

## Pandora's Box and the Future of File Sharing

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### **Pandora's Box and the Future of File Sharing**

In Greek mythology, Pandora was the first woman on earth—divinely created and “all-gifted.” When Zeus presented Pandora to Epimetheus, she had a box which she was not to open under any circumstance. However, Pandora, unable to resist her natural curiosity, opened the box, and the diseases, sorrows, vices, and crimes that had been inside escaped and spread over the earth. In our modern society, technology has changed, but mankind’s curiosity has not. We are Pandora, and our box is the combined realm of the internet and file sharing. Our curiosity has compelled us to explore ways to share information quickly and effortlessly, and we have succeeded. On the surface, this does not sound like a serious problem. However, advances in technology have allowed for the creation of programs that share copyrighted music files just as quickly and effortlessly, which is illegal under current copyright laws. So the issue has then become: What is to be done?

In order for illegal file sharing to be eliminated, there have to be reasonable alternatives from within the music, movie, gaming, and software industries. Instead of making technology the culprit, our modern technological innovations need to be embraced in order to create feasible alternatives to file sharing. In particular, wireless technologies can play an integral role in future innovations surrounding portable media devices. As it stands, there is already a multimedia crossover between many existing portable devices. Digital music players such as Apple’s iPod have become incredibly popular, and can now play video files as well as games. Devices such as Sony’s PlayStation Portable can play music, movies, and video games. Laptop computers are

also popular for entertainment, yet also have the capability to run software. By combining wireless internet (Wi-Fi) and Bluetooth technologies, these devices can take on new frontiers. Portable media device users could access vintage games like Bejeweled, new



music from the Red Hot Chili Peppers, last week's episode of "The Office," or even watch movies such as Pirates of the Caribbean via the built in wireless internet. Thus, by establishing user-friendly alternatives for accessing digital entertainment, the plagues of illegal file sharing can be successfully mitigated.

### *Diseases-The Issue of Dependence*

The first evil that escaped out of Pandora's Box was disease. With respect to illegal file sharing, society's plague is its addiction to the internet. Many people cannot function without it, and spend countless hours each day sitting in front of computers. This addiction makes it very hard to stop people from obtaining files illegally, because it takes very little effort to obtain the file. Modern society is quite content completing a multitude of tasks while simply sitting in front of a computer that is connected to the internet. Shopping online on eBay and Amazon.com has become commonplace, and the goods can be delivered straight to the door by services like DHL or Fed Ex. Communication over the internet is taking on new forms as well—what started as just email has expanded to AOL instant messaging, Skype internet phone calls, and even Apple's video conferencing. The internet has also taken a big part in various forms of entertainment; everything from playing video games to watching TV shows can now be done online.

However, the issue of illegal file sharing was first encountered with a different type of entertainment—music. Music files have undergone numerous transformations in the last fifty years; albums have gone from vinyl records to 8-track tapes to cassette tapes to compact discs. Now, music is undergoing what has been called the “digital music revolution.” Technology can now convert music to an encoded digital file, allowing these files to then be transferred from computer to computer. File sharing first appeared on the internet with the popularity of MP3 music files in the late 1990s, which could be uploaded to free webspace accounts. However, the popularity of file sharing did not become prevalent until Shawn Fanning released the original version of Napster in June of 1999. Using something called the File Transfer Protocol, any digital audio file could be transferred between two computers—the server and the client. This protocol revolutionized file sharing by creating peer-to-peer files sharing networks, which subsequently spawned hundreds of alternative programs, including Kazaa, Lime Wire, Bit Torrent, Morpheus, and Grokster. Many of these programs allowed users to download not only music files, but any other digital file as well, such as movies, games, and even software. Unfortunately, this transformation into other types of media has only deepened the connection between entertainment and illegal file sharing.

