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TUNING IN: THE FUTURE OF COPYRIGHT PROTECTION FOR ONLINE MUSIC IN THE DIGITAL MILLENNIUM

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INTRODUCTION

Since the advent of the Gutenberg printing press, copyright law and technology have been entangled in an ongoing legal chase.¹ In order to advance the quintessential goal of American copyright law, namely, "[t]o promote the Progress of Science and useful Arts,"² Congress constantly must balance the law's objectives: to promote widespread dissemination of original creative works, while providing incentives to authors and owners to create such works.³ New technological advances continuously upset this balance by facilitating the ability to copy works without permission from copyright holders, thereby provoking controversy and necessitating reevaluation of the scope of legal copyright protection. However, as developments such as radio, television, and video have demonstrated, worries over the demise of copyright protection have been overstated.⁴ In fact, such technological developments usually have been met with a ceaseless round of amendments to the United States copyright laws.⁵

The most recent historical change that has produced a legal outcry in the copyright community is the emergence of the Internet. Digitization of copyrighted materials permits instantaneous, simplified copying methods that produce nearly perfect copies of originals.⁶

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1. See Doreen L. Blades, *Copyright Issues and the Internet*, 577 PLI/Pat. 87, 89 (1999).

2. U.S. Const. art. I, § 8, cl. 8.

3. See David N. Weiskopf, *The Risks of Copyright Infringement on the Internet: A Practitioner's Guide*, 33 U.S.F. L. Rev. 1, 9-10 (1998).

4. See Dickerson Downing & Kathleen McCarthy, *Copyright and the Digital Age*, N.Y. L.J., Dec. 6, 1999, at T5; *Franklin Pierce Law Center's Seventh Biennial Intellectual Property System Major Problems Conference* (Nov. 14, 1998), in 39 IDEA 291, 303 (1999) [hereinafter *Intellectual Property Conference*].

5. See Weiskopf, *supra* note 3, at 11.

6. See Kenneth D. Suzan, Comment, *Tapping to the Beat of a Digital Drummer: Fine Tuning U.S. Copyright Law for Music Distribution on the Internet*, 59 Alb. L. Rev. 789, 792-95 (1995); Adam P. Segal, Comment, *Dissemination of Digitized Music on the Internet: A Challenge to the Copyright Act*, 12 Santa Clara Computer & High

These copies can be digitally delivered to thousands of Internet users.⁷ Decentralization and anonymity in cyberspace have allowed for the widespread dissemination of copyrighted materials without permission from their owners.⁸ In the Internet context, a pirate community exists that enjoys disseminating copyrighted works, not for financial gain, but for the enjoyment of the proverbial "sharing the wealth."⁹ Accordingly, piracy, or unauthorized copying, is a valid concern of copyright owners and law-makers.

While all forms of copyrighted materials are impacted by advancing digital technology and the Internet, music has been one of the most dramatically affected industries thus far. With the onslaught of digital downloads, streaming,¹⁰ and compression technologies,¹¹ music has turned into an on-demand industry that has given the phrase "I want my MTV" a new meaning. Today, any person can connect to the Internet and download their favorite song, connect to any number of Web sites and listen to a song in real-time, or watch "webcasts"¹² of live concerts by unknown or well-known musicians.¹³ Surprisingly, the term "MP3"¹⁴ recently replaced "sex" as the most rampantly searched word on the Internet.¹⁵ While the digital music environment holds unprecedented potential for copyright owners to distribute musical works and sound recordings at significantly lower costs, there is also tremendous potential for copyright infringement with little or no capability of stopping infringing behavior.¹⁶

In keeping with copyright tradition, Congress has sought to sort out some of the potentially harmful effects of the Internet and digital distribution on copyright owners. In the past few years, there has been abundant discussion surrounding copyright laws, and specifically

Tech. L.J. 97, 100 (1996).

7. See Segal, *supra* note 6, at 100.

8. See, e.g., Suzan, *supra* note 6, at 793-95 (discussing features of the Internet that render it a problem for copyright holders).

9. See Don E. Tomlinson, *Journalism and Entertainment as Intellectual Property on the Information Superhighway: The Challenge of the Digital Domain*, 6 Stan. L. & Pol'y Rev. 61, 67 (1994).

10. Streaming is the transmission of audio in real time over the Internet. See Steven W. Kopp & Tracy A. Suter, *Developments in Copyright Policy and Network Technologies: The First Generation*, 17 J. Pub. Pol'y & Mktg. 303, 306 (1998); *infra* Part I.A.

11. Compression technologies, most popularly MP3s, allow audio data to be downsized and easily transferred across the Internet. See Brenda Sandburg, *The Online Freeway Jam* (visited July 25, 1999) <<http://www.ipmag.com/monthly/99-june/sandburg.html>>; *infra* Part I.A.

12. Webcasts are live broadcasts over the Internet. See Stephanie Haun, *Musical Works Performance and the Internet: A Discordance of Old and New Copyright Rules*, 6 Richmond J.L. & Tech. 1, 5 & n.4 (1999).

13. See *id.* at 5.

14. Standing for MPEG-1 Audio Layer 3, MP3 is a compression technology discussed *infra* Part I.A.

15. See Sandburg, *supra* note 11.

16. See Downing & McCarthy, *supra* note 4.

the passage of two acts that seek to redefine copyright law in response to the digital revolution: the Digital Millennium Copyright Act¹⁷ and the No Electronic Theft Act.¹⁸ Additionally, courts have applied earlier copyright legislation to music in the online context.¹⁹ Big players in the music industry have also begun to develop rights management systems²⁰ to control the dissemination of music and allow copyright owners to locate direct infringers.²¹

Some argue that we have reached the end of the copyright era, and that intellectual property should and will be free to all in the digital age.²² This Note takes the position that the application of old and new copyright laws and doctrine, statutory and market licensing mechanisms, and emerging rights management technologies will allow us to retain a balance between copyright protection and dissemination of works, putting copyright owners' fears to rest. Further, the digital music revolution will more equally shift the copyright balance between creators and the public, as the future of digital music holds incentives for musical artists to create new works and the ability to disseminate highly desirable digital music to the public.

Part I familiarizes the reader with existing digital music technologies, as well as the legal background of old and new copyright law, including the effect of the Digital Millennium Copyright Act on the online music landscape. Part II explores responses from the music industry to the digitized music world, including settlements and cases filed to date. Part III argues that in employing copyright legislation already developed by court decisions, in addition to new legislation certain to be developed in the next few years, there is little reason to sound the death knell for music copyrights. Moreover, Part III contends that emerging copyright management technology will

17. See Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.); *infra* Part I.B.2.a.

18. See Pub. L. No. 105-147, 111 Stat. 2678 (1997) (codified in scattered sections of 17-18 U.S.C.); *infra* Part I.B.2.b.

19. See, e.g., Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys. Inc., 180 F.3d 1072, 1075-76 (9th Cir. 1999) (discussing whether an MP3 player that records music from a computer to be taken elsewhere for listening falls within the realm of the Audio Home Recording Act); see also *infra* Part II.B. (explaining how the *Diamond Multimedia* case was a setback for the RIAA).

20. "[Digital Rights Management] in general refers to technology and services that help content providers control the digital distribution of their content." Jill Westmoreland, *Digital Rights Management*, Corp. Couns., Sept. 1999, at 6; *infra* Part I.A.

21. See Robert G. Gibbons & Lisa M. Ferri, *The Legal War Against Cyberspace Piracy*, N.Y. L.J., Aug. 5, 1999, at 1 (discussing "digital detectives" that pinpoint and combat infringing activities on the Internet).

22. See, e.g., George M. Borkowski & Robert C. Welsh, *Cyberians at the Gate? Though it is causing a sensation, and consternation, MP3 does not spell the end of the music business as we know it* (visited July 25, 1999) <<http://www.ipmag.com/monthly/99-june/welsh.html>> (discussing some consumers' opposition to copyright protection, premised on the notion that "information wants to be free").

remedy whatever loopholes the law leaves open for Internet music pirates.

I. LEGAL AND TECHNICAL BACKGROUND

This part explains the relevant audio technologies and participants in the music industry that facilitate dissemination of music on the Internet, and explores existing technologies that allow for copyright protection of online music. It then investigates old and new copyright law and doctrine affecting online music.

A. *Online Music: Technologies and Participants*

Many different technological advances have coalesced to form the Internet music revolution. Gaining access to audio content in one of the digital audio formats available on the World Wide Web²³ has become relatively easy. All that any user requires in hearing or downloading music files is an Internet Service Provider ("ISP")²⁴ and a connection via a modem or cable line.

Copyrighted music becomes available on the Internet in one of two ways: either the author or copyright owner of the work uploads the material in order to reach a broad audience of users, or someone decides that the particular material should be available for free and uploads it him or herself, thereby making the material available for download.²⁵ The former scenario is typically practiced by artists seeking exposure, or record labels looking to promote a forthcoming album. The latter practice constitutes piracy because it is an unauthorized use of a copyrighted work.²⁶ Piracy is practiced both by individual consumers making copies for their own use, and by "professionals" who seek to make content available on a wide scale.²⁷ Copyrighted works can be made available in a number of formats, including streaming and any one of the available compression formats. Some of these formats incorporate copyright protection measures, or

23. The World Wide Web is a series of digital information files, or web pages, that are maintained on thousands of servers that comprise the Internet. See Karen S. Frank, *Potential Liability on the Internet*, 437 PLI/Pat 417, 424 (1996).

24. ISPs are companies that provide consumers, or users, tools for access to the Internet. See *id.* at 422.

25. See Kevin Davis, Comment, *Fair Use on the Internet: A Fine Line Between Fair and Foul*, 34 U.S.F. L. Rev. 129, 131 (1999). "'Downloading' refers to the process of transferring information from the Internet or BBS [Bulletin Board Service] system to an Internet user's personal computer. 'Uploading' refers to the process of transferring information from a user's personal computer to the Internet or BBS system." Frank, *supra* note 23, at 425.

26. See Tomlinson, *supra* note 9, at 66-67.

27. See *id.* Tomlinson distinguishes consumer pirates, who infringe for personal use, from professional pirates, who infringe on a larger scale. See *id.*

rights management technologies, while those that do not pose an even greater threat to copyright owners.²⁸

Streaming involves the transmission in real time of audio over the Internet.²⁹ The audio quality of streaming technology is inferior to that of music contained on a CD.³⁰ Streaming is used mostly in the context of webcasting, or live distribution of music, and was originally responsible for the development of Internet radio stations.³¹ When streaming is employed, no permanent copies are made on the user's system.³² Therefore, the risk of unauthorized dissemination is lower than with those formats available for download, and copyright owners feel free to entrust their music to streaming formats.

One of the more popular streaming audio technology companies is RealNetworks, whose RealPlayer has been downloaded from their site an estimated 92 million times.³³ RealPlayer is an application that allows a user to listen to audio in real time and can be encoded to prevent the user from being able to copy the stream.³⁴ Presently, streaming media is used on music retail Web sites in order to allow potential buyers to hear portions of songs or albums before purchasing them.³⁵

In addition to streaming, perhaps the most industry-transforming technology to enter the digital market has been compression technologies, most notably the MPEG-1 Audio Layer 3, or MP3, as it is commonly known.³⁶ Compression technologies such as MP3³⁷ allow audio data, which previously occupied a large amount of space, to be compressed into files that are easily transferred across the Internet and downloaded onto a personal computer.³⁸ These files retain CD-quality sound no matter how many copies are made, and can be played through computer speakers any time the listener wishes to

28. See *supra* note 20.

29. See Kopp & Suter, *supra* note 10, at 305-06 (expounding on different Web technologies, including streaming).

30. See Heather D. Rafter et al., *Streaming Into the Future: Music and Video on the Internet*, 547 PLI/Pat 605, 614 (1999).

31. See Kopp & Suter, *supra* note 10, at 306.

32. See *id.* However, technology now exists that allows a permanent copy to be stored on a user's hard drive when streaming. See *id.*

33. See Michael Learmonth, *Copyright Case Streaming to Court*, *The Industry Standard*, Jan. 10, 2000, at 102; see also <<http://www.real.com>> (visited Jan. 5, 2000) (providing the RealPlayer for download).

34. See *RealNetworks, Inc. v. Streambox, Inc.*, No. 2-99CV02070, 2000 WL 127311, at *1-*2 (W.D. Wash. Jan. 18, 2000).

35. See Rafter et al., *supra* note 30, at 614.

36. See Michael Behar, *It's Playback Time! And MP3 is Only the Beginning*, *Wired*, Aug. 1999, at 122 (discussing the "downloadable-media revolution").

37. Other formats include AT&T's a2b, Liquidaudio, and Microsoft's Windows Media format. See Rafter et al., *supra* note 30, at 614; Westmoreland, *supra* note 20. These formats incorporate forms of digital rights management and are therefore more secure than MP3. See Westmoreland, *supra* note 20.

38. See Sandburg, *supra* note 11.

hear them.³⁹ The invention “didn’t begin wreaking havoc on the recording industry and keeping copyright lawyers up at night until 56K modems became standard PC hardware and the Pentium broke the 300-MHz barrier.”⁴⁰ The arrival of faster modems and processors, along with compression technologies, decreased the amount of time it takes to download a song from hours to minutes.⁴¹

Presently, it is common practice for music lovers to upload and download MP3s, sharing music with friends via email or retaining files on their computer hard drives for their own archival and listening purposes.⁴² Free MP3 software applications available on the Internet allow users to upload songs from their own CD collections by “ripping”⁴³ the files from their CDs and encoding them in MP3 format, thereby allowing users to trade songs across the Net.⁴⁴ These fans almost never have permission from copyright owners to make digital copies of their music available on the Internet, and as such they are directly infringing music copyrights.

