

漸入方向：解決網路智慧財產權事務？  
Falling into Line: Internet Intellectual Property  
Concerns Solved?

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摘 要

近來報紙的報導指出網路著作權似乎經由現有的智慧財產權法而尋得解決因應之道，然而因為網路之非常性質，許多時事評論家認為新呈現的事務及科技使得智慧財產權法有過時、不能產生預期效果或不適用之感。不過，像 Napster.com 及 MP3.com 侵犯著作權之訟案卻顯示現有的法規能夠應付這些侵權事件。

因為新科技對新的智慧財產權法之需求已顯而易見，投機者將取代 Napster 及其他的免費網站。在進行立法程序之前，須確認可能之違規犯罪者。有些人提議制定法律如 House Bill 2180 及 Senate Bill 2037 以試圖使得破壞科技著作權保護的技巧成為違法；藉以逮獲那些幫助別人侵犯著作權者。此法仰賴於發現那些分發軟體及硬體幫助檔案共享而不用中央瀏覽器之人。

本論文遵循幾項頭條網路著作權案之發展程序，提供註解及分析。這些案例的發展強調了大眾使用新遊藝與資訊科技，其可預知的演化發展。

關鍵詞：網路、著作權、Napster、智慧財產權

## Abstract

Recent newspaper accounts indicate that copyright concerns on the Internet seem to be finding solutions via existing intellectual property law. Because of the very nature of the Internet, many commentators felt that new concerns and technologies make existing IP law outdated, ineffectual, or non-applicable. However, cases such as the Napster.com and MP3.com copyright infringement cases show existing law to be capable of handling matters where infringers are known.

But the argument for new IP law in light of new technologies finds continuing support in the opportunists that wait to take the place of Napster and other free-sites. Offenders must be identified before legal process can be truly brought into play. And another important facet of this identification is finding the appropriate offenders to target. Some proposed legislation such as House Bill 2180 and Senate Bill 2037 attempt to make illegal the ability to defeat technological copyright protections; thereby reaching those which make it possible for others to infringe on copyrighted materials. This approach relies on finding those distributing the software and hardware that helps to facilitate file sharing with or without a central browser.

This paper follows the developments of several headlining Internet copyright cases and provides commentary and analysis of these developments while proposing future developments. The developments in these cases highlight the predictable evolution of public use of new entertainment and information technologies.

Keywords: Internet, Copyright, Napster, Intellectual Property

## Introduction

Since writing *Hidden threats in open territory*, a piece published last year in the 15<sup>th</sup> annual Taiwan Technology Conference, the intellectual property field has seen some changes occur which seem to be leading the Internet back towards the traditional intellectual property laws (at least those of copyright).

As stated in the first paper, new laws and pending legislation seem to be necessary to address concerns regarding copyright, trade-name, and trademark ownership and usage on the Internet. Recent developments, again regarding copyright, are indicating that traditional handling of copyright, and the violations thereof, seem to be winning out against the “free dissemination of information and

entertainment” (Brito, 12), movement that the vast scale of the Internet, preposed precursor of the Infopike, made possible by leading to a revolution of information sharing among the general public. Approximately 200 million users are online throughout the world passing data from one computer to another every day (Holson, 2000). In fact, the very nature of the Internet is the transfer of information through many networked systems to finally reach the intended system. But, as could easily be predicted, this massive transfer of information has lead to the bypassing of traditional methods of transfer that have been the subject of ownership rights, namely copyrights.

Most noticeable in the news regarding these copyright issues are the “free” music-sharing web sites that allow

individual computer users throughout the world to download materials (namely MP3 music files) that are protected by copyright for no accompanying costs. Since these downloaded materials are of high quality digital sound they have no disadvantage in comparison to the same item purchased through more legitimate channels.

Two such music-sharing web sites that have already been adjudicated as copyright offenders are Napster.com and MP3.com. These sites lead the pack of similar central browser music-sharing sites. One of the only reasons that these web sites can be sued by copyright holders is that they operate central browser systems. A central browser maintains a stationary server and database that is accessed by outside users. It's IP address is unchanging and easily locatable. Therefore, monitoring for these types of sites is relatively easy.

