

**DIGITAL DELIVERY AND DISTRIBUTION OF
MUSIC AND OTHER MEDIA:
RECENT TRENDS IN COPYRIGHT LAW;
RELEVANT TECHNOLOGIES; AND EMERGING
BUSINESS MODELS***

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I.	THE DIGITAL DISSEMINATION OF MEDIA OVER THE INTERNET PRESENTS INTERNATIONAL COPYRIGHT ENFORCEMENT ISSUES.....	218
II.	COPYRIGHT LAW FUNDAMENTALS	222
III.	DIGITAL CHALLENGES INSPIRED RECENT CHANGES IN THE LAW....	223
	A. The World Intellectual Property Organizations Treaties: The Copyright Treaty and The Performances and Phonograms Treaty	223
	B. The Digital Millennium Copyright Act	224
	1. Dangers Lurk for Service Providers within the “Not-So-Safe” Harbor Provisions of the DMCA	224
	2. The DMCA’s Anti-Circumvention Provisions	226
	a. International Minimum Standards and Increased Domestic Measures	227
	b. Public Interest Concerns Over the Access to Copyrighted Works	228
	3. The DMCA’s Copyright Management Systems Provisions.....	231
	4. The Recording Industry Association of America and Its Secure Digital Music Initiative	233

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IV. PROFIT BUILDING IN A FREeware/SHAREWARE CULTURE: EMERGING DISTRIBUTION MODELS, TECHNOLOGIES AND TACTICS THAT EMBRACE CHANGE	236
A. Digital Distribution vs. Digital Delivery	236
B. Engaging in E-Commerce Prior to the Effective Date of the Anti-Circumvention of Technological Measures Provisions..	237
C. Freeware or Shareware: Radical Thinking in a Capitalist Society	239
1. Educational Programs	240
2. Focused Websites.....	240
V. CONCLUSION	241

I. THE DIGITAL DISSEMINATION OF MEDIA OVER THE INTERNET PRESENTS INTERNATIONAL COPYRIGHT ENFORCEMENT ISSUES

The emergence of digital technologies and the expansion of the Internet continues to inspire significant changes in existing law and business models. The technologies available make it possible to reproduce copyrighted works without sacrificing the quality of the original work. Global network communications systems, such as the Internet, provide increasing possibilities for copyright holders¹ to disseminate media both instantaneously and inexpensively to the worldwide marketplace.² These opportunities permit unsigned artists, independent film-makers and entrepreneurs to access distribution channels previously unavailable due to financial constraints.³ Some signed recording artists have recognized the tremendous potential of the internet.⁴ Such artists, depending on their leverage in negotiating with a label, have either not renewed their recording contracts once the term has expired or have not assigned their digital rights to their record company due to differing views about how their creations should be exploited in the digital market place.⁵ The Internet also allows

1. The term "copyright holder" is used in this article to describe the owner, exclusive licensee and holder of a beneficial interest in a copyright. See Chuck D, Address at the San Francisco Bar Association's Sports & Entertainment Law Section's Digital Music Revolution Conference (Mar. 1999). Section 101 of the Copyright Act of 1976 states the copyright owner is the owner of "any one of the exclusive rights comprised in a copyright" and does not use the terms copyright holder. 17 U.S.C. § 101 (1994 & Supp. IV 1998).

2. See Chuck D, *supra* note 1.

3. See Jesse Freund, *Listen Up: Chuck D Has Some Choice Words for the Pimps in the Music Industry*, WIREd, Mar. 1999, at 139.

4. See Chuck D, *supra* note 1.

5. *Id.*; see also N'Gai Croal & Andrew Murr, *Rockin' the Boat: MP3's Explosive Growth is Giving Record Companies a Fight for Their Lives*, NEWSWEEK, Mar. 22, 1999, at 63.

the more traditional content providers of the music and film industries to explore new means of distribution.⁶

The international growth in the global intellectual property market is so tremendous that in 1996, “the foreign sales and exports of U.S. audiovisual material, sound recordings, computer software, and print publications topped the \$60 billion mark.”⁷ This figure represents legitimate sales and does not reflect the losses experienced due to internet copyright piracy. Historically, piracy has always caused revenue losses and have been generally accounted for as a cost of doing business.⁸ Recently, many copyright holders have experienced revenue losses due to unauthorized use of copyrighted media on the Internet.⁹ Specifically, losses have occurred and continue to occur in the arenas of photographs, clip art, computer games, software, musical compositions and sound recordings. More recently, piracy losses have spread to the Digital Video Disc (“DVD”) medium as well.¹⁰ These losses are only limited by the size of the media files and the current state of digital delivery technology.

Music is just the beginning. The motion picture industry has valuable lessons to learn about the loss of control of intellectual property assets in the digital realm from the recording industry’s ongoing experience. The motion picture industry has the benefit of observing the chaos that the Internet has imposed on musical composition and sound recording copyright enforcement. One commentator testifying before Congress on behalf of the Motion Picture Association of America (“MPAA”) was keenly aware:

This new technology will allow [the motion picture industry] to reach more markets faster and more efficiently, with a greater diversity of products. Soon . . . digital networks will be an incredible bonanza for the American consumer, and for his or her counterparts around the world, who will have easy access to

6. See Croal & Murr, *supra* note 5, at 63.

7. *The WIPO Copyright Treaties Implementation Act: Hearings on H.R. 2281 Before the Subcomm. on Telecomm., Trade, and Consumer Protection of the House Comm. on Commerce*, 105th Cong. 54 (1998) (prepared statement of Steven J. Metalitz on behalf of the Motion Picture Association of America (“MPAA”)) [hereinafter *Hearings*].

8. See Don Biederman, Address at Eat’m Mentoring Session (May 20, 1999). Don Biederman is Executive Vice President/General Counsel of Warner Chappell Music.

9. See *Hearings*, *supra* note 7, at 54–55.

10. See generally Andy Patrizio, *DVD Piracy: It Can Be Done* (last modified Jan. 27, 2000) <<http://www.wired.com/news/technology/0,1282,32249,00.html>>.

more entertainment choices than before. U.S. audio-visual works will be a key element in this burgeoning electronic commerce in copyrighted materials.¹¹

Other media will digitally circumnavigate the globe as bandwidths broaden, compression technologies tighten, modem speeds increase and the tendrils of the web reach the far corners of the earth. In the future, as wireless technology improves and evolves, media will silently circle a wireless world. Now, all content providers may utilize the recent amendments to the Copyright Act in order to embrace the technological infrastructure that will enable the digital dissemination of intellectual property.¹²

In cyberspace, established practices effective in combating traditional copyright piracy have proven futile. The enforcement of existing intellectual property rights and licenses is undermined by the mass availability of computer technology and Internet access, absent a supportive, feasible legal structure. The seizure of emerging markets is hindered by strict adherence to existing physical world models of distribution where consumer incentive to support a legitimate distribution system is lacking. Where content providers such as record labels and motion picture studios resist adapting to new distribution models, the very technologies that enable the legitimate digital distribution of copyrighted property also facilitate the loss of control by an intellectual property holder over its assets and expose copyright holders to increasing infringement.¹³ Sprinkle the technological factors with a dash of the cyberspace culture of freeware, shareware and easy access to information, and the result is a recipe for lost revenues.¹⁴

This Article addresses whether existing copyright law, including the Copyright Act¹⁵ and recent amendments such as the Digital Millennium Copyright Act (“DMCA”),¹⁶ and the World Intellectual Property Organization (“WIPO”) Treaties,¹⁷ is effective in enabling copyright

11. See *Hearings*, *supra* note 7, at 54.

12. Several types of technological measures may be combined to create an infrastructure capable of secure media distribution. Such measures include: software and hardware capable of distinguishing legitimate copies from pirated ones; copy control systems that allow only one copy of a given media type to be made; and encryption technologies that scramble media at the time of distribution and unscramble it at the time of receipt by using key encryption systems.

