

Chapter 7

Intellectual Property Theft and Digital File Sharing

Chapter Outline

I. Introduction

II. Digital File Sharing—Internet Piracy

- A. Digital piracy refers to the trading of CDs, DVDs, or software that does not allow for the owner(s) of the property to make money.
- B. Movies or software are stolen or illegally copied and then sold for much less than the owner(s) of the property would normally allow for the sale of their property.
- A. Intellectual property theft refers to the theft of information or ideas, such as patents, trademarks or copyrights.
- B. Early research on digital file sharing focused on college universities because this was one of the few places where high-speed Internet connections were available.
 - 1. Very lax security and usage policies for students, faculty, and employees.
 - 2. Breeding grounds for Internet piracy and digital file sharers.
 - 3. Over time, however, the role of the university in providing high-speed Internet connectivity has diminished as high-speed connections have become much more affordable and available to the general public.

III. History of Peer-to-Peer Networking

- A. Even though the peer-to-peer networking protocols have become associated with criminal copyright infringement, it is worth noting that there are still many legitimate uses for peer-to-peer networking software.
- B. Few people actually utilize the software for any legitimate business-related purposes.
- C. Today peer-to-peer software has become synonymous with the violation of copyright law and the theft of intellectual property (such as trading music, movies, software, pornography, and other digital files).
- D. The association of peer-to-peer software with intellectual property theft is likely tied to the creation and release of the Napster software, considered to be the originator of digital file sharing.
 - 1. The first file-sharing program to take advantage of the fact that audio files, and, more specifically, music files, were being compressed through the use of a new algorithm—the MP3 algorithm.
 - 2. The abbreviation, MP3, stands for motion pictures group audio layer 3, and is a compression algorithm that allows for compression of audio files at a rate of 10:1 or 12:1.
 - 1. After downloading a software program off of Napster's official website, users were able to use this software to access the Napster music servers.
 - 4. When a user established a folder on their personal computer to share files, then the user could begin searching and download audio files that they wanted.
 - 5. Napster quickly gained popularity, becoming incredibly popular in a short period of time and leading national magazines to run stories on the founder of Napster, Shawn Fanning.
 - 6. The problem was that the audio files were copyright-protected, and the

manufacturers, producers, and artists were not receiving any payment when the audio files were being traded.

7. Eventually the Recording Industry Association of America (RIAA) and the heavy metal band Metallica filed a lawsuit against Napster in 2000, which resulted in Napster going under.
8. Stall tactics by Napster have allowed for other peer-to-peer software manufacturers to begin developing new and improved versions of the file-sharing software such as Morpheus, BearShare, Limewire, and Kazaa.
 - a. These newer file-sharing companies developed their software so that they would significantly differ from Napster in two significant ways:
 - i. First, the newer file-sharing programs do not operate through a central server, meaning that every user who installed the file-sharing software would in essence be running their own server.
 - ii. Second, the newer file-sharing programs allowed users to share a wider variety of files.
 - b. Due in part to these changes, these software manufacturers have thus far been successful in avoiding legal liability—at least liability to the point of causing the company to shut down.

IV. Legal Responses to the File-Sharing Problem

A. Title 17 of the United States Code regulates copyrights in the United States.

1. Subchapter 506 of Title 17 explains criminal offenses related to copyright violation and states that criminal infringement occurs whenever a person willfully infringes another's copyright for purposes of a "commercial advantage" or a "private financial gain."
2. Statutes are inferior when being used against individuals who used technology to copy and distribute copies of copyrighted materials.
3. *United States v. Lamaccia*
 - a. proved that the copyright statutes were antiquated when it come to high-technology activities.
 - b. Lamaccia developed and operated an online discussion forum where users could upload and download copies of computer software in clear violation of intellectual property rights.
 - c. Because Lamaccia did not charge for the use of his services, the copyright statutes did not fit the charges against him.
 - d. As a result of the *Lamaccia* case, the federal government began to reexamine the copyright statutes in order to better address violations that occurred through the use of technology such as the Internet.
2. In 1997, the No Electronic Theft (NET) Act modified the copyright infringement statutes to address online file sharing.
 - a. To accomplish this, the definition of "financial gain" was changed so that Title 17 section 101 now defines financial gain as the "receipt, or expectation or receipt, of anything of value, including the receipt of other copyrighted works."

