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# Fixation on Fixation: Why Imposing Old Copyright Law on New Technology Will Not Work

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# Fixation on Fixation: Why Imposing Old Copyright Law on New Technology Will Not Work

DOUGLAS J. MASSON\*

INTRODUCTION .....	1050
I. THE DIGITAL LIBRARY .....	1051
II. COPYRIGHT LAW .....	1052
III. THE GREEN PAPER .....	1055
<i>A. Transmission Right</i> .....	1057
<i>B. Prohibition of Circumvention of Anticopying Devices</i> .....	1058
<i>C. Copyright Management Information</i> .....	1058
<i>D. Performance Rights in Sound Recordings</i> .....	1059
IV. INTERNATIONAL IMPLICATIONS .....	1060
V. THE PROBLEM .....	1061
VI. ALTERNATIVES .....	1063
CONCLUSION .....	1066

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## INTRODUCTION

"A beginning is the time for taking the most delicate care that the balances are correct."<sup>1</sup> Society is now at the beginning of an information age unlike anything it has yet experienced. Digitization and the expansion of computer networks allow us new capabilities which can create great benefits, but maximization is only possible through rules which embrace the future with vision and foresight.

The new technology is significant in that it creates an opportunity for people to have access to information previously unavailable. As Ethan Katsh puts it:

Communication in writing and print, indeed communication via any form other than the spoken word, is an attempt to overcome barriers caused by the spatial separation of two or more individuals. At the heart of the new media are capabilities for working with space in novel ways and for overcoming constraints that are assumed to be fixed, but, in reality, are only constraints imposed by limitations of print and writing.<sup>2</sup>

Though the possibilities are vast and raise a host of legal issues,<sup>3</sup> this Comment looks only at one possibility and its conflict with one area of law in order to illustrate the nature of the conflict ahead and why lawmakers will need to be creative and not slavish followers of the old ways. To this end, this Comment describes the fatal effect of imposing current copyright law on digital systems and the signal this sends to those who would attempt to reconcile the digital library with the Copyright Act of 1976. Additionally, this Comment discusses the international implications created by a network of intellectual property treaties and suggests means by which the goals of copyright can be harmonized with the digital library and the technology it represents. Such descriptions and suggestions are especially relevant in light of certain recommendations being considered by lawmakers who fail to account properly for the fundamental paradigmatic shift in the nature of communications engendered by electronically networked digital communication systems.

The lawmakers are also making recommendations which unfairly favor the rights of the copyright owner and do not give enough consideration to the goal of widespread dissemination of information and ideas. Part I of this Comment describes the form and function of a digital library. Part II describes copyright law in its current form. Part III describes recommended modifications to copyright law designed to cope with problems created by the new media. Part IV describes some of the international implications of the current struggle to adapt laws to the new situation. Part V analyzes the likely effectiveness of old copyright law and the proposed modifications in dealing with the

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1. FRANK HERBERT, *DUNE* 3 (1964).

2. M. Ethan Katsh, *Law in a Digital World: Computer Networks and Cyberspace*, 38 *VILL. L. REV.* 403, 413 (1993).

3. Issues about how the new media and the law interact include, but certainly are not limited to, such things as how law itself is defined by the medium in which it is conveyed. Laws of an oral culture are different from those of a culture dominated by print, which in turn are arguably different from those cultures which will be dominated by digital media. Privacy interests and the First Amendment are implicated by questions of how we should control the distribution of personal information such as purchasing habits and mailing addresses which are bought and sold by corporations. It is unclear what sort of liability the multitudes of individual publishers, authors, and readers who create and use home pages, newsgroups, and the rest of cyberspace will incur. See M. ETHAN KATSH, *THE ELECTRONIC MEDIA AND THE TRANSFORMATION OF LAW* 10-16 (1989).

digital media. Finally, Part VI suggests some alternative "solutions" to the copyright problem.

### I. THE DIGITAL LIBRARY

Among the possibilities of the Internet,<sup>4</sup> albeit not one of the most original, is the creation of a digital library. Such a library could contain a collection of books, documents, music, movies, games, or any other kind of information capable of being digitized; that is, translated into a series of ones and zeroes.<sup>5</sup>

Creating a mundane sort of library is a simple use of digital technology which merely entails electronically storing information currently available in traditional libraries.<sup>6</sup> Due to the ease with which its contents could be reproduced, one such library could serve school children from Compton, California, to Brooklyn, New York, to Nairobi, Kenya.

With a little creativity, a digital library could supplant the traditional library, distinguishing itself by such tools as hypertext<sup>7</sup> and interactivity.<sup>8</sup> Using hypertext, for example, news articles could be linked to reference documents explaining specific topics within the article.<sup>9</sup> This means that an article reporting about the conflict in Bosnia could have a hypertext link to a document giving a brief history of Bosnia and Eastern Europe which in turn contains links to documents that provide even more detailed information. Furthermore, the article could have a link to a discussion group where interested readers could share ideas about the article or the issue in general.

In his book, *Literary Machines*, Theodor Nelson lays out a comprehensive plan for a library characterized by hypertext and interactivity.<sup>10</sup> Nelson describes a digital library

4. The term "Internet" also includes the term "information superhighway" though the latter term is quickly falling out of favor among network users. It has been suggested that the metaphors by which we choose to describe emerging technologies can stunt their growth. For example, thinking of radio technology in terms of a "wireless telegraph" blinded early users to the possibilities of broadcasting. Similarly, thinking of the new digital technology in terms of a highway has the effect of making our thoughts overly linear and too prone to missing possibilities which are not immediately obvious. See generally Harneet Sawhney, *Information Superhighway: Metaphors as Midwives*, 18 MEDIA, CULTURE & SOC'Y 291 (1996).

5. The ability to translate an image, text, sound, or film into ones and zeroes means that this information can be communicated between computers at high speeds using comparatively little physical material. Such digitization tends to blur the lines between originals and copies, displays and distributions, and even authors and their audiences. See Kenneth D. Salmon & Michael J. Pierce, *Copyright Law and the Information Superhighway*, 96 Educ. L. Rep. (West) 315, 315-16 (Mar. 9, 1995).

6. One such movement is taking place at Columbia University Law School which announced plans to develop a digital law library containing material from deteriorating works and other public domain material. See William M. Bulkeley, *Libraries Shift from Books to Computers*, WALL ST. J., Feb. 8, 1993, at B6.

7. Hypertext is a means of linking electronic documents. If a document has a link to a particular subject, the subject name is highlighted on the screen. This allows an interested reader to find out more about the highlighted topic by using their mouse to click on the topic which cues the computer to call up the document or list of documents discussing the subject.