The most significant legal aspect of MP3 technology, as far as the copyright and recording industry communities are concerned, is that MP3 contains no copyright management system and hence offers no protection against unauthorized copying, use, or distribution of music.⁴⁵ Without copyright management information, it is impossible to determine who exactly is infringing or how many copies of copyrighted materials are being made. Some other compression technology makers have built “digital rights management” systems into their audio compression formats.⁴⁶ Digital rights management is an industry term used to describe the attempt by content providers of copyrighted materials to preserve authorship of a digital work.⁴⁷

39. See Rafter et al., *supra* note 30, at 614-15 (explaining digital distribution technologies such as MP3). Music can also be transferred onto a CD if the user has a CDR drive, sometimes called a CD burner, that allows one to record CDs off of their hard drive. See Don Steinberg, *Digital Underground*, *Wired*, Jan. 1997, at 104, 108.

40. Behar, *supra* note 36. The earliest users of MP3 technology were college students, who were hooked up to high-speed Internet connections through their University systems. See *id.*

41. See Rafter et al., *supra* note 30, at 615.

42. It is estimated that in the first six months of 1999, three billion MP3 files were downloaded from the Internet, equaling seventeen million MP3s each day. See Vito Peraino, *The Law of Increasing Returns*, *Wired*, Aug. 1999, at 144. Additionally, MP3.com, a popular MP3 Web site, sold \$106,000 worth of CDs and music-related merchandise in the first quarter of 1999. See Sandburg, *supra* note 11. As compared to the total U.S. market for recorded music, an estimated \$12.3 billion in 1998, this comprises an extremely small portion of sales. See *id.*

43. Ripping is the process of removing files from one format and encoding them in another. See Rafter et al., *supra* note 30, at 615.

44. See *id.*

45. See Maureen S. Dorney, *New High-tech Solutions for High-tech Infringement: The Digital Millennium Copyright Act has Integrated Technological Developments as Well as Legal Protection into Copyright Law*, Nat’l L.J., May 17, 1999, at B5.

46. See *supra* note 37.

47. See Westmoreland, *supra* note 20.

Rights management technologies are just beginning to enter the marketplace, as new technologies are still being developed, and their success is thus far unknown.

The company Liquidaudio, for example, makes a compression technology that employs a method called digital watermarking.⁴⁸ Digital watermarking is commonly known for its use on paper money, and its basic purpose is to encode within the digital format data about the author, the copyright date, and permitted uses of the material.⁴⁹ Used in conjunction with tracking tools, sometimes referred to as spiders,⁵⁰ copyright owners are able to track down and prosecute infringers.⁵¹ Digital watermarking, however, does not prevent copying in the first instance, and therefore does not safeguard against unauthorized copying. As discussed below, it enjoys popularity because it does not limit consumers' fair use rights as much as other rights management technologies, unless it is employed in conjunction with access control methods.⁵² Although there are limits to what watermarking can accomplish, it establishes at least one effort toward maintaining copyright integrity, despite MP3 technology and its large and loyal consumer community's lack of interest in doing so.

A second type of rights management technology is called a digital envelope, or digital box. Instead of focusing on regulating the digital medium, this technology "attempts to control access to and uses of digital content through the use of encryption technology," thereby controlling the message.⁵³ Basically, digital envelopes function like a locked box.⁵⁴ In order to decode, or access, the contents of the box, the user must pay a fee.⁵⁵ The user who wishes to access musical content can do so by paying a one-time listening fee, a twenty-four-hour period fee (where the user can listen to the song as many times as he wishes in one day), or by purchasing a copy of the content, which is then his to record on a CD or leave on his hard drive.⁵⁶ This "superdistribution," as it is referred to,⁵⁷ also uses authentication

48. See Steinberg, *supra* note 39, at 110.

49. See Dorney, *supra* note 45 (explaining new technologies being employed in the wake of digital music distribution over the Internet.)

50. Spiders are management tools that allow copyright owners to track unauthorized versions of their materials. See *id.*

51. See *id.*

52. See Peraino, *supra* note 42, at 145; *infra* notes 317-26 and accompanying text.

53. Dorney, *supra* note 45.

54. See *id.*

55. See *id.*

56. See Westmoreland, *supra* note 20; see also Don E. Tomlinson & Timothy Nielander, *Unchained Melody: Music Licensing in the Digital Age*, 6 Tex. Intell. Prop. L.J. 277, 313-14 (1998) (discussing payments schemes attempting to protect electronic properties).

57. See, e.g., Dorney, *supra* note 45 (referring to distribution through digital boxes as "superdistribution").

techniques to guarantee that only consumers with licenses to the material can gain access to it.⁵⁸

Digital envelope technology has been developed along with digital wallets, a system that allows payments in very small increments, so that it costs a consumer mere pennies to access a song for a one-time listening license, for example. However, in the aggregate, those pennies mean a substantial amount of royalties to musicians and the recording industry.⁵⁹ Because digital envelopes employ “persistent encryption—i.e., the content is decrypted and accessible only while specific authorized users are using it for the amount of time for which they have rightfully obtained access,” the works are unable to be accessed even when the copyright has expired.⁶⁰ Although digital envelopes offer copyright owners the assurance of protection they are seeking in online distribution, controversy exists over the restrictions digital envelopes place on consumers’ fair use rights and on copyrighted works that have fallen into the public domain.⁶¹

The technology of the digital music age gives artists and copyright holders an entirely new market in which to disseminate music. There remains, however, the question of whether secure compression technologies will be accepted by consumers. If they are, additional questions about consumers’ fair use rights arise when digital rights management technologies threaten to cut off consumer access to copyrighted materials. If consumers reject these protective mechanisms in favor of unsecured MP3 technology, copyright owners will have to contend with Internet piracy with the help of copyright law, but without the help of rights management technologies such as digital watermarks and digital envelopes.

B. *Legal Background: Music and Copyright*

1. Early Legislation and Copyright Doctrine Affecting Online Music

This section explores copyright legislation as it was applied to music prior to 1998. In addition, it provides an overview of copyright infringement, including theories and defenses, as well as relevant case law.

58. *See id.*

59. For a detailed view of how digital envelopes and digital wallets work together, see <<http://www.magex.com>> (visited, Feb. 20, 2000). Magex.com has capitalized on this relationship by offering software copyright owners a way to sell their content freely online without worrying about piracy.

60. Dorney, *supra* note 45. Hence, the encryption persists, and those who have rights to access and use the works lose their rights. *See id.*

61. *See Id.*; *see also infra* Part I.B.1.c. (discussing fair use as a defense to online infringement).

a. *The Copyright Act of 1976 and Relevant Amendments*

The Copyright Act of 1976 ("Act")⁶² grants an automatic property right to "original works of authorship fixed in any tangible medium of expression."⁶³ There is no need to register a work in order to obtain copyright protection; however, registration assists a copyright owner in obtaining further protections.⁶⁴ Section 102 of the Act extends this property right explicitly to musical works, including lyrics, and to sound recordings, which were granted protection in response to record piracy concerns in a series of amendments added by the Sound Recording Act of 1971.⁶⁵ The musical work copyright protects the music and lyrics themselves, whereas the sound recording copyright protects a specific recording of the song.⁶⁶ Usually, the copyrights of musical works and sound recordings are shared between joint authors, consisting typically of the musical artists and the record-producing team.⁶⁷ Along with copyright protection in a work comes a "bundle of rights" as set forth in the Act.⁶⁸ Those rights include the right to reproduce copies of the original work, the right to prepare derivative

62. See Pub. L. No. 94-553, 90 Stat. 2541 (1976) (codified at 17 U.S.C. §§ 101-803).

63. 17 U.S.C. § 102 (1994). In order to merit copyright protection, a work must be original, meaning that it has some element of creativity, and it must be fixed, or sufficiently permanent to be perceived or communicated for more than a transitory duration. See Craig Joyce et al., *Copyright Law* §§ 2.01-.02, at 63-66, 81-84 (4th ed. 1998). Musical works and sound recordings transmitted online are sufficiently fixed to qualify for copyright protection. See Michelle A. Ravn, *Navigating Terra Incognita: Why the Digital Millennium Copyright Act Was Needed to Chart the Course of Online Service Provider Liability for Copyright Infringement*, 60 Ohio St. L.J. 755, 760 (1999).

64. See Lawrence Jordan & Richard Herman, *Content Regulation: Copyright, Rights of Publicity, and Other Doctrines*, 78 Mich. B.J. 1272, 1272 (1999) (summarizing copyright law). Registration of a work establishes the presumption of a valid copyright in an infringement case. See *Sega Enters. Ltd. v. Maphia*, 948 F. Supp. 923, 931 (N.D. Cal. 1996) (noting that because Sega presented certificates of copyright registration for its video games, an automatic presumption of valid copyright attached).

65. See Pub. L. No. 92-140, 85 Stat. 391 (1971) (codified in scattered sections of 17 U.S.C.); see also Mark Radcliffe, *Digital Millennium Copyright Act Forging the Copyright Framework for the Internet: First Steps*, 557 PLI/Pat 365, 368 (1999) [hereinafter Radcliffe, *First Steps*] (addressing Congress's approach to technological changes through expansion of the scope of copyright protection).

66. For example, Kris Kristofferson wrote the song "Me and Bobby McGee," which was subsequently made famous by Janis Joplin. In order to reproduce the Janis Joplin version of the song, one would need permission from Kristofferson for the musical work copyright, and from Joplin for the sound recording copyright. See, e.g., Christopher D. Abramson, Note, *Digital Sampling and the Recording Musician: A Proposal for Legislative Protection*, 74 N.Y.U. L. Rev. 1660, 1669 (1999) (explaining the difference between a copyright in a song and a copyright in a recording).

67. See Tomlinson & Nielander, *supra* note 56, at 285 (discussing the copyrights in musical works and sound recordings).

68. See Joyce et al., *supra* note 63, § 7.01, at 432 (citing the legislative history of the Copyright Act).

works, the right to distribute copies, and for musical works, the right to publicly display the work and the right to public performance.⁶⁹

Prior to 1995, a sound recording was the only type of copyrighted work that was capable of being performed, but was not granted any performance right.⁷⁰ However, in 1995, President Clinton signed into law the Digital Performance Right in Sound Recordings Act ("DPRSA"),⁷¹ which provides limited copyright protection to public performance rights in sound recordings.⁷² This amendment to the 1976 Act was triggered by changes in Internet technologies. Whereas previously, copyright owners were not entitled to royalties when radio stations played sound recordings,⁷³ the Internet created a new market for performance of these sound recordings. The DPRSA served to create an incentive for record companies to distribute their sound recordings online, by allowing them to profit from digital performance of their works.⁷⁴ The DPRSA, however, does not create a general right of public performance for a sound recording, as that right exists only in the digital environment.⁷⁵

The public performance right granted by the DPRSA extends to owners of sound recordings when the recordings are digitally performed by either a subscription transmission⁷⁶ or a transmission by an interactive service,⁷⁷ but not by transmission via a non-subscription broadcast service.⁷⁸ Therefore, when a user requests a song from Liquidaudio.com for a nominal fee, for example, Liquidaudio pays a fee to the record company for allowing the user that access.⁷⁹ Non-

69. See 17 U.S.C. § 106 (1994).

70. See Jeffery A. Abrahamson, *Tuning Up for a New Musical Age: Sound Recording Copyright Protection in a Digital Environment*, 25 AIPLA Q.J. 181, 194 (1997).

71. See Pub. L. No. 104-39, 109 Stat. 336 (1995) (codified at 17 U.S.C. §§ 106(6), 114).

72. See Nancy A. Bloom, *Protecting Copyright Owners of Digital Music-No More Free Access to Cyber Tunes*, 45 J. Copyright Soc'y U.S.A. 179, 199 (1997).

73. See Abrahamson, *supra* note 70, at 193-94.

74. See *id.* at 194. Because of the ease with which songs can be copied in the digital environment, record companies previously were not comfortable having their songs broadcast (or played) over the Internet. See *id.*

75. See *id.* at 185-86 ("[T]he new law exempts, among other things, traditional radio and television transmissions of sound recordings.").

76. Subscription transmissions exist where the user is required to pay the ISP or Web site operator for transmissions, and the ISP or Web site operator in turn pays a licensing fee for the recording. See Bloom, *supra* note 72, at 201.

77. Interactive services are those services from which a user can request to play a sound recording via audio stream, or that allow the user to download a sound recording. See 17 U.S.C. §§ 114(d)(3), 114(j)(7) (Supp. IV. 1998).

78. See *id.* § 114(d)(i)(A). Non-subscription services are those free over-the-air broadcast transmissions, including radio and television broadcasts, that become available without request from the user. See Abrahamson, *supra* note 70, at 205-06.

79. An interactive service pays for the copyrights to sound recordings by negotiating with record companies, whereas a statutory license rate is usually available for subscription transmissions where the ISP is more distanced from the user. See Bloom, *supra* note 72, at 201.

subscription transmissions are exempt from this requirement because where the user cannot request that a song be played, there is less chance of copying and the site is acting similarly to traditional radio stations. The law thus serves to ensure that sound recording copyright owners are compensated for distribution of their works, even where songs are distributed by digital transmission (uploading or downloading).⁸⁰

Hence, whether a song is uploaded, downloaded, or streamed in real time, the Web site owner or Internet consumer who offers sound recordings to others must purchase one or more licenses from the sound recording copyright owner or owners to avoid liability for copyright infringement.⁸¹ Similarly, the individual or entity uploading the song must also obtain a license for the underlying musical work.⁸² Music publishers are generally the best source for a site owner to seek these licenses.⁸³ Compulsory licenses are available to non-subscription transmission sites, when the site intends to make the recording available to the general public.⁸⁴ Though the question whether the rights of reproduction *and* performance are implicated when a Web site offers audio content for streaming and downloading remains unsettled, copyright owners are entitled to royalties for such uses.⁸⁵

b. *Theories of Copyright Infringement*

Unauthorized use of copyrighted works constitutes infringement, which entitles the owner to monetary or injunctive relief.⁸⁶ Three basic theories of copyright infringement exist: direct infringement, contributory infringement, and vicarious liability.⁸⁷

80. For an extremely thorough discussion of the DPRSA provisions, see Abrahamson, *supra* note 70, at 204-16.

81. See Rafter et al., *supra* note 30, at 617.

82. See *id.* at 617-18.

83. For examples of music publishers' Web sites, see <<http://www.ascap.com>>, <<http://www.bmi.com>>, and <<http://www.nmpa.org>>. When there is no compulsory license available, a license is obtained through private bargaining with the copyright holder. See Joyce et al., *supra* note 63, § 7.01, at 438.