13. See *generally* Patrizio, *supra* note 10.

14. See *infra* Part IV.

15. Copyright Act of 1976, 17 U.S.C. §§ 101–1101 (1994).

16. Pub. L. No. 105-304, 112 Stat. 2860 (1998).

17. See World Intellectual Property Organization (“WIPO”) Copyright Treaty, Dec. 20, 1996, art. 11, S. TREATY DOC. NO. 105-17 (1997) [hereinafter WIPO Copyright Treaty]; WIPO

holders to regain and retain control over the dissemination of their properties, or whether additional measures are required. This Article focuses on future releases, which are traceable through embedded watermarks¹⁸ and other identifying codes enabling those releases to be tracked and traced throughout the networked world. As for the illicit copies already circumnavigating the globe, it is likely that only the passage of time, the ease of access to legitimate media and the improvements in technology that arrive with it—such as improved sound quality, increased speed of delivery, greater memory capacity, and hardware that rejects and will not play media files lacking certain identifying code—will influence users of pirated media to shift course and purchase both legitimate copies and hardware devices that only recognize, play and record legitimate copies.

Part II outlines the exclusive rights granted under the Copyright Act.¹⁹ Part III discusses recent international treaties and domestic laws that were implemented to cope with the enormous changes resulting from existing and emerging communications technologies. Part III also highlights some apparent weaknesses in the domestic laws. Part IV explains the distinction between digital distribution and digital delivery, and describes some of the internet business models that have arisen. Finally, Part V concludes that although the entertainment industry is experiencing growing pains and the enormous discomfort that arises where there is uncertainty in business, the legitimate digital distribution and delivery of music, video and film may prove to be the industry's biggest revenue ticket ever, provided that content providers focus on long term goals and revenue building strategies that incorporate current consumer expectations of those participating in online communities.

In order to reap the enormous returns that legitimate digital distribution and delivery promise, it is important to note copyright law alone, no matter how stringent, and how carefully drafted, will not solve nor entirely prevent illicit internet copying. Domestic laws and international treaties provide measures that will support international copyright enforcement in the digital age. Such laws—when combined with technological measures, educational programs and effective business plans that embrace rather than challenge the existing cultural practices and consumer expectations of the internet communities—will curb illicit uses

Performance and Phonograms Treaty, Dec. 20, 1996, art. 18, S. TREATY DOC. NO. 105-17 (1997) [hereinafter WIPO Performance and Phonograms Treaty].

18. A watermark is a "transparent design or symbol . . . to indicate the genuineness of the document or the document's manufacturer." BLACK'S LAW DICTIONARY 1586 (7th ed. 1999).

19. 17 U.S.C. § 106 (1994 & Supp. IV 1998).

of copyrighted properties on the Internet and will effectuate the legitimate distribution of new media. The result will be that copyright holders may turn a mighty profit in the digital age.

II. COPYRIGHT LAW FUNDAMENTALS

Congress has the power “[t]o promote the Progress of . . . useful Arts, by securing for [a] limited Time[] to Authors . . . the exclusive Right to their respective Writings”²⁰ Under this Constitutional authority, Congress enacted the first Copyright Act in 1790.²¹ Under the current 1976 Act, an author with a copyrighted work enjoys the exclusive rights to reproduce, adapt and distribute copies; perform and display the work publicly; and in the case of sound recordings, to perform the copyrighted work publicly via a digital audio transmission.²² Each of these exclusive rights represent a potential revenue stream that flows from the issuance of licenses by the copyright holder.

Copyrights have several limitations, including duration and the doctrine of fair use.²³ For example, the duration of a copyright is limited to the life of the author plus seventy years, with certain variations if the copyrighted work is jointly created or a work made for hire.²⁴ Furthermore, the doctrine of fair use may be raised as a defense in an action for copyright infringement.²⁵

A copyright may be enforced domestically in federal court. Statutory damages and attorneys’ fees may be received if an action is brought and infringement is proven, provided that a copyright holder registers the

20. U.S. CONST. art. I, § 8, cl. 8.

21. 18 AM. JUR. 2D *Copyright And Literary Prop.* § 1 (1999).

22. 17 U.S.C. § 106.

23. The limitations on exclusive rights are set forth in 17 U.S.C. §§ 107–112, 119 (1994 & Supp. IV 1998). The scope of exclusive rights is further defined, depending on the work, in 17 U.S.C. §§ 113–115, 118, 120 (1994 & Supp. IV 1998).

24. Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, § 102, 112 Stat. 2830 (1998) (amending 17 U.S.C. § 302 (1994 & Supp. IV 1998)). This Act provides an additional twenty years for works created prior to 1978 (from 75 to 95 years). *See id.*; *see also* David Goldberg & Robert J. Bernstein, *An Expansive Set of Revisions*, 22 N.Y. L.J. 3 (1998), available in WESTLAW 11/20/98 NYLJ 3. Works for hire now enjoy protection for 95 years from the date of publication or 120 years from the date of creation, as opposed to 75 years from the date of publication or 100 years from the date of creation. *See* 17 U.S.C. § 302.

25. 18 AM. JUR. 2D *Copyright And Literary Prop.* § 80 (1999). The four factors of the fair use test are: 1) the purpose and character of the use; 2) the nature of the copyrighted work; 3) the amount and substantiality of the portion of the work used in relation to the work as a whole; 4) the effect of the use upon the potential market for the work. 17 U.S.C. § 107 (1994).

copyright with the Library of Congress in a timely manner.²⁶ Once sounds and images become bits and bytes and enter the seamless, borderless realm of the Internet, effective copyright protection becomes a global concern and enforcement under existing laws and practices begins to unravel. Changes in both the legal structure and business practices were necessary in order to move forward and to adapt to the times and technologies.

