denial of service."<sup>111</sup> Although Representative Berman claims that these attacks would not be legal under H.R. 5211,<sup>112</sup> the authorization of the initial attacks could trigger the arms race, legal or not. As already noted, such a denial of service attack would be difficult for a file trader to identify and remedy.<sup>113</sup>

Another potential problem with interdiction is the fact that it is conducted by software, so once it is set in place, it carries out its function without supervision. This requires that the software be

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<sup>106</sup> See *Hearings*, *supra* note 32, 2002 WL 31151473, \*5 (statement of Randy Saaf, President of MediaDefender, Inc).

<sup>107</sup> An interdicted network is a network on which interdiction is being used. Interdiction programs or "bots" patrol these networks, looking for specific pirated files to download. See *generally Hearings*, *supra* note 32, 2002 WL 31151473 (statement of Randy Saaf, President of MediaDefender, Inc).

<sup>108</sup> *Hearings*, *supra* note 32 (statement of Edward W. Felten, Associate Professor of Computer Science at Princeton University).

<sup>109</sup> See *id.* For example, P2P designers would revise their software by expanding the number of connections that can be made to a particular file. Such a revision would force interdiction bots to download many more files in order to prevent the pirating of that file.

<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

<sup>112</sup> Representative Howard Berman, *Frequently Asked Questions about the P2P Piracy Prevention Act* (July 25, 2002), available at [http://www.house.gov/berman/p2p\\_faq.html](http://www.house.gov/berman/p2p_faq.html) (on file with the North Carolina Journal of Law & Technology) ("A copyright owner would remain fully liable for any action that knocks a P2P user offline . . .").

<sup>113</sup> See discussion of notification *infra* Part III.A.3.

“turned on” to the specific files it should download.<sup>114</sup> In addition, there have been problems with software falsely identifying files as pirated works, opening the door to the possibility that the legal trading of some files may be impeded.<sup>115</sup> Ironically, this result would harm the copyright owner of that particular legally traded file by preventing the legal dispersion of their works.<sup>116</sup>

### E. The Fair Use Doctrine

Owning a copyrighted work does not bar the reproduction of that work under all circumstances. Legislation and case history have created exceptions to the exclusive rights of copyright owners, including the defense of “fair use.”<sup>117</sup> Some Internet critics of H.R. 5211 claim that the bill will end or significantly cut back the fair use doctrine, and they use these claims to attack the bill.<sup>118</sup> This article will discuss the four fair use factors to determine whether H.R. 5211 restricts fair use by drawing an analogy to the *Napster* case, which implicated similar technology.

The four factors courts use to determine whether the use of a copyrighted work is “fair” are:

- (1) The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) The nature of the copyrighted work;

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<sup>114</sup> See *Hearings*, *supra* note 32, 2002 WL 31151473, \*5 (statement of Randy Saaf, President of MediaDefender, Inc).

<sup>115</sup> See, e.g., Associated Press, *Music Industry Sues for Names of Copyright Violators* (Oct. 3, 2002), at <http://www.foxnews.com/story/0,2933,64771,00.html> (on file with the North Carolina Journal of Law & Technology) (“In one case, Warner Bros. demanded a particular subscriber be disconnected for illegally sharing the movie ‘Harry Potter and the Sorcerer’s Stone.’ But the computer file identified by Warner Bros. in its letter indicated that it wasn’t the ‘Harry Potter’ movie but a child’s written book report.”).

<sup>116</sup> See *Hearings*, *supra* note 32, 2002 WL 100237623, \*7 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>117</sup> See 17 U.S.C. § 107 (2000).

<sup>118</sup> See, e.g., The Digital Speech Project, *Bedtime for Fair Use: The proposed Coble-Berman Bill*, at <http://www.digitalspeech.org/coble.shtml> (last visited Mar. 29, 2003) (on file with the North Carolina Journal of Law & Technology).

- (3) The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) The effect of the use upon the potential market for or value of the copyrighted work.<sup>119</sup>

### 1. The Purpose and Character of the Use

Fair use rulings have generally favored nonprofit endeavors, with the intent of permitting certain duplications of copyrighted works that will facilitate scholarship, research, and teaching. In the *Napster* case, it was determined that Napster users engaged in commercial use of the copyrighted works largely because "a host user sending a file cannot be said to engage in a personal use when distributing that file to an anonymous requester" and "Napster users get for free something they would ordinarily have to buy."<sup>120</sup> Because users of P2P networks are replicating the acts of Napster users through a decentralized network, the same rationale can be applied to users of a P2P network that are illegally trading copyrighted works as was applied to Napster users.

### 2. The Nature of the Copyrighted Work

The fair use doctrine has historically been more protective of creative works than of factual works, because creative works are "closer to the core of intended copyright protection."<sup>121</sup> The *Napster* court found that the songs being traded over Napster were creative in nature.<sup>122</sup> Certainly the same would hold true for the material traded over P2P networks, which is primarily the same pirated MP3 songs that were traded over Napster.

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<sup>119</sup> 17 U.S.C. § 107.

<sup>120</sup> *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1015 (9th Cir. 2001).

<sup>121</sup> *Campbell v. Acuff-Rose Music*, 510 U.S. 569, 586 (1994).

<sup>122</sup> *Napster*, 239 F.3d at 1015.

### 3. The Amount and Substantiality of the Portion Used

There is no strict rule that determines how much of a copyrighted work may be reproduced under the fair use doctrine. In certain narrow exceptions, a court will conclude that a use of a copyrighted work is fair even when the entire work is duplicated.<sup>123</sup> In *Napster*, however, the court found that the transfer of entire songs over Napster did not fit into one of these narrow exceptions.<sup>124</sup> P2P piracy also involves the transfer of songs and movies in their entirety, so this factor weighs against P2P networks as well.

### 4. The Effect of the Use Upon the Potential Market

The *Napster* court concluded that Napster harms the market in two ways: "it reduces audio CD sales among college students, and it raises barriers to plaintiffs' entry into the market for the digital downloading of music."<sup>125</sup> As discussed later in this article, the digital downloading market will be central to combating piracy over P2P networks.<sup>126</sup> The finding that P2P networks create a barrier to entry in the digital downloading market is an important finding that is applicable to the illegal file trading concerns addressed by H.R. 5211. This finding is especially relevant now that high-speed Internet access in the home has expanded illegal file trading over P2P networks well beyond colleges and universities.

