Pity the recording industry. The major recording labels have been blindsided by new technologies embracing the Internet. New data compression technology, primarily in the form of MP3, coupled with the Internet’s expanding global reach, have enabled anyone with access to computers not only to listen to music on their computers, but to exchange music files with other Internet users. Concerned that the portable Diamond Rio MP3 player would further encourage piracy of sound recordings, the Recording Industry Association of America ("RIAA") and the Alliance of Artists and Recording Companies brought suit against the device manufacturer. This Note examines the decision in Recording Industry Association of America v. Diamond Multimedia Systems, Inc. While the recording industry’s legitimate concerns about piracy need to be addressed, other solutions that reflect the fundamental copyright policy of fair use should be explored.

I. BACKGROUND

A. Copyright Law and Early Digital Technology

Through copyright law, Congress attempts to balance exclusive private rights that are limited in duration against public accessibility. For example, copyright law gives the exclusive right to copy and to create derivative works in exchange for innovation. Changes in consumer recording technology, however, have provided many opportunities to reassess the balance. For example, in Sony Corp. v. Universal City Studios, the Supreme Court concluded that consumers have a legal right to “time-shift”...
when they videotape a television program to view later. The Court determined that such recording for personal use constituted fair use and that copyright owners were not likely to object to the time-shifting by consumers.7

Copyright owners of audiovisual programs were not the only ones affected by developments in consumer recording technology. Prior to the introduction of digital recording technology, a person wishing to make an audiocassette tape from a record or compact disc ("CD") had to use analog recording technology, usually consisting of an audiocassette tape recorder and a mixer.8 Given this technology, a second generation copy, i.e., an audiocassette copy made from a previously copied tape, would suffer degradation of quality due to hiss and lack of clarity.9 In the mid to late 1980s, consumer electronics companies developed technology that enables consumers to make digital copies of audio recordings.10 Unlike audiocassettes, digital audio recording media retain the sound quality of the master

---

7. See id. at 456.
8. For more information on the comparison of digital and analog sounds, see Comparison of Digital and Analog (visited Nov. 4, 1999) (http://klingon.cs.iupui.edu/~aharris/mmc/mod4/abec202.html). Digital and analog sounds may be contrasted as follows:

To record a sound, a membrane in a microphone is used to copy that wave onto some surface. . . . To replay the sound, a needle is forced through the groove created by the recording process. This needle is attached to another membrane in a speaker. When the speaker membrane vibrates, the original sound wave is recreated. The process is entirely analog. No numbers are involved, the process is completely mechanical, and there is infinite precision, but very limited accuracy and much room for error in the sound recording and reproduction process.

Compact disk technology uses digital means to record and play sounds. The sound waves are read by a computer which analyzes each instance of the sound, and assigns it a numerical value. Many of these numerical values are stored each second. When the music is played back, it goes through another computer, which retranslates the numbers into the sounds that the numbers represent. As anyone who listens to CDs can attest, digital recordings seem much more accurate than analog recordings. Since they are recorded at such frequent tiny intervals, the lack of precision is not a problem, and we find digitally recorded music more accurate.

Id.

9. See RIAA, 180 F.3d at 1073.
recording regardless of the number of copies produced. Thus, a digital copy made from another digital copy is nearly indistinguishable from the original sound recording.

Unlike the previous analog tape technology, digital recording technology presented a serious threat to the music industry. The record companies feared that the availability of inexpensive, near-perfect copies of musical recordings would discourage consumers from purchasing legitimate recordings. The record companies responded by suing Sony, a manufacturer of digital audio tape. The parties eventually settled and supported the passage of the Audio Home Recording Act ("AHRA") of 1992.

B. Audio Home Recording Act

The AHRA prohibits the importation, manufacture, or distribution of digital audio recording devices unless two requirements are met. First, a digital audio recording device must employ a Serial Copyright Management System ("SCMS") that sends, receives, and acts upon information about the generation and copyright status of the files that it plays. Second, any person importing, distributing, or manufacturing a digital audio recording device must pay a two percent royalty for each device sold to the Register of Copyrights on behalf of the copyright holders.