84. See 17 U.S.C. § 115(a) (Supp. IV. 1998). A compulsory license is an "authorization to make and distribute sound recordings (called 'phonorecords' by the code [Act]) of the underlying composition in exchange for a statutory fee." Rafter et al., *supra* note 30, at 618. As long as the user follows statutory procedure and pays the established fee, he has not infringed on a copyright. See Joyce et al., *supra* note 63, § 7.01, at 438.

85. See 17 U.S.C. § 501 (1994); Rafter et al., *supra* note 30, at 619 (citing Al Kohn & Bob Kohn, *Kohn on Music Licensing* 129-37 (2d ed. 1996)).

86. See Radcliffe, *First Steps*, *supra* note 65, at 370-71 (reviewing basic copyright law).

87. See Jeffrey P. Cunard & Albert L. Wells, *The Evolving Standard of Copyright Liability Online*, 497 PLUPat 365, 374 (1997) (explaining the various theories of copyright infringement); Frank, *supra* note 23, at 428 (discussing the basis of copyright liability).

Direct infringement occurs when a party violates one or more of the copyright owner's exclusive rights. To prevail on a direct infringement claim, the copyright owner must prove that (1) he or she has a valid copyright, and (2) the defendant copied the work.⁸⁸ The Copyright Act does not require a showing of intent on the part of a direct infringer, hence, the infringer is liable whether or not he was aware that he was using copyrighted material in an illegal manner.⁸⁹ Infringement occurs even when only one copy of a work is made, for example, where a consumer reproduces a copy solely for private purposes.⁹⁰ Therefore, a college student uploading a song without permission from the copyright holder to his or her own home page in order to make that song available over the Internet is directly infringing a copyrighted work.⁹¹ Copyright owners are less likely to sue a single infringer, however, because one person will rarely have "deep pockets;" instead, copyright owners likely will sue the ISP or the BBS on one of the other theories of infringement.⁹²

In order to reach an ISP or BBS for the infringements of its users, a copyright owner may sue under the theory of contributory infringement. In an action for contributory infringement, the copyright owner must prove that: (1) a direct infringement occurred, (2) the defendant knew or had reason to know of the infringing activity, and (3) the defendant substantially participated in the infringement by inducing, causing, or materially contributing to its occurrence.⁹³ The Act does not refer directly to contributory infringement, but courts have found this theory to be implicit in the Act and have employed it in order to find liability.⁹⁴ The Supreme Court has noted that "the concept of contributory infringement is merely a species of the broader problem of identifying the circumstances in which it is just to hold one individual accountable for the actions of another."⁹⁵

Vicarious liability offers a second theory that permits a copyright

88. See Davis, *supra* note 25, at 135 (setting forth copyright infringement law). A plaintiff may prove copying with circumstantial evidence showing that the defendant had access to the copyrighted work and that the defendant's work has substantial similarity to the original work. See Joyce et al., *supra* note 63, § 8.03, at 619-20; Weiskopf, *supra* note 3, at 14.

89. See Cunard & Wells, *supra* note 87, at 374.

90. See Segal, *supra* note 6, at 125.

91. See Ravn, *supra* note 63, at 763.

92. See *id.*

93. See *Sega Enters. LTD v. Maphia*, 948 F. Supp. 923, 932-33 (N.D. Cal. 1996); Frank, *supra* note 23, at 428; Ravn, *supra* note 63, at 763-64.

94. See, e.g., *Sega*, 948 F. Supp. at 932-33 (imposing liability on the defendant based on contributory infringement because there was direct infringement by the defendant's BBS subscribers, the defendant knew of the infringement, and the defendant actively solicited users to upload unauthorized copies of Sega's video games on the provided BBS).

95. See *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 435 (1984).

owner to hold a third party liable for the infringing acts of another. This theory applies when the third party (1) is in a position to supervise the infringing activity, and (2) has a financial stake in the infringing activity.⁹⁶ Unlike contributory infringement, which focuses on the third party's knowledge and behavior with respect to the infringement, vicarious liability depends on the relationship between the direct infringer and the defendant.⁹⁷

Third party liability theories are especially attractive in the Internet setting because of the difficulty of identifying single direct infringers. Before the passage of the Digital Millennium Copyright Act ("DMCA")⁹⁸ in 1998, it was common for a copyright owner to sue an ISP for the direct infringement of its subscribers on the theory of contributory infringement; however, the cases were inconsistent in finding liability and did not produce a clear doctrinal rule.⁹⁹ For example, in *Religious Technology Center v. Netcom On-line Communication Services, Inc.*,¹⁰⁰ the district court held that Netcom substantially participated in, and could be held contributorily liable for, the infringing acts of its subscriber because it provided Internet access to a BBS displaying plaintiff's copyrighted material.¹⁰¹ The court noted, however, that liability could attach only after the plaintiff notified Netcom of the infringing material, due to the knowledge requirement in contributory infringement actions.¹⁰² Other cases, however, in which it was unclear whether the ISP knew of the

96. See Weiskopf, *supra* note 3, at 17-18 (discussing the doctrine of vicarious liability generally).

97. See *id.* The notion of vicarious liability derives from the tort doctrine of respondeat superior, and was developed in cases involving lounge owners and dancehalls. See, e.g., *Dreamland Ball Room, Inc. v. Shapiro, Bernstein & Co.*, 36 F.2d 354, 355 (7th Cir. 1929) (holding a dance hall operator liable for the infringements of its performer); see also Frank, *supra* note 23, at 429 (discussing dancehall/landlord cases as the genesis of vicarious liability). Generally, courts would not hold landlords responsible for the infringements of their tenants because the relationship bore no element of control. See, e.g., *Vernon Music Corp. v. First Dev. Corp.*, No. 83-0645-MA, 1984 WL 8146, at *1 (D. Mass. June 19, 1984) (holding landlords not liable for the copyright infringements of their tenants); see also Weiskopf, *supra* note 3, at 17-18 (clarifying the difference between landlord/tenant relationships and venue owner/performer relationships as they relate to vicarious liability). On the other hand, a lounge owner would be held liable for the infringing activities of a performer because the owner benefited financially from the performer's activities and an element of control existed in the relationship. See, e.g., *Dreamland*, 36 F.2d at 355 (holding dancehall operator vicariously liable for the infringement of its performer).

98. See Pub. L. No. 105-304, 112 Stat. 2860 (1998); *infra* Part I.B.2.a.

99. See Ravn, *supra* note 63, at 766. For a complete review of infringement theories as applied by courts in the Internet context, see generally, Weiskopf, *supra* note 3, at 19-38.

100. 907 F. Supp. 1361 (N.D. Cal. 1995).

101. See *id.* at 1373-75.

102. See *id.* at 1374.

infringing activity, were decided on a theory of direct infringement, even though the BBS operator never itself copied the material.¹⁰³

Courts have considered vicarious liability in the online context less frequently than contributory liability because copyright owners have met with moderate success in alleging contributory infringement.¹⁰⁴ In defense of vicarious liability claims, ISPs have argued that they function similar to landlords in that they receive a monthly fee for providing Internet access and have little to do with what goes on within the "leased" premises.¹⁰⁵ Yet, in an analogous, though offline, setting, the Ninth Circuit reversed the dismissal of plaintiff's claim that a swap meet operator was vicariously liable where vendors were selling pirated music.¹⁰⁶ According to the court, because the vendors rented the facilities from the swap meet operator, customers were drawn to the swap meet because of the availability of pirated music, and customers paid an admission fee as well as other incidental fees to the swap meet operator for its services, the operator could be held liable.¹⁰⁷ Hence, an ISP can be said to resemble the swap meet operator, for an ISP provides "space" for the Web site operator to provide content to users, and the users pay a fee to gain access to the content. Also, users may be drawn to a site if it contains pirated music. On the other hand, the ISP has little to do with what content users upload to certain sites, a factor that indicates lack of control and makes the analogy of ISPs to landlords more compelling. In response to confusion generated by the disparate court decisions in this area, Congress enacted title II of the DMCA, which limits ISP liability for the infringing acts of its users.¹⁰⁸

c. *Fair Use: A Defense To Online Infringement*

Section 107 of the Copyright Act codifies the fair use doctrine,

103. See, e.g., *Playboy Enters., Inc. v. Frena*, 839 F. Supp. 1552, 1559, 1562 (M.D. Fla. 1993) (holding a BBS operator liable for the infringing acts of its user). The *Playboy* case arose because the plaintiff's copyrighted photographs were displayed on the defendant's BBS. See *id.* at 1554. The court reasoned that because the defendant supplied access to the infringing photographs, it did not matter that he did not copy the photographs himself. See *id.* at 1556. Another case alleging indirect infringement involved unauthorized copies of songs that were uploaded to and downloaded from a BBS musical database; however, the case settled before the court ruled. See Bloom, *supra* note 72, at 192-94 (discussing *Frank Music v. Compuserve* as a landmark settlement in the digital music arena); Davis, *supra* note 25, at 159. The settlement included licensing agreements between the ISP and the copyright owners. See Bloom, *supra* note 72, at 193-94.

104. See Weiskopf, *supra* note 3, at 32.

105. See Ravn, *supra* note 63, at 773. Where the ISP is not benefiting financially from infringing activities, it seems these arguments are stronger. See *id.*

106. See *Fonovisa, Inc. v. Cherry Auction, Inc.*, 76 F.3d 259, 263-65 (9th Cir. 1996).

107. See *id.*

108. See 17 U.S.C. § 512 (Supp. IV 1998); *infra* Part I.B.2.a.

which is a judicially created affirmative defense to infringement.¹⁰⁹ No single definition of fair use exists, as the defense applies on a case-by-case basis as a rule of equity and reason.¹¹⁰ The fair use defense thus “permits [and requires] courts to avoid rigid application of the copyright statute when, on occasion, it would stifle the very creativity which that law is designed to foster.”¹¹¹ When deciding whether fair use bars an infringement action, courts must look to four non-exclusive factors set forth in the Copyright Act:

- (1) The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.¹¹²

The factors are all relevant, such that no factor alone is determinative.¹¹³ Some of the enumerated fair uses in the Act include uses for “criticism, comment, news reporting, teaching . . . , scholarship, or research”¹¹⁴ In the case of online music infringement, it is unclear whether one can assert a fair use defense.¹¹⁵ The answer may depend on whether or not an entire song is copied, and most likely turns on whether the use is a private or commercial one.

The seminal fair use case in the modern age is *Sony Corp. of America v. Universal City Studios, Inc.*¹¹⁶ Although it did not involve the Internet, the case set a significant precedent for courts confronting new technology, and thus warrants discussion.¹¹⁷ The case arose as a result of the invention of home video tape recorders (“VTRs”), specifically the Sony Betamax.¹¹⁸ Respondents, Universal City Studios and Walt Disney Productions, claimed that individual home viewers had recorded their copyrighted materials appearing on commercial television by using the Sony Betamax VTR.¹¹⁹ The studios sought relief from Sony on theories of third party liability for encouraging and materially contributing to copyright infringement by marketing and manufacturing VTRs, which could record respondents’

109. See 17 U.S.C. § 107 (1994).

110. See *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 560 (1985).

111. *Campell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 577 (1994) (quoting *Stewart v. Abend*, 495 U.S. 207, 236 (1990)).

112. 17 U.S.C. § 107.

113. See *Campell*, 510 U.S. at 578.

114. 17 U.S.C. § 107.

115. See *Davis*, *supra* note 25, at 159.

116. 464 U.S. 417 (1984).

117. See *Davis*, *supra* note 25, at 138.

118. See *Sony*, 464 U.S. at 419-20.

119. See *id.* at 420.

materials for later viewing.¹²⁰ The Supreme Court ruled in favor of Sony, finding that the individuals' use of the Sony VTR was primarily nonprofit and noncommercial,¹²¹ and determining that Sony convincingly conveyed that copyright owners would not object to such use.¹²² Central to the decision was the notion of "time-shifting," in which television viewers alter their viewing of an original broadcast by recording the program for later viewing.¹²³

The Court in *Sony* provides us with a modern judicial approach to the advent of new technology that clashes with traditional copyright laws when it states that "[s]ound policy, as well as history, supports our consistent deference to Congress when major technological innovations alter the market for copyrighted materials. Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology."¹²⁴ Thus, the Court looked to Congress to expand the scope of copyright protection, and refused to do so itself with judicial doctrine, even in a case where new technology appeared to threaten the copyright owners' rights.¹²⁵ Similarly, the online music industry, though threatened by new technology, will have to wait for Congress to pass legislation redefining what constitutes infringement.

Parallels exist between time-shifting a television program and downloading a song from the Internet to store on a hard drive or disk.¹²⁶ The Court's analysis of noncommercial, private use can be applied to new technology, for example in the context of downloading music from the Internet.¹²⁷ It has been argued that the *Sony* decision would likely not apply to unauthorized copying of online music because users pay for access to the Internet, as opposed to television broadcasts, which are free to viewers.¹²⁸ Thus, ISPs may gain revenue by providing access to music on their networks, a fact that weighs against a finding of fair use because of the commercial nature of the use.¹²⁹ A later case, however, *Recording Industry Ass'n of America v. Diamond Multimedia Systems, Inc.*,¹³⁰ which confronted space-shifting online music files so that consumers can transport music stored on

120. *See id.*

121. *See id.* at 449, 456.

122. *See id.* at 444-46. For the Court's full discussion of the fair use defense as it applies to the Sony Betamax, see *id.* at 447-55.

123. *See id.* at 443.

124. *Id.* at 431.