However, from the litigation history to follow, it is clear that the central browser approach to file sharing is going to be replaced with mobile Internet addresses and tunnels. A tunnel is method of transferring a request through a site that masks users' final destinations from monitoring systems.

Several notable bills have been introduced within the last few years in the United States to address the IP concerns that sprung up from Internet developments. The two most worth of mention, and most likely to become law, are House Bill 2180 and Senate Bill 2037, both addressing the passing of copyrighted materials and attempting to deal with the problem by adding more penalties for infringement and [significantly] trying to look forward in time to middlemen who use technologies to bypass protective technologies and methods.

These future protective measures are important as we see from the recent lawsuits brought by copyright owners (music and recording companies) against the file-sharing web sites like Napster.com and

MP3.com. Here we see the copyright owners winning out against these companies. Tried and true copyright law was applied in the lawsuits with no apparent need to conform to the new transmission media of the Internet. The reason we see the need for these future protective measures is that the next level of this issue will move away from the central browser that can be easily located.

### **Litigation History for File-Sharing Sites**

Jerry Brito, a regular commentator on the Internet concerning liberalized information ownership initially commented on August 4<sup>th</sup> that "the idea of intellectual property on the internet is dead". That companies like Napster.com and Freenet.com (a centralized music browser service) shows that file sharing precludes enforcement of any copyright laws. In fact, for years now the Internet has been swarming with sites and commentaries promoting and justifying a "copyright free" world. The Internet, because of its unique character seems to give some credence to this argument.

Napster.com and MP3.com are by no means the only companies being singled out for copyright infringement lawsuits. However, they are at the forefront of the copyright debates and therefore the litigation history of these two companies allow for a clear understanding of the result in most if not all of the other file-sharing copyright infringement cases.

Under traditional copyright law the most basic exclusive right is that of reproduction (1976 Copyright act § 106(1); Miller, 320). It allows the copyright owner to exclude all others from reproducing the work in any form ( § 106(1); Gorman, 23). Following this, the copyright owner also has the exclusive right to distribute the work to the public "by sale or any other transfer of

ownership” ( § 106(3)).

There are several exceptions to copyright protection including “fair use” ( § 107). This allows certain persons to copy copyrighted materials for certain uses. Usually this is limited by the amount and substantiality of the portion used in relation to the ..work as a whole” ( § 107 (3)). The file sharing of copyrighted materials has been found to be directly reproducing and distributing of those materials (*Recording Industry Association v. Napster.com* , 9<sup>th</sup> Cir. Appeals).

On behalf of eighteen companies, the Recording Industry Association of America sued Napster.com for willfully violating copyright. Likewise, Universal Music Group sued MP3.com for willfully violating copyrights. The potential damage awards in both cases could have been set at up to a maximum of US\$150,000 for each willful infringement under current U.S. law which is found in the 1978 Copyright Act.

It is perhaps of interest here to point out that U.S. copyright law is civil in nature and contains no provision for jail time. Countries such as Taiwan incorporate civil and criminal punishments in the Penal provisions of their copyright law. The U.S. does maintain criminal statutes that cover copyright violations such as piracy, but such statutes are separate from the copyright act.

At the time of suit, the recording industry wanted two clear objectives to come from the lawsuits. First, they wanted these file-sharing dot.coms to be shut down. Second, they wanted the damages to be paid for the copyright infringements.

Losing the trial against them, both Napster.com and MP3.com appealed and continued in business under stays of execution granted by the appeal courts (Napster gets day in court, 2000). They also attempted to sell their businesses to outside buyers by holding talks with Internet service providers according to Inside.com,

an Internet monitoring service (Napster looking for buyers, 2000).

A major issue in the cases was the number of infringements, since that would determine the damage awards in each case. For example, in the MP3.com case, MP3.com argued that the number of infringements were around four thousand. The Court having determined US\$25,000 as the amount to be paid for each infringement would have amounted to US\$118 million in damages. The Universal Group argued that it was over ten thousand infringements.

However, interestingly, MP3.com and Napster.com resolved the majority of their suits with agreements with the major record labels even after the recording industry companies had won. The reason for this appears to have been due to the dot.coms’ already having positions in the Internet public’s eyes (Holson). MP3.com will distribute online under licensing agreements with the appropriate major record labels (MP3 to reopen, 2000). MP3.com will also charge users and compile user information for the music industry.

