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Speed Bump on the Information Superhighway: Slowing Transmission of Digital Works to Protect Copyright Owners

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As a veteran listener at many lectures by copyright specialists over the past decade, I know it is almost obligatory for a speaker to begin by invoking the "communications revolution" of our time, then to pronounce upon the inadequacies of the present copyright act, and finally encourage all hands to cooperate in getting a Revision Bill passed.

Benjamin Kaplan[1]

INTRODUCTION

The copyright law of the United States traces its roots to the censorship laws of England, when publishers were most concerned about the "communications revolution" of their time: the printing press. Publishers lobbied for laws to protect their investment of printing books, and the Crown acquiesced, wanting to control what was printed and to recognize the economic gain, granting publishers a monopoly to print licensed books.[2] What the publishers received from the license was a monopoly of the right to copy and distribute the manuscript.

While the current copyright protections contain some vestiges of these early laws, such as monopoly to copy, distribute, and receive damages from infringers, the original policies behind the law were markedly different from the reasons why copyright protection is extended today. In the early years of copyright, it was the publisher, not the author, who had copyright protection. Also, the first laws were as much to exert governmental censorship as they were to protect intellectual property.[3] U.S. copyright law borrowed from the English, but then developed as a balancing act, attempting to harmonize the rights of the creator of the work with the rights of users of the work. Ownership and proprietorship of works abut the interests of users to comment, critique, and use works as a stepping stone for further progress.

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1. Benjamin Kaplan, An Unhurried View of Copyright 1 [hereinafter "Kaplan, *Unhurried View*"]. Special thanks to Professor Paul R. Baier, George M. Armstrong, Jr. Professor of Law, Paul M. Hebert Law Center, Louisiana State University, for recommending this volume.

2. *See generally*, Kaplan, *supra* note 1, *and* Paul Goldstein, International Copyright [hereinafter "Goldstein, *International Copyright*"].

3. See *generally*, Kaplan, *supra* note 1, *and* Goldstein, *supra* note 2.

Today, we are still debating concerns raised by Professor Kaplan about the "communications revolution" of the 1960s: computers. Our "communications revolution" now makes it faster, easier, and cheaper to communicate around the globe, with digital technologies rapidly replacing other forms of media as the primary products in the marketplace of ideas. The Internet is the information superhighway, a distribution point for much of the digital communication. The increase in Internet usage in America is leading many businesses to develop additional distribution methods for other forms of digital information. In this era of brisk innovation, copyright law is trying to keep pace with technological advances. Congress enacted the Digital Millennium Copyright Act ("DMCA")[4] in 1998 to bring U.S. law into compliance with the World Intellectual Property Organization ("WIPO") Copyright Treaty,[5] and to address issues raised by digital communication. Congress intends the DMCA to be "the legal platform for launching the global digital on-line marketplace for copyrighted works."[6] A significant provision of the DMCA[7] prohibits circumventing access controls inserted in digitally stored works. This provision has been hotly debated because of the impact it has on traditional copyright law, especially the first sale doctrine.[8] Under this doctrine, the copyright owner's exclusive right to distribute copies of the work is subject to the limitation that once the copyright owner has made the 'first sale' of the work, subsequent disposition of that copy of the work cannot be controlled by the copyright owner. This doctrine distinguishes between the property right in the intellectual property and the property right in the tangible object containing the expression of the copyrighted work. The first sale doctrine prohibits the copyright owner from interfering with the user's subsequent disposition of the tangible object.

The Copyright Office recently issued a report to Congress describing the effect of the DMCA on electronic commerce ("e-commerce").[9] Analogy between distribution of works embodied in

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4. Pub. L. 105-304, Title I, § 103(a), 112 Stat. 2863, Oct. 28, 1998.

5. World Intellectual Property Organization Copyright Treaty, Dec. 20, 1996, *available at* http://www.wipo.org/eng/diplconf/distrib/94dc.htm (last visited Aug. 25, 2003).

6. S. Rep. No. 190, 105th Cong., 2nd Sess., 1998, 1998 WL 239623 (Leg.Hist.).

7. 17 U.S.C. § 1201 (1998).

8. The first sale doctrine is discussed in depth, *infra* Part I(D)(2), at 10.

9. Digital Millennium Copyright Act Section 104 Report, U.S. Copyright Office, Aug. 2001 [hereinafter "DMCA Section 104 Report"]. The Copyright Office also solicited comments for the report on the effects of section 1202 (protections for copyright management information) and for views regarding section 117 (exemption for temporary buffer copies). Issues relating to these sections are beyond the scope of this work.

tangible objects and works transmitted on-line led some groups to seek expansion of the first sale doctrine to include digital transmission of works.[10] After public comment on the issue, the Copyright Office concluded that the first sale doctrine does not currently apply to digitally transmitted works,[11] and decided against endorsing a change in the law.[12] Congress should follow these recommendations, and not adopt a "digital first sale doctrine" for works that are distributed on-line. A "digital first sale doctrine" would require the first purchaser to simultaneously delete his copy upon retransmission to the second purchaser. This would be accomplished through either an affirmative act by the first purchaser, or by a technological feature of the digitally transmitted work. Recent events, such as the Napster and the DeCSS cases,[13] show why copyright owners cannot rely on voluntary compliance with this delete requirement. Currently, adequate technology does not exist to prevent an authorized copyright user from distributing multiple copies from the authorized first sale of a digitally transmitted work. Threat of judicial remedies is often ineffective protection against pirates and private copiers. Expanding the first sale doctrine to digitally transmitted works increases the risk of copyright infringement. Limiting the first sale doctrine to traditional analog media and works stored digitally on a tangible storage medium constructs a necessary speed bump on the information superhighway.

Part I of this article outlines a history of United States copyright laws as background to understand the problem. Part II of this paper reviews the DMCA, and the changes it made to the Copyright Act. Included here is a discussion of the findings and the proposals contained in the Section 104 Report of the Copyright Office. The Internet freeware culture, digital technology and the related problems for effective copyright protection are examined in Part III. Finally, Part IV examines the first sale doctrine of copyright law, and why it should not be expanded to apply to digital works.

I. OVERVIEW OF UNITED STATES COPYRIGHT LAW

A. Policies Behind Copyright Law and Evolution of Statutory Protection

Copyright laws attempt to balance the rights of the creator against the rights of the user of the work. The rights reserved to the copyright

10. *Id.* at 96.
11. *Id.* at 97.
12. *Id.* at 96.
13. Napster is defined, *infra* note 70 in Part I(D), and referenced in relation to private copying, *infra* Part III(D), at 18. The DeCSS cases are discussed *infra* Part III(E).

owner during the copyright term are the exclusive rights to reproduce, publicly perform and make adaptations for other media, including translations and other versions of the original material known as "derivative works," subject to some limitations of this exclusive right, such as fair use.[14] Because of this exclusive right to reproduce the work, the copyright owner also has the right to prevent others from copying, or infringing upon the rights to exploit the work.[15]

In the United States, copyrights have constitutional protection in the Copyright Clause,[16] which states "Congress shall have the power . . . to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." At common law, authors and inventors had copyright protection until the date of first publication, at which time the work entered the public domain.[17] An infringement action could only be brought if the work was unpublished. As long as the author, or his heirs, refused to publish the work, the copyright would exist in perpetuity. To encourage authors and inventors to share their creations, statutory copyright protection was granted, the theory being that granting exclusive rights in the works promotes creativity since authors and inventors receive an economic incentive to share their works. As Samuel Johnson quipped, "No man but a blockhead ever wrote except for money."[18] The Supreme Court reiterated the philosophy for balancing these competing rights of author and user, reminding us that: [C]reative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and the other arts. The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is by this incentive, to stimulate the artistic creativity for the public good.[19]

B. What Can Be Copyrighted

Simply put, a copyright is protection afforded a creator of a work that provides the creator limited rights in reproducing and distributing

