

The Breakdown of Copyright in the Information Age: or, Why Johnny Can't Use Fairly

Abstract:

As copyright law struggles to adapt itself to the Information Age it has become more general, more cumbersome and more easily infringed upon. It is rapidly approaching a point where copyright law will be so general and far reaching with regard to computers that it will prohibit the use or viewing of basically any useful material or media until copyright law will prevent infringement entirely by removing the capability of doing so from the realm of available technology.

Introduction:

Ever since the prosecution of Napster the record industry has taken up the mantle of the protector of copyright and has stepped up its high-profile legal battles to show it is waging a great crusade against the evil infringers. Their weapon is copyright law, and in order to inflict greater casualties they have sharpened their weapons by extending copyright law as much as possible and have begun taking wild swipes at their enemies. These wide-reaching powerful blows have begun to reach their own allies though... law-abiding, honest, consumers and are simply a revelation of a disturbing trend in U.S. copyright law that has been present since its first implementation.

Specifically, extreme extensions of copyright law as well as the highly subjective and easily reinterpreted guidelines for fair use, which are the only legal tools to demonstrate that copyright has not been infringed upon, make for an environment where copyright becomes more and more easily infringed upon and fair use remains difficult to prove. These laws may make sense when dealing with copyrighted physical items, however they quickly become cumbersome and partially nonsensical when dealing with items in the electronic realm. Due to the consternation of multiple businesses and a switch in the perception of what copyright is; copyright laws have been pushed forward that threaten the very Constitutional mandate that they are enacted under.

The organization of the paper is as follows; first a history of copyright from its inception through the late 80s and the genesis of 'fair use', a discussion of how copyright law has been extended into the digital arena and has begun to break down within the last twelve years followed by highlights of some of the more troubling copyright developments over the last 3 years, followed by a conclusion.

Early Copyright Law:

As is the case with much early American law, copyright in the U.S. began as a legal artifact from England. Before the introduction of the printing press it was an extremely time and labor intensive process to copy a written work. Books existed only among the privileged and priestly classes due to the enormous expenses involved in their creation since individuals had to copy the book by hand. Printing presses made books more accessible and cheaper, but they also not only made it possible for anyone to copy a book, but almost easy when compared to the alternative. As printing presses become more and more common England sought to legislate the creation of printed works and in 1662 the Licensing Act confirmed a limited monopoly on the part of publishers. [1] Later the Statute of Anne in 1710 established unequivocally a work's owner's right to

exclusive ownership and ‘*copyright*’ of the work for 14 years, renewable by another 14 years if the author was still alive after the expiration of the first period. [1] This served not only to allow people to receive a monetary return for their creativity by granting them a total monopoly on the distribution and content of their work for a time, but also served to create a large public domain once the copyright and the author expired.

When the U.S. Constitution was drafted in 1787, it included a provision for copyright, namely, “ ‘the Congress shall have power . . . to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.’ ” [1] The first U.S. copyright law was enacted by the newly-formed U.S. Congress 3 years later and all but mirrored the Statute of Anne, which was already 80 years old. [1] Over the next 186 years copyright law would undergo 2 major legislative revisions. [1]

1831 saw the extension of the term of protection for copyright from 14 plus a possible 14 years to 28 plus a possible 14 years. [1] 1909 saw the first major extension of copyright law to encompass any and all works that could be said to have ‘authorship’, extending copyright law well beyond only written works. [1] The length of copyright was also extended to be 28 years, with a 28 year extension if the author had not expired before the expiration of the first copyright. [1] One of the major reasons for all of these changes in copyright law was the nation’s nascent music industry. [1] Congress already found it a “...serious and difficult task to combine the protection of the composer with the protection of the public...”, in other words, that it would be very easy for the composer/copyright holder to create a most ‘oppressive of monopolies’ out of the rights that Congress would grant them for their own protection. [1] This was an issue almost 100 years ago.

Interlude 1: Were the 10 Commandments copyrighted?

