Chapter XIII

Copyright Law in the Digital Age

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ABSTRACT

This chapter discusses the current state of copyright law with respect to works contained on different media. It traces the history and purpose of the law, while focusing on how digital technology has shaped its evolution. It describes how recent legislation and court cases have created a patchwork of law whose protection often varies depending upon the medium on which the work lies. The author questions whether some of the recent legislation has lost sight of the main purpose behind the copyright law, the promotion of learning and public knowledge.

INTRODUCTION

As society has transitioned to a digital world, copyright has emerged as the most important area of intellectual property law. While the scope of patent, trademark and trade secret law has each greatly expanded in the last decade or so, copyright law has gotten the most attention. The popularity of the Internet

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and the digitization of information have strained traditional copyright principles and presented many difficult new questions. The law, which must and does evolve as society changes, is being forced, again, to address new technologies. It must either apply existing rules to these new technologies, or create new rules.

A BRIEF HISTORY OF COPYRIGHT LAW

In order to understand copyright law, as it exists today, it is important to understand its origins. The legal authority for copyright law in the United States comes from the Constitution itself. Among the enumerated powers granted the Congress in Article I of the Constitution is the 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. (U.S. Const. art. $I, \S 8$, cl. 8.)

Like much of the language in the Constitution, this clause was the product of compromise. James Madison, the principal drafter of the language, believed that the copyright law should benefit both the author and the general public. The author would reap the rewards of his creative effort for a limited period of time, and thereafter, the public would benefit by receiving these works into the public domain. Thomas Jefferson was apprehensive of any type of monopoly, even a limited one granted to the author of a creative work. He finally acquiesced to the notion of a copyright, as long as it was for a limited period of time. Both Madison and Jefferson readily agreed that the primary purpose of the law would be to promote learning and the progress of public knowledge (Vaidhyanathan, 2001).

An author's copyright interest in a work is granted by statute for a specific period of time, as opposed to being a "property" right to be possessed indefinitely. British law, at the time, recognized both types of these interests, but the Constitution only granted Congress the authority to create a statutory right for a limited period (Patterson, 1992).

The first Copyright Act of 1790 granted a copyright to authors of maps, charts and books for a period of 14 years, renewable for one additional term of 14 years. Over the past 200-plus years, both the scope and duration of this copyright interest have greatly increased. As new media were developed, the law responded. During the 1800s, the copyright law was modified several times to expand its scope to include prints and engravings, musical compositions, public performances of dramatic works, photographs, paintings, drawings and statues.

In 1909, the copyright law was completely rewritten, granting copyrights for "all the writings of an author" (Copyright Act of 1909, § 4). Since that time, this language has been interpreted to include, among other things, motion pictures,

sound recordings, radio and television broadcasts of sporting events, and computer programs. Principles that were originally intended to pertain only to books, maps and charts have been applied to new and very different media. As will be discussed below, this has often resulted in inconsistent application of the law.

The length of the first term of copyright was increased from 14 to 28 years in 1831, and the length of the renewable term was similarly increased to 28 years in 1909. In 1976 the duration of a copyright was expanded to the life of the author plus 50 years, or 75 years for a corporate author. The Sonny Bono Copyright Term Extension Act of 1998 increased those periods by 20 years. Thus the duration of a copyright today is vastly different from that envisioned by both Madison and Jefferson during the Constitutional Era.

BASICS OF COPYRIGHT LAW

Under the Copyright Act of 1976, which became effective on January 1, 1978, a federal copyright interest attaches from the moment that an original work of authorship is fixed in a tangible medium of expression. Works of authorship include literary works; musical works, including any accompanying words; dramatic works, including any accompanying music; pantomimes and choreographic works; pictorial, graphic, and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works. A copyright interest attaches as soon the expression is written down, recorded, photographed, videotaped, digitized, or otherwise fixed in any tangible medium (Copyright Act of 1976).

The owner of a copyright has the exclusive rights to do and to authorize any or all of the following: to reproduce the copyrighted work; to prepare derivative works based upon the copyrighted work (such as foreign translations, sequels and spin-offs); to distribute copies of the copyrighted work to the public by sale, rental, lease or lending; and in the case of some of these categories of copyrighted works, to perform or display the copyrighted work publicly.

The owner of a copyright is free to enjoy these exclusive rights subject to a series of limitations or exceptions. Some of the exceptions are very narrow and specific. For example, the owner of a computer program may make a backup copy of the copyrighted work for archival purposes (Copyright Act of 1976, § 117).

The most important of these exceptions is "fair use." Section 107 of the Copyright Act provides that:

[T]he fair use of a copyrighted work...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

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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 (Copyright Act of 1976, § 107).