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14. 17 U.S.C. §§ 101-1322 (1995).
15. *Id.*
16. U.S. Const. Art. I, § 8, cl.8
17. *See generally*, Kaplan, *supra* note 1; Goldstein, *supra* note 2.
18. Goldstein, *supra* note 2, at 7, citing James Boswell, *The Life of Samuel Johnson,* Volume II, 12 (Apr. 5, 1776) (1992).
19. Fogerty v. Fantasy, Inc., 510 U.S. 517, 526, 114 S.Ct. 1023, 1029, (1994) citing Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156, 95 S.Ct. 2040, 2043 (1975).

the creation. It is now secured by mere act of creation,[20] since the form requirements for publication with notice and registration of a copyright were repealed during revisions to the Copyright Act of 1976. Originality of the work is implicit in the constitutional expression of "works of authors," but this does not mean that the work must be new.[21] However, a copyright will not protect ideas, slogans, systems, titles and data.[22] Originality of the author's expression of the idea is the cornerstone of the copyright. Thus, while the novel, and movie, *Gone with the Wind* are protected works, the concept of the story is not.[23]

The work must also be fixed in a tangible medium of expression.[24] This has been defined as "any physical rendering of the fruits, creative, intellectual or aesthetic labor."[25] The Copyright Act enumerates several tangible forms the subject matter may be contained in, such as literary, musical, and dramatic works, pantomimes and choreography, pictorial, graphic and sculptural works, motion pictures and other audiovisual works, sound recordings and architectural works.[26] This is a non-exclusive list, so there is no limitation that the protected expression be contained in one of these works, just that it be in some tangible form that "others could directly perceive and from which the underlying work could be reproduced."[27] In *Columbia Broadcasting System, Inc. v. DeCosta*,[28] DeCosta was known by the name Paladin, and appeared on horseback at public occasions attired in black western cowboy clothes. Paladin would hand out business cards and photographs imprinted with "Have Gun Will Travel—Wire Paladin." CBS developed the character into a television series called "Paladin." The television character

20. Richard Wincor, Copyright in the World Marketplace 9-10 (1990).

21. 1 Melville B. Nimmer & David Nimmer, Nimmer on Copyright § 2.01 (1986) [hereinafter "Nimmer, *Copyright*"].

22. 17 U.S.C. § 102(b) (1995). In the United States, databases are also not given copyright protection. *See* Feist Publications v. Rural Telephone Service Co., Inc., 499 U.S. 340, 111 S.Ct. 1282 (1991).

23. Recently, the heirs of Margaret Mitchell, author of *Gone with the Wind*, received a preliminary injunction prohibiting author Alice Randall from publishing a parody of Mitchell's work titled *The Wind Done Gone*. However, the injunction was vacated on appeal as a prior restraint of free speech since the parody was a fair use of Mitchell's work. *See* Suntrust Bank v. Houghton Mifflin Co., 136 F. Supp. 2d 1357, (N.D. Ga.), *vacated* 252 F.3d 1165 (9th Cir. 2001).

24. 17 U.S.C. § 102(a) (1995).

25. Goldstein v. California, 412 U.S. 546, 93 S.Ct. 2303 (1973).

26. 17 U.S.C. § 102(a) (1995).

27. White-Smith Music Publishing Co. v. Apollo Co., 209 U.S. 1, 28 S.Ct. 319 (1908) (holding that player piano rolls did not infringe the plaintiff's copyrights in the music, since the content did not meet their dual prong test of direct perception and reproducibility).

28. 377 F.2d 315 (1st Cir. 1967).

incorporated many, if not all of the particular features of the DeCosta character, such as the black clothing, the name and slogan on the business cards, the depiction of a chess knight on the business cards and on the character's gun belt. DeCosta lost the infringement suit because his character had never been reduced to a tangible medium from which it could be directly perceived and reproduced.[29]

There are no longer any formal requirements of notice or registration to obtain a copyright in a work.[30] However, for the copyright to be enforced, the creator must be able to prove authorship, and a valid notice is prima facie evidence of the copyright.[31] Also, registration is a prerequisite to be able to bring an infringement action,[32] and registration is also necessary to receive an award of attorney's fees and costs.[33] Registration can also provide a presumption of notice of the copyright, and this can defeat a defense of innocent infringement in a civil action.[34] Errors or misstatements on the registration forms can be corrected.[35] The corrected registration acts as a supplementation of the original registration rather than superseding the incorrect registration.[36] Once it meets these criteria for subject matter and form, the work will receive the benefits of copyright protection.

C. What Exclusive Rights Are Granted to the Copyright Owner, and Remedies for Infringement

To enforce these constitutional copyright protections, Congress first enacted the Copyright Act of 1790,[37] with comprehensive revisions

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29. The court debated the possibility of copyright protection for the character based on plaintiff's public performance, but ultimately found that the plaintiff did reduce the character to a 'writing' by passing out photographs of himself as Paladin and the business cards. However, plaintiff did not comply with the formal requirements to register these photographs and cards with the Copyright Office, as required under then existing copyright law to do. This meant that plaintiff could not claim copyright protection for his character.

30. The Berne Convention Implementation Act of 1988 (Pub. L. No. 100-568, 102 Stat. 2853) eliminated the formal notice requirements as a prerequisite for U.S. copyright protection prospectively only. Therefore, works with a publication date before March 1, 1989 are governed by the provisions of the Copyright Act of 1976, or the Copyright Act of 1909 if published prior to January 1, 1978. *See* 2 Nimmer, *Copyright, supra* note 21, § 7.02[C][1].

31. 17 U.S.C. § 410 (1995).

32. 17 U.S.C. § 411 (1995). A limited exception exists for works of non-U.S. authors bringing suit under the provisions of the Berne Convention.

33. 17 U.S.C. § 412 (1995).

34. 17 U.S.C. § 405(b) (1995). *See also* 2 Nimmer, *Copyright, supra* note 21, § 7.14[B], at 7-136.

35. 17 U.S.C. § 408(d) (1995).

36. *Id.*

37. Act of May 31, 1790, 1st Cong., 2d Sess., 1 Stat. 124.

enacted in 1831,[38] 1870,[39] 1909[40] and 1976.[41] Under the current statute, creators of works have the exclusive right to reproduce the work, to prepare derivative works, to distribute copies of the work, to publicly perform the work, and to publicly display the work.[42] Copyright owners can determine the number and format of copies of their work in the marketplace. They benefit economically from their copyrights through granting authorized use by licensing or through collecting royalties. Congress amended the law to grant these exclusive rights for a term of the author's life plus 70 years.[43] At the end of the copyright term, the work passes into the public domain, and is no longer protected against infringement.

D. What Rights Are Limited or Given to Users

While the U.S. Constitution grants authors the copyright, it also gives citizens a right of free speech,[44] and when copyrights limit what can be freely spoken, it infringes on this right. Therefore, copyrights are limited to a set time period so that copyright owners do not have an unlimited privilege to charge for using their works. This balancing of the competing rights is the predominant principle of copyright. In addition to providing for a limited exclusive monopoly for copyright owners, copyright law provides two main limitations on the copyright protection during the copyright period. First, users of copyrighted works are allowed to engage in limited unauthorized uses of the work, by exempting certain uses from the copyright.[45] Second, owners of a lawfully authorized copy of a copyrighted work have the ability to dispose of that copy without interference from the copyright owner subject to the first sale doctrine.

1. Fair Use Doctrine

Under the doctrine of fair use, a user is allowed to reproduce, in copies or phonorecords, the work for purposes such as criticism,

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38. Act of February 3, 1831, 21st Cong., 2d Sess., 4 Stat. 436.
39. Act of July 8, 1870, 41st Cong., 2d Sess., 16 Stat. 212.
40. Act of March 4, 1909, 60th Cong., 2d Sess., 35 Stat. 1075.
41. 17 U.S.C. § 101 (1995).
42. 17 U.S.C. § 106 (1995). Also, § 106(6) grants the right to publicly perform a sound recordings by means of a digital audio transmission.
43. Sonny Bono Copyright Term Extension Act of 1998, Pub. L. 105-298, Title I, § 102(b), Oct. 27, 1998, 112 Stat. 2827, codified at 17 U.S.C. § 302(a) (1998).
44. U.S. Const. Amend. 1.
45. 17 U.S.C. §§ 107-121 (1995). The Copyright Act also provides exceptions to the copyright owner's exclusive rights for libraries, for certain performances and displays used in classroom settings, secondary transmissions for cable systems, sound recordings and computer programs.

comment, news, reporting, teaching, scholarship or research.[46] Parody and satire have also been recognized by courts as fair use of copyrighted materials. These exceptions recognize that the societal benefit from free speech is greater than the need to protect the intellectual property of the copyright owner.

