SMU | Dedman School of Law

SMU Law Review

Volume 50 | Issue 3 Article 4

January 1997

Balancing the Digital Scales of Copyright Law

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Comments

BALANCING THE DIGITAL SCALES OF COPYRIGHT LAW*

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* This Comment is entered in the 1997 Nathan Burkan Memorial Competition.

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Patents and copyrights approach nearer than any other class of cases belonging to forensic discussions, to what may be called the metaphysics of the law, where the distinctions are, or at least may be very subtle and refined, and sometimes, almost evanescent.[1]

Book Three\Earth, Chapter Four—Thus I have heard: Never make a technical decision based upon the politics of the situation. Never make a political decision based upon the technical issues. The only place where these realms meet is in the mind of the unenlightened.[2]

I. INTRODUCTION

COPYRIGHT law's primary goal is to "promote the progress of science."[3] Congress is authorized to accomplish this goal by giving to authors "the exclusive right to their . . . writings" for limited times.[4] But the rights of authors are not completely exclusive; copyright law attempts to best promote science by balancing the incentive of authors to create against society's interest in the unhindered dissemination

1. Folsom v. Marsh, 9 F. Cas. 342, 344 (C.C.D. Mass. 1841) (No. 4901), *quoted in* Meeropol v. Nizer, 560 F.2d 1061, 1068 (2d Cir. 1977) (J., Story).
2. GEOFFREY JAMES, THE ZEN OF PROGRAMMING 71 (1988).
3. U.S. CONST. art. I, § 8, cl. 8.
4. *Id.*

of ideas.[5] Congress and the courts continually modify copyright law in order to keep these interests properly balanced.[6] Ironically, it is primarily the constant development of science and technology, the very goal of copyright law, that is responsible for repeatedly upsetting the delicate balance between these competing interests.[7]

The history of copyright law is replete with examples of new technology pushing the outer limits of copyright law, often to the point of forcing copyright law to evolve or risk becoming ineffective at promoting its underlying goal.[8] The effects of current and future technological innovations upon copyright law appear to be no exception.[9]

The potential information processing power available to the average individual is greater today than ever before and will continue to increase in the foreseeable future.[10] But, along with this power comes the ability for the average individual to thwart copyright law on an unprecedented national or global scale.[11]

These latest technological challenges have not gone unnoticed. The Information Infrastructure Task Force (IITF), formed by President Clinton in 1993, recently published a thorough analysis of the effect of the National Information Infrastructure (NII) on intellectual property issues, along with several recommendations for changes to U.S. intellectual property law and policy.[12] To date, these recommendations remain just that, as Congress has not enacted them as law, nor have the courts adopted them as descriptive of current law.[13]

This Comment focuses on the interrelationship of technological innovation and copyright law development. Part II describes the historical influence of technology on copyright law. Part III addresses recent modifications to copyright law by Congress, and the associated technological innovations driving those modifications. Part IV provides examples of the courts molding copyright law to fit or encompass new technology. Part V describes the newest technological challenges to copyright law and the initial responses of the legislature and the courts. Part VI analyzes possible solutions for these latest challenges, with emphasis on the recent proposals by the Working Group on Intellectual Property Rights. Part VII summarizes and concludes the Comment.

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5. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 429 (1984).

6. *Id.*

7. *Id.* at 430-31.

8. *See id.* at 430 n.11.

9. INFORMATION INFRASTRUCTURE TASK FORCE, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS 5 (1995) [hereinafter WHITE PAPER].

10. *Id.* at 7-12.

11. *See id.* at 12.

12. *Id.* at 2, 12.

13. 3 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 12.04(A)(3)(e), at 12-98.2 n.129.22 (Release 40 1996).

II. THE INFLUENCE OF TECHNOLOGY ON THE DEVELOPMENT OF COPYRIGHT LAW

Evolutionary and revolutionary technological innovations have influenced the main legislative acts and amendments of copyright law throughout history. The following sections briefly describe the principal legislative acts, with emphasis on the effects of new technology and on copyright law's expansion to cover that technology.

A. THE STATUTE OF ANNE

"From its beginning, the law of copyright has developed in response to significant changes in technology."[14] In fact, copyright protection originally developed in England in response to the invention of the printing press.[15] The printing press was introduced into England in 1476, allowing large-scale reproduction of books for the first time.[16] Apparently to limit and control dissemination of religious materials, the Crown granted a monopoly in 1534,[17] not to authors, but to the Stationers' Company, giving it the exclusive right to publish all printed works.[18]

The monopoly expired in 1694 and the Stationers' Company, fearing competition, petitioned Parliament over the next several years to renew the monopoly, albeit unsuccessfully.[19] Switching to a different tactic, the Stationers' Company then petitioned Parliament to grant property rights to the *authors* of books, under a belief that the Stationers could still control a monopoly through the authors.[20] In response, Parliament passed the first copyright act, the Statute of Anne,[21] in 1710.[22]

The primary goal of the Statute of Anne was to enhance the public welfare by encouraging the dissemination of knowledge.[23] It accomplished this by giving authors the exclusive right to make copies of their writings for a limited number of years.[24] The Statute of Anne signaled an important shift in emphasis from the Stationers' Company to the rights of authors in general.[25] After the Statute of Anne, the Stationers were unable to continue their monopoly in published material.[26]

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14. *Sony*, 464 U.S. at 430.
15. *Id.*
16. MARSHALL A. LEAFFER, UNDERSTANDING COPYRIGHT LAW § 1.2 (2d ed. 1995).
17. *Id.*
18. Lasercomb Am., Inc. v. Reynolds, 911 F.2d 970, 974 (4th Cir. 1990).
19. 1 WILLIAM F. PATRY, COPYRIGHT LAW AND PRACTICE 10 (1994).
20. *Id.*
21. An Act for the Encouragement of Learning, by vesting the Copies of printed Books in the Authors or Purchasers of such Copies during the Times therein mentioned, 1709, 8 Anne, ch. 19 (1710) (Eng.), *reprinted in* 3 PATRY, *supra* note 19, at 1461-64.
22. *Lasercomb*, 911 F.2d at 974.
23. LEAFFER, *supra* note 16, § 1.2.
24. American Geophysical Union v. Texaco, Inc., 802 F. Supp. 1, 9 (S.D.N.Y. 1992), *aff'd*, 60 F.3d 913 (2d Cir. 1995).
25. LEAFFER, *supra* note 16, § 1.2.
26. *Id.*

The unforeseen results of the events surrounding the Statute of Anne's passage exemplify how the future effects of both technology and the law can be difficult to predict, let alone control.[27]

B. The United States Constitutional Authorization

Following the reasoning behind the Statute of Anne,[28] the United States Constitution empowers Congress to legislate copyright (and patent) statutes "[t]o promote the progress of *science* and the useful arts, by securing for limited times to *authors* and inventors the exclusive right to their respective *writings* and discoveries."[29] Of course, unlike much of copyright law, this clause was not put in the Constitution in response to specific technological change. It is, nevertheless, important to review the rationale for the constitutional clause because of the strong relevance of policy throughout the evolution of copyright law.

The economic philosophy of the constitutional clause is that the "encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors . . . ."[30] Although the immediate effect of copyright is to reward the creative labor of authors, the ultimate aim is to "stimulate artistic creativity for the general public good."[31] Authors are encouraged and rewarded for their creations, but the motivation must promote the primary goal of broad dissemination of creative works.[32] Not only is the reward of authors' efforts a secondary consideration, the authors' "sweat of the brow" does not even enter into the consideration of whether a work is copyrightable.[33]

The underlying philosophy for copyright law thus requires a difficult balancing act: the monopoly granted to authors over their works must be strong enough to provide economic incentive to the authors, but limited enough so as to not hinder society's interests in the widespread dissemination of those works and the free flow of ideas and information.[34]

C. The Copyright Act of 1790

Pursuant to the constitutional grant of authority, Congress promptly passed the first Copyright Act of 1790,[35] modeled on the Statute of Anne,

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27. *Cf.* Michael Sullivan-Trainor, Detour: The Truth About the Information Superhighway 194 (1994).

28. Leaffer, *supra* note 16, § 1.2; *American Geophysical*, 802 F. Supp. at 9.

29. U.S. Const. art. I, § 8, cl. 8 (emphasis added).

30. Mazer v. Stein, 347 U.S. 201, 219 (1954).

31. Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975); *accord* Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991); *Sony*, 464 U.S. at 429; United States v. Paramount Pictures, Inc., 334 U.S. 131, 158 (1948); Fox Film Corp. v. Doyal, 286 U.S. 123, 127 (1932).

32. *Twentieth Century*, 422 U.S. at 156.

33. *Feist*, 499 U.S. at 359-64 (stating that originality is a constitutional requirement and, notwithstanding the possible inequities, copyright awards originality, not effort).

34. *Sony*, 464 U.S. at 429.

35. Act of May 31, 1790, ch. 15, 1 Stat. 124 (current version at 17 U.S.C. §§ 101-803 (1994)), *reprinted in* 3 Patry, *supra* note 19, at 1488-90.

and set the tone for subsequent copyright acts.[36] On its face, the scope of copyright law in the first act, i.e. the definition of "authors" and their "writings," appeared to be fairly limited, covering only maps, charts, and books.[37] But as technology expanded both the scope of creative activity and the means for reproducing manifestations of that activity, thereby increasing their economic importance, Congress and the courts gave the terms "authors" and "writings" an ever broadening scope.[38]

For example, in 1802 Congress amended the Copyright Act of 1790 to include engravings and etchings.[39] Then, in 1831, Congress added musical compositions to the subject matter of copyright as part of a general revision of the 1790 Act.[40] In 1865, Congress extended the list to include photographs and photographic negatives, at just the time that Mathew Brady's Civil War pictures were becoming famous.[41] In a second general revision done in 1870, Congress granted protection to paintings, drawings, chromolithographs and three dimensional works such as statues and models.[42]

The definition of "authors" and "writings" is thus much broader than the literal connotation.[43] In the constitutional sense, an "author" means "'he to whom anything owes its origin; originator; maker'"[44] and not just an individual who writes a composition.[45] Likewise, the constitutional definition of "writings" includes "any physical rendering of the fruits of creative or aesthetic labor," and not just script or printed material.[46] These broad definitions allow copyright law to extend to creative works in technologies that do not yet exist.

D. THE COPYRIGHT ACT OF 1909

In 1908, the Supreme Court denied copyright infringement claims brought by musical composers against the manufacturers of perforated

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36. *American Geophysical*, 802 F. Supp. at 9; LEAFFER, *supra* note 16, § 1.3.

37. Goldstein v. California, 412 U.S. 546, 562 n.17 (1973).

38. *Id.* at 561-62.

39. Act of Apr. 29, 1802, ch. 36, 2 Stat. 171 (current version at 17 U.S.C. § 102); *Mazer*, 347 U.S. at 208.

40. Act of Feb. 3, 1831, ch. 16, 4 Stat. 436 (current version at 17 U.S.C. §§ 101-803), *reprinted in* 3 PATRY, *supra* note 19, at 1491-94. This was the first of four general revisions to copyright law; the subsequent general revisions were passed in 1870, 1909, and 1976. 1 PATRY, *supra* note 19, at 38-39 & n.114.

41. Act of Mar. 3, 1865, ch. 126, 13 Stat. 540 (current version at 17 U.S.C. § 102); *Goldstein*, 412 U.S. at 562 n.17; *accord* Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 56-58 (1884).

42. Act of July 8, 1870, ch. 230, 16 Stat. 198 (current version at 17 U.S.C. §§ 101-803); *Mazer*, 347 U.S. at 209; *see, e.g.*, Bleistein v. Donaldson Lithographing Co., 188 U.S. 239 (1903).

43. *Goldstein*, 412 U.S. at 561.

44. Feist Publications, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 346 (1991) (quoting *Burrow-Giles*, 111 U.S. at 58).

45. *See Goldstein*, 412 U.S. at 561 (citing *Burrow-Giles*, 111 U.S. at 58).

46. *Id.* at 561-62. As broad as these terms are, however, it is important to remember that they are constitutionally limited to "original" works. *Feist*, 499 U.S. at 346.

musical rolls for player pianos.[47] The musical roll industry developed rapidly during the period prior to this holding which involved significant but previously unaddressed questions of property interest.[48] Despite the economic importance, the Court held that musical rolls are not copies of the original sheet music because people cannot directly read the music on the rolls.[49] The Court indicated that Congress would need to act in order to cure the unjustness caused by the free use of the copyrighted works.[50]

In response to this and other pressures, Congress consolidated and amended the federal copyright statutes in the Copyright Act of 1909.[51] The 1909 Act emphasized that copyrights could be obtained for "all writings of an author,"[52] and listed eleven nonexclusive classes of protected works, including many that did not even exist at the time of the Copyright Act of 1790.[53] The amendment was deemed necessary because "'the reproduction of various things which are the subject of copyright has enormously increased,' and that the President has specifically recommended revision . . . because the prior laws 'omit[ted] provision for many articles which, under modern reproductive processes, are entitled to protection.'"[54]

Almost immediately, new technology and its economic impact forced Congress to amend the 1909 Act to create two new classes of subject matter, specifically providing coverage for motion pictures.[55] The congressional reports on the amendment stated:

> The occasion for this proposed amendment is the fact that the production of [motion pictures] has become a business of vast propor-

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47. White-Smith Music Publishing Co. v. Apollo Co., 209 U.S. 1, 1 (1908).
48. *Id.* at 9.
49. *Id.* at 18.
50. *Id.*
51. Act of Mar. 4, 1909, Pub. L. No. 60-349, chs. 319-20, 35 Stat. 1 (current version at 17 U.S.C. §§ 101-803), *reprinted in* 3 PATRY, *supra* note 19, at 1500-12; *see White-Smith Music*, 209 U.S. at 18; *Goldstein*, 412 U.S. at 562.
52. Act of Mar. 4, 1909, § 4 (current version at 17 U.S.C. § 102(a)).
53. *Id.* § 5 (current version at 17 U.S.C. § 102(a)). The eleven classes were:
> (a) Books, including composite and cyclopaedic works, directories, gazetteers, and other compilations;
> (b) Periodicals, including newspapers;
> (c) Lectures, sermons, addresses, prepared for oral delivery;
> (d) Dramatic or dramatico-musical compositions;
> (e) Musical compositions;
> (f) Maps;
> (g) Works of art; models or designs for works of art;
> (h) Reproductions of a work of art;
> (i) Drawings or plastic works of a scientific or technical character;
> (j) Photographs;
> (k) Prints and pictorial illustrations . . . .