8. A digital library featuring hypertext would be interactive at least in the sense that the reader would choose which links to follow and which links to leave unread, meaning that to some extent each reader's sense of a given article would differ depending on choices made by that reader. In other words, the reader interacts with the text. George P. Landow asserted that an important quality of hypertext is that it "does not permit a tyrannical, univocal voice. Rather the voice is always that distilled from the combined experience of the momentary focus, the lexia one presently reads, and the continually forming narrative of one's reading path." GEORGE P. LANDOW, *HYPERTEXT AND MULTIVOCALITY: THE CONVERGENCE OF CONTEMPORARY CRITICAL THEORY AND TECHNOLOGY* (1992) (available at <http://www.stg.brown.edu/projects/hypertext/landow/ht/multivoc.html>).

9. See Jon Katz, *Online or Not, Newspapers Suck*, 2.09 WIRED, Sept. 1994, at 50, 54.

10. Pamela Samuelson & Robert J. Glushko, *Intellectual Property Rights for Digital Library and Hypertext Publishing Systems*, 6 HARV. J. L. & TECH. 237, 239 n.9 (1993) (citing THEODOR H. NELSON, *LITERARY MACHINES* (5th ed. 1983)).

in which authors waive their typical copyrights<sup>11</sup> and pay a fee to put their works in the library, which Nelson calls Xanadu.<sup>12</sup> In exchange for their contributions, the authors receive a percentage of the money paid for the use of their works.<sup>13</sup> Each user would pay Xanadu based on the number of bytes of information they access.<sup>14</sup> Users would have the option of creating their own work, links to older works, or between multiple works.<sup>15</sup> Furthermore, users would have the option of creating their own works which have links to older documents or perhaps creating a linked index to multiple documents which arranges older documents in a novel and useful way. In this case, user/link-creators would get paid according to the use of their work.<sup>16</sup> The original author would also receive a percentage based on the link to that author's work.<sup>17</sup>

In addition to the benefits of wide dissemination of information and those that stem from hypertext, there is an environmental benefit. An electronic library depends on considerably less physical material for its existence than a physical library, thereby conserving not only paper and other materials but also conserving land that the building would occupy. These conservation effects would surely benefit the earth's environment.

## II. COPYRIGHT LAW

Copyright law is a creation of the print era.<sup>18</sup> Before the time of Gutenberg and his printing press, there was no need for copyright laws because copying was prohibitively difficult and, without a practical means of mass production, there was no economic interest which might have encouraged legal protection.<sup>19</sup> Furthermore, literature was held to be part of a common fund of knowledge.<sup>20</sup>

After the introduction of the printing press in England in 1476, but before the enactment of the Statute of Anne<sup>21</sup> (the first "modern" Anglo-Saxon copyright law) in 1709, licensing acts performed the function of copyright law. These licensing acts served as a form of political censorship and trade regulation. It is notable that the monarchy used a guild, a medieval economic institution as an instrument, to censor the heresy and

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11. See *supra* part II for information about what rights are waived and about copyright law in general. For now, it is sufficient to say that what Nelson describes is a system which uses licensing agreements rather than the default rules of copyright law.

12. See Samuelson & Glushko, *supra* note 10, at 247.

13. *Id.* at 249.

14. *Id.* at 248-50.

15. *Id.* at 249-50.

16. *Id.* at 247-53.

17. *Id.*

18. KATSH, *supra* note 3, at 172.

19. See *Sony Corp. v. Universal Studios, Inc.*, 464 U.S. 417, 430-31 (1984) ("Indeed it was the invention of a new form of copying equipment—the printing press—that gave rise to the original need for copyright protection.").

20. KATSH, *supra* note 3, at 172.

21. Act for the Encouragement of Learning, 1709, 8 Anne, ch. 21 (Eng.).

sedition made possible by the printing press.<sup>22</sup> Thus, it is evident that governments rapidly saw both the political and economic implications of an information revolution.<sup>23</sup>

After the Statute of Anne, copyright law became less a tool of the state and more a tool of authors and publishers.<sup>24</sup> Such a development reflected both an increasing respect for the rights of the authors as well as the growing economic opportunity of authors' creations.<sup>25</sup>

The authority of Congress to pass copyright laws is grounded in Article I, Section 8, Clause 8 of the U.S. Constitution which says, "The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."<sup>26</sup> This constitutional clause has two primary aspects:

- 1) It indicates that the ultimate purpose of copyright legislation is to promote the progress of science and arts; in other words, to foster the growth and spread of learning and culture.
- 2) In order to achieve this purpose, authors are to be given exclusive rights to exploit their writings, to encourage them to create and disseminate new works.<sup>27</sup>

The Copyright Act of 1976 ("Act") embodies current copyright law.<sup>28</sup> It affords protection to "original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device"<sup>29</sup> except where such original works constitute an "idea, procedure, process, system, method of operation, concept, principle, or discovery."<sup>30</sup>

There are three requirements for copyright protection: originality, creativity, and fixation. The originality requirement mandates that the work be an independent creation, meaning simply that it cannot have been copied.<sup>31</sup> This standard is much less rigorous than that of patent law which requires not only that there be an independent creation but that it also be novel, not known or practiced previously.<sup>32</sup> In theory, under copyright law, if an independently created work happened to be an exact duplicate of a previously existing work, the new work would not constitute an infringement.<sup>33</sup>

22. KATSH, *supra* note 3, at 173-74. The English monarchy chartered the Stationers' Company, a guild with an exclusive monopoly on printing. Only a member of the guild had the right to make copies of a manuscript. Beholden as it was to the monarchy, the creation of the Stationers' Company was an effective means of governmental surveillance of the press. MARK ROSE, *AUTHORS AND OWNERS—THE INVENTION OF COPYRIGHT* 12 (1993). In fact, the preamble to the Stationers' Company Charter explicitly states the royal purpose:

"[K]now ye that we, considering and manifestly perceiving that certain seditious and heretical books rhymes and treatises are daily published and printed by divers scandalous malicious schismatical and heretical persons, not only moving our subjects and leiges to sedition and disobedience against us, our crown and dignity, but also to renew and move very great and detestable heresies against the faith and sound catholic doctrine of Holy Mother Church, and wishing to provide a suitable remedy in this behalf."

*Id.* (citing A TRANSCRIPT OF THE REGISTERS OF THE COMPANY OF STATIONERS OF LONDON: 1554-1640, 1875-1894 xxviii (Edward Arber ed., 1950)).