III. DIGITAL CHALLENGES INSPIRED RECENT CHANGES IN THE LAW

A. The World Intellectual Property Organization's Treaties: the Copyright Treaty and the Performances and Phonograms Treaty

In December 1996, the global dimension of the copyright infringement problem on the Internet was apparent.²⁷ WIPO, hosting the Diplomatic Conference on Certain Copyright and Neighboring Rights Questions, adopted two treaties, the WIPO Copyright Treaty and the WIPO Performance and Phonograms Treaty.²⁸ As of April 15, 1999, the United States and fifty other countries had signed the WIPO Copyright Treaty, and forty-nine countries had signed the WIPO Performance and Phonograms Treaty.²⁹ The treaties strengthen copyright protection for original works of authorship that are published online,³⁰ and require member nations to protect intellectual property against piracy by providing legal remedies “against circumvention of technological measures used to protect the copyrighted works, and tampering with copyright management information conveyed in connection with copyrighted works.”³¹ Such provisions were drafted to enable the effective use of the watermarking and rights

26. Section 411(a) applies to works for which the country of origin is the U.S. 17 U.S.C. § 411(a) (1994 & Supp. IV 1998). With certain exceptions “no action for infringement of the copyright in any work shall be instituted until registration of the copyright claim has been made” *Id.* Section 412 provides “no award of statutory damages or of attorney’s fees . . . shall be made for (1) any infringement of copyright in an unpublished work commenced before the effective date of its registration” 17 U.S.C. § 412 (1994).

27. *See generally supra* note 17.

28. *See World Intellectual Property Organization, Signatories to Treaties Administered by WIPO Not Yet in Force* (last visited Dec. 3, 1999) <<http://www.wipo.int/eng/ratific/doc/u-page27.doc>>.

29. *Id.*

30. *See generally* M. WILLIAM KRASILOVSKY & SIDNEY SHEMEL, *THIS BUSINESS OF MUSIC* (7th ed. 1995).

31. *See* William Sloan Coats & Vickie L. Freeman, *New Legislation; Digital Copyright Act Seen as Win for Industry*, ENT. L. & FIN., Nov. 1998, at 1; *see also* Lorin Brennan, *The Copyright Wars: The WIPO Treaties and the New Information Economy*, INSTITUTE FOR INTELLECTUAL PROPERTY LAW 623, 635 (1998).

management systems, in addition to other technologies that will support the legitimate digital distribution and delivery of copyrighted property.³² The WIPO Copyright Treaty and the WIPO Performance and Phonograms Treaty, along with more stringent domestic provisions, represent the interests of both content providers (the entertainment and software industries) and service providers.³³

B. The Digital Millennium Copyright Act

Lobbyists for both the content providers of the entertainment industry on the one hand and the service providers on the other, rallied in Washington, D.C. to devise a means by which to insulate the service providers from liability for acts of copyright infringement originating from their users, while at the same time protecting the valuable intellectual properties of the entertainment industry. After a long but bloodless battle that ensued on the floor of the 105th Congress, the legislature passed the rather ambitiously titled Digital Millennium Copyright Act (“DMCA”), which President William J. Clinton signed into law on October 28, 1998.³⁴ The DMCA implements the two WIPO Treaties into U.S. copyright law, and provides greater protection than afforded under the treaties for copyrights in the digital age. The Act also insulates service providers from some, but not all, derivative copyright infringement liability, provided the service providers meet certain formalities.³⁵

1. Dangers Lurk for Service Providers within the “Not-So-Safe” Harbor Provisions of the DMCA³⁶

Reliance on the “safe harbor” provisions of the DMCA may have been prematurely optimistic. The DMCA contains detailed instructions pertaining to the actions required of a service provider once it is notified

32. See Brennan, *supra* note 31, at 635.

33. See generally *id.* at 626–27. According to one commentator, the content providers consisted of creative and media interests involved in making and disseminating intellectual property and included motion picture companies, both traditional and software publishers, and some broadcasters. See *id.* at 626. The service providers were companies that transmitted or used protected works and included telephone companies and internet service providers (“ISPs”) that facilitate the interconnection of computer networks. See *id.* at 627. Academic institutions and libraries were also present at the debate from which the DMCA emerged. See *id.*

34. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998).

35. See generally 17 U.S.C. § 512 (1994 & Supp. IV 1998).

36. See Eric Goldman, Address to his Cyberspace Law class at Santa Clara University School of Law (Spring 1999) (notes of Address on file with the *Loyola of Los Angeles Entertainment Law Review*).

that its user is posting and hosting infringing materials.³⁷ These requirements must be met so the service provider is eligible to enjoy the “safe harbor” provisions. However, the DMCA contains gaps that may nonetheless expose service providers to copyright infringement liability.³⁸ The DMCA’s safe harbor provisions do not completely protect service providers from all forms of derivative copyright infringement liability.³⁹ Although this potential exposure to liability may instill fear in a service provider, it may also provide copyright holders with a defendant with sufficiently deep pockets to justify the costs of litigation and may deter potential copyright infringers.

Copyright infringement is a tort and therefore all persons participating in the tortious conduct are liable.⁴⁰ There are three theories of copyright infringement liability: 1) direct infringement, 2) vicarious liability and 3) contributory infringement.⁴¹ To prevail in an action for direct copyright infringement, a plaintiff must prove that the defendant copied the protected work and that the copied work is substantially similar to the original.⁴²

Under the theory of vicarious liability,⁴³ a plaintiff must prove two elements: 1) the service provider had the right and ability to control the situation, and 2) the service provider received a direct financial benefit due to the infringing activity.⁴⁴ To satisfy the first element, a service provider’s user agreement can simply state that the provider may terminate a user’s access at will. The second element, direct financial gain, is easily met in most cases. For instance, a direct financial gain may be established through the presence of a banner or pop up ad on a service provider-hosted webpage where the provider receives advertising revenue from page impressions indicating visitors to the site have viewed the ads.⁴⁵ Similarly,

37. 17 U.S.C. § 512. The requirements include designating an agent to receive notifications of alleged infringement and providing the agents contact information on the service provider’s website and with the Copyright Office. *See id.*

38. *See generally* 17 U.S.C. § 512.

39. *See generally* Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998).

40. *See* ROBERT A. GORMAN & JANE C. GINSBURG, COPYRIGHT FOR THE NINETIES 654 (4th ed. 1993).

41. *See id.* at 654–56.

42. *See* DONALD S. CHISUM & MICHAEL A. JACOBS, UNDERSTANDING INTELLECTUAL PROPERTY LAW § 4F (1992).

43. *See* H.R. REP. NO. 94-1476, at 159 (1976).