Id.
54. *Goldstein*, 412 U.S. at 562 n.17 (quoting H.R. REP. No. 2222, 60th Cong., 2d Sess. 1 (1909) (quoting Samuel J. Elder and President Theodore Roosevelt) (brackets in original)).
55. *Id.* The two classes were "motion-picture photoplays" and "motion pictures other than photoplays." *Id.* The first category covered dramatic motion pictures and the second category covered newsreels, travelogues, and the like. 1 PATRY, *supra* note 19, at 61-62.

> tions. The money invested therein is so great and the property rights so valuable that the committee is of the opinion that the copyright law ought to be amended as to give them distinct and definite recognition.[56]

There were no congressional extensions of copyright's subject matter for a long period after the motion picture amendment. The acceleration of technological development in the twentieth century, however, compelled Congress to investigate a major revision of the increasingly outdated 1909 Act.[57] In 1955, Congress commenced a copyright revision project that eventually took twenty years to finish.[58] During this period, Congress delayed many needed changes to copyright law, intending to incorporate the changes in the final product of the revision process.[59]

However, the economic importance of one area, sound recordings, was too great to await the omnibus revision.[60] The development of the audio tape recorder permitted mass production of illegal audio tapes, which accounted for more than twenty percent (over $100 million) of the annual audio tape market.[61] Therefore, in 1971, five years before the general revision, Congress added the class of sound recordings (as opposed to the already protected underlying composers' works) to the subject matter of copyright.[62] The author's exclusive rights in sound recordings were limited to §§ 106(1)-(3), however, and specifically did not include performance rights under § 106(4).[63]

E. THE COPYRIGHT ACT OF 1976

Twenty years of revisional effort culminated in the Copyright Act of 1976,[64] the foundation of current copyright law. Although there were

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56. H.R. REP. NO. 756, 62d Cong., 2d Sess. 1 (1912); S. REP. NO. 906, 62d Cong., 2d Sess. 1 (1912).

57. LEAFFER, *supra* note 16, § 1.4.

58. *Id.*

59. 1 PATRY, *supra* note 19, at 74.

60. H.R. REP. NO. 487, 92d Cong., 1st Sess. 2 (1971).

61. *Id.*; Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 430 n.11 (1984).

62. *Goldstein*, 412 U.S. at 568 (citing Act of Oct. 15, 1971, Pub. L. No. 92-140, 85 Stat. 391 (current version at 17 U.S.C. § 102)).

63. 17 U.S.C. § 114(a). *But see* discussion *infra* part V.B.

64. Act of Oct. 19, 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified as amended at 17 U.S.C. §§ 101-803), *reprinted in* 3 PATRY, *supra* note 19, at 1531-87. The 1976 Act redefined copyrightable subject matter as subsisting in:

> [o]riginal 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. Works of authorship include the following categories:
> (1) literary works;
> (2) musical works, including any accompanying words;
> (3) dramatic works, including any accompanying music;
> (4) pantomimes and choreographic works;
> (5) pictorial, graphic, and sculptural works;
> (6) motion pictures and other audiovisual works; and
> (7) sound recordings.

many reasons for the effort's extended length,[65] new technological innovations were a significant factor in the long delay.[66] New copying technology,[67] cable television and computer software all prominently influenced the passage of the 1976 Act.[68]

For example, the advent of cable television at first hindered, then accelerated the revision effort.[69] In 1968, the Supreme Court held that cable television operators are more like viewers than broadcasters in that they do not perform the programs that they receive and retransmit, and thus do not infringe those copyrighted programs.[70] The court acknowledged that the 1909 Act must be read in light of drastic technological changes. But the Court ultimately held that it was the responsibility of Congress to take account of the various political considerations in modifying copyright protection.[71] Congress initially could not reach a consensus,[72] but the next Supreme Court decision on the issue[73] prompted Congress into action.[74] In *Teleprompter*, the Supreme Court extended *Fortnightly* by holding that even cable retransmission to households that normally could not receive the broadcast did not constitute copyright infringement.[75] Congress resolved the issue in the 1976 Act by imposing copyright liability on cable television systems, but also provided them with a compulsory license.[76]

Copyright protection for computer programs proved more contentious than for cable television, so Congress established the National Commission on New Technological Uses of Copyrighted Works (CONTU) in 1974 to investigate the issue and make recommendations.[77] But Congress decided that it could not delay the revision any longer and passed the 1976 Act before receiving CONTU's recommendations.[78] The 1976 Act

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17 U.S.C. § 102(a). Congress added an eighth category, architectural works, in a later amendment. *See* Architectural Works Copyright Protection Act, Pub. L. No. 101-650, 104 Stat. 5133 (1990) (codified as amended at 17 U.S.C. § 102(a)).

65. 1 PATRY, *supra* note 19, at 74-89. There were extensive debates on most of the modifications in the 1976 Act, which included: (1) establishment of seven (now eight) broad categories of copyrightable subject matter; (2) codification of the fair use defense previously developed by the courts; (3) preemption of common law copyright by eliminating the distinction between published and unpublished works; (4) replacing the dual twenty-eight year terms with a single term of life of the author plus fifty years; and (5) simplification of the formal procedures. *Id.* at 88-89.

66. Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 430 n.11 (1984).

67. *Id.* Congress granted a library copying exemption in § 108 of the 1976 Act. *Id.* *See* discussion *infra* part IV.B. for recent developments in the photocopying area.

68. *Id.*; Vault Corp. v. Quaid Software Ltd., 847 F.2d 255, 259 (5th Cir. 1988).

69. 1 PATRY, *supra* note 19, at 83-84.

70. Fortnightly Corp. v. United Artists Television, Inc., 392 U.S. 390, 400-01 (1968).

71. *Id.* at 396, 401-02.

72. Teleprompter Corp. v. Columbia Broadcasting Sys., Inc., 415 U.S. 394, 414 n.16 (1974).

73. *Id.*

74. 1 PATRY, *supra* note 19, at 84.

75. *Teleprompter*, 415 U.S. at 412.

76. 17 U.S.C. § 111.

77. Act of Dec. 31, 1974, Pub. L. No. 93-573, 88 Stat. 1873 (codified as amended at 17 U.S.C. § 104); *Vault*, 847 F.2d at 259.

78. *Vault*, 847 F.2d at 259.

merely included computer programs in the definition of literary works[79] and basically maintained the status quo[80] pending the outcome of CONTU's investigation.[81]

III. STATUTORY COPYRIGHT LAW IS DRIVEN BY TECHNOLOGICAL INNOVATION

Advancing technology continued to strongly influence copyright law after the 1976 Act. The following sections briefly describe various congressional amendments addressing recent technological developments. In each case, congressional action was necessary because of the important role new technology played in the national economy and to the United States' competitiveness in the global market.

A. THE COMPUTER SOFTWARE COPYRIGHT ACT OF 1980

In 1978, CONTU completed its research and issued a final report, detailing its recommendations for computer programs.[82] CONTU asserted that protection was necessary because "[t]he cost of developing computer programs is far greater than the cost of their duplication."[83] But CONTU also recognized that the economic interests of computer program authors needed to be balanced against the undue burdening of computer program users.[84] Therefore, CONTU recommended two changes: (1) adding a definition of a computer program to § 101[85] and (2) replacing the existing § 117 with a new § 117, which proscribed unauthorized copying of computer programs but allowed a rightful possessor to make a copy or adaptation if necessary to use the program or for archival purposes.[86] In 1980, Congress passed the Computer Software Copyright Act, adopting CONTU's recommendations, and thus recognizing computer programs as copyrightable subject matter.[87]

Unfortunately, the exemptions provided by § 117 contemplate ownership of a physical copy of the software (*e.g.*, on a diskette), but with technology quickly advancing to the point where software may be sold by digital transmission, the effectiveness of § 117 may be called into ques-

79. 17 U.S.C. § 101.

80. Act of Oct. 19, 1976, Pub. L. No. 94-553, 90 Stat. 2541 (current version at 17 U.S.C. § 117); *Vault*, 847 F.2d at 259.

81. *Vault*, 847 F.2d at 259. The outcome of the CONTU study is discussed *infra* part III.A.

82. FINAL REPORT OF THE NATIONAL COMMISSION OF NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS (1978) [hereinafter CONTU REPORT].

83. *Id.* at 26.

84. *Id.* at 29.

85. *Id.* at 30. A computer program is a "set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." 17 U.S.C. § 101.

86. CONTU REPORT, *supra* note 82, at 29-30.

87. 17 U.S.C. §§ 101, 117; *see* Act of Dec. 12, 1980, Pub. L. No. 96-517, 94 Stat. 3015, 3028. Congress did make one change to the recommendations by replacing "rightful possessors" with "owners" in § 117.

tion.[88] Moreover, the Computer Software Copyright Act did not resolve the issue of exactly what portions of a computer program are copyrightable, and the courts are still grappling with that question.[89]

B. The Semiconductor Chip Protection Act of 1984

Computer programs were not the only computer related product requiring extra assurance of protection. Similar to software, semiconductor masks used to manufacture integrated circuits are expensive to produce but relatively easy to copy.[90] Also similar to software, semiconductor masks do not fit cleanly into traditional copyright law, primarily due to their utilitarian nature.[91] However, because of their extreme importance to the national economy, Congress enacted the Semiconductor Chip Protection Act of 1984 (Mask Work Act).[92]

The Mask Work Act provides protection for semiconductor integrated circuits that is partly *sui generis* in nature but is still based on copyright law concepts.[93] The Mask Work Act protects the masks from literal copying.[94] Like a standard copyright, originality is the key requirement, and independently created identical masks do not infringe on each other.[95] Unlike a standard copyright, however, the Mask Work Act only protects masks for a period of ten years,[96] which is actually a substantial length of time in the fast-paced semiconductor industry.

C. The Record Rental Amendment of 1984

During the same time period, another new technology, the compact disc, threatened to upset the balance between copyright owners and consumers of their works. Prior to the compact disc, the rental of sound recordings on vinyl records or cassette tapes to consumers without the payment of royalties was not considered a great problem because of the fragile nature and less than perfect quality of those mediums. Many viewed commercial rental of sturdy, high quality compact discs to consumers owning audio tape recorders, however, as a serious threat to the

88. 2 Nimmer & Nimmer, *supra* note 13, § 8.08(B)(1), at n.35.

89. *E.g.*, Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807 (1st Cir. 1995), *aff'd by an equally divided court*, 116 S. Ct. 804 (1996) (per curiam). Computer programs are quite different from traditional copyrightable subject matter, and, thus, computer programs are in some respects forced to fit into traditional copyright definitions and tests. *Compare id.* at 816 (holding that a program's menu command hierarchy is uncopyrightable method of operation) *with* Apple Computer, Inc., v. Franklin Computer Corp., 714 F.2d 1240, 1251 (3d Cir. 1983) (holding that an operating system is not a method of operation and, thus, is not precluded from copyright protection). *See infra* note 116 and accompanying text.

90. 2 Nimmer & Nimmer, *supra* note 13, § 8A.02(A).

91. Leaffer, *supra* note 16, § 3.9.

92. Semiconductor Chip Protection Act of 1984, Pub. L. No. 98-620, 98 Stat. 3347 (codified at 17 U.S.C. §§ 901-14).

93. Brooktree Corp. v. Advanced Micro Devices, Inc., 705 F. Supp. 491, 494 (S.D. Cal. 1988).

94. *Id.*

95. *Id.*

96. 17 U.S.C. § 904.

music industry that could usurp much of the sales market.[97] When compact discs were released, copyright ownership was limited by the first sale doctrine, whereby a copyright owner did not have any control over the disposition of a particular copy by a lawful possessor.[98] Therefore, Congress enacted the Record Rental Amendment of 1984,[99] which prevents the rental, lease, or lending of sound recordings for commercial advantage, and thus restored the delicate balance that once again had been upset by new technology.

D. The Computer Software Rental Amendments Act of 1990

For similar reasons, Congress enacted the Computer Software Rental Amendments Act of 1990,[100] prohibiting the rental, lease or lending of computer programs for commercial benefit.[101] Like compact discs, computer programs are stored digitally and can be rented over and over without any degradation in quality. In addition, the rental of programs could function merely as a front for wholesale illegal copying, and use of those copies after the rental period expired. As with compact discs, commercial rental of computer programs would severely reduce the sales market, and hence the economic incentive for the producers of computer programs.