- b. Money no longer needed to be exchanged in order to violate copyright laws.
 - B. Around this same time, Internet connection speeds were beginning to increase and Hollywood films were being released on Digital Versatile Discs (DVDs) rather than videocassettes.
 - 1. In late 1999, a couple of hacker groups from Norway were able to develop software that allowed for users to circumvent the DVD encryption and make copies of the discs.
 - a. The software, known as DeCSS because it allowed users to disassemble the Content Scrambling System (CSS) that provided copyright protection on DVDs, was immediately posted on websites around the world.
 - b. The Motion Picture Association of America (MPAA) claimed that the software was being used as a means of allowing users to engage in movie piracy by making copies of DVDs and then selling them or trading them via online file-sharing programs.
 - 2. The MPAA and the RIAA turned to a recently passed piece of federal legislation entitled the Digital Millennium Copyright Act (DMCA) of 1998, which further criminalized file sharing of digital copies of copyrighted materials.
 - a. Provisions of the DMCA:
 - i. Provided that Internet Service Providers were expected to make all reasonable efforts to remove any copyrighted materials that were made available through customer's websites
 - ii. Criminalized the manufacture, sale, or distribution of any software designed to crack copyright protections of copyrighted software programs
 - iii. Allowed for copyright holders to subpoena Internet Service Providers for the names of users who have allegedly engaged in the distribution of copyrighted materials
 - b. With the passage of these statutes, RIAA began to sue individual users of file-sharing software, but these lawsuits did little to slow down file sharing.
 - c. One of the problems with using legislation to regulate digital file sharing is the fact that the file-sharing phenomenon is a worldwide issue, and not all countries have the same laws or enforcement procedures as the United States regarding copyright infringement.
 - C. Alternative Methods Employed by the RIAA and MPAA
 - 1. While still attempting to utilize lawsuits against file sharers, the RIAA has also turned to some rather creative means of responding to the problem of peer-to-peer file sharing.
 - a. Spoofing files—when this is done, the file appears to the individual engaged in file sharing to be a particular music or movie file, but when downloaded and opened, contains no usable content.
 - b. The use of software that reportedly allows a copyright holder to track

down individuals who are trading copyrighted files via an Internet connection.

c. Both methods are not used very often today.

d. Instead of fighting against file sharers, it has been recommended that these organizations accept file-sharing technology and begin developing better awareness campaigns.

V. The Current State of File Sharing

A. The RIAA has slowed down considerably in terms of the number of lawsuits against individuals for file sharing.

B. In late 2008, RIAA moved away from lawsuits and instead opt for an approach endorsed by the MPAA whereby users who are found to be sharing copyrighted materials are sent a series of warning letters.

1. Internet Service Providers will be asked to terminate their access to the Internet, but no ISP has formally agreed to the RIAA request.

C. The most recent development is the use of pay services for music and movie downloads.

1. Users are allowed to download music or movie files in exchange for paying a monthly fee.

2. One of the more popular file-sharing programs is Apple's iTunes, which allows users to download music and video that can then be accessed on a number of different Apple computer products, ranging from the Apple iPod, Apple TV, and iPhone.

a. These programs work by paying the artists for the media that is transferred using the program.

3. The future of file-sharing debate will likely involve discussions about the use of websites that stream video.

a. Netflix is one company that is providing members with the ability to stream videos of many movies and television shows to their computer or television (with proper equipment).

b. The logic is that if users can be convinced that they can have the convenience of file sharing for a minimal cost, then users will pay a small fee for the service in order to engage in lawful file sharing.

VI. Conclusion

Key Terms

DeCSS: Software that allowed users to disassemble the Content Scrambling System (CSS) that provided copyright protection on DVDs.

Digital piracy: The trading of CDs, DVDs, or software that does not allow for the owner(s) of the property to make money.

File sharing: The transfer of digital files such as video, audio, software and images via the Internet or peer-to-peer file-sharing programs.

Intellectual property theft: The theft of information or ideas such as patents, trademarks, or copyrights.

MP3, or motion pictures group audio layer 3: A compression algorithm that allows for compression of audio files at a rate of 10:1 or 12:1.

Pay services programs: Programs that allow users to download music or movies files in exchange for paying a monthly fee or paying an individual price for each file transferred.

Spoofed file: A file that appears to the individual engaged in file sharing to be a particular music or movie file, but when downloaded and opened contains no usable content.