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<sup>123</sup> See, e.g., *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 449–50 (1984) (stating that copying and privately viewing an entire television program that a viewer has been "invited to witness in its entirety free of charge" is protected reproduction within the fair use doctrine).

<sup>124</sup> See *Napster*, 239 F.3d at 1015–16.

<sup>125</sup> *Id.* at 1016.

<sup>126</sup> See *infra*, Part IV.B.

## 5. H.R. 5211 Does Not Restrict Fair Use

“Criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research” are cited as examples of activities that can be considered as fair use, and if fair use is found after weighing the four factors, the use “is not an infringement of copyright.”<sup>127</sup> The decision in the *Napster* case makes it clear that reproducing and distributing entire songs over a network does not fall under the fair use exception, no matter the reason for possessing the song in the first place.<sup>128</sup> H.R. 5211 should not implicate fair use concerns that were not already laid to rest in *Napster*.<sup>129</sup>

## IV. The Alternatives to H.R. 5211

Large-scale illegal copying of copyrighted works has always been the single greatest threat to copyright owners.<sup>130</sup> P2P networks have made large-scale copying cheaper and easier than it ever was in the past, and the ubiquitous use of the Internet makes illegal copies available to a much larger audience.<sup>131</sup> When taken together, however, the problems discussed above seem to warrant the exhaustion of other means of protecting copyrights before enacting H.R. 5211. Many of these alternative solutions are still in their infancy, as are P2P networks. Considering P2P networks

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<sup>127</sup> 17 U.S.C. § 107.

<sup>128</sup> See *Napster*, 239 F.3d at 1017–19.

<sup>129</sup> Additional fair use concerns could arise, however, if H.R. 5211 allowed copyright owners to harm files on the copyright trader’s computer. There is concern about this, as discussed *infra* Part III.A.2. The reason this may implicate fair use is that the original file trader may possess the work legally for fair use purposes. It is the *distribution* of that file that is not protected by fair use. See *id.* at 1019. Many file traders assume that the “space-shifting” of songs (primarily accomplished by “ripping” a song on a CD owned by the file trader to an MP3 file) is an example of protected fair use, but it is not, at least not yet. See, e.g., *Religious Tech. Ctr. v. Lerma*, 24 Media L. Rep. 2473 (E. D. Va. Oct. 4, 1996) (indicating that the copying of copyrighted documents belonging to the Church of Scientology to a computer may not be fair use of the documents, even if they were legally obtained).

<sup>130</sup> See Liebowitz, *supra* note 14, at 2.

<sup>131</sup> *Id.* at 6–8.

were non-existent “a few years ago,”<sup>132</sup> countermeasures to illegal file trading over P2P networks under current law will need time to develop before conclusions can be drawn as to their effectiveness.

Viable alternatives to H.R. 5211 must successfully combat every stage of the illegal file trading process to be effective. The illegal trading of pirated works over a P2P network involves three steps. It is easy to think of these steps as levels of a pyramid. At the bottom of the pyramid is the vast number of illegal downloads of the copyrighted works. Pirated works must be downloaded to be enjoyed. The middle level of the pyramid is the middleware utilized to make these downloads available—the P2P networks themselves. P2P networks have to be in place to provide a medium for all of the illegal downloads. Even if illegal downloading were significantly slowed, P2P networks would still be the medium of choice for fans of copyrighted works unless a business model superior to P2P networks could be established. At the top of the pyramid is the unauthorized reproduction of the work. A copyrighted work must be illegally reproduced to be available on a P2P network. A complete solution to the problem should combat the technology used on all three of these levels.<sup>133</sup>

As previously noted, most of the technology advocated by Representative Berman in introducing H.R. 5211 is legal under existing law.<sup>134</sup> Some of these technologies have proven to be effective, and are becoming more effective all the time. The following alternatives to H.R. 5211 address each level of the piracy pyramid, and copyright owners will have to deploy a combination of all the alternatives before achieving a complete solution to the P2P problem.

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<sup>132</sup> 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman).

<sup>133</sup> See *id.* (introducing the bill to the House). Representative Berman acknowledges this “holistic approach” to combating piracy protection and admits there is no “silver bullet” that will fix the problem for copyright owners.

*Id.*

<sup>134</sup> *Infra* Part III.D.

## A. Combating Illegal Downloads

### 1. Non-Invasive Self-Help: Spoofing and Redirection

“Spoofing” or “decoying” involves making files that look like they contain movies or songs but in fact contain something else or a corrupt version of the movie or song.<sup>135</sup> The real file still exists on the P2P network, but it becomes harder to find.<sup>136</sup> The use of spoofing has exploded in the past year, and it is now estimated that up to one-third of the music on P2P networks are spoofs.<sup>137</sup> Copyright owners are hiring outside companies to create the spoofs with increasing frequency, the implication being that the technique is working without inflicting “anything close to a negative impact on a user's PC.”<sup>138</sup>

Redirection is similarly benign to a file trader's property and is also legal under existing law. Redirection simply redirects file traders to files that do not contain the content they are seeking by introducing an incorrectly named file onto the P2P network.<sup>139</sup> Both redirection and spoofing are triggered by “an individual's affirmative effort to obtain an unlicensed copy of the file”<sup>140</sup> and, therefore, assure that only guilty individuals will be affected by the technology. Of course, spoofing and redirection only help copyright owners to the extent that their works have already been made available on a P2P network. Until technology like Digital

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<sup>135</sup> See *Hearings, supra* note 32, 2002 WL 31151473, at \*5 (statement of Randy Saaf, President of MediaDefender, Inc).

<sup>136</sup> *Id.*

<sup>137</sup> See, e.g., Reuters, *Robbie Williams CD hits Net, But Is It a Plant?* (Nov. 15, 2002), at <http://www.siliconvalley.com/mld/siliconvalley/business/companies/4529298.htm> (on file with the North Carolina Journal of Law & Technology).