One court recently held that § 109 prohibits not only outright rentals, but also transactions that are rentals in substance.[102] The court stated that the defendant's deferred billing plan, which initially charged customers a small nonrefundable down payment and charged the full balance only if the software was not returned within five days, was in the nature of a rental.[103] The court distinguished this scheme from return policies that allow a truly unsatisfied customer to return software for a refund less a true restocking fee.[104] Whether courts can use this distinction as a workable approach in classifying a fact pattern as legal or illegal has yet to be determined.

E. The Audio Home Recording Act of 1992

In 1992, Congress was forced to address yet another new development in audio electronics, digital audio recording.[105] Unlike an analog re-

97. 2 Nimmer & Nimmer, *supra* note 13, § 8.12(B)(7); *see* discussion *supra* part II.D.
98. 17 U.S.C. § 109(a).
99. Record Rental Amendment Act of 1984, Pub. L. No. 98-450, 98 Stat. 1727 (amending 17 U.S.C. §§ 109, 115). Although the original Act had a sunset review clause, Congress eventually eliminated the termination date in order to comply with international treaties. 2 Nimmer & Nimmer, *supra* note 13, § 8.12(B)(7), at n.145 (citing Pub. L. No. 103-182, § 332, 107 Stat. 2057 (Dec. 8, 1993)).
100. Judicial Improvements Act of 1990, Pub. L. No. 101-650, 104 Stat. 5089, 5134-37 (amending 17 U.S.C. § 109(b)).
101. *Id.*
102. Central Point Software, Inc. v. Global Software & Accessories, Inc., 880 F. Supp. 957, 965 (E.D.N.Y. 1995); *see* 2 Nimmer & Nimmer, *supra* note 13, § 8.12(B)(8), at n.153.
103. *Central Point Software*, 880 F. Supp. at 965.
104. *Id.*
105. 1 Patry, *supra* note 19, at 112-13.

corder, a digital recorder could make perfect, multi-generational copies of a source, especially a digital source such as a compact disc.[106] Once again, the balance between copyright owners and consumers was being tipped away from copyright owners. This technology pitted the electronics industry, the makers of the recording machines, against the music industry, the owners of the copyrighted material.[107]

In response, Congress enacted the partly *sui generis* Audio Home Recording Act of 1992,[108] a political compromise between the two competing interests.[109] The Audio Home Recording Act represents a break from the traditional copyright approach of limiting the use of new technology in copying copyrighted works.[110] Instead, the Act places legal restraints on the technology itself by requiring each "digital audio recording . . . or . . . interface device"[111] to conform to the "Serial Copy Management System."[112] Under this system, the recording device can produce copies by recording directly from an original source (*e.g.*, a compact disc) for an unlimited number of times, but a second copy cannot be recorded from the first generation copies (*i.e.*, serial copying is prohibited).[113] In addition, royalties are paid for the sale of each digital audio recording device and medium.[114]

This legislation is too new and the market in digital recorders too young to determine whether and how well the legislation will work. It remains to be seen what type of approach is better at promoting its respective technology: the *sui generis* approach of the Audio Home Recording Act and the Mask Work Act or the minor adjustment of existing law approach in the computer software area. If the Audio Home Recording Act functions as intended, it may set a precedent for legislative compromises in the future.[115]

IV. THE COURTS CONTINUE TO MOLD COPYRIGHT LAW TO COMPENSATE FOR NEW TECHNOLOGY

Part III illustrates two very different types of challenges currently facing copyright law. The Computer Software Copyright Act and the Semiconductor Chip Protection Act address whether works created with new technology should be included in the subject matter of copyright. In con-

106. 2 NIMMER & NIMMER, *supra* note 13, § 8B.01(A).
107. LEAFFER, *supra* note 16, § 8.29(A).
108. Audio Home Recording Act of 1992, Pub. L. No. 102-563, 106 Stat. 4237 (codified at 17 U.S.C. §§ 1001-10).
109. 2 NIMMER & NIMMER, *supra* note 13, § 8B.01(C).
110. LEAFFER, *supra* note 16, § 8.29(A).
111. 17 U.S.C. § 1002(a).
112. *Id.* § 1002(a)(1).
113. 2 NIMMER & NIMMER, *supra* note 13, § 8B.01(C).
114. 1 PATRY, *supra* note 19, at 113.
115. LEAFFER, *supra* note 16, § 8.29(B). This is not the first legislation to limit technology itself; 47 U.S.C. § 605(e)(4) prohibits the manufacture or distribution of devices that are "primarily" used for unauthorized decryption of satellite cable programming. 47 U.S.C. § 605(e)(4) (1994).

trast, the Computer Software Rental Amendments Act, the Record Rental Amendment and the Audio Home Recording Act address enforceability and extent of an author's exclusive rights in acknowledged copyrightable works when new technology shifts the balance toward the copyright owners or, as is usually the case, toward the users of the works.

The remainder of this Comment focuses on the second issue: the enforceability of the law and the extent of exclusive rights in copyrights as affected by new technologies.[116] This section discusses the courts' response to two examples of new technology, home video taping and photocopying.

The following two cases analyze in detail the extent of a copyright owner's exclusive rights and exceptions to those rights. The five exclusive rights of a copyright owner are enumerated in § 106.[117] A copyright owner has the exclusive right to (1) reproduce the work, (2) prepare derivative works, (3) distribute copies to the public, (4) perform certain categories of works, and (5) display certain categories of works publicly.[118] Although these rights are broad, the copyright owner does not possess complete control over all reproductions of a copyrighted work.[119] Sec-

116. The first issue is far from resolved with respect to computer programs, and will continue to be raised in the future as new and unforeseen technologies give rise to new forms of expression. The courts are presently debating the extent of copyright protection for computer programs. *See* Lotus Dev. Corp. v. Borland Int'l, Inc., 49 F.3d 807 (1st Cir. 1995), *aff'd by an equally divided court*, 116 S. Ct. 804 (1996) (per curiam). One of the most difficult statutes to apply properly to computer programs is 17 U.S.C. § 102(b), prohibiting protection for any "idea, procedure, process, system, method of operation, concept, principle, or discovery . . . ." 17 U.S.C. § 102(b). Complicating this determination is the question of the extent, if any, to which the specific protection provided to computer programs by 17 U.S.C. § 117 affects the application of § 102(b). *Lotus*, 49 F.3d at 820 (Boudin, J., concurring). In other words, because Congress declared computer programs explicitly copyrightable under § 117, should the fact that programs inherently involve some sort of procedure or a method of operation be given less weight than in the traditional case?

Until 1995, the courts were heading for what appeared to be a workable compromise set out by the Second Circuit in Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693 (2d Cir. 1992). In *Computer Associates*, the Second Circuit applied an abstraction-filtration-comparison test to determine what nonliteral aspects of a computer program are protected copyrightable expression for comparison to another work. *Id.* at 706. Presumably because of § 117, the court did not attempt to strictly apply § 102(b). *Lotus*, 49 F.3d at 815.

But, in 1995, the First Circuit held that the menu hierarchy of a computer program is an unprotectable method of operation under 17 U.S.C. § 102(b) and that § 117 does not apply to the menu command hierarchy of a computer program. *Lotus*, 49 F.3d at 815-16. The one-sentence per curiam affirmation by an equally divided Supreme Court, Lotus Dev. Corp. v. Borland Int'l, Inc., 116 S. Ct. 804 (1996), does not provide the much needed guidance that is urgently sought in the software field. *See Deadlocked Court Affirms Lotus One Week After Oral Argument*, 51 Pat. Trademark & Copyright J. (BNA) No. 1261, at 367 (Jan. 18, 1996); *see also Copyright Protection for Software Menu Hierarchy Will Be Reviewed*, 50 Pat. Trademark & Copyright J. (BNA) No. 1246, at 609 (Sept. 28, 1995).

117. 17 U.S.C. § 106.

118. *Id.* Exclusive right (4) applies to "literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works . . . ." *Id.* § 106(4). Exclusive right (5) applies to "literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work . . . ." *Id.* § 106(5).

119. *Sony*, 464 U.S. at 432-33.

tions 107 through 120 describe various limitations on a copyright owner's exclusive rights.[120] The important limitation for immediate purposes is that of "fair use."[121] Under § 107, fair use "for purposes such as criticism, comment, news reporting, teaching . . . , scholarship, or research, is not an infringement of copyright."[122] In determining whether a specific use is fair, the following factors are considered:

> (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;
>
> (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.[123]

As the following cases illustrate, balancing a copyright owner's exclusive rights against the public's fair use of the copyrighted works, in order to achieve the underlying goals of copyright law, is a challenge confronting the courts each time a new reproductive technology arises.

A. Home Videotaping

In 1982, the Supreme Court decided *Sony Corp. of America v. Universal City Studios, Inc.*,[124] which pitted the entertainment industry against the electronics industry.[125] The defendant, Sony, manufactured and sold the recently introduced but extremely popular video cassette recorder (VCR). The plaintiffs, Universal Studios and Walt Disney, held a substantial number of copyrights for motion pictures and other audiovisual works broadcast on television that were being recorded by VCR owners. The plaintiffs sued Sony as a contributory infringer of their copyrights.[126] The Supreme Court faced two issues in the case with possibly broad implications for future technologies.

The first issue was whether private, noncommercial "time-shifting"[127] of copyrighted broadcast television programs constitutes a fair use.[128] Applying the four factor test of § 107, the Court held that such time-shifting is indeed fair use.[129] Time-shifting for private home use is a non-

120. 17 U.S.C. §§ 107-20.
121. *Id.* § 107.
122. *Id.*
123. *Id.* § 107(1)-(4).
124. 464 U.S. 417 (1984).
125. The uncertainty of a judicial outcome such as *Sony* may have spurred the electronics industry and the music industry to come to the legislative compromise achieved ten years later in the Audio Home Recording Act of 1992. *See* discussion *supra* part III.E.
126. *Sony*, 464 U.S. at 420.
127. Time-shifting is the recording of a television program that the viewer cannot watch at the time of airing and the subsequent viewing of the program at a more convenient time. *Id.* at 421.
128. *Id.* The Court addressed the time-shifting issue only, and did not address the issue of permanent archiving of copyrighted material by users.
129. *Id.* at 454-56.

commercial, private activity, so § 107(1) favored Sony.[130] Section 107(2) also supported Sony because part of the nature of a televised work is that it is broadcast free of charge.[131] On the other hand, § 107(3) favored Universal because the entire work is copied.[132] Section 107(4), however, strengthened Sony's position because Universal failed to demonstrate that time-shifting causes any demonstratable harm to the potential market for the copyrighted work.[133] If anything, the market probably benefits because time-shifting permits more viewers to watch televised programs.[134] In aggregate, the four factors weighed in favor of Sony and fair use.[135]

The first issue affected the outcome of the second issue, which is whether the sale of a VCR by Sony to consumers who are recording copyrighted programs constitutes contributory infringement.[136] The Court held that Sony was not liable because the VCR is capable of a substantial noninfringing use.[137] The Court found that the private, noncommercial time-shifting of programs in the home meets this standard.[138] This is true whether the VCR is used (1) for time-shifting authorized by other copyright owners, or (2) for unauthorized time-shifting because it is a fair use.[139]

In holding for Sony, the Court recognized that a balance must be struck "between a copyright holder's legitimate demand for effective—not merely symbolic—protection of the statutory monopoly, and the rights of others freely to engage in substantially unrelated areas of commerce."[140] In addition, the Court repeatedly stated that Congress, not the Court, is

130. *Id.* at 496.

131. *Id.* at 499. This aspect of the nature of a copyrighted work does not appear to be the appropriate measure. Instead, the nature of a copyrighted work should more appropriately focus on the extent that the work embodies creative expression as opposed to factual material. *See* American Geophysical Union, v. Texaco, Inc., 60 F.3d 913, 925 (2d Cir. 1995).

132. *Sony*, 464 U.S. at 449-50.

133. *Id.* at 454.

134. *Id.* However, advances in technology, from the infrared remote, to visual fast-forwarding, to the recent commercial-skipping VCRs, may mean that there are more viewers of the program itself, but less viewers of the commercials, which are, of course, the source of revenue. *See* 3 NIMMER & NIMMER, *supra* note 13, § 13.05(F)(5)(b)(i).

135. *Sony*, 464 U.S. at 454-55. In Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569 (1994), the Supreme Court emphasized that in the application of the § 107 four-factor test, evidentiary presumptions biasing any of the four factors toward or away from fair use are not appropriate. *Id.* at 593. Instead, all four factors must be applied and analyzed on a case-by-case basis. *Id.* at 577. Additionally, the Court found that the more transformative the copy, the less important its commercial use. *Id.* at 579; *1994 Resolves Some IP Issues, Leaves Others Hanging for Coming Year*, 49 Pat. Trademark & Copyright J. (BNA) No. 1213, at 311-12 (Jan. 26, 1995) (suggesting that "there is as great an interest in building upon copyrighted works as there is in creating original works").

136. *Sony*, 464 U.S. at 442.

137. *Id.* The Court analogized to the staple article of commerce doctrine in patent law, 35 U.S.C. § 271, which provides that the sale of an article suitable for substantial noninfringing use is not contributory infringement. *Id.* at 440.

138. *Id.* at 442.