### ***Sorrows-The Downfall of the Entertainment Industry***

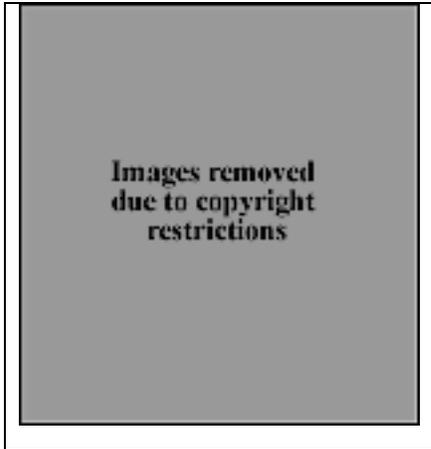
The main argument against file sharing is that it negatively affects the industries that supply the media that is being illegally downloaded. The premise of the argument rests on the opinion that people who illegally download music, movies, games, and software are potential customers who would have purchased the product were it not for the availability of the product for free online. During the first half of 2002, recorded music sales dropped about 7 percent, according to the Recording Industry Association of

America (Macworld). Record companies largely blame declines on illegal file sharing, but don't acknowledge other factors that could affect sales. During the late 1980s and early 1990s, the music industry benefited from the conversion to CD technology from vinyl records as consumers switched formats (Wilcox). *Techworld* analyst Stephen Baker adds that "music labels mined that vein for a long time, but now that vein is pretty much tapped out" (Wilcox).

The Recording Industry Association of America also claims that the music industry has spent over \$4.2 billion worldwide to target music files that have been distributed illegally. By doing so, the RIAA hopes to encourage consumers to seek legal alternatives, which would increase the profits of the artists and record labels. The music industry is not the only industry that has claimed losses due to file sharing: according to the International Planning & Research Corporation, illegal web sites cost software vendors about \$11.8 billion in 2004 ("Warez"). Some of the authors of the software even suggest that piracy negatively affects the economy by decreasing the profits that allow for further development and growth within the software industry. They argue that the problem of file sharing can have a negative affect not only on the economy in the present, but also the economy of the future. However, this opinion is not held by everyone, and has caused much debate over the principle of file sharing.

### ***Vices-The Issue of Morality***

Perhaps the reason that this subject has raised so much controversy is the fact that people have many different opinions as to whether illegal file sharing is even morally wrong. Each side has its own arguments, but aside from the laws that currently pertain to file sharing, this is an issue that doesn't seem to have a definite "right" or "wrong," rather there is a large grey area. A CBS news poll indicates that 36% of Americans feel that file



sharing is never all right, 18% feel that it is always all right, and 45% of Americans feel that file sharing is all right, as long as it is done with a few friends, and the person sharing the files owns a cd of the music being shared (Harmon). Despite the illegal nature of file sharing, many people still don't see the entertainment industry as the victim in this issue.

The question is: Can society ever come to an agreement regarding the moral nature of file sharing? The entertainment industry would argue that there should be complete agreement regarding file sharing, and that is the opinion that it is both morally and legally wrong. The RIAA contends that copyright laws have been put into place for a reason, to protect the owner of the material from being exploited. Opponents of this argument, such as the band Radiohead, counter that file sharing actually increases the fan base of musicians, giving bands exposure to an audience that they might not have reached otherwise. This, in turn, can generate increased revenue from concert sales, and subsequent album sales in the future.

One study even contends that online downloading actually increases album sales. Harvard Business School professor Felix Oberholzer-Gee and his co-author Koleman Strumpf of the University of North Carolina at Chapel Hill published a paper in June of 2004 titled "The Effect of File Sharing on Record Sales," in which they conclude that there is almost no relationship between illegal downloading and declining record sales. The professors claim that "most downloading is done by teens and college kids, groups that are 'money-poor but time-rich,' meaning they wouldn't have bought the songs they downloaded in the first place." For this reason, the professors claim that this is not lost

revenue for the music industry. They even state that illegal downloading may “help the industry slightly with another major segment, ‘samplers’—an older crowd who downloads a song or two and then, if they like what they hear, go out and buy the music” (Silverthorne).

