

CACPS UNDERGRADUATE THESIS # 2, SPRING 2001



**The Digital Music Trialogue: Balancing the
Interests of Users, Artists and Copyright Owners**

by

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April 2001

A Senior Thesis presented to the Faculty of the Woodrow Wilson School of Public and International Affairs in partial fulfillment of the requirements for the degree of Bachelor of Arts.

Introduction

The emergence of digital music technology has called to attention the need to reexamine our current copyright regime. Digital music technology enables mass copying and distribution of songs that are not authorized for such use. The resulting piracy has record companies clamoring to find ways to reduce piracy while simultaneously developing legitimate digital distribution models.

In establishing copyrights, the drafters of the Constitution sought to perpetuate innovation and creation by granting copyright owners limited exclusive rights. Through implementing a system of incentives, creators were encouraged to continue production. But the underlying goal of providing incentives was to foster new ideas and creations for the benefit of the public. Copyright thus fashions a careful balance between the interests of the public and the interests of creators.

Recent amendments to copyright law have exhibited a trend of expanding copyrights at the expense of users' rights. Technology may provide copyright owners with further control over their works, but may also empower users to circumvent those control measures. What results is a copyright system in which law and technology must work together to maintain a balance between the rights of users and copyright owners.

In the music industry, this balance is complicated by the fact that artists themselves are usually not the copyright owners of their work. Instead, contracts signed with record companies require artists to relinquish their rights in return for a royalty. However, the royalties received by artists are usually insignificant in comparison to the

millions made by record companies. The resulting payment scheme, when considered in conjunction with the increasing constriction of the rights of users, causes us to question whether current laws are fulfilling the dual goals underlying copyright law.

Chapter 1 begins with an introduction to digital music technology and how it has become problematic for copyrights. The chapter ends by examining digital music's possible benefits for users, artists, and copyright owners. Chapter 2 provides the legal context in which the problem must be considered. The chapter provides an overview of copyright law, with emphasis on rights pertaining to music. Recent amendments to copyright law are then presented and assessed. Chapter 3 explores a few emerging technologies that have affected the exercise of copyrights. Chapter 4 presents a case study examining the legal troubles of the controversial company Napster, Inc. This chapter examines the law in practice as applied to a new technology, and evaluates the resultant implications for users, artists, and copyright owners. Finally, Chapter 5 synthesizes information from previous chapters and identifies the key issues in the digital music dilemma. The chapter offers ideas for potential legislation or other actions that could alleviate the clash of interests between users, artists, and copyright owners, and concludes that in order for copyright law to survive, policy makers must shift focus away from the record industry and back to artists and users, thus regaining the copyright balance.

CHAPTER 1

Digital Music and Relevant Interests

“People have found a way to share music and lower the expense. Let the system adjust or die. The revolution is here and I dare you to try to take it away.”

-Anonymous¹

INTRODUCTION TO DIGITAL MUSIC

Digital music is here to stay. The technological advances of the past decade have created a huge new reservoir of music: the Internet. With the advent of the Internet and MP3 technology, consumers can now easily download, retain, and listen to digital copies of songs on their hard drives, regardless of whether those songs have been authorized for such use.

The Internet is a vast network of smaller networks of computers, linked together using telephone and cable lines.² Due to its decentralized nature and past lack of regulation, the Internet provides users with virtual anonymity while granting them access to a tremendous amount of information. There are varying estimates of how many computers are connected to the Internet, yet these numbers change continuously as

¹ Scott Rosenberg, “Napster—Friend or Foe?” <http://www.salon.com/tech/col/rose/2000/03/30/napster.html> (2/18/01).

Internet access becomes more widely available to consumers. One estimate indicated that in February 1998, 62 million adults in the U.S. had access to the Internet, and that the World Wide Web contained over 150 million documents. By this year, it is projected that about 112 million people will have access to the Internet.³

Just as the explosive growth of the Internet has changed the nature of communication and distribution of information, the development of a new medium for sound recordings has likewise changed conceptions of music distribution. Motion Picture Experts Group Audio Layer 3, more popularly known as MP3, has become the emerging new standard for music distribution.⁴ Unlike previous methods of distributing music such as CDs, tapes, LPs, etc., the MP3 format does not require any physical medium; instead it exists in digital file format.⁵ The MP3 standard was developed in order to devise a way to compress music files while retaining high sound quality. Previous digital music formats took up large amounts of computer hard drive space and could take upwards of one hour to download. MP3 takes advantage of “perceptual audio coding methods,” eliminating those sounds which the human ear cannot perceive.⁶ MP3 also utilizes entropy encoding, which reduces any redundant sounds in the original sound recording. The result is an audio file with near CD-quality sound that is about one-twelfth the size of the original sound recording.

Songs from the Internet in MP3 format can be downloaded and played on a computer in a matter of minutes. With the appropriate software, users can download

² David Hepler, “Dropping Slugs in the Celestial Jukebox: Congressional Enabling of Digital Music Piracy Short-Changes Copyright Holders,” *San Diego Law Review* 37 (Fall 2000), p. 1165.

³ Sarah Beth Reyburn, “Fair Use, Digital Technology, and Music on the Internet,” *University of Pittsburgh Law Review* 61 (Summer 2000), p. 995.

⁴ Brendan M. Schulman, “The Song Heard ‘Round the World: The Copyright Implications of MP3s and the Future of Digital Music,” *Harvard Journal of Law & Technology* 12 (Summer 1999), p. 591.

⁵ *Ibid.*

songs and “burn” them onto blank CDs, or, using a computer equipped with CD-ROM and an MP3 encoder, can “rip” their own CDs into MP3s, enabling them to distribute or make available those songs via the Internet. The MP3 format’s capability to quickly and inexpensively distribute near-perfect copies of music poses a threat to copyright holders by increasing the risk of music piracy.⁷

The success of MP3 has also been largely affected by the increasing affordability of personal computers equipped with CD-ROM and sound output, the growth of the Internet, and the promise of high-speed Internet access to consumers.⁸ The popularity of the MP3 has been growing steadily; approximately 15 million “MP3 players,” the software needed to play MP3 files on computers, have been downloaded since the spring of 1999.⁹ MP3s are easy to both locate and use, making them an attractive option for anyone with Internet access, especially those with high-speed connections.

On any given day, the Internet houses over 500,000 infringing digital music files.¹⁰ There are over 72,000 music sites on the Internet.¹¹ Thousands of songs in MP3 format can be downloaded from the web at the click of a mouse—in fact, “MP3” is one of the most frequently searched terms on the Internet.¹²

⁶ *Ibid.* p. 592.

⁷ William Sloan Coats, Vickie L. Freeman, John G. Given, and Heather D. Rafter, “Symposium: Legal and Business Issues in the Digital Distribution of Music: Streaming into the Future: Music and Video Online,” *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), p. 290.

⁸ Rebecca Hill, “Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet,” *Santa Clara Computer and High Technology Law Journal* 16 (May 2000), p. 313.

⁹ Alex Allemann, “Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under Recording Industry Association of America v. Diamond Multimedia Systems, Inc.,” *Texas Law Review* 79 (November 2000), p. 192.

¹⁰ Kevin Kelly, “The MP3 Challenge: Has Congress Effectively Shielded the Music Industry from Internet Copyright Piracy?” *Temple Environmental Law and Technology* 18 (Spring 2000), p. 166.

¹¹ *Ibid.* p. 164.

¹² Hill, “Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet,” p. 317.

DIGITAL MUSIC and COPYRIGHTS

Despite the possible benefits of digital music to both artists and the recording industry, until digital music technology and corresponding distribution models can be harnessed, they will pose problems for artists and the industry through enabling music piracy. Digital technology now allows unlimited copies of a work to be made at very little cost. Furthermore, unlike analog representations of music, digital copies do not degrade with each successive copy, thus numerous copies of a song can be made and distributed quickly without sacrificing sound quality.¹³

The underlying culture of the Internet itself is problematic for copyright law. The Internet is not centrally controlled, thus the content of web sites is not restricted. The free flow of information causes many to claim that information should inherently be free—that is, copyright laws should not exist. There are thousands of sites that use copyrighted musical works without authorization, and many other sites from which unauthorized copies of music can be downloaded onto personal computers. The instantaneous worldwide connection provided by the Internet results in an unlimited opportunity to distribute and access materials, regardless of whether they are intended or authorized for such use.¹⁴ In addition, the anonymity provided by the Internet makes it difficult for the music industry to hold individuals responsible for copyright infringement.

Copyright legislation usually develops in response to advances in technology. Those who rely on the status quo for commercial viability often perceive new technology as a threat. For example, in 17th century England,

¹³ Dickerson Downing, “What a Year! MP3.com, Napster, DeCSS,” *New York Law Journal*, January 16, 2001.

¹⁴ Reyburn, “Fair Use, Digital Technology, and Music on the Internet,” p. 996.

“the emergence of lending libraries was seen as the death knell of book stores; in the 20th century, photocopying was seen as the end of the publishing business, and videotape the end of the movie business. Yet in each case, the new development produced a new market far larger than the impact it had on the existing market.”¹⁵

The recording industry has been trying desperately to fight off the changes brought by digital music technology, lobbying for new legislation and developing security measures to protect its works. Recent copyright legislation has followed the trend of strengthening the rights of copyright holders in the face of technology that facilitates mass unauthorized copying. However, digital music piracy seems to be a runaway train; technology exists that allows users to disregard copyright regardless of the law. Part of the answer to digital music piracy will likely lie in further technological developments that will allow rights holders to keep their music under lock and key. But at what cost to music fans?

Technological and legal changes have thrown off the precarious balance of interests between users and copyright owners that is central to the copyright regime. The interests of both users and rights holders must be carefully taken into account in attempting to develop a new system of digital music distribution. Simultaneously, the role of artists as creators but not copyright owners must also be fit into this framework. Developing successful policy will rely on accommodating interests of the three parties involved in music copyright law: users, rights holders, and artists.

¹⁵ Ariel Berchadsky, “RIAA v. Napster: A Window Onto the Future of Copyright Law in the Internet Age,” *John Marshall Journal of Computer and Information Law* 18 (Spring 2000), p. 785.

INTERESTS and VIEWS REGARDING DIGITAL MUSIC

Users' Interests

The Internet has become a virtual paradise for music lovers. MP3 files are both numerous and easy to access, enabling listeners to taste music they have never tried before. Listening to music over the Internet, regardless of whether such music is illegal, leads to exposure to types of music listeners may not have encountered normally, broadening their potential pool of purchases. Though copyright holders worry about the financial impact on the music industry of free music on the web, proponents of free music swapping argue that the increased access to music encourages, rather than depresses, sales of traditional forms of music. Supporters also argue that enabling users to sample music increases their chances of purchasing a legitimate CD or other sound recording.

The development of peer-to-peer file sharing has also caused problems for the music industry, while being well loved by music fans. This technology, used by the controversial company Napster, enables members to log onto a system and search the hard drives of other members who are also online. Programs of this sort allow users to search for and download specific songs or works by artists with ease. One benefit of being able to access music through programs like Napster is that users can then make wiser choices when purchasing music, only purchasing the albums they decide they like. Users often view themselves as victims, as they end up paying outrageous prices for CDs to fund the marketing budgets of recording companies. They are often forced to pay for an entire album (as noted above) for one song without having the opportunity to preview the rest of the album before purchasing it. Another benefit of online digital music is that users are able to pick the exact songs to which they want to listen. This return to a singles

model is not in the interests of the recording industry, who rely on hit singles to sell entire albums.

Possibly the greatest benefit of digital music via the Internet is that it is easy; one need only click away with the mouse to hear a song at home rather than drive to the record store to purchase an album. Online digital music distribution has the potential to provide music fans with exactly what they want: more music for less money. Music fans, disgusted with the music industry, have found a temporary solution through digital piracy. Most existing sources of online music are illegal websites, with legitimate distribution models still in their early stages.

Users tend to not only support programs like Napster and other sources of free digital music, but many also actively oppose the recording industry, “greedy artists,” or both. Consider the following quotes which arose in response to an online article about digital music and copyright:

- “Why should I have to pay \$17 for one good song while the rest suck? Maybe it’s time that the public decides what’s good instead of being forced by the big boys.”
- “I’m sick of hearing these crybaby millionaires moaning about fans ripping them off. Fans deserve it, they paid their dues. And this is ultimately about the fans, isn’t it? Without us, those greedy musicians don’t have a dime.”
- “Technological innovations give people the power to filter through the crap that the recording industry has been packaging as music in the need to satisfy contracts or to ride or create the latest hot trend.”¹⁶

The previous quotes exhibit current consumer dissatisfaction with the existing system. Consumers of music purchase CDs or other physical recordings partly because it is the only option available to them. But now there exists the potential to develop a new

system by which users could choose to purchase only the songs that they like, or preview albums prior to purchasing them, all with the ease of few clicks. Digital distribution has the potential to create much more efficient purchasing for users.

Also, part of the culture of music is sharing your creations with other people. Music is nothing without people to enjoy it. Users should be able to continue listening to music over the Internet and sharing songs with friends, as they do in our current system. Maintaining access to hard-to-find or very old recordings is also important for the public, as there is no real public musical equivalent to a library. Many users of Napster search for recordings they have difficulty finding in mainstream record stores. Affording the opportunity to access music to the public will also provide a net creative benefit, as musicians draw on past musical traditions and trends in the creation of new works.

Now that users have tasted the benefits of programs like Napster, if such programs exist, it is unlikely that music fans will forego use of them. As the recent past has shown, regardless of its illegality, downloading copyrighted music will continue as long as the technology exists. Some music piracy is inevitable, as it has always been. However, by accommodating consumer preferences in a legal answer to programs such as Napster, a solution can be developed that will simultaneously preserve the interests of consumers of music while not destroying the incentive system that helps maintain the production of great music.

¹⁶ Rosenberg, "Napster—Friend or Foe?" p. 2.

Rights Holders' Interests

Record labels usually require artists to sign over the copyrights to their music in their contracts, therefore, as copyright holders, the labels have a vested interest in the development of digital music. Because digital technology enables the consumer to easily and inexpensively create an infinite number of perfect copies of a song, the recording industry fears that music piracy will increase. Consumers who have access to digital technology can use it to make counterfeit or bootleg copies of copyrighted recordings instead of legitimately purchasing them. The revenue of record labels relies heavily on keeping intellectual property both secure and costly, and recent developments in technology have shattered both of those requirements. While the industry claims it is protecting the rights of artists, it is mainly protecting its commercial interest in the music business. As Prince said,

“The fundamental hypocrisy of the music industry (and of some artists) in the current debate over the MP3 format, Napster, and other forms of online exchange of music, is that they are talking about copyright, intellectual property, and other such noble concepts when the only thing they are actually trying to protect is the commercial value of their musical product.”¹⁷

The Recording Industry Association of America (RIAA) estimates that the piracy of physical music products (cassettes, CDs, etc.) alone amounts to a loss of nearly \$5 billion in sales worldwide every year.¹⁸ Now that MP3 technology is spreading so quickly, the losses to piracy can only grow exponentially. It was estimated that in 1999, over 750 million music tracks were downloaded illegally, and that the music industry in

¹⁷ John Gibeaut, “Facing the Music,” *American Bar Association Journal* 37 (October 2000).

¹⁸ Shane Ham and Robert D. Atkinson, “Napster and Online Piracy: The Need to Revisit the Digital Millennium Copyright Act,” *E-Business Law Bulletin* 1 (July 2000), p. 18.

America loses about \$300 million due to online piracy.¹⁹ As for peer-to-peer file sharing, according to data from the RIAA, at least 87% of the music on Napster is definitely traded without permission, and only 1.2% of trades are verifiably authorized. Further, in a randomized survey of users of Napster, the RIAA found that every single one of the 1,150 users surveyed was offering copyrighted music without the permission of the rights holder.²⁰ The Internet and digital music technology have become a serious threat to the recording industry.

The advent of this new technology has the recording industry clamoring not only to eliminate online piracy, but also to develop methods and models to exploit digital music technologies, including MP3 technology. The advances in digital technology and the growth of the Internet provide enormous possibilities for copyright owners.

First, the Internet offers a huge new market for music products. Since 1998, music sales over the Internet have tripled, producing about \$31.4 billion in revenue.²¹ The ability of the Internet to reach people in their homes greatly increases the available consumer base for music. The popularity of MP3 technology that has been exhibited thus far shows that there are tremendous new possibilities with which the music industry can market their products, whether through a subscription based model or a song-by-song basis. Online delivery of music could also eliminate the danger of unsold inventory, and simplify purchasing processes by reducing the role of CD manufacturers and retailers.²²

¹⁹ David Balaban, "Music in the Digital Millenium: The Effects of the Digital Millenium Copyright Act of 1998," *UCLA Entertainment Law Review* 7 (Spring 2000), p. 311.

²⁰ Roger Parloff, "Newbies vs. Netwits," *American Lawyer* 22 (September 2000), p. 17.

²¹ Reyburn, "Fair Use, Digital Technology, and Music on the Internet," p. 996.

²² Ham and Atkinson, "Napster and Online Piracy: The Need to Revisit the Digital Millenium Copyright Act," p. 19.

But lower costs may not be a boon to the recording industry. The currently high production costs associated with manufacturing and distributing compact discs serve to prohibit a number of companies from entering the recording industry. Technological advances in music production and distribution can threaten the current leaders of the record industry (commonly referred to as the Big Five) by providing potential market entrants with much lower start-up costs and a much larger potential market.²³ Consumers will be able to simply go to a company's website where they can pay to download a song or album. Since the infrastructure costs will be lower, the reigning record companies face the chance of encountering greater competition and losing their stronghold on the market.

Not only is there a large financial or market share loss at stake, but digital technology could eventually lead to a system in which the need for the recording industry is eliminated. This potential problem has become a reality, with some well-known artists opting to post some of their music for free downloading unbeknownst to their record labels. For example, both the Beastie Boys and Public Enemy posted a few of their songs on the web for free, only to be chastised by their record labels and forced to take them down. But the problem could spread much farther than well-known artists showcasing a bit of rebellion. One of the recording industry's main functions is to serve as a sort of middleman by covering the initial costs to produce and distribute an album, which traditionally were too large and inefficient for a musician to cover himself. Now with reduced costs, a musician could choose to forego a label entirely and market his product directly to the public via the Internet.

²³ Allemann, "Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under Recording Industry Association of America v. Diamond Multimedia Systems, Inc.," p. 201.

However, it is important to note that the recording industry is not limited to its function as a middleman or distributor. Although there may be some merit to critics' cries of greed and monopoly, the recording industry provides a greater service than might be easily recognized. The recording industry not only serves as a distributor, it also serves important filtering functions for the public. Record companies attempt to discern current trends in music preferences among consumers, and to accordingly provide the most talented artists that fulfill those demands.²⁴ This function will probably only become more important as the Internet and methods of digital distribution of music increase the ability of more musicians to offer music online. However, it is worth noting that even this positive aspect of the recording industry is heavily disputed by consumers, as evidenced by the aforementioned quote, which referred to the music produced by the industry as "crap."