125. Importantly, the Ninth Circuit adopts this reasoning in *Recording Industry Ass'n of America v. Diamond Multimedia Systems, Inc.*, 180 F.3d 1072 (9th Cir. 1999), discussed *infra* Part II.B.

126. *See Davis, supra* note 25, at 138.

127. *See id.*

128. *See Bloom, supra* note 72, at 188-90.

129. *See id.* at 189.

130. 180 F.3d 1072 (9th Cir. 1999).

their hard drives, seems to indicate the opposite. That court held that space-shifting music files is a paradigmatic noncommercial use consistent with fair use principles.¹³¹

d. *The Audio Home Recording Act*

One new technological invention that sparked a response from Congress was the digital audiotape recorder ("DAT"), which resulted in the passage of the Audio Home Recording Act of 1992 ("AHRA").¹³² DATs use digital tapes, as opposed to analog cassette tapes, to make perfect quality copies of sound recordings regardless of how many copies (generations) of the copy are made.¹³³ When this innovation first hit the market, the Recording Industry Association of America ("RIAA")¹³⁴ complained that DATs would inhibit creation because the recorders made it possible to make multiple unauthorized copies of music, thereby damaging artists' profits.¹³⁵ The AHRA addressed the interests of all parties concerned and was passed in order to both prevent serial copying and protect consumers from liability when copying copyrighted material for their own home use.¹³⁶

The AHRA contains three main components. First, it specifically mandates that no infringement action may be brought as a result of "the manufacture, importation, or distribution of a digital audio recording device, a digital audio recording medium, an analog recording device, or an analog recording medium, or based on the noncommercial use by a consumer of such a device or medium for making digital musical recordings or analog musical recordings."¹³⁷ Second, the Act requires manufacturers and distributors of digital audio recording devices to contribute percentages of the transfer price to a royalty fund that is then distributed among owners of musical works and sound recording copyrights that have been distributed in the form of digital audio.¹³⁸ Lastly, the AHRA requires that each DAT device incorporate a copy control mechanism, the Serial Copy Management System ("SCMS").¹³⁹ SCMS is a technological

131. See *id.* at 1079-81; *infra* Part II.B.

132. See Pub. L. No. 102-563, 106 Stat. 4237 (1992) (codified in 17 U.S.C. §§ 1001-10).

133. See Rafter et al., *supra* note 29, at 620.

134. The RIAA represents the record labels (and their artists) that control roughly 90% of recorded music distribution in the United States. See *Diamond Multimedia*, 180 F.3d at 1074.

135. See Peraino, *supra* note 42, at 145.

136. See Bloom, *supra* note 72, at 190-91 (quoting the statement of Sen. DeConcini discussing the purposes behind the legislation); Suzan, *supra* note 8, at 815 (noting the primary goals of the AHRA).

137. 17 U.S.C. § 1008 (1994).

138. See *id.* §§ 1003-06.

139. See *id.* § 1002.

development akin to Digital Rights Management¹⁴⁰ that prevents the making of subsequent digital copies from original digital copies.¹⁴¹ While SCMS is not an answer to all home copying, because it fails to prevent the making of any number of copies from an original, it provides a remedy against exponential copying, which remains the primary concern of artists.¹⁴²

Commentators have argued many times in recent years that the AHRA easily can be applied to downloading digitally transmitted music from the Internet. Similar to music stored on DATs, online music is contained in digital form, and thus home copying of downloadable files should be allowed as long as SCMS is incorporated into computers.¹⁴³ In recognizing that computer hard drives are exempt from the Act, the Ninth Circuit's recent decision in *Recording Industry Ass'n of America v. Diamond Multimedia Systems, Inc.*¹⁴⁴ renders this interpretation wholly unlikely.¹⁴⁵ Instead, it appears that the music industry's compromise with the computer industry conceding the exemption of hard drives from the SCMS requirement, which allowed for the AHRA's passage in the first place, has now rendered the legislation irrelevant to music distribution on the Internet.¹⁴⁶

Although traditional copyright laws and legislation provided for some protection to copyright owners in the online context, they alone were insufficient to properly address all of the copyright issues arising from new technology and the ability to conduct large-scale copying and distribution of works with relative anonymity. The laws as they existed were inconsistently applied, and the more recently enacted AHRA seems to contain a large loophole exempting computer hard drives from the Act. Hence, Congress was forced to enact new legislation to further develop copyright law in the Internet context.

2. Recent Legislation Affecting Online Music

The answer to the question of who will be liable for copyright infringement on the Internet seems to have been a difficult one to

140. See *supra* note 20.

141. See Tomlinson, *supra* note 9, at 68 (discussing the technological solution to DATs).

142. See Michael Plumleigh, Comment, *Digital Audio Tape: New Fuel Stokes the Smoldering Home Taping Fire*, 37 UCLA L. Rev. 733, 762-63 (1990).

143. See, e.g., Bloom, *supra* note 72, at 191-92 (applying the statute's definition of digital-audio-copied recording to online music); Suzan, *supra* note 8, at 816 & n.183 (revealing that an examination of the definitions in the AHRA favor application to the Internet).

144. 180 F.3d 1072 (9th Cir. 1999).

145. See *infra* Part II.B.

146. See Phillip S. Corwin, *RIAA Commits Legal Hara-Kiri* (June 6, 1999) <<http://www.mp3.com/news/277.html>>; *infra* Part II.B.

find. Two recent pieces of legislation were designed to answer some of the questions left open by traditional laws and doctrine.

a. *The Digital Millennium Copyright Act*

In October of 1998, Congress enacted the DMCA.¹⁴⁷ When President Clinton signed the DMCA into law, he declared that the somewhat idealistic objectives in legislating these “fundamental changes in copyright commerce caused by the Internet were to ‘protect from digital piracy the copyright industries that comprise the leading export of the United States.’”¹⁴⁸ The DMCA as enacted is a complicated explication of a new vision of copyright law in the digital age.

Title I of the DMCA implements two treaties from the World Intellectual Property Organization (“WIPO”), the WIPO Copyright Treaty,¹⁴⁹ and the WIPO Performances and Phonograms Treaty.¹⁵⁰ The treaties provide copyright protection for United States works abroad, in addition to giving authors the exclusive right to authorize their works for availability over the Internet.¹⁵¹ In pertinent part, title I of the DMCA adds a new Chapter 12 to Title 17 of the United States Code, prohibiting the circumvention of technological measures that control access to a copyrighted digital work.¹⁵² The prohibition extends to the use of methods and tools to circumvent Copyright Management Information (“CMI”),¹⁵³ as well as to the manufacture, distribution, and offering of such tools so long as the tools are: (1) primarily designed to circumvent CMI, or (2) have limited commercial use beyond circumvention, or (3) are marketed for purposes of circumvention.¹⁵⁴ Under this provision, CMI means encrypted material contained on a work that identifies the work itself, its author, any other copyright owner of the work, or the conditions of use for the work.¹⁵⁵

147. See Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified in scattered sections of 17 U.S.C.).

148. Jon A. Baumgarten et al., *New Year Details Ownership Rights on the Internet: The Year-Old Digital Millennium Copyright Act Leaves Little Room for Judicial Interpretation*, Nat'l L.J., Oct. 25, 1999, at C6 (quoting President Clinton).

149. See WIPO Copyright Treaty, Dec. 20, 1996, 36 I.L.M. 65 (1997).

150. See WIPO Performances and Phonograms Treaty, Dec. 20, 1996, 36 I.L.M. 76 (1997).

151. See Brown Raysman Millstein Felder & Steiner LLP, *New Media and the Internet: Staying Interactive in the Hi-Tech Environment*, June 1999, at 1 [hereinafter *New Media*].

152. See 17 U.S.C. § 1201-05 (1999).

153. Copyright Management Information means the same thing as Digital Rights Management, that is, a way to keep information about the author and the work attached to a digital form of a copyrighted work. See generally Westmoreland, *supra* note 20 (explaining Digital Rights Management).

154. See Radcliffe, *First Steps*, *supra* note 65, at 386.

155. See *New Media*, *supra* note 151, at 2.

To ensure that fair use privileges are not eradicated, the DMCA purports to allow the circumvention of measures that prevent unauthorized *copying* of copyrighted works, while it prohibits circumvention of methods that prevent unauthorized *access* to copyrighted works.¹⁵⁶ This distinction allows unauthorized copying when the purpose of the copying is supported by a fair use privilege. Such a distinction may not make sense in real world application to music and digital rights management technologies, however, because music content providers are more likely to encode music with technologies that prohibit *access* to copyrighted works, thereby nullifying the permissive circumvention of technologies that prohibit unauthorized *copying* by the DMCA. Watermarks¹⁵⁷ do not prevent user access to works or unauthorized copying; they only allow copyright owners to track unauthorized copies of works. As such, watermarks do not eradicate fair use privileges. Digital envelopes,¹⁵⁸ on the other hand, prevent user access to works, which severely limits consumers' fair use privileges, while reducing policing costs for content providers. Hence, record labels will likely favor use of digital envelopes, whereas consumers would prefer watermarking technologies, if they embrace rights management technologies at all.

To help allay some industries' fair use fears, Congress inserted exemptions to this provision for library, cryptology, and software development communities.¹⁵⁹ In response to growing concerns about privacy on the Internet, an exemption was also inserted for measures used to thwart technological methods that collect private information about the user, commonly referred to as "cookies."¹⁶⁰

The prohibition on actual circumvention does not take effect until October 28, 2000, two years after passage of the DMCA.¹⁶¹ Nevertheless, its effects are currently visible. Although the DMCA specifically states that companies are not required to incorporate CMI into their products,¹⁶² the Act has led to major developments in the CMI arena.¹⁶³ The practical effect of the provision is to prevent individuals from circumventing protective measures, such as the digital envelope or digital watermarking technologies.¹⁶⁴ With this

156. See U.S. Copyright Office Summary, *The Digital Millennium Copyright Act of 1998* 4 (1998) [hereinafter *DMCA Summary*]. The *DMCA Summary* provides an excellent overview of the entire legislation.

157. See *supra* notes 48-52 and accompanying text.

158. See *supra* notes 53-60 and accompanying text.

159. See 17 U.S.C. § 1201(d)-(g) (Supp. IV 1998).

160. See Dorney, *supra* note 45 (discussing the exemption for circumvention of cookies, or technologies that collect personal information about the user).

161. See 17 U.S.C. § 1201(a)(1).

162. See *id.* § 1201(c)(3).

163. See Rafter et al., *supra* note 30, at 625.

164. See Mark F. Radcliffe, *Congress Helps Resolve 'Net Copyright Issues: The New Digital Millennium Copyright Act Provides Safe Harbors for Service Providers*, Nat'l L.J., Feb. 8, 1999, at C16 [hereinafter Radcliffe, *Safe Harbors*] (explaining the

provision in effect, the major music companies will feel safer when encoding their collections of copyrighted music, and akin to what videos did for the movie industry, digital distribution on the Internet will become a viable means of commercially exploiting music.

Perhaps the most influential part of the DMCA is title II, the Online Copyright Infringement Liability Limitation Act.¹⁶⁵ Inspired by inconsistent results in the courts, this title limits the liability for copyright infringement by ISPs if they comply with certain conditions.¹⁶⁶ Congress stated in its conference report that title II “preserves strong incentives for service providers and copyright owners to cooperate to detect and deal with copyright infringements that take place in the digital networked environment . . . [while] provid[ing] greater certainty to service providers concerning their legal exposure for infringements that may occur in the course of their activities.”¹⁶⁷

Title II provides “safe harbors” for ISPs in four separate circumstances.¹⁶⁸ First, section 512(a) limits the liability of ISPs in transitory digital network communications as long as the ISP is acting automatically with respect to the user and the material.¹⁶⁹ Essentially, this section negates liability when the ISP is acting as a data conduit, that is, merely transferring a copy of infringing material through the network.¹⁷⁰ Second, section 512(b) removes liability for system caching,¹⁷¹ which is the practice of temporarily storing copies of popular Internet material locally in the ISP’s server so that the ISP’s users can access that material more readily.¹⁷² Again, the ISP is not liable as long as the ISP is uninvolved in the selection, modification, or other interference with the transmitted material.¹⁷³ The third limitation on liability is for information residing on systems or networks at the direction of users.¹⁷⁴ Section 512(c) provides that an ISP will not be liable for acting as a mere storage facility for infringing material unless the ISP knows or should know of, or financially benefits from, the infringing material.¹⁷⁵ Further, once an ISP is made

meaning of the “black box,” or anti-circumvention, provision).

165. See Pub. L. No. 105-304, 112 Stat. 2860 (codified at 17 U.S.C. § 512 (Supp. IV 1998)).

166. See *id.*

167. H.R. Conf. Rep. No. 105-796, at 72, *reprinted in* 1998 U.S.C.C.A.N. 639, 649.

168. The limitations on liability are commonly referred to as “safe harbors.” Radcliffe, *First Steps*, *supra* note 65, at 375.

169. See 17 U.S.C. § 512(a) (Supp. IV 1998).

170. See Davis, *supra* note 25, at 165 (discussing the DMCA’s limitations on ISP liability).

171. See 17 U.S.C. § 512(b).

172. See Radcliffe, *First Steps*, *supra* note 65, at 374 (defining system caching).

173. See, e.g., Ravn, *supra* note 63, at 790-91 (discussing the specific conditions that apply for the safe harbor for system caching).