<sup>138</sup> *Id.* (quoting Marc Rosenberg, CEO of Overpeer).

<sup>139</sup> See *Hearings, supra* note 32 (opening statement of Rep. Rick Boucher), available at <http://www.techlawjournal.com/cong107/copyright/berman/20020926boucher.asp>.

<sup>140</sup> See *Hearings, supra* note 32, 2002 WL 100237623, at \*7 (statement of Gigi B. Sohn, President Public Knowledge).



Rights Management<sup>141</sup> is widely used to stop the reproduction of copyrighted works or P2P networks are no longer popular, new illegal copies of songs and movies will continue to be available for file traders. Copyright owners must constantly introduce spoofed and redirected files to the P2P networks until illegal reproduction stops<sup>142</sup> or P2P networks are no longer commercially viable. Until that time, spoofing and redirection could prove very effective for the large existing pool of illegally reproduced copyrighted works, providing some immediate relief for copyright owners.

## 2. Copyright Infringement Litigation

The two major pieces of relevant legislation already in place—the Copyright Act<sup>143</sup> and the Digital Millennium Copyright Act<sup>144</sup>—both provide copyright owners with remedies for the illegal use of copyrighted material.<sup>145</sup> Representative Berman and the content industries<sup>146</sup> both have claimed that the use of litigation under these acts would be ineffective against P2P network piracy, because the costs of litigating against millions of individual P2P users would be too great.<sup>147</sup> To date, however, there is no case in which a copyright owner has taken any legal action against an individual P2P user.<sup>148</sup> Although it is undoubtedly true that a lawsuit against an individual file trader “will almost never result in a recovery of sufficient damages to compensate for the damage

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<sup>141</sup> See *infra* Part IV.C.

<sup>142</sup> But see Reuters, *supra* note 137, where a record company reportedly introduced a spoofed copy of an album to P2P networks *before* any illegal copies were available. This preemptive technique is apparently effective enough to justify large spending by the content industry. See *id.*

<sup>143</sup> 17 U.S.C. §§ 101–118 (2000).

<sup>144</sup> 17 U.S.C. § 1201–1204 (2000).

<sup>145</sup> See *Hearings, supra* note 32, 2002 WL 100237623, at \*5 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>146</sup> “Content industry” is an umbrella term for organizations that make copyrighted works available to the public. These organizations include record companies, book publishers, and movie studios.

<sup>147</sup> 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman).

<sup>148</sup> See *Hearings, supra* note 32, 2002 WL 100237623, at \*5 (statement of Gigi B. Sohn, President Public Knowledge).

caused,”<sup>149</sup> it could certainly displace some of the more egregious offenders on the P2P networks. Despite claims to the contrary, the recording industry has the means to conduct such a campaign against several large-scale illegal file traders,<sup>150</sup> and it could be accomplished without enacting any new law. Given the success the recording industry has already had in the court system,<sup>151</sup> it does not seem that new legislation would be necessary to enforce established copyright law.

Even if this kind of litigation did not recover revenue for the copyright owners, it would likely have deterrent and educational effects that may subdue illegal trading over P2P networks in the future.<sup>152</sup> Once people accurately learn what is illegal<sup>153</sup> and have reason to fear prosecution for their own actions, the rate of illegal file trading likely will slow. If action is not taken on behalf of the copyright owners, however, Representative Berman’s complaint that copyright owners have a “right without a remedy”<sup>154</sup> will continue to remain an unproven claim. Copyright owners still have legal avenues to investigate before they can justify saying that *all* their remedies in the court system have been exhausted.

### i. Current Litigation

An exploration of one of those legal avenues is already underway. On July 24, 2002, the Recording Industry Association

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<sup>149</sup> 148 Cong. Rec. E1395 (daily ed. July 25, 2002) (statement of Rep. Berman).

<sup>150</sup> See *Hearings, supra* note 32, 2002 WL 100237623, at \*5 (statement of Gigi B. Sohn, President Public Knowledge). See also *infra* Part IV.A.3 (discussing new technology that can identify illegal file traders).

<sup>151</sup> See, e.g., *A & M Records, Inc. v. Napster, Inc.*, 239 F.3d 1004, 1014 (9th Cir. 2001).

<sup>152</sup> *Hearings, supra* note 32, 2002 WL 100237623, at \*6 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>153</sup> One of Rep. Berman’s “frequently asked questions” is “Is P2P file-sharing illegal?”. Representative Howard Berman, *Frequently Asked Questions about the P2P Piracy Prevention Act* (July 25, 2002), available at [http://www.house.gov/berman/p2p\\_faq.html](http://www.house.gov/berman/p2p_faq.html) (on file with the North Carolina Journal of Law & Technology).

<sup>154</sup> *Hearings, supra* note 32, 2002 WL 100237623, at \*6 (statement of Gigi B. Sohn, President Public Knowledge).

of America ("RIAA") issued a subpoena to Verizon Communications ("Verizon"), an ISP.<sup>155</sup> The subpoena asked Verizon to identify a specific computer user that the RIAA suspected of illegally trading files over a P2P network.<sup>156</sup> According to the RIAA, the user had accessed the P2P network through Verizon's Internet services.<sup>157</sup> Citing the Digital Millennium Copyright Act ("DMCA"), the RIAA asked a federal judge to order Verizon to comply with the subpoena.<sup>158</sup> Verizon had refused to comply with the subpoena because this was the first time that any copyright owner had used the DMCA to get individual P2P users' names from an ISP, and Verizon wanted to avoid liability to the user.<sup>159</sup> Verizon, in turn, suggested an alternative route of litigation, where copyright owners would sue an anonymous "John Doe," and if found guilty of charges, the ISP would then disclose the user's identity.<sup>160</sup>

On January 21, 2003, Judge John Bates, United States District Judge for the District of Columbia, held that according to the DMCA, Verizon must comply with the subpoena and disclose the identity of the suspected illegal file trader.<sup>161</sup> Judge Bates held that the DMCA explicitly allowed a copyright owner "to obtain and serve a subpoena on a service provider seeking the identity of a customer alleged to be infringing the owner's copyright" and that following Verizon's "John Doe" suggestion would place a "considerable" burden on copyright owners in terms of effort and expense.<sup>162</sup>

Verizon is expected to appeal the decision,<sup>163</sup> and as of February 3, 2003, litigation in the case was still ongoing. If the decision stands, it seems likely that the RIAA will prosecute the

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<sup>155</sup> *In re Verizon Internet Serv., Inc.*, 240 F. Supp. 2d 24, 28 (D.D.C. 2003).