Artists' Interests

"The band owns none of its work... they can pay the mortgage forever, but they'll never own the house. Our media says, 'Boo hoo, poor pop stars, they had a nice ride. Fu** them for speaking up;' but I say this dialogue is imperative... Authors own their books and license them to publishers. When the contract runs out, writers get their books back. But record companies own our copyrights forever."—Courtney Love²⁵

"Artists should get paid for their work."—Aimee Mann.²⁶

The underlying intent of copyright law requires us to examine the interests of users as well as artists. This duality has often been distorted in the digital music

²⁴ *Ibid.* p. 203.

²⁵ Courtney Love, "Courtney Love Does the Math," 6/14/00; www.salon.com/tech/feature/2000/06/14/love.html (2/18/01).

controversy because the key legal players have been the big recording labels and Internet start-ups providing services to consumers. This is due to the fact that record labels, not artists, hold most of the copyrights for music. The largest chunk of profit arising from album sales goes right to the recording industry.

Not surprisingly, artists hold a variety of views about digital music, mostly varying with how much they understand it, how happy they are with their label, and how successful they are in general. New or aspiring artists generally believe that digital music will only open doors for them. This group views the Internet as a way to reach a broad audience without the large amount of capital necessary to produce and market an album traditionally. Beyond the practical values of Internet distribution, there are also often philosophical underpinnings that support the free dissemination of information. For example, a relatively unknown band called Twisted Helices espouses the “Free Music Philosophy” on the Internet. “Specifically, Free Music means that any individual has the freedom of copying, distributing, and modifying music for personal, noncommercial purposes.”²⁷ This philosophy argues that is it not only ethical to allow users to freely copy music, but that it will be economically beneficial by increasing sales of other merchandise and concert tickets, and through voluntary donations.²⁸ For aspiring artists, the Internet can open doors by decreasing the costs of distributing their music, and increasing the potential audience.

²⁶ Eric Boehlert, “Artists to Napster: Drop Dead!” 3/24/00; www.salon.com/ent/feature/2000/03/24/napster_artists.html (2/18/01).

²⁷ For more information, see <http://www.ram.org/ramblings/philosophy/fmp.html>.

²⁸ *Ibid.*

Other artists also support the new possibilities posed by the Internet because they view it as an escape from the tyranny of the recording industry. Courtney Love assesses the situation as follows:

“Somewhere along the way, record companies figured out that it’s a lot more profitable to control the distribution system than it is to nurture artists. And since the companies don’t have any real competition, artists had no other place to go. Record companies controlled the promotion and marketing; only they had the ability to get lots of radio play, and get records into all the big chain stores. That power put them above both the artists and the audience.”²⁹

Musicians are often forced to sign stingy deals with record companies if they want to break into the business. Because few musicians initially have the funds to produce, manufacture, market, or distribute their music, signing a deal with a label is virtually a necessity. These deals can later severely shortchange the artist, with the record company reaping the bulk of the profits. For example, the female rap group TLC declared bankruptcy after they received less than 2% of the \$175 million grossed by their hit CD. The amount they received was about 40 times less than the profit that was divided among their management, production, and record companies.³⁰ Toni Braxton faced a similar situation in 1998, declaring bankruptcy even after she sold \$188 million worth of CDs. Her contract gave her less than 35 cents per album. And while those artists who succeed in the music business might make money from their albums, there are very few successful musicians. Of the 32,000 albums released each year, only 250 sell more than 10,000 copies, and less than 30 of those go platinum.³¹

For these artists, the Internet may eliminate the need for the companies they view as exploiters. “Being the gatekeeper was the most profitable place to be, but now we’re in

²⁹ Love, “Courtney Love Does the Math.”

³⁰ *Ibid.*

a world half without gates.”³² While they may not want to give away their music for free, they understand the possibilities presented to them in the form of distribution via the Internet. To these artists, technology may be the way to escape a system where artists’ interests are barely served, a system in which the recording industry profits by taking advantage of artists.

Regardless of their more general views on digital music, most mainstream musicians are understandably set staunchly against music piracy. These artists have been among the most outspoken who have come out against Napster. The most notable of these musicians is the heavy metal group Metallica. Metallica has played an important role in the Napster case, actively lobbying for Napster’s shutdown. The group filed suit against Napster, said drummer Lars Ulrich, “to put Napster out of business.”³³ Ulrich appeared before the Senate Judiciary Committee in July 2000 to testify that digital music piracy takes money directly out of artists’ pockets.³⁴ At one point last year, Ulrich, accompanied by his lawyer and some friends, drove over to the Napster headquarters with 13 boxes, each filled with papers listing the user names of 335,435 members of Napster who had allegedly traded Metallica songs over the course of one weekend. Ulrich encountered protesters, and the following exchange ensued:

“It’s not about our bank accounts, it’s about the thousands and thousands of artists out there who aren’t fortunate enough to have the—“

“Radio is free! What about radio?”

“We have the right to control our music!”

³¹ *Ibid.*

³² *Ibid.*

³³ Charles C. Mann, “The Heavenly Jukebox,” *The Atlantic Monthly*, September 2000, p. 1.

³⁴ Notes from Senate Judiciary Committee hearing on Napster and digital music, July 12, 2000, Washington DC.

“Fu** you, Lars. It’s our music, too.”³⁵

While Metallica may be suffering the brunt of the wrath of angry listeners, they are far from alone in believing that musicians’ livings will soon be jeopardized by the very fans that made them a success. Scott Sapp, lead singer of the rock band Creed, said:

“It has been taboo for artists to speak out concerning the business side of their music. The fear has been that the buying public, as well as other artists, would perceive this concern as greed, and that the artists’ sole purpose for creating was the money. This perception has silenced many artists about MP3 and Napster. The silence must end.”³⁶

Many artists still believe that MP3s are benign promotional tools, and are shocked and outraged when they realize the extent of the piracy occurring on Napster.

Even artists who have embraced the Internet for distributing their music are still vehemently against Napster. Singer-songwriter Jonatha Brooke released an album exclusively online in December 1998 after roaming the major label system with no success. “I spent \$15,000 on my Web site. I paid a publicist for a year and a half out of my own pocket. And now some kid’s going to tell me my catalog should be free?”³⁷

While proponents of free exchange argue that access to more music will in fact boost sales or will increase profits by encouraging better attendance at concerts, neither of these arguments has been proven to be definitively true. Statistics have neither proven nor disproven the first count to be true. Kristen Hersh, solo artist and founding member of the band Throwing Muses, answers the second count negatively: “Those people have no idea how the music business works. Because unless you’re Alanis Morissette or Dave

³⁵ Mann, “The Heavenly Jukebox,” p. 3.

³⁶ Boehlert, “Artists to Napster: Drop Dead!” p. 2.

³⁷ *Ibid.*

Matthews, you're not making money on the road. It's all I can do to break even on tour. And the only reason to tour is to promote the sale of my CD."³⁸

Musicians who are opposed to Napster are not necessarily supportive of the recording industry. However, they view the recording industry as only a partial exploitation, while Napster is a blatant rip-off. "Artists are already at war with corporate mentality at record labels. They piss on us on a daily basis. But to add Napster's blatant music piracy to the battle is unbelievable," said Ron Stone, who manages artists such as Tracy Chapman and Ziggy Marley. "And it turns out Napster is no better than the record companies. In fact they're worse, because they're offering nothing and taking everything."³⁹

While opinions regarding Napster vary drastically among artists, some aspects of digital music are widely agreed upon. One is that the potential brought forth by the digital distribution of music is huge. Artists and the recording industry alike are scrambling to harness the technology to enable a business model that would distribute digital music online. Another aspect is that artists need to be compensated for their creative work. Without compensation, the traditional incentive system balanced by copyright law in the analog environment will fall apart in the digital environment. "I know people using Napster are chuckling about kicking big, bad record labels," said Jonatha Brooke. "But as evil as the record companies may be, at least they're paying for your recording budget, and at least they're promoting you, and paying for tour support."⁴⁰ No artist wants to be "robbed;" the disagreement arises over what arrangement of artists, users and recording industry will preserve the goals of copyright law while not stifling access to music. The

³⁸ *Ibid.*

³⁹ *Ibid.*

future of the recording industry is unknown, but it is obvious that the recent advances in technology have called into question the sufficiency of existing copyright law and the existing system of music.

⁴⁰ *Ibid.*

CHAPTER 2

Legal Framework

COPYRIGHT LAW: HISTORY and OVERVIEW

U.S. copyright law finds its origins in the Statute of Anne, which established the protection of books in England in 1710.⁴¹ The English government implemented this law to establish protections from the copying of books by unauthorized publishers, and to develop a system under which a consumer could complain about an unreasonably high book price and seek to have it lowered. The law addressed many issues that still play a key role in modern copyright law: protecting an author or creator's interest in his intellectual property, establishing ownership, and creating a system of financial reward to encourage innovation.⁴²

Copyright is usually regarded as intellectual property.⁴³ Copyright owners, like other property owners, must depend upon laws to protect their property. Copyright law was written into the Constitution, granting Congress the power "to promote the Progress of Science and the useful Arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."⁴⁴ The principle that lies at

⁴¹ John Garon, "Media and Monopoly in the Information Age: Slowing the Convergence at the Marketplace of Ideas," *Cardozo Arts and Entertainment Law Journal* 17 (1999), p. 493.

⁴² Garon, "Media and Monopoly in the Information Age: Slowing the Convergence at the Marketplace of Ideas," p. 493.

⁴³ Hill, "Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet," p. 321.

⁴⁴ U.S. Constitution, Article I, Section 8, clause 8.

the heart of copyright law is maximizing creativity for the benefit of the public. Achieving a balance of rights between users and creators is perceived as integral to fostering the dissemination of creative works. The key is to provide enough exclusive rights to serve as incentive for continued inventiveness and productivity, while crafting those rights so they do not provide absolute control over works.

Congress must decide how broad creators' rights ought to be. Though the copyright term limit is the only limitation expressly stated in the law, Congress has also "limited" copyrights by providing for exemptions for certain uses of works. While rights are granted in order to provide incentives and stimulus for authors and inventors, a model that provides authors with too broad a monopoly over their works will end up undermining the economic and creative growth pursued by copyright law. The Supreme Court recognized the importance of these limitations in *Sony Corp. v. Universal City Studios, Inc.*, stating,

"The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired."⁴⁵

Copyright legislation from 1790 through the 1909 Copyright Act pursued the goal of expanding the public domain at a rapid pace. Rights were only granted to the author if the author pursued them under the limitations of the statute. This was based on the idea that not all works needed federal protection, and that the author would only pursue copyright for those works she deemed worthy of protection. Additionally, those works

⁴⁵ *Sony Corp. of America v. Universal Studios, Inc.*, 464 U.S. 417 (1984).

would only be copyrighted for a short period of time unless the author or inventor pursued renewal.⁴⁶

The boundaries of copyrights would be drastically enlarged with the Copyright Act of 1976 and the United States' entry into the Berne Convention in 1988.⁴⁷ Copyright law has been expanded so that an author's work is protected upon creation, regardless of the author's actions, and copyright terms now run for the duration of a creator's life, with further opportunities for renewal. The Copyright Act of 1976 attempted to codify the pursued balance between authors and users. It granted certain exclusive rights to authors of original works, including the right to: reproduce such works, to prepare derivative works, to distribute copies or phonorecords, and to perform or display the works publicly.⁴⁸ The Berne Convention required the U.S. to adopt minimum standards of protection as set out in the Convention in order to gain admission to Berne, forcing the U.S. to eliminate its use of formalities as a basis for establishing copyright protection. The result was a system in which virtually all barriers to copyright protection were removed.⁴⁹ Thus, "instead of the Copyright Clause and the First Amendment working together to provide a balanced approach to speaker and listener (or author and public), the new copyright regimen radically altered the balance in favor of the speaker."⁵⁰

Though developments in copyright law may have resulted in stronger rights for the copyright holder, the balance between users and creators remains a central concern in

⁴⁶ Garon, "Media and Monopoly in the Information Age: Slowing the Convergence at the Marketplace of Ideas," p. 514.

⁴⁷ *Ibid.*

⁴⁸ Title 17 U.S.C. Section 106; Hill, n. 63.

⁴⁹ Garon, "Media and Monopoly in the Information Age: Slowing the Convergence at the Marketplace of Ideas," p. 515.

⁵⁰ *Ibid.* p. 517.

drafting and interpreting new legislation. This goal is perpetuated by courts in their interpretations of copyright law. In *Sony*, the Court said,

“Creative work is to be encouraged and rewarded, but private motivation must ultimately serve the cause of promoting broad public availability of literature, music, and other arts. The immediate effect of our copyright law is to secure a fair return for an author’s creative labor. But the ultimate aim is by this incentive, to stimulate artistic creativity for the general public good.”⁵¹

FAIR USE

Though copyrights have been strengthened over the past century, users’ interests were also given more attention. The fair use doctrine exists as an explicit example of Congress’s attempt to maintain the underlying balance of copyright law. The fair use doctrine originated through judicial interpretation, and was not codified until the Copyright Act of 1976.⁵²

Fair use in the Act of 1976 is defined as follows:

“Notwithstanding the provisions of sections 106 and 106a, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, new reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include:

- 1) the purpose and character of the use, including whether such use is of 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

⁵¹ *Sony Corp. of America v. Universal Studios, Inc.*, 464 U.S. 417 (1984).

⁵² Hill, “Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet,” p. 323.

copyrighted work.⁵³

This four-pronged test is necessarily vague, as Congress merely codified the judicial doctrine that had been developed at that time, attempting neither to narrow nor broaden the criteria for fair use. The haziness of its legislative outline has led courts to apply the fair use doctrine on a case-by-case basis.

Modern fair use is usually an affirmative defense for infringement in two significant areas, which are 1) private noncommercial copying, and 2) copyrighted material that contains information of public interest.⁵⁴ The public interest component is prominent, and is closely tied to the First Amendment protection of free speech. The underlying purpose of free speech is to enable a flourishing marketplace of ideas—that is, the public should have access to a virtually unlimited pool of ideas. For example, uses of copyrighted works for purposes of criticism or review are protected to enable a variety of perspectives to become accessible to the public. Courts have also favorably applied the fair use doctrine in cases where the use of the copyrighted work was minimal, or where the allegedly infringing work results in an entirely new product even while it incorporates some portion of the protected work.⁵⁵ Fair use is most strongly protected in instances where the use of the copyrighted work results in achieving some educational goal, and is less protected for works that are defined as entertainment.

⁵³ Title 17 U.S.C. Section 107.

⁵⁴ Ruth Okedji, “Givers, Takers, and Other Kinds of Users: A Fair Use Doctrine for Cyberspace,” *Florida Law Review* 53 (January 2001), p. 127.

COPYRIGHT LAW and MUSIC

There are two copyrights implicated in every piece of prerecorded music. One is the copyright for the sound recording, that is, the recording of the actual performance of the song; the other is the copyright for the musical work that underlies the song. For example, Bob Dylan composed “Tangled Up in Blue” and also made several recordings of the song for various albums. Thus, Dylan owns the copyright for the underlying musical work, as well as the sound recording copyrights for the songs he has recorded. The Indigo Girls also recorded a cover of “Tangled up in Blue,” thus they own the sound recording copyright for their particular version. Anyone wanting to use their version would have to obtain licenses from both the Indigo Girls and Dylan for the sound recording and musical work, respectively.

Copyright law affords a bundle of rights to copyright owners. Included in the bundle are the rights:

- 1) to publicly perform the copyrighted work;
- 2) to publicly display the copyrighted work;
- 3) to reproduce the copyrighted work in copies or phonorecords;
- 4) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental lease, or lending;
- 5) to publish the copyrighted work (publication refers to the specific distribution of a work to the public);

⁵⁵ *Ibid.* p. 132.

- 6) in the case of sound recordings, to transmit the copyrighted work by means of a digital audio transmission.⁵⁶

The right to perform the copyrighted work is reserved for public performances; it does not extend to private performances. For example, playing a CD at home for family members is a private performance, and thus would not require a license. The term “copy” refers to “a material object from which a work can be read or visually perceived either directly or with the aid of a machine or device.”⁵⁷ “Phonorecord” refers to “a material object that embodies fixations of sounds... such as audio tapes, phonograph records, and compact audio disks.”⁵⁸ Note that both “copy” and “phonorecord” refer to material fixations of the music, while reproduction refers to the act of fixation into material objects.

The term “distribution” is traditionally understood as the changing of possession of tangible copies of a work. Distribution rights extend only to public distributions, and are limited by the first-sale doctrine, which states:

“Notwithstanding the provisions of section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.”⁵⁹

However, the first-sale doctrine does not apply to an illegal music recording.⁶⁰ For example, the first-sale doctrine would permit someone to purchase a song in digital format and then give that copy away or sell it. But the doctrine would not allow such a

⁵⁶ Title 17, U.S.C. Section 106. Also, see Al Kohn and Bob Kohn, *Kohn on Music Licensing*. Englewood Cliffs, NJ : Aspen Law & Business, 1996, Chapter 22 for a more in depth review.

⁵⁷ Title 17 U.S.C. Section 101.

⁵⁸ Title 17 U.S.C. Section 102.

⁵⁹ Title 17 U.S.C. Section 109a.

⁶⁰ Kohn and Kohn, *Kohn on Music Licensing*, p. 1197.

transfer to take place if the song were pirated, or if the original owner kept a copy of the file on his computer.⁶¹

Transmission differs from both distribution and publication. “To transmit a performance or display is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent.”⁶² While both distribute and publish refer to a material possession changing hands, transmission refers to the communication of a work.

The rights afforded under the Copyright Act are exclusive only to some extent. The major exemption is uses of copyrighted works that fall under fair use, as discussed above. While in most cases not involving fair use the copyright owner is free to choose the terms of licenses for her work, or whether to license the work at all, Congress has limited the exclusive rights of copyright holders by providing compulsory licensing schemes in certain instances. A compulsory license is a statutorily mandated license that permits use of the copyrighted work in exchange for fees determined by law. If a licensee is eligible for the compulsory license, then the right holder cannot deny the license, nor can he collect more than the predetermined fee. For example, Congress established compulsory licenses for musical works to prevent a monopoly over song recordings.⁶³ Section 115 of the Copyright Act mandates that the owner of the copyright for a musical work must grant licenses to “make and distribute phonorecords of the work,” so long as

⁶¹ Coats, Freeman, Given and Rafter, “Symposium: Legal and Business Issues in the Digital Distribution of Music: Streaming into the Future: Music and Video Online,” p. 295.