While fair use can be a defense to copyright infringement, the statute provides factors to be weighed in the determination of whether the claimed use meets the definition of fair use. These include the purposes the work was used for, including any commercial nature of the use, the nature of the copyrighted work, the amount and substance of the portion used in relation to the work as a whole, and the effect the use has on the potential market or the value of the work.[47] Courts also allow parody, satire and burlesque as forms of legitimate forms of fair use, as long as it satisfies the test. For example, in *Walt Disney Productions v. Air Pirates*,[48] the defendants copied such well-known cartoons as Mickey and Minnie Mouse, Donald Duck, Goofy and others in producing their comic books. The comic books were sold for defendants' commercial benefit. These comic books "centered around a 'rather bawdy depiction of the Disney characters as active members of a free thinking, promiscuous, drug ingesting counterculture.'"[49] In upholding the summary judgment for Disney, the court found that the "defendants took more than was necessary to place firmly in the reader's mind the parodied work and those specific attributes that were to be satirized."[50] They cited the traditional American rule that excessive copying is not fair use.[51]

More recently, courts have allowed 'shifting' as legitimate fair uses. Time-shifting is the practice of recording a broadcast onto a storage medium for subsequent personal, noncommercial use, while space-shifting is transferring a copy of the work from one storage medium to another, again for personal, noncommercial use. Time-shifting allows the consumer to shift the broadcast to a time more convenient for the consumer. Space-shifting, also called place-shifting, is usually done by the consumer to put the creation onto a more portable medium, for example copying an album to a tape cassette for use in an automobile or portable cassette player. In *Sony Corporation of America v. Universal City Studios, Inc.*,[52] also known as the *Betamax* case, time-shifting was first recognized as a legitimate

46. 17 U.S.C. § 107 (1995).
47. 17 U.S.C. § 107 (1995).
48. 581 F.2d 751 (9th Cir. 1978).
49. *Id.* at 753, citing Note, Parody, Copyrights and the First Amendment, 10 U.S.F. L. Rev. 564, 571, 582 (1976).
50. 581 F.2d at 758.
51. *Id.*
52. 464 U.S. 417, 104 S.Ct. 774 (1984).

fair use. In this case, Universal City Studios and Disney Productions sued Sony Corporation over the manufacture and sale of home videocassette recorders (VCRs). The plaintiffs argued that Sony was contributorily liable for copyright infringement by providing equipment that was capable of recording copyrighted materials. The time-shifting at issue was the consumers' use of VCRs to record television broadcasts. The Court found that the consumers' use of VCRs to record these programs was a fair use of the copyrighted materials, and that "time-shifting merely enables a viewer to see such a work which he had been invited to witness in its entirety free of charge."[53]

Space-shifting was before the court in *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*[54] Diamond Multimedia created the "Rio" as a hand-held recording and playback device for MP3 audio files, and copied these files from the personal computer of the user. The Recording Industry Association of America (RIAA) sued claiming that the Rio failed to incorporate a Serial Copyright Management System (SCMS) "that sends, receives and acts upon information about the generation and copyright status of the files that it plays,"[55] as required under the Audio Home Recording Act (AHRA).[56] The court found that the Rio does not make copies from digital music recordings since the music files it plays are recorded from the hard drive of a computer, and this did not meet the definitions incorporated into the AHRA.[57] The fact that the AHRA allows files to be copied first from a compact disc (CD) or a broadcast to a computer hard drive, and then to the Rio implies that "the Act seems designed to allow files to be 'laundered' by passage through a computer."[58] The court found that this interpretation of the AHRA was "entirely consistent with the Act's main purpose—the facilitation of personal use. As the Senate Report explains, "[t]he purpose of [the Act] is to ensure the right of consumers to make analog or digital audio recordings of copyrighted music for their *private, noncommercial use*."[59] Citing In *Sony Corporation of America v. Universal City Studios, Inc.*,[60] the court noted using Rio to record the music files is space-shifting and a fair use exception to copyright.

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53. *Id.* 464 U.S. at 450, 104 S.Ct. at 792.
54. 180 F.3d 1072 (9th Cir. 1999).
55. *Id.* at 1075.
56. Audio Home Recording Act of 1992, Pub. L. No. 102-63, 106 Stat. 4242 (1992).
57. 180 F.3d at 1076.
58. *Id.* at 1079.
59. *Id.*, citing S. Rep. 102-294, at 86 (emphasis added).
60. Sony Corp. of Am. v. Universal City Studios, Inc., 464 U.S. 417, 455, 104 S.Ct. 774, (1984).

2. First Sale Doctrine

The other major limitation on the copyright owner's limited monopoly is the doctrine of first sale.[61] Under this doctrine, the owner of a lawfully obtained copy of a work is allowed to resell, or otherwise dispose of the copy without authority of the copyright owner. This doctrine arose first in common law in *Bobbs-Merrill Company v. Strauss*,[62] where the Court held that a copyright owner's right to sell his book did not include the right to restrict further retail sales of the book or the right to require that the book be sold at a certain price. The Court distinguished between the sales of the physical objects, which the copyright owner could not control after the first sale, and the intellectual property, over which the copyright owner retains ownership. The following year, Congress codified this doctrine in Section 27 of the Copyright Act of 1909. The House Committee on Patents stated in report that this is "not intended to change in any way the existing law, but simply to recognize the distinction, long established, between the material object and the right to produce copies thereof."[63] Crucial to the first sale doctrine is the recognition that "[t]he copyright is distinct from the property in the material object copyrighted, and the sale or conveyance . . . of the material object shall not of itself constitute a transfer of the copyright."[64] So by selling a material object, such as a book, CD or Digital Versatile Disc (DVD), the copyright owner is giving the purchaser permission to access and use the intellectual property contained in the material object for the purchaser's personal use. What the copyright owner retains after the first sale are all of the exclusive rights to use the intellectual property granted to the copyright owner through the Copyright Act. The first sale doctrine allows purchasers the right to resell, gift, or loan the physical item containing the intellectual property without interference from the copyright owner. But any copying of the intellectual property by the purchaser for further distribution, or public performance of the work, constitutes copyright infringement.

E. Remedies for Infringement

Creators protect their rights with a civil cause of action against copyright infringers.[65] Under the statute, copyright owners can enjoin

61. 17 U.S.C. § 109 (1995). Amended in 1997.
62. 210 U.S. 339, 28 S.Ct. 722 (1908).
63. H.R. Rep. No. 2222, 60th Cong., 2d Sess. (1909). Quoted in Platt & Munk Co. v. Republic Graphics, Inc., 315 F.2d 847, 852 (1963).
64. Bourne v. Walt Disney Co., 68 F.3d 621 (2d. Cir. 1995).
65. 17 U.S.C. § 501(b) (1995).

unauthorized use,[66] request impoundment and destruction of infringing works[67] and seek damages from infringers for piracy.[68] However, to be able to take these steps to enforce their rights, right owners need to be able to find and prosecute infringers. Judicial remedies are often ineffective because the cost of litigation outweighs any damage recovery available from the infringer. Consider the example of the average college student who downloaded MP3s[69] from Napster.[70] If Joe Student copied 100 MP3s, each file could possibly be a copyrighted sound recording. This means Joe which would subject to multiple infringement actions. But several practical considerations may keep the copyright owner from suing Joe Student. First, copyright law is territorial. If Joe is outside of the United States, U.S. copyright will not apply to him. Second, if Joe is not a resident of the United States, and the infringement occurred outside the U.S., the copyright owner may not be able to obtain personal jurisdiction over Joe in a U.S. court. The infringement action would then need to be brought in the forum where personal jurisdiction could be obtained, and under the laws of that jurisdiction. Third, the copyrights in the MP3s Joe downloaded may be held by separate individuals, so that each copyright owner would need to bring a separate action against Joe to enforce their individual copyrights. But the most practical reason to refrain from suing Joe Student is that he is quite likely judgment proof. Even if the copyright owner prevailed in the litigation, Joe Student probably has no assets from which to pay the judgment for damages, attorneys' fees and costs of the litigation. Thus, while the damage from the Napster model was significant to copyright owners, the remedies they can seek from each infringer are insignificant compared to the costs they would bear to seek that remedy.