Not surprisingly, many court cases addressing "fair use" involve the determination of whether a particular use of a copyrighted work is a "fair use." Generally, a court will explore the purpose or nature of the use and apply the four factors listed in the statute to the facts of the case. For example, if a professor discovers a recently published copyrighted article, relevant to a topic she is teaching that day, her photocopying and distribution of the article to her class is a "fair use" of that copyrighted work. It is for a purpose specifically addressed in the statute (i.e., teaching), done in a manner anticipated by the statute (i.e., multiple copies for classroom use), and consistent with most of the four factors.

It is often difficult to determine if the copying of a particular work is appropriate or permissible under the copyright law. A good starting point is to assume that a work is copyrighted. It is no longer required that a copyrighted work contain a copyright notice, although it is still advisable to include one, in order to preclude a defense of innocent infringement. One should not assume that a work is not protected by copyright simply because of the absence of a notice. Similarly, one should not assume that a work cannot be copied legally just because it does contain a notice. Remember that an owner of a copyright may grant whatever rights to copy the work to anyone he or she wishes. For example, many scholarly journals specifically give permission to copy an article contained therein for nonprofit, educational purposes. Furthermore, despite the fact that a work is copyrighted, its copying may be a "fair use."

Copyright law protects expression. It does not protect the underlying idea. One can obtain a copyright for a particular song, but not for the concept of mixing lyrics with a background melody. One can obtain a copyright for a screenplay involving six friends who live together in New York City, but not for the underlying theme that would encompass any screenplay written about friends living near each other in a big city. It is said that "imitation is the sincerest form of flattery," but copyright law protects against only a very close imitation, not a mere variation on the theme.

Another important principle of copyright law is that a copyright cannot protect facts. The names of our presidents and vice-presidents, the dates of their

administrations, and their party affiliations are all facts. They are part of the public domain. An author can write about history, and her specific expressive narrative will be protected. But the facts themselves can be used by anyone.

The Feist Case

In 1991 the Supreme Court decided a major copyright case involving facts and databases (Feist v. Rural). The case is important because it refocused attention on the basic constitutional requirements of copyright law. Feist Publications published a white pages telephone directory that included the names and addresses of all the listings contained in the directory of a competitor. Rural Telephone Service, the competitor, sued for copyright infringement. The lower courts found for Rural, holding that the telephone directories were copyrightable, that there was copying, and that, therefore, there was copyright infringement.

The Supreme Court reversed, finding no copyright interest in Rural's directory. The Court emphasized that *originality* is a constitutional requirement for copyright:

The sine qua non of copyright is originality. To qualify for copyright protection, a work must be original to the author. ... Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity. ... To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark (Feist v. Rural, 1991, p. 345).

The Court held that Rural's selection, coordination, and arrangement of its listings, by alphabetical order of surname, could not have been more obvious, and accordingly, did not satisfy this minimum constitutional standard for copyright protection.

The Court discussed the interplay between two well-established propositions: that facts are not copyrightable, and that compilations of facts generally are, as long as there is some originality in the selection or arrangement of the facts. The Court cautioned that even if there were such originality, the copyright would in no event extend to the facts themselves. The Court made clear that under the Copyright Act of 1976, "originality, not 'sweat of the brow,' is the touchstone of copyright protection in directories and other fact-based works" (Feist v. Rural, 1991, pp. 359-360). The "sweat of the brow" doctrine had been judicially sanctioned in a number of cases over the years. The Court also held that "copyright in a factual compilation is thin. Notwithstanding a valid copyright, a subsequent compiler remains free to use the facts contained in another's publication to aid in preparing a competing work, so long as the competing work

does not feature the same selection and arrangement" (*Feist v. Rural*, 1991, p. 349).

In commenting on the fairness of this result, the Court observed that:

It may seem unfair that much of the fruit of the compiler's labor may be used by others without compensation. As Justice Brennan has correctly observed, however, this is not 'some unforeseen byproduct of a statutory scheme.' ... It is, rather, 'the essence of copyright,' and a constitutional requirement. The primary objective of copyright is not to reward the labor of authors, but 'to promote the Progress of Science and useful Arts.' ... As applied to a factual compilation, assuming the absence of original written expression, only the compiler's selection and arrangement may be protected; the raw facts may be copied at will. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art (Feist v. Rural, 1991, p. 349).

The *Feist* case was decided in 1991, just as the digital world was beginning to take shape. Personal computers and audio CDs were commonplace, and CD-ROMs were beginning to become popular. The Internet was evolving quickly. By the mid-1990s, the technological landscape had changed. Computers were faster, more powerful, and could store greater amounts of data. Read/write CD drives became available, and most importantly, the Web grew exponentially. Anyone with a computer and a modicum of ingenuity could digitize, compile and copy (or copy and compile) almost anything. Cyberspace became an electronic trading post (Blanke, 2002).