⁶² Title 17 U.S.C. Section 101.

⁶³ Mary Jane Frisby, “Rockin’ Down the Highway: Forging a Path for the Lawful Use of MP3 Digital Music Files,” *Indiana Law Review* 33 (1999), p. 327.

the musical work has been published and distributed at least once.⁶⁴ Compulsory licenses with regards to sound recordings will be discussed later in the chapter.

RECENT DEVELOPMENTS

Changes in copyright law are most often brought about by changes in technology that alter the copyright status quo. The following sections describe recent amendments to the Copyright Act that exhibit this trend, and will bring the reader up to date on current copyright laws affecting digital music.

The Audio Home Recording Act of 1992

The conception of the Audio Home Recording Act (AHRA) began with the landmark fair use case of 1984, *Sony Corp. of America v. Universal Studios, Inc.* The plaintiffs, Universal Studios, Inc., sued for monetary damages and an injunction against further production of Sony's home Betamax video tape recorder (VTR).⁶⁵ The plaintiff argued that Sony was liable for contributory infringement because individuals had used the Betamax VTR to record materials copyrighted by Universal and Disney. The Supreme Court ruled for Sony, finding that uses of the Sony VTR were primarily nonprofit and noncommercial. The Court, focusing on the concept of "time-shifting," found that making a personal recording for home use was protected under the fair use doctrine.⁶⁶ Time-shifting was defined by the Court as taping a program during its broadcast and then viewing it at a later time. The Court also determined that time-shifting

⁶⁴ Title 17 U.S.C. Section 115 a(1).

⁶⁵ Allemann, "Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under the Recording Industry Association of America v. Diamond Multimedia Systems, Inc.," p. 193.

did not result in substantial financial harm to the potential market for copyrighted works. One key fact that affected this decision was that videotapes were quite expensive, thus making it unlikely that an individual would archive or repeatedly view taped programs.⁶⁷

The AHRA arose in answer to the development of the digital audio tape (DAT). DAT recorders allow users to make perfect digital copies of compact discs and other recording media.⁶⁸ DATs use digital tapes instead of analog tapes, allowing copies of perfect sound quality to be made no matter how many generations of copies are made.⁶⁹ Most people who made copies of music were found to do so for “place-shifting” purposes, that is, someone might make a copy of a record he had purchased for use in his car.⁷⁰ This trend suggested a close parallel to the home video recordings addressed in *Sony*, however, DATs involve musical content. Musical recordings are collected into personal libraries and listened to repeatedly, unlike television programs that are generally only viewed once.⁷¹ The RIAA protested the emergence of DATs on the market, claiming that DATs would inhibit creativity by making it possible to have multiple unauthorized copies, thereby cutting into artists’ profits. The recording industry then brought suit against Sony once again, but the case ended in a settlement whose negotiations would serve as the framework for the AHRA. The AHRA was drafted and passed as an attempt to appease the recording industry while simultaneously protecting the interests of artists and users.

⁶⁶ See *Sony Corp. of America v. Universal Studios, Inc.*, 464 U.S. 417 (1984), p. 447-455.

⁶⁷ Allemann, “Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under Recording Industry Association of America v. Diamond Multimedia Systems, Inc.” n. 35.

⁶⁸ Schulman, “The Song Heard ‘Round the World: The Copyright Implications of MP3s and the Future of Digital Music,” p. 606.

⁶⁹ Wendy Pollack, “Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium,” *Fordham Law Review* 68 (May 2000), p. 2461.

⁷⁰ See “Copyright and Home Copying,” Office of Technological Assessment 1989, p. 146.

The AHRA applies to digital audio recording devices, digital audio interface devices, digital recording media, and digital musical recordings.⁷² Notably exempted from coverage are professional devices, dictation machines, and other recording devices whose primary purposes are the recording of non-musical sounds.

One of the primary goals of the AHRA was to encourage the development of new recording technologies and ensure their availability to the public. The AHRA attempted to address the interests of all parties involved by attempting to prevent serial copying, providing compensation to copyright holders, and protecting consumers from liability when copying copyrighted materials for home use. First, the Act specifically mandates that no suit of infringement 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 music recordings.”⁷³

This mandate is important because it establishes a user’s right to make a personal, noncommercial copy of digital music.

Second, the Act required that each DAT device manufactured from then on incorporated a copy control mechanism, the Serial Copy Management System (SCMS).⁷⁴ This requirement was drafted in answer to the recording industry’s concern about digital recording technology’s ability to make limitless copies of copies. The SCMS is a mechanism by which devices are prohibited from making “second-generation” copies

⁷¹ Schulman, “The Song Heard ‘Round the World: The Copyright Implications of MP3s and the Future of Digital Music,” p. 606.

⁷² See Title 17 U.S.C. Section 1001.

⁷³ Title 17 U.S.C. Section 1008.

⁷⁴ Kelly, “The MP3 Challenge: Has Congress Effectively Shielded the Music Industry from Internet Copyright Piracy?” p. 173.

from “first-generation” copies. In other words, DAT recorders with SCMS are not capable of making copies of copies. Though the number of copies able to be made from an original is still unlimited, this section of the legislation greatly reduced the possibility of exponential unauthorized copying.

Finally, because the requirement of SCMS does not completely eliminate the possibility of making many unauthorized copies, the AHRA also requires that a blanket royalty be paid to the recording industry. The royalty is paid for the importation and distribution or manufacture and distribution of any digital audio recording device or medium in the U.S.⁷⁵ The royalty payment on each digital audio recording device is two percent of the transfer price, with one dollar and eight dollars being the minimum and maximum payments per unit, respectively.⁷⁶ Digital audio recording media (e.g. DATs) are subject to a royalty of three percent of the transfer price.⁷⁷ These fees are then collected into two funds for sound recordings and musical works.⁷⁸ Of the 66.66% of the royalty payments allocated for the sound recordings fund, featured artists are entitled to 40% while copyright holders are entitled to 60%. The remaining 33.33% of total royalty payments is allocated for the musical works fund, to which copyright owners for musical works are entitled.⁷⁹

While the AHRA was effective in striking a balance of interests between all parties involved, it contained one loophole that would make it largely ineffective against

⁷⁵ Allemann, “Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*,” p. 195.

⁷⁶ See Title 17 U.S.C. Section 1004 a(1)-a(3). Only the first person to manufacture or import a digital recording device is required to pay the royalty.

⁷⁷ See Title 17 U.S.C. Section 1004.

⁷⁸ Schulman, “The Song Heard ‘Round the World: The Copyright Implications of MP3s and the Future of Digital Music,” p. 612.

⁷⁹ Title 17 U.S.C. Section 1006 a-b.

what would become the most popular form of digital music. The AHRA defines a digital audio recording device as:

“any machine or device of a type commonly distributed to individuals for use by individuals, whether or not included with or as part of some other machine or device, the digital recording function of which is *designed or marketed for the primary purpose of, and that is capable of, making a digital audio copied recording for private use*” (emphasis added).⁸⁰

A digital audio copied recording is defined as “a reproduction in digital recording format of a digital music recording, whether that reproduction is made directly from another digital musical recording or indirectly from a transmission.”⁸¹ Finally, a digital musical recording is defined as:

“a material object i) in which are fixed, in a digital recording format, only sounds, and material, statements, or instructions incidental to those fixed sounds, in any, and ii) from which the sounds and materials can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”

A brief look at the recent case of *Recording Industry of Association of America v. Diamond Multimedia Systems, Inc.* illustrates how these definitions would become hotly contested when attempting to apply them to computers and MP3s. Diamond Multimedia Systems developed, manufactured, and distributed the Rio PMP300, a portable MP3 player. Owners of the Rio could transfer MP3 files from a computer to the player using special software.⁸² The player could then be taken anywhere, eliminating the need to be confined to a computer to listen to MP3s. The Rio was marketed with Rio Manager, software, which allowed users to receive digital audio files from a computer, and MusicMatch JukeBox Software, which enabled a user to convert music tracks from CDs

⁸⁰ Title 17 U.S.C. Section 1001 (3).

⁸¹ Title 17 U.S.C. Section 1001 (4).

⁸² Ines G. Gonzales, “Recording Industry Association of America v. Diamond Multimedia Systems, Inc.,” *Berkeley Technology Law Journal* 15 (2000), p. 73.

to MP3 format for personal use on the player. It is important to note that the Rio's only output is in the form of the analog musical signal sent to the user over headphones. It does not have the capacity to make any copies of files it stores, or to transfer or upload those files to any other destination.⁸³

The RIAA brought suit to preliminarily enjoin the manufacture and distribution of the Rio, claiming that the Rio did not comply with the AHRA because it did not have SCMS. Diamond argued that Rio was in fact not a digital audio recording device because it copies files from a computer hard drive, which cannot serve as a source for a digital musical recording.⁸⁴ The court rejected RIAA's request, asserting that although the Rio was probably a digital audio recording device, it could not make serial copies so the presence of SCMS would make no difference. The RIAA appealed the district court's decision, and the Ninth Circuit then determined that the Rio did not qualify as a digital audio recording device. The Court stated that songs on computer hard drives are not digital musical recordings because hard drives contain various software programs not incidental to any "fixed sound" present in an MP3.⁸⁵ Therefore, the Rio could not be a digital audio recording device because it did not make copies of digital musical recordings.⁸⁶ The court also maintained that its ruling was consistent with the underlying purpose of the AHRA—"the facilitation of personal use."⁸⁷ The court further noted that devices like the Rio "space-shift" already existing files, analogous to the time-shifting

⁸³ *Ibid.* p. 74.

⁸⁴ *Ibid.* p. 75.

⁸⁵ Allemann, "Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under Recording Industry Association of America v. Diamond Multimedia Systems, Inc.," p. 211.

⁸⁶ *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*, 49 U.S.P.Q. 2D (BNA) 1024 (1998).

⁸⁷ *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*, 51 U.S.P.Q. 2D (BNA) 1115 (1999).

identified in *Sony*. The court concluded that this sort of copying was “paradigmatic noncommercial personal use entirely consistent with the purposes of the Act.”⁸⁸

While the AHRA sought to compensate music copyright holders for digital music piracy, it exempted personal computers from this attempt. Personal computers are exempt because 1) it is not their “primary purpose” to make digital audio copied recordings, and 2) their hard drives, where digital audio recordings reside, also contain other materials which are unrelated to those recordings.⁸⁹ The AHRA in fact did little to address the future culprit of digital music piracy—the Internet and personal computers.

The Digital Performance Right in Sound Recordings Act of 1995

The Digital Performance Right in Sound Recordings Act (DPRA) further addressed the problem of digital music piracy. Prior to the passage of this act, performance rights were not included in the bundle of rights assigned to copyright owners of sound recordings. This explains why radio stations must obtain licenses for use of the musical compositions of songs played, but not for the use of the sound recording (although owners of copyrights for sound recordings still benefit through increased record sales resulting from radio exposure). Congress would address this anomaly with the DPRA, but not by merely extending the public performance right to all sound recordings—instead it chose to limit the public performance right to the domain of “digital audio transmissions.” The Copyright Office had issued recommendations for establishing a performance right for sound recordings as early as 1978, however further

⁸⁸ See *Recording Industry Association of America v. Diamond Multimedia Systems, Inc.*, 49 U.S.P.Q.2D (BNA) 1024 (1998), 1079.

⁸⁹ Hepler, “Dropping Slugs in the Celestial Jukebox: Congressional Enabling of Digital Music Piracy Short-Changes Copyright Holders,” p. 1182.

action was repeatedly blocked by broadcasters.⁹⁰ With the emergence of digital transmission technology, support for sound recording performance rights grew, and broadcasters and copyright owners compromised in what would become the DPRA. Congress reasoned that copyright law at that time was inadequate to address the issues raised by the new method of distribution and that without copyright protection in the digital environment, artists would not have incentive to continue creating new sound recordings.⁹¹ This diminished incentive would “ultimately [deny] the public some of the potential benefits of the new digital transmission technologies.”⁹² Congress focused on digital transmission technology and interactive services due to the threat they posed to music sales and copyright holders.⁹³

The amendment was drafted very specifically so that the new sound recording right would have no effect on the original five rights established in the Copyright Act of 1976.⁹⁴ In simplified terms, the statute considers three different categories of digital transmissions: nonsubscription digital services, subscription digital services, and interactive digital services. Nonsubscription services, such as a free, public web broadcasts, were exempted from paying any royalties, as they function similarly to traditional radio stations; since users cannot request specific songs, there is less chance

⁹⁰ Steven M. Marks, “Entering the Sound Recording Performance Right Labyrinth: Defining Interactive Services and the Broadcast Exemption,” *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), p. 311.

⁹¹ Jessica Trivellini Toney, “You’ve Got Mud On Your Face: Have MP3s Turned the Middleman Into Roadkill?” *Hastings Communications and Entertainment Law Journal* 22 (Fall 1999), p. 132.

⁹² *Ibid.*

⁹³ Schulman, “The Song Heard ‘Round the World: The Copyright Implications of MP3s and the Future of Digital Music,” p. 631.

⁹⁴ David Nimmer, “Ignoring the Public, Part I: On the Absurd Complexity of the Digital Audio Transmission Right,” *UCLA Entertainment Law Review* 7 (Spring 2000), p. 199.

that any copying will occur.⁹⁵ Subscription services, in which only those who pay the subscription fee receive a signal, were subjected to a statutory, compulsory licensing scheme. The scheme presented in the DPRA requires the copyright holder to grant a license so long as the service is not interactive, does not inform subscribers of upcoming songs, and does not perform albums in their entirety or perform a significant number of selections from one artist or album over a short period of time.⁹⁶ The terms of the license are set by statute. Interactive digital services are not eligible for the compulsory licensing scheme; instead they are subject to voluntary licensing with a statutory duration limitation. Interactive services pose the biggest threat to music sales by allowing users to pick and choose content, thus increasing the possibility that unauthorized copying will occur. Due to this threat, copyright holders are free to set the terms of voluntary licenses for their sound recordings. The duration limitation limits the length of an exclusive license of a sound recording to twelve or twenty-four months. This restriction was implemented in order to prevent companies from having a monopoly over the digital distribution of musical works.⁹⁷

The DPRA worked to address the concerns of copyright holders as well as artists. The Act included a provision dictating allocation of receipts from compulsory licenses. Under this provision, 45% of the total receipts is designated for the featured artist of the sound recording on a per sound recording basis. The copyright holder receives 50% of the payment, while the remaining 5% goes to nonfeatured artists (backup musicians, etc.).

⁹⁵ Pollack, "Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium," p. 2454.

⁹⁶ Title 17 U.S.C. Section 115.

⁹⁷ Schulman, "The Song Heard 'Round the World: The Copyright Implications of MP3s and the Future of Digital Music," p. 633.

Voluntary licenses, which apply mainly to interactive services, are not subject to any set allocation of fees.

The DPRA placed emphasis on the infringing role of content providers rather than actual direct infringers. The Act recognizes the difficulties inherent in attempting to track down individual users of the Internet, and also recognizes that the solution to digital music piracy is better pursued through targeting sources of infringing material rather than consumers. This represents an important shift in copyright from emphasis on the actual status of copyright on the consumer's end towards a system where policing copyrights is possible.⁹⁸

Finally, the DPRA broadened the Copyright Act's existing compulsory mechanical license provision to include the reproduction and delivery of phonorecords of musical works by digital transmission.⁹⁹ As mentioned above, a copyright owner of a musical work has the exclusive right to reproduce the song in copies and phonorecords. The DPRA broadened this right so that it also applies to downloadable files (referred to in the act as "digital phonorecord deliveries").¹⁰⁰

The Digital Millennium Copyright Act of 1998

Enacted in October of 1998, the Digital Millennium Copyright Act (DMCA) was an attempt to bring existing copyright law up to date with the explosion of new digital technologies. Title I of the DMCA implemented two World Intellectual Property Organization (WIPO) treaties, the WIPO Copyright Treaty and the WIPO Performance

⁹⁸ *Ibid.* p. 634.

⁹⁹ Bob Kohn, "A Primer on the Law of Webcasting and Digital Music Delivery," October 1998, <http://www.kohnmusic.com/articles/newprimer.html> (3/7/01), p.4.

¹⁰⁰ *Ibid.* p. 5.

and Phonograms Treaty.¹⁰¹ The treaties strengthened copyright protection for works published online, and provide protection for U.S. works abroad. The main goal of the treaties was to ensure that each member country provides for the protection of copyrights held lawfully in other member countries.¹⁰² Title I added a new chapter to Title 17 of the U.S. Code, prohibiting the circumvention of technological measures that control access to a copyrighted digital work.¹⁰³ This prohibition covers the use, manufacturing, distribution, and offering of circumvention tools and methods, as long as the tools a) are primarily designed for circumvention, b) have limited commercial use beyond circumvention, or c) are marketed for purposes of circumvention.¹⁰⁴ Title I also makes an important distinction between unauthorized access and unauthorized copying: the Act supposedly allows the circumvention of measures that prevent unauthorized copying of copyrighted works in order to allow copying that would be justified as fair use. However, it is not certain that this will in fact protect fair use copying; in the future, most rights holders will probably opt to protect their works by placing them in some sort of digital envelope, thus denying access to the work. If access is already denied, no copying would be allowed to take place regardless of whether such copying qualified as fair use. However, the anti-circumvention provisions do have a few narrow exceptions. The prohibitions do not apply to non-profit libraries, security testing, law enforcement,

¹⁰¹ Jennifer Burke Sylva, "Symposium: Legal and Business Issues in the Digital Distribution of Music: Digital Delivery and Distribution of Music and Other Media: Recent Trends in Copyright Law; Relevant Technologies; and Emerging Business Models," *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), p. 223.

¹⁰² Hepler, "Dropping Slugs in the Celestial Jukebox: Congressional Enabling of Digital Music Piracy Short-Changes Copyright Holders," p. 1187.

¹⁰³ Pollack, "Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium," p. 2463.

¹⁰⁴ *Ibid.*

reverse engineering, or encryption research.¹⁰⁵ Title I also provides for stiff civil and criminal penalties for willful infringers, setting serious legal consequences in order to protect the success of future anti-circumvention technologies.¹⁰⁶ The DMCA also protects copyright management information (CMI) by prohibiting the removal or change of information identifying the work, copyright owner, author, and terms and conditions for uses of that work.¹⁰⁷

Title II of the DMCA creates four limitations on liability for copyright infringement for online service providers. Under the Online Copyright Infringement Liability Limitation Act (OCILLA) of the Digital Millennium Copyright Act (DMCA), online service providers (OSPs)¹⁰⁸ are defined in two ways. With regards to transitory communication, an OSP is defined as "...an entity offering the transmission, routing, or providing of connections for digital online communications, between or among points specified by a user, or material of the user's choosing, without modification to the content of the material as sent or received."¹⁰⁹ With regard to other provisions of the statute, the term service provider means "...a provider of online services or network access, or the operator of facilities therefor..."¹¹⁰ Prior to the passage of the Act, OSPs could be found liable for direct or contributory copyright infringement, even if their users' activities were unknown to the OSPs.