Indeed, recent statistics by industry groups indicate that enforcement activities are not aimed at individual infringers. The Recording Industry Association of America (RIAA) reports that "[o]n behalf of its member companies, the RIAA initiated civil suits against seven individuals or corporations during the first six months of 2001. These suits were directed against various types of illegal conduct, including illegal files sharing activities and unlicenced webcasting

66. 17 U.S.C. § 502 (1995).
67. 17 U.S.C. § 503 (1995).
68. 17 U.S.C. § 504 (1995).
69. MP3 is the shorthand for Moving Picture Expert Group's MPEG-1 audio layer 3 algorithm. This is a type of compression technology to reduce the size of a digital file.
70. Napster is a peer to peer file sharing software developed by Shawn Fanning. Fanning operated a website, Napster, that allowed users of the software to engage in file sharing of MP3 files.

services."[71] The RIAA website states the litigation was filed against individuals and groups involved with Aimster, a file sharing service similar to Napster, and "Wings Digital, a CD manufacturing plant in New York responsible for hundreds of infringements."[72] Apparently, no infringement litigation was filed against individuals for sharing files via services such as Napster and Aimster, so Joe Student is correct in believing that he is safe from infringement actions. A similar review of information posted by the Motion Picture Association of America (MPAA) indicates that they also direct the bulk of their infringement activities against large scale piracy, not against the individual infringers.[73]

II. DIGITAL MILLENNIUM COPYRIGHT ACT

A. What it Adds to the Copyright Act

The Digital Millennium Copyright Act had the dual purpose of implementing U.S. obligations under the WIPO Copyright Treaty of 1996, as well as updating U.S. copyright law. Intended to be minimalist legislation, Congress only expanded protections to what was not already covered by the Copyright Act. The provisions of the Copyright Treaty not already contained in U.S. law required member states to prohibit circumvention of encryption technologies, to protect against interference with electronic rights management information and to provide effective remedies to enforce rights under the Treaty.[74] It also expanded coverage in light of digital technology to computer programs, compilations of data[75] or other material "which by reason of the selection or arrangement of their contents constitute intellectual creations, expressions, not ideas, procedures methods of operation or mathematical concepts as such."[76]

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71. RIAA website *available at* http://www.riaa.com/News_Story.cfm?id=457 (last visited Feb. 4, 2002).

72. *Id.*

73. Motion Picture Association of America website *available at* http://www.mpaa.org/anti-piracy/ (last visited Feb. 4, 2002).

74. Goldstein, International Copyright, *supra* note 2, at 33. The provisions regarding alteration or removal of copyright management information (CMI) were "generally viewed by commentators as having no impact on the operation of the first sale doctrine." DMCA Section 104 Report, *supra* note 9, at x. For this reason, the DMCA as it pertains to CMI is outside the scope of this article.

75. Databases do not receive copyright protection in the United States. *See* Feist Publications v. Rural Telephone Service Co., Inc., 499 U.S. 340, 111 S.Ct. 1282 (1991).

76. Goldstein, International Copyright, *supra* note 2, at 33.

1. Section 1201 Prohibits the Circumvention of Technological Measures of Protection

Technological protection measures are included in the content of an increasing number of digital works in an attempt to prevent infringement. Prior to the enactment of the DMCA, some areas of intellectual property were protected by anti-circumvention law, such as unauthorized decryption of encrypted satellite signals and trafficking in means to do so,[77] but the prohibition was not uniform. Circumvention of access controls is tied to infringement in that either the act of circumvention can independently constitute infringement, or more likely, is directly followed by copying that infringes the copyright. Enacting the anti-circumvention provisions allowed copyright owners to engage in self-help to decrease the risk of infringement.[78]

The Copyright Registrar noted that access control measures are not the same as copy control measures, and that circumvention of copy control measures is not prohibited by the DMCA.[79] A copy control measure as used in this context means "technological measures that control or prevent the exercise of [fair use and other exceptions to copyright owner's exclusive rights.]"[80] Access controls on the other hand, prevent unauthorized access to the work. In limiting the prohibition on circumvention, the goal is to allow fair use, while restricting infringement. The distinction is that while "quoting a manuscript is fair use, breaking into a desk drawer and stealing it is not."[81]

To violate Section 1201, the circumvention measure must meet at least one of the statutory guidelines. The circumvention must be the purpose for which the measure was designed, be the predominate commercially significant use of the measure or marketed for the purpose of circumvention.[82] Any manufacture, import, or other offer to the public of any product, service or device, or component for circumventing access controls will violate Section 1201, unless it falls within one of the limited exceptions. Reverse engineering[83] and encryption research exceptions are narrowly tailored for anti-

77. DMCA Section 104 Report, *supra* note 9, at 9, citing to 47 U.S.C. § 605 (1996).

78. DMCA Section 104 Report, *supra* note 9, at 9.

79. DMCA Section 104 Report, *supra* note 9, at 11.

80. *Id.*

81. DMCA Section 104 Report, *supra* note 9, at 12, citing to H.R. No. 105-551, pt. 1 at 17 (1998) "The act of circumventing a technological protection measure put in place by a copyright owner to control access to a copyrighted work is the electronic equivalent of breaking into a locked room in order to obtain a copy of the book."

82. 17 U.S.C. § 1201(a)(2) (1998).

83. 17 U.S.C. § 1201(f) (1998).

circumvention measures. Reverse engineering is the process by which the software designed to be the access control measure is broken down to determine its operating code. Once the computer code is cracked, the code can be used to achieve interoperability[84] with other independently created computer programs. As with the rest of the Copyright Act, remedies include civil damages[85] and criminal penalties[86] for violations of these provisions.

B. The Section 104 Report

When Congress enacted the DMCA, it also mandated that the Registrar of Copyrights would prepare a report concerning the "impact of the digital age on copyrighted works."[87] Section 1201 of the DMCA provides that if copyright owners employ access control measures on digital content, that the access controls cannot be lawfully circumvented for most purposes.[88] The report examined in depth whether a digital first sale doctrine should be applied to retransmission of downloaded copies of works in digital form and to what extent buffer copies of streamed on-line content made incidental to the broadcast transmission should be granted an exemption from the Copyright Act.[89]

The Registrar found that the first sale doctrine does apply to digital works stored on a tangible medium, such as CDs and DVDs.[90] This merely affirms the traditional first sale doctrine, as the digital work is fixed on a tangible medium. The copyright owner has no control over a subsequent disposition of the physical object. Also included in the scope of the first sale doctrine are digital works that are lawfully received as a download transmission.[91] What was under

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84. 17 U.S.C. § 1201(f)(4) defines "interoperability" as the ability of computer programs to exchange information, and of such programs mutually to use the information which has been exchanged.

85. 17 U.S.C. § 1203 (1998).

86. 17 U.S.C. § 1204 (1998).

87. DMCA Section 104 Report, *supra* note 9, at 1.

88. *See* discussion of DMCA provisions, *supra* Part II(A).