23. KATSH, *supra* note 3, at 173-74.

24. *Id.* at 174.

25. *Id.* at 174-75.

26. U.S. CONST. art. I, § 8, cl. 8.

27. Abe A. Goldman, *The Concept of the Law of Copyright*, in *REPROGRAPHY AND COPYRIGHT LAW* 11, 12 (Lowell H. Hattery & George P. Bush eds., 1964).

28. 17 U.S.C. §§ 101-1101 (1994).

29. *Id.* § 102(a).

30. *Id.* § 102(b).

31. *Id.* § 102(a).

32. 35 U.S.C. §§ 101, 102 (1994).

33. MARSHALL A. LEAFFER, *UNDERSTANDING COPYRIGHT LAW* 33 (2d ed. 1995).

To satisfy the creativity requirement a work need only have a de minimis amount of creativity.<sup>34</sup> Courts have found sufficient originality in such banal creations as the label on a box of cake which simply depicts pictures of cakes.<sup>35</sup> Though the creativity standard is very low, there are still limits on what will fulfill the requirement. For example, originality was not found to exist in fragmentary words or phrases.<sup>36</sup>

Finally, the fixation requirement is similarly broad in that it allows for fixation even in media not yet developed.

[I]t makes no difference what the form, manner, or medium of fixation may be—whether it is in words, numbers, notes, sounds, pictures, or any other graphic or symbolic indicia, whether embodied in a physical object in written, printed, photographic, sculptural, punched, magnetic, or any other stable form, and whether it is capable of perception directly or by means of any machine or device.<sup>37</sup>

A copyright grants the copyright owners a number of exclusive rights which are modified by certain exceptions. A copyright holder has the exclusive rights of reproducing the work, preparing derivative works, distributing copies, performing the work publicly, and displaying the work publicly.<sup>38</sup>

Because of the nonphysical nature of the electronic media that copyright law will attempt to govern and the problems created thereby, it is important to note that, with the possible exception of the right to prepare derivative works, the exclusive rights of § 106 as well as the requirement of tangible fixation all focus on the physical manifestation of the work and not on the images and ideas which actually constitute the work. Copyright law uses the physical manifestation of the work as a proxy for the work itself.<sup>39</sup> This is ironic and problematic since the value of most copyrighted works lies in the images and ideas for which the physical manifestation is merely a vehicle. John Perry Barlow, co-founder of the Electronic Frontier Foundation, aptly described the problem, saying:

“So far we have placed all of our intellectual [property] protection on the containers and not on the contents. And one of the side effects of digital technology is that it makes those containers irrelevant. Books, CDs, filmstrips—whatever—don’t need to exist anymore in order to get ideas out. So whereas we thought we have been in the wine business, suddenly we realized all along we’ve been in the bottling business.”<sup>40</sup>

This concentration on physical manifestation (or fixation on fixation) can lead to some unfair results. For example, a compilation of minimal creativity would be protected so long as it was in writing while a more creative and socially valuable work of authorship such as an improvisation or unrecorded choreographic work would not be protected unless it was recorded.<sup>41</sup>

34. *Feist Publications, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991) (stating that “even a slight amount will suffice”).

35. LEAFFER, *supra* note 33, at 42 (citing *Kitchens of Sara Lee, Inc. v. Nifty Foods Corp.*, 266 F.2d 541, 545 (2d Cir. 1959)).

36. *Id.* (citing *Aberto-Culver Co. v. Andrea Dumon, Inc.*, 466 F.2d 705 (7th Cir. 1972) (holding that the phrase “most personal sort of deodorant” is not copyrightable)).

37. H.R. REP. NO. 1476, 94th Cong., 2d Sess. 47, 52 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659, 5665 [hereinafter HOUSE REPORT].

38. 17 U.S.C. § 106.

39. See generally John P. Barlow, *The Economy of Ideas*, 2.3 WIRED, Mar. 1994, at 84, 85-87.

40. Charles W. Beardsley, *Uncorking Fine Wine: Copyright Laws*, MECHANICAL ENGINEERING, Aug. 1994, at 6 (quoting John P. Barlow).

41. See HOUSE REPORT, *supra* note 37, at 52, *reprinted in* 1976 U.S.C.C.A.N. at 5665.

Several exceptions such as fair use,<sup>42</sup> library archival copying,<sup>43</sup> and the right to publicly display a privately owned copy, limit the author's copyrights.<sup>44</sup> These exceptions tend to apply where the benefits of disseminating ideas outweigh any potential injury to the creator's economic interests.<sup>45</sup> For example, under the fair use doctrine, persons may use a copyrighted work for purposes such as criticism, comment, news reporting, teaching, scholarship, or research as long as such a use is fair.<sup>46</sup> In determining whether a use is fair, § 107 of the Act requires consideration of a number of factors including: the purpose and character of the use, including whether such use is commercial or not-for-profit; the nature of the copyrighted work; the amount and substantiality of the copyrighted work used; and the effect of the use upon the copyrighted work's potential market or value.<sup>47</sup>

Section 107's structure is illustrative of its intent. It first identifies methods of dissemination which are socially desirable. It then weighs the needs of the socially desirable activity against the economic harm imposed on the owner of the copyright. This intent is in turn reflective of the constitutional mandate in Article 8 which employs an economic incentive as an instrument to further the sciences and useful arts.<sup>48</sup>

### III. THE GREEN PAPER

There is little doubt that current copyright law, fairly read, would prohibit the creation of a digital library wherein most of the world's knowledge could be accessible from any house, school, library, place of work, or any other place capable of supporting a computer terminal.<sup>49</sup>

This prohibition is made clear by the Information Infrastructure Task Force ("Task Force") in their July, 1994 paper commonly known as the *Green Paper*.<sup>50</sup> The Task Force was formed by President Clinton in February, 1993, "to articulate and implement the Administration's vision for the National Information Infrastructure."<sup>51</sup> The term National Information Infrastructure ("NII"), as the Task Force contemplates it, "is intended to encompass the digital, interactive services now available, such as the Internet, as well as those contemplated for the future."<sup>52</sup> The reason for this evaluation by the Task Force is a recognition that the advance of communications technology has had (and will continue

42. 17 U.S.C. § 107.

43. 17 U.S.C. § 108.

44. 17 U.S.C. § 109(c).

45. See, e.g., Barbara Ringer, *First Thoughts on the Copyright Act of 1976*, in *THE COPYRIGHT ACT OF 1976: DEALING WITH NEW REALITIES* 11, 23-24 (Alan Latman ed., 1976).