<sup>156</sup> *Id.*

<sup>157</sup> *Id.*

<sup>158</sup> *Id.* at 4.

<sup>159</sup> *See id.* at 3.

<sup>160</sup> *See id.* at 13.

<sup>161</sup> *Id.* at 17.

<sup>162</sup> *Id.* at 13.

<sup>163</sup> dRD, *Judge: Verizon has to tell the P2P user's name to RIAA*, cd-rw.org (January 21, 2002), at <http://www.cd-rw.org/news/archive/3726.cfm> (on file with the North Carolina Journal of Law & Technology).

file trader whose name is disclosed. If this prosecution results in a conviction, the deterrent and educational effects on other users described earlier in this article<sup>164</sup> may stem the tide of illegal trading over P2P networks.

### 3. Watermarking

A great example of anti-piracy technology that has been developed extensively within the past year is watermarking, which allows a copyright owner to scan P2P networks for unauthorized copies of their works.<sup>165</sup> Watermarking technology works by creating a digital “fingerprint” of the work sought by using characteristics unique to that work.<sup>166</sup> The copyright owner can then identify all computers on a P2P network that possess and trade the work as an illegal file and track the file as it spreads from computer to computer.<sup>167</sup> The system can scan five to ten million files per day for matching fingerprints, and it can automatically e-mail infringement notices to file traders and their Internet Service Providers.<sup>168</sup> Under the Digital Millennium Copyright Act, an ISP that is given such a notice must act “expeditiously to remove, or disable access to, the material” or face financial liability for the acts of the illegal file trader.<sup>169</sup>

Watermarking does not depend on any information within the file itself, only on the characteristics of the individual work behind the file—so no matter how recently (or how long ago) the file was created, it would still be found by the system.<sup>170</sup> Using watermarking and the Digital Millennium Copyright Act in tandem has the potential to significantly limit illegal file trading in the future, and, thus, watermarking technology has quickly become “indispensable.”<sup>171</sup> With technology like watermarking still in its

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<sup>164</sup> *Infra* Part IV.A.2.

<sup>165</sup> Wade Roush, *Digital Pirates Beware*, M.I.T. TECH REV., June, 2002, at 24 (on file with the North Carolina Journal of Law & Technology).

<sup>166</sup> For example, the amplitude and frequency of song. *Id.*

<sup>167</sup> *Id.*

<sup>168</sup> *Id.*

<sup>169</sup> 17 U.S.C. § 512(c)(1)(A)(iii) (2000).

<sup>170</sup> See Roush, *supra* note 165.

<sup>171</sup> *Id.*

infancy, the chances of legally limiting illegal file trading over P2P networks in the future seem to be growing greater by the minute.

**B. Competing with P2P Functionality: New Business Models for Online Distribution (or “Getting with the Program”)**

Once P2P trading is limited, however, the content industries will still have to respond to its inherent mandate from consumers: “give us the music we want when we want it, or we will find it somewhere else.” A recent report by Screen Digest, a leading news and market research journal of international media business, drew several conclusions about the future of the music industry:

- (1) Music will be consumed anytime and anywhere.
- (2) There will never be absolute protection against piracy.
- (3) Online distribution will prove to be the dominant way of delivering music.
- (4) Major record companies need to adopt new business models if they want to be the ones to deliver the music.<sup>172</sup>

In other words, the same technologies that P2P users have illegally, but enthusiastically, embraced can also drive a legitimate market for copyright owners . . . if they choose to take advantage of that market. It is clear that digitally downloading music is very popular among Internet users, and it seems very likely that this popularity is here to stay. The content industry needs to develop a new business model to utilize this popularity to combat P2P piracy now<sup>173</sup> and to preserve a valuable source of revenue in the future.

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<sup>172</sup> Jurgen Preiser & Armin Vogel, *The Music Industry in the 21st Century: Facing the Digital Challenge*, Screen Digest (June 2002), available at [http://premium.screendigest.com/content/music\\_21st\\_2002\\_06\\_2.shtml/view](http://premium.screendigest.com/content/music_21st_2002_06_2.shtml/view) (on file with the North Carolina Journal of Law & Technology).

<sup>173</sup> Until it becomes more difficult to illegally reproduce copyrighted songs (through the use of Digital Rights Management, discussed *infra* Part IV.C), new business models will probably never completely replace illegal trading of those songs over a P2P network. What new business models can do, however, is attempt to provide consumers with something “better than free” by providing a

To be successful, a new business model will have to offer a wide choice of content to consumers, make it easier for consumers to find and subscribe to content, and make sure the consumer perceives the value in the content that is delivered.<sup>174</sup>

## 1. Online Subscription Services

The obvious way for record companies to embrace the powerful distribution mechanism of the Internet, remain profitable, and supply consumers with what they implicitly demanded by the widespread use of P2P networks, is to create a fee-based online subscription service.<sup>175</sup> Such services have already been created and continue to be improved upon, but there is still much work left to be done.

### i. Where Online Subscription Services Are Now

Several online subscription service business models are now in place, each of which offers pricing plans that range from five to twenty-five dollars per month.<sup>176</sup> These plans generally allow a customer to download or stream a specific number of songs each month.<sup>177</sup> Most of the downloaded songs can only be played on the PC from which they are downloaded, although, for a higher price, a subscriber can transfer a limited number of songs to

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means for legally downloading music of high quality, unfettered by spoofed or corrupt files. See *Hearings, supra* note 32, 2002 WL 100237623, \*7 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>174</sup> Alex Albin, *Neither the Medium or the Message, It's the Business Model that Counts*, Stanford Lawyer (Summer 2001), available at [http://lawschool.stanford.edu/alumni/lawyer/60/napster\\_alben.shtml](http://lawschool.stanford.edu/alumni/lawyer/60/napster_alben.shtml) (on file with the North Carolina Journal of Law & Technology).

