Ethics and Intellectual Property

It has long been accepted that the development of new creative works is in the general public interest. There is a general belief that people are more motivated to develop new creative works if there is a commercial incentive to do so. From these two beliefs the basic concepts of intellectual property copyright was born.

Modern intellectual copyright originated in Great Britain with the 1710 Statute of Queen Anne. The statute was designed to provide authors a limited monopoly of ownership on their work. In the original statute authors the limited monopoly was for 28 years. With the rights reverting to the public domain after the monopoly expired. The basic idea here was that by providing authors with a time limited monopoly on their work they had the ability to be compensated, but eventually the work would revert to the public domain so that anyone could use it. These revolutionary ideas expressed in the Statute of Queen Anne went on to directly influence all later drafting of intellectually property rights.

Amazingly the basic ideas behind this 1710 English statute are still the guiding ideas behind US copyright law today. But, the conclusion should not be drawn that due to its historical nature copyright law it is in anyway clear or static. With the growth of communication technologies over the last century the interest and economics of intellectual property has exploded and US copyright law has grown very complex.

Until recently the US copyright laws has worked very well. This has been due in no small part because it was extremely expensive if not impossible to create high quality copies of protected works and it was relatively easy to monitor the few companies who had the ability to infringe on a massive scale.

In the early 80’s the music cassette player and VCR were introduced. These devices allowed their users to create analog copies of audio and video content onto magnetic media. While there were some large concerns that the VCR would lead to massive copyright infringement these concerns have turned out to be largely unwarranted. For any consumer level attempt at creating copies via chaining analog players and recorders together produced such poor copies of the original works to render them unusable. Further technologies like MacroVision provided some level of VHS copy protection.

But this has call changed with the advent of the digital revolution. With the release of the compact disk (CD) the recording industry ushered in the new era of consumer digital music. Compact disks provided a read only digital copy of the recorded material. This digital allowed the media to be repeatedly read, with no loss in media quality. For the first time it was actually possible to create copies of commercial work with the same fidelity as the original. But until recently the distribution of content on compact disk

1 Forte
2 Schechte, US Copyright Law.
3 Schechter, 254
4 Macrovision
5 USByte.com
provided some inherent copy protection, for reproduction of the media was cost prohibitive and the size of the information on the disk made the transfer of the information from the disk to another storage device highly cost prohibitive.

Like every thing else, the era of the compact disks copy protection ended too. Consumer grade CD recorders fell in price to make them economically attractive. New audio compression technology (MP3 compression) made it possible to compress the size of a recorded song to $1/10^{18}$ its original size while still preserving the fidelity of the original recording. By reducing the storage requirements it became possible to both store and trade music.

Even with the advent of the MP3 era, it could still be argued that MP3 files were still of little threat to the copyright holders. For consumer Internet technology was still in the era of modems and MP3 files could only be effectively distributed by hand to hand CD swapping making the distribution highly inefficient. Further the actual conversion of raw sound to the MP3 format is highly computationally inefficient on standard consumer hardware in 1996 it could easily take upwards of 8 hours to convert one song to the MP3 format. Obviously both of these barriers were not going to last long, with the continuation of Moors law computer speeds increased making the compression time for MP3’s almost unnoticeable and finally consumer level last mile internet technologies immered providing consumers with the necessary bandwidth to effectively share MP3 music over the Internet.

With all the recent changes the music industry is now forced to deal with the fact that consumers now have the general ability to share and copy their works. This is something that the consumer software industry has been attempting to deal with for many years. In the world of software there have been a number approaches to thwart illegal copying. These have included: book protection, fancy disk protection, identification codes, and hardware keys. All of these methods have been shown to be of only marginal success. For skilled programmers will often write small programs to “unlock” or disable the protection on the original work. The music (RIAA) and motion picture (MPAA) industries were completely unprepared for the cracking of the copy protection codes used to protect DVDs (Digital Video Disks). The RIAA and MPAA lobbied congress to make it illegal to remove copy protection, distribute software, or distribute source code for software that disables copy protection schemes.

**Types of Copyright Infringement**

There are numerous types of copyright infringement and I won’t attempt to go into all of them. But in my mind there are basically three interesting types of copyright violation: direct, contributory, and vicarious infringement.

Direct infringement is the most basic form of copyright infringement. Direct infringement is as the name implies directly making unlicensed copies of copyright work. Note, it is under some special circumstances possible to make unlicensed copies of copyrighted work using a “fair use” argument. But the “fair use” argument rarely works and almost never works when commercial copyright infringement is present. An

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example of fair use copyright infringement could be creating MP3 files of CD’s you own and storing them on your hard drive for your use. But it would be illegal direct infringement for others to copy those files off your hard drive. As the RIAA Vs MP3.com found it is even direct infringement if the person copying the file owned the CD of the music. Basically under a “fair use” argument you can convert your own music to another format but someone else cannot do it for you.