139. *Id.*

140. *Id.* The Court did appear to reserve the option of reappraising home videotaping at a later date because it based its decision on evolving empirical data. *Id.* at 455.

the proper governmental body to reach a compromise that fully takes into account the competing interests on both sides of a new technology.[141]

B. PHOTOCOPYING

In 1995, the Second Circuit decided *American Geophysical Union v. Texaco, Inc.*,[142] another case that applied the § 107 fair use test to a relatively new technological innovation.[143] A group of publishers sued Texaco because of its practice of circulating journals from which scientists photocopied articles of interest.[144]

"[T]he invention and widespread availability of photocopying technology threatens to disrupt the delicate balances established by the Copyright Act,"[145] thus creating "a pressing need for the law 'to strike an appropriate balance between the authors' interest in preserving the integrity of copyright, and the public's right to enjoy the benefits that photocopying technology offers.'"[146]

The specific issue decided by the court was whether the photocopying of articles in a scientific journal by a research scientist constitutes fair use.[147] After extensive analysis, the court held that "institutional, systematic, archival"[148] copying of copyrighted materials by an employee is not a fair use.[149] The court stressed that the ruling applies only to the specific facts of the case, and that other situations, such as individuals photocopying for personal use, may constitute fair use or *de minimis* copying, and must be analyzed on their own facts.[150]

In applying § 107, the court held that the first fair use factor favored the publishers because the primary purpose of Texaco's use was nontransformative archival, thus supplanting the purchase or licensing of additional subscriptions.[151] The second factor supported Texaco because of

141. *Id.* at 431, 456. Congress appears to have done just that for a more recent technology, digital audio recording. Ten years after *Sony*, the electronics industry and the music industry achieved a legislative compromise with the passage of the Audio Home Recording Act of 1992. *See* discussion *supra* part III.E.

142. 60 F.3d 913 (2d Cir. 1995).

143. *Id.* at 916.

144. Although such copying is both common and hard to detect, the publishers selected Texaco because Texaco was paying less in royalties than similarly situated companies. Junda Woo, *Photocopying Case Shows Flaws in System to Monitor Royalties*, WALL ST. J., Jan. 3, 1995, at A15.

145. *Texaco*, 60 F.3d at 917.

146. *Id.* (quoting 3 NIMMER & NIMMER, *supra* note 13, § 13.05(E)(1)).

147. *Id.* at 914. The court actually questioned whether the fair use test should apply at all to mechanically reproduced copies of an entire document, but in light of the Supreme Court decision in *Sony*, the fair use test is proper. *Id.* at 917.

148. *Id.* at 931.

149. *Texaco*, 60 F.3d at 931.

150. *Id.* at 931-32; *see 1994 Resolves Some IP Issues, Leaves Others Hanging for Coming Year*, *supra* note 135, at 313.

151. *Texaco*, 60 F.3d at 924. The court acknowledged, however, that a primary use of putting the work into a more usable format, or preserving the original from hazardous conditions, might tip the first factor toward the defendant. *Id.* at 919.

the factual nature of the copyrighted scientific articles.[152] However, the third and fourth factors strengthened the publishers' position because Texaco copied the articles in their entirety,[153] and because of lost licensing and subscription revenues to the publishers.[154] Taken together, the four factors weighed in favor of the publishers and against fair use.[155] The court concluded by stating that Texaco could easily remedy the situation by buying extra subscriptions or by paying royalties.[156]

V. THE NEWEST TECHNOLOGICAL CHALLENGE TO COPYRIGHT LAW

A. Digital Information Processing

"One of the transforming scientific revolutions of the twentieth century has been to capture words, sounds, and images in digital form."[157] In the near future, technological developments will enable the average individual to digitally record, store, manipulate, reproduce, transmit and receive information that can be represented in two-dimensional form.[158]

Two key components of this enablement are computers[159] and the interconnection of those computers.[160] Digital processing of information with computers is already well established. With input devices such as scanners, cameras and microphones, computers can record and store basically any two-dimensional work. The cost of reproducing a copyrighted work is typically much less than the development cost of that work. By

152. *Id.* at 924.
153. *Id.* at 926.
154. *Id.* at 931. The court acknowledged that only "traditional, reasonable or likely to be developed markets" are relevant to determining harm to potential markets. *Id.* at 930. Thus, a very important aspect of this case is the existence of the Copyright Clearance Center, Inc. (CCC), a clearing-house established in 1977 for photocopying licensing. *Id.* at 929 & n.16. Because the CCC makes payment for licenses feasible, the publishers were able to demonstrate a substantial harm to the potential licensing market. *Id.* at 930-31.

The proposition that the CCC provides a workable licensing scheme is somewhat controversial. *Id.* at 938-39 (Jacobs, J., dissenting); Woo, *supra* note 144, at A15. For example, the CCC only collects $28 million per year in royalties. Woo, *supra* note 144, at A15. Only 30% of the journals to which Texaco subscribes are covered by a CCC license. *Texaco*, 60 F.3d at 937 (Jacobs, J., dissenting). On the other hand, the CCC is fairly new, and its licenses cover the majority of photocopying that is done. Woo, *supra* note 144, at A15 (quoting Robert S. Weiner, CCC vice president). Additionally, a precedent such as the one set in this case should encourage CCC membership growth, or at the very least increase corporate awareness. *Id.* The concept is definitely workable, as exhibited by the $600 million per year music-licensing fee program. *Id.* The CCC may just need some time to mature. In fact, the CCC recently entered into an agreement with Infosafe Systems, Inc., which will operate kiosks at copy centers, making it easier for small businesses and individuals to comply with copyright restrictions. Lisa Benavides, *Deal Speeds Copyright Clearance*, Boston Bus. J., Jan. 24, 1997, at 3. And the CCC is working on software that will provide copyright information to Internet users. *Id.*
155. *Texaco*, 60 F.3d at 931.
156. *Id.* at 932.
157. Paul Goldstein, Copyright's Highway 197 (1994).
158. *Id.*
159. *Id.* at 198.
160. Lisa E. Davis & Jaime Wolf, *Licensing Intellectual Property on the Information Superhighway*, NBA Nat'l Bar Ass'n Mag., July-Aug. 1995, at 12.

permitting easy reproduction of a work, computers pose a threat to copyright law similar to that of photocopiers, but more critical because the range of reproducible works is dramatically increased with a computer.

Even so, the reproduction problem might be manageable if computers were isolated from one another, thus making interchange of information inefficient. This is not the case, however, because computers are being connected to each other in various ways at an ever-increasing rate. A prime example of that interconnection is the Internet, an international communications network linking many smaller networks into a single large one.[161] Actually, the Internet is only the forerunner of a more ambitious National Information Infrastructure (NII) (and eventually a Global Information Infrastructure (GII)), which will link "formerly separate media (i.e., cable television, broadcasting, on-line computer services and telephone) into one high speed, interactive, broadband, digital network."[162]

The Internet was not considered a problem when it primarily connected only government agencies and universities.[163] But with its current widespread popularity,[164] the Internet presents a substantial challenge to copyright law. In effect, the Internet completes the digital revolution by allowing the average individual to digitally transmit and receive works with anyone or everyone connected to the network. Traditional copyright law is built upon the distinctions between the various types of works and how those works are manifested. But the Internet is forcing the distinctions to collapse because all works can be treated as "undifferentiated bit streams [which are] uniformly accessed."[165] As with any prediction, however, determining where all this will lead is very difficult. "The capability and creativity of information technology and its users changes much faster than any other technology ever has, making it impossible to deter-

161. *Id.* Other methods of interconnection include on-line services, bulletin boards, and local area networks.

162. Davis & Wolf, *supra* note 160, at 12; *see* Richard Turner, *Hollywired: The Buzzword: Multimedia; The Hype: Entertainment Will Never Be the Same; The Reality: Entertainment Will Never Be the Same*, WALL ST. J., Mar. 21, 1994, at R1. Conceptually, the Internet, NII, GII, and other forms of digital connectivity pose the same challenges to copyright law; therefore, these terms are used interchangeably throughout this Comment.

163. Davis & Wolf, *supra* note 160, at 12.

164. Estimates vary greatly on the number of people connected to the Internet; however, it is undisputed that it is growing at an incredible pace. *See Explosive Growth Forecast for Internet*, SCREEN DIG., June 1, 1995, at 1 (stating 30 million users year-end 1994, and 550 million by year 2000); *see also* Laura Castañeda, *New Medium, Old Message*, DALLAS MORNING NEWS, Jan. 7, 1996, at H1 (stating that 37 million people in North America have access, and 24 million people have used the Internet in the past three months); *Numbers for the Web*, IEEE SPECTRUM, Dec. 1995, at 64 (stating 24 million people in North America have Internet access); Vic Sussman & Kenan Pollack, *Gold Rush in Cyberspace*, U.S. NEWS & WORLD REP., Nov. 13, 1995, at 72, 74 (stating 37 million people in North America have Internet access); *Tech Bits*, PORTLAND OREGONIAN, Oct. 31, 1995, at C3 (stating 12 million subscribers to on-line services); *Publisher O'Reilly's Survey Sizes US Internet Use*, COMPUTERGRAM INT'L, Oct. 9, 1995, at 1 (stating 5.8 million users of Internet only, 3.9 million users of on-line services only, and 1 million users of both).

165. 2 NIMMER & NIMMER, *supra* note 13, § 8.24(A).

mine outcomes with certainty."[166]

Some aspects are certain, however. First, the very realization that we cannot predict all the future effects of technology is useful knowledge in itself.[167] Initially, the NII will be adapted to meet needs and objectives that we already know exist; although this facet can be envisioned fairly accurately, all of its implications cannot be foreseen.[168] A new technology also creates new and unexpected opportunities and can actually change our behavior in the process.[169] Being aware of the unpredictability can help us prepare for the future and hopefully avoid mistakes in making that preparation.

The second certainty is that the copyright industries are crucial to the national and global economies.[170]

> These industries, which include motion pictures and television programs, cable, records, music, computer software, photographs, databases, traditional and electronic publishing, and multimedia CD-ROMs, accounted for 5.69% of the U.S. Gross Domestic Product in 1993 ($362.5 billion), employed new workers at four times the rate of the economy as a whole from 1988-1993 and contributed an estimated $45.8 billion in foreign sales in 1993. The protection of American creativity through copyright protection is a driving force behind our continued prosperity and progress.[171]

In light of the unpredictability of the future and the increasing importance of copyright law, any modification to the law must be carefully analyzed. The following sections discuss the responses of the legislature and the courts to the interconnection of digital media.

B. THE DIGITAL PERFORMANCE RIGHT LAW OF 1995

The balance between sound recording copyright owners and users of those recordings has traditionally been tilted toward the users. The primary reason for the bias is that the United States has not recognized a performance right in sound recordings.[172] Two considerations, one long-standing and one still developing, have prompted Congress to readdress this issue. First, because foreign rights are usually based on reciprocity in the home nation of the artist, American performers are losing a great deal of money by not receiving foreign performance royalties.[173] Second, digital music transmission services are now becoming viable. These services may eventually supplant the traditional music sales market, from

166. SULLIVAN-TRAINOR, *supra* note 27, at 194.
167. *Id.*
168. *See id.*
169. *Id.*
170. Marybeth Peters, Register of Copyrights, U.S. Copyright Office, Testimony Before Senate Subcommittee on Legislative Appropriations, May 15, 1995, *available in* WESTLAW, 1995 WL 295393.
171. *Id.*
172. 17 U.S.C. § 114(a) (1994).
173. *President Clinton Signs Bills on Biotech Patents, Performance Rights*, 51 Pat. Trademark & Copyright J. (BNA) No. 1252, at 45, 45 (Nov. 9, 1995).

which artists currently receive the bulk of their revenue.[174]

To realign the balance toward copyright owners, Congress passed a law effective February 1, 1996, providing sound recording copyright owners with an exclusive performance right to works performed through subscription service digital transmissions.[175]

This new right is limited in scope, as it does not apply to traditional radio, television and background music services, nor to restaurants, stores, hotels or amusement parks.[176] At present, the broadcast industry appears to have sufficient political influence to prevent the passage of a law granting broad performance rights in sound recordings.[177] Nevertheless, because there is not yet an established base in digital music transmission, Congress was able to reach an accord between the recording and publishing industries.[178]

It is hard to determine at this point whether this is as far as the performance right in sound recordings will reach, or if it is just the first step in expanding that performance right to other areas. In either case, this is one of the first copyright laws to specifically address the digital transmission of a copyrighted work.

C. On-Line Service Provider Liability

The courts also have begun to address the legal implications of digital transmission of copyrighted works.[179] Although no federal appeals courts have addressed the issue yet, several district courts have grappled with the enforceability of copyrights in digital transmissions.[180] If a work is transmitted digitally without permission of the copyright owner, one difficult issue is whether, and under what legal theory, an on-line service provider is liable for the transmission.[181]

In assigning liability, an important underlying consideration is determining the best party to hold responsible in order to effectively enforce the law. There are basically three parties involved in a digital transmission of information: (1) the sender, (2) the receiver, and (3) the provider of the on-line service. Of course, the provider may also be the sender or the receiver. One problem for the copyright owner (and the courts) is that the sender or receiver may be beyond reach. For example, the sender either may be in a foreign jurisdiction or anonymous or very diffi-

174. 2 Nimmer & Nimmer, *supra* note 13, § 8.21(A).

175. Digital Performance Right Law, Pub. L. No. 104-39 (codified at 17 U.S.C. § 106(6)).

176. *President Clinton Signs Bills on Biotech Patents, Performance Rights*, *supra* note 173, at 46.