Actually the concept of copyright goes back well into the dim mists of recorded history. Plato’s *Phaedrus*, written around 360 BC, contains a lighthearted discussion between Plato and Phaedrus after listening to a speech by Lysias. [11, 2] Lysias was a writer/orator who would write speeches. [11] The only acceptable way to reproduce the work would be to memorize it as Lysias spoke. [11] Lysias was such a clever writer that it was well nigh impossible to memorize his entire speech, so a loquator’s only recourse would be to keep a written copy on hand to secretly glance at to refresh their memory as they went. [11]

There wasn’t anything implicitly illegal in doing so, but if you were found out it was much to your discredit and most likely you would not be making speeches any time soon... much the same way as there are no *laws* against cheating on tests in school, but if you do and you get caught, you may not be passing that class any time soon.

Modern Copyright Law:

1973 saw a copyright law decision that strongly upheld the concept of ‘fair use’ which could override copyright. [1] The case was brought by a publishing company against medical research institutes for photocopying articles out of their journals and distributing them to researchers. [1] The crux of the issue was really the use of the photocopying machine. Here was the same type of technological leap as the introduction printing press in the fifteen hundreds. It would be possible for modern people to buy

printing presses, but their size, technical complexity and operation costs made it all but impossible for them to be owned by anyone but a business. So once again the ability to copy works with a small(er) investment by anyone was again available. The courts found in favor of the medical researchers, but strongly recommended that Congress publish some legislative guidelines for photocopying. [1]

'Fair use' refers to section 107 of Title 17 of the U.S. code of laws, most likely the smallest section in all of Title 17. Title 17 contains 57 other sections that directly define *only* copyright and many more sections that define other aspects of copyright and patent law. [4] Intuitively fair use is any use that is not for commercial purposes and does not adversely affect the commercial value of whatever is being copied. The entire text of the current definition of fair use is as follows:

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include—

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (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.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

(US Code of Law, Title 17 – Section 107) [3]

Apparently fair use exists only as a set of general guidelines that need to be interpreted specifically for every copy of any material that could be judged as being under copyright. In fact, there are court decisions that act as precedent for this perception. [6] Following this victory for the concept of fair use and the emergence of many new recording and copying technologies, Congress reviewed copyright law and in 1976, almost 70 years since the last revision in 1909, made major changes to copyright. [1]

If you have been paying attention I am sure you have picked up the trend in length of copyright over time. The 1976 revisions extended the duration of copyright considerably, from 28 years and a possible additional 28 years to the lifetime of the work's author plus 50 years. [1] The minimum amount of time for a work to pass to the public domain was now *at least* 50 years, as opposed to 56 years at the most under the previous law. The U.S. was also looking to be more of a team player in the realm of copyright and was interested in the Berne Convention, an international standard copyright treaty of sorts. In order to smooth entry into the Berne Convention in 1976 the U.S. made a very substantive change to copyright law, namely that an application was not necessary to gain a copyright. [9] The ramifications may not have been apparent at the time, but are incredibly powerful.

Previously copyright existed as a legal recourse to append to material that was published to keep it from being copied or used commercially by other people. So apparently copyright originally existed somewhat externally to a work and there was a clear differentiation between the actual work itself and the set of rights its creator had to it. In order to get a copyright on a particular work an author would need to make out a formal application to the proper authorities within three months of the work's publication. [7] Only commercially viable works would be published, so their contents represented basically a rare commodity that the author created. The creator could obtain a copyright on these commodities to assure that others could not profit from the unique character of the author's creation. The 1976 revision changed that, now at the moment a work was transmitted to any fixed medium it immediately and instantaneously had the protections of copyright. [7]