To be subject to the AHRA, a device must be a "digital audio recording device," which the AHRA defines through a set of nested definitions. The AHRA first defines a "digital audio recording device" as "any machine or device of a type commonly distributed to individuals for use by individuals... the 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...." A "digital audio copied recording" is defined as "a reproduction in a digital recording format of a digital musical recording, whether that reproduction is made directly from another

13. See RIAA, 180 F.3d at 1073.
16. See id. § 1002(a)(2).
17. See id. §§ 1004(a), 1005.
18. See RIAA, 180 F.3d at 1075.
digital musical recording or indirectly from a transmission."\(^{20}\) The AHRA defines a "digital musical recording" 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, if any, and

(ii) from which the sounds and material can be perceived, reproduced or otherwise communicated, either directly or with the aid of a machine or device.\(^{21}\)

A digital musical recording does not include a material object "in which one or more computer programs are fixed, except that a digital musical recording may contain statements or instructions constituting the fixed sounds and incidental material, and statements or instructions. . . ."\(^{22}\)

C. Digital Music and the Internet

Digital music technology has significantly advanced since the passage of the AHRA. Data compression technology, for example, enables users to store copies of musical recordings as files on their computer hard drives. Users can then listen to the music on their computers or send the files as e-mail attachments. In addition, users may post the files on websites, making the copied files available for anyone to download onto their respective computers. Thus one file can be the source of many copies. Early compression formats, however, such as Musical Instrument Digital Interface ("MIDI") took hours to download over the Internet because the digital information on a single CD required hundreds of computer floppy diskettes to store.\(^{23}\)

The development of Motion Picture Experts Group, Audio Layer 3 ("MP3"), represents an enormous advance over previous music compression formats like MIDI. MP3 compresses music files at a 12-to-1 ratio with near-CD quality sound.\(^{24}\) The MP3 files can be transmitted relatively quickly online, making the Internet a more effective and attractive distribution channel.\(^{25}\)

\(^{20}\) Id. § 1001(1) (emphasis added).

\(^{21}\) Id. § 1001(5)(A) (emphasis added).

\(^{22}\) Id. § 1001(5)(B)(ii).

\(^{23}\) See Rudell, \textit{supra} note 12.

\(^{24}\) See Recording Indus. Ass'n of Amer. v. Diamond Multimedia Sys., 180 F.3d 1072, 1074 (9th Cir. 1999).

\(^{25}\) With a high speed connection via a cable modem or a digital subscriber line, compressed music can be downloaded to a personal computer within minutes. See Rudell, \textit{supra} note 12.
Based on the amount of coverage it has received in the media, MP3 seems to be very popular in the Internet community. MP3's popularity has been attributed partially to the fact that it is a standard, non-proprietary algorithm that is freely distributed and widely available.

MP3's popularity on the Internet threatens the recording industry's traditional distribution channels by drastically reducing record labels' traditional control over the promotion of artists. An independent recording artist can now promote her music directly to her fans by making the music available in the form of a downloadable MP3. She no longer has to rely solely on a record label to promote her music to radio stations to reach a large potential fan base. MP3 proponents therefore see the technology as the "great equalizer" because it shifts the power from a few record labels to the artists and consumers.

Recording artists and record labels also fear that advances in technology have led to widespread piracy of music in the form of illegal copying and distribution of sound recordings. CD-ripping software like MusicMatch Jukebox and MP3 Blaster2000 allows a person to store tracks from a CD as a digital file on her computer hard drive. Although CD-ripping software enables a consumer to make a "backup" copy on her hard drive, it also enables illegal copying and distribution.