44. *See id.* at 159–60. In the case of performing rights, “a defendant must either actively operate or supervise the operation of the place wherein the performances occur, or control the content of the infringing program, and expect commercial gain from the operation and either direct or indirect benefit from the infringing performance.” *Id.*

45. *See* Goldman, *supra* note 36.

a plaintiff may establish direct financial gain where a service provider charges for downloads and connect time, as well as for monthly service fees.⁴⁶

To demonstrate contributory infringement, the plaintiff must prove the defendant had knowledge of the infringing activity and substantially participated in that activity.⁴⁷ The DMCA dictates a procedure the copyright holder must follow in notifying a service provider of the allegedly infringing activity.⁴⁸ However, even without actual notice, normal employee activity may be sufficient to meet the threshold of knowledge for contributory infringement purposes.⁴⁹

2. The DMCA's Anti-Circumvention Provisions

Congress has made it illegal under the DMCA "to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner."⁵⁰ This provision of the DMCA anticipates an encryption-based distribution system and works that are embedded with watermarks.

Encryption-based distribution systems were once thought to be the solution for supporting an online physical distribution model. This model involves the distribution of media files to end users who would burn a physical copy onto a compact disc. Commentators have noted that an encryption-based distribution system rests on the basic premise that the sender of encrypted data, in this case a record label or motion picture studio, trusts the recipient.⁵¹

An encryption-based model may be appropriate for the distribution of films to cinemas because cinemas may be partners or subsidiaries of the studios, or may be otherwise bound by terms of distribution agreements. However, the model is not appropriate for the distribution of sound recordings and videos to the general public because the illicit copying is currently being committed by the proposed recipients of the media, i.e., members of the public who enjoy legitimate or illegitimate copies of

46. *Id.*

47. *Id.*

48. *Id.*

49. *Id.*

50. 17 U.S.C. § 1201(a)(3)(A) (Supp. IV 1998).

51. Bob Kohn, Reserving Digital Rights, Address at California Lawyers for the Arts' 1999 Music Business Seminar (Oct. 2, 1999) (held at UCLA School of Law). Bob Kohn is Chief Executive Officer of Emusic.com.

copyrighted content, who host websites and upload the materials to their websites.

A service-based model has been touted as the more appropriate vision of media distribution.⁵² A subscription-based system is one form of the model. A personalized music catalog can available through this subscription system. The music may be streamed into one's home, workplace, cell phone, walkman, car or future devices that continue to emerge as technology evolves.⁵³

Supported by existing laws and ongoing technological developments, copyright holders of media may embed their properties with watermarks so they may be tracked, identified and royalty revenue may then be assessed and collected. By partnering with recognition-based hardware developers, copyright holders may develop and digitally deliver the copyrighted materials over the Internet. The legal structure that supports this vision of distribution provides that anyone found guilty of violating the anti-circumvention provisions of the DMCA will face stiff criminal penalties.⁵⁴ However, these anti-circumvention provisions do not become effective until October 28, 2000, for reasons discussed below.⁵⁵

a. International Minimum Standards and Increased Domestic Measures

The WIPO Treaties established minimum standards of copyright protection. Signatories are able to domestically implement greater protection than afforded by the Treaties. The DMCA exceeds the minimum standards required under the WIPO Treaties in two primary ways. First, it outlaws the products that enable users to circumvent protection measures, such as encryption, as well as the circumvention itself.⁵⁶ Second, though not required under the WIPO Treaties, the DMCA imposes criminal penalties for violations.⁵⁷ The incorporation of criminal

52. See Jim Griffin, Address at Eat'm General Session (May 19, 1999) (notes of Address on file with the *Loyola of Los Angeles Entertainment Law Review*). Jim Griffin is President of One House.com/Cherry Lane Digital.

53. General Motors Corporation has stated that they will provide internet access in its top line of motor vehicles commencing in the year 2000. Where music is streamed via the internet, the inclusion of internet access in one's car makes the mobile service model of music distribution a growing, tangible reality.

54. See 17 U.S.C. § 1204 (Supp. IV 1998).

55. See 17 U.S.C. § 1201(a)(1)(A) (Supp. IV 1998).

56. See 17 U.S.C. § 1201(a)(2) (Supp. IV 1998). See generally William Sloan Coats & Vickie L. Freeman, New Legislation; *Digital Copyright Act Seen as Win for Industry*, ENT. L. & FIN., Nov. 1998, at 1.

57. See 17 U.S.C. §§ 1204(a)(1)-(2) (Supp. IV 1998). The penalties are fines up to \$500,000 and/or imprisonment of up to five years for a first offense. See *id.* For any subsequent

anti-theft laws into the Copyright Act marks a significant broadening of copyright protection. However, one concern arises because locking up content may erode the fair use⁵⁸ and first sale doctrine,⁵⁹ which protect the public's interest in the right to access information.

b. Public Interest Concerns Over the Access to Copyrighted Works

It is at all times necessary to forecast the implications of the laws enacted today to ensure the foundations and principals underlying the Copyright Act are preserved and maintained. Encryption protection measures and watermarking technologies allow a copyright holder to control the access to and use of a digital file. The DMCA prohibits the circumvention of technological measures designed to protect a copyrighted work.⁶⁰ The public's interest is at stake where the access to copyrighted materials is stifled because so often such materials contain valuable information. It is the original expression, rather than the underlying information, which is copyrightable.⁶¹ If access to copyrighted expression is restricted in the U.S., and expression is the means by which information is communicated, the fundamental theories underlying the rationale for copyright protection begin to unravel.

The Copyright Act exists in part to promote the progress of the useful arts.⁶² In the U.S., a copyright owner enjoys a bundle of exclusive rights.⁶³ These rights provide a copyright holder the potential for an economic reward once the copyrighted expression of the information is exploited. Useful arts are promoted because authors have an economic incentive to create and because disclosure in itself provides a body of work upon which other authors may build. Vast bodies of creative works are predicated on the existence of previous works. Movements in art, literature, film and music have evolved through time, foiling and counter foiling against their historical predecessors. Limiting access to the works by means of

offense the fine increases to \$1,000,000, while the prison term extends to a hefty ten years. *See id.*

58. *See* 17 U.S.C. § 107 (1994). Fair use means “[a] reasonable and limited use of a copyrighted work without the author’s permission, such as quoting from a book in a book review or using parts of it in a parody.” BLACK’S LAW DICTIONARY 617 (7th ed. 1999).

59. *See* 17 U.S.C. § 109 (1994). The first sale doctrine is “[t]he rule that a copyright owner, after conveying the title to a particular copy of the protected work, loses the exclusive right to sell that copy and therefore cannot interfere with later sales or distributions by the new owner.” BLACK’S LAW DICTIONARY 650 (7th ed. 1999).

60. 17 U.S.C. § 1201(a) (Supp. IV 1998).

61. *See* 17 U.S.C. § 102 (1994).

62. *See* U.S. CONST. art. I, § 8, cl. 8.

63. 17 U.S.C. § 106 (1994).

technological gates and digital envelopes creates a risk of establishing a climate in which only those who pay will benefit from creative works.

In digital dissemination, where a physical copy ceases to exist, the risk becomes more apparent. Under current law, when a copy of a copyrighted work is sold, the purchaser—under the first sale doctrine—may sell, transfer or otherwise dispose of that copy in any way he or she chooses.⁶⁴ Libraries acquire literary works and receive periodic donations in this manner. In addition to books and periodicals, such acquisitions often include music and videos. Although a library may provide a less diverse selection than at the retail level of the marketplace, access to literary works is available to persons of all socio-economic levels for a period of limited duration because everyone is allowed to browse or borrow a library's materials.