46. 17 U.S.C. § 107.

47. *Id.*

48. U.S. CONST. art. I, § 8, cl. 8.

49. Mary Brandt Jensen, *Is the Library Without Walls on a Collision Course with the 1976 Copyright Act*, 85 *LAW LIBR. J.* 619 (1993). With today's technology enabling wireless communication through devices such as cellular phones, computer terminals can literally be placed anywhere.

50. INFORMATION INFRASTRUCTURE TASK FORCE, U.S. DEP'T OF COMMERCE, *INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE* (1994) [hereinafter *GREEN PAPER*]. Mary Brandt Jensen also reaches this conclusion. Jensen, *supra* note 49. Jensen concludes that a library without walls (a digital library) cannot be built without copying the works into a machine-readable form. *Id.* at 641. The fair use, public performance, or public display exceptions to the § 106 exclusive rights will almost never save such wholesale copying. Therefore, the works which would be placed into this library without walls could only be placed there after tracking down the author and negotiating a compensation scheme. *Id.* Jensen contends that under current copyright law this arrangement would be so impractical and burdensome that it would delay, if not prevent, the creation of a true digital library. *Id.* at 642.

51. *GREEN PAPER*, *supra* note 50, at 1.

52. *Id.* at 2 n.2.



to have) an unprecedented effect on the creation, reproduction, and dissemination of copyrighted works.<sup>53</sup> The Task Force contends that such an unprecedented effect will in turn generate both challenges and important opportunities for the copyright marketplace.<sup>54</sup>

In considering the copyright issues raised by new technology, the Task Force noted that digitization and the computer networks present neither the first nor the last challenge.<sup>55</sup> They say, however, that the stakes are now considerably higher because any two-dimensional work can readily be digitized.<sup>56</sup> This increases "the ease and speed with which a work can be reproduced; the quality of the copies (both the first and the hundredth 'generation'); the ability to manipulate and change the work; and the speed with which copies . . . can be 'delivered' to the public."<sup>57</sup>

In considering the raised stakes, the Task Force was mindful of Thomas Jefferson's statement:

I am not an advocate for frequent changes in laws and constitutions. But laws and institutions must go hand and hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths discovered and manners and opinions change, with the change of circumstances, institutions must advance also to keep pace with the times. We might as well require a man to wear still the coat which fitted him when a boy.<sup>58</sup>

However, at the end of its analysis, Jefferson's words notwithstanding, the Task Force concludes that although "[t]he coat is getting a little tight,"<sup>59</sup> with "no more than minor clarification and amendment, the Copyright Act . . . will provide the necessary protection of rights—and limitations on those rights—to promote the progress of science and the useful arts."<sup>60</sup>

As one of the "minor" clarifications, the Task Force recommends that the works which are to be transmitted through the NII be deemed "fixed" for purposes of § 102 of the Act. This recommendation stems from the Task Force's belief that digitization is an acceptable form of fixation<sup>61</sup> since digitization fits within the House Report's definition of fixation.<sup>62</sup> Furthermore, through a happy accident of mechanics, in order to view a document residing in one part of the NII, one must reproduce the appropriate digital combinations in the random access memory ("RAM")<sup>63</sup> of one's local NII site,<sup>64</sup> thereby fixing the document. There has been some debate concerning whether existence in RAM memory is too ephemeral to be considered fixation and is instead unfixated like a work projected

53. See *id.* at 5-7.

54. *Id.*

55. *Id.* at 7 (recalling that the introduction of both photocopying machines and audiotape recorders posed problems for copyright owners).

56. *Id.* at 8; see also *supra* note 5 and accompanying text.

57. GREEN PAPER, *supra* note 50, at 8.

58. *Id.* at 9 (quoting the inscription at the Thomas Jefferson Memorial in Washington, D.C.).

59. *Id.* at 120.

60. *Id.* at 10.

61. See *id.* at 13.

62. See HOUSE REPORT, *supra* note 37, at 52-53, reprinted in 1976 U.S.C.A.N. at 5665-66.]

63. RAM is that portion of a computer's memory which can be written upon, viewed, and, if the user so desires, written upon again with something new. This makes information stored in RAM somewhat less permanent (and therefore less fixed) than information stored in a computer's read only memory ("ROM") which is hardwired into the computer's memory and not generally changeable by the user.

64. An example of a local NII site would be an individual user's personal computer which is connected to the Internet.

briefly onto a movie screen or shown electronically on a television.<sup>65</sup> However, such a distinction would be dubious at best. The spirit of the current copyright law seems to suggest that if a work can be perceived in different places and at different times without movement of the original work, then an infringement has occurred. Because they followed the spirit of the law, the Task Force's failure to quibble about temporary fixation in RAM verses more permanent fixation in ROM was not a shortcoming.

The Task Force's other "minor" amendments include a new transmission right,<sup>66</sup> revisions to the first sale doctrine,<sup>67</sup> new laws prohibiting the circumvention of anticopying devices,<sup>68</sup> a new provision including copyright management information,<sup>69</sup> and the inclusion of a public performance right in sound recordings.<sup>70</sup> The combination of these amendments would provide copyright owners heightened protection.

### A. Transmission Right

Currently § 106(3) of the Act provides copyright owners the right to distribute copies or phonorecords by means of "sale or by other transfer of ownership, or by rental, lease, or lending."<sup>71</sup> The Task Force recommends an amendment to § 106(3) that includes the exclusive right to distribute copies or phonorecords of the copyrighted work by means of transmission.<sup>72</sup> This recommendation is somewhat baffling since, in order to transmit a copyrighted work, one has to copy it into the memory of the receiving computer. Such copying would already be a violation of § 106(1) which grants the author an exclusive right to reproduce the copyrighted work.

Perhaps the Task Force contemplates an advance in technology enabling transmission of a work without reproducing that work. However, should that occur, such a transmission would be the functional equivalent of buying one's own copy of a book and subsequently selling that same copy to someone else. In such a case, one has merely disposed of one's own property without creating more copies which would diminish the market for the copyright owner. This is the kind of activity which seems to be allowed by § 109(a) of the Act,<sup>73</sup> the statutory embodiment of the "first sale doctrine."

The first sale doctrine is a legal provision which makes it possible for "wholesalers who buy books to distribute those copies to retailers and retailers to sell them to consumers and consumers to give them to friends and friends to sell them in garage sales and so on—all without the permission of (or payment to) the copyright owner of the work."<sup>74</sup> Therefore, the Task Force's recommendation of an exclusive right to transmit seems to be, at best, redundant and, at worst, an attempt to limit the transfer of one's own property on the irrational ground that the transfer was done electronically rather than through more conventional means.