27. See Rudell, supra note 12.


29. See id.


31. See, e.g., Gehr, supra note 26, at 32-33. But see George M. Borkowski & Robert C. Welsh, Cyberians at the Gate?, IP WORLDWIDE, June 1999, at (http://www.ipmag.com/monthly/99-june/welsh.html) (concluding that record companies will survive despite MP3 because they provide benefits such as differentiation and expertise).

32. The RIAA defines "online piracy" as the "playing or downloading from the Internet songs and lyrics without getting authorization to, and without compensating the artists." See Piracy FAQ's (visited Nov. 21, 1999) (http://www.riaa.com/piracy/pir_faq.htm).


34. For a downloader's guide to MP3, see CNET Home Page (visited Nov. 19, 1999) (http://www.cnet.com).
drive that would be considered "fair use," there is no protection mechanism currently in place to stop her from sharing that copy with others, thus infringing on the copyright holder's exclusive rights to reproduce and to distribute her copyrighted work.

In addition, hundreds of pirate websites and file transfer protocol ("FTP") sites offer free downloads of copyrighted material. The Recording Industry Association of America ("RIAA") has responded with an anti-piracy campaign. The RIAA monitors the Internet daily and routinely attempts to shut down pirate websites by sending cease-and-desist letters and by bringing lawsuits. As difficult as it is to keep on top of the new websites that are created, FTP sites represent an even more difficult target to patrol. Specifically, an FTP site can be moved easily by mapping it to a new Internet protocol ("IP") address. Also, most FTP sites are not advertised. Rather, the addresses of these sites are spread via e-mail or conversations in chat rooms, making them difficult to track. Furthermore, MP3 files can be saved in a file extension other than (.mp3) (e.g., (.zip), (.gz)), making it even more difficult to find illegally copied MP3 files.

The RIAA and others recently formed the Secure Digital Music Initiative ("SDMI"). The purpose of SDMI is "to develop open technology..."
specifications for protected digital music distribution." SDMI's long-term goal is to complete an overall architecture for delivery of digital music in all forms. SDMI claims two core principles—that copyrights should be respected and that those who wish to do so should be able to use unprotected formats. Through its specifications, SDMI hopes to enable copyright protection for artists' work and to promote the development of new music-related businesses and technologies. In June 1999, SDMI adopted its initial standard for portable digital music devices. Three months later, SDMI announced that technology and related licensing documents needed for first generation SDMI-compliant portable devices would soon become available. Realizing that they stood to profit from the MP3 revolution, SDMI worked to ensure that the first generation of watermarking technology would be made available to enable portable device manufacturers to be able to proceed with production of portable devices for the 1999 holiday season.

D. Portable MP3

The recording industry perceived portable MP3 players such as the Rio as another threat. Prior to the introduction of portable MP3 players, MP3 listeners were usually confined to listen to their downloaded digital audio files through headphones or speakers connected to their computers. The Rio PMP300 portable player ("Rio"), manufactured by Diamond Multimedia Systems, allows users with special software to transfer MP3 audio files from a computer to the player. The device, which costs less than $200, is about the size of a deck of cards and allows a user to listen to her

Laboratories, Aris Technologies, Bose, Compaq, and JVC Victor; associations of musicians; recording companies; and telecommunications providers Deutsche Telekom AG and AT&T. See generally SDMI Home Page (visited Nov. 21, 1999) (http://www.sdmi.org).


45. See SDMI Fact Sheet (visited Nov. 21, 1999) (http://www.sdmi.org/public_doc/FinalFactSheet.htm).


47. See Rudell, supra note 12, at 3.
digital music files on her portable player. Thus, one no longer needs to be confined to one's computer in order to listen to music downloaded from the Internet.

The Rio can only receive digital audio files from a personal computer equipped with Rio Manager, one of the software programs provided with the Rio. MusicMatch JukeBox Software, which is also bundled with the Rio, enables a user to convert music tracks from a CD to the MP3 file format "for personal use." Once a digital audio file has been downloaded onto a computer hard drive from the Internet or from a CD, the Rio Manager allows the user to download the file to the Rio via a parallel port cable that connects the Rio into the computer.

