

Copyright in the Digital Age

Introduction

The Digital Age has added new challenges to copyright law enforcement. Digital media are the building blocks of Multimedia authoring. The Internet has made the authorship of digital media a particularly complex issue. New enforcement techniques must be applied.

Copyright laws protect original works of authorship that are fixed in a tangible medium of expression. The basic elements are: expression, and originality. A Multimedia author who makes an unauthorized copy of someone else's work, or portion of someone else's work, is probably violating the copyright owner's rights. Works of authorship include literary works (including computer programs); musical works; pictorial and graphic works; motion pictures and other audio-visual works; and sound recordings.

To codify copyright law as it applies to digital information, the Information Infrastructure Task Force (IITF) was formed in 1993. The IITF in turn established a working group on intellectual property right to examine the intellectual property implications.

In 1994, the group published "Green Paper," a preliminary draft report on intellectual property right. The working group recognized the need to review current copyright laws in light of the fact that copying and dissemination of information are extremely easy in the digital age. At this time, copyright law is murky in respect to Multimedia. It may be several years until legislation is

passed, and it may be impossible to enforce, particularly for Multimedia materials distributed over the Internet.

The World Intellectual Property Organization (WIPO) is a specialized United Nations agency formed to protect intellectual property worldwide. Intellectual property consists of industrial property (trademarks, inventions) and copyrighted works. WIPO attempts to enforce copyright laws by cooperation between countries. More than 170 countries are currently members of WIPO.

If you register a copyright for a Multimedia product in the United States and someone reproduces and sells it in Germany without your permission, you would be able to prosecute that person in both the United States and Germany because both countries have signed copyright agreement documentation. You can visit the WIPO site at www.wipo.org, which lists the copyright administration office for each member country.

Significance of the Topic

Three precedent-setting cases have been decided by the courts in conjunction with copyright laws.

Sega Enterprises Ltd. vs. MAPHIA - In *Sega Enterprises Ltd. vs. MAPHIA*, the courts decided in favor of Sega Enterprises, which brought suit against MAPHIA, an electronic bulletin board system (BBS). Sega Enterprises claimed that MAPHIA copied a game to its BBS and made it available for user downloads. The court found that MAPHIA sometimes charged users a direct fee for downloading privileges, or bartered for the privilege of downloading the Sega game.

Because Sega's game was protected by copyright, MAPHIA violated Sega's copyright by obtaining unauthorized copies of Sega's games and placing them on storage media of the BBS to be downloaded by unknown users.

Playboy Enterprises vs. Frena - In *Playboy Enterprises vs. Frena*, Playboy brought a lawsuit against the defendant George Frena, an independent BBS operator. Playboy claimed that Frena distributed unauthorized copies of Playboy's copyright-protected photographs from his BBS. Frena's BBS was available by fee to anyone. Frena admitted that he did not obtain authorization from Playboy to copy or distribute the photographs. The courts found evidence of direct copyright infringement, and stated that the fact that Frena may not have known of the copyright infringement was irrelevant.

Recording Industry Association of America (RIAA) vs. Napster - This copyright infringement case was filed by the RIAA to contest the distribution of copyrighted music files over the Internet using a popular program called Napster. This program allows user who have installed the Napster software on their computers to share MP3 music files with other users who have the Napster software. There is no cost for copying files form on user's computer to another. The RIAA wants artists and record companies to receive royalty payments for users who swap these copyrighted files. Napster has worked with Bertlesmann, the corporation that owns BMG Music, to develop a subscription service that will allow users to share copyrighted MP3 files while observing permission agreement. This arrangement will allow artist and record companies to receive payment for their copyrighted music.

Discussion of the Topic

If you want to license someone else's copyright-protected material, you must contact the copyright owner and ask for permission. This task might involve contacting the legal department of a large organization or a copyright specialist at a small to mid-size organization, or simply contacting one individual by phone or e-mail.

If you are granted permission to use the copyrighted work, the copyright holder determines the terms of use. For instance, there may be no cost but you must credit the owner for the work. In most cases, you must license the work from the owner under the terms of an agreement between both parties. The agreement usually determines how the work may be used (limited or unlimited reproduction) and how payment will be arranged (royalties or one lump payment).

The fact that technology makes copying and distributing works easy does not make it a right. Unless stated otherwise, those rights belong to the creator. And although in some instances the public interest outweighs the creator's rights, as in fair use, the current criteria and test that define the educational use of copyrighted material as "fair" are difficult to apply to a Multimedia product. There are Fair Use Guidelines for Educational Multimedia written to help educators and students act responsibly when creating multimedia projects for educational purposes. These guidelines offer more specific limits as to how much of a work can be used.