<sup>175</sup> See *Hearings, supra* note 32, 2002 WL 100237623, \*8–10 (statement of Gigi B. Sohn, President Public Knowledge).

<sup>176</sup> John Morris & Josh Taylor, *How to Make Online Music Much, Much Better*, ZDNet Hits & Hype (July 9, 2002), at <http://www.zdnet.com/products/stories/reviews/0,4161,2873578,00.html> (on file with the North Carolina Journal of Law & Technology).

<sup>177</sup> *Id.*

a portable device or CD.<sup>178</sup> PressPlay, an online subscription service, uses pricing plans that allow a maximum of ten “portable downloads” per month.<sup>179</sup> Pressplay’s plans are typical of these business models, although none of the services are exactly the same.<sup>180</sup> All of the online subscription services do have one thing in common, however—they are in the “start-up phase” and have very few songs available for users, notwithstanding heavy advertising to the contrary.<sup>181</sup> There are other limits on portability, as well—although Pressplay gives users ten portable downloads per month for eighteen dollars, not all tracks can be copied onto a CD and a music fan cannot include more than two tracks from a single artist on any CD.<sup>182</sup>

Subscription services that try to overcome these problems have problems of their own. The online service eMusic,<sup>183</sup> for example, allows its subscribers an unlimited number of downloads that can be kept forever and transferred to CDs. However, none of the five major record companies have signed on with the service, so only less popular independent music can be downloaded.<sup>184</sup> Similarly, BurnItFirst<sup>185</sup> allows comparable portability, but only music from EMI’s Christian Music Group is available for download.<sup>186</sup> In sum, none of the current business models are offering enough content, none are easy to subscribe to, and consumers do not perceive the value in the content that is being delivered. Current business models are simply not viable alternatives to the illegal, but free, P2P networks.

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<sup>178</sup> *Id.*

<sup>179</sup> <http://www.pressplay.com/theservice.html> (last visited March 27, 2003) (on file with the North Carolina Journal of Law & Technology).

<sup>180</sup> See Morris, *supra* note 176.

<sup>181</sup> *Id.*

<sup>182</sup> *Id.*

<sup>183</sup> <http://www.emusic.com/pitch.html> (last visited April 8, 2003) (on file with the North Carolina Journal of Law & Technology).

<sup>184</sup> Morris, *supra* note 176.

<sup>185</sup> <http://www.burnitfirst.com> (last visited April 8, 2003) (on file with the North Carolina Journal of Law & Technology).

<sup>186</sup> Morris, *supra* note 176.

## ii. Where Online Subscription Services Need to Be

One of the major draws of P2P networks for file traders is the convenience.<sup>187</sup> For example, if a file trader wanted a specific song that she heard on the radio, she could download that song from a P2P network without the hassle of driving to a store and purchasing an entire album full of additional songs that she did not want to pay for. She could freely listen to that song without the frustration and uncertainty of waiting to hear that song on the radio again. P2P networks are thus “celestial jukeboxes,” capable of providing file traders with every song ever recorded by any artist.<sup>188</sup> File traders can transfer these songs at a very low cost to blank CDs. To be successful in competing with a P2P network, a business model would have to provide an online architecture similar to the celestial jukebox and provide a way to transfer those songs to CD.<sup>189</sup>

## 2. Windowing

The biggest obstacle to the creation of celestial jukeboxes has been the record companies’ concern over losing existing business.<sup>190</sup> Specifically, the problem for record companies is that much of their profitability turns on being able to sell albums in their entirety.<sup>191</sup> If the file trader from the example above were able to purchase her song online for two dollars instead of buying the entire album for fifteen dollars, the record company providing the album would lose the money spent on the other songs on the album.<sup>192</sup> Record companies seem to be faced with the choice of

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<sup>187</sup> See G. Krishan Bhatia, Richard C. Gay & W. Ross Honey, *Windows into the Future: How Lessons from Hollywood Will Shape the Music Industry*, Booz-Allen & Hamilton e-Insights 3 (June 2001), at [http://www.bah.de/content/downloads/insights/5J\\_Windowsi.pdf](http://www.bah.de/content/downloads/insights/5J_Windowsi.pdf) (on file with the North Carolina Journal of Law & Technology).

<sup>188</sup> *Id.*

<sup>189</sup> *See id.*

<sup>190</sup> *See id.*

<sup>191</sup> *Id.*

<sup>192</sup> *See id.*



losing consumers due to relative inconvenience or losing profits due to catering to consumers' tastes.

A possible solution to this dilemma is "windowing," a Hollywood distribution strategy that has been in place for some time in the film industry.<sup>193</sup> A windowing strategy involves the public release of media through several different channels over a carefully sequenced time period.<sup>194</sup> In the film industry, this involves releasing theatrical films to video, pay-per-view, pay cable, and then finally broadcast TV.<sup>195</sup> Following this approach allows the film industry to reach the broadest audience possible while simultaneously limiting the "cannibalization," or the stealing of market share of the future formats of the film, on the film's initial theatrical release.<sup>196</sup> For the music industry, combining sequenced releases and an Internet business model could create new revenue streams, increase profits, and provide a third alternative to breaking the law or buying an album at a record store.<sup>197</sup> Film studios have experienced long-term growth attributable to windowing, and that same growth could arguably be achieved by the music industry.<sup>198</sup>

A windowing distribution strategy for the music industry would begin at the same point it does today—with the release of a physical album like a CD.<sup>199</sup> The continued success of album sales suggest that this release still has appeal to music fans who like to own "the real thing", and it would command a premium retail price—currently thirteen to eighteen dollars.<sup>200</sup> After an initial burst of sales from the CD release (about a month), the first Internet "window" would open, providing online music fans with the ability to digitally download certain singles or the entire album for a fee.<sup>201</sup> The next "window," opened approximately six months later, would be digital subscription services that would give a file

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<sup>193</sup> *Id.* at 4.

<sup>194</sup> *Id.*

<sup>195</sup> *Id.*

<sup>196</sup> *Id.*

<sup>197</sup> *See id.*

<sup>198</sup> *See id.*

<sup>199</sup> *Id.*

<sup>200</sup> *Id.* at 5.