This drastically changed the character of copyright since neither an application, or even a publication, were necessary to obtain one. In fact as I type these words they are protected for the next 50 years, at minimum, by U.S. copyright law. Creative works, and in fact all works, now had the notion of copyright inextricably woven into them, and differentiating legally between a commercially viable creative product and a doodle or a shopping list is impossible, except under the 4 simple categories of fair use. The changes initiated by the Berne Convention preparation also made the formal extension of copyrights, when applicable, unnecessary; so that the moment copyright was invoked (which is the moment of creation), a work is protected for the entire amount of time possible. [1, 10]

In 1980, with the advent of personal computers a landmark decision in view of copyright law today was a rather minor decision then. It was ruled that any owner of a copy of computer software was entirely within their rights to make a backup copy of the software in case the original was damaged in some way. [9] This was most likely due to the flimsiness of portable electronic media of the day. In the case that the original was rendered inoperable the consumer's copy would then become their licensed instance of the product, implying that while copies could be made, only one can be used. [9]

1984 saw the legislation of another new technology, videotape. [11] Sony Corp. was sued by Universal City Studios, Inc. for marketing of the VCR. [11] Courts found in favor of Sony since there existed 'substantial non-infringing uses' for the VCR. [11] This decision has both reassuring and worrying elements. It legislated that you can not prohibit media simple because it *can* be used to infringe copyright, but it also indicated that media publishers were becoming interested in preventing media recording and reproducing devices from finding their way in to the public.

1992 saw two interesting developments in copyright law. [1] First the American Geophysical Union's suit against Texaco was upheld [1]. A Texaco scientist had copied entire journal articles without the publishers' permission. [1] This would appear to fall under fair use since it was done for scientific research, much like the 1973 medical journal case. In fact the court found that Texaco's financial motivation in doing the research violated any fair use arguments for their use of the articles. [1] Although seemingly innocent, this was also an important decision since it changed the character of fair use, namely the perception of guidelines 1 and 4 in the definition of fair use.

If research is purely scientific, fair use holds, however if the *motivation* is financial then that supercedes the fact that the copyrighted material is being used for

research under guideline 1. Guideline 4 also becomes more important and evidences the shift in perception of copyright. If the article had been published in a scientific journal it is likely the author received little or even no compensation and would most likely find the application for a copyright unnecessary. Since copyright was made to be a character of creative work however, even though the original work was not commercially viable or of large impact, it could be *made* to be so if part of it was copied and used in a different way by a company for profit. Even though this would only make the work *more* valuable, it does have an effect on ‘the potential market for or value of the copyrighted work’. Guideline 4 quickly became much more general.

The second large change to the landscape of copyright came in 1992 when Congress held that current copyright law retroactively applied to all works published after 1964. [10] Since this meant that applications for copyright extension were no longer necessary, many works that would have lapsed into the public domain were once again protected for decades to come. [10]

Interlude 2: years of income – lifetime > 0?

After the Berne Convention upgrade copyright law protected a creative work for the author’s lifetime plus 50 years. Sure, it is a long time, but so what? Well... copyright originally existed to protect an author’s creative investment so they could actually get a monetary return for their work. That is all well and good and makes sense enough. My question though is this... since the length of the copyright is longer than the lifespan of the author, what does a corpse do with money coming in from copyrighted works? Maybe they didn’t like the plot their family picked out and want to move somewhere else... or maybe their coffin is a little uncomfortable and they want to upgrade to the deluxe model. In all seriousness though, why does the author need such protection? Well... they don’t.

The only reason to have such a long period of copyright is so that *someone else* can manage the rights to the copyrighted material and collect any applicable fees after the author’s demise. It would be touching to think that an author’s descendants and family are being provided for here, but that seems quite unlikely. It seems a good bet that this was done to allow publishing companies, film studios, record labels and the like the ability to ‘inherit’ the rights to creators’ works through contract clauses and market them after their deaths. Although I don’t think anyone has admitted that this is the case directly I have no other answers for it. If this is so, then apparently copyright had already begun to break down by the early ‘90s. Copyright is meant for the protection of an author... not as an extension of contract post mortem for the benefit of an author’s publisher. The strongest argument I can think of is that you can’t tax a dead guy, so the government is going to be really sure that they don’t have any income, so someone else is going to have to collect the royalties for the author’s work for the fifty years after they die. If they asked me, I would have volunteered...