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65. See GREEN PAPER, *supra* note 50, at 15.

66. *Id.* at 121.

67. *Id.* at 124-25.

68. *Id.* at 125-30.

69. *Id.* at 130-31.

70. *Id.* at 131-33.

71. 17 U.S.C. § 106(3).

72. GREEN PAPER, *supra* note 50, at 121.

73. 17 U.S.C. § 109(a).

74. GREEN PAPER, *supra* note 50, at 54 (citation omitted).

### B. Prohibition of Circumvention of Anticopying Devices

In addition to the transmission right, the Task Force recommended adding laws to prohibit the circumvention of anticopying devices.<sup>75</sup> Specifically, the Task Force proposed adding § 512 to Chapter 5 of the Act making it illegal to

[i]mport, manufacture, or distribute any device, product, or component incorporated into a device or product, or offer or perform any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the exercise of any of the exclusive rights under section 106.<sup>76</sup>

At its broadest, the proposed amendment would make it illegal to distribute any device having the primary effect of circumventing processes inhibiting the exercise of § 106's exclusive rights. This proposed provision is far too broad because it cuts against the grain of *Sony Corp. v. Universal Studios*.<sup>77</sup> The Supreme Court in *Sony* did not look at the primary purpose or effect of a device, but instead allowed the import, manufacture, and distribution of devices that could be used to infringe copyrights provided that these devices also had a substantial noninfringing use.<sup>78</sup> Although the legislature is capable of overriding the Court's statutory interpretation by amending the statute, it should refrain from doing so without good reason. Moreover, the legislature is constitutionally prohibited from amending the statute where such an amendment does not promote the progress of science and useful arts.<sup>79</sup>

Far from promoting science and the useful arts, such an amendment would do much to frustrate them. For example, it would prevent programmers from obtaining devices to help them reverse engineer their copies of a computer program.<sup>80</sup> Furthermore, the inability to determine how a program works prevents a programmer from creating another program which can work with the first. The amendment would do the sciences and useful arts a great disservice by hindering the interoperability of programs and systems.

### C. Copyright Management Information

In the interest of protecting the public from fraud in the creation or alteration of information, the Task Force recommends a modification that will protect any "copyright management information" associated with a work from fraudulent inclusion, removal, or alteration.<sup>81</sup> Copyright management information would include the name of the copyright owner, the terms and conditions for uses of the work, and identification codes associated

75. See *id.* at 125-30.

76. *Id.* at 128.

77. 464 U.S. 417 (1984). This case involved the infringing uses to which a VCR could be put; for example, making copies of rented videos. The Supreme Court ruled that Sony would not be liable for infringing uses since VCRs could be put to entirely proper uses, such as time delay in viewing where an individual could tape a broadcast show being aired at an inconvenient time and view the show at a later time. *Id.* at 456.

78. See *id.* at 442.

79. See U.S. CONST. art. I, § 8, cl. 8.

80. Reverse engineering allows programmers to determine how a program works and add to that program or incorporate their newly gained knowledge into another program.

81. See GREEN PAPER, *supra* note 50, at 131.

with a work.<sup>82</sup> Specifically, the Task Force proposed the addition of subsections (g) and (h) to § 506 of the Act<sup>83</sup>:

(g) **Fraudulent Copyright Management Information.** — Any person who, with fraudulent intent, digitally links with a copy of a copyrighted work copyright management information that such person knows to be false, or who, with fraudulent intent, publicly distributes or imports for public distribution any work with which copyright management information that such person knows to be false is linked, shall be fined not more than \$2,500.

(h) **Fraudulent Removal of Copyright Management Information.** — Any person who, with fraudulent intent, removes or alters any copyright management information digitally linked with a copy of a copyrighted work shall be fined not more than \$2,500.<sup>84</sup>

The copyright management information provisions are not objectionable in and of themselves, but they seem redundant and do not serve the goal of promoting the sciences and useful arts. The provisions require fraudulent intent and, as such, seem to duplicate the purpose of existing antifraud laws.

Though highly speculative, one goal of adding subsections (g) and (h) may be to encourage copyright owners to place copyright management information in their copyrighted works. Perhaps the Task Force believes that this information is desirable because it may facilitate the tracking and sorting of works. A preoccupation with tracking and sorting evidences a bureaucratic mindset and the amendments would be a roundabout way to pursue such a goal. A more direct and effective method to encourage creators to aid in the tracking and sorting of copyrighted works would be to directly require creators to add copyright management information to their works.<sup>85</sup>

#### *D. Performance Rights in Sound Recordings*

The Task Force recommends revisions to the Act that include a public performance right in sound recordings:<sup>86</sup>

[Currently, in order] to play a record on the radio, [for example,] a radio station must get a license from, and pay a royalty to, the copyright owner of the underlying musical work (i.e., the person or entity who owns the rights in the notes and the lyrics), but it does not have to obtain permission from, or pay a license fee to, the copyright owner of the sound recording or the performer on the record.<sup>87</sup>

This Task Force recommendation would provide the copyright holder a performance right in sound recordings in instances of digital transmission.<sup>88</sup> The Task Force wishes to give performers the right to restrict the activities of digital transmitters but not the activities of those who choose to transmit in other ways, such as by broadcasting over the radio.<sup>89</sup>

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82. *Id.* at 130-31.

83. 17 U.S.C. § 506.

84. GREEN PAPER, *supra* note 50, at 131.

85. Of course, creators want and deserve credit for their works. A provision which requires users to acknowledge their source is unobjectionable. However, such a requirement would gain nothing from undue specificity as to what form the acknowledgement must take. A bare requirement that one recognize the author and the name of the work would probably suffice without delving into technical requirements about copyright management information.

86. GREEN PAPER, *supra* note 50, at 131-33.

87. *Id.* at 132.