89. Streaming is a method of receiving digital broadcasts over the Internet. During a streamed broadcast, the file is sent in portions to the user's computer. Each portion is stored in a temporary copy on the hard drive. Only the portion actually being viewed or heard in real time is stored on the user's computer, then the file is replaced by the next portion of the broadcast. So during a streamed broadcast, copies of the broadcast are made on the user's hard drive. This copying occurs as part of the process of receiving the broadcast. It is necessary for the streamed broadcast to be perceived by the user, and is not intentional by the user. The portion of the Sect. 104 Report dealing with this issue is outside the scope of this article.

90. DMCA Section 104 Report, *supra* note 9, at xviii.

91. *Id.*

consideration was whether these downloaded digital copies could then be retransmitted to a third party within the scope of the first sale doctrine. On this point, the Registrar found that concerns raised by the public comments were unrelated to the DMCA prohibitions on circumventing access controls, therefore no recommendations for changes were appropriate.[92] Arguments for extending the first sale doctrine to retransmission of digitally transmitted works rely on the characterization of the distribution as being the same as a distribution of the physical objects. The Copyright Registrar refuted this analogy, stating that "They are, however, distinct acts with distinct characteristics that ought not necessarily be treated similarly."[93]

III. RISE OF THE INFORMATION SOCIETY AND THE ATTENDANT PROBLEMS FOR COPYRIGHTS

A. Digital and Analog Technologies Explained and Compared

Analog technology refers to a system "that can have a range of values."[94] An analog recording "involves the physical tracing of the original sound directly and continuously into groves on the storage medium by . . . mechanical pickup."[95] This means that analog mediums present the stored information in a spectrum. In contrast, digital technology is the "representation that consists of ones and zeros—the binary code understood by computers."[96] If you think of the two systems as light switches, analog would be a dimmer switch, while digital would be the on-off flip switch. Compared to analog technology, digital technology has numerous advantages. Because analog data is played back by a mechanical process moving over the storage medium, the wear and tear degrades the quality of the storage medium over time. Digital materials do not deteriorate as easily or as rapidly as analog materials, meaning that digitally stored materials retain their quality longer. Also, compression of files is available for digital media, so that more information can be stored digitally than on a comparably sized analog medium. Compression is achieved by reducing the size of the digital file through compression algorithms. Finally, digital mediums are more portable than analog since their

92. *Id.* at 73.
93. *Id.* at 96.
94. Stephen M. Kramarsky, *Copyright Enforcement in the Internet Age: The Law and Technology of Digital Rights Management*, 11 DePaul-LCA J. Art. & Ent. L. 1, 4 (2001).
95. Robert M. Blunt, *Bootlegs and Imports: Seeking Effective International Enforcement of Copyright Protection from Unauthorized Musical Recordings*, 22 Hous. J. Int'l L. 1698, 1729-30 (Fall 1999).
96. *Id.*

playback does not involve a physical process that amplifies imperfections on the recording.

These advantages of digital technology are more attractive to consumers, who are driving the change towards digital technology. Introduction and consumer use of CDs has replaced the consumer market for vinyl albums and cassette tapes. Digital Versatile Discs (DVDs) have an ever expanding market share for movies, replacing VHS tapes as the industry standard. But with these advantages for consumers comes increased risk for copyright owners.

B. Internet Freeware Culture

The Internet developed as a military experimental project that had as its original goal "linking the computer networks of the military, defense contractors and university laboratories conducting defense-related research."[97] As the Internet developed, the increasing number of "academics and technology minded people whose fields and study . . . depend upon the sharing and building of information"[98] using the Internet led to a conception that the information on the Internet could be copied and used for any purpose. Much of the software on the early Internet was open-source[99] and non-proprietary, so that software and other information was routinely posted and shared among the users without concern about copyright. Another factor for the increase in the freeware culture is that the majority of Internet users are minors who are unaware of copyright law and its implications. However, not all young Internet users are merely ignorant of copyright. Some realize that copying is illegal, but do it anyway because of the economic benefit of sharing music files for free and the low risk of detection and prosecution for infringement. Indeed, the "info-anarchists' rallying cry [is] that 'information wants to be

97. Jennifer Burke Sylva, *Digital Delivery and Distribution of Music and Other Media: Recent Trends in Copyright Law; Relevant Technologies; and Emerging Business Models*, 20 Loy. L.A. Ent. L. Rev. 217, 239 (2000), citing to Reno v. ACLU, 521 U.S. 844, 849-50, 117 S. Ct. 2329, 2334 (1997).

98. *Id.* at 239. *See also* B.J. Richards, *The Times They are A-Changing: A Legal Perspective on How the Internet is Changing the Way We Buy, Sell and Steal Music*, 7 Intell. Prop. L. 421, 428 (Spring 2000).

99. "Open-source is a software development model by which the source code to a computer program is made available publicly under a license that gives users the right to modify and redistribute the program. The program develops through this process of modification and redistribution and through this process by which users download sections of code from a web site, modify that code, upload it to the same web site, and merge the modified sections into the original code. Trial transcript (Craig) at 1008." Universal City Studios v. Remierdes, No. 00 Civ. 0277 (LAK), 111 F. Supp. 2d 294, 305 n.6 (S.D.N.Y. Aug. 17, 2000).

free.'"[100] The proliferation of the 'free' mentality in consumers creates problems for copyright owners. Low cost and ease of transmission facilitate dissemination of greater amounts of information. Information is now sent over broader geographic areas. The ease of transmission is one reason it is now more difficult to locate and prosecute copyright infringers.

C. World Harmonization of Copyright Law

While digital information can be transmitted easily across borders, copyright is territorial and does not exist outside the sovereign.[101] Problems of territoriality of copyright law means that in every country around the world, different works receive different levels of protection. In addition to rights varying with geographic boundaries, enforcement of rights depends on whether a portion of the infringement is done in within that country. Add to this the difficulties of international choice of law, finding international pirates and private copiers to sue for infringement, and copyright holders are faced with extreme adversities in enforcing remedies for infringement. International efforts to expand copyright protection to global markets have increased with attempts to combat copyright infringement by harmonizing copyright law among member states of international treaties.

The common feature of the main copyright treaties is to provide authors from other member nations the same protection as a citizen of that country. The 1971 Berne Convention Act adopted national treatment as its pivotal principle.[102] The treaty protects works if its author is a national or domiciliary of a member state,[103] or the work is published first or simultaneously in a member state.[104]

Some developing countries without a large body of their own intellectual property either do not have copyright law, or are lax about pursuing infringement within their borders. The World Trade Organization ("WTO") instituted the Agreement on Trade Related Aspects of Intellectual Property Rights ("TRIPS"). The TRIPS Agreement also provides that Members "accord the treatment

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100. Zachary M. Garsek, *Napster Through the Scope of Property and Personhood: Leaving Artists Incomplete People*, Ent. & Sports Lawyer, Vol. 1, No. 1 (Spring 2001) [hereinafter Garsek, *Napster*], citing Adam Cohen, *A Crisis of Content*, Time, Oct. 2, 2000 at 69.

101. Goldstein, International Copyright, *supra* note 2, at 61.

102. Goldstein, International Copyright, *supra* note 2, at 20, citing Berne Convention, 1886 Art. II(2).

103. Berne Convention 1971 Paris Text, Art. 3(1)(a).

104. Berne Convention 1971 Paris Text, Art. 3(1)(b).

provided for in this agreement to the nationals of other Members."[105] Economically developed countries, such as those of the European Community and the United States, pushed for an "increase in the minimum standards of the Berne Convention,"[106] believing that "the trade process could extract concessions on high minimum standards from other countries otherwise disposed to resist them, and that the General Agreement on Tariffs and Trade ("GATT") dispute settlement process could inject rigor into international intellectual property enforcement."[107]

D. Efforts to Prevent Piracy, Private Copying and Other Infringement in the Digital Age

The two main types of infringement of copyright protections are piracy and private copying. Piracy is copying, reproduction and distribution of copyrighted works on a large scale for profit or gain, while private copying is what it sounds like, a single user making copies for private use. Usually, the private copies are made strictly for the user's personal use, such as recording a CD onto a tape to use in their car's tape deck. Lending and copying materials for friends, neighbors and family members also falls into the category of private copying, and can have as large an impact on copyright as piracy does.