In cyberspace, the lack of access to copyrighted expression necessarily impinges upon the basic principle that shared information contributes to the growth of a nation's intellectual property. Historically, people accessed information by physically visiting neighborhood libraries. More recently, access to information is available by virtually visiting websites via the Internet. Arguably, the information on the Internet is more current, although perhaps not as accurate, as found in published books and other media at a neighborhood library. The greater accuracy of real space information most likely results from the extensive editing and verification process that occurs in the publishing process. However, this time consuming process conflicts with the demand for complete and instantaneous information on websites. In real space, literary works may eventually be accessible through an interlibrary loan if it is not possible to obtain the works locally. Moreover, real space libraries do not restrict access unless privileges are abused. In contrast, encryption and other technological copyright protections in cyberspace may indiscriminately prevent the access to information embedded in tangible media and may even deny access beyond the copyright term.

Accordingly, while debating the passage of the DMCA, representatives of libraries and academic institutions voiced concern over access. One commentator indicated "Congress was sufficiently concerned

64. See 17 U.S.C. § 109(a) (1994 & Supp. IV 1998). The first-sale limitation only pertains to distribution rights. "It does not protect, from copyright infringement liability, one who reproduces, publicly performs, or adapts a copyrighted work without authorization." See Keith Kupferschmid, *Lost in Cyberspace: The Digital Demise of the First-Sale Doctrine*, 16 J. MARSHALL J. COMPUTER & INFO. L. 825, 832 (1998). Mr. Kupferschmid contends the first sale doctrine is not applicable to network transmissions and would prefer this doctrine be limited to a rental right. *Id.* at 827.

about the implications of the anti-circumvention regulations for fair use and the public domain that it suspended these regulations for two years and directed the Librarian of Congress to study these regulations and report to Congress with recommendations about anti-circumvention regulations.”⁶⁵ Pending the study by the Librarian,⁶⁶ the anti-circumvention provisions providing the legal infrastructure for digital distribution will not be effective until October 28, 2000, a virtual millennium in itself in internet time.⁶⁷ Although inconvenient for the copyright holder planning to enter the digital distribution marketplace, this two-year delay in time will enable people to address fair use and public interest concerns.

In a beautifully and appropriately devised digital solution, the Library of Congress, the New York Public Library and the Smithsonian Institution have established online digital libraries to preserve access to certain copyrighted works for the public.⁶⁸ The website operated by the Library of Congress contains a page entitled “American Memory,” which contains historical collections for the National Digital Library.⁶⁹ This page provides users with the opportunity to browse multimedia collections—including sound recordings and sheet folios of musical compositions—that are part of the Library’s Americana Collections.⁷⁰ The website, which is operating while more of the Library’s physical catalog is digitally added, enables users to access various genres of music, including folk music, music from the Latino culture, Vaudeville standards, an extensive Leonard Bernstein collection and popular music.⁷¹ Users may listen to audio files using streaming technology.

The New York Public Library’s Digital Library Collection is an online resource containing video and audio clips, musical scores and manuscripts.⁷² One highlight on this website is “The Louis Armstrong Jazz

65. Pamela Samuelson, *Good News and Bad News on the Intellectual Property Front*, COPYRIGHT ASS’N FOR COMPUTING MACHINERY, Mar. 1, 1999, at 5.

66. *Id.*

67. See 17 U.S.C. § 1201(a)(1)(A).

68. See Library of Congress, *American Memory* (visited May 20, 1999) <<http://www.memory.loc.gov>>; New York Public Library (visited May 20, 1999) <<http://www.nypl.org>>; Smithsonian Institution, *Smithsonian Folkways Recordings* (visited May 20, 1999) <<http://www.si.edu/folkways>>.

69. See Library of Congress, *American Memory* (visited May 20, 1999) <<http://www.memory.loc.gov>>.

70. *See id.*

71. *See id.*

72. New York Public Library (visited May 20, 1999) <<http://www.nypl.org>>.

Oral History Project,” a page that chronicles the evolution of jazz by its oral history interviews with prominent jazz musicians.⁷³

The Smithsonian Institution made its digital music debut with its “Smithsonian Folkways Recordings” website.⁷⁴ The website offers a tremendous catalog of diverse sound recordings such as blues banjo, digitally remastered recordings of North American frogs and music from the steppes of southern Siberia.⁷⁵ By visiting this website,⁷⁶ users may listen to audio files online and may enjoy a large selection of Folkway’s catalog.⁷⁷

3. The DMCA’s Copyright Management Systems Provisions

The DMCA contains provisions relating to copyright management systems.⁷⁸ Copyright management systems are systems that are designed to facilitate the tracking of copies by containing copyright management information. This enables the control of copyrighted intellectual property so royalty revenues may be tracked and collected.⁷⁹ Copyright management information includes:

- (1) [t]he title and other information identifying the work, including the information set forth on a notice of copyright.
- (2) The name of, and other identifying information about, the author of a work.
- (3) The name of, and other identifying information about, the copyright owner of the work, including the information set forth in a notice of copyright.
- (4) With the exception of public performance of works by radio and television broadcast stations, the name of, and other identifying information about, a performer whose performance is fixed in a work other than an audiovisual work.
- (5) With the exception of public performances of works by radio and television broadcast stations, in the case of an audiovisual work, the name of, and

73. *See id.*

74. Smithsonian Institution, *Smithsonian Folkways Recordings* (visited May 20, 1999) <<http://www.si.edu/folkways>>.

75. *Id.*; *See generally* Barney Charlton, *Net News: A Look at Music-Related Web Sites*, MUSIC BIZ, Apr./May 1999, at 15.

76. Smithsonian Institution, *Smithsonian Folkways Recordings* (visited May 20, 1999) <<http://www.si.edu/folkways>>. *See generally* Charlton, *supra* note 75.

77. Smithsonian Institution, *Smithsonian Folkways Recordings* (visited May 20, 1999) <<http://www.si.edu/folkways>>.

78. 17 U.S.C. §§ 1202–1205 (Supp. IV 1998).