174. See 17 U.S.C. § 512(c).

175. See *id.*; see also New Media, *supra* note 151, at 4 (explaining the provisions in

aware of the infringing material, it must act immediately to either remove or paralyze access to the material.¹⁷⁶ Lastly, section 512(d) provides a safe harbor for information location tools.¹⁷⁷ This section applies to hyperlinks, online directories, search engines, and other location tools of that nature,¹⁷⁸ and limits liability for referring users to locations that contain infringing material as long as the same conditions as those in section 512(c) are met.¹⁷⁹ If an ISP's activity falls under any one of the limitations and all of the requirements are met, then the ISP is not liable for monetary relief for claims of direct or third party infringement relating to the user's activity.¹⁸⁰

Because monetary liability was the premier concern for ISPs, a copyright owner may still be able to get an injunction against an ISP in limited circumstances.¹⁸¹ If for any reason the ISP is not protected by one of the safe harbors, the copyright owner may still prove infringement under pre-DMCA copyright law, and the ISP may exculpate itself through the use of defenses such as fair use.¹⁸² On the whole, title II of the DMCA forces copyright owners to target the actual infringers, those individuals who upload songs against an artist's will, instead of giving the owners a liability catch-all in the ISPs. Repeat individual infringers will lose their Internet access, as "Congress intends to ensure that those who 'flagrantly' abuse their access to the Internet through disrespect for the intellectual property rights of others will understand that they face a realistic threat of losing that access."¹⁸³ Moreover, the ISPs now have a greater incentive to expeditiously remove infringing material, instead of ignoring its presence, in order to qualify for a safe harbor.

The last title of the DMCA that is important to the online music arena is section 402 of title IV.¹⁸⁴ This section amends the DPRSA¹⁸⁵ and extends the digital performance right to the practice of "webcasting."¹⁸⁶ Thus, the DMCA broadens the scope of the exclusive right in the digital performance of sound recordings by granting a statutory license for ephemeral copies of recordings for

section 512(c) of the DMCA).

176. See 17 U.S.C. § 512(c); see also Baumgarten et al., *supra* note 148 (explaining the "notice and take down" procedure for ISP's shielded liability).

177. See 17 U.S.C. § 512(d).

178. See Radcliffe, *First Steps*, *supra* note 65.

179. See 17 U.S.C. § 512(d); *DMCA Summary*, *supra* note 156, at 12-13.

180. See Radcliffe, *First Steps*, *supra* note 65, at 373.

181. See *id.*

182. See 17 U.S.C. § 512(l); *DMCA Summary*, *supra* note 156, at 9.

183. Radcliffe, *First Steps*, *supra* note 65, at 377.

184. See Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified at 17 U.S.C. § 402 (Supp. IV 1998)).

185. The DPRSA is legislation that grants a performance right to sound recordings in the digital environment. See *supra* notes 70-80 and accompanying text.

186. See Haun, *supra* note 12, at 48.

broadcast over the Internet in certain circumstances.¹⁸⁷ This means that webcasters will not have to negotiate with the record labels in order to stream music over the Internet, but instead will pay a compulsory license fee.¹⁸⁸ In order to obtain the right to pay the statutory fee, webcasters must abide by certain restrictions concerning programming and playlists set forth in the statute, one of which disallows individual selection of music on demand.¹⁸⁹ Before the DMCA was enacted, the individualized Internet radio business was just beginning to boom; now it is more expensive, and hence more difficult, to maintain those sites.¹⁹⁰

The DMCA is a step in the direction of developing laws that accommodate the emergence of new technologies. As such, it aids in defining who will be responsible for online music infringements by excluding ISPs in certain circumstances, and allows further development of rights management technologies through the anti-circumvention provisions.

b. *No Electronic Theft Act*

Prior to 1997, the Copyright Act did not provide for criminal penalties for copyright infringement unless the infringer received some commercial advantage or financial gain.¹⁹¹ Thus, the government could not prosecute Internet pirates who sought to trade copyrighted works or simply upload them for others free of charge. Therefore, in 1997, Congress enacted the No Electronic Theft Act ("NETA").¹⁹² NETA more effectively targets infringers with hidden profit motives, or no profit motives at all, by providing new criminal penalties for infringements of a non-profit nature.¹⁹³

First, NETA amends the Copyright Act to redefine financial gain as including "receipt, or expectation of receipt, of anything of value, including the receipt of other copyrighted works."¹⁹⁴ Therefore, when individuals trade unauthorized copies of songs, they are gaining

187. See Gibbons & Ferri, *supra* note 21 (discussing the DMCA's expansion of rights for sound recording copyright holders).

188. See Doug Reece, *Internet Radio Clash: Webcasters, Broadcasters and the Recording Industry Negotiate New Rules for Licensing the Music Played Over the Internet*, Billboard, Nov. 7, 1998, at 81.

189. See Baumgarten et al., *supra* note 148; Gibbons & Ferri, *supra* note 21. For a complete outline of all of the conditions that apply to the statutory licensing scheme, see the Digital Media association's Web site at www.digmedia.org/DMCAexp.htm.

190. See, e.g., Reece, *supra* note 188, at 86 (discussing the concerns of some Internet broadcasters in light of the DMCA).

191. See Downing & McCarthy, *supra* note 4 (describing the state of the law prior to the passage of the No Electronic Theft Act).

192. See Pub. L. No. 105-147, 111 Stat. 2678 (1997) (codified in scattered sections of 17-18 U.S.C.).

193. See Gibbons & Ferri, *supra* note 21 (discussing recent changes to the Copyright Act).

194. 17 U.S.C. § 101 (Supp. IV 1998).

financially according to the Act. Additionally, NETA adds a criminal provision for willful violators who, within a 180-day period, make one or more copies of material worth more than \$1000 but less than \$2500, and fines these infringers up to \$100,000 with a possibility of imprisonment for up to one year.¹⁹⁵ The amount of the fine and the maximum length of the jail sentence increase as the value of the copyrighted goods increases.¹⁹⁶

Amazingly, it took almost two years for the first official charge under NETA to be filed. In August of 1999, a twenty-two-year-old student at the University of Oregon posted thousands of unauthorized MP3s, in addition to software and digitally recorded movies, on a personal home page, allowing others to download the materials for free.¹⁹⁷ He was given two years probation after pleading guilty to the charge.¹⁹⁸ His prosecution served as an example of increasing aggressiveness in copyright enforcement.¹⁹⁹ Whether or not vigorous enforcement of NETA will continue in the future is yet unanswered.

As seen by the passage of the DMCA and NETA, new technology is forcing new definitions into old copyright laws and doctrine, in addition to eliciting new legislation from Congress to better manage tensions created between the law and the mechanisms of evading it. The next part will investigate how these tensions have played out in the music industry and the courts.

II. RESPONSES TO ONLINE MUSIC INFRINGEMENT AND RECENT DEVELOPMENTS

This part explores early judicial responses to music piracy on the Internet. In addition, it describes recent cases that have been filed alleging copyright infringement and violations of the DMCA, which illustrate the early interaction between old and new copyright laws.

A. *The RIAA on the Offensive*

The Recording Industry Association of America ("RIAA") is MP3's most potent enemy. In the years since the DPRSA was passed,²⁰⁰ the RIAA sued several Web sites for direct and contributory infringement of sound recordings via the Internet.²⁰¹ The plaintiffs included many of the major record labels and alleged that defendants infringed their sound recordings by copying them onto

195. *See id.* § 506(a); 18 U.S.C. § 2319 (Supp. IV 1998); Kopp & Suter, *supra* note 10, at 309.

196. *See* Kopp & Suter, *supra* note 10, at 309.

197. *See* Downing & McCarthy, *supra* note 4.

198. *See* Kira Schlechter, *Technology Has Huge Net Effect on Music*, Patriot-News (Harrisburg), Jan. 30, 2000, at E1.

199. *See id.*

200. *See supra* notes 70-85 and accompanying text.

201. *See New Media*, *supra* note 151, at 10 & n.17.

Internet servers and encouraging users to upload and download copies of the songs.²⁰²

For the RIAA and the record labels, holding these pirates liable proved elusive because as soon as the RIAA was granted a temporary restraining order and discovery of site operations began, the sites disappeared from the Internet.²⁰³ The sites are able to vanish without a trace by using file transfer protocol ("FTP"), a technology that allows Web pages to be easily obscured, popping up in different places daily.²⁰⁴ Some of these cases were settled, with the RIAA reportedly agreeing not to enforce its judgements as long as there was no future infringement.²⁰⁵

Believing that net piracy is threatening the creation of a legitimate digital music market, the RIAA has continued sending thousands of cease and desist letters to sites that it believes contain unauthorized copies of copyrighted music.²⁰⁶ When necessary, the RIAA has not shied away from taking these battles to court, shutting down more than 2000 music pirate sites in the last two-and-a-half years.²⁰⁷ The RIAA uses a technology known as a Web crawler that conducts daily searches for unauthorized musical material.²⁰⁸ This mechanism tracks only unauthorized copies of music, however, and it cannot stop the unauthorized files from being posted to the Internet in the first place.²⁰⁹

Under the DMCA, the RIAA is also able to subpoena information from ISPs about copyright violators who gain Internet access through the ISP.²¹⁰ The legislation has encouraged service providers to cooperate in disconnecting infringing sites after they are notified of them by the RIAA.²¹¹ At the heart of the MP3 problem are college students, the United States's biggest music consumers, many of whom

202. See *id.* at 10.

203. See John F. Delaney & Robert Murphy, *The Law of the Internet: A Summary of U.S. Internet Caselaw and Legal Developments*, 570 PLI/Pat 169, 197 (1999) (explaining the recent suits filed by the RIAA and record labels). The named cases that were filed include *A&M Records, Inc. v. Internet Site Known as Fresh Kutz*, No. 97-CV-1099 H (S.D. Cal. filed June 10, 1997), *Sony Music Entertainment, Inc. v. Internet Site Known as ftp://208.197.0.28*, No. 97 Civ. 4245 (S.D.N.Y. filed June 9, 1997), and *MCA Records, Inc. v. Internet Site Known as ftp://Parasoft.com/MP3s/*, No. 97-CV-1360-T (N.D. Tex. filed June 9, 1997). See Delaney & Murphy, *supra*, at 197.

204. See Gibbons & Ferri, *supra* note 21.

205. See *New Media*, *supra* note 151, at 10.

206. See Kathleen Murphy, *Kicking in the Door on Internet Music Pirates*, *Internet World*, Aug. 1, 1999, at 38.

207. See Rick Hepp, *Cybermusic's Future May Not Be as Smooth as it Sounds*, *Chi. Trib.*, July 25, 1999, at § 5.

208. See Murphy, *supra* note 206.

209. See Steinberg, *supra* note 39, at 109-10 (quoting David Stebbings, head of the New Technology Division at the RIAA).

210. See Murphy, *supra* note 206.

211. See Downing & McCarthy, *supra* note 4 (discussing the RIAA's success in shutting down pirate sites).

gain Internet access through their universities' servers in order to upload and download unauthorized MP3s.²¹² The RIAA has worked actively with schools across the country to identify and stop infringement, and the effort has met with moderate success.²¹³ For instance, seventy-one students at Carnegie Mellon University lost their in-room access to the university computer system for posting infringing material to the networks, forcing them to go to computer labs for network access.²¹⁴ If the students agreed to attend a ninety-minute class on copyright law, their sentences were reduced to a one-month loss of access.²¹⁵ Though most universities have not gone to the extremes of Carnegie Mellon, many do have policies that specifically forbid students from using school networks for illegal activity.²¹⁶ Because under the DMCA, universities become liable as soon as they know or should know of infringing activities, Carnegie Mellon's methods may be the most honest and law-abiding. Arguably, all universities should know when infringing activity occurs on their networks. It seems for now, though, that the schools are held liable only after being notified by the RIAA or other copyright owners of infringing sites.²¹⁷

Lastly, the RIAA has tried to educate the public on music copyrights. One conceptual obstacle is that consumers do not perceive downloading an unauthorized copy of a song for free in the same way as they would walking out of a record store with a CD without paying.²¹⁸ The most visible of RIAA's education campaigns is a Web site called [soundbyting.com](http://www.soundbyting.com), which provides an overview of United States copyright laws and explains what can happen if one infringes another's copyright.²¹⁹ The RIAA hopes that by educating students and music consumers, infringing activity will generate a moral stigma as well as legal liability.

B. *The Diamond Multimedia Case: A Setback for the RIAA*

In October 1998, the RIAA filed suit against Diamond Multimedia Systems for the manufacture and sale of a device called the Rio, alleging that the device violated the AHRA.²²⁰ The Rio is a walkman-like device approximately the size of a deck of cards that can hold up

212. *See id.*

213. *See id.*

214. *See* Kelly McCollum, *How Forcefully Should Universities Enforce Copyright Law on Audio Files?*, Chron. Higher Educ., Nov. 19, 1999, at A59.

215. *See id.*

216. *See id.*

217. *See id.*

218. *See* Murphy, *supra* note 206, at 38 (quoting Frank Creighton, head of the anti-piracy unit at the RIAA).

219. *See* <<http://www.soundbyting.com>> (visited Jan. 22, 2000).

220. *See supra* Part I.B.1.d; *see also* Rafter et al., *supra* note 30, at 622-24 (discussing the inception of the *Diamond Multimedia* case).

to two hours (depending on the amount of memory purchased) of CD quality music, or MP3 files.²²¹ The files, usually either converted from one's home CD collection or downloaded from MP3 Internet sites, can be transferred off of the hard drive of a personal computer and listened to via a set of headphones.²²² Until the Rio became available, audio files in compression formats (like MP3) could only be heard through a set of computer speakers.²²³ The Rio makes it possible for the listener to take that music anywhere.²²⁴ The RIAA claimed that the AHRA governs the device because it facilitates the unauthorized copying of copyrighted digital audio files and therefore must incorporate SCMS or a similar copy control mechanism into its system.²²⁵ The district court denied the RIAA's motion for a preliminary injunction and an appeal to the Ninth Circuit followed.²²⁶

The Ninth Circuit rejected nearly all of the RIAA's arguments. Though the court recognized that Internet distribution of MP3 files may lead to piracy losses, it noted that "the Internet also supports a burgeoning traffic in legitimate audio computer files."²²⁷ The court reviewed the definitions of "digital audio copied recording"²²⁸ and "digital music recording"²²⁹ under the AHRA and concluded that "the Rio does not record 'directly' from 'digital music recordings,'"²³⁰ and "the Rio cannot make copies from transmissions, but instead, can only make copies from a computer hard drive . . ."²³¹ The court rejected the district court's conclusion that if a computer hard drive were exempt from the AHRA, the Act would be rendered wholly

221. See *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys. Inc.*, 180 F.3d 1072, 1074-75 (9th Cir. 1999); see also Stephen M. Kramarsky, *Managing Copyright In Digital Marketplace: System may be Redefined by Music Distribution War*, N.Y. L.J., Oct. 18, 1999, at 4 (explaining MP3 technology as the precursor to the *Diamond Multimedia* case).