Information Age Copyright Law

First, a brief note; many historical pundits place the beginning of the Information Age in the early 70s, which makes little sense to me since there were really no computers as we know them yet at that time, which are essential for the Information Age. For the purposes of this paper I consider the early to mid 90s the real advent of the Information

Age, a time when there was (is) a global boom in the dissemination and retrieval of information, and when scientists actually began to research ways of enhancing that dissemination and retrieval of information (internet technologies and algorithms) rather than ways to speed up a computer's clock rate or connect them in a network.

The biggest problem facing copyright with regards to computers, the Internet and newer technology is that copyright simply doesn't make sense when speaking of these things since the language and concepts of the law do not pertain to the functions of what they are being applied to.

Legal language is very precise, and to 'publish' a work means quite a range of things, among them; actually publishing it in the common sense by giving it to a company who sells it for money for you or putting it in a public place where everyone can see it. For instance, it is within my rights to purchase a poster and hang it up in my room. If I take the same poster and hang it up on a bulletin board on a college campus I am displaying it and making it available to the public, in effect 'publishing' it to the public, infringing upon the copyright holder's exclusive right to do so.

The other troublesome definition is that of a copy. A copy is any understandable representation of a work in a fixed medium that is made available to someone other than the original owner, or is a physical object. If I sing a copyrighted song that is fine, since it does not exist in a fixed medium, however if I write down the words of a song I hear over the radio, that is copyright infringement since I have made an understandable representation of some portion of the work in a fixed medium and I was not the owner of the specific instance of the song that was being played. The effects of restrictions on copies and publications can combine to create derivative restrictions. For instance if I sing that copyrighted song to myself that is fine, however if I sing it in front of an audience, especially for money, I would then be in effect publishing the work to the public and infringing on the copyright holder's rights.

An example, lending a CD:

If I bought a CD and lent it to a friend I would be perfectly within my rights to do so, since the owner of a copy of a copyrighted item has the right to 'dispose' (lend, rent, sell, or destroy) of the item as they see fit. If my friend is vacationing in Europe and I still want to lend him my CD I could mail it, but it might get damaged. So I would treat it just like one of my software CDs and make a backup copy of it. I then take the original and place it in a safe deposit box and mail the copy to my friend. I could very well receive an unhappy subpoena for copyright infringement for doing so. The right to back up CDs applies only to *software*, as per the copyright amendment made in 1980. [9] Since I can not create a physical copy, I figure I'll just dub the one or two songs my friend wants to listen to off the CD to MP3 format and email those. I'll then erase the files on my side, so I will not have any copies, plus I'll still drop the original CD off in a safety deposit box until my friend is done with the MP3s. Even though there was no physical duplication, this is still an infringement of copyright since copies were indeed made in a fixed medium. Even if I destroy my CD after I send the files so that only one copy exists, it was still an infringing act since at some point *copies were made*, regardless of their character or what happened afterwards.

The combination of partially contradictory laws and counterintuitive differences between real world processes and rights and digital processes and rights dealing with copyrighted material and the extremely tight bond of copyright to creative works combine to make fair and legal use almost impossible. In fact while discussing the topic of this paper with one of my peers, they told me it was entirely fine to make a backup copy of your music CD as MP3s, is he wrong? Well, yes and no. According to the strict letter of the law you *can* back up your music CDs, but you can *not* treat the backup as a second copy, meaning you can't let anyone else use either the original CD *or* the backups while both exist. This is because there is a very thin line between a phonorecord and a copy. In this case, a phonorecord would be a representation of the work, like an MP3, which you can duplicate for your own use. When you make a phonorecord and distribute it, in any way, it becomes a copy, which is illegal. All of the examples above are illegal since all of them resulted in publishing of the copyrighted material. By burning MP3s to a CD they cease to be phonorecords and automatically become copies since now two physical instances of the phonorecord exist, once on the original CD and once on the newly-burnt one.