88. *Id.*

89. *See id.* at 132-33. In defending his desire for the payment of royalties to record companies and performers, not just publishers and composers, Bruce Lehman, chairman of the Task Force said, "I'm not going to apologize for that . . . . If people want to say that we should encourage people to steal intellectual property, then I just have a disagreement with them. It's a matter of right and wrong." Junda Woo, *Big Copyright Curbs Sought by Industry*, WALL ST. J., Dec. 27, 1994,

This recommendation is perhaps the Task Force's most offensive for two reasons. First, in the name of equity for performers (performance inequity), the Task Force recommends the creation of an inequity between those who transmit digitally and those who transmit in another manner (digital inequity). Second, the recommendation demonstrates a glaring disregard for the fundamental purpose of copyright. The copyright clause of the U.S. Constitution is an instrumental clause. In light of the Task Force's apparent absentmindedness as to the foundation of copyright law, the clause bears repeating at the risk of redundancy: "The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."<sup>90</sup> There is nothing in the *Green Paper* or in common observation which suggests that this perceived performance inequity has created a shortage of artists to perform copyrighted works; if anything, a glut of such artists exists. To the contrary, creating an additional obstacle for those trying to transmit works digitally would effectively frustrate any promotion or creation of science and the useful arts by inhibiting the dissemination of such works.

None of these proposed amendments are likely to promote the goals of copyright. Instead, they increase the level of control authors have over their copyrighted material. The tone of the Task Force's fair use discussion and other limitations on the copyright owner's exclusive rights indicates an eagerness to expand authors' rights and relative apathy towards the goal of public dissemination of information. The Task Force no more than cursorily acknowledges that the Act exists for the benefit of the public and that the law should strive to make information freely available. Immediately thereafter, the Task Force asserts that "freely available" does not mean "available free," and goes on to express concerns that copyright owners not be required to donate "on-line time" for their works. In lieu of any suggestions as to how the public interest will be served by the new digital technologies, the Task Force announces a forthcoming conference to discuss the public interest; an announcement which is curious in light of its vagueness considering the specificity of proposals in the area of expanded rights for owners.<sup>91</sup> The message of these recommendations seems to be that the Task Force will see what rights are left over for the public once the rights of the authors have been firmly established.

#### IV. INTERNATIONAL IMPLICATIONS

The adverse impact of inadequate congressional action is even greater than it appears on the surface. Such inadequacies will be multiplied around the globe through a network of international intellectual property treaties. The United States' intellectual property

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at B5. This highlights some of Lehman's misconceptions about intellectual property. First, digital transmission is not stealing until the law labels it as such. This is particularly true in the case of intangible property where such "stealing" leaves the "victim" with as much as before something was "stolen." Second, copyright questions are not questions of right and wrong; they are questions of whether the means of copyright are sufficient to reach the constitutional end of promoting science and the useful arts.

90. U.S. CONST. art. I, § 8, cl. 8.

91. See GREEN PAPER, *supra* note 50, at 133-34.

laws are bound to those of other nations, primarily by means of the Berne Convention<sup>92</sup> and the Universal Copyright Convention.<sup>93</sup>

These conventions provide that once a work has been published in a member country, the copyright owner can enforce that copyright in another member country at least to the extent that nationals of that country could enforce the copyright if the work were first published there. In addition, the conventions guarantee certain specific minimum rights to copyright owners regardless of a member-nation's laws.<sup>94</sup>

The conventions' provisions mean that any additional grant of rights to prevent dissemination would be provided not only to copyright owners in the United States, but also to owners in every member nation. This is not just idle discussion; these conventions will be particularly important when dealing with the Internet since the connecting digital networks greatly facilitate international exchanges. The global web of information is so seamless at times that it is easy to import or export copyrighted material to or from another country without even realizing that international boundaries are being crossed.<sup>95</sup> These interwoven laws, much like the network itself, greatly magnify the number of people to whom an individual may be held accountable. Therefore, it is that much more important that copyright laws receive careful scrutiny to minimize the impact of the inevitable imperfections. The Task Force's recommendations simply do not satisfy this rigorous examination because they provide the copyright owner too much protection and fail to give enough consideration to the goal of widespread dissemination of information and ideas.<sup>96</sup>

Perhaps even more important is the United States' role as a leader and pioneer. The Task Force now faces a problem with which all nations will eventually have to grapple. New technology has rendered the old paradigms of copyright obsolete. A failure by the United States to address properly the problems at hand will be compounded by those who follow. Therefore, the Task Force has even more responsibility than would appear at first glance, but it has responded inadequately.

## V. THE PROBLEM

In a sense, the Task Force's attempt to tighten the reins is quite understandable. As noted above, copyright law attempts to protect expression by proxy through its embodiment in the physical world.<sup>97</sup> The embodiment of expression in the physical world is becoming more and more tenuous, however, as digital technology grows. The capability to convey expression from one person to another is fast approaching direct exchange of thought without embodiment of an intermediate physical form. Or, at the very least, if the previous description seems too transcendental, the intermediate form of expression is becoming "liquid" where previous and current copyright law deals with a solid.

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92. Berne Convention for the Protection of Literary and Artistic Works, Sept. 9, 1986, 828 U.N.T.S. 221; Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853 (entered into force for the United States Mar. 1, 1989) (codified at 17 U.S.C. § 101).

93. Universal Copyright Convention, Sept. 6, 1952, 6 U.S.T. 2731 (1952), revised July 24, 1971, 25 U.S.T. 1341, 943 U.N.T.S. 178 (1974).

94. See Charles J. Meyer, Note, *National and International Copyright Liability for Electronic System Operators*, 2 IND. J. GLOBAL L. STUD. 497, 514 (1995).

95. See ED KROL, *THE WHOLE INTERNET* 37 (2d ed. 1994).

96. See *supra* text accompanying note 91.

97. See *supra* text accompanying note 37.

One can view the Task Force's recommendation as akin to attempting to hold on to a melting object; one clutches it more tightly in a vain attempt to prevent it from falling to the ground. As John Perry Barlow puts it:

Since we don't have a solution to what is a profoundly new kind of challenge, and are apparently unable to delay the galloping digitization of everything not obstinately physical, we are sailing into the future on a sinking ship.

This vessel, the accumulated canon of copyright and patent law, was developed to convey forms and methods of expression entirely different from the vaporous cargo it is now being asked to carry. It is leaking as much from within as without.