Title II creates several safe harbors for OSPs under which they can decrease their liability for infringing activities of which they are unaware. The OCILLA basically

¹⁰⁵ Kelly, "The MP3 Challenge: Has Congress Effectively Shielded the Music Industry from Internet Copyright Piracy?", p. 178.

¹⁰⁶ Schulman, "The Song Heard 'Round the World: The Copyright Implications of MP3s and the Future of Digital Music," p. 640.

¹⁰⁷ See Section 1202 of U.S. Congress, Digital Millennium Copyright Act, October 28, 1998.

¹⁰⁸ OSPs are also frequently referred to as Internet service providers (ISPs) or Internet access providers.

¹⁰⁹ U.S. Congress, Digital Millennium Copyright Act, Title II, October 28, 1998, p. 28.

exempts qualifying OSPs from monetary liability for infringing material that is passed through their systems without their knowledge. Title II offers exemptions for four types of activities: transmitting information, system caching, storing information on systems or networks at the direction of users, and using information location tools. There are two overall requirements with which an OSP must comply in order to be considered for any of the limitations: first, the OSP must adopt and implement some sort of policy which informs its subscribers that their accounts will be terminated if repeat infringement occurs, and second, the OSP must also not interfere with standard technical measures used by rights-holders to identify or protect copyrighted works that meet the requirements of the statute.

Two of the liability limitations are of special relevance to digital music distribution. First, the Act limits the liability of Internet sites that provide information location tools. “Location tools” covers search engines and Internet directories that may have links to sites carrying infringing material. This provision is in the interest of OSPs because of the virtual impossibility of establishing the copyright legitimacy of every single link or site. Title II will provide a safe harbor for OSPs who provide information location tools, as long as the OSP: a) does not have actual knowledge that the links provided lead to infringing material, or is not aware of facts or circumstances from which such infringement is apparent, b) does not receive any financial benefit directly related to the infringing material, and c) upon being notified of the existence of links to infringing material, responds quickly to disable or remove access to the infringing material.¹¹¹

¹¹⁰ U.S. Congress, Digital Millennium Copyright Act, Title II, October 28, 1998, p. 28.

¹¹¹ See Digital Millennium Copyright Act, Section 512 d(3).

Second, a liability limitation is provided for information residing on the system of the service provider at the direction of users. For example, this might cover a web-page-hosting site that had a site containing illegal MP3s. The service provider would have to comply with the same three qualifications above, and would have to establish a designated agent who is responsible for receiving and addressing claims of infringement.

Title IV of the DMCA amended the exemptions from licensing outlined under the DPRA. The amendments to the DPRA arose over confusion about webcasting, which allows music to be streamed in real time over the Internet. Webcasting did not fit clearly into the DPRA, so copyright holders lobbied Congress to amend the law to cover such services. Where the DPRA exempted from licensing all digital audio transmissions that were neither subscription nor interactive, the DMCA changed the provisions to extend the statutory licensing scheme to “certain eligible nonsubscription transmissions.”¹¹² The law was drawn more restrictively so that most non-interactive, nonsubscription services apart from digital broadcasts were no longer eligible for the exemption. Broadcast transmission was defined narrowly as a transmission “made by a terrestrial broadcast station licensed as such by the Federal Communications Commission.” Services among those not eligible for the exemption were eligible for compulsory licensing if their main focus was on music. Other nonsubscription, noninteractive services that were neither eligible for compulsory license nor eligible for exemption were to be regulated under the voluntary licensing scheme. The DMCA maintained that interactive services would be subject to voluntary licensing, but redefined “interactive services.” The definition now states:

¹¹² Title 17 U.S.C. Section 114.

“An ‘interactive service’ is one that enables a member of the public to receive a transmission of a program specially created for the recipient, or on request, a transmission of a particular sound recording, whether or not as part of a program, which is selected by or on behalf of the recipient.”¹¹³

CONCLUSION

Recent amendments to copyright law have strengthened copyrights in the face of technology that threatens to weaken the existing system. Each of the discussed amendments to existing copyright law sought to address the fears and concerns of copyright holders. Yet MP3 technology and Internet distribution, the current sources of the rights holders’ worries seem to have only an uneasy fit in copyright legislation.

One trend exhibited by new legislation is a movement away from targeting actual individual infringers. This trend reflects the knowledge that the Internet is too big and too anonymous to be effectively policed in such a manner. Instead, the legal focus was shifted away from those in possession of infringing material to those who are the sources of, or facilitate access to infringing material. Recent law has kept an eye to a future in which technology will enable rights holders to protect their works under lock and key, but has addressed the issue of inevitable piracy by establishing more blanket royalties and licensing systems.

Many critics of recent law claim that it has been too closely tailored to new technology and to the complaints of certain industries. Most criticism has fallen on the DMCA for its emphasis on technology as a future copyright enforcement mechanism. The DMCA was drafted under intense pressure from the recording industry and other rights holders, resulting in legislation that has little consideration for fair use or user rights. Eben Moglen, a professor at Columbia University School of Law, said, “It’s not a

¹¹³ Title 17 U.S.C. Section 114 j(7).

copyright law. It is a technology control law designed to preserve the hold that five music companies and eight movie companies have to control the path of their content to your ears and eyes.”¹¹⁴ The DMCA may have the consequence of stifling the distribution of creative works by encouraging use of technological locked boxes to protect intellectual property. Digital rights management systems are problematic because they are unable to distinguish between infringing and non-infringing uses, thus creating the risk of reducing fair use privileges. While the DMCA provided an anti-circumvention exemption for libraries, archives, educational institutions and other organizations that traditionally rely on the doctrine of fair use, fair use is not limited to these institutions. Any person can exercise their fair use privilege for a variety of reasons, including criticism, scholarship, commentary, parody, or even making personal copies for home use.

As the law becomes increasingly complex, many struggle to understand the expansive provisions and how they will affect the distribution of music. Recent amendments to the law have constructed new rights for copyright holders, and have enacted new provisions meant to protect the enforcement of copyright law. However, this trend of strengthening rights has come at some cost—consumers are now confused over what is illegal, and where their uses of music fit into the legal structure. In its attempt to address new technology, Congress has left open the possibility that copyright may become too oppressive, precluding uses of creative works that could otherwise result in an increase of net creativity. New legislation and advances in technology raise questions about how closely the copyright regime in music is following the underlying constitutional intent of copyright law.

¹¹⁴ Ric Dube, “2001 Will Be A Rebuilding Year, Rosen Says; DMCA Strongly Criticized at DC Event,” January 12, 2001, www.webnoize.com/item.rs?ID=11653 (3/12/01).

Most importantly, this is a legal field that is changing constantly as it attempts to keep up with explosive technological growth. Judicial interpretation of the law will continue to change the legal framework for digital distribution of music. Whether the law is sufficient to address the technological advances remains to be seen. The next chapter will examine emerging technologies that have the potential to drastically affect how copyright law is applied to music.

CHAPTER 3

Technological Framework

“It’s like stopping rain. You can’t stop the rain.” -Chuck D.¹¹⁵

The rapid pace of technology results in continually changing possibilities for digital music. The recent trend in technology has opened up the pipelines of music for users, enabling endless copies, quick distribution, an enormous database of music—in other words, a nightmare for copyright holders. However, technology may provide the answer to its own problems; in the near future, copyright holders may have a stronger control of their works than they have ever had before. This chapter will examine some of the recent technological advances that have affected copyrights.

PEER-TO-PEER FILE SHARING

Utilized most notably by Napster, Inc. (www.napster.com), peer-to-peer file sharing is arguably the technology that led to the explosion of the digital music legal storm. While digital music piracy was an emerging threat prior to the advent of Napster, unauthorized MP3 files were mostly contained to rogue websites that were easily shut down. Though many of these sites would quickly pop up under a changed name and location, the constant movement and instability kept digital piracy at bay. The

development of file sharing technology would lead to the eruption of digital music piracy that artists and the recording industry fight today.

Peer-to-peer file sharing can be used for any type of file. The system enables users to trade files with each other through the Internet rather than obtaining files stored in cyberspace. File sharing systems allow users to submit queries on files they are seeking, and send out the request to other computers linked to the system. Once a hard drive containing the desired file is found, a link is usually created between the two computers and the file is transferred from one computer to the other.

Napster, developed by then 18-year-old Shawn Fanning, is based on a relatively simple concept. Any Internet user can visit Napster's website, download Napster's MusicShare software for free, and establish a Napster account once the client is installed.¹¹⁶ The user can place MP3 files he is willing to share into a designated folder. When the user logs onto the Napster server, these files are added to the list of files in the server's database.¹¹⁷ A search engine supplied by the software can be used to search for songs by artist or song title. Once a query is submitted, the server scans its database and returns a list of all the computers on which matching songs can be found. The user then needs only to choose which computer to download from. With one click, a link is formed between the user's computer and the computer containing the desired file; a few minutes later, the user has a copy of the desired song on his hard drive.¹¹⁸ The computers exchange files directly (hence the term "peer-to-peer"), thus avoiding traffic jams that might result from transfers running through a central server. The only information that

¹¹⁵ Associated Press, "Napster's Effect on Sales Unclear," *New York Times*, August 18, 2000.

¹¹⁶ Richard Raysman and Peter Brown, "Napster Threatens Copyright Law," *New York Law Journal* (July 11, 2000).

¹¹⁷ Christopher Breen and Susan P. Butler, "Steal this Song," *Macworld*, August 2000, p. 71.

resides on Napster's central server is its index and directory. Because the actual music files never go through the server, actual copyrighted material is never in Napster's possession.¹¹⁹

File sharing techniques enable users to access an enormous amount of information with relative ease. Users no longer have to worry about posting their audio files on a website that could easily be shutdown; instead, they trade directly between one another using a system that is much more difficult to police.

Napster's technology, however, is just the beginning. With the pending shutdown of the infamous service, numerous new programs have been emerging. Gnutella is one such software that can be downloaded for free from a number of websites. Like Napster, Gnutella allows users to seek and share files without the actual file going through a central server or website. However, instead of a user sending her inquiry through a central server, Gnutella sends her request to a small number of computers who have also downloaded Gnutella; if these computers do not have the requested file, each computer in turn sends the request to another small number of computers, and so on. The software enables users to survey thousands of machines in exponential fashion, without the searches being able to be monitored.¹²⁰

Another emerging program that uses file sharing is Freenet. Freenet uses a more sophisticated searching system than does Gnutella. Freenet was developed with two goals in mind: preserving the user's anonymity, and protecting the system from attempts to shut it down, even by its own creators.¹²¹ As a result of the first goal, the information shared

¹¹⁸ *Ibid.*

¹¹⁹ Karl Taro Greenfeld, "Meet the Napster," *Time*, October 2, 2000, p. 60.

¹²⁰ Parloff, "Newbies v. Netwits," p. 4.

¹²¹ *Ibid.* p. 5.

on Freenet has undisclosed origins: a user will not know where the information comes from, or where it is stored. Further, any user's computer can be used to store information placed on the network without the user's knowledge.

Both Gnutella and Freenet suffer from the same problem—neither has been streamlined enough for mainstream consumption, thus limiting their current popularity. Freenet does not yet have browsing capabilities, requiring a user to know the exact file name of a request. Gnutella has difficulty accommodating large numbers of users at the same time, a problem that is critical when the system's success depends on how many people are using the program and sharing files. Recent versions of Gnutella can work with any type of file, not just music, but its flaws waste bandwidth. Users with slow connections can clog the entire system.¹²² Gnutella also suffers from a low number of “sharers.” 70% of all Gnutella users don't share files at all. Of the 30% who do share files, the top 1% share 40% of all files.¹²³

Another problem with file sharing systems is what one author calls the “Gnutella paradox.”¹²⁴ In order for a file sharing system to work effectively, it must have a large number of users. For example, because Napster has close to 50 million users, chances are that at least one of them has any given song. But as soon as a file sharing system achieves that level of popularity, its network capacity is strained, and it becomes the target of lawsuits waged by copyright holders.¹²⁵

The technical problems faced by current file sharing alternatives to Napster may have little effect in the future. Programmers have been reverse-engineering software and

¹²² Associated Press, “Other Music Swapping Services,” *New York Times*, February 13, 2001.

¹²³ Janelle Brown, “The Gnutella Paradox,” September 29, 2000, www.salon.com/tech/feature/2000/09/29/gnutella_paradox.htm (3/15/01).

¹²⁴ *Ibid.*

developing new and improved systems of file sharing. The available programs are numerous: Gnotella, Newtella, BearShare, LimeWire, ToadNode, Aimster, OpenNap, Napigator—the list goes on and on. Learning from the lessons of Napster, software designers are streamlining programs and incorporating measures to limit legal liability. As file sharing software is developed to ensure more anonymity and decentralization, its existence is solidified. The endless list of alternatives to Napster indicates just how difficult it will be for the music industry to end piracy; file sharing is a technological revolution that will not die easily.

SECURE DIGITAL MUSIC TECHNOLOGIES

Secure Digital Music Initiative (SDMI)

The MP3 format is problematic for copyright owners because it does not contain a copyright management system, and thus does not offer protection against the unauthorized copying, use, or distribution of music.¹²⁶ The recording industry is rushing to develop “digital rights management” (DRM) systems to embed in digital music formats in order to provide copyright holders more control over their works. The Secure Digital Music Initiative (SDMI) was formed in early 1999 as an effort to develop a technological solution to digital music distribution that enforces copyright law.¹²⁷ SDMI members include companies from the recording, consumer electronics, and information technology industries. SDMI’s goal is to create a way to block the unauthorized copying

¹²⁵ *Ibid.*

¹²⁶ Pollack, “Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium,” p. 2450.

¹²⁷ See www.sdmi.org.

and widespread distribution of digital music files. The standards are intended to be generic so that different technologies used by different groups can work together easily, much like CD players from different manufacturers work together today.¹²⁸ The SDMI webpage says,

“The specifications released by SDMI will ultimately provide consumers with convenient access to music both online and in new emerging digital distribution systems, enable copyright protection for artists’ work, and promote the development of new music-related businesses and technologies.”¹²⁹

SDMI also claims that SDMI-compliant systems will still allow consumers to use music that they already own.¹³⁰

SDMI has recently been working to develop technologies to protect digital music files. One of the most important elements is screening, which is used to detect illegally distributed music.¹³¹ Phase 1 of SDMI’s plan, which is already complete, incorporated a screening device into portable digital music players that determines whether a file is appropriately watermarked. Phase 1-compliant devices are also capable of detecting a signal that will indicate when a software upgrade incorporating new Phase 2 screening technology is available. Phase 2 will involve the incorporation of digital watermarks into new digital music, which will enable Phase 2 software to discriminate between SDMI music and other formats. The upgrade to Phase 2 technology is “voluntary,” but only upgraded devices will be capable of playing Phase 2 content.¹³² Eventually, SDMI hopes to implement a system in which devices that play digital music will be able to recognize

¹²⁸ John Borland, “Music Piracy Effort Faces Key Test,” www.news.cnet.com/news/0-1005-202-4587313.html (3/17/2001).

¹²⁹ For more information, see www.sdmi.org/FAQ.htm.

¹³⁰ *Ibid.*

¹³¹ “Guide to the SDMI Portable Device Specification, Part 1, Version 1.0,” see www.sdmi.org, p. 3.

¹³² *Ibid.*

appropriate watermarks, and decide whether or not to open and play files accordingly. The system, still in the works, will likely use both robust and fragile watermarks (see below for further explanation.)

SDMI, though spearheaded by the RIAA, claims to take users' rights and interests into account in its proceedings. SDMI standards will still allow for making personal copies of CDs if the original disc is owned, and will play unprotected music. However, it is important to note that should SDMI-compliant media be adopted as an industry standard, consumers may have no choice other than to use SDMI files and devices. SDMI also asserts that consumers will allegedly have more access to music, since musicians and labels will be more likely to make music available online with a secure format: "The open SDMI specification will enable both business and technology innovation, leading to the development of many new opportunities for consumers to get and enjoy music."¹³³

The following table, created by SDMI, summarizes the differences between capabilities of SDMI and non-SDMI devices. It should be noted, however, that the chart represents the future goals of SDMI as a generic standard. Manufacturers of hardware devices, who are often linked to or heavily influenced by record companies, will be able to use their discretion regarding which formats their devices will play. A manufacturer could choose to produce a device that would not play non-SDMI music.

Capabilities	Today (non-SDMI Devices)	SDMI (devices in late 1999)	SDMI (Future)
Download and Play current digital music tracks including MP3s	4	4	4
Download and play SDMI digital music tracks		4	4+

¹³³ *Ibid.*

Transfer current digital music tracks from PC to portable device	4	4	4
Transfer SDMI digital music tracks from PC to portable device		4	4
Share current digital music tracks	4	4	4
Enable sharing of SDMI digital music tracks		4	4+
Enable independent artists, church choirs, etc. to create and distribute music	4	4	4
Explicitly supports copyright/rights management for digital music distribution		4	4+

+ more SDMI Music, greater functionality, and broader availability.

Source: Guide to the SDMI Portable Device Specification.

While SDMI asserts that it is considerate of the rights and interests of users, critics claim it is just a guise under which the recording industry is working to completely control how its works are accessed and used.

Digital Envelope Technology

Digital envelope technology, also referred to as superdistribution, does not aim to control the unauthorized copying of copyrighted materials.¹³⁴ Instead it focuses on controlling access to and uses of digital files through encryption technology. The digital envelope acts as a locked box, whose contents can only be accessed and decoded by an authorized user who has paid a fee.¹³⁵ Access can be obtained for a given amount of time—for instance, a 24-hour period, or a single-time use. This technology can also use authentication to verify that only authorized users have access to the content of the

¹³⁴ Maureen S. Dorney, “New High-Tech Solutions for High-Tech Infringement,” *The National Law Journal*, May 17, 1999.

¹³⁵ Pollack, “Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium,” p. 2451.

envelope.¹³⁶ Further, the technology verifies permission in such a way that it can control exactly how an authorized user may use a given file, limiting the user's number of uses, ability to print and redistribute, etc. Digital wallets have developed alongside the digital envelope, allowing very small payments to be made for a one-time listening license. The user will only pay a few pennies to access the song, while the accumulated payments will result in substantial royalty payments to copyright holders.¹³⁷ Both technologies are still in their beginning phases and are not yet widely available.