222. See Kramarsky, *supra* note 221.

223. See *Downing & McCarthy*, *supra* note 4 ("[B]ecause the MP3 music typically was stored in a computer hard drive, listening to MP3 music required the user to be close to his or her computer.").

224. See *id.*

225. See *Diamond Multimedia*, 180 F.3d at 1075; *New Media*, *supra* note 151, at 9; *supra* notes 137-42 and accompanying text (discussing the elements of the AHRA).

226. See *Diamond Multimedia*, 180 F.3d at 1075.

227. *Id.* at 1074.

228. See 17 U.S.C. § 1001(1) (1994) (defining "[a] 'digital audio copied recording' [as] a reproduction in a digital recording format of a digital musical recording, whether that reproduction is made directly from another digital musical recording or indirectly from a transmission").

229. The AHRA defines a digital musical recording as:

[A] material object—in which are fixed, in a digital recording format, only sounds, and material, statements, or instructions incidental to those fixed sounds, if any, and from which the sounds and material can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.

Id. § 1001(5)(A).

230. *Diamond Multimedia*, 180 F.3d at 1076.

231. *Id.* at 1081.

irrelevant, and instead concluded that "the Act seems to have been expressly designed to create this loophole."²³² This means, according to the Ninth Circuit, that once a music file moves through a computer hard drive, it is exempt from the AHRA and can be copied to portable playback devices without royalty payments or serial copy limits.²³³

Finally, the circuit court analogized the case to *Sony Corp. of America v. Universal City Studios*,²³⁴ and found that the Rio merely enables a user to "space-shift" music files, and that "[s]uch copying is paradigmatic noncommercial personal use entirely consistent with the purposes of the Act."²³⁵ This last point is a major victory for proponents of fair use and perhaps the most far-reaching holding in the court's decision. A recognition that space-shifting music files is a legitimate fair use caused many music technology leaders to extend that principle to the manufacture of MP3 players, further advancing the MP3 revolution. In the aftermath of the case, industry leaders continue to roll out MP3 players to compete with the Rio, and thousands of these players have been sold already.²³⁶ Though Diamond's attorneys maintain that space-shifting does not extend to unauthorized MP3 files,²³⁷ some copyright attorneys disagree, concluding that fair use depends on the use, not the source of the copy.²³⁸ That view carries the implication that although the RIAA can pursue the person who posts unauthorized music to the Internet, it cannot sue the individual who downloads those files for home use.²³⁹ In addition, the decision suggests that a user who possesses a CD-R burner²⁴⁰ may make copies of CDs from a personal collection or from unauthorized postings for use in a car or office.²⁴¹

C. SDMI: The RIAA Takes the Defensive

In response to the Ninth Circuit's decision in *Diamond*, the RIAA

232. *Id.* at 1078. Computer hard drives do not fit the definition of a digital audio recording device because hard drives are not designed and marketed to deal with primarily audio files; rather, a computer's recording function is for recording data and computer programs. *See id.*; Delaney & Murphy, *supra* note 203, at 224.

233. *See* Corwin, *supra* note 146 (discussing the essential components of the *Diamond Multimedia* decision).

234. 464 U.S. 417 (1984); *see supra* notes 116-25 and accompanying text.

235. *Diamond Multimedia*, 180 F.3d at 1079 ("The Rio merely makes copies in order to render portable, or 'space-shift,' those files that already reside on a user's hard drive.").

236. *See* Downing & McCarthy, *supra* note 4.

237. *See* Carl S. Kaplan, *In Court's View, MP3 Player is Just a 'Space Shifter,'* N.Y. Times on the Web (July 9, 1999) <<http://www.nytimes.com/library/tech/99/07/cyber/cyberlaw/09law.html>>.

238. *See id.* (quoting New York attorneys Robert Zissu and Robert Osterberg).

239. *See id.* (quoting copyright lawyer Robert Zissu).

240. *See supra* note 39 (discussing how music can be recorded using a CD burner).

241. *See* Kramarsky, *supra* note 221.

focused its energies on the earlier launched organization entitled Secure Digital Music Initiative ("SDMI"). The SDMI members consist of RIAA representatives, record labels, and digital music hardware and software manufacturers, including America Online, AT&T, and Microsoft.²⁴² The main objective of the initiative is to set technological standards for rights management information to exist within digitally distributed music.²⁴³ The plan consists of two main parts: (1) a series of technological rules that all digital music devices and programs must follow in order to affix the "SDMI compliant" label to their products and play SDMI-owned content; and (2) a rights management system that will most likely consist of a system of digital watermarking.²⁴⁴ Usage rules may include expiration dates that will allow users to download tracks for a trial period before purchasing them, and copying limitations.²⁴⁵ Because these technologies are not yet incorporated into digital playback devices, members of SDMI have made a pact to upgrade devices as the technologies become available.²⁴⁶ Most of the powerful players in the music industry are part of SDMI. Therefore, it seems likely that most popular music will be encoded according to SDMI rules, and hence will be playable only on SDMI-compliant devices.²⁴⁷ Thus, although the SDMI rules are not legal mandates, they may create commercial mandates.²⁴⁸

SDMI technology faces several hurdles. First, SDMI has been slow to form its digital music standard, and it is not due in the marketplace until 2001. Many also dismiss the initiative as an attempt to slow the digital music revolution and maintain control over the industry.²⁴⁹ Other obstacles include the overwhelming popularity of MP3's flexibility with consumers, as opposed to secure formats such as Liquidaudio and Microsoft's MS Audio.²⁵⁰ In fact, SDMI may meet with the same end as DIVX, a technology for limiting and tracking use of digital movies, which consumers rejected in favor of unrestricted Digital Video Disks ("DVDs").²⁵¹ In the meantime, to avoid lagging behind in the digital music revolution, the biggest record labels have teamed up with some of the more secure formats, such that Sony has

242. See *id.*; Megan Twohey, *Land of the Free and MP3*, Nat'l J., Jan. 15, 2000, at 15.

243. See Kramarsky, *supra* note 221.

244. See *id.* For a discussion of digital watermarking, see *supra* notes 48-52 and accompanying text.

245. See Kramarsky, *supra* note 221.

246. See Gibbons & Ferri, *supra* note 21.

247. See Kramarsky, *supra* note 221.

248. See *id.*

249. See Twohey, *supra* note 242, at 16 (quoting Shari Steele, the director of legal services for the Electronic Frontier Foundation, a company that promotes freedom of expression on the Internet); see also *supra* note 37 (providing examples of digital music formats that are more secure than MP3).

250. See Sandburg, *supra* note 11.

251. See Corwin, *supra* note 146.

announced that it will be encoding its catalogue with Microsoft's MS Audio format, and EMI is joining with Liquidaudio to make its music available to the public.²⁵² With all of the labels partnering with different companies and encoding catalogues in different formats, it is becoming increasingly unlikely that SDMI's rules will be narrow enough to effectuate one commercial standard among all of the digital audio formats.²⁵³

Likewise, SDMI technology may be subject to hacking or reverse engineering,²⁵⁴ which is legal under the DMCA as long as copy protection measures, and not access controls, are being circumvented.²⁵⁵ The enforcement of any real rights management standard also seems to be a problem in light of the Ninth Circuit's holding that computers are exempt from the AHRA.²⁵⁶ Hence, it appears that the music industry cannot resort to incorporating within SDMI rules any serial copy management system or royalty payments to combat piracy.²⁵⁷

D. Cases to Watch

The RIAA will not admit piratical defeat at such a critical time as this, for the direction that court decisions take in the next few years is sure to set the stage for intellectual property rights in the future of online music. This section presents several cases that have been filed in response to new online music developments. It portrays the RIAA's determination to protect its assets, and the courts' concern with maintaining a balance between artist incentives and the dissemination of digital music works.

1. *RIAA v. Napster, Inc.*²⁵⁸

As digital music start-ups gain prevalence on the Web, the RIAA watches closely for acts of infringement. On December 7, 1999, the RIAA filed a lawsuit against Napster, Inc., a California-based company.²⁵⁹ Napster is a shared MP3 community, allowing users to download a program that permits them to trade MP3 collections with

252. *See id.*

253. *See id.*

254. *See* Downing & McCarthy, *supra* note 4. Reverse engineering and hacking refer to acts of decoding a program to identify its elements. *See DMCA Summary*, *supra* note 156, at 5.

255. *See DMCA Summary*, *supra* note 156, at 3-5; *supra* notes 156-58 and accompanying text.

256. *See* Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1078 (9th Cir. 1999).

257. *See id.* at 1078-79 (exempting computers from the SCMS requirement); Corwin, *supra* note 146.

258. No. C99-5183 NHPADR (N.D. Cal. filed Dec. 7, 1999).

259. *See* CNET, *Recording Industry Sues Music Start-up, Cites Black Market* (Dec. 7, 1999) <<http://news.cnet.com/news/0-1005-202-1485841.html>>.

each other over the Napster interface.²⁶⁰ The RIAA and its member record labels contend that Napster is being used as a tool for record piracy, and are suing for contributory and vicarious infringement,²⁶¹ seeking up to \$100,000 for each copyrighted song that is traded across the Napster interface.²⁶²

Napster maintains, however, that its software allows legitimate music trading of unknown bands or other unprotected music, which is a “substantial non-infringing use.”²⁶³ In the future, the company hopes to assist artists and fans in finding each other on the crowded information superhighway.²⁶⁴ In addition, the company insists that it does not actually host any content, but only facilitates users’ searches in what could be hours of seeking a particular MP3.²⁶⁵ In order to download the Napster software, a user must agree to Napster’s copyright policy, which makes the user responsible for any copyright infringement and warns the user that access to Napster will be cut off upon notification of such infringement.²⁶⁶ Further, pursuant to the DMCA, the site has a designated agent to whom any copyright infringements may be reported.²⁶⁷

Napster argues that its program is not designed to circumvent copyrights; rather, the purpose of the program is to create an online forum for music fans to trade supposedly legitimate MP3 files.²⁶⁸ The company maintains that “[j]ust because you are the company that makes the crowbars doesn’t mean that you’re responsible when one is used to break into a house”²⁶⁹ The RIAA argues, on the other hand, that “Napster has ‘come up with a very clever way to be involved and get the commercial benefit of facilitating piracy They’re providing all of the means for the exchange of stolen goods, but they avoid touching it.’”²⁷⁰

260. See <<http://www.napster.com>> (visited Jan. 10, 2000).

261. See CNET, *supra* note 259; John Snell, *Copyright and Wrong*, Portland Oregonian, Jan. 31, 2000, at B01.

262. See CNET, *supra* note 259. The RIAA can assert enhanced damages because the behavior of the defendant is willful. See, e.g., *CBS Inc. v. Casino Record Distrib., Inc.*, 654 F. Supp. 677, 679 (S.D. Fla. 1987) (holding that a higher award of damages was applicable because the defendant’s actions were willful).

263. See Snell, *supra* note 261. Under traditional copyright law, if an item that can be used to facilitate piracy also has substantial non-infringing uses, the producer is not responsible for the piracy. See *id.*

264. See CNET, *supra* note 259.

265. See Snell, *supra* note 261.

266. See <<http://www.napster.com>> (visited Feb. 25, 2000).

267. See *id.*

268. See CNET, *supra* note 259.

269. Lisa Guernsey, *MP3 Trading Service Can Clog Networks on College Campuses*, N.Y. Times on the Web (Jan. 20, 2000) <<http://www.nytimes.com/library/tech/00/01/circuits/articles/20geek.html>> (quoting Eileen Richardson, the interim chief executive of Napster, Inc.).

270. Bruce Haring, *Sailing Around the Letter of the Law: Sites Unite Pirates in Plundering Music’s Treasure*, USA Today, Jan. 17, 2000, at 3D (quoting Cary

The case against Napster is not an easy one to decide. If Napster is found to be an ISP, the company may be shielded from liability under the DMCA as long as it deals with each complaint of infringement directly following notification.²⁷¹ The infringements, however, do not occur over Napster's networks; rather, they occur on individual user's networks via the software Napster provides.²⁷² This weighs against the finding that Napster is an ISP. If Napster is not viewed as an ISP, it may be liable for contributory or vicarious infringement if it cannot show that the software has substantial non-infringing uses for legitimate or unprotected music files, or is protected by fair use principles.²⁷³ Thus, whether the DMCA or traditional doctrine applies depends on how the court defines Napster. Other similar software developers eagerly await the outcome of the case.²⁷⁴

2. *RIAA v. MP3.com*²⁷⁵

More recently, the RIAA initiated a lawsuit against MP3.com targeted at their newest service, called MyMP3.com. There are two features of MyMP3.com at the heart of the lawsuit.²⁷⁶ One is the "Beam it" feature, which returns a digital copy of any CD a user loads into the user's MyMP3 collection.²⁷⁷ The second feature is Instant Listening, which delivers an MP3 copy, taken from the MP3.com database, of any CD a customer orders from one of the company's retail partners as soon as the credit card transaction clears.²⁷⁸

The RIAA claims that these features enable blatant copyright infringement, as MP3.com does not own or license any of the content in its database.²⁷⁹ MP3.com's CEO, Michael Robertson, maintains, however, that the service is "nothing more than a virtual CD player . . . that lets people listen to their music."²⁸⁰ MP3.com cites fair use rights of the consumers to do what they wish with music they have already purchased.²⁸¹ The RIAA strongly contends that MP3.com may not stand in the shoes of its users for the purposes of any fair use

Sherman, general counsel of the RIAA).