79. *See* Recording Industry Association of America, *International Standard Recording Code* (visited Jan. 12, 2000) <<http://www.riaa.com/tech/isrc.htm>>.

other identifying information about, a writer, performer, or director who is credited in the audiovisual work. (6) Terms and conditions for use of the work. (7) Identifying numbers or symbols referring to such information or links to such information. (8) Such other information as the Register of Copyrights may prescribe by regulation, except that the Register of Copyrights may not require the provision of any information concerning the user of a copyrighted work.⁸⁰

The DMCA specifically defines certain exemptions for law enforcement agencies acting in an authorized investigative manner or for other lawful purposes.⁸¹ Additional provisions prohibit the substitution of false copyright management information and provide that:

[n]o person shall, without the authority of the copyright owner or the law –

(1) intentionally remove or alter any copyright management information, (2) distribute or import for distribution copyright management information knowing that the copyright management information has been removed or altered without the authority of the copyright owner or the law, or (3) distribute, import for distribution, or publicly perform works, copies of works, or phonorecords, knowing that copyright management information has been removed or altered without authority of the copyright owner or the law, knowing, or, with respect to civil remedies under section 1203, having reasonable grounds to know, that it will induce, enable, facilitate, or conceal an infringement of any right under this title.⁸²

The foregoing sections of the DMCA allow for codes to be digitally embedded into the copies of protected works. Once a copy of a protected work is disseminated online, the copy may be identified and remotely monitored.⁸³ Currently, technologies are being developed so that if the embedded code is removed or altered, the copy will be rendered inoperable. This technological protection feature, coupled with the anti-removal provisions, may enable a copyright holder to adequately control the use of their property in the digital age.

80. 17 U.S.C. §§ 1202(c)(1)–(8) (Supp. IV 1998).

81. *See* 17 U.S.C. § 1202(d) (Supp. IV 1998).

82. 17 U.S.C. § 1202(b)(1)–(3) (Supp. IV 1998).

83. *See* Recording Industry Association of America, *International Standard Recording Code* (visited Jan. 12, 2000) <<http://www.riaa.com/tech/isrc.htm>>.

The Recording Industry Association of America (“RIAA”) acts as the licensing agent for the performance rights in sound records for digital audio transmissions. The RIAA has been investigating and developing copyright management systems that will enable copyright holders and the RIAA to track and trace digital copies on the Internet.⁸⁴ It is thought that such management systems will facilitate the collection and distribution of royalties.⁸⁵ The systems use embedded signaling, also referred to as watermarking technology. This technology is essentially a string of codes, embedded inaudibly into the media, which contains unique identification numbers. These identification numbers cannot be removed even if the file format is converted to analog, compressed or broadcast. The unique identification number is a twelve character code that remains on the track for its life.⁸⁶ The first two characters represent the country of residence of the registrant.⁸⁷ The next three characters represent the registrant (the producer at the time the International Standard Recording Code (“ISRC”) is allocated).⁸⁸ The year is encoded in the next two characters.⁸⁹ Finally, the last five characters represent the designation code. The producer sequentially assigns the five character code.⁹⁰ Buried in the signal, encryption keys allow the software and hardware programs of networks and computers to detect whether transmission, copying or playback is authorized.

4. The Recording Industry Association of America and Its Secure Digital Music Initiative

The Secure Digital Music Initiative’s (“SDMI’s”) Executive Director is Leonardo Chiariglione, the digital engineer and original developer of the MP3 compression format.⁹¹ The SDMI is an organization of technology and recording companies including IBM and the “Big Four:” BMG, EMI-

84. *See id.*

85. *See id.*

86. *See id.*

87. *See id.*

88. *See id.*

89. *See* Recording Industry Association of America, *International Standard Recording Code* (visited Jan. 12, 2000) <<http://www.riaa.com/tech/isrc.htm>>.

90. *See id.*

91. *See* Matt Hines, *Secure Digital Music Initiative Considering Portable Specs*, NEWSBYTES NEWS NETWORKS, Mar. 31, 1999, available in 1999 WL 5120887; *see also* *Pulling the Plug on Hot-Music Hijackers*, EVENING STANDARD, Mar. 23, 1999, available in 1999 WL 13678372 [hereinafter *Pulling the Plug*].

Warner, Sony and Universal.⁹² Over 110 companies are involved in the initiative.⁹³ A company must meet certain criteria in order to join the SDMI Forum.⁹⁴ In addition, a \$50,000 fee is required to participate on the steering committee of technological companies.⁹⁵ The steering committee “oversee[s] the definition and implementation of the open security architecture, as well as the creation and update of the detailed interoperability specification.”⁹⁶ Other parties may join the SDMI Forum for a fee of \$10,000.⁹⁷

With the ultimate goal of limiting piracy, the initiative is attempting to bring a technical standard to the industry and to develop a system that will allow secure distribution and management of copyrights.⁹⁸ This standardization process also establishes specifications for portable devices.⁹⁹ Some critics surmise that this project will fail. For example, purveyors of MP3 files hope it will fail for fear that such a system will lock them out of the marketplace.¹⁰⁰

As the establishment of SDMI guidelines continues, a race to the patent office will, in all likelihood, ensue between the various distribution technologies that are in accordance with the SDMI guidelines, in order to procure priority in patent filings.¹⁰¹ The inclusion of technological

92. *See Internet is Music to Industry's Ears*, *GLOBE & MAIL* (Toronto), Mar. 30, 1999, available in WESTLAW 3/30/1999 GLOBEMAIL C10; Hines, *supra* note 91.

93. *See Hines, supra* note 91.

94. Specifically, a company must have:

- (1) [s]ignificant direct activity in, or affecting digital music security;
- (2) [s]trategic financial relationships or investments that affect the music industry, or the potential for such activities, investments or relationships in the near future; or
- (3) [h]igh visibility in the music marketplace and/or a significant music industry technology ‘mindshare.’

Secure Digital Music Initiative Q & A (visited Jan. 12, 2000) <<http://www.riaa.com/tech/sdmia.htm>>.

95. *See id.*

96. *Id.*

97. *See id.* To join the SDMI Forum, contact: Pertti Visuri, Ph.D., President, Electronic Markets for Global Integrity, 4180 La Jolla Village Drive, Ste. 450, La Jolla, CA 92037, tel. (619) 646-3612, email: pertti.visuri@globalintegrity.com. *Id.*

98. *See generally* Secure Digital Music Initiative Q & A, *supra* note 94.

99. *See Hines, supra* note 91.

100. *See Pulling the Plug, supra* note 91.

101. In the U.S., a priority date establishes the date of the filing of the patented invention, and the first to file holds the patent. *See Allan M. Soobert, Breaking New Grounds in Administrative Revocation of U.S. Patents: A Proposition for Opposition—And Beyond*, 14 *COMPUTER & HIGH TECH. L.J.* 63, 70 n.7 (1998). A patent is a limited duration monopoly on the right to exclude others from practicing the invention that is granted by the government in exchange for the disclosure of the invention. *See Bonito Boats v. Thunder Craft Boats*, 489 U.S. 141, 150–51 (1989); *see also* HOWARD C. ANAWALT & ELIZABETH F. ENAYATI, *IP STRATEGY:*

companies at the table during SDMI meetings may mean that the guidelines may be established according to existing patented distribution systems. If so, the company that owns a patented digital distribution or delivery system falling within the SDMI's guidelines would have the potential to experience large revenue gains because it would have a strong sales point to pitch to copyright holders such as record companies and artists as it adheres to the approved system. Also, as mentioned above, such a company could obtain additional revenue because in order to practice an improvement upon the underlying invention (digital distribution or delivery system) falling within the guidelines, a license to the underlying patented invention is required.¹⁰² Therefore, in order to avoid patent infringement liability, competing companies engaged in developing distribution technologies that improve upon the underlying invention must obtain a license to practice the underlying invention.