177. Leaffer, *supra* note 16, § 8.24.

178. *President Clinton Signs Bills on Biotech Patents, Performance Rights*, *supra* note 173, at 46.

179. *Copyright Office Registration Reforms and Restoration Procedures Are Aired*, 50 Pat. Trademark & Copyright J. (BNA) No. 1228, at 34, 36 (May 11, 1995).

180. Constance Johnson, *On-Line: Courts Struggle with Definition of Cyberspace*, Wall St. J., July 27, 1995, at B1, B14.

181. 3 Nimmer & Nimmer, *supra* note 13, § 12.04(A)(3)(e).

cult to trace. The receiver may also be hard to trace, or, on the opposite side of the spectrum, may actually be a very large number of people who downloaded copyrighted material. In the above instances, the on-line service provider makes for a much easier target both for tracking down and for payment of damages.

However, the issue of knowledge must be addressed when determining the various parties' liability. Typically the sender would have the knowledge or reason to have knowledge of the copyright in a work. The issue is much less clear when examining the liability of the receiver and especially the service provider. Various approaches to these issues by the courts are discussed below.

1. Cubby, Inc. v. CompuServe, Inc.

One of the first cases to confront the extent of service provider liability involved defamation, not copyright. In *Cubby, Inc. v. CompuServe, Inc.*,[182] the U.S. District Court for the Southern District of New York addressed the liability of CompuServe for alleged libel by one of its contributors.[183] As an on-line service, CompuServe provides subscribers with access to various forums, which are composed of electronic bulletin boards, interactive conferences, and topical databases. The plaintiff, Cubby, Inc., sued CompuServe for libel for material placed on the Journalism Forum, the content of which is managed and controlled by a separate company.[184]

The district court found that CompuServe's service is basically an electronic, for-profit library, and "in reality, once it does decide to carry a publication, it [has] little or no editorial control over that publication's contents," especially where the forum is managed by an unrelated company.[185] CompuServe, therefore, functions more as a distributor of information, analogous to a bookstore, than as a publisher. Because a distributor of information must have knowledge or reason to have knowledge of the defamatory contents before liability can be imposed, the court held that CompuServe was not liable for any libelous material.[186] Just how much monitoring or editorial control a service provider can exert before being considered a publisher instead of a distributor for defamation purposes remains to be resolved.[187]

182. 776 F. Supp. 135 (S.D.N.Y. 1991).

183. *Id.* at 137.

184. *Id.* at 138.

185. *Id.* at 140.

186. *Id.* at 141.

187. Johnson, *supra* note 180, at B1. In a more recent case, Stratton Oakmont, Inc. v. Prodigy Serv. Co., 23 Media L. Rep. 1794 (N.Y. Sup. Ct. 1995), Prodigy was held liable for defamation by one of its users because Prodigy held itself out as a family-oriented service and exercised editorial control over message content. *Id.* Unlike CompuServe, Prodigy exhibited more characteristics of the publisher side of the spectrum than the distributor side. *Id.*

2. Playboy Enterprises v. Frena

In the area of copyright infringement, some courts have not been as favorable to on-line service providers. In *Playboy Enterprises, Inc. v. Frena*,[188] the U.S. District Court for the Middle District of Florida held that Frena, a computer bulletin board operator, was liable for direct copyright infringement solely for providing the bulletin board service on which illegal copying was done.[189] Subscribers uploaded and downloaded graphic files scanned from 170 copyrighted photographs in Playboy Magazine; Frena claimed he did not participate in the transferring of the files, let alone have knowledge of the illegal copying.[190]

The court held that intent is irrelevant to a copyright infringement of the distribution and display rights, and that innocent copying only enters into the statutory damage calculation.[191] There is no question that the copyrighted works were infringed in this case, or that intent is not a necessary element to proving direct infringement; but the more controversial aspect of the decision was to hold the bulletin board operator liable for "suppl[ying] a product containing unauthorized copies of a copyrighted work,"[192] when the distributed 'product' "consisted simply of a service," and there was no determination whether the display was the operator's or a subscriber's display.[193]

This decision is hard to reconcile with the Supreme Court's decision in *Sony*, where Sony was held to not even be contributorily infringing (let alone directly infringing) because its product, the VCR, was capable of a substantial noninfringing use.[194] That same reasoning could also apply to a computer bulletin board system, which obviously has substantial noninfringing uses. Accordingly, Frena should not have been liable for direct infringement because he did not directly participate in the copying, and the product he supplied merely consisted of a service, not an embodiment of the copyrighted works. According to the facts of the case, he did not even have knowledge of the copying. In addition, Frena should not have been liable for contributory infringement, absent participation in or knowledge of the copying, because his bulletin board was capable of a substantial noninfringing use. The original source of the unauthorized copies is the proper party to be held liable, not an unknowing on-line service provider; this is especially true when that original source is traceable.

If the *Frena* court felt that there was a high probability that Frena actually did know or should have known about the 170 graphics files, perhaps it would have been better to acknowledge that determination and hold

188. 839 F. Supp. 1552 (M.D. Fla. 1993).
189. *Id.* at 1559.
190. *Id.*
191. *Id.*
192. *Id.* at 1556.
193. 3 NIMMER & NIMMER, *supra* note 13, § 12.04(A)(3)(e). The court also rejected fair use and *de minimis* defenses asserted by Frena. *Frena*, 839 F. Supp. at 1557-59.
194. *Sony*, 464 U.S. at 442.

Frena liable in light of it.[195] Otherwise, rulings such as this one could have a substantial chilling effect on on-line service growth because it is very difficult for service providers to control content without significantly hampering the functioning of the on-line services.

The parties reached a confidential settlement agreement after the district court's summary judgment ruling on copyright infringement, so an appeals court decision on the issue will have to await another case.[196]

3. Sega Enterprises Ltd. v. MAPHIA

In another case involving a bulletin board system, *Sega Enterprises Ltd. v. MAPHIA*,[197] the U.S. District Court for the Northern District of California held the operator contributorily, but not directly, liable for copyright infringement.[198] The defendant, Chad Sherman, knew, and specifically solicited, the uploading and downloading of unauthorized copies of Sega's video games onto his MAPHIA bulletin board.[199] The court found that even applying a high standard of contributory liability, substantial participation, "Sherman's role in the copying, including providing facilities, direction, knowledge, encouragement, and seeking profit, amounts to . . . contributory copyright infringement."[200]

In granting summary judgment for Sega, the court ordered a permanent injunction against Sherman, awarded willful statutory damages of $10,000 to Sega, and awarded costs and attorneys' fees to Sega.[201]

By emphasizing contributory infringement through the knowledge and proactive role of the bulletin board operator in the unauthorized copying, the *Sega* decision seems to be more reasonable than *Frena*, where the operator had no knowledge of the copying.[202] Importantly, the court held that Sherman was not liable for direct infringement because there was no evidence that Sherman himself did or directly caused any of the actual copying.[203]

Additionally, in an earlier phase of the case, the court upheld a seizure order confiscating Sherman's software and hardware, because the Sega

195. *See* Religious Tech. Ctr. v. Netcom On-line Communication Serv., Inc., 907 F. Supp. 1361, 1371 n.16 (N.D. Cal. 1995).
196. *See* Johnson, *supra* note 180, at B14.
197. 948 F. Supp. 923 (N.D. Cal. 1996).
198. *Id.* at 932-33.
199. *Id.* at 933.
200. *Id.* The court rejected fair use and *de minimis* defenses. *Id.* at 935-36.
201. *Sega*, 948 F. Supp. at 940-41; *see* 17 U.S.C. § 502 (1994). Section 502 provides:

> (a) Any court having jurisdiction of a civil action arising under this title may, subject to the provisions of section 1498 of title 28, grant temporary and final injunctions on such terms as it may deem reasonable to prevent or restrain infringement of a copyright.
>
> (b) Any such injunction may be served anywhere in the United States on the person enjoined; it shall be operative throughout the United States and shall be enforceable, by proceedings in contempt or otherwise, by any United States court having jurisdiction of that person. . . .

17 U.S.C. § 502.
202. *See Netcom*, 907 F. Supp. at 1371.
203. *Sega*, 948 F. Supp. at 932.

games transferred via the bulletin board were characterized as counterfeit under the Lanham Act.[204] Copyright law itself also allows impoundment and destruction of all infringing articles and of the means of reproduction.[205] Injunctions and impoundment are very powerful weapons for a plaintiff to wield, and must be taken into account when analyzing the proper balance between copyright owners and users. Courts have read the coverage of § 503 broadly to include a bulletin board operator's "modems, disk drives, central processing units, and all other articles by means of which such unauthorized or unlicensed copies were made."[206]

4. United States v. LaMacchia

Although the bounds of civil liability are uncertain, in *United States v. LaMacchia*,[207] the U.S. District Court for the District of Massachusetts dismissed the government's criminal case because the United States criminal laws do not encompass copyright-related conduct unless there is clear Congressional intent.[208] The defendant, LaMacchia, set up a bulletin board and encouraged the uploading and downloading of computer application software and computer games. The government indicted LaMacchia under 18 U.S.C. § 1343, the wire fraud statute, for illegal copying of copyrighted software.[209]

The court noted that, since 1897, the mens rea for criminal copyright infringement has required that the defendant infringe willfully and for purpose of "'commercial advantage or private financial gain.'"[210] But there was no proof that LaMacchia profited from the infringement.[211] Because Congress has relied primarily "'on an array of civil remedies to provide copyright holders protection against infringement,'"[212] and "has

204. Sega Enters. Ltd. v. MAPHIA, 857 F. Supp. 679, 689-90 (N.D. Cal. 1994), *modified*, 948 F. Supp. 923 (N.D. Cal. 1996); *see* 15 U.S.C. § 1127.

205. 17 U.S.C. § 503. Section 503 provides:

> (a) At any time while an action under this title is pending, the court may order the impounding, on such terms as it may deem reasonable, of all copies or phonorecords claimed to have been made or used in violation of the copyright owner's exclusive rights, and of all plates, molds, matrices, masters, tapes, film negatives, or other articles by means of which such copies or phonorecords may be reproduced.
>
> (b) As part of a final judgment or decree, the court may order the destruction or other reasonable disposition of all copies or phonorecords found to have been made or used in violation of the copyright owner's exclusive rights, and of all plates, molds, matrices, masters, tapes, film negatives, or other articles by means of which such copies or phonorecords may be reproduced.

Id.

206. Central Point Software, Inc. v. Nugent, 903 F. Supp. 1057, 1061 (E.D. Tex. 1995). Other courts have authorized the seizure of bulletin board operators' "computer equipment." *New Jersey Teenager Agrees to Pay $25,000 to Microsoft, Novell*, WALL ST. J., Feb. 6, 1995, at B4; *see infra* part V.D.

207. 871 F. Supp. 535 (D. Mass. 1994).

208. *Id.* at 545.

209. *Id.* at 536.

210. *Id.* at 540 (citing 17 U.S.C. § 506(a)).

211. *Id.* at 536.

212. *Id.* at 544 (quoting Dowling v. United States, 473 U.S. 207 (1985)).

finely calibrated the reach of criminal liability [in the Copyright Act], . . . copyright prosecutions should be limited to [s]ection 506 of the [Copyright] Act."[213]

The court was troubled about letting LaMacchia off, and therefore reprimanded him, but the court was more concerned that the

> government's . . . interpretation of the wire fraud statute would serve to criminalize the conduct of not only persons like LaMacchia, but also the myriad of home computer users who succumb to the temptation to copy even a single software program for private use. It is not clear that making criminals of a large number of consumers of computer software is a result that even the software industry would consider desirable.[214]

5. Frank Music Corp. v. Compuserve, Inc.

Some parties have chosen to settle their disputes commercially rather than gamble on the unpredictability of the judicial process in addressing an important new issue.[215] In *Frank Music Corp. v. Compuserve Inc.*,[216] Frank Music filed a class action suit against Compuserve for providing a bulletin board which allowed the uploading and downloading of copyrighted musical compositions without Compuserve's knowledge.[217] After extended negotiations, the parties came to a workable licensing agreement, which both sides claim as a victory.[218] Under the settlement, Compuserve will pay about $500,000 to the publishers, and will require its forum managers to pay royalties for any music downloaded from their forums.[219]

The agreement did not settle the difficult legal questions surrounding Compuserve's liability because Compuserve specifically preserved its legal arguments against liability and did not procure a license for itself.[220]

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213. *Id.* at 545 (quoting 3 NIMMER & NIMMER, *supra* note 13, § 15.05). In a separate case, another bulletin board operator has been indicted for copyright infringement under *both* the wire fraud statute and the copyright laws. Junda Woo, *Copyright Laws Join Bulletin Board Fight*, WALL ST. J., Sept. 27, 1994, at B11. In that case the operator allegedly encouraged people to transmit copyrighted material, although he claims he tried to dissuade subscribers from doing so. *Id.* Because the operator was charged under the actual copyright laws, that case should provide a more meaningful test of the applicability and sufficiency of the criminal copyright statute.

214. *LaMacchia*, 871 F. Supp. at 544.

215. *What's the Score? Frank Music Settlement Leaves Law Unsettled But Confirms On-Line License Possibilities*, INFO. L. ALERT: A VOORHEES REP., Nov. 17, 1995, at 1. Another infringement suit was settled recently when a New Jersey teenager agreed to pay Microsoft Corp. and Novell, Inc. $25,000 because he was illegally distributing free copies of their copyrighted software. *New Jersey Teenager Agrees to Pay $25,000 to Microsoft, Novell*, *supra* note 206, at B4.