The typical Rio holds about an hour of music in memory chips and does not require any tape or disk. Memory cards can be added to store an additional half-hour or hour of music. These memory cards can be removed from one Rio and played back in another.

While the Rio downloads a serial copy of the original music file, it is important to understand that its sole output is an analog audio signal sent to the user via headphones. The device alone cannot make duplicates of any digital audio file it stores, nor can it transfer or upload such a file to any destination.

II. CASE DISCUSSION

A. District Court Decision

The RIAA brought suit to enjoin the manufacture and distribution of the Rio, alleging that the Rio, as a digital audio recording device, does not

48. See id. At one point, online software and hardware retailer Beyond.com offered the Rio player for $49.99 after a $100 manufacturer's rebate. See, e.g., Beyond.com (visited Sept. 8, 1999) (http://www.beyond.com).
49. See Recording Indus. Ass'n of Amer. v. Diamond Multimedia Sys., 180 F.3d 1072, 1074-1075 (9th Cir. 1999).
51. See RIAA, 180 F.3d at 1075.
52. See id.
53. The prohibitively high cost for a memory card makes it unlikely that someone would download a special compilation of music onto a memory card for resale. A 16MB memory card costs around $60. See, e.g., MP3shopping.com, Diamond Rio 500 portable MP3 player (visited Feb. 15, 2000) (http://www.mp3shopping.com/english/rio.htm).
54. See RIAA, 180 F.3d at 1075.
55. See id.
comply with the AHRA.\textsuperscript{56} Specifically, the Rio does not have SCMS.\textsuperscript{57} The RIAA also sought payment of the royalties owed by Diamond as the manufacturer and distributor of a digital audio recording device.\textsuperscript{58} The industry group viewed the royalties as a substitute for the revenue the copyright holders would have earned from sound recordings sold to consumers. On October 16, 1998, the district court issued a temporary restraining order enjoining Diamond from manufacturing or distributing the Rio.\textsuperscript{59} Ten days later, the district court denied the RIAA’s motion for a preliminary injunction because it found that the RIAA’s probability of success on the merits was mixed.\textsuperscript{60}

Diamond argued that the Rio was not a digital audio recording device and is therefore exempt from the AHRA because the Rio copies from a file on a computer hard drive, which cannot serve as a source for a digital musical recording under the AHRA.\textsuperscript{61} Therefore, the Rio is not capable of making a prohibited digital audio copied recording. The RIAA contended that “section (5)(B)(ii) [of the AHRA] was only intended to avoid immunizing the illegal copying of computer programs,” a contention that the court found to be supported by the legislative history.\textsuperscript{62} The court opined that if it excluded computer hard drives as a source for digital musical recordings, the AHRA would be effectively eviscerated.\textsuperscript{63} Under its reading of the AHRA, the court determined that the Rio was “‘capable of making’ a reproduction of a ‘digital musical recording.’”\textsuperscript{64}

\textsuperscript{57} See S. REP. NO. 102-294, supra note 11, at 17. The report describes the function of the Serial Management Copy System:

SCMS is intended to prohibit [digital audio recording devices] from recording ‘second-generation’ digital copies from ‘first generation’ digital copies containing audio material over which copyright has been asserted via SCMS. It does not generally restrict the ability of such devices to make ‘first generation’ digital copies from ‘original’ digital sources such as prerecorded commercially available compact discs, digital transmissions, or digital tapes.