One of the major problems with current copyright law is the perception of electronic transactions versus physical transactions. People have plenty of experience with physical transactions, but not all that much with electronic transactions. Every time you hand someone a dollar you undertake a physical transaction. The dollar has been transferred from you to them while the total amount of dollars has remained the same. If I take a music CD and give it to someone, I do not have it and they do, the amount of copies that exist is preserved and no copies were made in the process. If I send the contents of the CD electronically to someone, even if I destroy the original afterwards, the total amount of copies will not have been the same since while I was sending it I made another full copy. It does not matter if I destroy the original later, since once I undertake the action of copying any section of the CD, copyright has been infringed upon. This leads to the core of the copyright battle, namely that computers work by making copies. In fact, everything a computer does is copied at least once, in RAM.

Illegal computing?:

RAM is basically the CPU's 'inbox'. Virtually no program or media can run or be viewed on a computer without being copied first into RAM so that the CPU can decide how to use it, at which point the information is sent to the proper hardware device. Does copying into RAM then represent a copyright infringement? It certainly shouldn't, since the user did not design the devices, etch the circuit boards and write the operating system to make it behave in that manner, so they can't be responsible for the way their computer works, can they? Well, in fact, that issue is still somewhat undecided.

As late as 2001 at least two federal appellate courts in the U.S. have held that copies of copyrighted works residing in RAM are indeed copyright infringing copies and that opinion has been accepted by several lower courts, although thankfully the issue still remains controversial and largely undecided. [12] If courts decide that indeed all copies in RAM are copyright infringing copies then almost nothing can be done on a computer without the user opening themselves up for copyright suits of hundreds of millions of dollars in the course of minutes, or even seconds. These would not be the evil hackers

and file sharers that are being hunted down by record companies, but every single computer user. When you start up your Windows computer, one of the first things you see is the Windows logo. Even if you bought your copy of Windows perfectly legally and have both the store receipt and the certificate of authenticity and ownership in your hand, you still would have infringed upon the Microsoft Corp.'s copyright of the Windows logo. Once you have reached the Windows logo though thousands and thousands of lines of copyrighted code have been loaded into RAM just so Windows could start up, so you would owe a few million at least anyway, and that's before you even *did* anything other than boot the computer up.

The quandary that copyright lawmakers face is that if they rule that RAM does not in fact infringe copyrights then any information that passes through it is not restricted. It is relatively easy to write a computer program in certain languages that could directly access RAM and read out any information in it. Of course it could be decided that information is only copyright free when it is inside RAM. Periodically whenever RAM gets full its contents are written out to the hard drive. An enterprising user could copy sections of such information off the hard drive to use for 'performance analysis.' In short, Congress would be hard pressed to find a way of specifying that information in RAM does not infringe upon copyright for all kinds of hardware and all kinds of operating systems and all kinds of hardware devices, without somehow leaving it open for duplication. This is however only one aspect, albeit a fundamental one, of copyright gone awry. Excepting this one snag, doesn't copyright still serve its purpose? Unfortunately, the answer is no.

The Effects of Copyright Since 2001

Down the slippery slope - Enforced Silence:

Copyright exists to protect the monetary investment of the creator of a work and should also 'promote the progress of science', while not allowing the creator to form an 'oppressive monopoly', according to the U.S. Constitution and one of the first copyright cases, tried in 1831. [1] Current copyright law easily exceeds its bounds in both respects.