Digital envelope technology is extremely controversial because it maintains tight control over access to copyrighted works. While this may provide copyright holders with stronger protections for their works, it also places limits on traditional user rights. The technology will prevent access to works whose copyrights have expired, or have otherwise entered the public domain. Also, limiting access to only authorized users prevents uses of the work that do not require the permission of the rights-holder, prohibiting access that would be protected as fair use under copyright law. This rights-limiting aspect is especially significant in light of the DMCA's provision that prohibits the circumvention of technical measures that control access to a copyrighted work, with only limited exemptions. With a digitally encrypted file, it would be illegal to attempt to decrypt the file unless authorized to do so, resulting in works being strictly controlled by rights holders.

The possible negative repercussions of this technology may end up moot, as its feasibility has not yet been determined. Protecting digital files by means of encryption is a form of cryptography. In order to listen to the song, at some point the music's "locked

¹³⁶ Dorney, "New High-Tech Solutions for High-Tech Infringement."

box” must be opened and the file must be decrypted. Because the music must be listened to in unscrambled form, there must exist at some point a “plaintext” version of the song somewhere on the computer’s hard drive.¹³⁸ “The decrypted stream of data can be captured by the digital equivalent of putting a tape recorder in front of stereo speakers.”¹³⁹ Encryption technology relies heavily on trusting the recipient of the file—in this case, the recipients would be consumers who have not demonstrated any regard for copyright. The strength of the encryption becomes inconsequential since the decrypted format can be obtained and then ripped into MP3 format.¹⁴⁰ As a result of these shortcomings, SDMI has leaned away from encryption and more towards digital watermarks for securing music files.

Digital Watermarks

Conventional methods of cryptography such as digital envelopes will probably provide little protection against piracy because once the data is decrypted, there is no reliable way to track the reproduction or transmission of the information. Digital watermarks are intended to provide a permanent mark of authorship on a digital file. A digital watermark is an identification code that is embedded permanently within the data in the file. It remains present in the data even after decryption and decompression.¹⁴¹ The watermark offers a way to prove ownership of a file or to trace an illegal file back to its original licensed user, but it does not by itself prevent the copying of files. However, as

¹³⁷ Pollack, “Tuning In: The Future of Copyright Protection for Online Music in the Digital Millennium,” p. 2452.

¹³⁸ Mann, “The Heavenly Jukebox,” p. 8.

¹³⁹ *Ibid.*

¹⁴⁰ See quote by Martin Eberhard from Mann, “The Heavenly Jukebox,” p. 8.

SDMI envisions, hardware devices can be developed in such a way that the watermark can serve as a sort of key to playing the music. For example, in the future, digital audio players on personal computers may search for a legitimate watermark on a music file before deciding to play it.

There are two main types of digital watermarks: robust and fragile. A robust watermark is one that is extremely difficult (ideally, impossible) to remove from the file.¹⁴² A robust watermark can withstand any alteration to the digital file, no matter how or how many times it is copied, compressed or decompressed, or converted between digital and analog. In order to be robust, the watermark must be placed in “perceptually significant regions of the data,” such that standard methods of compression will not affect it. A robust watermark placed in a WAV file (CD-quality audio) would ideally maintain its integrity even if ripped into MP3 format. The MP3 compression technique removes only the weak signals in a file that are either redundant or imperceptible to the ear, so placing the watermark in significant parts of the file will ensure its permanence. Robust watermarks would indicate that the work is copyrighted, and could indicate the origins of the file.

A fragile watermark, unlike a robust watermark, does not survive the typical transformations undergone by audio files. For instance, a fragile watermark could be designed to be destroyed if the file undergoes compression. An audio file might have a robust and fragile watermark. If the file is compressed into an MP3 file, it will maintain its robust watermark, but the fragile watermark will be destroyed. A fragile watermark

¹⁴¹ Ingemar J. Cox, Joe Kilian, Tom Leighton and Talal Shamoan, “A Secure, Robust Watermark for Multimedia,” in Ross Anderson, ed. *Lecture Notes in Computer Science: Information Hiding* (Cambridge, UK: Springer, 1996), p. 185.

¹⁴² *Ibid.* p. 186.

can therefore be used to indicate the modification of a file.¹⁴³ Phase 2 of SDMI will probably look something like this: SDMI files will contain both robust and fragile watermarks. If the audio file is altered by compression (e.g. ripping it into MP3 format), it retains its robust watermark, while the fragile mark is destroyed. An SDMI-compliant device will recognize the robust watermark, which then tells it to search for the fragile watermark. Upon discovery that the fragile watermark is no longer intact, the device will refuse to play the file. An SDMI-compliant device could also play files with neither robust nor fragile watermarks.

Watermarks, while currently not as restrictive as encryption, still provide the means for copyright holders to strengthen control over their works. Should the SDMI standards become a reality in the future, users will have reduced options in using works they have legitimately purchased. Watermarking, however, is not infallible. Like all other technologies, it will be vulnerable to attacks. The method used to apply and detect the watermark must be kept secret in order to avoid having pirates remove the watermark. However, hardware devices that detect watermarks or refuse to play unwatermarked files will in some sense help rather than hinder music pirates. An attacker can learn and erase the watermark just by experimenting with content that is put into the detector. The attacker can gain more information with every attempt.¹⁴⁴

¹⁴³ Scott A. Craver, John P. McGregor, Min Wu, Bede Liu, Adam Stubblefield, Ben Swartzlander, Dan S. Wallach, and Edward W. Felten, "Reading Between the Lines: Lessons from the SDMI Challenge," unpublished paper, p. 2.

¹⁴⁴ Jean-Paul M. G. Linnartz and Marten van Dijk, "Analysis of the Sensitivity Attack Against Electronic Watermarks in Images," paper presented at Preliminary Proceedings of the Second International Information Hiding Workshop, April 15-17, 1998, p. 2.

The SDMI Challenge

In September 2000, SDMI issued a public challenge, HackSDMI, which invited members of the public to try to break six different secure music technologies developed by Verance for SDMI. Four of the challenges involved digital watermarking, while the other two technologies were apparently intended to prevent the creation of mix CDs. These technologies were based on the use of an “authenticator,” an extremely short track added to CDs, designed to require the presence of the CD in order to rip tracks from it. The authenticator, when combined with a CD’s table of contents (present on every CD), would allow an SDMI device to recognize that disc as SDMI-compliant.

For each of the six technologies, SDMI provided a certain amount of information about how each technology worked, and then required a certain end product to be produced. For example, for the four challenges involving watermarks, SDMI provided three different audio files: 1) an unwatermarked song, 2) the same song with a watermark, and 3) a different watermarked song. The challenge was to produce the third file without the watermark, with the same fidelity of sound.¹⁴⁵ Edward Felten’s team from Princeton University, which successfully attacked each of the SDMI technologies, noted that “in all six cases SDMI provided less information than a music pirate would have access to in practice.”¹⁴⁶

SDMI also provided an “oracle” to which entries could be submitted for determination of success. An attempt could be emailed to the oracle, which would then

¹⁴⁵ Craver et al., “Reading Between the Lines: Lessons from the SDMI Challenge,” p. 2.

¹⁴⁶ *Ibid.* p. 11.

indicate whether the file complied with the criteria of the challenge.¹⁴⁷ No information was given about how the oracle functioned.

The SDMI challenge ran for roughly one month, during which several groups and individuals, including Felten's group, claimed to have cracked the technology. SDMI eventually split the \$10,000 prize money between two teams. There was much controversy over some of the entries due to sound quality because SDMI argued that many of the entries had degraded sound, thus not meeting the challenge.

Interestingly, the challenge appears to have been flawed in several ways. The challenges involving watermarks used robust watermarks. However, Phase 2 of SDMI does not necessitate that the robust watermark be destroyed before a file can be played. While doing so will enable a file to be played, a hacker could instead reconstruct a destroyed fragile watermark. Felten's group remarked, "Of course, knowledge of either the robust or fragile component of the mark is enough for an attacker to circumvent the scheme, because one can either remove the robust mark, or repair or reinstate the fragile mark after compression has damaged it." The SDMI challenge ignored the latter possibility. "One must wait and see if real-world attackers will attempt such an approach, or resort to more brute methods or oracle attacks to remove the robust component."¹⁴⁸

Another interesting aspect of the SDMI challenge is that the files used for the watermarking challenges were CD-quality audio, a file of which is on average ten times larger than an MP3. While the SDMI technologies address the problem of CDs being ripped into MP3s and then distributed, they do not address the problem of developing security mechanisms for distributing MP3s, which is arguably a concern of equal or

¹⁴⁷ *Ibid.* p. 2.

¹⁴⁸ See Craver et al., p. 7 for further discussion.

greater importance to the music industry. Music distributed online on a download basis will necessarily use a compressed format like MP3 in the interest of conserving hard drive space. The SDMI technologies may be used to prevent piracy resulting from CD files being converted and distributed in compressed format, but do not answer questions about how artists and record companies can market MP3 files online securely.

Further controversy arose when Felten's team realized that it was not allowed to publish the exact methods used to hack the technologies, because doing so would violate the DMCA's anti-circumvention provision. Because secure technologies will continue to be developed and will have to compete with each other, keeping the underpinnings of the technologies from public scrutiny raises questions about how much they can be trusted.

IMPLICATIONS FOR USERS AND COPYRIGHT OWNERS

One of the largest hurdles any new technological standard will need to overcome is gaining acceptance from consumers. Protection of music will encounter the same difficulties of software copyright protection. The technology must be easy to use if it is to enjoy success. However, if the recording industry and hardware manufacturers adopt an industry standard, as SDMI is attempting to do, consumers may have a hard time avoiding security technologies in digital music regardless of how they feel about them.

SDMI and the development of other secure digital music technologies will provide copyright holders with more power than ever, but at the cost of the interests of users. Fans of music may not be able to share their music files, or listen to legitimate non-SDMI compliant music.¹⁴⁹ The amount of control that may be afforded to copyright

¹⁴⁹ Interview with Perry Cook, March 13, 2001.

holders would be unprecedented. “I have a problem with DRM [digital rights management] because, as a member of the public, I can manage my rights just fine. This gives copyright owners the ability to control rights that they don’t necessarily have,” said Felten.¹⁵⁰

The Electronic Frontier Foundation (EFF), a group advocating free speech and fair use on the Internet, spoke out against SDMI, urging potential hackers not to participate in the HackSDMI challenge. An EFF announcement claimed that SDMI standards would prevent users from making fair uses of copyright materials, and would hinder the exercise of First Amendment rights of free speech. EFF also accused SDMI of falsely portraying itself as “merely an alternative music distribution scheme.”¹⁵¹ The statement by EFF said,

“When over 90% of the world’s music content holders are together creating this standard, there is no room for legitimate competition. Everyone from artists to hardware manufacturers to consumers will be required to use SDMI standards if they want access to the vast collection of materials controlled by the recording industry.”¹⁵²

Regardless, any technological measures implemented by record companies will be vulnerable to attacks. An old argument claimed that security technologies vulnerable to only expert hackers were still safe for deployment to the public, but the nature of the Internet as changed that. As Bruce Schneir, an Internet-security consultant, said,

“You always have two kinds of attackers, Joe Average and Jane Hacker. Many systems in the real world only have to be secure against Joe Average. But if I’m Jane Hacker, the best online, I can write a program that does what I do and put it up on the Web—click here to defeat the system. Suddenly Joe Average is just as good as Jane Hacker.”¹⁵³

¹⁵⁰ Brad King, “Fight Rages Over Digital Rights,” www.wired.com/news (3/17/2000).

¹⁵¹ “EFF Renews Its Call to Boycott the ‘HackSDMI’ Challenge,” September 29, 2000, www.eff.org.

¹⁵² *Ibid.*

¹⁵³ Mann, “The Heavenly Jukebox,” p. 48.

The accessibility of information on the Internet facilitates the defeat of new security measures.

Consider Microsoft's 1999 attempt to release a new version of Windows Media Audio, which attempted to restrict songs to single hard drives, preventing distribution. The format was supposedly equivalent to MP3, but secured by encryption. A few hours after its release, someone developed a program that "intercepted the decrypted data and stripped away the restrictions."¹⁵⁴ A few more hours later, the program, aptly titled "unfu*k," was available on several websites worldwide. The motion picture industry faced a similar problem when the encryption for DVDs was broken. Though the code was only available for a short time before being taken down, so many users had downloaded and passed on the information that it was impossible to eliminate completely. "DeCSS" was widely distributed, even as the industry struggled to shut down new sites.

These examples have exhibited the power of the Internet as a new distribution method for all types of information. Even as the DMCA provides for heavy criminal and monetary injunctions for developing and distributing technologies designed to circumvent copyright security measures, the architecture of the Internet makes it extremely difficult to police. For every one site that gets taken down, several more will surface. For every secure technology unleashed, hackers can develop and quickly distribute ways around the technology. Further, the anonymity provided by the Internet further encourages illegal behavior in cyberspace.

Developing security technologies for digital music will provide part of the solution for the record industry and artists, but it will not eliminate piracy completely. Any distribution model adopted should pay heed to ease of use by consumers. If the

music industry wants to limit piracy, it must develop a model that competes with user-friendly programs that enable piracy, such as Napster. While an industry standard has not yet emerged, record companies are currently testing out new secure formats for online digital music distribution. For instance, last year BMG announced a plan to offer digital downloads using six different technology partners.¹⁵⁵ “We want to make sure our artists’ music is widely available, accessible and protected,” said Kevin Conroy, senior vice president of new technology for BMG. “We don’t believe that any single technology can deliver on that.”¹⁵⁶ But not many consumers would be satisfied with having to download several different softwares depending on what kind of music they downloaded. And while the recording industry is attempting to narrow the choices, new formats will continue to emerge indefinitely. Devices that are designed as compatible with a specific secure format may create confusion and headaches for consumers as other formats are made available. “Every one of [the Big 5] has announced different solutions or combinations of solutions, and it’s a nightmare for consumers at exactly the point in time when consumers have spoken clearly that they want an easy solution, and we all know that it starts with the letter N,” said Dick Wingate of Liquid Audio, a company that has been working with EMI, Warner, and BMG on developing download models.¹⁵⁷ Current models utilizing digital rights management are cumbersome and time-intensive. While a download on Napster requires only a few mouse clicks and averages 2.7 minutes per

¹⁵⁴ *Ibid.*

¹⁵⁵ Matt Richtel, “New Economy,” *New York Times*, April 17, 2000.

¹⁵⁶ *Ibid.*

¹⁵⁷ Marilyn A. Gillen, “Digital Downloads: Will Enough Consumers Care?” *Billboard*, November 4, 2000, p. 6.

download, current secure models can take up to 23 minutes and 19 mouse clicks to initiate.¹⁵⁸

CONCLUSION

Digital music technology has caused the scales to tip back and forth between users and artists. On one hand, it is enabling a virtual users' paradise, where everything is free and accessible, even if the files are illegal. On the other hand, it is developing in such a way that it could give rights holders questionable levels of control over their creative works. Even if strong technology is developed to protect copyrighted works, it will only serve as a short-term solution to copyright owners' problems. Eventually someone will crack the codes, and music piracy will remain easy and rampant. Of course, it is impossible to know what will happen in the future, but rights holders and users are faced with two extremes that could be made possible through emerging technology. If technology were to continue enabling piracy, and if all secure technologies could be broken, the incentive system for artists could be easily destroyed. But if artists and their distributors maintained strict control over their works and hindered the dissemination of creative ideas, the public benefits intended by copyright law could also be destroyed.

It is unclear whether current copyright laws are sufficient to address the new issues raised by new digital music technology. However, the flow of technology cannot be stopped, so it is imperative that artists and the recording industry work to take advantage of new distribution methods rather than attempting to stop them. The next

¹⁵⁸ Joel Karp and Lee Black, "Digital Rights Management: A Virtual Boxing Match," www.webnoize/research/item.rs?ID=11219 (3/12/01).

chapter will examine the law in practice and assess the numerous issues raised by a single revolutionary company.

CHAPTER 4

Case Study: Napster

“Napster was very important because it showed the world that there is a massive market of consumers who want to be able to access and listen to their music using digital technologies. Up to that point, it was believed, generally, that the digital music movement was a niche movement.”

-Michael Downing of Musicbank¹⁵⁹

“Napster: It is the future, in my opinion. That’s the way music is going to be communicated around the world. The most important thing we do now is to embrace it.”

-Dave Matthews, Dave Matthews Band¹⁶⁰

Napster is a company that will go down in history as changing conceptions of copyright law. Just as the advent of the printing press and the VCR caused panic in the copyright holders’ realm, Napster has thrown technology, law and business into flux. Napster began as the brainchild of Shawn Fanning in 1998. Fanning designed the program for his friends to facilitate searching the Internet for music. As Fanning developed the software, he realized its enormous potential, leading him to incorporate a company in 1999. News of the software, offered for free on Napster’s website, spread quickly by word of mouth, and within weeks there were millions of users. A revolution had begun.

As of February 2001, Napster claimed to have 58 million registered users, more than double the number registered last summer. An estimated 300,000 people were

¹⁵⁹ Jon Healy, “Companies Clamor to Fill Napster Void,” *New York Times*, February 14, 2001.

joining daily. Napster is a music fan's utopia—one can access the most obscure and rare recordings simply by typing a few words into the search engine. Even better, the service is completely free. Fans need not engage in the crapshoot of buying a new music album; they can download it from Napster to preview it, or download it in lieu of purchasing a CD. Napster users can access the MP3 files of other users in two ways: 1) they can use the above-mentioned search engine to browse lists of songs by title or artists, or 2) they can use a “hotlist” function, with which users can archive names of other individuals and keep track of when those users are online. These two interactive functions help make Napster a virtual community for music lovers.

While users cavorted in the incredible resources provided by Napster, the recording industry was up in arms. Napster, they argued, was cutting into their revenues by providing music for free on the Internet. Because the system was free, no one was getting paid—not Napster, not artists, and certainly not the recording industry. Napster was working on building its user base by offering its service for free, but had plans to later “monetize” its user base through a variety of potential revenue sources. Some potential sources were advertising, targeted emails, direct retailing of CDs, selling Napster products, CD burners and rippers, or eventually charging a service fee for subscription to its services.¹⁶¹

Artists and the recording industry felt that Napster was cutting into their revenues by making music that consumers would otherwise have to purchase in CD form available at no cost. While it may seem obvious that consumers who could download the music for free would not purchase a CD of the same music, this may not be true. Napster claims

¹⁶⁰ “Artists Sound Off,” see www.napster.com/speakout/artists.html (2/15/01).