216. No. 93 Civ. 8253 (S.D.N.Y. filed Nov. 29, 1993, settlement announced Nov. 7, 1995).

217. *Briefs*, 51 Pat. Trademark & Copyright J. (BNA) No. 1159, at 162 (Dec. 16, 1993).

218. *Settlement Reached in Music Publishers' Class Action Against On-Line Provider*, 48 Pat. Trademark & Copyright J. (BNA) No. 1252, at 48 (Nov. 9, 1995).

219. *What's the Score? Frank Music Settlement Leaves Law Unsettled But Confirms On-Line License Possibilities*, *supra* note 215, at 1.

220. *Id.*

As a practical matter, however, under the settlement, Compuserve accepted responsibility for unauthorized copying on its services.[221] The publishers hope the license will serve as a precedent for agreements with other on-line services, thus avoiding costly legal actions.[222]

D. The Church of Scientology Trilogy

Interestingly, the Church of Scientology is very much involved with the courts' development of copyright law for the Internet, with three separate suits recently litigated in U.S. district courts. "These cases are going to make some huge determinations on whether or not system operators are going to be held liable for what their subscribers do."[223] Each of these lawsuits deals with the unauthorized postings onto the Internet of copyrighted Church of Scientology materials exclusively licensed by the Religious Technology Center (RTC). The lawsuits provide various insights into the ongoing debate over copyright liability and enforcement on the Internet.

1. Religious Technology Center v. F.A.C.T.NET, Inc.

In *Religious Technology Center v. F.A.C.T.NET Inc.*,[224] the District Court for the District of Colorado denied Religious Technology Center's (RTC) motion for a preliminary injunction because RTC failed to show likelihood of success on the merits, due to fair use by the defendants.[225] Defendants Wollersheim and Penney are former Church members who operate F.A.C.T.NET, a company that maintains a bulletin board on the Internet concerning the controversy over the Church's tax exempt status and its alleged psychological coercion of its members.

Analyzing the four fair use factors, the court found that:

(1) defendant's use was for non-commercial criticism;[226]

(2) the copyrighted work was esoteric in nature;[227]

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221. *Id.*

222. *Settlement Reached in Music Publishers' Class Action Against On-Line Provider*, *supra* note 218, at 48. The pertinent paragraph in the license agreement outlining Compuserve's responsibilities and defenses reads:

> To the extent, if any, it is an infringement under applicable copyright laws for any unauthorized use on Compuserve's Information Services of a musical composition covered by this Agreement, Compuserve shall be liable therefor . . . , but nothing in this Agreement shall limit any rights or defenses of CompuServe or the Managers under the Copyright Act in any action based on the foregoing.

What's the Score? Frank Music Settlement Leaves Law Unsettled But Confirms On-Line License Possibilities, *supra* note 215, at 1.

223. Elizabeth Wasserman, *Scientology Suit Watched for Effects in Cyberspace*, PORTLAND OREGONIAN, Nov. 12, 1995, at A20 (quoting Shari Steele, counsel to Electronic Freedom Frontier).

224. 901 F. Supp. 1519 (D. Colo.), *verified motion for return of items granted*, 907 F. Supp. 1468 (D. Colo. 1995).

225. *Id.* at 1525-27.

226. *Id.* at 1525.

227. *Id.* This factor should favor RTC because of the nonfactual nature of the work, but the court appears to discount this factor.

(3) the amount and substantiality of the portion copied could not properly be compared because RTC did not provide the work in its entirety for comparison, and in any case, even complete copying may be fair use;[228] and

(4) there was no harm to RTC's market because there was no evidence that a Church member would consider the posting as a substitute for an RTC work.[229]

The court concluded that a preliminary injunction was not warranted at such an early stage of the proceedings, and that the defendants could continue to make fair use of the materials.[230]

Additionally, the court ordered RTC to return all material that had been taken from the defendants under a previous ex parte search and seizure order.[231] Highlighting some of the problems with ex parte searches that are not carefully monitored by the court,[232] RTC did not return all of the materials, withholding what it considered to be sensitive religious material.[233] In addition, the defendants claimed that the returned materials were sabotaged by RTC.[234]

After learning this, the court ordered that the remaining materials be returned to the defendants, except for the computer media containing copyrighted works.[235] The court appointed a special master to review the materials for copyrighted works and to attempt to create replacement computer media for the defendant without the copyrighted works.[236] All expenses were to be paid by RTC,[237] but there was some damage that could not be undone, such as RTC having access to defendants' personal information. In the future, ex parte searches and seizures should be strictly supervised by the courts to prevent abuse.[238]

2. Religious Technology Center v. Lerma

In a related lawsuit, *Religious Technology Center v. Lerma*,[239] RTC

228. *Id.* (citing *Sony*, 464 U.S. at 417).

229. *Id.* at 1525-26. Arnaldo P. Lerma, a F.A.C.T.NET director, actually did the posting to the Internet and is the defendant in another lawsuit by the RTC. *Id.* at 1522.

230. *Id.* at 1526.

231. *Id.* at 1527. The seized material included documents, computer hardware, such as compact discs, tapes, and floppies, and contained personal information as well as F.A.C.T.NET data files. Religious Tech. Ctr. v. F.A.C.T.NET, Inc., 907 F. Supp. at 1468-69 (D. Colo. 1995).

232. Adam S. Bauman, *Only Police May Search Your Home, Right? Guess Again*, SEATTLE TIMES, Oct. 24, 1995, at A3.

233. George Lane, *Items' Return a Sin, Scientologist Says*, DENVER POST, Oct. 3, 1995, at B2.

234. *Id.*

235. *F.A.C.T.NET*, 907 F. Supp. at 1472; *see* George Lane, *Confiscated Scientology Data Ordered into Hands of Court*, DENVER POST, Oct. 4, 1995, at B5.

236. *F.A.C.T.NET*, 901 F. Supp. at 1532-33.

237. Lane, *supra* note 233, at B5.

238. Bauman, *supra* note 232, at A3.

239. 908 F. Supp. 1362 (E.D. Va. 1995) (granting summary judgment for Washington Post and its reporters), *granting summary judgment for plaintiff*, 40 U.S.P.Q.2d (BNA) 1569 (E.D. Va. 1996) (granting summary judgment for the RTC against Lerma).

sued Arnaldo Lerma, the *Washington Post* and two of its reporters, and an Internet access provider for copyright infringement.[240] Lerma is a former church member who posted sixty-nine pages of copyrighted RTC works on the Internet, and the *Washington Post* ran a story on Lerma's legal battle with RTC.

The U.S. District Court for the Eastern District of Virginia entered summary judgment for the *Washington Post* and its reporters based on fair use; the newspaper only used forty-six words in three quotes from the copyrighted material in reporting on the story.[241] The Internet access provider settled out of court before the judge could rule on its liability, so that defendant was dismissed also.[242] After these rulings, the only defendant left in the suit was Lerma.

The court eventually held that Lerma infringed RTC's copyright by posting a substantial portion of a copyrighted work on the Internet without comment, criticism, or other significant changes that could constitute fair use.[243] The court left the damage award temporarily pending, but stated that the award would be $2500 (the statutory minimum of $500 for each of five violations), absent convincing argument from RTC to the contrary.[244]

Similar to the events in *F.A.C.T.NET*, an ex parte search and seizure was originally authorized, but was subsequently vacated by the court.[245] This case again illustrates the potential for abuse in an ex parte search and seizure. The court intended to permit only a very limited search and seizure of Lerma's computer equipment out of concern for Lerma's personal and confidential information.[246] Although the scope of the search was supposed to be narrow, Lerma claimed that the RTC went through many computer files not covered by the order, thus acquiring confidential information of limited relevance to the case.[247] Because the RTC violated the spirit if not the letter of the law, and misled the court as to which materials were maintained and reviewed, the court vacated the writ of seizure and ordered RTC to return all seized materials.[248]

3. Religious Technology Center v. Netcom On-Line Communications Services, Inc.

The third Scientology case, *Religious Technology Center v. Netcom On-Line Communication Services, Inc.*,[249] also provides guidance in defining

240. *Lerma*, 40 U.S.P.Q.2d at 1572.
241. *Lerma*, 908 F. Supp. at 1367.
242. *Lerma*, 40 U.S.P.Q.2d at 1572.
243. *Id.* at 1580-81.
244. *Id.*
245. *Judge Mulls Scientology Damages; Sacred Text Postings Similar to Boulder Case*, ROCKY MTN. NEWS, Jan. 21, 1996, at A37.
246. Charles W. Hall, *Scientology Opponent Wins Partial Victory in Court*, COM. APPEAL, Sept. 17, 1995, at A15.
247. *Id.*
248. *Id.*
249. 907 F. Supp. 1361, 1361 (N.D. Cal. 1995).

on-line provider liability. Although Netcom eventually settled with RTC, the court had already ruled on the liability issue, at least with respect to summary judgment and preliminary injunction motions.[250] In this case, Dennis Erlich posted copyrighted RTC information on the Internet through a bulletin board service connected to the Internet via Netcom. RTC requested that Netcom stop the copyright infringement. Netcom refused, stating that it was impossible to prescreen postings and also impossible to deny Erlich access without kicking many others off the Internet. RTC subsequently sued all three parties for copyright infringement.[251]

The court in this case provides one of the better reasoned opinions on the subject of on-line provider liability.[252] The court analyzed copyright law in light of the *Sega* preliminary injunction and *Playboy* holdings, the state of technology, and general policy considerations.[253] The court also separated and analyzed individually direct, contributory and vicarious infringement.[254]

The court found that Netcom did not directly infringe because the act of copying was done by a subscriber who was not under the control of Netcom.[255] The court noted that knowledge is irrelevant to the issue of direct infringement,[256] and to the extent *Frena* holds otherwise, the court disagreed with that opinion.[257]

The court then held that Netcom could be liable for contributory infringement because there was a genuine issue of fact as to whether Netcom knew or should have known about the infringement after receiving RTC's request.[258] The court stated that an on-line service provider's lack of knowledge is reasonable when the provider cannot reasonably verify a claim of infringement; the claim may not be verifiable because of (1) a possible fair use defense, (2) the lack of copyright notice, or (3) the copyright owner's failure to prove likely infringement.[259]

The court held that vicarious liability could possibly be used in these types of cases in general, but not in this particular case because RTC failed to properly raise the question.[260] Vicarious liability could hold a provider liable for the actions of a subscriber if the provider "(1) has the right and ability to control the infringer's acts and (2) receives a direct

250. *Id.* at 1383.
251. *Id.* at 1365-66.
252. *But see Netcom Ruling Provides Safe Harbor for Service Providers with Clean Hands*, INFO. L. ALERT: A VOORHEES REP., Dec. 1, 1995, at 1 (arguing that ruling is strained and that Netcom should not be liable for acts of a subscriber not under the control of Netcom).
253. *Netcom*, 907 F. Supp. at 1368-73.
254. *Id.* at 1368-77.
255. *Id.* at 1372.
256. *Id.*
257. *Id.* at 1371-72 & n.16-17.
258. *Id.* at 1375.
259. *Id.* at 1374.
260. *Id.* at 1375-77.

financial benefit from the infringement."[261] Finally, the court held that there was a genuine issue of fact as to whether Netcom had a valid fair use defense.[262]

As in the previous cases, RTC obtained an ex parte search and seizure order and, accompanied by law enforcement officers, raided Erlich's house, taking his computer disks.[263] RTC actually went as far as Finland to determine the identity of the sender, who was rendered anonymous by a remailer operating in that country.[264]

It is impossible to tell which way the case would have been decided had Netcom and RTC not settled. The details of the settlement are confidential, but Netcom has now posted a new set of guidelines, stating that Netcom will temporarily remove material about which it receives a complaint, and either restore the material or remove it permanently pending the results of an investigation.[265] In the end, the true test for on-line provider liability should occur when a case eventually reaches the appellate level.[266]

VI. THE FUTURE OF COPYRIGHT LAW

Most people agree that something should be done to restore or maintain the balance between copyright owners and users which has been upset by the massive interconnection of computers via on-line services, bulletin boards, and the Internet.[267] But that is about as far as the agreement goes; there are a very large number of alternative solutions being suggested for setting the proper balance, ranging from a minor tweaking to completely starting over.[268] The issues are so contentious and the