\textsuperscript{id}
\textsuperscript{58} RIAA, 180 F.3d at 1075.
\textsuperscript{59} See RIAA, 29 F. Supp.2d at 626.
\textsuperscript{60} See id. at 633.
\textsuperscript{61} Id. at 628.
\textsuperscript{62} See id. at 630.
\textsuperscript{63} See id. (“Any recording device could evade AHRA regulation simply by passing the music through a computer and ensuring that the MP3 file resided momentarily on the hard drive.”).
\textsuperscript{64} Id. at 628.
Although the court found that the Rio is probably a "digital audio recording device," it concluded that the Rio ultimately does not violate the AHRA.\(^6\) The court pointed out that even if the Rio incorporated SCMS, there is nothing to prevent the Rio from downloading an MP3 file from a computer's hard drive.\(^6\) The Rio could not "act[] upon . . . copyright and generation status information" because the MP3 files do not contain this information.\(^6\) Similarly, because the Rio does not permit downstream copying, it cannot be required to send copyright and generation status information.\(^6\) Thus, the court asserted, it was "nonsensical" to suggest that the Rio be required to "send . . . copyright and generation status information."\(^6\)

**B. Ninth Circuit Decision**

The RIAA appealed the district court's decision. The initial question on appeal was whether the Rio portable music player qualifies as a digital audio recording device subject to the restrictions of the AHRA.\(^7\) Disagreeing with the district court's definition of a digital audio recording device, the Ninth Circuit determined that the Rio must be able to reproduce, either "directly" or "from a transmission," a "digital music recording" in order for it to be considered a digital audio recording device subject to the AHRA.\(^7\)

The Ninth Circuit first considered whether the Rio is able to reproduce directly a digital musical recording.\(^7\) According to the court's reasoning, the Rio cannot reproduce a "digital musical recording" because the input for the Rio comes from an MP3 file on a computer hard drive.\(^7\) The typical computer hard drive cannot serve as the source of a "digital musical recording" because it contains various software programs and databases that are not incidental to any "fixed sound" present in an MP3 file, as required by section 1001(5)(A)(i).\(^7\) Because the latter section is not met, the

---

65. See id. at 632.
66. See id.
67. See id.
68. See id.
69. See id.
70. See Recording Indus. Ass'n of Amer. v. Diamond Multimedia Sys., 180 F.3d 1072, 1075 (9th Cir. 1999).
71. See id. at 1076.
72. See id.
73. See id; see also discussion, supra Part I.D.
74. See RIAA, 180 F.3d at 1076.
court declared that the Rio cannot make a "digital audio copied recording" directly from another "digital musical recording." 75

Even though the Rio does not "directly" reproduce a "digital musical recording," the Ninth Circuit determined that the Rio could still qualify as a "digital recording device" if it could reproduce a digital music recording "from a transmission." 76 The RIAA contended that section 1001(1) would cover direct reproductions from digital musical recordings and indirect reproductions from a transmission. 77 Diamond, on the other hand, asserted that the adverb "indirectly" modifies the recording of the underlying "digital music recording," rather than the recording "from the transmission." 78 The court concluded that Diamond’s reading of AHRA was not only more logical, but that the RIAA’s interpretation contradicted statutory language and common sense. 79 Under the RIAA’s reading, the AHRA would restrict the indirect recording of transmissions but would allow direct recording of transmissions, such as recording songs from the radio. 80 The court also stated that the legislative history confirmed its reading of the statute that "indirectly modifies . . . the making of the reproduction of the underlying digital music recording." 81 The court concluded that a device falls within the AHRA’s provisions if it can "indirectly copy a digital music recording by making a copy from a transmission of that recording." 82 Because the Rio cannot make copies from transmissions, but instead, can only make copies from a computer hard drive, the court held that the Rio is not a digital audio recording device. 83

The Ninth Circuit also addressed the legislative history of the AHRA because it is consistent with the statute’s plain meaning. 84 The RIAA contended that "the legislative history reveals that the Rio does not fall within the specific exemption from the digital musical recording definition of a