¹⁶¹ *A&M Records, Inc. v. Napster, Inc.*, 55 U.S.P.Q. 2D (BNA) 1781, August 10, 2000, p.9.

that its service allows consumers to sample music to decide whether or not to purchase the CD, and that more sampling inevitably means more purchases. “I just go by logic—that people will want to hear something before they buy it,” said Chuck D, a rap artist who has been a major supporter and pioneer of online music distribution. “If I got turned on by an artist after I heard something for free, I would go out and buy it. That’s too logical for people in the music industry to understand.”¹⁶² A Rolling Stone survey of 5,000 of its readers last year asked whether they have bought fewer CDs now that the music is available at no cost. A mere 8% answered yes, while 36% claimed they were purchasing even more CDs. The remaining 56% claimed their spending habits remained unchanged.¹⁶³ A study recently released by Webnoize, a digital media research company, pointed out that music fans are still spending more money than ever on music in all formats, and on portable hardware devices that allow them to listen to digital music files away from their computers. Although Napster and programs of the like have made music available for free, consumers continue to purchase CDs, leading to a 5% growth in the music industry last year.¹⁶⁴ Another study by Webnoize concluded that MP3s have not had a negative impact on music sales. The study found that from Fall 1999 to Fall 2000, the percentage of college students spending more than \$20 per month on music rose from 46% to 51%.¹⁶⁵ However, studies cited by the recording industry suggest that music sales have fallen in areas surrounding colleges and universities, indicating that college students are purchasing less music.

¹⁶² “Napster’s Effect on Sales Unclear.”

¹⁶³ *Ibid.*

¹⁶⁴ Brad King and Robin Clewley, “Musicians Play a Hopeful Tune,” www.wired.com/news (3/11/01).

¹⁶⁵ Gregor Rohda, Lee Black, and Matt Bailey, “MP3’s Silver Lining,” www.webnoize.com/research/item.rs?ID=11957 (3/12/01).

On December 6, 1999, A&M Records and 17 other record companies filed suit against Napster, claiming that the more than 20 million users of Napster were infringing copyrights. Further, the suit claimed that Napster itself was engaging in both contributory and vicarious infringement because it was aware of its users' infringements and contributed to those infringements by providing the file sharing service. Napster's growth had been explosive; at the time of the lawsuit, approximately 10,000 music files per second were being shared using Napster and every second more than 100 users were connecting to the system.¹⁶⁶ Evidence provided by the RIAA suggested that as many as 87% of the files traded on Napster were copyrighted. Napster had never obtained any licenses or permissions to facilitate the distribution of any of the songs traded through its service.¹⁶⁷

U.S. District Judge Marilyn Hall Patel of the U.S. District Court for the Northern District of California issued a preliminary injunction against Napster, ordering it to shut down its service pending trial. She concluded that Napster was indeed contributing to the illegal distribution of music, and found a strong likelihood that the RIAA would win at trial based on the merits of the case. Patel discounted Napster's claim that its users were engaging in fair use, stating that all four fair use factors worked against Napster. She concluded that "the global scale of Napster usage and the fact that users avoid paying for songs that otherwise would not be free militates against a determination that sampling by Napster users constitutes personal or home use in the traditional sense."¹⁶⁸ Patel also discounted Napster's reliance on *Sony*, which Napster claimed limited its liability for distributing its piracy-enabling software. *Sony* established the rule that a manufacturer is

¹⁶⁶ See *A&M Records, Inc. v. Napster, Inc.*, 55 U.S.P.Q.2D (BNA) 1781 (N.D. Cal. August 10, 2000).

¹⁶⁷ *Ibid.* p. 11.

not liable for selling a device that is “capable of commercially significant noninfringing uses.”¹⁶⁹ Patel opined that:

“Any potential non-infringing use of the Napster service is minimal or connected to the infringing activity, or both. The substantial or commercially significant use of the service was, and continues to be, the unauthorized downloading and uploading of popular music, most of which is copyrighted.”¹⁷⁰

Patel also said that Napster both knew of the infringements occurring under its service, and had the capabilities to police the unauthorized trade of copyrighted music through its system, but failed to do so. Napster was ordered to shut down by July 28, 2000. “They’ve created a monster, for lack of a better term, and that’s the consequence they face,” Patel said. “I can’t just let it go on.”¹⁷¹

The day Napster was intended to shut down, the Ninth Circuit Court of Appeals decided to stay the injunction, pending resolution of the issues on appeal. The two judges said that “substantial questions” had been raised over the “merits and the form of the injunction.”¹⁷² The ruling allowed Napster to operate until its lawsuit was resolved in court.

On appeal, Napster claimed that it was not contributing to infringement since its software is capable of substantial non-infringing uses, relying again on *Sony*. The evidence provided for this was Napster’s New Artist Program, which allowed new or unsigned artists to create a profile comprised of biographies and other data including artist and band names, genre, similar artists, and news about the band. Profiles were linked to on Napster’s web page. New artists could also offer their songs to be traded on

¹⁶⁸ *A&M Records, Inc. v. Napster, Inc.*, 55 U.S.P.Q.2D (BNA) 1781 (N.D. Cal. August 10, 2000), at p. 46.

¹⁶⁹ See *Sony*, 464 U.S. at 442.

¹⁷⁰ *A&M Records, Inc. v. Napster, Inc.*, 55 U.S.P.Q.2D (BNA) 1781 (N.D. Cal. August 10, 2000), at p. 40.

¹⁷¹ Ron Harris, “Judge Pulls Plug on Napster,” Associated Press, 7/28/00.

the file sharing system, which is separate from the web page. Napster also claimed that its users were not in fact violating copyright law, citing section 1008 under the AHRA.¹⁷³ Napster asserted that this provision in the AHRA meant that all noncommercial copying by a consumer of digital musical recordings is lawful and immune from lawsuits, regardless of the scale of said copying. Thus, if users were not infringing copyright, Napster was not infringing copyright.

The Department of Justice, with the U.S. Copyright Office and the Patent and Trademark Office, filed an amicus brief that claimed Napster was too aggressive in its interpretation of the AHRA. The brief said,

“Napster asserts that, despite the precision of the language in Section 1008, Congress actually meant to provide immunity for all noncommercial consumer copying of music in digital or analog form, whether or not the copying fits within the terms of Section 1008. Nothing in the legislative history of the Act supports that argument.”

The brief went further to say that the AHRA was not even applicable to Napster because Napster does not use any of the “devices” or “media” covered under the act. Under Napster’s interpretation, users would be allowed to copy and distribute digital music files without the products employed being subject to any royalty payments, thus effectively breaking the “deal” at the heart of the AHRA. The government wrote that the AHRA protects consumers who copy protected works for personal consumption, not public or commercial distribution. Napster allows users to share music with millions of others, the government wrote. The act “makes no reference, and provides no possible defense, to

¹⁷² *A&M Records, Inc. v. Napster, Inc.* 2000 U.S. App. Lexis 18688, July 28, 2000.

¹⁷³ Section 1008 of the AHRA protects, among other things, “the noncommercial use by a consumer of such a device or medium for making digital musical recordings or analog musical recordings.”

infringement claims based on the public distribution of copied works.”¹⁷⁴ The appeals court, after hearing arguments from both sides, adjourned without making a decision.

In the midst of its legal embroilment, Napster continued to work to reach a compromise with the recording industry, suggesting licensing agreements and subscription models in which users would pay a small monthly fee to trade music. Most of the record companies resisted, indicating a desire to completely eliminate Napster rather than take advantage of the market provided. However, in late October 2000 Napster forged a partnership with Bertelsmann, the parent company of BMG records. Bertelsmann, led by CEO Thomas Middelhoff, agreed to invest heavily in Napster if the company would use those investments to move to a fee-based service. “If Napster died, it would be against consumer needs and it would be a big defeat for the music industry,” said Middelhoff.¹⁷⁵ The partnership marked the landmark equivalent of a white flag between the recording industry and Internet start-ups, who have been pitted against each other from the beginning. The partnership hopes to begin charging fees for trading on Napster starting this summer.

Napster use greatly increased as music fans worried about the service’s impending shutdown. Online chat rooms began to flood with suggestions for other file sharing services to turn to should Napster become defunct. On February 12, 2001, the 9th U.S. Circuit Court of Appeals issued its long awaited ruling on the Napster case, stating that in order to stay in business, Napster had to halt the sharing of copyrighted songs. The panel also said that “a preliminary injunction against Napster’s participation in copyright

¹⁷⁴ Napster amicus brief, <http://www.loc.gov/copyright/docs/napsteramicus.html#devices>.

¹⁷⁵ Matt Richtel, “Napster Planning Fees Starting in Summer,” *New York Times*, February 21, 2001.

infringement is not only warranted, but required.”¹⁷⁶ The court rejected Napster’s arguments on claims of both fair use and exemption under the AHRA, and reaffirmed the district court’s findings. The opinion stated that the “district court made sound findings related to Napster’s deleterious effect on the present and future digital download market.”¹⁷⁷ The court said that prior decisions regarding the fair use of space-shifting or time-shifting, as referenced in *Sony* and *Diamond*, were irrelevant to Napster “because the methods of shifting in these cases did not also simultaneously involve distribution of the copyrighted material to the general public.”¹⁷⁸ The court observed that in *Sony*, VCR users did not distribute their videotapes, and the Rio merely transferred copyrighted music to an MP3 player; in both cases only the original user made use of the copyrighted material. “Conversely,” wrote the court, “it is obvious that once a user lists a copy of music he already owns on the Napster system in order to access the music from another location, the song becomes available to millions of other individuals, not just the original CD owner.” Further, unlike the situation in *Sony*, where Sony merely manufactured and sold the VCRs, Napster had the capacity to exercise a significant amount of control over the use of its software.¹⁷⁹ The appeals court also said that the RIAA would have a high probability of success in proving Napster liable for both contributory and vicarious liability. However, while the court stated that Napster enabled blatant copyright infringement, it found that there might be a significant noninfringing use for the service. For that reason, it asked Judge Patel to issue a more targeted injunction that would enable the company to stay in business. The appeals court stated that the original preliminary

¹⁷⁶ *A&M Records, Inc. v. Napster, Inc.* 57 U.S.P.Q. (BNA) 1729, February 12, 2001, p. 59.

¹⁷⁷ *A&M Records, Inc. v. Napster, Inc.* 57 U.S.P.Q. (BNA) 1729, February 12, 2001, p. 26.

¹⁷⁸ *Ibid.*, at p. 32.

injunction was “overbroad because it places on Napster the entire burden of ensuring that no copying, downloading, uploading, transmitting, or distributing of plaintiffs’ works occur on the system,”¹⁸⁰ and that the plaintiffs should share the burden by providing Napster with notice of files being illegally traded. In its criteria for a narrower injunction, the court asserted that Napster could be held liable for copyright infringement only in instances in which it failed to block access to material it knew was being accessed without authorization.

Some legal experts have disagreed with the appeals court’s reading of *Sony*. Terry Fisher, a professor of Internet law and intellectual property at Harvard Law School, said that the interpretation was somewhat different from previous readings:

“The spirit of *Sony* is that courts should be very reluctant to use the doctrine of contributory infringement when it might curtail a potential and socially beneficial useful new technology. You’ve got to show that the technology in question is really bad and doesn’t have any demonstrable social benefits. That’s the mood of *Sony*.”¹⁸¹

After another hearing regarding the technical limitations of Napster’s ability to screen songs traded over its system, Judge Patel issued her modified preliminary injunction, ordering Napster to remove all unauthorized songs from its servers. The court ordered the music industry to share some of the burden of filtering songs from the Napster service, requiring that record companies provide Napster with the song title, artist name, and file name of each of the works being pirated. Record companies were also required to provide evidence that they controlled the copyright to any submitted song. Once the song was identified, Napster had three days to remove it. Napster and the

¹⁷⁹ Carl S. Kaplan, “Legal Expert Sees Napster Competitors Thriving,” *New York Times*, February 23, 2001.

¹⁸⁰ *A&M Records, Inc. v. Napster, Inc.* 57 U.S.P.Q. (BNA) 1729, February 12, 2001, p. 60.

¹⁸¹ Kaplan, “Legal Expert Sees Napster Competitors Thriving.”

record companies were both responsible for identifying and filtering possible variations of names “in order to exclude versions of the works with different names to the fullest extent possible within the limits of the Napster system.”¹⁸²

As Napster attempted to block songs identified by the recording industry, users quickly developed alternate file names to circumvent the filtering process, such as “Let it Bee” by the Beatles, and songs by “Madona.”¹⁸³ Napster enlisted the help of Gracenote, a company that maintains databases on songs by artists and titles, including common misspellings that Napster may have missed. A recent Webnoize study estimated that the number of Napster users has dropped by 10%. But the study also said that the number of tracks being traded per user was growing again, suggesting that many users were able to circumvent the filtering system.

As part of its partnership with Bertelsmann, Napster plans to move to a fee-based service beginning this summer. The company will charge users somewhere between \$5.95 and \$9.95 to download an unlimited number of music files, and may charge an additional fee for users who want to transfer those files to CDs. The company is also considering a two-tiered system in which the premium service would allow unlimited exchanges, and a basic service would allow a limited number of exchanges each month for a fee between \$2.95 and \$4.95. While not all of the estimated 38 million users will opt to pay the subscription fee, a recent poll of college students by Webnoize found that 68% would be willing to pay a \$15 monthly fee for the service.¹⁸⁴

¹⁸² “Q&A on Record Companies Removing Files from Napster,” www.napster.com/pressroom/010308-ganda.html (3/11/01).

¹⁸³ Dan Goodin, “Napster Injunction Puts Burden on Labels,” www.thestandard.com (3/11/01).

¹⁸⁴ Spencer E. Ante, “Napster: Tune In, Turn On, Pay Up,” *Business Week*, November 13, 2000.

A move to a subscription-based service will not come easily. One major issue faced by the company is determining how to allow users to only trade authorized songs, while preventing the trading of unauthorized files.¹⁸⁵ Napster has contemplated using a system that would convert MP3 files into an encrypted format, creating a “bounded universe” for trades so that music could not leave the system.¹⁸⁶ Not only will Napster have to develop the technology and a profitable business model, it will also have to do so within licensing criteria set by the recording industry. Napster’s most recent proposal calls for \$150 million to be split between the major five record companies annually, with an additional \$50 million to be split between independent music companies and artists. The proportion received by each company would depend on the percentage of their works downloaded by Napster users.¹⁸⁷ Record company executives, however, have said that the amount of money being offered is insufficient, as the record industry’s \$40 billion in annual sales are allegedly threatened by Napster.¹⁸⁸

Meanwhile, if Napster’s current attempts at complying with copyright law fail, it may face complete shut down. As such, Napster is attempting to mobilize its enormous fan base to contact congressmen concerning online music distribution.¹⁸⁹ Napster urges its fans to write letters, make phone calls, and mobilize their other friends to support the service. If successful, the movement could move Congress to clear the now muddy legal paths for Napster and other online music distributors, though Napster would not be relieved of its past liability.

¹⁸⁵ Matt Richtel, “Napster Charts a New Course After Ruling,” *New York Times*, February 13, 2001.

¹⁸⁶ Ric Dube and Lee Black, “Dot-NAP: Napster 2, Industry Bugaloo,” February 26, 2001, www.webnoize.com/research/item.rs?stp=&ID=12120, (3/12/01).

¹⁸⁷ Matt Richtel, “Napster Planning Fees Starting in Summer,” *New York Times*, February 21, 2001.

¹⁸⁸ *Ibid.*

¹⁸⁹ For more information, see www.napster.com/speakout/.

The recording industry hailed the Ninth Circuit's decision as a huge victory for artists and labels. Other legitimate online music distributors were also gleeful, hoping that an eventual Napster shut down would leave a vacuum their companies could fill. While the eventual fate of Napster remains to be seen, some legal experts claim that the ruling would ultimately hurt the recording industry. "My view is that the RIAA wins the battle and loses the war because they become the bad guys," said Lawrence Lessig, an expert on copyright law at Stanford University. "With every song they tell Napster to remove, the political resistance to this extreme view of copyright law will grow stronger."¹⁹⁰

Users of Napster, many of whom turned to the program out of disgust with the music industry, feel that the recording industry is only going after Napster to protect their profits, with no regard for the interests of consumers. This negative image of the music industry provides no incentive for users to respect copyright law and the rights of artists. Many users do not consider respecting copyright to be in the interests of artists; rather, they view it as putting more money into the pockets of the recording industry.

Napster offers a huge new market to artists and labels, a market that is largely the result of consumer dissatisfaction with existing models of distribution. Napster offers something even more valuable than free music—more importantly, it offers access. The service provides instant connections to music that might be difficult to find in traditional retail outlets or even online retailers (e.g. Amazon.com). As Chuck D. pointed out, Napster also allows users to listen to a song prior to purchasing instead of risking \$18.99 on an entire album. Further, music that is just plain unavailable, like many obscure old songs, imports, and dance singles, can still be heard using Napster.

¹⁹⁰ Amy Harmon, "Napster Users Make Plans for the Day the Free Music Dies," *New York Times*, February 13, 2001.

However, the benefits that Napster provides for music fans do not make the service legal. It clearly enables the large-scale infringement of copyrights. Every day, millions of users download copies of music that would otherwise cost money, a portion of which would go to pay artists. Even if the current structure of the music industry enables record companies rather than artists to reap the majority of the profits, at least artists receive *some* payment. As Napster currently functions, artists receive nothing. While traditional sales of music are still strong, if systems like Napster were allowed to persist without payments to artists, the incentive system that forms the heart of copyright law could be severely degraded, or even worse, destroyed. Napster knowingly contributed to the direct infringements of its users, and eventually planned to make money from copyrighted creative works that it did not have permission to use.

Although Napster has been in the digital music spotlight for a few years now, its shut down will not mean the end of rights holders' problems. File sharing programs have proliferated rapidly as attempts to capitalize on the potential market and/or thwart the recording industry. Now that other potential companies and software developers have observed how Napster's case has played out legally, they have a template from which to develop a service that is either protected under existing copyright law or is simply impossible to shut down.

CONCLUSION

Napster's case raised several crucial questions about the function of copyright, its interplay with technology, and how the music industry accommodates the interests of artists and consumers. Most people can agree that Napster violates copyright law, but not

everyone believes that the law is right. The case has raised concerns over both the legitimacy of the power wielded by the recording industry as well as the legitimacy of copyright law. There is a strong sentiment that users' rights and interests have been ignored under the political and financial clout of the music industry. Napster was able to bring many of these issues to the forum.