DIFFERENT MEDIA

Largely due to fear of how easily this digital technology would facilitate copying, there is today a hodgepodge of laws that often provide different protection based upon the type of medium on which the copyrighted expression lies.

Books

It should not be surprising that the copyright law as it pertains to books is the most easily applied and best understood by the general public. After all, books have been the most common medium for centuries. Most people would readily agree that photocopying the pages of a copyrighted book would be an infringement. Most understand that a book usually contains copyrighted material for which the author should be entitled to benefit financially. Photocopying the book without permission and without legal right to do so amounts to infringement.

Computer Software

Computer software has been protected by copyright for a relatively short time, beginning in the 1960s, but not fully protected until the Copyright Act of 1976. It is somewhat surprising to see how quickly the public has learned that computer software is subject to copyright protection. Whether the software is contained on floppy disk or CD-ROM or is downloaded from the Web, most people would probably admit knowing that the software was copyrighted.

Two decades ago software publishers struggled to protect their product. Many consumers were unwilling to accept the notion that a copyrighted work on a floppy disk was as worthy of protection as a copyrighted work in a book. Publishers tried a variety of methods to protect the software, often using technology to prevent the act of copying. For example, a publisher might have sold its software on a floppy disk, which contained code preventing a user from reproducing the disk with a "diskcopy" command. Some enterprising person quickly discovered that the way to circumvent this software "lock" was to write a software "key." The publisher then created version two of the "lock" in order to thwart the "key." Soon thereafter came version two of the "key." And so on.

Eventually the software publishing industry decided that it might be more effective to educate the public, teaching it that the copyright law protects software. Anyone who has ever installed or downloaded software has faced a barrage of warnings and notifications clearly stating that software is so protected. Today, while certainly there are people who have no qualms about illegally reproducing copyrighted software, most people would have to admit that they know the software is protected by copyright.

Almost all software is sold by license agreement. The owner of the copyright can specify the terms of usage. The purchaser is free to accept these terms or buy a different piece of software. For example, a license may permit installation on one machine only, or it may permit installation on both a work and a home (or portable) machine, as long as the software is never used on the two machines at the same time. Different companies can have different license agreements. The terms of the licenses are entirely a matter of contractual specification. The owner of the copyright is free to sell, lease, rent or license his work however he chooses. It is not uncommon for software licenses to vary greatly from one vendor to another.

Videotape

The advent of the videotape recorder greatly concerned the television and movie industries. They feared that the average consumer would be able to record any copyrighted television show or movie broadcast over the airwaves without any compensation to its owner.

In 1982 several television and movie studios sued Sony for contributory infringement, seeking to stop the manufacture and sale of videotape recorders. The basis of their claim was that Sony provided the means by which other individuals could infringe the copyrighted works. In order to defeat a contributory infringement claim, one must show that there is a legitimate non-infringing use of the product. The Supreme Court examined evidence that showed that a typical user of a videotape recorder (in 1982) owned three or four blank tapes. It concluded that the taping over the airwaves of copyrighted programming amounted to a legitimate and common fair use called "time-shifting" (*Sony v. Universal*, 1984). For example, a person would tape a soap opera that aired during work hours and watch it at a more convenient time.

Somewhat ironically, in the aftermath of the case, a multi-billion dollar videotape sale and rental industry developed and flourished. However, the holding in the *Sony* is not as broad as many people might think. While it is a fair use to record a copyrighted work for later viewing (i.e., "time-shifting"), it is not a fair use to record for purposes of building a library of shows or movies. There is no exception for personal home use of videotaped materials. Furthermore, there is nothing that permits the use of a dual recorder to make a copy of another copyrighted videotape.

One of the reasons that studios like Disney were not as upset about the home taping of movies was because they learned to become masters at marketing and remarketing the sale of videotapes. With movies touting "never before seen footage" and "digitally remastered soundtracks," the studios were able to convince the public that is was much better to buy a copy of the tape than to merely record it off the airwaves.

This was largely due to the fact that analog technology produced an inferior copy. A home videotape recorder could never reproduce the clarity of the picture or sound of the original. The industry learned that many consumers would still buy an original copy of the movie in order to have the superior quality. The introduction of digital recording devices would present new problems.

Music

The effect that digital technology has had on electronic media and copyright law is best illustrated in the music industry. For a long time, while there was concern about the illegal taping of copyrighted music, it was tempered by the knowledge that the analog technology produced an inferior copy. The quality of the product deteriorated dramatically from copy to copy, whether the recording was made from a record, a radio transmission, or from another tape.