---

75. See id.
76. See id.
77. See id. at 1080.
78. See id.
79. See id.
80. See id.
81. Id. at 1081; See also S. REP. NO. 102-294, supra note 11, at 47 ("[A] digital audio recording made from a commercially released compact disc or audio cassette, or from a radio broadcast of a commercially released compact disc or audio cassette, would be a 'digital audio copied recording.'").
82. RIAA, 180 F.3d at 1081.
83. See id.
84. See id. at 1077. The court emphasized that a review of the legislative history was unnecessary because the statutory language of the AHRA is clear. The court only addressed the legislative history because the parties briefed it so extensively.
material object in which one or more computer programs are fixed." The RIAA asserted that the House Report describes the exemptions as "revisions reflecting exemptions for . . . computer programs." The Ninth Circuit noted, however, that limiting the exemption to computer programs contradicts the plain meaning of the exemption because a computer program is a "literary work" that "can be fixed in a variety of material objects." The court stated that the exemption's plain language excludes any copying from a computer hard drive from coverage under the AHRA. Furthermore, the court concluded that the Rio is consistent with the purpose of the AHRA because it facilitates personal use; specifically, the AHRA exempts home taping of both digital and analog music recordings. The court emphasized that the Rio "merely makes copies in order to render portable, or 'space-shift,' those files that already reside on a user's hard drive."

III. DISCUSSION

The recording industry brought suit against Diamond because of concerns that the Rio would increase the popularity of MP3 files. MP3 would have remained an impractical format as long as MP3 users were confined to using their computers to listen to the files. By rendering the music files portable, the cassette-sized Rio made MP3 files a more attractive alternative to carrying around CDs and a CD player or to listening to the inferior sound quality of an analog tape. Consequently, the RIAA feared that MP3's increased popularity would result in more music piracy and fewer legitimate purchases of sound recordings. The recording industry was also concerned that their control over the promotion and distribution of sound recordings would be diluted. Specifically, artists would be able to distribute their music directly to their fans on the Internet and then leverage their online popularity in negotiations with the record labels.

While the recording industry's concerns about piracy remain legitimate, the Ninth Circuit correctly ruled for Diamond on both legal and policy grounds. The Rio does not infringe any of the rights created under the federal Copyright Act or the AHRA. Rather, it represents a classic in-

86. RIAA, 180 F.3d at 1077 (quoting H.R. REP. No. 102-873, at 35 (1992)).
87. Id. at 1077.
88. See id. at 1078.
89. See id. at 1079.
90. See RIAA, 180 F.3d at 1079.
91. RIAA, 180 F.3d at 1079.
92. This Note does not address the practice of "burning" MP3s onto a CD.
stance of fair use, a fundamental policy which should not be trumped by industry-specific goals. Moreover, other solutions may address the recording industry’s concerns.

A. The Limited Applicability of the AHRA

The Ninth Circuit correctly concluded that the Rio is not subject to the AHRA because it constructed its definition of a digital audio recording device by examining the language of the statute, itself. It relied on the explicitly defined terms in section 1001 of the AHRA instead of substituting its own interpretation as the district court did. The Ninth Circuit stated that in order to be a digital audio recording device, the Rio must be able to reproduce a digital musical recording.\(^9\) Reading directly from the statute, the court determined that a computer hard drive is excluded from the definition of digital musical recordings.\(^4\) Although a computer hard drive is a “material object,” it typically contains other files and programs that are not incidental to the “sounds” fixed in a file.\(^5\) Because the computer hard drive from which the Rio obtains its input is not a digital musical recording, the Rio cannot reproduce a digital musical recording, and therefore cannot be a digital audio recording device. This conclusion makes sense because the Rio does not enable the serial copying that the AHRA was designed to prevent.