The current disagreements between the recording industry and media distribution companies like Napster also raise questions about how much current copyright law has strayed from its original constitutional intent. On the one hand, Napster is illegal. It violates artists' and copyright holders' rights to be paid for their works, and does not give artists a choice over how their music is reproduced and distributed. As such, it has the potential to seriously erode the incentive system at the heart of copyright law. On the other hand, it is also important to remember the reasons for which the incentive system exists. The Constitution established copyright law for the benefit of the public, to "promote the Progress of Science and the useful Arts." The purpose of copyright is to encourage creativity and development by establishing exclusive rights for those who did the creating, but only to the extent that the works would be disseminated to the public. While Napster clearly violates copyright law, it does not completely contradict copyright's underlying intent. Artists and copyright owners should get paid, but music fans should get to listen.

CHAPTER 5

REGAINING THE COPYRIGHT BALANCE

“When Jefferson and his fellow creatures of the Enlightenment designed the system that became American copyright law, their primary objective was assuring the widespread distribution of thought, not profit.”

–John Perry Barlow¹⁹¹

“You’d better start swimming or sink like a stone, ‘cause the times they are a-changin’.”

-Bob Dylan, The Times They Are A-Changing

Review

Online digital distribution of music has the potential to offer various benefits to artists, the recording industry, and consumers. For artists, the Internet provides a method with which a broad audience may be reached at very little cost. For record companies, containerless music offers vast savings from the elimination of both manufacturing costs associated with CDs and losses from overproduction. For consumers, online digital music distribution allows them to choose the music they want to hear, when they want to hear it, without the hassles of going to the record store or ordering an album online. Purchasing could become much more efficient, and consumers would have access to an unprecedented catalog of music only a few clicks away. Because it would become easier for artists to make their music available, fans could benefit from the increase in the number and variety of musicians.

¹⁹¹ John Perry Barlow, “The Economy of Ideas,” www.wired.com/wired/archive/2.03/economy.ideas_pr.htm (2/15/01).

Though online distribution of music has the potential to provide these social and economic advantages, whether society will ultimately enjoy these benefits remains to be seen; just as digital music brings benefits, it also carries potential harms. Digital music technology as it currently stands, combined with the power of the Internet, allows for large-scale proliferation of unauthorized copies of music at no cost. This facet of digital music has alarmed both the recording industry and musicians, with good cause. If music continues to be distributed illegally at no cost over the Internet, musicians may be deprived of compensation for their work, ultimately destroying the incentive system carefully crafted by copyright law. At its heart, copyright law attempts to provide creators with enough economic incentives to encourage the creation and dissemination of creative works, to the benefit of the public.

Because the recording industry has such a vested financial interest in controlling the online distribution of music, it has struggled to shut down distributors of music such as Napster and to prevent the emergence of services that will jeopardize its revenues. Very few people sympathize with the complaints of the industry, arguing that the music industry tends to exploit both consumers and artists by overpricing music and underpaying musicians. However, while the industry's claims of wanting to protect artists may lack merit, it is evident that the availability of unauthorized music over the Internet has the potential to cause great detriment to musicians. Though artists may make little money with their record deals, they make even less when their music is given away for nothing.

While leaving many questions unresolved, the war between artists, users and the recording industry has at least brought several key points to light. The first is that

consumers are currently dissatisfied with the way music is made available. The second and more important point is that digital formats have the potential to dramatically change the way we think about copyrights and music. Should the recording industry prevail, music may be kept technologically locked up, with very limited online uses. Should the recording industry lose its battle, and the illegal mass distribution of music continue, the public may be left with less music as a result of musicians being forced to pursue other more lucrative careers. However, recent trends in legislation have served to strengthen digital copyrights. This trend, combined with emerging technology that could potentially provide rights holders with full control over access to their works, represents a movement away from the underlying intent of copyright law. Instead of concerning itself with promoting the creation of works for the public's benefit, copyright law has become increasingly focused on preserving the profits of the powerful few. The third issue that digital music has raised is whether the existing structure of the music industry is beneficial for anyone other than those that control it. More than anything, the controversy over digital music distribution has raised awareness among artists and users alike, causing them to question how their rights and interests fit into the copyright regime.

The digital music controversy has multiple levels. The immediate problem is how copyright holders will be compensated for the digital distribution of their works. The broader problem is how artists are compensated for their creative work when they are not copyright owners. In attacking both of these problems, two goals must be kept in mind: 1) digital music should be distributed over the Internet so that consumers and artists can enjoy its benefits, and 2) musicians must be adequately compensated for their work to provide incentives for creativity.

In working towards these goals, it is also important to remember two realities:

- 1) If they can, consumers will continue to use digital music, whether or not such use is legal; and,
- 2) Record companies, as copyright holders, have a right to control the digital distribution of their music, whether or not they pay artists well.

A Legitimate Alternative

Piracy exists because of a market dysfunction. Consumers want access to a wide variety of music at low cost from the comfort of their homes, and technology has empowered them to have it. Because the recording industry has not provided legal alternatives to programs like Napster, the incentives for consumers to continue engaging in piracy are high. Clearly the answer to abating piracy will lie in developing a legitimate competing service.

A successful alternative will need to:

- be interactive;
- be available at low cost;
- offer extra content; and,
- offer a large selection of current and past music.

Interactive services, in which consumers choose which songs they hear or download, are the future of digital music. The next two requirements are necessary in order to compete with piracy because the latter is free. Keeping prices low may not be sufficient, so legitimate services can entice consumers to pay by offering extra content such as tour information, band biographies, online liner notes, etc. The last requirement, offering an extensive catalog of music, is the most crucial and will be the most difficult to fulfill. In

order to offer a catalog competitive with the music available on Napster, an interactive service would need to negotiate and obtain separate licenses from each of the major record companies.¹⁹² The major labels have refrained from licensing their music to independent companies, attempting to develop their own methods of distribution in order to maintain control of the industry. “The labels have been incredibly reluctant to license their catalogs to anyone in the digital world, because it’s all about control,” said David Pakman of Myplay, an online music locker service. “If they want to license their catalog to you, they want to be restrictive, because they don’t want you to do things they haven’t thought of. They don’t want someone else to build a humongous business that they are not part of.”¹⁹³

However, the recording industry has realized that it must embrace digital technologies in order to survive. The consumer demand for digital music has become a glaring reality. In the absence of industry-back digital music distribution, consumers will continue turning to digital piracy. And as more and more Napster clones emerge, it will be less and less feasible to legally pursue each company for copyright infringement. “Legal ‘whack-a-mole’ is not going to get us where we want to go,” said Jonathan Potter of the Digital Media Association.¹⁹⁴

Instead of granting licenses to independent companies, the major record companies have announced their own versions of digital music distribution. Universal and Sony have been developing a service called Duet, which will offer the catalogs of both companies in a subscription service slated to begin this summer. Duet is also

¹⁹² Refer to Chapter 2 for review of voluntary licensing scheme as outlined under the DPRA.

¹⁹³ Sara Robinson, “Online Music Companies Outplayed,” www.zdnet.com/intweek (3/12/01).

¹⁹⁴ Bruce B. Auster, “I Want My MP3, But Who Pays the Bill? Closing Napster Won’t Kill Digital Music Online,” *U.S. News & World Report*, February 26, 2001, p. 45.

seeking licenses from the other three Big 5 companies. Meanwhile, RealNetworks has announced the launch of an online music subscription platform in conjunction with AOL Time Warner, BMG, and EMI. The platform, called MusicNet, will license the music of the involved record companies to companies wishing to offer subscription services. Each of the three record companies holds a 20% stake in the company.¹⁹⁵

The first two companies to license MusicNet will be RealNetworks and America Online. A press release by MusicNet stated that, “MusicNet wants to sign as many content providers and distribution partners as possible. It will license its platform to any distribution outlet, including Napster, so long as it meets certain legal, copyright and security requirements.”¹⁹⁶ Those requirements have not been disclosed. Also, there has been no information about what file formats the platform will support, although Real will provide the technology for music distribution. And though the technology allegedly incorporates security measures, no further details have been released. There has also been no indication of how much of the record companies’ back catalogs will be offered, or how much it will cost to license MusicNet. The announcement of MusicNet is encouraging, but it leaves out crucial details that would allow a full assessment of the platform.

The recording industry’s decision to begin licensing its catalogs comes at a key point. A Senate Judiciary Committee hearing on the state of online music was scheduled for the day after MusicNet’s launch. Committee Chairman Senator Orrin Hatch (R-UT) has criticized the industry for failing to license its music. “I do not think it is any benefit for artists or fans to have all the new, wide distribution channels controlled by those who

¹⁹⁵ Jay Kumar, “RealNetworks to Launch Subscription Platform With Labels,” “April 2, 2001, www.webnoize.com/item.rs?eID=20010402&ID=12478 (4/2/01).

have controlled the old, narrower ones,” said Hatch.¹⁹⁷ “I expect to see the market provide fair, nondiscriminatory licensing of music, not just cross-licensing among major labels. I intend to do what I can to see that happen.”¹⁹⁸

Prior to the major announcement of MusicNet, some critics of the recording industry suggested that extending compulsory licensing to interactive digital music services would help digital music become more widely available.¹⁹⁹ Extending compulsory licensing would require copyright holders to license their music for no more than a statutorily set fee. Proponents of compulsory licensing expansion argue that inefficient bargaining occurs between potential licensees and record companies: because the recording industry exercises a virtual monopoly on content, it is free to control the terms of the license. Since most fledgling companies can not meet the stringent licensing terms, record companies retain a monopoly over almost all music. Compulsory licensing can be used to ensure that music is widely distributed, and to encourage competition in the industry.

However, Congress is unlikely to change the licensing schemes under the DPRA and DMCA unless there is a monopoly of content.²⁰⁰ Since copyright holders are moving to make their music available online, there is currently no reason to implement compulsory licensing for interactive services. Doing so would not only interfere with the marketplace, but could force copyright owners to license their works to services that do not meet the security requirements of the rights holders. During a period in which no

¹⁹⁶ See “FAQ on MusicNet,” www.realnworks.com (4/2/01).

¹⁹⁷ Mike Musgrove, “Musicians Remix the Digital Music Debate,” *The Washington Post*, January 12, 2001.

¹⁹⁸ Sara Robinson, “Online Music Companies Outplayed,” www.zdnet.com/intweek (3/12/01).

¹⁹⁹ Refer to Chapter 2, p. 37 for an explanation of the current compulsory licensing scheme for sound recordings under the DPRA.

²⁰⁰ Preventing a monopoly was the central reason for establishing compulsory licenses (mechanical licenses) for musical works.

technology is yet secure, copyright owners' discretion is important for the protection of their works. Compulsory licensing would be the last resort if the major labels do not successfully license their music to other companies.

Though we do not know exactly what MusicNet will look like, or what its net effect will be, the idea behind it is certainly a step in the right direction. If the major labels are able to develop cooperative licensing agreements or platforms, consumers will have access to a wide variety of easily accessible music, all available for a subscription fee. If the recording industry is successful in convincing consumers to use its services, copyright holders will be compensated for their works, and users will be able to enjoy the benefits of digital music without breaking the law. But where does that leave artists?

A Reexamination of the Relationship Between Artists and Record Companies

No one knows how restrictive the requirements to license platforms like MusicNet will be, so there is still a possibility that the major record companies will retain a great deal of control over the distribution of their music. But if the music is being disseminated, is there anything problematic about the recording industry's continued control of the music market?

The answer to that is yes. The first reason is that the recording industry's recent behavior smells strongly of anti-trust violations. The second is that the recording industry has a long history of exploiting artists in contracting agreements. Anti-trust laws are beyond the scope of this thesis, so the focus will be on the relationships between musicians and record companies.

The digital music controversy has afforded the opportunity to appraise artists' rights in addition to copyright law. Musicians have been using the spotlight created by Napster to call attention to the unfair practices of the recording industry. At this point it is obvious that relations between the recording industry and musicians are strained. Contracts call for artists to sign over their rights to the record company, and the royalties received by artists are paltry in comparison to profits earned by the company. Though online digital music has provided new artists with the ability to forego the labels and reach consumers directly, these opportunities have limited effects on a musician's overall popularity. Artists who have not yet made a name for themselves will still need to target traditional markets such as radio and retail chains to gain enough exposure to make substantial profits. Record companies have the financial and social resources to run promotions, get songs played on the radio, and convince stores to carry albums. For this reason, artists looking to make a living from music are virtually forced to sign record contracts with prohibitive terms.

While the contracting agreements between record companies and artists may seem to have little to do with copyright law, they are in fact an important aspect of it. Recall that the goals of copyright law are two-fold: first, the law attempts to promote public benefit by fostering creative works, and second, the law does that by providing artists with temporary monopolies as incentives to create. The primary constituents of copyright are the creators and consumers, a relationship that becomes skewed when the recording industry receives most of the profits intended to promote the creativity of artists. Even if the actual copyright holder is receiving payment, if artists are being cheated of

compensation, then the incentive system intended under copyright law is not functioning efficiently.

Artists have already taken measures to voice their concerns to Congress. Don Henley, who heads the Recording Artists Coalition, which represents artists like Joni Mitchell, Q-tip, and Eric Clapton, said, “Record companies have been screwing artists for ages. It's time we organize and fight back... We're going to Washington.”²⁰¹ Henley's group is considering joining together with Artists Against Piracy, another coalition that represents over 90 different artists. A strong organization that works on behalf of artists' rights and interests could provide artists with more bargaining power in deals with record labels. Further, having artists participate more actively in the debate on copyright law will allow discussions to become more transparent.

Artists may consider pursuing an amendment to the allocation of fees received for voluntary licenses of sound recordings. Interactive digital music services are subject to a voluntary licensing scheme, in which the terms and granting of the license are at the copyright owner's discretion. The compulsory license outlined for certain services under the DPRA and the DMCA comes with a provision for the allocation of fees.²⁰² Specifically, the code says that under a compulsory license, of the payments received by the copyright holder, “*45 percent of the receipts* shall be allocated, on a per sound recording basis, to the recording artist or artists featured on such sound recording” (emphasis added).²⁰³ The statute clearly establishes that artists are entitled to a set share of the profits made from their works. However, the allocation of fees provision for a

²⁰¹ Chuck Philips, “Recording Stars Challenge Music Labels' Business Practices,” *Los Angeles Times*, March 29, 2001.

²⁰² Refer to Chapter 2, p. 36 for an explanation of statutory fee allocations under the DPRA.

²⁰³ Title 17 U.S.C. Sec. 115 g(2)C.

voluntary license has no such percentage. Regarding payments received under a voluntary license, the code says, “a featured recording artist who performs on a sound recording that has been licensed for a transmission shall be entitled to receive payments from the copyright owner of the sound recording in accordance with *the terms of the artist’s contract*” (emphasis added).²⁰⁴ This means that for uses of a work by an interactive service, the artist who recorded that work is still subject to the royalty rate outlined in his contract, typically 6% after the company makes “necessary deductions.”²⁰⁵ The legislative history indicates that the fee allocation provisions were added “to ensure that a fair share of the digital sound recording performance royalties goes to performers according to the terms of their contracts.”²⁰⁶ But if the terms of recording contracts do not provide a “fair share” of royalties, Congress should consider intervening to establish a provision for a standard allocation of fees for receipts from voluntary licenses. Instead of establishing a set rate like the 45% under compulsory licensing, an amendment might place a floor on the rate to ensure that artists receive some minimum percentage of receipts for their works. Establishing a floor rather than a set rate could minimize the market interference while ensuring that artists are adequately compensated for their work.

However, because such a provision would entail a substantial degree of government intervention, Congress will have to carefully examine the rights of artists and the role of the recording industry before making any changes. Hopefully the creation of artist coalitions will provide artists with a voice to make the unfair practices of the recording industry known. As copyright holders, members of the recording industry are justified in protecting their interests and rights, but more attention must be paid to

²⁰⁴ Title 17 U.S.C. Sec. 115 g(1)A.

²⁰⁵ Draft of testimony before Senate Judiciary Committee, Future of Music Coalition, April 1, 2001.

interests of the two parties targeted in the underlying theory of copyright law—the public and artists.

Conclusion

Digital music is advancing rapidly. Technology is changing faster than ever imagined, and copyright legislation has struggled to stretch itself to accommodate the new possibilities provided by digital music. The constant changes leave everyone guessing about what the next development will be.

There are no preemptive measures that can be taken to stop technology; copyright doctrines must evolve alongside technology, not before it. Technology has the possibility to enable enough piracy to undermine the incentive system for music, but at the same time to provide copyright holders with unprecedented control. Patience is necessary before jumping to pass legislation that will change rights holders' or users' rights substantially. Clearing the paths for digital music will not be done by technology or legislation alone. Solutions will only arise from using both together to develop working business models that will appeal to consumers. Likewise, applying copyright doctrines to new technologies will necessitate cooperation from users, artists, and the recording industry.

More important than any one solution to the digital music dilemma is how such a solution is reached. In the past, the recording industry has dominated legislation, causing consumers and artists to be left by the wayside. But digital music has called attention to the neglected rights of both parties. It has mobilized users and musicians to become more active in voicing their concerns, and this participation is crucial to a balanced “trialogue”

²⁰⁶ House Report on DPRA, CIS 104-274.

about the future of technology and copyright legislation. Somewhere along the road, the underlying intent of copyright was lost in the midst of highly specific legislation that increasingly favored big business interests—recent legislation strengthened rights holders' positions, and users' privileges have been correspondingly restricted. Copyright law must maintain a balance between incentives for creators and rights holders, and benefits for the public. Regaining focus on the importance of the underlying goals of copyright law will help policy makers craft solutions that heed the interests of consumers, musicians, and copyright holders.

BIBLIOGRAPHY

Court Cases

A&M Records, Inc. v. Napster, Inc. 55 U.S.P.Q.2D (BNA) 1781, August 10, 2000.

A&M Records, Inc. v. Napster, Inc. 57 U.S.P.Q. (BNA) 1729, February 12, 2001.

A&M Records, Inc. v. Napster, Inc. 2000 U.S. App. Lexis 18688, July 28, 2000.

Recording Industry Association of America v. Diamond Multimedia Systems, Inc., 49 U.S.P.Q. 2D (BNA) 1024 (1998).

Recording Industry Association of America v. Diamond Multimedia Systems, Inc., 51 U.S.P.Q. 2D (BNA) 1115 (1999).

Sony Corp. of America. V. Universal Studios, Inc., 464 U.S. 417 (1984).

Magazine Articles

Albanes, Andrew. "Digital Copyright Goes to Court," *Publishers Weekly*, October 2, 2000, 48ff.

Ante, Spencer E. "Inside Napster," *Business Week*, August 14, 2000, 112ff.

Ante, Spencer E. "Napster: Tune In, Turn On, Pay Up," *Business Week*, November 13, 2000, 52ff.

Auster, Bruce B. "I Want My MP3, But Who Pays the Bill? Closing Napster Won't Kill Digital Music Online," *U.S. News & World Report*, February 26, 2001, 45ff.

Breen, Christopher, and Susan P. Butler. "Steal This Song," *Macworld*, August, 2000, 69ff.