Contributory and vicarious infringement is more complicated then pure direct infringement. Contributory and Vicarious infringement is basically aiding or helping someone else commits direct infringement. Contributory infringement is aiding someone in breaking copyright, and knowing that you are doing it. Courts have found that cease and desist letters are grounds for gaining knowledge of helping someone. An example of committing contributory infringement would be the person in the above example that put an MP3 on their hard drive for their friend to download. While they in themselves didn’t commit direct infringement they knowingly helped someone commit it, and thus committed contributory infringement.

Vicarious infringement is even broader then contributory infringement. The huge difference between being found guilty of vicarious infringement and contributory infringement is that it does not need to be shown that you had any prior knowledge of the direct infringement only that you benefited some how from the infringement. Courts have accepted the argument that in the “Internet Economy” system traffic is all that is required to show a benefit.

File Sharing Enters the Scene

Having the ability, interest, and necessary hardware to trade pirated music does little good if the interested parties cannot find each other. While it might seem like the WWW would foster an ideal environment for trading pirated music, it actually has hasn’t. Websites connected to the WWW generally have a very visible connection point. Also hosting a website with files is almost always a one-way transaction. The host shares files out with little ability to collect files from its users. On a final note due to there public nature of websites groups such as the RIAA and MPAA actively search for websites violating their copyrights, and seek through legal action to have them shutdown and their operators prosecuted.

In the distributed file-sharing scheme users connect to a service that allows them to advertise their local files to a global audience. Other computers can conduct queries on a database and then connect directly to the machines hosting the desired files. The one of the first commercially introduced services is Napster, using its service it is possible for every user who is interested in getting MP3’s to come together with one piece of software and share their files. By default the software would further share the files it downloaded. Now remember back when we discussed the types of copyright infringement, obviously on its own Napster and other distributed file sharing systems don’t commit direct infringement. But what has been argued is that they committed vicarious and contributory infringement. Vicarious infringement has been argued claiming that just

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7 Lohmann
8 RIAA
9 MPAA
having users use the file sharing service is enough to show a benefit gained and contributory infringement has been argued claiming that sites have continued to feature copyrighted songs after the sites were formally notified via cease and desists letters that they were hosting copy righted material.

Unfortunately Napster has been unable to use the Sony vs. Universal case in to its defense. In the Sony vs. Universal music case Universal attempted to halt the sale of Sony Betamax VCR devices saying that devices when used by consumers could be used to commit direct infringement, and that Sony would thus be guilty by contributory infringement. The Supreme Court ruled 5-4 in Sony's favor saying that there was enough evidence that the device was capable of substantial non-infringing uses to render Sony not guilty of copyright infringement. Note this ruling doesn’t say that some of the consumers of Sony betamax VCR’s wouldn’t commit direct infringement, but just that there were substantial number of uses for the VCR recorder which didn’t violate copyright. On a side note, to help it prove its case that there were substantial non-infringing uses of its VCR, Sony at some point in its legal battle acquired testimony from Fred Rogers, of Mister Rogers’s neighborhood. Fred Rogers testified that he would encourage parents to time shift his programs so that they could be replayed at more appropriate times.

In light of the Napster case it currently looks as if the courts are readjusting the general interpretation of the Sony case. The new legal reading seems to be that a device have potential to commit copyright infringement but also possess substantial non-infingeing uses it don’t violate copyright law. But services loose this defense once they have been notified about their infringing use. This new legal reading of the Sony case is a radical reinterpretation of the Sony case, it will have to be seen how this reading hold up.

Ethical Arguments – Length of Copyright Monopoly and Item Pricing
The International Federation of the Phonographic Industry reports that the 1999 the global music market was worth $38.5 billion with the United States accounting for the 37% of the market. In a $38.5 billion a year industry protecting legal copyrights is big business. But the modern usage of copyright seems to have gotten distorted from what its original goals were. The goal behind copyright was to protect the author/artist to give them control over their works as limited monopoly allowing them to be economically compensated with their works eventually reverting to the public domain. In the 1707 Statue of Anne the time period given to copyrights was 28 years, but in modern US copyright law works made for higher receive protection for 95 – 120 years. Works by a single author, or group of author are protected for 70 years after the death of the last surviving author.