Certainly moral ambiguities play an important role when dealing with illegal file sharing, because all groups need to agree that something is inherently right or wrong before trying to enforce laws regarding the issue. The issue of property rights and ownership of material is evolving along with the digital revolution. Even today, opinions regarding property rights are different than the opinions of previous generations. By coming to a compromise in which both consumers and producers of digital media are satisfied, the issue of property rights will take care of itself. The first step in reaching this compromise is to put an end to the ongoing legal battles between record companies and file sharing networks.

### *Crimes-The Issue of Legality*

File sharing, while seemingly confined to a certain sector of the technological world, has much broader implications when it comes to the issue of digital media property rights. The term “piracy” has been used to describe the copyright infringement regarding music, movies, games, and software. There have been many legal cases involving this issue, as many companies have sought to cut their losses by suing peer-to-peer downloading programs. An influential Supreme Court ruling regarding this issue came with what has been dubbed “The Betamax decision”: *Sony Corp. of America v. Universal Studios, Inc.* This case holds that copying “technologies” are not inherently illegal, if substantial non-infringing use can be made of them. This decision predates the widespread use of the internet, but applies to most data networks, including peer-to-peer

networks; it holds that distribution of digital files can be performed as long as the files are correctly licensed, whether they be open source software, public domain files, or out of copyright works. The Betamax decision also held that a distributor cannot be held liable for users' infringement as long as the tool is capable of sustaining non-infringing uses (*Sony Corp. v. Universal*). It was, in fact, a landmark ruling that seemingly set precedent for future cases regarding peer-to-peer file sharing networks, as well as intellectual property rights.

However, with the popularity of Napster as a file sharing tool, the Recording Industry felt it had to do something to keep music sales from dropping drastically, thereby reducing profits. In *Recording Industry v. Napster*, the RIAA sought damages of \$20 billion for "Contributory and Vicarious Copyright Infringement." While Napster did not have any direct role in the transfer of music files, it did have the ability to control the actions of those who were swapping files, and thus the court held that Napster was also liable for copyright infringement. Another case pertaining to this issue is *MGM Studios v. Grokster*, in which the court ruled in favor of MGM studios. The opinion of the court was given by Justice Souter: "We hold that one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties" (*MGM Studios v. Grokster*). These two cases dealt a strong blow to file sharing networks, as they seemingly overturned the decision of the *Sony* case. However, there was considerable disagreement as to whether the *RIAA* and *MGM* cases were substantively different from the *Sony* case, and whether the precedent established by *Sony* should be modified (*MGM Studios v. Grokster*).

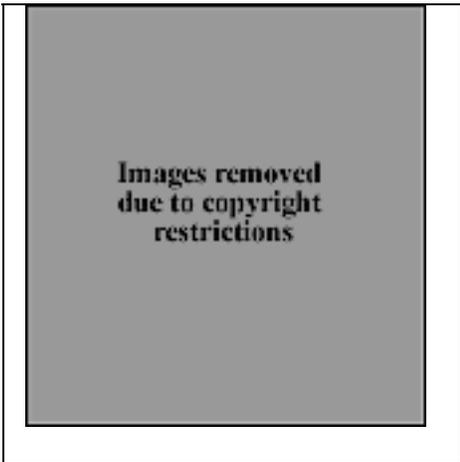
If these recent cases are any indication, it seems that the courts have taken sides with the entertainment industry, and have upheld precedents relating to property rights as well as copyright infringement. However, continually suing peer-to-peer network owners and users has not decreased the incidence of illegal downloading, rather all it has done is establish the illegal nature of peer-to-peer file sharing of copyrighted materials. For the entertainment industry, this is an important step, but unfortunately it has not significantly helped the industry eliminate illegal file sharing, which is its ultimate goal.