A number of companies have been developing digital distribution systems based on the business models mentioned in this article. Additionally, many record labels are waiting until the anti-circumvention laws become effective on October 28, 2000, and until distribution/delivery standards are established through the SDMI before they fully enter into the digital age and deliver entire catalogs of sound recordings.¹⁰³ It is likely that other content providers, such as the video and film industries, will also pause their development until the legal and technological infrastructure is in place before entering the digital marketplace.

COMPLETE INTELLECTUAL PROPERTY PLANNING, ACCESS AND PROTECTION 29-30 (1998). It is most valuable to obtain a patent for the foundational technology because subsequent improvements on the patented technology are patentable. *See generally* California v. Eli Lilly & Co., 119 F.3d 1559 (Fed. Cir. 1997). However, such improvements require licenses for the underlying patented technology to practice the patented improvement. *See* HOWARD C. ANAWALT & ELIZABETH F. ENAYATI, IP STRATEGY: COMPLETE INTELLECTUAL PROPERTY PLANNING, ACCESS AND PROTECTION 29-30 (1998). The patent holder of the underlying technology has no obligation to grant a license to others, including developers of any patented improvements to the underlying patented invention. *See id.* At the very worst, this can prevent the developer of an improvement to foundational patented technology from practicing the improvement. However, it may instead result in cross licensing negotiations and agreements that are beneficial to both parties.

102. *See generally* ANAWALT & ENAYATI, *supra* note 101.

103. Interview with Mark A. Goldstein, Panel at the Practising Law Institute's Conference: *Counseling Clients in the Entertainment Industry* (Apr. 15, 1999). Mr. Goldstein has indicated Warner Bros. was waiting for the SDMI to be in place before proceeding with the digital distribution and delivery of its music. *Id.* Mr. Goldstein is Senior Vice President of Business and Legal Affairs at Warner Bros. Records, Inc.

IV. PROFIT BUILDING IN A FREeware/SHAREWARE CULTURE:
EMERGING DISTRIBUTION MODELS, TECHNOLOGIES
AND TACTICS THAT EMBRACE CHANGE

A. *Digital Distribution vs. Digital Delivery*

As indicated throughout this article, there are several ways a copyright holder such as a record company or a motion picture studio may digitally disseminate its media to the public. The list of methods continues to expand as new technologies emerge. Digital distribution is the means by which media is delivered through online technology.¹⁰⁴ The term, however, has been used quite loosely. Digital distribution has been characterized as everything from an online site through which a consumer can order books, videos and music online and have the items delivered via traditional mail to a means by which an end user can browse a catalog of sound recordings or videos, select the desired items, render payment online and either have the website company burn the CD and ship it or else the end user can burn his or her own CD directly from the Internet.

Many websites that allow CD downloads have formed agreements and/or partnerships with independent record labels. This raises the issue of why major labels have not followed suit. One possible reason is the control of the promotional process. Where an independent label signs an artist at a point in the artists' career where the artist has had little exposure, making the music available to a broad audience and building a buzz around that artist may be more important than tight control of a potential asset. For years, record labels have relied on business models that involve giving away promotional goods in an effort to create a buzz around a particular artist. This practice has been done with the knowledge that eventually the label may decrease the amount of free goods given and additionally the label may control where the goods flow. Once a band has generated a buzz and starts to turn a profit, that is precisely when a label turns an investment into an asset and desires to recoup its development costs. At this point control becomes crucial. However, a label holds recording contracts both with major artists who consistently return revenues and also signs contracts with artists who possess potential, but have not yet generated a return on the label's investment. The artists who consistently return revenues enable the label to develop the lesser-known artists. Therefore, if the major artists' recordings slip away, huge revenue streams simultaneously

104. See Keith Kupferschmid, *Lost in Cyberspace: The Digital Demise of the First Sale Doctrine*, 16 J. MARSHALL J. COMPUTER & INFO. L. 825, 828 n.12 (1998).

dissipate, carrying with them the traditional patterns of conducting business.

The music industry was originally built upon a singles model. Briefly, there was a return to that format in the club and remix era. Today, due to the popularity of the MP3 format, music online is once again driven by a singles model. Due in part to technological limitations and a user's desire to compile a customized catalog of favorites, users have become accustomed to downloading single songs as opposed to entire albums. The consumer-driven singles model, supported by the legitimate sale of singles online, may represent a change in how music will be marketed and distributed online.

Digital delivery is distinguishable from digital distribution and may follow a play-on-demand model in which consumers may browse a catalog of sound recordings or videos, render payment online and listen to or view the item for a period of time. Once the term is fulfilled, the delivery automatically and electronically ceases. This model is not unfamiliar, as it is akin to the ability of viewers to watch pay-per-view feature films. One distinction is the terms of access to the intellectual properties, music or video may be structured to suit individual end users. Essentially, this model enables the listener or viewer to become the virtual program director of his or her own web radio station or cyber cinema. Perhaps the biggest challenge of this model is to effectuate a realistic, competitive and profitable pricing structure in a cyberspace environment, an environment built on freeware. Jim Griffin, of OneHouse.com, Cherry Lane Digital and Evolab.com, has stressed the importance of making it easier for an end user to purchase legitimate access to music, rather than download illicit copies.¹⁰⁵

B. Engaging in E-Commerce Prior to the Effective Date of the Anti-Circumvention of Technological Measures Provisions

A digital distribution model currently being used by websites such as Amazon.com and Barnes&Noble.com may be a means by which a record company or start up distribution company may enter the online marketplace prior to the anti-circumvention of encryption provisions' effective dates.¹⁰⁶ Under this model, the online companies perform essentially the same functions as mail-order catalogs, except they exist in cyberspace.

105. See Griffin, *supra* note 52.

106. The effective date of the anti-circumvention provisions of the DMCA is October 28, 2000. See 17 U.S.C. § 1201(a)(1)(A) (Supp. IV 1998).

Barnes&Noble.com appears to have an advantage over strictly online companies for two reasons. First, dissatisfied customers may make returns to the nearest Barnes & Noble store, which often avoids the costs associated with shipping the returned product to the company. Second, by having an offline retail outlet, companies like Barnes & Noble may undercut their offline pricing scheme by having lower prices for online purchases than for those made in their physical retail outlets. Companies that maintain both an offline and online presence in the market may utilize online pricing schemes that undercut their competitors. This enables those companies to seize a greater online market share, because such companies would have revenue flowing from both online and offline sources. Record labels and film studios might wish to pursue the business strategy utilized by companies currently bridging the market gap between physical space and cyberspace. To do so they could employ strategies similar to those discussed above, and partner with or acquire retail outlets currently supplying physical copies of sound recordings and films.