261. *Id.* at 1375.
262. *Id.* at 1381.
263. Jim McClellan, *Cyberspace: Law of the Wires*, OBSERVER, Oct. 1, 1995, at 67.
264. Wasserman, *supra* note 223, at A20.
265. *Netcom Settles Lawsuit on Scientology Copyright*, WALL ST. J., Aug. 5, 1996, at B2. The case is still pending with respect to the remaining parties, Erlich and Klemesrud. Benjamin Pimentel, *Netcom Settles Scientology Copyright Suit*, S.F. CHRON., Aug. 5, 1996, at A22.
266. An increasing number of on-line service cases should be appearing in the near future as the Internet gets easier to use and grows in popularity, raising the possibility that a case will reach the appellate level. In one pending case, ProCD, a CD-ROM phone directory service, sued Silken Mountain Web Service for offering ProCD's electronic phone directories free over the Internet. *A Double Whammy Wisconsin Case Intertwines Two Key Issues: Databases Copyrights, Shrink-Wrap Licenses*, INFO. L. ALERT: A VOORHEES REP., Oct. 13, 1995, at 1. ProCD was granted a preliminary injunction. *Id.* In another pending case, Third Planet Publishing, Inc. sued Jeff Pulver, an Internet publisher, and Performance Systems Inc., Pulver's Internet access company, for posting parts of Third Planet Publishing's software code on the Internet. *Camelot Subsidiary Sues Internet Publisher for Copyright Infringement*, VOICE TECH. & SERV. NEWS, Dec. 12, 1995, at 1.
267. Elizabeth Corcoran, *A Digital Duel: Whose Property Is This? Business and the 'Net Cruisers Debate How and Whether Copyright Applies in Cyberspace*, WASH. POST, Sept. 3, 1995, at H1.
268. *See* Marybeth Peters, *The Spring 1996 Horace S. Manges Lecture—The National Information Infrastructure: A Copyright Office Perspective*, 20 COLUM.-VLA J.L. & ARTS 341 (1996) (Hon. Marybeth Peters is the Registrar of Copyrights, U.S. Copyright Office, Library of Congress).

stakes are so high that a single approach can be interpreted by various commentators as being both a minor change and a complete overhaul.[269]

A. THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS

1. Overview of Recommendations

In 1993, President Clinton formed the Information Infrastructure Task Force (IITF) to implement the National Information Infrastructure (NII).[270] The IITF then established the Working Group on Intellectual Property Rights to investigate the effects of the NII on intellectual property.[271] The result is the controversial *White Paper*, which discusses the application of existing copyright law to the NII and recommends what the IITF describes as the minimal changes necessary to keep copyright law viable.[272] As outlined by the *White Paper*, the Working Group recommends changes to the copyright law in the following areas:

(1) transmissions,
(2) public performances,
(3) libraries,
(4) visually impaired users,
(5) criminal penalties,
(6) technological protection,
(7) copyright management information, and
(8) user education.[273]

The Working Group concludes that a new copyright act is not needed; instead, current copyright law is basically adequate, but it does need a few alterations to compensate for technological progress.[274] This could be the Working Group's most important recommendation of all.[275] The other recommendations are much more technical and subject to variation, but the overall strategic approach should be decided in the beginning and observed as the details are worked out. Unfortunately, the Working Group seems to have deviated from this minimalist strategy in some of its recommendations. For example, the modifications related to technological protection are very controversial and could have far-reaching consequences beyond the implications that we can currently foresee. Each of the specific recommendations is discussed below.[276]

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269. *Compare* D.M. Osborne, *Nimmer on Copyright*, AM. LAW TECH., Spring 1996, at 51 (interview with David Nimmer) *with* Pamela Samuelson, *The Copyright Grab*, WIRED, Jan. 1996, at 134.

270. WHITE PAPER, *supra* note 9, at 1.

271. *Id.* at 2.

272. *Id.*

273. *Id.* at 201-36.

274. *Id.* at 212.

275. *See* Osborne, *supra* note 269, at 52. David Nimmer states that a common sense incremental approach is best, at least until there is evidence that it is not working. *Id.*

276. At least one commentator states that the full scope of the effect of the recommendations cannot be seen unless one understands the negative synergies among the eight related parts. Samuelson, *supra* note 269, at 136.

2. Transmission

The *White Paper* recommends three changes to copyright law to deal with electronic transmissions. First, transmission should be clearly included in the exclusive rights of a copyright owner.[277] Second, the definition of "transmit" should be amended to include the transmission of a reproduction,[278] and the definition of "publication" should be amended to include the distribution of copies by transmission.[279] Third, cross-border transmission should be included as a method of importing a copy of a copyrighted work.[280]

As long as the limits described by the Working Group are followed,[281] the changes to the definitions of transmission and publication, and the inclusion of cross-border transmission as a method of importation, seem acceptable.

Much more controversial is the specific inclusion of transmission in the distribution right.[282] In the first place, this should already be covered by existing law. Under the current law, there is enough flexibility to allow users to browse on-line without fearing that a work they look at turns out to be copyrighted without their being able to determine that fact beforehand. Without sufficient clarification, the specificity of the proposed change could be used to tip the scales against innocent browsers, because innocent copying is not a defense to copyright infringement. Proponents of the amendment argue that it should not be read that broadly.[283] But if transmission is going to be specifically added to the copyright law, it seems appropriate to include permissible activities for browsing as well.[284]

Browsing without a commercial motive or profit-depriving use probably fits within the fair use defense.[285] It can also be preserved through the innocent infringer doctrine, which permits an award of zero damages.[286] Finally, "it seems highly unlikely from a practical matter that a copyright owner could prove such infringement or would want to sue such an individual."[287]

But the fact that these safeguards exist does not mean that innocent browsers would not be hassled or intimidated, keeping in mind the injunctions and ex parte seizure remedies that are permitted. The current law encompasses transmissions, while allowing flexibility in its applica-

277. WHITE PAPER, *supra* note 9, at 213.
278. *Id.* at 217.
279. *Id.* at 219.
280. *Id.* at 221.
281. *Id.* at 220.
282. *See id.* at 213.
283. Peters, *supra* note 268, at 352.
284. *Cf. id.* at 354-55.
285. Religious Tech. Ctr. v. Netcom On-Line Communication Serv., 907 F. Supp. 1361, 1361, 1378 n.25 (N.D. Cal. 1995).
286. *Id.*
287. *Id.*

tion, thus striking the proper balance between copyright owners and users.

3. Public Performance

With the predicted mass distribution of songs digitally, the *White Paper* recommends giving full public performance rights for sound recordings to the copyright owner.[288] Congress has already implemented a new law in this area, the Digital Performance Right Law,[289] which is probably sufficient for the near future, at least until there is some feedback on how well it is working.

4. Libraries

The *White Paper* recommends three changes to copyright law as it applies to libraries. First, libraries should be allowed to prepare three copies of a digital work with no more than one in use at a time.[290] Second, the mandatory copyright notice requirement should be deleted.[291] Third, digital copying for preservation should be permitted by public libraries and archives.[292] These recommendations appear to be reasonable and strike the appropriate middle ground between doing away with all library exemptions on the one hand and allowing unrestricted copying by libraries on the other.[293]

5. Visually Impaired

The *White Paper* recommends an amendment allowing reproductions for the visually impaired by non-profit organizations.[294] This amendment achieves a worthwhile goal while not significantly impairing copyright owners' rights.

6. Criminal Penalties

The *White Paper* recommends making willful infringement by reproducing or distributing copies with a value of $5000 or more a criminal offense, even without a commercial motive.[295] The change in the criminal law is probably appropriate in view of the difficulties encountered in the *LaMacchia* decision. As long as willfulness and the $5000 minimum are

288. WHITE PAPER, *supra* note 9, at 223.
289. Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39 (to be codified at 17 U.S.C. § 106(6) (1994)). *See supra* part V.B.
290. WHITE PAPER, *supra* note 9, at 227.
291. *Id.*
292. *Id.*
293. *Id.* at 225-26. The IITF also convened the Conference on Fair Use (CONFU), which recently issued an interim report on library uses of computer programs, as well as fair use guidelines for educational uses of digital images, distance learning, and multimedia. *Interim Report on Fair Use for Digital Age Is Issued by CONFU*, 53 Pat. Trademark & Copyright J. (BNA) No. 1307, at 115, 115 (Dec. 19, 1996).
294. *Id.* at 228.
295. *Id.* at 229.

required, the commercial motive could be removed from the statute. This amendment should fix the law in an area that is definitely out of balance.

7. *Technological Protection*

The *White Paper* recommends prohibiting products and services that defeat technological methods of preventing unauthorized use.[296] This is perhaps the most controversial and most progress-stifling recommendation.[297] As emphasized time and time again by the legislature and the courts, copyright law exists to promote the progress of science, not to excessively inhibit it.[298]

Although the Working Group states that this type of legislation is not unprecedented,[299] the scope of it certainly seems to be. Other legislation has been fairly narrowly tailored to a specific application. For example, § 1002 prohibits circumvention of the Serial Copy Management System or its functional equivalent for protecting digital audio works.[300] The system covered by this law is very specifically defined and delineated, the specifications of which are controlled by a small number of entities. Likewise, the Communications Act, in prohibiting the unauthorized decryption of satellite cable programming, is limited in its application to one specific, and traditionally regulated, technology.[301]

In contrast, the proposed legislation encompasses many technologies that should not be so inhibited. It reads on "*any* device, product or component" that has as its primary purpose the circumvention of "*any* process, treatment, mechanism or system" which prevents violation of "*any* of the exclusive rights of the copyright owner."[302] By putting together the three "anys" in the proposed law, the number of combinations and permutations of possible technological prohibitions is staggering. Moreover, the phrase "primary purpose or effect"[303] is used to refer to the use of the potentially illegal device, instead of the more accepted "substantial noninfringing use[s]."[304] Even the Copyright Office agrees that the phrase can encompass legitimate business behavior.[305] The proposed law

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296. *Id.* at 230.

297. The proposed new § 1201 reads:

> No person shall import, 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 the authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights of the copyright owner under section 106.

Id. app. 1 at 6 (emphasis added).

298. *See, e.g.*, U.S. CONST. art. I, § 8, cl. 8.

299. WHITE PAPER, *supra* note 9, at 233-34.

300. 17 U.S.C. § 1002.

301. *See* 47 U.S.C. § 605(e)(4).

302. H.R. 2441, 104th Cong., 1st Sess. § 4 (1995); S. 1284, 104th Cong., 1st Sess. § 4 (1995) (emphasis added).

303. WHITE PAPER, *supra* note 9, app. 1 at 6.

304. Sony Corp. of Am. v. Universal City Studios, 464 U.S. 417, 440 (1984).

305. Peters, *supra* note 268, at 352.

is much too broad and indiscriminate in its application.

A far better law would allow the creation of specific implementations of technology for copyright protection and then prohibit their circumvention. This approach ensures that the amount of technology that is inhibited is minimized, while copyright owners' rights are preserved. A tailored law modeled on the one that exists for protecting digital audio works would provide a workable compromise for copyright owners and users.

Of course, one problem with any kind of technological protection, be it encryption, fingerprinting, or watermarking, is that it must be continually improved to keep ahead of those trying to circumvent it.[306] "'Technical experts continue to believe that for every technological lock placed within the work product, there will be a pirate locksmith ready and willing to break in, if not for the financial reward, then merely for the joy of accomplishment.'"[307]

8. *Copyright Management Information*

The *White Paper* recommends prohibiting the falsification, alteration or removal of copyright management information (name of author, copyright owner, terms for use, etc.) in copyrighted works.[308] As with some of the other amendments, this does not appear to be too controversial, although it must be carefully constructed so as not to conflict with the Berne Convention.

9. *User Education*

The *White Paper* recommends that a substantial effort be made to increase public awareness of intellectual property law.[309] This effort would include not just a list of permitted and non-permitted user activities, but also the reasoning behind the law and how it promotes the public welfare.[310] With this knowledge, the Working Group hopes that users will understand the potential ripple effects of seemingly harmless individual activities on the Internet.[311]

To address the problem, in March 1995 the Working Group started the Copyright Awareness Campaign (CAC) with three goals in mind: (1) raising public awareness of intellectual property, (2) developing model educational curricula to be available to educators at all levels, and (3) providing a means of easy public access to accurate and current copyright information.[312]

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306. *Id.* at 353.
307. 3 NIMMER & NIMMER, *supra* note 13, § 12.04(A)(3)(e), at n.129.21 (quoting A. BRANSCOMB, WHO OWNS INFORMATION? 90 (1994)).
308. WHITE PAPER, *supra* note 9, at 235.
309. *Id.* at 201-02.
310. *Id.* at 202.
311. *Id.* at 203.
312. *Id.* at 203-04.

Increasing the general public knowledge level is a commendable goal, as long as the education is truly used to educate the public about the actual state of the law. There is the possibility, however, that the educational campaign could be used to manipulate or intimidate the public with misstatements or overstatements about the extent of protection permitted by copyright laws. Therefore, CAC activities should be monitored by objective observers to ensure that the CAC goal is education and not misinformation.