Napster.com, on the other hand, tried to formulate a new membership-based distribution system that will help to guarantee payments to copyright owners. But, currently Napster.com is still operating as a non-member site and still allowing the sharing of files. Under a recent court order, Napster.com is attempting to screen the files passing through its server to disallow copyrighted materials to be shared. Using name association software, the server recognizes a copyrighted song and does not allow the file to be transferred. This has proven to be a failure as misspellings and alternate words easily bypass the protective software.

## Discussion

So now that online music file-sharing

sites are moving into line with current copyright law and are beginning to charge money from users, what does that mean for the progression of copyright concerns on the Internet? As any new file-sharing website faces the same legal outcome.

Clearly, millions of users are not at all pleased with the developments that have occurred with their “free” music sites. According to Media Matrix, an Internet tracking firm, Napster.com had a 22 percent increase in website traffic in October of 2000, when users believed the site would be closed (Napster Survey). That amounted to 945,000 visitors to the site a day. A survey of “hardcore down loaders” conducted by Melodicom Partners, a music industry site, showed that 67 percent of the 1,500 North American users surveyed had backups to Napster.com and knew an average of 15 “clandestine song swapping” clubs on the Internet that they already used on a regular basis (Forget Napster, 2000).

Music analysts have stated that former Napster.com fans are outraged by Napster’s agreement to seek user payments and that this will bring about other software programmers to develop totally new “free” systems (Holson).

There are alternative services available now, such as Scour, which permits users to share materials other than music. But they are currently under suit as well for copyright infringement, as is Freenet.com.

Then there is Gnutella, a program service that allows music file sharing without using a central browser like Napster.com and the other major sites. There are others without central browsers, but most are program services that provide users the ability to file-share with others themselves. Currently, though this frustrates finding copyright infringers, it is difficult to download a large variety of music or materials, as the user base is smaller from location to location transfers.

There can be no doubt that these difficulties will, given time and desire, be overcome by the millions of users who want free entertainment materials. There are only two major alternatives – allow it or prevent it. It can be allowed by changing the law, using business models that provide income for copyright (Brito, 2000), or by simply ignoring it. Preventing it seems to be what most companies and governments would prefer.

One progression in the fight to prevent copyright infringement on the Internet quite likely will be that of monitoring services. These services, like Netnanny and Cyberpatrol, who monitor for content, would monitor the Internet transmissions for file sharing protocols and or transmissions. This raises the major future conflict of the Internet; that of privacy concerns. The individuals right to privacy balanced against the government’s need to protect copyright and enforce law.

Some countries concerned with copyright and IP issues are moving aggressively against users who download these copyrighted materials. The ease and the magnitude of downloading makes this approach seemingly arbitrary and because of the magnitude, this approach does very little to deal with the problem.

Arguably, the proper approach is to target the services or individuals who provide the opportunities or technologies for individual users to access large numbers of copyrighted entertainment materials. Monitoring services using screening or tracing technologies are a natural progression in the fight against Internet copyright violators.

However, for every technology that arrives to deter, several technologies or methods of bypassing that deterrence comes into being. One possible way users can overcome these monitoring services is by using a “tunnel”. These being file

transfer protocols. Governments or other monitors usually exercise control or monitor through central gateways (Lee, 2001). Tunnels are ways to connect to one site and have your request and subsequent answer (or download) routed secretly, thereby bypassing monitoring services. These “tunnel” sites have embedded frames that give access to the rest of the internet, but if the transmission is monitored, the monitoring agency will see the tunnel site intermediary and the user only – not the destination or file sharing site. Two excellent methods are to use foreign-based servers or satellite phones to further support this masking technique.

Another method of having a central browser that cannot be located is to organize in such a way that allows a central browser to change its IP address and cycle through domain names every few weeks or months (Lee, 2001). Users usually have prearranged transfer patterns or can email notices indicating the new domain name and address.

Users can use systems similar to *Triangle Boy*, a system that allows user computers to be used as conduits for other sites. This presents problems for the user, as they don't know what information is passing through their computers. But this method makes tracing file-sharing much harder.

These methods present problems for monitoring services, as they now have to find moving targets. However, monitors can locate tunnel locations through usage patterns. They can always concentrate on finding users by tracing the computer addresses of those attempting to use known file-sharing sites.