For instance the Secure Digital Music Industry (SDMI) created a digital watermarking system to help prevent copyright infringement. [13] The SDMI then allowed a public study to determine whether the digital watermarking system was secure. [13] Professor Ed Felton of Princeton University was one of those who studied the system and found some interesting results, however he was not allowed to publish them. [13] This occurred in 2001 and was outlawed by the Digital Millennium Copyright Act (DMCA). [13]

The DMCA is part of the flurry of legislation that occurred in the very first years of the Information Age, including the No Electronic Theft Act (NETA) in 1997, which were meant to fulfill the U.S.'s obligation to the World Intellectual Property Organization treaty signed in 1996. [14] The DMCA specifies, among other things, that it is a crime to distribute code-cracking software but also provides for research and educational institutions in the law and mostly exempts them from it. [14] Professor Felton, however was informed that he could not publish his findings. [13] If the watermarking was flawed and easy to break, then it wouldn't matter if Prof. Felton published the data since the

watermarking would need to be reengineered anyway. If the watermarking worked well then Prof. Felton would probably have been encouraged to publish information about it since it would only prove to would-be crackers the strength of the watermarking. The only other conclusion is that the watermarking was flawed, but the SDMI did not anyone to know how it could be broken, so they used copyright law to silence one of the people who knew how and why it didn't work instead of, perhaps, allowing him to publish and giving him a research grant to work on fixing it. The DMCA states explicitly in Section 1201, the section that deals with copyright circumvention, that, “ [n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use under this title” [15] If you recall, fair use includes a specific exemption for research that isn't financially motivated.

Copyright law has also made certain works inaccessible. There are older books that would normally be out of copyright by now whose authors are hard to find or for which copyright ownership is unclear. [10] These older books are also out of publication, so there is no way to legally access them due to the decision to retroactively apply the no copyright notice and default copyright extension laws to older books in 1992. [10]

Down the slippery slope - Enforced Compliance:

What of monopolies? Well, Microsoft deliberately built some features into Windows 2000 so that Unix, one of its biggest competitors, could not be used to act as a DNS server for computers running Windows 2000 in some cases. [13] In fact Microsoft released a specification of these features so that they could be provided for by server builders, but the specification was encrypted and required a user to agree not to use the information to compete with Microsoft in order to get the key to decrypt it. [13]

A rather general use-limiting scheme is apparent in DVD region coding. DVD region coding has the unique property of allowing a user to buy media legally and a player legally, but then being unable to use the player to play the media. [13] If the DVD and the player don't both come from the same geographic region, then they can not be played on one another. VCRs work everywhere, as to records, CDs, magnetic tapes and basically every other type of recordable media, so apparently the problem is not with the pirating of media or region codes would be introduced for other media as well. [13] Region coding basically controls the distribution of DVDs, and does not protect the content on them since software DVD players can easily change their region and I have personally seen common DVD players that allow the user to switch the player's region code, even though region coding was ostensibly held as an attempted solution to pirating. In controlling the distribution of DVDs however, entertainment companies can be much more strategic in the release dates of movies and DVDs as well as their advertising campaigns and to at least partially control the prices of DVDs by limiting the amount of trade between geographic regions. [14]

At the bottom - Enforced Prevention:

Copyright law is also making further technological advancement difficult, and in some cases forcing better technologies off the market. For instance MiniDisc recorders treat digital input as analog input, downgrading it, newer ones do not even have audio

input jacks and often do not even output in a digital format, even though they are all entirely capable of doing so. [14, 16] This serves to downgrade the usefulness of this media and to keep people recording with CDs or DVDs.

In fact DVD recording has been kept as light as possible. DVDs are a superior recording media and are in basically all way superior to videotape, which is why they are so popular among companies that distribute video. Oddly enough DVD recorders have not yet been marketed. They would certainly have the same exemptions under the 'sufficient non-infringing use' ruling that found in favor of videocassettes in 1984. In fact in Japan DVD recorders are a big business, with projections made by Nomura Securities in 2002 that revenues would increase to \$4.6 billion U.S. dollars a year by 2003 and that DVD recorder sales would outstrip VCR sales by 2005. [17] There is no logical explanation why DVD recorders are not the subject of a big marketing blitz in the U.S., except possibly that they would make duplication of DVDs easier.