<sup>201</sup> *Id.*

trader access to a broader selection of music, i.e. a catalog of older songs defined by genre or artist, for a monthly fee.<sup>202</sup> The final step, also widely in use today, would be the release of albums to record clubs, which would extend sales to the price-conscious consumer.<sup>203</sup>

There would be unique benefits to buying the music at each stage of a windowed release. A CD purchase would give a music fan lifetime ownership of a tangible object, potentially packed with additional features like exclusive song tracks, artist information, song lyrics, and priority access to concert tickets.<sup>204</sup> The Internet download stage would allow lifetime ownership of a digital copy of a song or album, which would be portable on an MP3 player or a burned CD and accessible from any computer in the world.<sup>205</sup> Additionally, digital subscription services would appeal to music listeners who want to compile an album of songs from their favorite artists or favorite genre of music.<sup>206</sup> Finally, the club sale would be heavily discounted, as they are now.<sup>207</sup>

Besides the potential revenue growth and expanded consumer choice, there are other benefits to record companies to be derived from windowing. One of these benefits is talent development.<sup>208</sup> As the digital delivery of music becomes a more commercially accepted means of publishing music, new artists will begin to “pre-release” their songs over the Internet with the hopes of being discovered.<sup>209</sup> The record companies’ talent hunters may find promising artists on the World Wide Web rather than in a local bar, reducing the need to travel all over the country and lowering the risk of gambling on unknown acts.<sup>210</sup> As a result, those talent hunters could work on attracting fewer, but stronger, artists.<sup>211</sup> The record companies could then focus on nurturing and

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<sup>202</sup> *Id.*

<sup>203</sup> *Id.*

<sup>204</sup> *Id.*

<sup>205</sup> *See id.*

<sup>206</sup> *Id.*

<sup>207</sup> *Id.*

<sup>208</sup> *Id.* at 6.

<sup>209</sup> *Id.*

<sup>210</sup> *Id.*

<sup>211</sup> *Id.* at 7.

retaining those artists, instead of having to find more unproven ones.<sup>212</sup>

Record companies will also have access to better customer data due to windowing.<sup>213</sup> With P2P networks the record industry knows relatively little about who is listening to what music, where they are listening to it, and what the most effective marketing strategies are to reach them.<sup>214</sup> With P2P networks out of the picture, the record industry will be able to instantly receive customer information from online purchases and respond to their specific desires.<sup>215</sup> A customer purchasing a song from a subscription service, for example, could receive an e-mail advertising similar songs or artists or a concert promotion for that song's artist.<sup>216</sup>

Finally, hit songs and albums could bring a greater upside to the music industry than they do now, just like movies generate more revenue from non-theatrical releases than they do from the initial theater release.<sup>217</sup> New songs and albums combined with the proper management of customer information will point consumers to older songs and albums that are hard to find or discover in record stores.<sup>218</sup> Windowing has the ability to revive revenue streams from songs and albums long since given up for dead.

### 3. The Intermediaries

Another problem posed by a business model of online distribution is a foreseeable phase-out of the retailers of the physical copyrighted materials, or intermediaries.<sup>219</sup> Intermediaries, for example record stores, face the possibility of their consumer base migrating out of their stores and onto the

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<sup>212</sup> *See id.*

<sup>213</sup> *Id.* at 7.

<sup>214</sup> *Id.*

<sup>215</sup> *See id.*

<sup>216</sup> *Id.*

<sup>217</sup> *Id.* at 9.

<sup>218</sup> *Id.*

<sup>219</sup> *Id.* at 8.

Internet.<sup>220</sup> This potential problem, however, could be turned into a business opportunity. Intermediaries can ride the coattails of the music industry and provide consumers with a large range of options for listening to and buying digital music. Record stores that now simply provide CDs and videos to consumers could add value in packaging, promoting, and distributing digital music services over the Internet.<sup>221</sup> Record stores are already embedded in the consumer's mind as the places to purchase physical forms of music and video, so it would be a smooth transition to move online as the primary contact for digital music and video.<sup>222</sup> As the new online intermediaries grow, they can enter into co-financing and output deals with the content industry, spreading the risks and rewards.<sup>223</sup> This reapportionment could allow intermediaries to claim much more in digital revenues than the typical twenty-five percent retailers presently retain from physical CD sales.<sup>224</sup>

Even ISPs stand to benefit from the business models of digital delivery of copyrighted works. Because they provide the fundamental access to the Internet, ISPs could leverage that position and bundle the costs of digital music subscriptions with Internet access costs at a discounted price.<sup>225</sup> The consumer would get the benefit of the cost and the convenience of one bill for two services, and the ISP would get a new customer.<sup>226</sup> This is another example of how digital distribution has the potential to benefit everyone involved.

### **C. Slowing Illegal Reproduction: Digital Rights Management**

The solutions discussed above are only solutions for the distribution of copyrighted works. Unless the ease of duplicating copyrighted material is reduced, there will always be pirated copies

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<sup>220</sup> *See id.*

<sup>221</sup> *See id.*

<sup>222</sup> *See id.*

<sup>223</sup> *See id.* at 9–10.

<sup>224</sup> *Id.* at 9.

<sup>225</sup> *See id.*

<sup>226</sup> *See id.*

of that material available *somewhere*, if not on P2P networks. The most promising technologies for protecting the initial reproduction of copyrighted works are Digital Rights Management (“DRM”) technologies. DRM technologies are embedded into copyrighted material to prevent illegal copies of that material from being made and to make sure that a copyright owner is paid when legal copies are made.<sup>227</sup> These technologies have been around in one form or another for some time—for example in computer software, scrambled cable television signals, and in copy protection systems on DVD players.<sup>228</sup>

All of these technologies have two things in common—they are designed to allow only an authorized user to enjoy the copyrighted works, and they are not foolproof. Hackers can “crack” computer software, cable descramblers clear up scrambled signals, and devices have been developed to “burn,” or copy, DVDs.<sup>229</sup> As this article has argued, technology pirates do not sit idly by while new tools are developed to combat their efforts.<sup>230</sup> If history is any indication, it is unlikely that any DRM technologies will ever completely eliminate illegal reproduction of copyrighted works.