271. See CNET, *supra* note 259.

272. See Haring, *supra* note 270.

273. See Snell, *supra* note 261; *supra* notes 109-31 and accompanying text.

274. See Haring, *supra* note 270.

275. No. 00 Civ. 0472 (S.D.N.Y. filed Jan. 21, 2000).

276. See Lessley Anderson, *To Beam or Not to Beam*, *The Industry Standard*, Feb. 7, 2000, at 64.

277. See *id.*

278. See *id.*

279. See Statement of Cary Sherman, Senior Executive Vice President and General Counsel for the RIAA, concerning MP3.com's new services, Jan. 21, 2000, reprinted at <<http://www.RIAA.com/tech/press/012100a.htm>>.

280. See Letter from Michael Robertson, CEO of MP3.com, to Hillary Rosen, CEO of the RIAA, Jan. 21, 2000, reprinted at <<http://www.mp3.com/response.html>>.

281. See *id.*

defense, and it is clearly MP3.com, and not its users, who are making digital copies of CDs.²⁸²

The outcome of the case will likely turn on fair use definitions. If consumers have the right to space-shift music, as the Ninth Circuit held in *Diamond*,²⁸³ does that right also allow consumers to obtain a digital copy of any CD they purchase? Further, can MP3.com provide the consumers with that digital copy by maintaining an unauthorized database of digital music? If the *Diamond* case serves as a predicting factor, it seems the court will answer the first question in the affirmative. The second question, however, and probably the more significant one for MP3.com as a company, will probably be answered in the negative. Maintaining an unauthorized database of copyrighted works is an unlikely candidate for fair use.

3. *RealNetworks, Inc. v. Streambox, Inc.*²⁸⁴

Lastly, in a suit filed December 21, 1999, RealNetworks, Inc., a streaming media company, sued Streambox.com, a software company, for violating the DMCA's anti-circumvention provisions with its VCR and Ripper utilities, and for copyright infringement with respect to the Streambox Ferret.²⁸⁵ RealNetworks's success is due, in part, to its relationship with record labels, who depend on RealNetworks to preserve music copyrights.²⁸⁶ The Streambox products threaten that relationship. Streambox's VCR would allow customers to download copies of streaming audio, circumventing the copy protection that RealNetworks encodes in its files.²⁸⁷ RealNetworks's RealPlayer is used only for streaming audio, so the customer does not have a permanent copy of the audio on his or her hard drive.²⁸⁸ Streambox's new utility would allow the user to make a permanent copy of the audio file.²⁸⁹ The Streambox Ripper affords customers the ability to "rip" open audio files already residing on their hard drives (presumably legitimately) that are encoded for use with RealPlayer, and convert them to unprotected MP3 or WAV files.²⁹⁰ Streambox

282. See FAQ About RIAA's Lawsuit Against MP3.com, available in <<http://www.RIAA.com/tech/press/022500.htm>> (last modified Feb. 25, 2000).

283. See Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc., 180 F.3d 1072, 1079 (9th Cir. 1999).

284. No. 2:99 CV 02070, 2000 WL 127311 (W.D. Wash. Jan. 18, 2000).

285. See *id.* at *1; see also Michael Learmonth, *Copyright Case Streaming to Court*, The Industry Standard, Jan. 10-17, 2000, at 102 (discussing the case as the first major test of the DMCA).

286. See *RealNetworks*, 2000 WL 127311, at *3; John Cook & Dan Richman, *RealNetworks is Granted Injunction in Streambox Suit*, Seattle Post-Intelligencer, Jan. 19, 2000, at C2.

287. See *RealNetworks*, 2000 WL 127311, at *4-*5 (discussing the Streambox VCR).

288. See *id.*; *supra* Part I.A.

289. See *RealNetworks*, 2000 WL 127311, at *4.

290. See *id.*, at *5 (discussing the Streambox Ripper); Learmonth, *supra* note 285, at 102.

maintains that copyright owners can use the Ripper to convert their own work into different formats, and that consumers can use it for space-shifting, a presumably valid use.²⁹¹ Finally, the Streambox Ferret is a plug-in application for use with the RealPlayer that allows a user to switch between different Internet search engines, and alters the appearance and operation of the RealPlayer.²⁹² RealNetworks claims that the Ferret creates an unauthorized derivative work of the RealPlayer.²⁹³

A Washington district court granted RealNetworks a preliminary injunction on January 18, 2000, with respect to the claims based on the Streambox VCR and Ferret, but not with respect to the Ripper.²⁹⁴ The court based its decision on the anti-circumvention sections of the DMCA, which prohibits any company from manufacturing, selling, or distributing any product that is primarily designed to circumvent copyright management information.²⁹⁵ It found that the Streambox VCR was primarily designed to serve the function of circumventing the protections that RealNetworks affords copyrighted materials and that the VCR has no other significant commercial purpose.²⁹⁶ Further, the court concluded that RealNetworks would likely suffer irreparable harm with respect to the VCR.²⁹⁷ However, in light of Streambox's evidence that the Ripper has legitimate purposes and commercially viable uses for copyright holders and consumers, despite its name, the court found that the Ripper did not violate the DMCA.²⁹⁸ Lastly, the court granted RealNetworks a preliminary injunction with respect to the Streambox Ferret because RealNetworks raised serious questions as to the merits of its claim.²⁹⁹ The court agreed that the Ferret arguably creates a derivative work of the RealPlayer and that customers who use the Ferret are arguably in violation of a license agreement with RealNetworks.³⁰⁰ The balance of hardships was found to be clearly in favor of RealNetworks.³⁰¹

Both parties to the case viewed the decision as somewhat of a victory. RealNetworks maintained that the manufacture of the Ripper may still be enjoined in the future, and that "the court has upheld the basic principle that it is illegal to circumvent copy protection mechanisms in order to record streams against the wishes

291. See *RealNetworks*, 2000 WL 127311, at *5.

292. See *id.* at *6 (discussing the Streambox Ferret).

293. See *id.* at *11.

294. See *id.* at *12-*13.

295. See *id.* at *7; *supra* Part I.B.2.a.

296. See *RealNetworks*, 2000 WL 127311, at *7-*8.

297. See *id.* at *10.

298. See *id.*

299. See *id.* at *12.

300. See *id.*

301. See *id.*

of the copyright holders.”³⁰² On the other hand, Streambox’s CEO Bob Hildeman was quoted as saying that the decision was a victory for consumers and content owners alike, allowing them to access content and save it in whatever format they prefer.³⁰³

The *RealNetworks* case is an example of the balance that courts will continue to strike between the interests of copyright owners and the advances that new technologies afford consumers. As companies become more innovative in offering digital music to consumers, court decisions will determine where copyright protection ends and fair use for consumers begin, thus preserving the precarious balance between copyright owners and consumers. The next part further explores that balance, ultimately concluding that online music does not signal the demise of artists’ and labels’ copyright protection.

III. JUSTICE FOR ALL: ACHIEVING THE COPYRIGHT BALANCE

This part argues that concerns and fears over music copyrights will continue to be answered by the application of old and new copyright laws, and that emerging rights management technology will prevent music copyright owners from losing their intellectual property rights. Through the application of fair use and licensing schemes, consumers will be able to enjoy the digital music age without stealing profits from artists, thus attaining the balance between copyright owners and consumers so central to copyright law. There is no single solution to the problem of digital piracy, but the three-pronged approach advocated herein refutes the fear of a demise of music copyrights, and instead focuses on the development of a new copyright balance.

A. Congress

The first prong of the attack on musical copyright extinction is congressional legislation. As new rights management technologies³⁰⁴ become commercially available, the copyright laws will continue to change to accommodate the use of such technologies, while protecting copyright owners from infringements.³⁰⁵ The amendments to the Copyright Act through recent legislation are one step in that direction.³⁰⁶ The goal driving these laws is to give music copyright owners a profitable way to exploit their works without impairing use rights of consumers.³⁰⁷

302. Wired News Report, *Streaming Audio Ruling a Win-Win*, available in <<http://www.wired.com/news/print/0,1294,33674,00.html>> (visited Feb. 20, 2000) (quoting RealNetworks’s official statement after the decision was handed down).

303. See *id.* (quoting Streambox, Inc.’s CEO Bob Hildeman).

304. See *supra* note 20.

305. See Dorney, *supra* note 45 and accompanying text.

306. See *supra* Part I.B.

307. See *Intellectual Property Conference*, *supra* note 4, at 309 (containing a comment by Shira Perlmutter from the United States Copyright Office).

The DPRSA was the first measure taken to attain that goal.³⁰⁸ Whereas previously, sound recording copyright owners had no right of public performance, the DPRSA affords them such a right, allowing licenses to form the compensation scheme for sound recording copyright owners.³⁰⁹ The DPRSA ensures that copyright owners get paid for the use of their works, and also allows on-demand-listening Web site owners, where users choose the songs that they hear, to formulate their own creative licensing schemes. Though some suggest that an even higher royalty scheme for digital distribution should be implemented, where pirates would be able to copy works after an initial distribution period,³¹⁰ that approach would remove the freedom to negotiate new licenses as technology and consumer demand changes.

Artists also have gained protection through passage of NETA and the DMCA's anti-circumvention provisions.³¹¹ NETA focuses on the loss to the copyright holder, rather than the profit to the infringer, by applying penalties to non-profit piracy.³¹² This law directly addresses the problem of enforcing laws against Internet pirates who are information freedom fighters, rather than profit-seeking thieves.³¹³ The DMCA's anti-circumvention provisions, prohibiting the circumvention of access controls to copyrighted works, address artists' concerns that consumers will easily hack copyright protection measures in their works.³¹⁴ Through the new law, artists can maintain digital protections in their works without the fear of circumvention of those protections, as long as they do not inhibit fair use for consumers. Though some argue that there is little ability to enforce those provisions, that argument is severely flawed. In the real world, we must recognize the difference between a "hacker" who breaks the code on a piece of digital music and the ability of that method to be widely disseminated and implemented by consumers.³¹⁵ It is more likely that the music, not the method, will be disseminated. If and when wide dissemination of a piece of music occurs, that is when the artists and record labels begin to feel profit loss, and that is also the time when traceable CMI,³¹⁶ such as that found on watermarks, makes locating the violator and impeding the circumvention easier.

308. See *supra* notes 70-80 and accompanying text.

309. Where the Web site does not offer users on-demand listening, the DPRSA takes effect. See Bloom, *supra* note 72, at 202-03. Artists continue to be protected through the Copyright Act for the underlying musical composition. See *id.*

310. See Tomlinson, *supra* note 9, at 69.

311. See Part I.B.2.

312. See *supra* notes 191-99 and accompanying text; see also Kopp & Suter, *supra* note 10, at 309 (discussing NETA).

313. See *supra* notes 191-99 and accompanying text.

314. See *supra* notes 150-56 and accompanying text.

315. See *Intellectual Property Conference*, *supra* note 4, at 327-28 (containing a comment by Jon Baumgarten, partner of Proskauer, Rose, LLP in Washington, D.C.).

316. See *supra* note 153.

Many argue that the new laws significantly impede fair use, and weigh too heavily on the side of artists' and labels' concerns and not enough on the side of consumers' rights.³¹⁷ In answer to this criticism, the Copyright Office maintains that the DMCA specifically does not prohibit circumventing measures to prevent unauthorized *copying*, as opposed to *access*, of a work, though it does prohibit the making or selling of devices used to do so.³¹⁸ As the Copyright Office Summary of the DMCA states, "[t]his distinction was employed to assure that the public will have the continued ability to make fair use of copyrighted works."³¹⁹ Furthermore, the Copyright Office cites to the exemptions in the DMCA for those industries that are likely to suffer adverse effects from the prohibitions against circumventing access controls, including encryption research and reverse engineering for the computer software industry.³²⁰

The distinction that the Copyright Office makes between access controls and copy controls, however, does not ensure consumers' fair use privileges. Because the RIAA has control of over 90% of music sold in the United States,³²¹ the labels can basically choose in which format they want to make their music available. Digital watermarks do not provide the same protections as digital envelopes, because while digital watermarks can track unauthorized copying, they cannot prevent it.³²² Therefore, the record labels are more likely to use digital envelopes, which prevent unauthorized access, based on their desire to control consumer access to digital music, thereby lowering the transaction costs of policing networks.

On the other hand, record labels will not profit from digital distribution of music at all if consumers do not accept the formats in which it is distributed. Consumers' fair use will depend on consumer power in the market. The software industry provides an example. While the industry spent many of its early years seeking a format protected from unauthorized copying, in the end consumers would not accept those protections.³²³ "Copy protection just adds friction to a product whose chief value is its frictionlessness."³²⁴ Thus, "the software industry has had to learn to live with a certain amount of piracy."³²⁵ Hence, consumers do have a tremendous amount of

317. See, e.g., Davis, *supra* note 25, at 165 (stating that the DMCA cuts off consumer access and therefore infringes on fair use).

318. See *DMCA Summary*, *supra* note 156, at 3-4.

319. *Id.* at 4.

320. See *id.* at 5-6.

321. See *supra* note 134.

322. See *supra* notes 48-60 and accompanying text.

323. See Julian Dibbell, *The Record Industry's Digital Daze: Thanks to MP3, This Could Finally be the End of the Music Business as We Know It*, *Rolling Stone*, Nov. 26, 1998, at 106.

324. *Id.*

325. *Id.* Another example is the digital video disk, DVD, winning consumer acceptance over the protected video format, DIVX. See *supra* note 251 and

marketplace power, and if used correctly, fair use rights will not be eradicated. Instead, the record labels will recognize the potential of the market, and perhaps compromise with consumers by encoding their music in formats that allow fair use access, such as watermarks. That trend is already in evidence, as we see labels teaming up with watermark formats such as Liquidaudio and AT&T's a2b.³²⁶

Additionally, consumers should realize that *Sony Corp. of America v. Universal City Studios, Inc.*³²⁷ did not establish a per se private use exemption from copyright law.³²⁸ That case's finding of fair use turned on specific factors, including the fact that television broadcasts are free for consumers and the lack of a showing of likelihood of harm to copyright owners.³²⁹ In the Internet setting, the courts will protect some private uses, as we saw in the *Diamond* decision,³³⁰ where "it appears that an individual's personal use of MP3s would not be subject to the [Copyright] [A]ct, provided that the individual was merely copying materials for 'space-shifting' purposes."³³¹ However, all of the Copyright Act's statutory fair use factors must be weighed, so that simply because a use is private does not necessarily make it fair.³³² Unlike television, Internet access is not free, and once there is a showing of harm to copyright owners, the analysis changes. Fair use of digital music is yet to be fully defined, and may eventually result in limiting the number of copies of an audio file that may be made or the length of time an audio file is active.³³³ Whichever the case, the growing options for listening to digital music are certain to be incorporated into future fair use definitions by the courts.