The legislative history also supports the Ninth Circuit’s reading of the statutory language, which excluded the classification of the Rio as a digital audio recording device. Section 1001 established a new type of material object embodying musical works—a “digital musical recording.”\(^6\) This served two purposes: (1) to delineate clearly the types of devices and media subject to the AHRA, and (2) to ensure that devices dedicated to the recording of motion pictures, television programs, or multimedia works would not be covered by the act.\(^7\) Congress defined digital musical recordings to include CDs, digital audio tape, audio cassettes, albums, digital compact cassettes and mini-discs.\(^8\) It further considered that a computer hard drive containing programs or databases would be excluded from the definition of a digital musical recording.\(^9\) Thus, the legislative history supports the Ninth Circuit’s analysis that the Rio is not a digital audio recording device.

93. See RIAA, 180 F.3d at 1076.
94. See id.
95. See id. at 1076-78.
96. The original term drafted in the AHRA was “audiogram” but was later replaced by “digital musical recording.” See S. REP. NO. 102-294, supra note 11, at 46.
97. See id.
98. See id.
99. See id.
audio recording device because it cannot reproduce a digital musical recording.

As a matter of policy, the Ninth Circuit’s decision reflects the primary purpose of the AHRA: “to ensure the right of consumers to make analog or digital audio recordings of copyrighted music for their private, non-commercial use.”100 This right to make copies for personal use reflects the fundamental policy of fair use underlying copyright law. The AHRA represents a compromise between the recording industry and electronics device manufacturers that enabled the introduction of digital audio recording technology.101 The recording industry had sought a ban on the import of digital audio tape recorders and blank cassettes that would have enabled consumers to make digital musical recordings for their personal use.102 In order to get this technology in the hands of consumers, the Senate drafted the AHRA to include the SCMS system and a royalty provision.103 The Senate recognized the importance of fair use of this technology and included a declaration in its legislative report that a consumer who makes a digital musical recording for use in her home, car or portable tape player is insulated from copyright infringement.104

B. Did Technology Push the Boundaries of Existing Law?

The Ninth Circuit’s decision recognizes the fundamental policy of fair use that was codified from existing case law in section 107 of the Copyright Act of 1976 and reaffirmed by Congress in section 1008 of the AHRA. Under this doctrine, certain uses of copyrighted works may be found to be noninfringing. Four factors are considered in determining fair use:

(1) the [commercial or noncommercial] purpose and character of the use . . . (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for or value of the copyrighted work.105

Section 1008 of the AHRA contains similar language that considers non-commercial use of a recording device or medium by a consumer to be

100. See id. at 30.
101. See id. at 33.
102. See id. at 32.
103. See id. at 33.
104. See id. at 51.
noninfringing. Section 1008 does not consider the amount of copying that is done. Rather, it emphasizes the fundamental policy that personal use of this technology is fair use.

Because the fair use doctrine is an equitable one, Congress left the statutory terms necessarily vague. Supreme Court decisions have provided some guidance in defining the practical contours of this doctrine. An analogy relevant to the Rio technology can be found in the Court's ruling in *Sony* on personal video cassette recorders ("VCR"). In *Sony*, a contributory copyright infringement case, the plaintiffs alleged that consumers had infringed their copyrights by using VCRs to record their copyrighted works and that Sony was therefore liable for this infringement as the manufacturer of the recording devices. The Court determined that Sony was not liable because the copying equipment that it sold was capable of substantially noninfringing uses. Specifically, the VCR could be used to record public television shows whose copyright owners would not object to having their broadcasts "time shifted" by viewers for private home use. Furthermore, the Court reasoned that while VCRs could enable video piracy, a substantial number of consumers would use the devices to time-shift for personal use. Because this use was personal and not for commercial purposes, the Court determined that "time-shifting" was fair use.