Both piracy and private copying infringe on the copyright owner's exclusive right to distribute the work. But, digital works are as easy to copy as their analog counterparts, digital works do not lose quality in successive generations of copies and the technology to copy works digitally stored on tangible media is relatively inexpensive, making it readily available to consumers. The increased use of digital information, and ease of copying and distributing digital works has led some copyright owners to use protection devices to control access to the content of the work. Preventing copyright infringement of digital works can be accomplished by protecting the works. Access controls were not feasible on analog works, but have become prevalent on digital works. This can be done on digital works through encryption, watermarking and other technologies.

American movie studios learned from the lesson of the music recording industry.[108] As they watched the ease with which music CDs were copied, they held off introducing DVDs until they had an

105. TRIPS Agreement, Art. I(3).

106. Goldstein, International Copyright, *supra* note 2, at 52-53.

107. *Id.*

108. An RIAA study found that 87% of Napster users were involved in some form of copyright infringement. William Sloan Coates, et. al., *Streaming into the Future: Music and Video Online*, 670 Prac. L. Inst./Pat. 119, 127 (2001) [hereinafter Coates, *Streaming into the Future*].

encryption technology in place to combat the problem.[109] Through encryption known as the Content Scrambling System ("CSS")[110] and region coding,[111] copyright owners of American movies control the access to the content of their works. CSS "is an encryption-based security and authentication system that requires the use of appropriately configured hardware such as a DVD player or a computer DVD drive to decrypt, unscramble and play back, but not copy, motion pictures on DVDs."[112] Thus, CSS is the "key" used by the DVD player to unlock the content. An association called DVD-CCA controls the licensing rights to CSS. DVD-CCA licenses the companies that manufacture DVD players and DVD-ROM drives for computers using the Microsoft Windows operating system. The DMCA became effective in January 1999 and within a year, a major lawsuit tested the strength of the anti-circumvention provisions, alleging improper circumvention of CSS.

E. The DeCSS Cases

1. Universal City Studios v. Reimerdes[113]

Users of the Linux operating software were not able to gain a licensed DVD drive; since Linux is an open source[114] software program, there is not an entity to which DVD-CCA can grant a license for the CSS "key." To allow Linux users to play DVDs on their home computers, a 15 year-old Norwegian programmer helped develop a program called DeCSS. He gained access to the CSS code through reverse engineering the software from a licensed DVD player. While his goal was to develop DeCSS to allow a user to play

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109. Universal City Studios v. Remierdes, No. 00 Civ. 0277(LAK), 82 F. Supp. 2d 211, 214 (S.D.N.Y. Feb. 2, 2000) (preliminary injunction granted to prevent defendants from posting DeCSS on websites).

110. CSS is the technological protection measure adopted by the motion picture industry and consumer electronics manufacturers to provide security to copyrighted content of DVDs and to prevent unauthorized copying of that content. Motion Picture Association of America website *available at* www.mpaa.org/Press (last visited Oct. 3, 2001).

111. Region coding is the practice of inserting a code into the content to define the specific geographic region where the work is authorized to be sold or used. For example, a DVD sold in the United States will not play in a DVD player sold in Europe or Asia, since the players marketed there will not recognize the region code, and will not unscramble the content. Region coding is used to prevent gray market importation of DVDs from one region to another.

112. *Universal City Studios*, 82 F. Supp. 2d at 214.

113. No. 00 Civ. 0277 (LAK), 111 F. Supp. 2d 294, 55 U.S.P.Q. 2d (BNA) 1873 (S.D.N.Y. Aug. 17, 2000) (permanent injunction granted to prevent defendants from posting DeCSS or links to the software on websites).

114. Open-source software is defined, *supra* note 99.

the DVD on a Linux[115] operating system, it unlocked the digital content and would allow the content to be copied. As with any software developed to run on a Linux operating system, the programmer began circulating DeCSS for use by all.

Universal City Studios, along with seven other motion picture studios, requested website operators that posted the software remove it from their sites. While there was some compliance with this request, several operators did not remove it, and instead began "to step up efforts to distribute DeCSS to the widest possible audience in an apparent attempt to preclude effective judicial relief."[116] The studios successfully sought a preliminary injunction against the website operators, claiming DeCSS violated the anti-encryption provisions of the DMCA.[117]

During the trial to determine if a permanent injunction should be granted, the defendants claimed that their activities did not violate the DMCA, or alternatively that the DMCA was unconstitutional since it prohibited free speech.[118] The court found that "there is no question defendants violated the DMCA"[119] since their actions did not constitute an exception recognized by the DMCA. Further, Judge Kaplan rejected the constitutional arguments as "baseless," saying that "computer code is not purely expressive [speech] any more than the assassination of a political figure is purely a political statement."[120]

Recently, the Second Circuit Court of Appeals upheld the permanent injunction and the constitutionality of the DMCA.[121] Since the computer code is not purely expressive free speech, but contains functionality that directs a computer to perform tasks, restricting the publication of the computer code is content-neutral and not subject to strict scrutiny analysis.[122] The court found that both the posting of DeCSS on the defendants' websites, and the linking on defendants' websites to other websites where DeCSS was posted involved expression, that like DeCSS itself, is both expressive and functional.[123] It is this functional aspect of the computer code, the posting and the linking that warrant restriction by the court.

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115. But CSS was reverse engineered on a Windows Operating System ("OS"), so DeCSS only runs on Windows, not Linux. This was important in the court's decision to grant a permanent injunction, since DeCSS had a wide application, and was not limited to use by Linux users. *Universal City Studios*, 111 F. Supp. 2d at 294.

116. *Universal City Studios*, 82 F. Supp. 2d at 214.

117. *Universal City Studios*, 111 F. Supp. 2d. at 303.

118. *Id.* at 304.

119. *Id.*

120. *Id.*

121. Universal City Studios, Inc. v. Corley, 273 F.3d 429 (2d Cir. 2001).

122. *Id.* at 453.

123. *Id.* at 453-54.

2. DVD-CCA v. Bunner[124]

While a battle to protect CSS raged in New York, litigation filed for the same purpose was pending in California courts. The DVD-CCA had filed a separate action in California state court under the provisions of California's Trade Secret law against various website operators. No cause of action under the DMCA was alleged, and the website operators were different individuals from those sued in New York. However, the ultimate question was identical to the New York litigation: can the defendants post or link to DeCSS on their websites? The lower court in California found DeCSS was a proprietary trade secret under California law, and issued an injunction prohibiting defendants from posting or linking to DeCSS. Upon appeal though, the 9th Circuit Court of Appeals reached the opposite result, and vacated the injunction. The appellate court found that the DeCSS is expressive content, and therefore is free speech. They held that any injunction against publication of DeCSS amounts to an unconstitutional prior restraint of free speech.

While splits of this type among the jurisdictions are common, the problem here is that the conduct at issue, posting information on a website, cannot be contained within the state allowing the information to be posted. A website operator in California posting or linking to DeCSS on their website, will reach into New York, where the same conduct is prohibited. By the time the Second Circuit Court of Appeals decided their case, the California Court of Appeals had already released their opinion. The New York Court considered the California Court's approach to the free speech issue, and declined to follow their analysis.[125]

III. APPLICATION OF FIRST SALE DOCTRINE IN DIGITAL TRANSMISSIONS OF COPYRIGHTED WORKS

A. Digital Works Defined

Digital works can mean two different things. First, a copyright owner could put a digital copy of the work on a tangible storage medium, such as a DVD or CD. The first sale doctrine does, and should, apply to these works, since the purchaser has legally obtained a tangible object containing a copy of the work. The purchaser should be able to resell the DVD or CD to anyone who is willing to purchase the tangible object without restriction by the copyright

124. DVD-Copy Control Ass'n v. Bunner, 2001 WL 1340619 (Cal. App. 6th Dist. Nov. 1, 2001).

125. Universal City Studios v. Corley, 273 F.3d at 455 n.29.

owner. The second type of digital work would be where the copy is transmitted electronically to the purchaser from the copyright owner, as in a download or peer to peer file transfer. In this instance, the purchaser still has legally obtained a copy of the work, and proponents of the first sale doctrine for digital works believe the purchaser should still be allowed to transmit that copy to any third party.