Secure Digital Media Initiative, a group of 200 music and telecommunications companies developed several technologies to prevent users from listening to copyrighted music files for free (Web Music

security..., 2000). These consisted of such methods as implanting a subprogram into the downloaded file. Researchers at Princeton University reported, however, that they were able to remove the “invisible security measures” easily.

Emusic, an online music retailer is going to employ a new “acoustic fingerprint” to monitor its songs being shared on music swapping sites. With this technology Emusic will email a message to offenders giving them 24 hours to stop distributing their copyrighted songs. Again, this approach assumes a central browser.

These types of “fingerprints” or “watermarks” might be used in conjunction with hardware such as the computers themselves or CD players. A player or computer might be manufactured to recognize these marks and react according to a set of instructions.

But prior to real advances in technologies, laws can be proposed which look ahead to this rapidly advancing situation. Bills introduced in the U.S. Senate and House as early as 1997 recognize that a major concern for future copyright litigation is the circumvention of copyright protection systems. Not every user can defeat copyright protection systems. Someone will provide these methods, software, or hardware to others. Senate Bill 2037, also known as the Digital Millennium Copyright Act of 1998 (Passed by the Senate) states:

- (2) No person shall manufacture, import, offer to the public, provide or otherwise traffic in any technology, product, service, device, component, or part thereof that –
  - (A) is primarily designed or produced for the purpose of circumventing a technological protection measure that effectively controls access to a work protected under this title;
  - (B) has only limited commercially

- significant purpose or use...
- (C) is marketed by that person or another acting in concert ...with that person's knowledge for use in circumventing a ...
- (3) As used in this subsection—
- (A) to “circumvent a technological protection measure” means to de-scramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological protection measure, without the authority of the copyright owner; ...

Along with Senate Bill 2037, House bill 2180, introduced in 1997, and being similar in nature, show that legal concerns about copyright on the Internet will move from the actual infringers (the user/ down loader) to those who willfully aid and permit the infringements through technological support.

### **Conclusion**

Simply based upon Internet tracking and surveys, it is clear that the demand for distribution of “free” music over the Internet is enormous. The progression of the “free” systems has seen the major sites fail to continue as such. This is only due to the fact that as central browsers, they can be easily tracked and identified. As shown, these sites have gone through the legal process and current intellectual property law has had no difficulty in dealing with them. The fact that they are operating on the Internet requires no adjustment to current law. They have run the gauntlet of attempts to survive and have ended up surviving by altering their very basis – that of providing “free” music. However, it should be clearly understood that this is only a step in the development of the Internet copyright debates. Millions of users have gotten what they have wanted for free for too long

and it is naïve to believe they will pay unless they have to.

Currently most alternatives to web sites like Napster.com and MP3.com are difficult to use. Or they are troublesome in connecting to large numbers of other users. However, because of the fall of the central browser dot.coms, these alternative technologies and services will develop and advance to meet the overwhelming demand that is out there. Gnutella-like systems will allow users to swap files with potentially large numbers of other users without any need to have a bulletin board or central browser. Methods like tunneling, masking and conduit transfer protocols will make identification difficult. Record companies will find it impossible to sue under these circumstances unless they can identify and locate those responsible for the distribution of their copyrighted materials. Technologies will have to be developed to monitor and screen the vast digital sea of the Internet for any meaningful prevention to come into being.

As discussed, companies are developing such things as digital fingerprinting to identify copyrighted materials. These fingerprints will give service providers the ability to monitor transfers even without the central browsers like Napster.com and MP3.com. Other protective systems, most likely monitoring software will come into widespread use throughout the Internet. New companies will provide these services just as companies now like *NetNanny* protect against underage users from accessing pornographic materials.

Hardware manufacturers very likely will start producing hardware that is copyright protective in nature and that will work in conjunction with Internet software protections. These changes in hardware are most likely to come about because of legislative regulations.

Because of this inevitable progression, laws that take into account circumvention of copyright protection systems like S.2037 and H.R.2180 are essential. As good as the protective systems become there are always those who will find ways around them for whatever reason or justification. However the war against copyright infringement on the Internet can be won through limiting the number of users who can do so.

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