Fortunately for copyright owners, effective copyright protection does not depend on completely eliminating a pirate’s ability to illegally copy a work. If a DRM technology forces would-be copyright pirates to spend time getting past the technology to reproduce the work, it will deter many of those pirates from breaking into the files.<sup>231</sup> If this deterrent effect is great enough to substantially decrease the number of illegal copies that replace legal sales of the work, the copy protection has successfully eliminated the largest threat to the copyright owner.<sup>232</sup>

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<sup>227</sup> See *Hearings*, *supra* note 32, 2002 WL 1227406, \*1 (F.D.C.H.) (statement of Will Poole, Corporate Vice President, Microsoft Corporation).

<sup>228</sup> See Liebowitz, *supra* note 14, at 16.

<sup>229</sup> See *Hearings*, *supra* note 32, 2002 WL 1227406, \*7 (F.D.C.H.) (statement of Will Poole, Corporate Vice President, Microsoft Corporation).

<sup>230</sup> See, e.g., discussion of interdiction, *infra* Part III.D.

<sup>231</sup> Aric Jacover, *I Want My MP3! Creating a Legal and Practical Scheme to Combat Copyright Infringement on Peer-to-Peer Internet Applications*, 90 GEO. L.J. 2207, 2248 (2002).

<sup>232</sup> See Liebowitz, *supra* note 14, at 16.

Additionally, contrary to what Representative Berman and others believe,<sup>233</sup> even non-foolproof DRM technologies, when combined with appropriate marketing by the content industry like blanket subscriptions, could push the P2P market of unprotected copyrighted works underground.<sup>234</sup>

### 1. New DRM Technologies

DRM technologies are being developed rapidly, and these technologies can be utilized through new business models that give consumers realistic alternatives to illegal file trading. An example of a recently developed DRM technology that will help copyright owners combat P2P networks is Microsoft's Windows Media Rights Manager, which allows a copyright owner to distribute her works over the Internet in a secure format.<sup>235</sup> The copyright owner can also choose an expiration date for the work, how many times the work can be accessed by a particular consumer, and whether the work can be copied onto a CD or another portable device.<sup>236</sup> Similar DRM systems are being developed by competing DRM "service providers."<sup>237</sup> Do-it-yourself DRM technology is also available free of charge as long as licensing requirements are met by the copyright owner or as features of operating systems like Windows.<sup>238</sup> The maintenance of these systems is costly, however, and service providers run most large-scale DRM systems.<sup>239</sup>

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<sup>233</sup> See, e.g., 148 Cong. Rec. E1395, E1395 (daily ed. July 25, 2002) (statement of Rep. Berman) (stating that DRM solutions will "never be foolproof" and thus will not be a "complete solution" to P2P piracy).

<sup>234</sup> See Jacover, *supra* note 231, at 2248.

<sup>235</sup> See *Hearings*, *supra* note 32, 2002 WL 1227406, \*4-5 (F.D.C.H.) (statement of Will Poole, Corporate Vice President, Microsoft Corporation).

<sup>236</sup> *Id.* at 5.

<sup>237</sup> See *id.* at 6.

<sup>238</sup> Darin Stewart, *The Digital-Rights Debate*, Electronic Musician (July 1, 2002), at [http://emusician.com/ar/emusic\\_digitalrights\\_debate](http://emusician.com/ar/emusic_digitalrights_debate) (on file with the North Carolina Journal of Law & Technology).

<sup>239</sup> *Id.*

## 2. Standardization of DRM Technologies

Using one of these DRM systems still has drawbacks, however. Every DRM technology, like Windows Media Rights Manager, uses a different method to implement its protection.<sup>240</sup> At present, there is almost no interoperability between different DRM systems.<sup>241</sup> The Moving Picture Experts Group (“MPEG”), an organization created to develop standards for digital audio and video, is working to standardize an Internet language known as eXtensible rights Markup Language (“XrML”) to help copyright owners better manage their digital rights.<sup>242</sup> A standardized language would let all copyright owners using DRM technologies interface with each other, simplifying distribution methods and cutting costs for copyright owners.<sup>243</sup> With XrML, content providers, like the record industry, could package the copyrighted material once in one file format, and be assured that the material would be accessible by any online music provider.<sup>244</sup> This is a big advantage over having to package the content several times, once for each individual DRM platform used by each individual online music provider. The standardization of XrML would enhance the capabilities of DRM technologies by bringing features and interoperability often missing in now-standard proprietary systems.<sup>245</sup> It should be the industry standard by the third quarter of 2003.<sup>246</sup>

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<sup>240</sup> *Id.*

<sup>241</sup> *See Hearings, supra* note 32, 2002 WL 1227406, \*6 (F.D.C.H.) (statement of Will Poole, Corporate Vice President, Microsoft Corporation).

<sup>242</sup> *Id.*

<sup>243</sup> *See Stewart, supra* note 238.

<sup>244</sup> *XrML Frequently Asked Questions*, at <http://www.xrml.com/faq.asp> (last visited Jan. 9, 2003) (on file with the North Carolina Journal of Law & Technology).

<sup>245</sup> *Id.*

<sup>246</sup> *Id.*

### 3. Fair Use Concerns with DRM Technologies

DRM technologies also allow a copyright owner to charge “micropayments” for every use of the copyrighted work.<sup>247</sup> Because of this, critics of DRM have raised fair use concerns—traditional fair uses that are free with most copyrighted materials could cost money under a DRM system.<sup>248</sup> Furthermore, critics say DRM technologies may limit the transferability of the copyrighted material that is purchased—someone who downloads a song may not be able to sell that song to someone else.