In either form of digital work, the problem remains the same: whether the legally obtained digital copy will be used as a "master" for illegally made copies that will then be redistributed to multiple third parties. The first sale doctrine never allows one legally obtained copy to be copied or reproduced and distributed to an unlimited number of third persons by the original purchaser. But with analog works, the risk is lower that such distribution will take place because of the degradation of copies over time, and the physical limitations of making multiple copies. The same is not true for digital works, where the quality of the work does not degrade in successive generations of copies made from the work, and the technology to copy the work is more readily available.

To protect against distribution of multiple copies from a single legally obtained copy, copyright owners increasingly limit the operation of the first sale doctrine for both types of digital works. Copyright owners accomplish this through encryption techniques and end user license agreements (EULAs)[126] which either block access to the work, or restrict the purchaser's rights to resell his legally obtained copy. Under either scenario, copyright owners are specifying when and how a user may redistribute the authorized copy of the protected work.

B. Arguments for Expanding the First Sale Doctrine to Digital Works

1. The "Guaranteed Resale Market" Argument

Proponents[127] of a digital first sale doctrine contend that users of digital works should have the same rights that works stored on traditional media have under U.S. copyright law. The argument goes

126. Many proponents of a digital first sale doctrine also expressed concern over end user license agreements, shrink-wrap and click-wrap agreements that contractually prevent users from redistributing the digital work. While contractual preemption affects the first sale doctrine, it also has potential to preempt the entire copyright act, and therefore, is beyond the scope of this article.

127. As used in this article, *proponents* refers to the individuals or organizations who presented comments to the Copyright Office during the notice period for public comments, or those individuals or organizations that presented oral testimony to during the Congressional Hearings on this matter, who supported application of the first sale doctrine to digitally transmitted works.

that once the copyright owner sells, for example, a movie on the DVD format, the user should be able to resell the DVD to anyone who wants to purchase it. While the second purchaser will need to buy only a copy that he can access (i.e. don't buy a DVD if you only have a VHS player), the copyright owner should not be allowed to restrict the access to the work by encrypting the content of the DVD.

The first sale doctrine does apply to this type of transaction, and this transfer would be protected from control by the copyright owner under current U.S. law. The movie distributor is not able to set the price for the second conveyance or to approve the transfer to the second purchaser. However, relying on the analogy to the physical transfer of a tangible object, proponents of the first sale doctrine for digital works are antagonistic to the access control provisions that are part of a growing number of digitally stored works. They argue these access controls may limit who is willing, and able, to purchase a DVD, so that the market for resale of an encrypted digital work may be smaller than the market for another form of the work.

Under a scenario where digital works are encrypted, the market for the authorized user to resell copyrighted digital material is controlled by the copyright owner, rather than the free market system.[128] Proponents believe that distributors should have a public duty to make their media both usable and long lived.[129] One even commented that "CSS is not an access circumvention technology when in fact it is simply used for regional coding allowing the publishers of DVD content to extract as much as possible from the varying markets."[130] Copyright use can create instances where a copyright owner appears to have violated antitrust principles, since copyright is in fact a monopoly. To lessen the effect of the monopoly, Congress statutorily limited the term of the copyright, balancing the rights of the creator against the rights of the user. The doctrine of copyright misuse or abuse also protects users from copyright owners unfairly using the copyright to violate antitrust laws.[131] However, not all exclusions or limitations of copyrighted material by copyright owners constitutes a violation of antitrust law.[132] Additionally, some commentators propose that the goals of intellectual property law and antitrust law actually are the same—the

128. DMCA Section 104 Report, *supra* note 9, at Initial Comments 1, 3, 4, 5, 6.

129. *Id.* at Initial Comment 1.

130. *Id.* at Initial Comment 4.

131. *See* Lasercomb America, Inc. v. Reynolds, 911 F.2d 970 (4th Cir. 1990) (applying the doctrine of patent misuse to copyright law).

132. *See* In re Independent Service Organizations Antitrust Litigation, 203 F.3d 1322 (Fed. Cir. Kan. 2000) (refusal to grant license to use copyrighted owners manuals was not a violation of antitrust law, regardless of the copyright owner's intent in preventing use).

most efficient use of market resources[133]—and that the two systems complement each other.[134]

2. The "Prevention of Fair Uses" Argument

Additionally, access controls, such as encryption, password protection and other technologies can block access to the work, even after the copyright period expires. This could prevent works from entering the public domain at the expiration of the copyright, or prevent fair uses, such as critique, comment, news reporting, parody, reverse engineering and archiving, during the copyright term. "CSS, and the DMCA prohibition on circumvention, frustrates reverse engineering. Reverse engineering is important to prevent PC BIOS[135] from being 'deadlocked' in an IBM PC monopoly."[136] The fair use rights are impinged by the DMCA, since the anti-circumvention provisions do not allow users to copy content protected by encryption or other technological means.[137]

Champions of digital first sale charge that the DMCA fails to obligate creators of access control devices to ensure that the devices serve only their primary purpose before granting this special protection.[138] But the legislative history of the DMCA informs that Congress was fully cognizant that encryption and other access control technologies would limit some previously authorized fair uses. Congress realized "that technological controls on access to copyrighted works might erode fair use by preventing access."[139] By enacting the DMCA, Congress merely modified the traditional balance between copyright owners and users of copyrighted works. While some fair uses may now be prevented by access controls, the DMCA provisions allow limited exceptions to the general prohibition

However, digital recordings differ significantly from analog recordings. The quality of the original work and the quality of copies

133. *See generally* Paul Goldstein, *The Competitive Mandate: From Sears to Lear,* 59 Cal. L. Rev. 971 (1971); Ward Bowman, Jr., Patent and Antitrust Law: A Legal and Economic Appraisal (1973).

134. A more detailed analysis of the intersection of antitrust law and copyright law are beyond the scope of this article.

135. PC BIOS is an acronym for personal computer basic input/output system.

136. DMCA Section 104 Report, *supra* note 9, at Initial Comment 4. The fear is that if reverse engineering is blocked, then interoperability could not be achieved between the PC BIOS and software programs. Then only the company that manufactured the computer could write software for their system. This could be a true monopoly, not merely the limited monopoly granted by the Copyright Act.

137. *Id.* at Initial Comment 5.

138. *Id.* at Initial Comment 2.

139. *Universal City Studios*, 111 F. Supp. 2d at 322, citing to Commerce Comm. Rep. 25-26.

in successive generations of a digital work are superior to that of copies of analog works. Also, the ease of reproduction and distribution for digital works exceeds that of analog works. To copy an analog work, the copy necessarily is stored on a second tangible object. So when an album is copied to a cassette tape, there are two physical objects on which the intellectual property stored. To dispose of analog copies of the work, the infringer must be able to distribute the physical copies.[140] But for a digital copy, a second tangible object is not required. A user could post the information on a web page, where third parties could download the information via the Internet. A user could also send the file as an attachment to an email, or use a system such as Napster to share the file in a peer to peer transaction. All of these distribution methods have the potential to reach far more persons with more efficiency than a user could reach if they were making and distributing copies of analog works.