### *Hope-File Sharing Alternatives*

Fortunately, there is hope: legal alternatives for music pirating have become increasingly popular, mitigating the effects of illegal downloading. Through programs such as the iTunes Music Store, Yahoo! Music Unlimited, and the new Napster, consumers can purchase individual songs or whole albums online, for less than the price of a cd bought in a store. In May of 2003, the first week after being introduced, the iTunes Music Store sold over 1 million songs. Over half of these songs were purchased as albums, dispelling widespread concerns that selling music on a per-track basis would destroy album sales (“iTunes Music Store Sells Over One Million”). By March of 2004,

iTunes had sold its 50 millionth song, with users downloading an average of 2.5 million songs per week, or 130 million songs per year. At \$1 per track, this is over \$130 million worth of revenue for the music industry, and the rate of sale doesn't seem to be slowing down any time soon. The initial popularity of legal music downloading indicated that

people were willing to pay for music downloads if given the chance. Michael Arnold, a



Images removed  
due to copyright  
restrictions

video and multimedia producer from Colorado, states “I don’t buy as many CDs as I used to, but I’ll probably buy more music now that I can do it all from my desktop. I’ll gladly pay 99 cents for a clean file from a master. Hey, even 45s used to be about a buck” (Wilcox). This kind of response is not uncommon, and indicates that consumers are willing to legally purchase music and other media online, as long as it is not too much of a hassle.

It is in this area that wireless innovation comes into play. By making listening to music, watching movies, playing games, and using software simple, easy, and inexpensive, society’s dependence on illegal downloading can be eliminated. A good model for this service is Yahoo! Music Unlimited, a program that allows users to stream (play via the internet) any song in its database for a monthly subscription. However, in order to move these songs to a permanent hard drive such as a digital music player or a computer, the user must purchase the song for \$0.79. This same concept could be applied to other forms of media—movies, games, and even software could all be accessed through a subscription-based service, contingent upon an active internet connection. The combination of existing companies would create a well-established base of material—programs such as the iTunes Music Store, Napster, and Rhapsody for music and video files, companies such as Netflix and Blockbuster Online for movies, and other companies like Game Fly for video games would bring existing users into a new platform of media. In reality, the subscription service is similar to a cable subscription or even an internet subscription, in that once the service is paid for, consumers can use it as much or as little as desired. Ted Cohen, co-founder of digital media consulting firm TAG Strategic, states, “We’re going to move from music as a product to music as a service. Ownership is going to be trumped by access” (Goodykoontz). Other technologies could be added in as well,

such as radio broadcasting, or even live TV. The trend of technology in the past decade has been to combine different forms of entertainment into one device, making things much simpler for consumers.

A second alternative to the problem of illegal file sharing would also use the concept of a subscription service. In this plan, users pay a monthly fee, yet are able to download as many music, video, gaming, and other files as they would like. The difference with this plan is that every file on the service is copyrighted. The downloading service would generate revenue by selling advertising on the site. The revenue from this advertising, as well as the revenue from the subscription payments, would go to pay the artists and record labels providing the files. The catch is that the revenue would not be divided evenly. The download popularity of the file relative to the other files would determine how the payment is divided. This way, both artists and their labels are happy, because they are rewarded for having a popular song, movie, or game. Just like normal album sales, the more albums that are sold (or in this case downloaded), the more revenue the artist gets. Not to mention, this type of exposure would greatly increase artists' fan bases, and boost concert sales.

### *Pandora's Lesson*

When Pandora decided to abandon her common sense and open the forbidden box, she had no idea what she was getting herself into. Taken aback by the contents of the box, Pandora hastened to close the lid, but everything had escaped except for one thing which lay at the bottom, and that was hope. Hope was the only good among the many evils, and it remains to this day mankind's sole comfort in misfortune. When technology finally allowed computers to open the Pandora's Box that is file sharing, our society did not know what it was getting itself into. Peer-to-peer music networks were

just the beginning of an ongoing battle of moral and legal issues surrounding file sharing. However, similar to the Greek myth, there is still hope of change. Given reasonable alternatives, people have shown that the incidence of file sharing can be curbed. As promised, hope will overcome the evils that were released when this Pandora's Box was opened, and take with it man's misfortune.

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