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10 Video industry term for recording a television program, playing it back at a later time, and erasing or recording over it.
11 Burgunder, 254
12 Lohmann
13 RIAA http://www.riaa.com/MD-World.cfm
Now, regardless of all these measures, the Sunny Bono14 Copyright amendment of 1998 amends the copyright law to prevent any work copyrighted before 1978 from entering the public domain before December 31, 2047. In short no copyrighted works are going to become public domain anytime soon.

Looking back on the history and purpose of the copyright system it was designed as a system not to allow for unjust monopolies, but to facilitate the creation of new works that would reach the public domain. It has been even shown that just like in regular business unfair business practices are not protected by copyrights.15 In short I do not believe that the system of never ending copyrights which the MPAA or RIAA have lobbied for is what the framers of the copyright laws had envisioned. For the copyright law was enacted to encourage the creation of new works not to enrich companies from works they have already created. Further if companies can perpetually extend the life of their copyrights though lobbing congress, the copyright law will actually work to stifle the innovation it was supposed to encourage. What is the motivation to create new works of art when you already are getting rich off what you have already created? Thus I do personally believe an items copyright period should be set when the item is first publicly published and never amended.

The very principle of the copyright policy is to reward creators of content with a limited monopoly. Just like any other forms monopoly with this monopoly comes great power. While the recording industry argues that they have provided good value to their customers I don’t believe so. The pricing of music clearly is designed to compensate the artist but to enrich the recording company. Further the consumer prices of the final product are so much higher then the duplication costs for the content that the whole pricing structure should be brought into question. In drawing your own conclusions of the pricing structure in the recording industry it is worth considering the following:


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<td>Compact Disk:</td>
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<td>Sale</td>
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<td>Reg</td>
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<td>Vinyl:</td>
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Now the amazing thing with the pricing structure is that at its “regular price” the CD is more then twice the cost of the Cassette or Vinyl versions of the album. From the perspective of manufacturing the CD has absolutely no moving parts and are thus much cheaper to manufacture then Cassettes. So even if all the media were sold at the same price there would still be a higher profit on the CD version. Obviously due to copyright law there can be only one manufacture of this item thus for popular albums there is no real incentive to significantly reduce the costs.

**Ethical Arguments – Freedom of Speech**

Few rights are held more sacred in the United States then the freedom of speech. But with a strong lobby the RIAA and MPAA were able to get congress to make it illegal to

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14 Bono, (Sonny Bono of Sonny and & Cher fame)
15 Sega
develop, distribute, or use of circumvention technology or devices to disable technology aimed at protecting a copyrighted work. The RIAA has used this language to attempt to block the distribution of not only software programs that decode DVD video but also to block the distribution of the source code for these programs. The MPAA has even gone as far as attempting to block the sale of T-Shirts upon which the source code had been printed and a musical song where the artist played a guitar and sung the source code.

Source code is obviously a method of speech it is just a list of commands no different from giving commands in English. The only real difference is that computer commands are also readable by computers. Further the logic by which people wouldn’t be allowed to talk about how to defeat an encryption standard but would be allowed to discuss the building of bombs is completely illogical.

In the MPAA's legal arguments concerning the decoding algorithm printed on the T-Shirt the MPAA tried to argue that their algorithm was a trade secret and that their rights to a trade secret were being violated. An MPAA layer even said "If someone put Coca Cola's formula on a T-shirt, does that all of a sudden allow a First Amendment infringement of a trade secret?" Well the answer is actually very simple, it would but it wouldn’t be a violation. Trade secret status actually provides very, very, little protection. The only thing trade secret status can be used to protect against is some stealing the secret, or a trusted individual improperly divulging it. But regardless, the moment the trade secret has reached the public domain it is no longer a trade secret.

By making it illegal to develop or remove copy protection, congress has effectively completely destroyed any resemblances of a limited monopoly on copyrighted goods. For if some one say, 95 years from now wants to copy the movie Titanic which they would be legally able to do for the copyright on the movie would have expired by then. They still won’t be able to legally do this for the development of software that would empower a user to do this is illegal. Thus the congress has in effect awarded the copyright industry never ending monopolies.

The Future
Who knows exactly what the future will bring, but it definitely looks like there will be change on the horizon. New systems are being created which empower people to distribute data in decentralized fashion. Given this decentralized nature it will be almost impossible for the RIAA or MPAA to legally block the systems. I believe the MPAA and RIAA will be forced for the first time to find new ways to add value to their products, offer new services, and sell their product line at more reasonable pricing structures.

16 Lohmann
17 Manjoo
18 Manjoo
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