It was not until the advent of digital music, in the form of CDs and DATs (digital audio tapes), that the music industry became more concerned. While DATs became reasonably popular in Japan in the 1980s, the music industry

successfully lobbied Congress to prevent the sale of the machines in the United States. It was not until the passage of the Audio Home Recording Act of 1992 (AHRA) that the manufacture or importation of DAT players was permitted.

The AHRA requires that every digital audio recording device contain a Serial Copy Management System that prohibits or impedes the copying of a copy. The AHRA also establishes a mandatory royalty scheme that authorizes a payment for the sale of each blank DAT, upon the assumption that eventually a copyrighted work will be contained on that tape. In return for this, the consumer gets the right to make analog or digital audio recordings of copyrighted music for his or her private, non-commercial use. Such copying is still considered to be a copyright infringement, but consumers are, in effect, immune from suit for this type of copying.

The copying of music again became a major issue just a few short years after passage of the AHRA because of more new technology. When the AHRA was enacted, files containing digital music were relatively large, and data transmission speeds over the Internet relatively slow. By the late 1990s, that had changed. Compression techniques reduced the size of music files over tenfold, and DSL and cable modems increased transmission speeds even more dramatically. Digital music could now be copied, stored and transmitted perfectly and quickly.

In 1999, the Recording Industry Association of America (RIAA) sued to enjoin the manufacture and distribution of the Rio, a portable music player capable of playing MP3 files downloaded by computer. A federal appeals court in California held that the Rio was not a "digital audio recording device" under the AHRA and, therefore, was not subject to the restrictions requiring a Serial Copying Management System. The court denied RIAA's request, favorably comparing the "space-shifting" nature of the Rio to the "time-shifting" of videotape recorders in the *Sony* case (*RIAA v. Diamond*, 1999).

Two years later, the same appellate court in California enjoined Napster from facilitating the distribution of copyrighted songs in MP3 format in a peer-to-peer network environment. The court analyzed the four fair use factors and held that Napster and its system's users were not engaged in a fair use of the plaintiff's copyrighted works. It specifically rejected Napster's defense that users were merely "space-shifting" or "time-shifting" (A & M Records v. Napster, 2001).

In the *RIIA* case, it was assumed that many users were merely condensing songs from their audio CDs into MP3 format, and storing them more compactly on the Rio. In *Napster*, it was clear that most users did not own copies of an original CD, but were making unauthorized copies of copyrighted works.

The music industry continues to battle the rampant swapping of copyrighted works over the Internet. With the proliferation of peer-to-peer networking and

high transmission speeds, it is a near impossible task. Instead, we are beginning to see the production of copy-protected audio CDs that will not play on computer CD drives. It remains to be seen if the public will accept this technology.

DVD

Movie DVDs contain encryption code that prevents them from being easily copied. In 1998 Congress passed the controversial Digital Millennium Copyright Act (DCMA). Among other things, it provides civil and criminal penalties for distributing any code or device intended to circumvent the encryption code. When a web site posted a computer program containing such decryption code, several movie studios sued to enjoin the posting. In 2001, a federal appeals court in New York upheld the injunction issued by the trial court preventing the posting of the code. The court rejected arguments that the anti-circumvention provisions of the DCMA unconstitutionally prohibit fair uses of DVD content, and that the decryption code was entitled to First Amendment protection.

Lawrence Lessig wrote of the interplay between law and code in cyberspace (Lessig, 1999). He stated that, basically, the law attempts to regulate code, but as encryption technology and the DCMA illustrate, code can also regulate the law. For example, while it might be a fair use to copy a short clip from a movie on a DVD, if copy protection devices on the DVD prohibit such copying, that permitted fair use may be impossible. It may prove very dangerous to let code dictate the direction of the law.

The movie industry faces essentially the same problems as the music industry. With the advent of DVD recorders, perfect digital copies can be made in a matter of minutes. The Internet facilitates their almost instantaneous distribution. There recently have been reports of several movies being available on the Web even before their theatrical debuts.

CONCLUSION

There are those who believe that copyright has been extended in scope to cover subject matter that it should not reach (Patterson, 1992) and extended too far in duration (Lessig, 2001). They are probably right. However, rather than addressing these problems, the law has evolved such that much of the protection it provides depends upon the medium on which the expression lies.

Society needs to decide if the purpose behind the copyright law, the promotion of learning and public knowledge, should still be paramount. If so, the law needs to be updated to make its application more consistent, and less dependent upon the type of media upon which the expression is fixed. If the use of a copyrighted work is deemed to be a fair use, for example, it should not matter whether the work is contained on a videotape, a CD or a DVD, or whether code might exist for a particular medium that would prevent its copying.

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