Legal efforts to keep the old boat floating are taking three forms: a frenzy of deck chair rearrangement, stern warnings to the passengers that if she goes down, they will face harsh criminal penalties, and serene, glassy-eyed denial.<sup>98</sup>

The legal efforts attempting to reconcile digital technology with copyright law reflect a larger problem. It has always been the case that new technology creates unforeseen difficulties. In fact, Lewis Mumford suggested that the invention of the clock by and for the use of the monasteries led to their undoing.<sup>99</sup> The new technology made it possible to abstract time in humans' minds and, once abstracted, time could be controlled and regimented.<sup>100</sup> Control and regimentation led to the rise of capitalism<sup>101</sup> which in turn led to the decline of religion and the monasteries. While this description is something of an oversimplification, the main point is straightforward. New technology is created in pursuit of purposes which are consistent with the status quo, but aside from the original goals, the new technology also creates possibilities which challenge the status quo. Once these possibilities are available, humans naturally explore them and disrupt the established order with these new possibilities. The law can recognize this and embrace the new possibilities with as little disruption as possible, or the law can futilely attempt to barricade that which is new, different, and disruptive.<sup>102</sup>

The video and musical recording industries have benefited from the development of digital technology. The technology allowed a cleaner and more refined sound and picture. But those industries will learn, if they have not already, that in addition to providing better pictures and sounds, digital technology allows nearly unlimited dissemination of works without any deterioration in quality. Interested parties, such as the established recording and movie industries and the authors of the *Green Paper*, would like to keep the intended benefits of digital technology—the improved picture and sound quality—while squelching the unintended disseminatory possibilities of the new technology.

This course of action is almost certain to fail. The law needs to adapt and embrace new technology, not become more rigid and try to withstand it. As the Court recognized in *Sony*:

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98. Barlow, *supra* note 39, at 85.

99. See, e.g., LEWIS MUMFORD, *TECHNICS AND CIVILIZATION* 12-14 (1963).

100. See *id.* at 14-15.

101. See *id.* at 14.

102. While this position may seem a bit extreme, it is grounded in historical developments, particularly those developments with powerful potential. For example, the printing press allowed for mass printing of the Bible, individualized worship, and Protestantism in general; the Catholic Church stood in the way and bloody wars followed. The ideas of equality and liberty took hold in 18th-century France; the established nobility stood in the way and were killed. Nothing quite so dire is likely to occur because of the clash between existing copyright law and the capabilities of digital technology. But if the new technologies carry great potential, the law will be unsuccessful in stopping such gains and should try to work with the new possibilities rather than stand against them.

From its beginning, the law of copyright has developed in response to significant changes in technology. Indeed, it was the invention of a new form of copying equipment—the printing press—that gave rise to the original need for copyright protection. Repeatedly, as new developments have occurred in this country, it has been the Congress that has fashioned the new rules that new technology made necessary.<sup>103</sup>

Furthermore, the Court noted,

“The fortunes of the law of copyright have always been closely connected with freedom of expression, on the one hand, and with technological improvements in means of dissemination, on the other. Successive ages have drawn different balances among the interest of the writer in the control and exploitation of his intellectual property, the related interest of the publisher, and the competing interest of society in the untrammelled dissemination of ideas.”<sup>104</sup>

Digital technology is a significant new means to disseminate information and it is time for copyright law to change accordingly. It is time for the law to recognize properly the media which it attempts to govern. If the law remains unchanged— attempting to govern as solid that which is essentially liquid—it will have to create an unnecessary and inexcusable scarcity of access to copyrighted works in order to work. This is so because current copyright law is premised upon a need (a need which is becoming less pronounced) for works to manifest themselves tangibly before communication between people is possible. Therefore, an artificial scarcity would arise in large part from precarious balancing acts which try to pay homage to the old ways, but which also attempt to recognize the new possibilities.

A concrete example of such a balancing act is a policy which allows the public to access a public digital library only from existing physical libraries. Such access would allow at least a slight improvement in the collections of existing libraries; it would make it at least theoretically possible for the public to have access to digital works by means of a computer terminal in the physical library; it would prevent the obsolescence of existing libraries by making them a legal requisite to digital library access; and inconvenient access would encourage the purchase of one's own physical copy of the work. Unfortunately, these access requirements would also create inexcusable waste and unnecessary scarcity. The waste would arise from the inefficient movement of people to gain access. Direct distribution of digital works to the home would be just as cost effective, if not more so, than a more centralized method of distribution, such as a library or software store. Creating an informational bottleneck at the physical library would in turn create an unnecessary deprivation of knowledge for those without the time, inclination, or transportation necessary to reach a physical library capable of accessing the requisite information.

## VI. ALTERNATIVES

As the *Sony* Court noted, copyright law has always sought to reach a balance with new technology.<sup>105</sup> The Task Force seems to recognize this in principle, but fails to take a

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103. *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 430-31 (1984).

104. *Id.* at 430-31 n.12 (quoting BENJAMIN KAPLAN, *AN UNHURRIED VIEW OF COPYRIGHT* vii-viii (1967)).

105. *See supra* text accompanying note 103.



realistic view of the state of information technology and its near future. The coat is not merely a little tight, it is about ready to burst at the seams.<sup>106</sup>

Though new technology creates new problems, it also creates new solutions. For example, new communications make production and dissemination of works considerably cheaper. This is true because, in a traditional sense, there is no need to put the work on a physical body, nor is there a need to transport it physically through space.<sup>107</sup> Therefore, the old costs have been decimated and an author is no longer dependent on a publisher to put forth the money to produce and disseminate.

Currently, publishing costs take a lion's share of a book's total receipts. Authors rarely receive even twenty percent of revenues as royalties.<sup>108</sup> Therefore, in devising a new scheme of copyright, it would only be necessary to recapture about twenty percent of the current selling prices of books in order to induce authors to create.<sup>109</sup> And, while this may still prove a Homeric task, it should be easier than recapturing 100% of the current selling prices. Some might argue that publishers serve a greater function than mere production and dissemination. They find authors whose books people want to read, generate indices in appropriate books, and create demand for those books through advertising. True as this may be, aside from production and dissemination, publishers do not serve a purpose that copyright law needs to recognize. So long as the work is created and disseminated to the public, copyright law has served its function.<sup>110</sup> All else is incidental and, should the public desire to benefit from the other services provided by publishers, they are surely capable of contracting with publishers and paying for those services.<sup>111</sup>

The question remains as to how to recapture a fraction of the current selling price of works while still allowing the exploitation of the new possibilities created by digital technology. While this Comment does not illustrate a specific path which new legislation must take to reach copyright utopia, perhaps it points to the general direction. As noted above, digital technology virtually eliminates the physical realm as a governing factor since it all but eliminates tangibility as a requirement for communication at a distance. Therefore, with the physical realm eliminated as the way to govern works, it makes sense to turn to the temporal. Current copyright law grants authors copyright protection for life plus fifty years.<sup>112</sup> Works made for hire, as well as anonymous and pseudonymous works, receive copyright protection for a term of either seventy-five years from the first publication or one hundred years from the year of creation, whichever is shorter.<sup>113</sup> When the term of protection expires, the copyrighted work falls into the public domain.

These time frames are quite extensive. One might question whether these time spans fall within the constitutional meaning of "for limited times."<sup>114</sup> However, such an inquiry

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106. See *supra* notes 58-59 and accompanying text.