These differences make it nearly impossible for copyright owners to enforce their rights with a digital first sale doctrine. Copying and reproduction of digital works is harder to enjoin to prevent infringement since it is harder to trace. Expansion of the Internet provides the infrastructure needed to transmit digital works, and both the Internet and digital recordings[141] are widely available. And both the Napster and the DeCSS cases illustrate that private copying may be a more serious threat to copyright protection than piracy.[142] With a remarkably efficient distribution system in the Internet, a first sale could be the only sale that a copyright owner would make, resulting in an entire loss of copyright protection. This could stifle creativity, as people will be less likely to share artistic works with the public at all if there was no economic benefit in doing so. Alternatively, copyright owners would demand exorbitant prices for their work,

140. The Second Circuit Court of Appeals stated that the ability of the copyright owner to enjoin the infringer using analog technologies was considerably greater than that of the copyright owner attempting to enjoin an infringer using digital technologies. This distinction went to the likelihood of harm to be caused by the defendants if the injunction were lifted. Not only did the court find that the likelihood was great, but also that the amount of harm that could be caused by the ease of distribution over the Internet was substantial. *Universal City Studios*, 273 F.3d at 452.

141. "Over 4,000 motion pictures now have been released in DVD format in the United States, and movies are being issued on DVD at the rate of over 40 new titles per month in addition to re-releases of classic films." *Universal City Studios*, 111 F. Supp. 2d at 310.

Napster has 64 million registered users and approximately 10,000 music files are shared per second using Napster. Coates, *Streaming into the Future*, *supra* note 108.

142. At least one web site contains a list of 650 motion pictures, said to have been decrypted and compressed with DivX, that purportedly are available for sale, trade or free download. *Universal City Studios*, 111 F.Supp. 2d at 315.

attempting to recoup as much economic benefit from the first sale as they would believe they would receive on the open market over the life of a copyright. Either way, the effect would be to dramatically reduce the amount of works entering the public domain.

2. The 'Forward and Delete' Argument

The primary flaw with a digital first sale doctrine based on the analog first sale doctrine is that a digital transmission of a work involves a copy of the work. This copy is what is sent during the transmission, not the original lawfully obtained work. It is important to recognize that the first sale doctrine "is an outgrowth of the distinction between ownership of intangible intellectual property (the copyright) and ownership of tangible personal property (the copy)."[143] What the first sale doctrine allows is for the owner of the tangible personal property to lawfully dispose of his property without control or interference from the copyright owner. It is a limited exception to the copyright owner's exclusive right to distribute the copyrighted work.

But since a digital transmission sends a copy of the work, it is not a transfer under the first sale exception. For the first sale doctrine to apply to a digital transmission, the work must be simultaneously deleted by the sender. This would either be an affirmative action by the sender, or an automatic deletion accomplished by technological means. Napster and DeCSS highlight the problem of relying on the honor system. Since the risk of detection is relatively low, many users will not simultaneously delete their copy upon transmission to a third party. The "info just wants to be free" mentality is prevalent among Internet users and suggests that in fact users of copyrighted information would be inclined to distribute it to as many third parties as they could. Therefore, technological devices commonly called "forward and delete" would need to be part of the content of the digital work. This system would delete the file from the transmitting computer, or other electronic device, during a transmission of the file. Copyright management information would identify the file as a copyrighted work. However, adequate technology does not currently exist to prevent an authorized user from making and distributing multiple copies of the protected work.[144] Thus, without encryption of digital works, copyright owners will be unable to effectively prevent unauthorized use of their works.

143. DMCA Section 104 Report, *supra* note 9, at 86.
144. *Id.* at 84.

3. Proponents of Digital First Sale Confuse "Can" With "Shall"

Many of the advocates of digital first sale expressed feelings that the "[e]mphasis of copyright law and enforcement seems to have shifted away from the public good, and towards a perceived financial interest of publishing companies,"[145] and "that publishers have a duty to make their media both usable and long-lived."[146] Publishers who want to remain in business will respond to market demands for the type and quality of their product. But this is permissive conduct for the publishers, not a mandatory duty. Copyright law imposes no obligation to make their works available. Not even after the copyright term expires. If this were so, then private owners of works of art would have a responsibility to publicly display the art.

The refrain that "information should be free" predominates this argument, but ignores the personal aspects of creation bound up in intellectual property. Some of the critics of Napster were musicians who felt that Napster misappropriated their work. During congressional hearings, Lars Ulrich of the band Metallica complained, "Napster hijacked our music without asking."[147] Creation of intellectual property is a personal experience since it represent's the culmination of the author's life experiences. The intellectual property is a reflection of the personality of the artist. When the intellectual property is used without authorization, it violates the personal rights of the artist.[148] While robbing the artist of their personhood is one consequence of infringement, the larger loss to the artist is the loss of their ability to sell their services. In an economic context, the consumer desires to obtain the product for free, or alternatively to obtain the product for the lowest possible price. But reducing the value of the product to zero means that in the marketplace, the intellectual property has no value. While this may be good for consumers in the short term, it is disastrous for producers and vendors. Stripping value from the intellectual property harms both authors and society not only because it takes away the "personhood of the author,"[149] but it ultimately destroys the author's ability to sell services in the marketplace of ideas. Intellectual property covers not only artistic endeavors for entertainment purposes, but all works that encompass creative, intellectual or

145. DMCA Section 104 Report, *supra* note 9, at Initial Comment 3.
146. *Id.* at Initial Comment 1.
147. Testimony of Lars Ulrich before the Senate Judiciary Committee, July 11, 2000, 2000 WL 964353 (F.D.C.H.).
148. *See* Garsek, *Napster*, *supra* note 100.
149. *Id.*

aesthetic labor.[150] Discounting intellectual endeavors of any sort would mean that intellectual property would have no value at all in the marketplace.

4. How Encrypted Works Can Enter the Public Domain

Access control technology does block access to copyrighted material. To the extent that this could prevent works from ever entering the public domain, access controls will have an effect on copyright law. But access controls do not prohibit operation of the first sale doctrine, since any second purchaser who has an authorized player will still be able to access the work. To prevent access controls from inhibiting copyrighted works from entering the public domain, U.S. Copyright law should be read *in pari materia.* The prohibitions against circumventing encryption will only apply to protected works. Once the copyright term expires, it is no longer protected under the Copyright Act and the work enters the public domain. Therefore circumventing the encryption to access a work in the public domain would not violate the Copyright Act. However, this would place a burden on the user to determine if the copyright on the work has been extended, and to make sure which format or derivative work had entered the public domain. Instead, the Copyright Act could require that the copyright owner deposit an unprotected digital copy of the work with the Registrar of Copyright so that at the expiration of the copyright period, the unprotected version could be released by the Copyright Office. Alternatively, an amendment to the Copyright Act could place an affirmative duty on the copyright owner to release an unprotected version of the intellectual property to the public domain at the expiration of the copyright term.

CONCLUSION

Creation of a digital first sale doctrine would undermine the copyright protections given to copyright owners. Piracy and private copying would be easier and more economical since users would have a digital master of the work. Effective enforcement of copyright protections is more difficult since digital information is transmitted over a broader geographical area. Pirates and infringers are harder to locate, since operations are decentralized. The ease of moving digital information means pirates will operate in jurisdictions that are not signatories to a treaty or that have shown little effective measures for combating piracy.

150. *See* Goldstein v. California, 412 U.S. 546, 93 S.Ct. 2302 (1973).

Section 109 of the DMCA does not apply to digital transmissions of work, as found by the U.S. Copyright Office in the Section 104 DMCA Report issued to Congress. After extensive public comment and debate, the U.S. Copyright Registrar recommends no change in the DMCA to expand the first sale doctrine to digitally transmitted works. By not applying the first sale doctrine to these works, and allowing encryption and other security measures to protect digital works, Congress has placed a speed bump on the information superhighway. This impedes the transmission of digital works, by blocking distribution of digitally transmitted works. Some digital works will get around the speed bump, as not every speeder is caught. But the increased number of digital works available, coupled with the Internet as an efficient distribution system, means that the law is unable to protect the intellectual property rights of copyright owners. Protecting access control technologies and refusing to expand the first sale doctrine to digitally transmitted works builds a speed bump in the road. This allows copyright owners to find business models for digital distribution of copyrighted works that is both efficient and protective of intellectual property. Instead of rushing to pass a 'revision bill,' Congress should refrain from expanding the first sale doctrine. This is a situation where the inadequacies of the current copyright act are best solved by new technology rather than new legislation.

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