Lastly, the DMCA helped curb liability for ISPs, enabling them to spend more time delivering products to meet consumer demands and less time policing their networks.³³⁴ The law, however, ingeniously created an incentive for ISPs to remove infringing material and cut off access for infringers by declining to shield ISPs from liability unless they take these actions.³³⁵ Accordingly, the law helped create a better network policing system by awarding safe harbors to the ISPs unless they are given notice of infringing material on their sites by the copyright holders. Although some argue that it is inefficient to sue

accompanying text.

326. See *supra* note 252 and accompanying text.

327. 464 U.S. 417 (1984); see also *supra* notes 116-28 and accompanying text.

328. See *Intellectual Property Conference*, *supra* note 4, at 353 (containing comments by Jon Baumgarten, partner of Proskauer Rose, LLP in Washington, D.C.).

329. See *Sony*, 464 U.S. at 456.

330. See *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072 (1999); *supra* Part II.B.

331. Kramarsky, *supra* note 221, at S4.

332. See *supra* Part I.B.1.c.

333. See Hepp, *supra* note 207.

334. See *supra* notes 168-83 and accompanying text.

335. See *supra* notes 168-83 and accompanying text.

individual infringers, and that accordingly the law will have little enforcement capability with respect to individual infringers, new technologies that will identify and impede individual infringement are sure to efface that concern.³³⁶

Congress has taken steps toward redefining copyright law in the digital music age. The DPRSA, DMCA, and NETA target the legal quandaries that the ease of copying in the digital age present, such as anonymity and free distribution of copyrighted works. Congress has answered, in part, the challenge to copyright law in cyberspace, and with the further development of legislation and definitions of consumers' fair use, music copyrights will survive the digital age.

B. *The Courts*

The second party crucial to saving music copyrights is the courts, whose challenge is to maintain artists' and consumers' rights without upsetting the copyright balance. The *Diamond* decision, for example, appears to have furthered consumer use rights by allowing space-shifting music that consumers have already purchased, recognizing that space-shifting is a noncommercial personal use that does not constitute infringement.³³⁷ The Ninth Circuit's decision is a victory for digital music consumers because it potentially means that consumers will have to pay for only a single copy of a particular piece of music, instead of being charged for each separate use of that music.

More recently, in *RealNetworks, Inc. v. Streambox, Inc.*, the court provided a striking example of achieving the balance between consumers' and copyright holders' rights.³³⁸ In that case, the court enabled each side to call the decision a victory. The court was able to deconstruct each item of technology at issue in the case, deciding that the Streambox VCR did not have a non-infringing use, and was therefore most likely in violation of the DMCA, but that the Streambox Ripper had substantial non-infringing uses and could be manufactured and sold without restriction.³³⁹ The district court's decision carefully examined rights of copyright holders and the use rights of consumers, concluding that although anti-circumvention measures are prohibited, use rights of consumers must and will be respected.

Thus far, courts have exhibited sympathy toward both sides of the copyright balance, which means that ultimately cases will turn on their individual facts. If a music copyright holder can prove that the sole

336. See *infra* Part III.C.

337. See *Recording Indus. Ass'n of Am. v. Diamond Multimedia Sys., Inc.*, 180 F.3d 1072, 1079 (1999); *supra* Part II.B.

338. See No. 2:99 CV 02070, 2000 WL 127311, at *1 (W.D. Wash. Jan. 18, 2000); *supra* notes 284-303 and accompanying text.

339. See *RealNetworks*, 2000 WL 127311, at *12-*13; *supra* notes 284-303 and accompanying text.

purpose of a particular technology is to circumvent copy protection mechanisms, that technology is very likely to be rendered illegal. However, where a company can point to non-infringing uses, such as space-shifting or consumer format preference, it seems that copyright holders will be forced to find new ways of preventing piracy.

As courts begin to flesh out recent legislation, they should watch closely new technologies that provoke litigation. Where the technologies at issue prohibit consumer access to copyrighted music, the courts should give more consideration to how the technologies are affecting consumers' fair use because provisions of the DMCA disallow any circumvention of those access controls. Where, on the other hand, the technologies at issue are those that incorporate solely copy controls, or do not incorporate rights management at all, courts should consider their impact on copyright holders. In this way, courts can ensure the dissemination of digital music to the public while simultaneously fostering artists' creation of new works.

C. Technology

The controversy over music copyrights would never have come about but for technology, and technology is likely to be the tool for their preservation. First, many have cited the DMCA as a technological enforcement law, not a copyright law.³⁴⁰ Technology at times offers more protection for copyright holders than they would otherwise obtain by limiting consumer fair use access, and legislation such as the DMCA utilizes technology to either curb or protect those rights.³⁴¹ Accordingly, the record labels should stop targeting technology as an enemy, and focus instead on using technology to thwart piracy.³⁴² As RIAA spokesperson Tom Sites has stated, "[t]echnology will solve the problems that technology has created."³⁴³

For the most part, steps in that direction have been well received. The main problem with enforcing copyright laws on the Internet is discovering who is responsible for the infringement.³⁴⁴ Digital detectives "exist[] to enable copyright holders to track down pirated music on the Internet"³⁴⁵ Although this technology cannot stop pirates from uploading unauthorized copies of musical works and

340. See, e.g., *Intellectual Property Conference*, *supra* note 4, at 324 (containing a comment by Gerry Brill, director of intellectual property and corporate patent counsel, Macrovision Corp., stating that "we know the DMCA as a copyright law, even though a number of people have said that the DMCA is . . . more of a technological enforcement law").

341. See Brenda Sandburg, *Can Technology Re-bottle MP3 Genie?*, *The Legal Intelligencer*, Apr. 28, 1999, at 4.

342. See Neil Gross, *Commentary: Target Pirates-Not Technology*, *Business Week*, Nov. 2, 1998, at 40.

343. Dibbell, *supra* note 323, at 106 (quoting RIAA spokesperson Tom Sites).

344. See Segal, *supra* note 6, at 138.

345. See Rafter et al., *supra* note 30, at 626.

sound recordings onto the Internet, it can track those copies in order to hold individuals responsible for their transgressions. New technologies such as digital watermarks and digital envelopes seek to further remedy the problem of identifying infringing parties.³⁴⁶

The group of record labels and Internet and technology companies that comprise SDMI are taking another step toward combating technological advances with technology. If the SDMI rules are implemented,³⁴⁷ an across-the-board standard format for digital music will exist, making identification of unauthorized uses of copyrighted works easier.³⁴⁸ If SDMI does not standardize digital music, and the industry is forced to implement different formats, MP3 is not the likely winner. The major record labels will not encode their music in a format that offers them no copyright protection.

MP3 is more likely to be used as a format for unsigned bands to widely disseminate their music, hopefully gaining recognition and eventually a contract with a label.³⁴⁹ MP3 therefore offers leverage to new artists. MP3 is an international standard, not tied to any single company and its Web site, and therefore widely available.³⁵⁰ Whereas previously, the only way to gain recognition was promotion by a major label, now new artists can disseminate their music to the public themselves, or through smaller independent labels, using positive consumer response to gain power in contract negotiations with larger labels.³⁵¹ Additionally, established artists may be able to retain power over certain singles, distributing them digitally before they become available in hard copy, and cultivating a stronger relationship with fans.³⁵²

Record labels may fear that the ease of distributing music on the Internet may squeeze them out of the equation for successful artists. Record labels, however, offer artists more than widespread distribution: they possess contacts, marketing ability, and advanced studios and recording equipment.³⁵³ The shift in leverage artists will receive by using MP3 to gain popularity before negotiating with labels offers a more even balance between artists and labels, and ultimately better music for consumers.³⁵⁴ Labels can use digital music distribution to profit from distributing singles on the Internet, fostering musicians' creativity and artistry in their work. With the

346. See *supra* notes 48-61 and accompanying text.

347. See *supra* Part II.C.

348. See Sandburg, *supra* note 11.

349. See Borkowski & Welsh, *supra* note 22.

350. See Dibbell, *supra* note 323, at 106.

351. See Sandburg, *supra* note 11.

352. See *id.* Tom Petty, for example, released the single "Free Girl Now" on MP3.com before the forthcoming album in order to generate consumer buzz. The song was downloaded 160,000 times. See *id.*

353. See Borkowski & Welsh, *supra* note 22.

354. See *id.*

return of the music single, artists will no longer have to repeat one sound ten times in order to complete an album.³⁵⁵

For online music, digital detectives and rights management technologies of all kinds are extremely useful tools. For instance, if a user downloads an audio file of a song and emails it to a friend, there is no infringement. However, if that same user then tries to burn the song on a few hundred CDs and sell them on a Web site, digital detectives will find the CD and search the Net for the matching mark.³⁵⁶ Then the infringer will be identified and the copyright holders can be compensated. An example is Broadcast Music Inc., a music publisher, which uses a device called the Music Bot to monitor its systems for unauthorized use of its members' music.³⁵⁷

We are likely to see more and more technological incorporation into copyright management. Though the Internet offers a fast and easy way to make copies of music, it also offers a fast and easy way to track those copies. The record industry will not give up the chance to exploit their goods in a successful new format.³⁵⁸ Rights management technology will allow them to do that, and will succeed because there is no "point in manufacturing and developing an information superhighway on which there will be no cars."³⁵⁹ The record labels have all of the Mercedes and Jaguars that consumers are looking for, and will not put them on the highway without protection.

Market mechanisms, such as licensing, are also likely to be further integrated with copyright management. Licensing mechanisms are already in place on many Web sites that market and distribute digital music.³⁶⁰ Under one scheme, retail music sites receive licenses from record labels that enable them to stream a thirty-second preview of a song so that the user can decide whether or not to purchase a hard copy of the music.³⁶¹ Additionally, because the passage of the DMCA created a statutory music licensing scheme for webcasters,³⁶² the RIAA has been negotiating with the Digital Media Association ("DiMA") and soon will go to arbitration to set agreed-upon fees for broadcasts of music over the Internet.³⁶³ The bill lowers the costs associated with private negotiations, and where private negotiations are still in order, eliminates disputes over fundamental rights of

355. See L.A. Lorek, *Digital Music Rush Leaves Copyright Laws Behind*, Sun-Sentinel Ft. Lauderdale, Oct. 31, 1999, at 3G.

356. See Peraino, *supra* note 42, at 145.

357. See Gibbons & Ferri, *supra* note 21.

358. See Dibbel, *supra* note 343, at 106.

359. *Intellectual Property Conference*, *supra* note 4, at 304 (quoting Bernard Sorkin, Senior Intellectual Property Counsel, Time Warner).

360. See Tomlinson & Nielander, *supra* note 56, at 300.

361. See, e.g., <<http://www.amazon.com>> (visited Feb. 10, 2000) (allowing a user to preview a song before purchasing a copy of it).

362. See *supra* notes 184-90 and accompanying text.

363. See P.J. Huffstutter, *Deal Reached on Royalties for Web Music*, L.A. Times, Feb. 10, 2000, at C8.

copyright owners and users, placing webcasters in a better position to negotiate.³⁶⁴ The RIAA already has completed a deal with one Internet radio site, helping to set a standard for others to follow.³⁶⁵ The terms of the deal were not disclosed, but include royalty payments to artists whose works are broadcast over the Web.³⁶⁶

Licensing protocols and online micropayment systems for consumers using digital wallets will also be further developed, and in the future the Internet will hold a library of music from which any track will be downloadable for a nominal fee.³⁶⁷ Those fees mean a whole new source of revenue for record labels and artists, and an on-demand listening experience for consumers. Hence, licensing provides copyright owners with a way to protect their interests, while still allowing them to meet consumer demands.

In the United States, there is a balance of power between market mechanisms, the legislature, and the courts. Though the advancing digital technology in the market threatens the balance between consumers' and copyright holders' rights to online music, Congress reacted to the new technologies by passing legislation to even the scales. Equitable application of the laws by the courts and the incorporation of copyright management information into digital music formats will allow music copyright holders to embrace the new technology without fearing it, ensuring that the digital music revolution can flourish.

CONCLUSION

Copyright law and its subjects are increasingly becoming a part of our daily lives. The Internet has created new possibilities for the dissemination of intellectual property, and music is at the forefront of that revolution. Though it is possible that the music industry will be forced to tolerate some piracy,³⁶⁸ the Internet has opened up a world of possibility for the music industry in the same way that the VCR did for the movie industry.³⁶⁹ The digital revolution is at its inception, and will continue to grow in response to market demands. Despite copyright owners' fears, the challenges that the digital revolution poses to copyright law will be overcome by legislation, the courts' even-handed interpretations of that legislation, and by ever-emerging protective technologies. Through Congress and the courts, the law has reacted to the interplay of competing interests, as it always should.³⁷⁰ As long as the music industry remains flexible, new

364. See www.digmedia.org/DMCAexp.htm (visited Jan. 10, 2000).

365. See Huffstutter, *supra* note 363.

366. See *id.*

367. See Dibbell, *supra* note 323, at 106.

368. See *id.*

369. See Downing & McCarthy, *supra* note 4.

370. See Borkowski & Welsh, *supra* note 22 (discussing the market realities of the

technology will not ruin the industry or spell the end of traditional copyright protection, but will spur enhanced creativity of artists and increase the dissemination of music to the public.³⁷¹

digital music revolution).

371. See Lorek, *supra* note 355.