*Sony*’s VCR is similar to the Rio because both involve consumer recording technology that facilitates the consumer’s enjoyment of creative works. The analysis in *Sony* is therefore appropriate. Like the VCR, the Rio is meant to facilitate personal use. The Rio format shifts, which is similar to time-shifting because the creative component of the work remains unchanged and yet the consumer can enjoy the work at her convenience. Furthermore, there may be copyright holders like those in *Sony* who would not object to the shifting of their works for the consumer’s personal use. For example, unsigned bands that encourage people to download their music or Internet record labels that sell music online would probably not object to format-shifting. While the Rio may encourage the illegal copying of copyrighted musical works, a substantial number of consumers will use the Rio for personal use which the Supreme Court considered fair in *Sony*.

106. *See id.* § 1008 ("No action may be brought under this title alleging infringement of copyright based on ... the noncommercial use by a consumer of [a digital audio] device or medium for making digital musical recordings or analog musical recordings.").


108. *See id.* at 417.

109. *See id.*
C. Possible Solutions

While technological advances will make piracy a growing concern, the recording industry’s concerns would be better addressed by developing solutions that utilize the technology and yet respect the fundamental policy of fair use. One possible solution is to create new or to clarify existing legislation. For example, the AHRA could be revised to include the Rio. This would enable copyright holders to benefit from the royalties collected on each Rio sold in lieu of the revenue they would lose from the piracy of their sound recordings. However, this is a short-term solution to a long-term problem. Regulating devices like the Rio may result in slowing down MP3 popularity and piracy, but this would only last until portable computers with high-fidelity speakers shrunk to the size of a Rio or smaller. The recording industry would again have to deal with legislation with limited applicability. Such regulation would also conflict with the primary purpose of the AHRA: to ensure a consumer’s right to record for personal use. Furthermore, too specific legislation may cause uncertainty, especially if fundamental doctrines like fair use are not treated consistently. This uncertainty could stifle the same innovation that the intellectual property system seeks to promote.

A more plausible solution may be to look at technological rather than legal solutions. For example, water-marking and encryption technology are currently being developed to protect sound recordings from illegal copying and distribution. SDMI is working with device manufacturers to develop a standard security system that will recognize copy management information in a digital music file. Ideally, water-marking should allow the owner of a sound recording to reproduce a back-up copy for personal use or even to share a copy with a few friends but would disallow serial copying from a second generation copy. This restriction to a few copies would seem to be consistent with fair use. However, until a standard protection technology is developed and widely utilized, Internet music piracy will likely remain a concern. Existing MP3 files are also not likely to disappear anytime soon and may have to be treated as a generous gift to the public domain if anti-piracy campaigns prove ineffective.

While a standard is being developed, the recording industry may continue to combat piracy through existing legislation. For example, the Department of Justice recently prosecuted a college student under the No

Electronic Theft (NET) Act\textsuperscript{111} for illegally distributing pirated music on his website.\textsuperscript{112} The Digital Millennium Copyright Act also offers additional protection for copyright holders by holding Internet Service Providers liable for copyright violations in certain cases.\textsuperscript{113} Unfortunately, monitoring piracy requires many resources and is a perpetual battle.

**IV. CONCLUSION**

The *RIAA* ruling cleared the way for Diamond and other manufacturers of portable devices to take advantage of the MP3 revolution. The proliferation of MP3 has encouraged manufacturers to invent and musical artists to create. Ultimately it is the general public who wins; lesser known bands can distribute their music over the Internet without signing onto a major record label and consumers can take their music anywhere. The piracy concerns of the recording industry, while legitimate, would be better addressed through other solutions that embrace the technological advances and the fundamental policy of fair use.


\textsuperscript{113} Fearful of being held liable for copyright violations under the DMCA, universities like Carnegie Mellon and the University of South Carolina have been monitoring networks and disciplining students for the illegal use of MP3 files on campus intranets. See Kristen Philipkoski, *The Student Jukebox Sting*, WIRED NEWS (Nov. 9, 1999) (http://www.wired.com/news/print/0,1294,32444,00.html); Kristen Philipkoski, *University Snoops for MP3s*, WIRED NEWS (Nov. 13, 1999) (http://www.wired.com/news/print/0,1294,32444,00.html).