Cohen, Adam. "Taps For Napster?" *Time*, July 31, 2000, 34ff.

Cohen, Adam, Mike Eskenazi and David E. Thigpen. "A Crisis of Content," *Time*, October 2, 2000, 68ff.

"Peer-to-peer Pressure," *The Economist*, November 4, 2000.

Eliscu, Jenny. "Beyond Napster," *Rolling Stone*, October 12, 2000, 13ff.

Eliscu, Jenny. "Napster Court Battle Heats Up," *Rolling Stone*, November 9, 2000, 34ff.

- Ewing, Jack. "A New Net Powerhouse?" *Business Week*, November 13, 2000.
- Gibney, Frank Jr. "Napster Meister," *Time*, November 13, 2000, 58ff.
- Gillen, Marilyn A. "Digital Downloads: Will Enough Consumers Care?" *Billboard*, November 4, 2000, 5, 78ff.
- Godwin, Mike. "Make Money, Not War," *American Lawyer* 22 (October 2000), p. 61ff.
- Hall, Karen. "Napster's Master Career Collector," *American Lawyer* 22 (July 2000), 24ff.
- Greenfeld, Karl Taro. "Meet the Napster," *Time*, October 2, 2000, 60ff.
- Gurley, J. William. "Digital Music: The Real Law is Moore's Law," *Fortune*, October 2, 2000, 268ff.
- Himowitz, Michael J. "Keep On Rockin,'" *Fortune*, October 2, 2000, 319ff.
- Holland, Bill. "Senators Mull New Legislation in Wake of Napster Ruling," *Billboard*, February 24, 2001, p. 83ff.
- Kahn, Jeremy. "Proving Napster Legal Is a Tough Job for Boies," *Fortune*, October 2, 2000, 50ff.
- Lardner, James. "The Empire Strikes Back," *U.S. News & World Report*, September 18, 2000.
- Mann, Charles C. "The Heavenly Jukebox," *The Atlantic Monthly*, September 2000, 39ff.
- Parloff, Roger. "Newbies vs. Netwits," *American Lawyer* 22 (September 2000), 17ff.
- Robischon, Noah et al. "Sounding Off: Napster Rocks and Roils the Music World," *Entertainment Weekly*, August 11, 2000, 8ff.
- Shprintz, Janet. "RIAA Argument Doesn't Play with Appeals Court," *Variety*, October 9-15, 2000, 7ff.
- Steele, Jeanna. "Bad Vibes: A New Technology Threatens the Recording Industry," *California Lawyer* 20 (June 2000), 19ff.
- Stone, Brad. "Napster's Offspring," *Newsweek*, October 16, 2000, 58ff.
- Stone, Brad and Karen Lowry Miller. "The Odd Couple," *Newsweek*, November 13, 2000, 56ff.
- Tully, Sean. "Big Man Against Big Music," *Fortune*, August 14, 2000, 186ff.

Law Review Articles

Allemann, Alex. "Manifestation of an AHRA Malfunction: The Uncertain Status of MP3 Under Recording Industry Association of America v. Diamond Multimedia Systems, Inc.," *Texas Law Review* 79 (November 2000), 189-225.

Balaban, David. "Music in the Digital Millenium: The Effects of the Digital Millenium Copyright Act of 1998," *UCLA Entertainment Law Review* 7 (Spring 2000), 311ff.

Berchadsky, Ariel. "RIAA v. Napster: A Window Onto the Future of Copyright Law in the Internet Age," *John Marshall Journal of Computer & Information Law* 18 (Spring 2000), 755ff.

"Music to Whose Ears? The Debate Over Digital Music," *Berkeley Center for Law & Technology*, April 6, 2000.

Coats, William Sloan, Vickie L. Freeman, John G. Given, and Heather D. Rafter. "Symposium: Legal and Business Issues in the Digital Distribution of Music: Streaming into the Future: Music and Video Online," *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), 285.

Das, Sonia. "The Availability of the Fair Use Defense in Music Piracy and Internet Technology," *Federal Communications Law Journal* 52 (May, 2000), 727-747.

Dougherty, F. Jay. "Symposium: Legal and Business Issues in the Digital Distribution of Music: Forward," *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), 207.

Field, Corey. "New Uses and New Percentages: Music Contracts, Royalties, and Distribution Models in the Digital Millenium," *UCLA Entertainment Law Review* 7 (Spring 2000), 289-310.

Frisby, Mary Jane. "Rockin' Down the Highway: Forging a Path for the Lawful Use of MP3 Digital Music Files," *Indiana Law Review* 33 (1999), p. 317-348.

Garon, Jon M. "Media and Monopoly in the Information Age: Slowing the Convergence at the Marketplace of Ideas," *Cardozo Arts and Entertainment Law Journal* 17 (1999), 491-621.

Gertz, Ron, Robert Kohn, Steve Marks, Jeremy Silver, Ron Sobel, and Charles Stanford. "Legal and Business Issues in the Digital Distribution of Music: Licensing of Music and Records for Digital Use," *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), 333-362.

Gibeaut, John. "Facing the Music," *American Bar Association Journal* 37 (October 2000).

- Gonzales, Ines G., "Recording Industry Association of America, Inc. v. Diamond Multimedia Systems, Inc.," *Berkeley Technology Law Journal* 15 (2000), 67-82.
- Gosse, Elizabeth R. "Recording Industry Association of America v. Diamond Multimedia Systems, Inc.: The RIAA Could Not Stop the Rio—MP3 Files and the Home Recording Act," *University of San Francisco School of Law Review* 34 (Spring 2000), 575.
- Halpern, Sheldon W. "Copyright Law in the Digital Age: Malum in Se and Malum Prohibitum," *Marquette Intellectual Property Law Review* 4 (2000), 1-15.
- Hepler, David A. "Dropping Slugs in the Celestial Jukebox: Congressional Enabling of Digital Music Piracy Short-Changes Copyright Holders," *San Diego Law Review* 37 (Fall, 2000), 1165-1200.
- Hill, Rebecca J. "Pirates of the 21st Century: The Threat and Promise of Digital Audio Technology on the Internet," *Santa Clara Computer and High Technology Law Journal* 16 (May 2000), 311.
- Kelly, Kevin. "The MP3 Challenge: Has Congress Effectively Shielded the Music Industry from Internet Copyright Piracy?" *Temple Environmental Law and Technology* 18 (Spring, 2000), 163-190.
- Marks, Steven M. "Entering the Sound Recording Performance Right Labyrinth: Defining Interactive Services and the Broadcast Exemption," *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), p. 309-332.
- Needham, Lisa M. "A Day in the Life of the Digital Music Wars: The RIAA v. Diamond Multimedia," *William Mitchell Law Review* 26 (2000), 1135.
- Nimmer, David. "Ignoring the Public, Part I: On the Absurd Complexity of the Digital Audio Transmission Right," *UCLA Entertainment Law Review* 7 (Spring 2000), p. 189-265.
- Okediji, Ruth. "Givers, Takers, and Other Kinds of Users: A Fair Use Doctrine for Cyberspace," *Florida Law Review* 53 (January, 2001), 107-154.
- Pollack, Wendy M. "Tuning In: The Future of Copyright Protection for Online Music in the Digital Millenium," *Fordham Law Review* 68 (May 2000), 2445.
- Reyburn, Sara Beth. "Fair Use, Digital Technology, and Music on the Internet," *University of Pittsburgh Law Review* 61 (Summer, 2000), 991-1022.
- Schulman, Brendan M. "The Song Heard 'Round the World: The Copyright Implications of MP3s and the Future of Digital Music," *Harvard Journal of Law & Technology* 12 (Summer 1999), 589-644.

Sylva, Jennifer Burke. "Symposium: Legal and Business Issues in the Digital Distribution of Music: Digital Delivery and Distribution of Music and Other Media: Recent Trends in Copyright Law; Relevant Technologies; and Emerging Business Models," *Loyola of Los Angeles Entertainment Law Journal* 20 (2000), 217.

Thomas, Anna. "MP3 Wars: The Battle For Copyright in Cyberspace," *Entertainment Law Review* 11 (August 2000), 165-166.

Toney, Jessica Trivellini. "You've Got Mud on Your Face: Have MP3s Turned the Middleman Into Roadkill?" *Hastings Communications and Entertainment Law Journal* 22 (Fall, 1999), 127-152.

Wright, Charles S. "Actual Versus Legal Control: Reading Vicarious Liability for Copyright Infringement into the Digital Millennium Copyright Act of 1998," *Washington Law Review* 75 (July 2000), 1005.

Online Articles/Sources

"Appeals Court Grants Napster Reprieve,"
www.cnn.com/2000/LAW/07/28/napster.stay/index/html.

"Artists Sound Off," see www.napster.com/speakout/artists.html (2/15/01).

Barlow, John Perry. "The Economy of Ideas,"
www.wired.com/wired/archive/2.03/economy.ideas_pr.htm (2/15/01).

Barlow, John Perry. "Napster.com and the Death of the Music Industry," May 12, 2000,
www.technocrat.net/958163435/index.htm (2/15/01).

Boehlert, Eric. "Artists to Napster: Drop Dead!"
http://www.salon.com/ent/feature/2000/03/24/napster_artists.html (2/18/01).

Borland, John. "Music Piracy Efforts Faces Key Test," www.news.cnet.com/news/0-1005-202-4587313.html (3/17/01.)

Borland, John. "MP3.com Halts Free Artist-Royalty Program," 3/16/01,
www.news.cnet.com/news/0-1005-200-5161805.html (3/17/01).

Boucher, Rick. "Floor Statement of Congressman Rick Boucher: Introduction of the Music Owners' Listening Rights Act of 2000," September 25, 2000,
www.house.gov/boucher/docs/molra.htm.

Brown, Janelle. "The Gnutella Paradox," September 29, 2000,
www.salon.com/tech/feature/2000/09/29/gnutella_paradox.htm (3/15/01).

Dube, Ric. "2001 Will Be A Rebuilding Year, Rosen Says; DMCA Strongly Criticized at DC Event," January 12, 2001, www.webnoize.com/item.rs?ID=11653.

Dube, Ric, and Lee Black. "Dot-NAP: Napster 2, Industry Bugaloo," February 26, 2001, www.webnoize.com/research/item.rs?stp=&ID=12120, (3/12/01).

"EFF Renews Its Call to Boycott the 'HackSDMI' Challenge," September 29, 2000, www.eff.org

Free Music Philosophy, <http://www.ram.org/ramblings/philosophy/fmp.html>.

Goodin, Dan. "Napster Injunction Puts Burden on Labels," www.thestandard.com (3/11/01).

"Guide to the SDMI Portable Device Specification, Part 1, Version 1.0," see www.sdmi.org.

Karp, Joel and Lee Black, "Digital Rights Management: A Virtual Boxing Match," www.webnoize.com/research/item.rs?ID=11219 (3/12/01).

King, Brad. "Fight Rages Over Digital Rights," www.wired.com/news (3/17/01).

King, Brad and Robin Clewley. "Musicians Play a Hopeful Tune," www.wired.com/news (3/11/01).

King, Howard. "Why Metallica is Suing," www.cnn.com/LAW/columns/king.05.17/index.html.

Kohn, Bob. "A Primer on the Law of Webcasting and Digital Music Delivery," October 1998, <http://www.kohnmusic.com/articles/newprimer.html> (3/7/01).

Love, Courtney. "Courtney Love Does the Math," <http://www.salon.com/tech/feature/2000/06/14/love.html> (2/18/01).

"Napster's Side of the Story," <http://www.cnn.com/LAW/columns/napster.05.19/index.html>.

"Q&A on Record Companies Removing Files from Napster," www.napster.com/pressroom/010308-qanda.html (3/11/01).

Robinson, Sara. "Online Music Companies Outplayed," www.zdnet.com/intweek (3/12/01).

Rohda, Gregor, and Lee Black. "Monetizing P2P Networks," January 22, 2001, www.webnoize.com/research/item.rs?ID=11752 (3/12/01).

Rohda, Gregor, Lee Black, and Matt Bailey, "MP3's Silver Lining," www.webnoize.com/research/item.rs?ID=11957 (3/12/01).

Rosenberg, Scott. "Napster—Friend or Foe?" <http://www.salon.com/tech/col/rose/2000/03/30/napster.html> (2/18/01).

"Victory or Defeat?" www.salon.com/tech/feature/2001/2/12/napster_reactions.htm (2/12/01).

"Guide to the SDMI Portable Device Specification, Part 1, Version 1.0," see www.sdmi.org

"The Baby and the Bathwater," www.theatlantic.com/issues/2000/09/mann-hughenoltz.com (1/25/01).

"The New Tastemakers," www.theatlantic.com/issues/2000/09/mann-griffin.htm (1/25/01).

Newspaper Articles

Associated Press, "Napster's Effect on Sales Unclear," *New York Times*, August 18, 2000.

Associated Press, "Other Music Swapping Services," *New York Times*, February 13, 2001.

Bernstein, Robert J. and Robert W. Clarida. "New Rulings Protect Music on the Web," *New York Law Journal*, May 19, 2000.

Borsook, Paulina. "Art's Cold Welcome on the Web," *New York Times*, February 23, 2001.

Carlinsky, Michael B. and Jeffrey A. Conciatori. "Stop the Music: Napster is not Covered by DMCA," *New York Law Journal*, May 16, 2000.

Carlozo, Lou. "Sounding Off About Music, the Web Conference Corrals Disparate Groups to Debate Future of Art Form," *Chicago Tribune*, January 11, 2001.

Donahue, Ann. "Rosen: RIAA Suit Against Napster to Go On," *Daily Variety*, November 15, 2000, p. 3.

Dorney, Maureen S. "New High-Tech Solutions for High-Tech Infringement," *The National Law Journal*, May 17, 1999.

Downing, Dickerson M. "What a Year! MP3.com, Napster, DeCSS," *New York Law Journal*, January 16, 2001.

"Ninth Circuit Hears Arguments from Napster, Music Industry in Televised Hearing," *The Entertainment Litigation Reporter*, October 31, 2000.

Good, Owen. "Copyright Law Always Tied to the Technology," *Chicago Daily Law Bulletin*, July 28, 2000.

Graham, Jefferson. "Napster's Digital Digital Diplomat Music Industry's Nemesis Beats Sword into Profit Shares in Union With Recording Giant," *USA Today*, November 6, 2000.

Ham, Shane and Robert D. Atkinson. "Napster and Online Piracy: The Need to Revisit the Digital Millennium Copyright Act," *E-Business Law Bulletin* 1 (July 2000), p.18.

Harris, Ron. "Judge Pulls Plug on Napster," Associated Press, 7/28/00.

Harmon, Amy. "Enlisting Congress on Technology," *New York Times*, October 2, 2000.

Harmon, Amy. "Napster Users Make Plans for the Day the Free Music Dies," *New York Times*, February 13, 2001.

*Harmon, Amy. "Online Davids v. Corporate Goliaths," *Chicago Daily Law Bulletin*, August 9, 2000.

Healy, Jon. "Companies Clamor to Fill Napster Void," *New York Times*, February 14, 2001, C1.

Holson, Laura. "Which Direction for Digital Music?" *New York Times*, November 20, 2000.

Joseph, Bruce and Scott E. Bain. "DMCA Safe Harbor Provisions," *The National Law Journal* (July 31, 2000), 8.

Kaplan, Carl S. "Legal Expert Sees Napster Competitors Thriving," *New York Times*, February 23, 2001.

Krugman, Paul. "Time to Face the Music," *Chicago Daily Law Bulletin*, August 2, 2000.

Marriot, Michel. "A Music-Sharing Service That Gets Along with Record Companies," *New York Times*, February 1, 2001.

Musgrove, Mike. "Musicians Remix the Digital Music Debate," *The Washington Post*, January 12, 2001.

Pender, Kathleen. "Net Music Providers Face Uphill Profit Spin," *San Francisco Chronicle*, November 17, 2000.

Raysman, Richard and Peter Brown. "Napster Threatens Copyright Law," *New York Law Journal* (July 11, 2000), p.3.

Richtel, Matt. "Napster Charts New Course After Ruling," *New York Times*, February 13, 2001.

Richtel, Matt. "Napster Planning Fees Starting in Summer," *New York Times*, February 21, 2001.

Richtel, Matt. "New Economy," *New York Times*, April 17, 2000.

Slinda-Flor, Victoria. "Sky 'Isn't Falling' in Music World," *The National Law Journal* (August 7, 2000).

Snider, Mike. "No Copying, No Trading? No Kidding: Copyright Fight Might Narrow Our Options," *USA Today*, March 6, 2001.

Weingart, Jeffrey P. and Monica B. Richman. "Fair Use and the Internet," *The National Law Journal*, October 2, 2000.

Books

Cox, Ingemar J., Joe Kilian, Tom Leighton and Talal Shamoan, "A Secure, Robust Watermark for Multimedia," in Ross Anderson, ed. *Lecture Notes in Computer Science: Information Hiding* (Cambridge, UK: Springer, 1996), p. 185.

Goldstein, Paul. *Copyright's Highway: from Gutenberg to the Celestial Jukebox*. New York: Hill and Wang, 1994.

Kohn, Al and Bob Kohn. *Kohn on Music Licensing*. Englewood Cliffs, NJ : Aspen Law & Business, 1996.

Steffik, Mark. *The Internet Edge: Social, Legal, and Technological Challenges for a Networked World*. Cambridge, MA: MIT Press, 1999.

Strong, William S. *The Copyright Book: A Practical Guide*. Cambridge, MA: MIT Press, 1999.

Weinstein, David A. *How to Protect your Creative Work: All You Need to Know about Copyright*. Wayne, PA: Andrews Professional Books, 1996.

Whitsett, Tim. *Music Publishing: The Real Road to Music Business Success*. Emeryville, CA: MixBooks, 1997.

Other

Craver, Scott A. John P. McGregor, Min Wu, Bede Liu, Adam Stubblefield, Ben Swartzlander, Dan S. Wallach, and Edward W. Felten, "Reading Between the Lines: Lessons from the SDMI Challenge," unpublished paper.

Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860, 2887 (title IV amending §108, §112, §114, chapter 7 and chapter 8, title 17, United States Code), enacted October 28, 1998.

Digital Performance Right in Sound Recordings Act of 1995, Pub. L. No. 104-39, 109 Stat. 336 (amending, inter alia, §114 and §115, title 17, United States Code), enacted November 1, 1995.

Linnartz, Jean-Paul M. G. and Marten van Dijk. "Analysis of the Sensitivity Attack Against Electronic Watermarks in Images," paper presented at Preliminary Proceedings of the Second International Information Hiding Workshop, April 15-17, 1998, p. 2.

Title 17, United States Code.

This thesis represents my own work in accordance with University regulations.