107. It is true that a digitized work must reside in the physical memory of the computer from time to time and that the information must travel in the form of energy through space. The space, however, is so much smaller and the speed of transport is so much faster that the old rules hardly apply.

108. Edwin McDowell, *Authors Agreeing to Smaller Royalties*, N.Y. TIMES, June 23, 1981, at C7.

109. The percentage of revenue currently used to induce authors to create probably varies from industry to industry, but in any case, that percentage under this scheme would be substantially closer to 100% with the cost of production and distribution nearly eliminated.

110. Margaret Chon, *Postmodern "Progress": Reconsidering the Copyright and Patent Power*, 43 DEPAUL L. REV. 97, 107 (1993) (citing *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 546 (1985)).

111. On the other hand, if the demand for publishers drastically declines, it is not the law's job to provide for their future. Although those involved in the production of clay and wedges for cuneiform tablets were probably hurt by the introduction of paper, it seems absurd to suggest that the law should have provided for them.

112. See 17 U.S.C. § 302(a).

113. *Id.* § 302(c).

114. U.S. CONST. art. I, § 8, cl. 8.

would probably be less fruitful than an inquiry into the desirability of such lengthy times. A new copyright law could profit from vastly curtailing the time for which a work is protected while greatly increasing the author's power of exclusive rights during that time.

My proposal is that copyright law recognize the rights of authors for approximately five years and allow an author to pursue profits from any use of that work. Five years is an arbitrary amount of time, but it seems that the profits which authors could realize in five years would be sufficient to induce them to create their works. In any event, the time period needed to provide authors just enough incentive to yield optimal levels of invention necessary for "progress"<sup>115</sup> will be considerably less than a lifetime plus fifty years, particularly with the entire world at one's fingertips as a market.

New technology will also aid the author's pursuit of these profits. Electronic money and credit have arrived, and will continue to grow in prominence. Selling goods on the Internet will be far easier once purchasers can pay simply by hitting a few keys. There are certainly some risks to making payments online, the most prominent being the security of funds used to pay for the goods, but such risks are no greater than paying by credit card number over the telephone.

Of course, not all bastions of copyright law must be destroyed—only those which stand in the way of the free dissemination of knowledge and ideas. For example, the copyright law could allow the creator to maintain an exclusive right to *sell* copies of a work for the creator's lifetime plus fifty years. This would not stop the spread of information; it would only stop others from financially profiting from the works of others. Similarly, any person copying a substantial portion of a work could be required to acknowledge the author as the creator of the work. Indeed, such acknowledgment often more effectively motivates creation than does fiscal reward, particularly in academic circles. Furthermore, requiring such recognition is not likely to stop someone from forwarding useful information to a colleague in the same way that requiring that they first track down the creators and negotiate a fee would discourage them.

Other suggestions for the future of intellectual property come from John Perry Barlow.<sup>116</sup> Barlow suggests that "information economics, in the absence of objects, will be based more on relationship than possession."<sup>117</sup> Two examples of this sort of relationship are real-time performances and services.<sup>118</sup> The real-time performance, he suggests, will be an option for many works made possible by digital technology.<sup>119</sup> Payments for these performances will function like ticket sales to concerts rather than like paying to rent a video tape of that concert.

As a second model for compensating creators, Barlow suggests payment for services, noting that "the entire professional class—doctors, lawyers, consultants, architects, and so on—are . . . being paid directly for their intellectual property."<sup>120</sup> Furthermore, the history of intellectual property shows a tradition of creators being paid for their service to someone else. "Before the industrialization of creation, writers, composers, artists, and the like produced their products in the private service of [their] patrons. Without objects

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115. For a thorough discussion of the meaning of progress as it pertains to intellectual property, see Chon, *supra* note 110. As a general proposition, Chon concludes that the "project of the patent and copyright clause must be understood as access to knowledge." *Id.* at 146.

116. See Barlow, *supra* note 39.

117. *Id.* at 128.

118. *Id.*

119. *Id.*

120. *Id.*

to distribute in a mass market, creative people will return to a condition somewhat like this, except that they will serve many patrons rather than one."<sup>121</sup> Barlow uses an example of the computer hacker buying a legitimate copy of a product in order to take advantage of the technical support offered to purchasers as evidence of service being the means by which creditors get paid.<sup>122</sup>

### CONCLUSION

Digital technology has created vast new possibilities, many of them unexpected. Among these unexpected possibilities are means to effectuate the wide dissemination of information—a desirable turn of events for any society which prides itself on democratic ideals and a well-informed populace. Unfortunately, laws made in light of past technologies stand in the way of maximizing the benefits of future technologies. Specifically, the Copyright Act of 1976, which attempted to legislate for the future, did not foresee and therefore did not provide an adequate mechanism for the potential created by digital technology. As a result, the Task Force, attempting to make recommendations for the new developments, looked toward the already antiquated Act and made recommendations which failed to further the ends of the Act and the Constitution. These recommendations also do not serve the purpose of the copyright—to provide the economic engine for the creation and dissemination of ideas.<sup>123</sup>

The Act and, consequently, the Task Force, are inadequate because they both relied on the premise that works have to manifest themselves physically in order to be communicated. This premise is becoming less frequently true, and mistakes made in domestic laws are spread throughout the world by virtue of international intellectual property treaties as well as by perpetuating the paradigm of fixed copies. Future intellectual property law must recognize the increasingly flawed nature of that premise. This area of law must find a way to work with the changing state of intellectual property, whether it be through one of the suggestions contained in this Comment or through ideas that present themselves as the nature of the new technology becomes clearer.

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121. *Id.*

122. *Id.* Barlow discusses the use of encryption as a means to protect intellectual property owners against hackers. Encryption, although useful, has some serious flaws. The most serious of these is that no matter how well encrypted one's work is, there is always someone who will be able to decrypt it. The decryptors will often come to see themselves as having earned the right to it. As Barlow writes, "It has always appeared to me that the more security you hide your goods behind, the more likely you are to turn your sanctuary into a target." *Id.* In the same vein he writes,

[A] social overreliance on protection by barricades rather than conscience will eventually wither the latter by turning intrusion and theft into a sport, rather than a crime. . . . Furthermore, I would argue that initial efforts to protect digital copyright by copy protection contributed to the current condition in which most otherwise ethical computer users seem morally untroubled by their possession of pirated software.

*Id.*

123. *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 546 (1985) (discussing the benefits afforded to authors and the public as a result of copyright law).