An alternative digital distribution model is utilized by MP3.com, a company that altered traditional conceptions of artists' royalty shares. An artist, upon signing with MP3.com, agrees to give users one song for free in exchange for a 50/50 royalty share for each sale thereafter.¹⁰⁷ However, the statutory mechanical royalty rate is taken from the artist's share of the split. Unlike traditional recording agreements, under an agreement with MP3.com, the artist sets the price of the CD and maintains full ownership of the master.¹⁰⁸ A recording company typically advances the costs, and there is no indication the advance is part of MP3.com's deal with an artist.¹⁰⁹ Additionally, in the digital environment, where the integrity of

107. Jodi Mardesich, *How the Internet Hits Big Music*, FORTUNE, May 10, 1999, at 98. This straightforward 50/50 royalty split is unusual in the recording industry. See, e.g., DONALD S. PASSMAN, ALL YOU NEED TO KNOW ABOUT THE MUSIC BUSINESS 89 (1994). Generally under a recording agreement, after the monies which were advanced by a label for recording costs are recouped against the sales, the artist is awarded a royalty percentage from the sale of each copy based upon the suggested retail list price of the album, less certain numerous exceptions. See *id.* at 114. As royalty rates are creatures of contract, the actual rate varies with each contract depending on the record company, the artist and his or her status. See *id.* at 108–09. Additional factors that vary the royalty rate under a recording agreement include the exemptions that are a product of industry custom and hence are non-negotiable, and exceptions that may be negotiated. See generally *id.* at 114–15. Even where the digital environment eliminates costs along the chain of distribution for things like packaging, shipping, free goods and breakage, it is likely the record company will celebrate those savings without passing them along to the artist, unless the artist has sufficient leverage to demand the royalty rate be increased because of the decrease in costs due to digital distribution. See generally *id.* at 108–09.

108. See Mardesich, *supra* note 107.

109. Jeff Brabec & Todd Brabec, Address at the Northern California Songwriters' Association (Sept. 1998) (notes of Address on file with the *Loyola of Los Angeles Entertainment*

sound quality is maintained even after duplication, the value of retaining the ownership of the master where there is no copyright management system infrastructure, is dubious at best.

Each of the above models operates under two assumptions. The first assumption is consumers are online and possess the confidence to make purchases via the Internet. Consumer confidence should only increase with time. The second assumption, in the case of digital delivery, is that consumers do not want to collect the physical product itself, but merely want access to the media. Music collectors, however, may only represent a small percentage of the media consumers.

*C. Freeware or Shareware: Origins of Radical Thinking
in a Capitalist Society*

Part of the challenge faced by copyright holders who wish to establish an online presence and digitally disseminate their content is found in the freeware/shareware cultural climate of the Internet. The mantra of many internet users is “if it’s on the Internet, it must be free.” In order to understand this belief system, consideration of the origins of the Internet is informative. The Internet, originally called ARPANET, was an experimental project spawned in 1969 with the purpose of linking the computer networks of the military, defense contractors and university laboratories conducting defense-related research.¹¹⁰ This network project was designed to allow communications to continue in case other lines of communication became damaged during war.¹¹¹ As it evolved, the Internet became increasingly populated with academics and technologically minded people, individuals whose fields of research and study arguably depend upon the sharing and building of information. A project developed by virtue of this sort of sharing is referred to as “open source.”¹¹² In other words, the source code is open rather than proprietary, and others may freely build upon and improve it. The presence of minors on the Internet undoubtedly contributed to the “it must be free” mentality, as evidenced by fan sites and cybershrines to music and film icons. A retraining of unaware infringers, while embracing existing online norms, is necessary in order to

Law Review). Technological advances in computer equipment have enabled artists to access higher quality recording equipment at lower costs. *Id.* Therefore, advances may not be as crucial as they were at one time. *Id.*

110. *See Reno v. ACLU*, 521 U.S. 844, 849–50 (1997).

111. *See id.*

112. *See generally* Lawrence Lessig, *The Charles Green Lecture: Open Code and Open Societies: Values of Internet Governance*, 74 CHI.-KENT L. REV. 1405 (1999).

effectively capture the cyber market and seize future digital distribution and delivery possibilities.

1. Educational Programs

Acknowledging that children are going online at increasingly younger ages and a good deal of music piracy occurs by consumers at the college-aged level, the RIAA has begun to disseminate material in order to educate students about copyrighted works online.¹¹³ The RIAA's educational program, "Soundbyting," consists of informing students that music, including the sound recording and the underlying musical composition, is copyrighted property and is not freeware.¹¹⁴

Similarly, copyright holders have sent cease and desist e-mails to fan sites and cybershrines in order to inform fans that by posting MP3 files on their sites, they are impeding the artists' potential revenue streams.¹¹⁵ This strategy has had some degree of success.¹¹⁶ Once informed, many fans have taken down the infringing materials to avoid harming the artist. The RIAA hopes these strategies may assist in reducing illicit copying by heightening consumer awareness.

2. Focused Sites

Another solution to combating pirate sites is to make a legitimate site more appealing than its pirate counterpart. This may be achieved in many ways, including developing websites that have the domain name of, and are hosted by, the artist. In addition, affiliating with well-developed online brands will allow legitimate sites to offer services that pirate sites cannot possibly offer. Some examples of services that would distinguish a legitimate site from a pirate site include offering a real time online chat or a real time special live performance by an artist, providing for collaborative opportunities with an artist, or enabling website members to access pre-releases. Furthermore, a "try before you buy" model has been effective in enticing consumers to purchase. This involves a short preview of the song rendered for free, followed by a price scheme for the full length version. This model would translate readily into a thoughtful, fan-oriented website.

113. See RIAA (visited Feb. 19, 2000) <http://www.riaa.com/piracy/pir_ps.htm>.

114. SoundbytingCampaign (visited Feb. 26, 2000) <<http://www.soundbyting.com>>.

115. See Ron Sobel, Internet—Nuts and Bolts, Address at Eat'm Panel (May 19, 1999) (notes of Address on file with *Loyola of Los Angeles Entertainment Law Review*). Mr. Sobel is Assistant Vice President/Director of Repertory, West Coast, for ASCAP and a member of ASCAP's New Media Council.

116. *Id.*

2000]

DIGITAL DELIVERY OF MUSIC

241

Loyalty awards programs have also been effective online in creating a community and in enticing members to return to a website.

V. CONCLUSION

Digital technologies and the Internet will continue to alter existing business models and expectations. The recent changes in domestic and international laws have provided copyright holders with a unique opportunity to seize the cyberspace market by enabling the creation of a legal infrastructure. Under this infrastructure, a technological system for the legitimate digital distribution and delivery of media may thrive. In addition, this infrastructure—combined with educational and awareness measures, new business models and easy access to legitimate digital media that is endorsed by its copyright holders—will enable the owners of copyrighted materials to collect royalty revenues under the Copyright Act.