B. THE NII COPYRIGHT PROTECTION ACT OF 1995

Immediately following the publication of the *White Paper*, identical bills H.R. 2441[313] and S. 1284,[314] known as the NII Copyright Protection Act of 1995, were introduced in the House of Representatives and the Senate, respectively. These bills adopted the *White Paper*'s legislative recommendations verbatim,[315] and shifted the copyright debate from the academic and on-line worlds to the political forum. The primary focus of the debate was the liability of on-line service providers, who were seeking a safe harbor from responsibility for the acts of their subscribers.[316] In contrast, content providers argued strongly against any changes to the bills, especially anything granting on-line service providers an exemption from liability.[317]

After months of negotiations between on-line service providers and content providers, each side made concessions in an attempt to balance their respective rights and responsibilities.[318] The competing interests arrived at a compromise by proposing a new § 512 for Title 17, entitled "Limitations on liability of providers of on-line services or internet access."[319] The key features of the proposed § 512 include:

(1) xemptions for certain service providers;
(2) notification and identification requirements;
(3) a safe harbor for service providers;
(4) limited damages for service providers;
(5) clarification of fair use; and
(6) broadening of the technological protection provision.[320]

Service providers that function as "'mere conduits' for transmission of copyrighted material" would be exempt from liability for infringement of

313. H.R. 2441, 104th Cong., 1st Sess. (1995).
314. S. 1284, 104th Cong., 1st Sess. (1995).
315. Peters, *supra* note 268, at 349.
316. *House Subcommittee Considers Limited Internet Copyright Bill*, AUDIO WEEK, Feb. 12, 1996, at 1.
317. *House Panel Debates On-Line Copyright Exemptions*, COMM. TODAY, Feb. 8, 1996, at 1.
318. Mike Mills, *Bill Attacks Copyright Minefield; House Subcommittee Considers Authors' On-Line Rights*, WASH. POST, May 15, 1996, at C1.
319. *House Panel Set to Consider Omnibus Copyright Measure*, 52 Pat. Trademark & Copyright J. (BNA) No. 1279, at 120, 120-21 (May 23, 1996).
320. *Id.* at 121.

that material.[321] For other copyright infringements, a complainant must have a good faith belief that the material constitutes infringement before notifying the service provider.[322] Once notified, a service provider that promptly removes or blocks the allegedly infringing material cannot be liable for vicarious or contributory infringement.[323] If found liable for unintentional vicarious or contributory infringement, the damages payable by a service provider would be limited to $1000 per work infringed.[324]

Section 107 would also be amended "to clarify that distribution 'by transmission' can be a fair use,"[325] thus compensating for the inclusion of "transmission" in the distribution right in the original bill.

The revised amendment would still include a new § 12 for Title 17 to cover copyright management and protection schemes. This amendment actually strengthens the content providers' protection by broadening the range of prohibited devices. Instead of the "primary purpose or effect" phrase,[326] the revision would more broadly prohibit devices "an effect of which" is bypassing copyright protection systems.[327] With both service providers and content providers compromising on the amendment, the broadening of this provision may indicate an area in which the interests of the public in general are not sufficiently represented by either party to the negotiations.[328]

Perhaps fortuitously, one result of the long and contentious debate is that the NII Copyright Protection Act of 1995 stalled without being passed by the 104th Congress, which will allow further scrutiny of the issues involved.

C. Alternatives to the Working Group's Recommendations

Because reaction to the *White Paper* ranges from full support to complete enmity, a great many alternatives have been proposed by a variety of sources. Several of the ideas, which differ from those previously discussed, are mentioned below.

First, the most drastic idea is to start over and redo the whole system, tailored to the protection of digital media. Creating a brand new, specific, and workable plan to replace the current scheme, however, is extremely difficult.[329] With copyright law having functioned so well for so long, this alternative is too drastic at the present time.

Second, some promote the idea that there will be a dramatic restructuring of the way in which authors will make money. These people suggest

321. Carey R. Ramos & Carl W. Hampe, *'Mere Conduit' Exemption Stirs Debate; Legislation Introduced in Congress*, 216 N.Y. L.J., Sept. 30, 1996, at S1.
322. *House Panel Set to Consider Omnibus Copyright Measure*, *supra* note 319, at 121.
323. *Id.*
324. Mills, *supra* note 318, at C1.
325. *House Panel Set to Consider Omnibus Copyright Measure*, *supra* note 319, at 121.
326. White Paper, *supra* note 9, app. 1, at 6
327. *House Panel Set to Consider Omnibus Copyright Measure*, *supra* note 319, at 121.
328. *See* discussion *supra* part VI.A.7.
329. Corcoran, *supra* note 267, at H1.

that most content will be free eventually, and publishing organizations will make money through ancillary services.[330] Clamping down too tightly on copyright will inhibit this evolution. Again, it remains to be seen whether the marketplace will actually move in this direction.

Third, there is the honor system,[331] but this really has not worked in other areas, especially where the idea of free use is already firmly entrenched. Fourth, there is the idea of self-imposed "cybercourts" that provide outside arbitrators to resolve on-line copyright disputes.[332] A fifth idea is to better educate the users.[333] An electronic contract between on-line providers and users may help to relieve the provider from liability.[334] In addition, legal warnings would periodically flash on the user's screen to remind them of their responsibilities.[335]

A sixth idea is to electronically mark works with an unremovable signature and then charge users when that work is used.[336] Finally, lump-sum royalties based on access, similar to those paid by the CCC, could be used to compensate copyright owners.[337]

Perhaps the best thing that happened to the *White Paper* is that it moved into the political process, where each side has been forced to listen to and compromise with the other. Both the content providers and the on-line service providers have the necessary resources to participate in the political process, so hopefully neither side can steamroll the other. In fact, many companies participate in both industries, thus further assuring that a reasonable, common sense result will eventually be reached. Selecting the best alternative is an extremely difficult task that is best accomplished, unfortunately, using hindsight. Because we do not have that luxury, drastic changes are probably not appropriate at the present time. And because we cannot know what method among the various alternatives is the best one, it seems prudent to work with the one that has two hundred years of history to back it up.

D. THE WIPO COPYRIGHT CONFERENCE OF 1996

Even when a new balance between copyright and digital technology is achieved in the United States, it will be ineffective unless the rest of the countries around the world enforce the same rules, due to the international, border-defying nature of the Internet. With precisely this issue in mind, the World Intellectual Property Organization (WIPO) held a diplomatic conference from December 2 to 20, 1996, to address the challenges

330. *Id.*
331. Erik J. Heels & Richard P. Klau, *On-Line*, STUDENT LAW., Oct. 1995, at 35, 36.
332. Daniel Pearl, *On-Line: Government Tackles a Surge of Smut on the Internet*, WALL ST. J., Feb. 8, 1995, at B1.
333. Junda Woo & Jared Sandberg, *Copyright Law Is Easy to Break on the Internet, Hard to Enforce*, WALL ST. J., Oct. 10, 1994, at B6.
334. *Id.*
335. *Id.*
336. Corcoran, *supra* note 267, at H1.
337. Edwin Wilson, *Authors' Rights in the Superhighway Era*, WALL ST. J., Jan. 25, 1995, at A14.

to copyright wrought by modern digital technology.[338]

The Diplomatic Conference on Certain Copyright and Neighboring Rights Questions (Copyright Conference) in Geneva actually considered three separate treaties, which were released on August 30, 1996 for international review prior to the Copyright Conference.[339] The three treaties are (1) a "'Draft WIPO Treaty on Certain Questions Concerning the Protection of Literary and Artistic Works,'" (2) a "'Draft WIPO Treaty on the Protection of the Rights of Performers and Producers of Phonograms,'" and (3) a "'Draft WIPO Treaty on Intellectual Property in Respect of Databases.'"[340] Representatives from 160 countries voted to pass the first two treaties, but only after some important amendments were made.[341] The third treaty, providing *sui generis* protection for databases, was too controversial and deemed by many countries as not ripe for consideration.[342]

The first two treaties mirror each other, but address different copyrightable subject matter. The first treaty extends the Berne Convention protection of literary and artistic works to digital transmission.[343] And for the first time, the second treaty provides global protection for sound recordings and includes digital transmissions of protected works.[344]

The first treaty originally contained a broad provision, article 7, which stated that the exclusive reproduction right "shall include direct and indirect reproduction of [a copyrighted work], whether permanent or temporary, in any manner or form."[345] But in last minute negotiations, "telephone companies, Internet-access providers and free-speech advocates persuaded negotiators to delete" article 7 from the treaty.[346] It appears that the information and telecommunications industries, along with

338. *WIPO Plans to Draft Protocol to Berne Convention*, 8 NO. 4 J. PROPRIETARY RTS. 28, 28 (1996).

339. *WIPO Proposals Would Extend Berne to Digital Technologies*, 52 Pat. Trademark & Copyright J. (BNA) No. 1294, at 494, 494 (Sept. 19, 1996).

340. *Proposed WIPO Treaty to Protect Databases Draws Fire at PTO Briefing*, 53 Pat. Trademark & Copyright J. (BNA) No. 1302, at 33, 33 (Nov. 14, 1996).

341. *Drawing the Copyright Map*, WASH. POST, Dec. 30, 1996, at A10.

342. *Copyright Accords Guard Against Software Piracy*, WALL ST. J., Dec. 23, 1996, at B6. The treaty on databases would have actually provided substantially increased protection over current law for the owners of databases. *WIPO Proposals Would Extend Berne to Digital Technologies*, *supra* note 339, at 495. Any legislation protecting the contents of databases should be carefully drafted in order to balance the public's right to access factual information, but still provide incentive to authors to expend the considerable effort required to compile useful databases. For example, opponents of the treaty on databases stated that it would give sports leagues and stock exchanges the exclusive right to the statistics that they generate. *Copyright Accords Guard Against Software Piracy*, *supra*, at B6.

343. Frances Williams, *Welcome for Updated Rules on Copyright*, FIN. TIMES, Dec. 23, 1996, at 3.

344. *Copyright Accords Guard Against Software Piracy*, *supra* note 342, at B6.

345. World Intellectual Property Organization, *Basic Proposal for the Substantive Provisions of the Treaty on Certain Questions Concerning the Protection of Literary and Artistic Works to Be Considered by the Diplomatic Conference*, art. 7(1) (Aug. 30, 1996) <http://www.wipo.int/eng/diplconf/4dc_a07.htm>.

346. Seth Schiesel, *Treaties Negotiated to Extend International Copyright Law*, L.A. DAILY NEWS, Dec. 21, 1996, at N1.

consumers, were able to voice their opinions loudly enough to be heard, due in part to trans-atlantic lobbying over the Internet itself.[347] As a compromise, the treaty drafters attached to the treaties explanatory notes containing a vague description of the distinction between temporary browsing and permanent reproductions.[348] These explanatory notes "will provide legal guidance but [are] not legally binding" on the member countries.[349]

The first treaty also originally contained a broad provision on technological measures, article 13, which would make illegal the "importation, manufacture or distribution of protection-defeating devices, . . . by any person knowing or having reasonable grounds to know that the device . . . will be used for . . . the exercise of rights provided under this Treaty that is not authorized by the rightholder or the law."[350] This language is similar to that used by the *White Paper*, but it adds a knowledge requirement, as opposed to the strict liability standard adopted by the *White Paper*.[351] Even so, intense lobbying forced a modification to this article, which now merely states that member countries "shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty."[352] The amended treaty shifts the debate over technological prohibitions, along with on-line browsing and the unaddressed issue of service-provider liability, back to the national level, where each nation will determine how to best conform with the treaty.

In addition, each of the 160 countries must still enact their own national legislation in order to implement the treaties themselves.[353] This process could take many years, so the full effect of the treaties on the Internet is difficult to determine at the present time.[354] But the passage of the two treaties should have two immediate effects: (1) it will encourage some copyright owners to put their works on-line, secure in the knowledge that the governments of the world are committed to protecting the copyright owners' investment, and (2) the treaties and associated negotiations will influence U.S. lawmaking efforts when the *White Paper* recommendations are revisited in the next session of Congress.[355]

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347. *Drawing the Copyright Map*, *supra* note 341, at A10.

348. Alexander G. Higgins, *Copyright Conference Boosts Internet/International Treaty Exempts Copies Made by Web Browsers*, HOUS. CHRON., Dec. 21, 1996, at A31.

349. *Id.*

350. World Intellectual Property Organization, *supra* note 345, art. 13.

351. *WIPO Proposals Would Extend Berne to Digital Technologies*, *supra* note 339, at 495-96.

352. World Intellectual Property Organization, *supra* note 345, art. 13.

353. Williams, *supra* note 343, at 3.

354. *Drawing the Copyright Map*, *supra* note 341, at A10.

355. The Clinton administration is currently determining whether new copyright legislation is required to comply with the two treaties. *Clinton Administration Is Undecided on Implementing Steps for WIPO Treaties*, 53 Pat. Trademark & Copyright J. (BNA) No. 1311, at 241, 241 (Jan. 23, 1997).

VII. CONCLUSION

In light of the recent international developments, and the stalled status of the original *White Paper* legislative proposals, some changes to the proposals are in order before they are reconsidered by Congress. First, clarification should be given on the status of on-line service providers. The courts' opinions in *Sega* and *Netcom* provide fair, balanced standards for direct, contributory, and vicarious copyright infringement, which should be adopted by higher courts or the legislature. Second, although a ban on a specific implementation of a technology is not unprecedented in copyright law, the recommended ban is much too general and large in scope. If it can be tailored to specific encryption or watermarks used in transmitted works, perhaps that would be narrow enough. Anything larger would interfere with the development of technology that has substantial noninfringing uses. Third, there should be some type of exception for electronically transmitting a copy and subsequently destroying the original. As the recommendations stand, this use, which functions the same as transferring a physical book, would be infringing. Fourth, on-line browsing, which requires making a temporary copy on a display or in computer memory, should not be considered an infringing use. This would cut too deeply into the basic operation of the Internet and the dissemination of information.

Because the Internet is still in its infancy, and because it holds a great deal of promise for the future, we should not prematurely inhibit its growth. Modern digital technology and copyright law can coexist, albeit in a carefully circumscribed balance. "'[W]e know simply enough to appreciate the magnitude of the problem without having the foggiest idea of where the appropriate solution lies.'"[356] Therefore the *White Paper*'s general recommendation of making minimal changes in the near term is very appropriate and should function as the guiding principle for any changes that are made to our copyright laws.

356. D.M. Osborne, *New Copyright Treaty: Too Much, Too Soon?*, AM. LAW TECH., Spring 1997, at 19, 19 (quoting David Nimmer).