Another question asked by many is where are the MP3 recorders? [14] There are many products that can play MP3s, and there are small digital audio recorders that can play back what they record, but no products exist in the U.S. to create MP3s internally that the user can export out. The few devices that do record often make a point of stating they record only 'voice quality monoaural'. [14]

Conclusion

Copyright has failed in multiple ways. It has created pockets of information that no one publishes but someone who can't be found or determined owns it, so it can't be in the public domain either. It threatens to make using a computer a multi-million dollar copyright infringement. It disallows scholarly information about methods of copy protection to be published, in violation of its own previous statutes. It is used as a tool to ensure the scarcity of high-quality digital recording media and devices in order to *prevent* the *possibility* of infringement, rather than simply *legislating* the conditions and penalties of and for such infringement. Copyright law has continually been expanded, generalized and made more preventative until it has become a limiting force on technology and knowledge, in direct opposition to the mandate that Congress created copyright under in the Constitution. Copyright law in the Information Age has simply become illegal itself since it violates the Constitutional foundation on which it was built.

- [1] Association of Research Libraries, Washington, DC.,
Timeline: A History of Copyright in the United States.
<http://arl.cni.org/info/frn/copy/timeline.html>
(22 November, 2002)
- [2] Plato, trans. B. Jowett.,
Phaedrus.
<http://eserver.org/philosophy/plato/phaedrus.txt>
- [3] United States Congress.,
United States Code. Title 17, Section 107.
http://assembler.law.cornell.edu/uscode/html/uscode17/usc_sec_17_00000107----000-.html
(30 April, 2004)
- [4] United States Congress.,
United States Code. Title 17.
http://assembler.law.cornell.edu/uscode/html/uscode17/usc_sup_01_17.html
(30 April, 2004)
- [6] Board of Regents of the University System of Georgia.,
Regents Guide to Understanding Copyright & Educational Fair Use.
<http://www.usg.edu/admin/legal/copyright/#part4c9>
(13 November, 1997)
- [7] Lynn Gilmore.,
Copyright Law.
<http://lrs.ed.uiuc.edu/wp/copyright/copyrightlaw.htm>
(August, 1999)
- [9] Will We Need Fair Use in the 21st Century?.
http://www.utsystem.edu/ogc/intellectualproperty/fair_use.htm
- [10] Richard Koman.,
Free the Orphans: A Look at the Case of Kahle v. Ashcroft.
<http://www.oreillynet.com/pub/a/policy/2004/05/06/kahleversusashcroft.html>
(6 May, 2004)
- [11] Gates Matthew Stoner.,
At Communication and Law interest group Top Student and Debut papers panel at the Western States Communication Association Conference.
Vancouver, Canada.
Digital Horizons on the Copyright Frontier: Copyright and the Internet.
http://www.u.arizona.edu/~gstoner/digital_copyright.html
(19-23 February, 1999)

- [12] R. Anthony Reese., University of Illinois Law Review, Vol. 2001.
The Public Display Right: The Copyright Act's Neglected Solution to the Controversy Over RAM "Copies".
<http://www.utexas.edu/law/faculty/treese/Illinois.pdf>
(2001)
- [13] John Gilmore.,
What's Wrong With Copy Protection?
<http://www.toad.com/gnu/whatswrong.html>
(16 February, 2001)
- [14] The UCLA Online Institute for Cyberspace Law and Policy.,
The Digital Millennium Copyright Act.
<http://www.gseis.ucla.edu/iclp/dmca1.htm>
(8 February, 2001)
- [15] United States Congress.,
H.R. 2281, Digital Millennium Copyright Act.
(28 October, 1998)
- [16] Digital Puppet, Issue #4.
Portable Recording Studio.
<http://www.digipuppet.com/dp4/09fieldrecord.html>
(2001)
- [17] Reuters., CNN Interactive.
Hard Disks Boost DVD Recorder Growth
<http://www.cnn.com/2003/TECH/ptech/12/15/dvd.drives.reut/>
(15 December, 2003)