What these criticisms fail to understand is that under the new business models of online copyright distribution described above, users will not be purchasing the songs or the movies, but rather the right to listen to the song or watch the movie. Costs for these rights will reflect their usage by a consumer. The traditional rationale behind fair use is that it allows reproduction of a copyrighted work to occur for socially beneficial reasons where the price or hassle of obtaining the right to that work would otherwise be too great.<sup>249</sup> With properly implemented DRM systems, there would be no hassle, and the price of gaining permission to use a copyrighted work would adequately reflect the benefit to the consumer of that right.<sup>250</sup> Charging consumers by the amount of material they wish to consume or by the time that they wish to consume it could accomplish this.<sup>251</sup> In other words, consumers would be charged what they were willing to pay, and the traditional rationale behind fair use would be justified.<sup>252</sup> Price would also have to reflect the transferability of downloaded files, or else the business model would fail as a viable alternative to pirated works.<sup>253</sup>

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<sup>247</sup> See Liebowitz, *supra* note 14, at 16.

<sup>248</sup> *Id.* at 17.

<sup>249</sup> *Id.*

<sup>250</sup> *Id.*

<sup>251</sup> See *id.*

<sup>252</sup> See *id.* Economists refer to this as “perfect price discrimination.”

<sup>253</sup> See *id.* at 18.



#### 4. Production Concerns with DRM

DRM critics also argue that the widespread use of DRM technologies would inevitably lead to a decline in the production of new creative works.<sup>254</sup> Their argument, based on the economic research of economics professor William Landes and Judge Richard Posner, is that new works are largely based on old works, so stronger copyright protection will raise the cost of access to old works and, thus, decrease the incentive of artists to produce new works.<sup>255</sup> Since DRM prevents all reproduction of copyrighted works, critics say new works will be curtailed because their creative source, the older copyrighted works, will be unavailable.<sup>256</sup>

This argument has two major holes. First, copyright law protects only the *expression* of ideas, not the ideas themselves.<sup>257</sup> Legal access to copyrighted material will be the same with DRM technology as it was without DRM technology. If someone wanted to base a new work on an older copyrighted work protected by DRM technology, all they would have to do is listen, read, or watch that older work and then use it—the same way things have been done for hundreds of years.<sup>258</sup> The only thing that DRM changes for would-be artists is the ability to *exactly* reproduce a protected work.<sup>259</sup> Exact reproduction must be attributed to the original copyright owner anyway, and since most exact reproduction is in the form of reviews or academic works, it seems likely that permission to use such material would be granted.<sup>260</sup> Even if it were not granted, however, there is always traditional

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<sup>254</sup> *Id.*

<sup>255</sup> William Landes & Richard Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 332 (1989) (“Creating a new work typically involves borrowing or building on material from a prior body of works, as well as adding original expression to it. . . . The effect [of preventing all unauthorized copying of a work] would be to raise the cost of creating new works . . . and thus, paradoxically, perhaps lower the number of works created.”). *Id.*

<sup>256</sup> See Liebowitz, *supra* note 14, at 18.

<sup>257</sup> See 17 U.S.C. § 106 (2000).

<sup>258</sup> See Liebowitz, *supra* note 14, at 19.

<sup>259</sup> *Id.*

<sup>260</sup> *Id.*

fair use. If the author of an academic paper were not given permission to copy a portion of an e-book, for example, she could just type that portion into her paper by hand with attribution to the copyright owner.<sup>261</sup> This is the type of reproduction fair use was meant to protect.<sup>262</sup>

The second and largest hole in the argument is that the type of copying DRM is designed to prevent has the capacity to stem the production of new works by undermining the very foundation of copyright law—that artists should be compensated for their original works.<sup>263</sup> It is this economic incentive above all that inspires the creation of new works—musicians create songs and authors write books with the hope that their works will be commercially successful due to their popularity.<sup>264</sup> Landes and Posner did not contemplate that entire songs would be digitally copied and burned onto CDs as they are with today's technology.<sup>265</sup> Songs can now become popular over P2P networks without being commercially successful. Separating popularity from commercial success threatens the production of new works because artists will not be encouraged to produce new works by the prospect of financial prosperity. With this in mind, the implementation of DRM technologies would more likely promote the production of new works than decrease it.

## V. Conclusion

Representative Berman may have meant well when he introduced H.R. 5211,<sup>266</sup> but the bill should be approached with

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<sup>261</sup> *See id.*

<sup>262</sup> *See* 17 U.S.C. § 107.

<sup>263</sup> *See Hearings, supra* note 32, 2002 WL 31151471, \*2 (F.D.C.H.) (statement of Rep. Howard Berman, Member, House Comm. on the Judiciary).

<sup>264</sup> *See id.* at 2–3.

<sup>265</sup> To the contrary, their economic analysis refers to works loosely based on other works, not exact copies. *See Posner, supra* note 255, at 332 (using the example of a new work of music borrowing tempo changes and chord progressions from an earlier recorded song).

<sup>266</sup> Of course, some critics claim it is not. *See, e.g.,* The Digital Speech Project, *The Berman Bill*, at <http://www.digitalspeech.org/berman.shtml> (last visited Jan. 9, 2003) (on file with the North Carolina Journal of Law & Technology)

caution, as should any law that has the potential to curtail the use of new technology like P2P networks. There is an unmistakable need to protect copyright owners from the pirating that takes place on these networks, but H.R. 5211 may protect too many people and grant too much power. Three alternatives need to be explored before a bill like H.R. 5211 is considered as a solution to the P2P piracy problem. First, copyright owners should use legal countermeasures such as non-invasive self-help, litigation, and watermarking to combat the ongoing illegal trade of existing works. Second, copyright owners affected by P2P networks—most of whom are represented by the music industry—should establish a business model that can compete with the consumer expectations P2P networks have created. Finally, DRM technologies should be further developed and standardized to hinder the additional illegal reproduction of copyrighted material.

Once these three alternatives are explored, P2P piracy will not be eliminated, but its impact on copyright owners will not be felt with nearly the force it is felt today. H.R. 5211 is an attempt to create a law that is a vaccination against copyright piracy, and its execution would require new law to protect computer users from copyright owners. In reality, as this article has argued, the legal framework is already in place to stop illegal file trading over P2P networks through litigation and the employment of DRM technologies. Copyright owners can seize this framework to stop the illegal piracy of their works *and* profit from the framework's implementation through online distribution. Enacting H.R. 5211 would hurt existing file traders and cost the copyright owners it was designed to protect the opportunity to prosper from some file trading of their own.

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(pointing out that Representative Berman's six largest donors are in the content industry).