Type of Materials	Amount
Text	10% or 1,000 words
Images	No more than 5 works from any one artist
Music	10% or 30 seconds
Motion Media	10% or 3 minutes
Database Tables	10% of 2,500 fields or cell entries

These amounts are based on the Fair Use Guidelines for Educational Multimedia. You must credit and include copyright information on all copies. Your project must include a notice that the materials are included under the fair use exemption and are restricted from further use. The online use of a Multimedia product distributed over the web requires that access be limited to classroom participants, and the length of time the product remains online be limited. With restricted access the materials may remain available for two years. On an unsecure network you can use the materials for only 15 days.

Many institutions have evolved internal policies and guidelines based on an interpretation of the current laws to help answer questions about what materials an instructor or student can and cannot use. Here is a website at the University of Texas at Austin with an excellent course on copyright laws for instructors and students:

<http://www.utsystem.edu/OGC/IntellectualProperty/cprtindx.htm>.

If you are an authors of Multimedia content, you have the same rights as those of other materials, and anyone who violates those rights is subject to penalty. What makes Multimedia content different, especially Multimedia content distributed over the Internet - an environment designed for information exchange - is that violating copyrights is so very easy: text can be selected and copied, images downloaded by way of a simple mouse-click.

As a Multimedia author, you need to be concerned with establishing and protecting ownership of your materials. You may want to take steps to ensure that your Multimedia content is not vulnerable to infringement. Here are three ways to protect ownership of your materials.

1. Restrict access. If you distribute your Multimedia material over the Internet, enable user name and password options. If you circulate a CD-ROM of your Multimedia material restrict use to classroom participants.

2. Watermarking. This is particularly useful if you will be distributing your Multimedia material over the Internet. Photoshop provides a method in which you register contact information with Digimarc Corporation, the company that provides the service, and are assigned a creator ID number. You use Photoshop to embed the contact ID in the image. Then when users download and open your image in Photoshop, they see an indicator that means the image is copyrighted. To embed a watermark, you must first register with Digimarc Corporation--which maintains a database of artists, designers, and photographers and their contact information--to get a unique creator ID. You can then embed the creator ID in your images, along with information such as the copyright year or a restricted-use identifier. To embed a watermark:

1 Open the image that you want to watermark. You can embed only one watermark per image. The Embed Watermark filter won't work on an image that has been previously marked.

If you're working with a layered image, you should flatten the image before marking it; otherwise, the watermark will affect the active layer only.

Note: You can add a watermark to an indexed-color image by first converting the image to RGB mode, embedding the watermark, and then converting the image back to indexed-color mode. However, the results may be inconsistent. To make sure that the watermark was embedded, run the Read Watermark filter.

2 Choose Filter > Digimarc > Embed Watermark.

3 If you are using the filter for the first time, click the Personalize button. Get a Creator ID by clicking Register to launch your Web browser and visit the Digimarc Web site at

www.digimarc.com, or by contacting Digimarc at the telephone number listed in the dialog box. Enter your PIN and ID number in the Creator ID text box, and click OK.

(Once you have entered a Creator ID, the Personalize button becomes a Change button, allowing you to enter a new Creator ID.)

4 Enter a copyright year for the image.

5 Select any of the following image attributes:

- Restricted Use to limit the use of the image.

-Adult Content to label the image contents as suitable for adults only. (Within Photoshop, this option does not limit access to adult-only images, but future versions of other applications may limit their display.)

6 For Target Output, specify whether the image is intended for monitor or print display.

7 For Watermark Durability, drag the slider or enter a value, as described in the next section.

8 Select Verify to automatically assess the watermark's durability after it is embedded (see Using the signal strength meter).

9 Click OK.

3. Copyright notice and registration. Including a copyright notice informs viewers that the work is copyrighted, which would eliminate the claim of innocent infringement in the case of copyright violation. You may register your work with the U.S. Copyright Office. In the case of successful litigation, works registered promptly after authorship are eligible for more reparations.

Registration for large Multimedia projects is a wise. If you copyright your multimedia materials, you should place the copyright symbol and year at the bottom of each page that contains the copyrighted material. Copyright symbols are not required, but are highly recommended because they are often the first line of defense against copyright infringement.

Contrary to popular belief, a "general copyright" does not exist. To protect your copyright of your original material, you must contact the government agency that handles copyrights in the country where you reside. For instance, in the United States, you would contact the Library of Congress Copyright Office. You can request the forms (depending on your specific work) by phone, or download forms online from <http://www.loc.gov/copyright>.

In addition, you may use Telnet to access current software program copyrights. To access the U.S. Copyright Database, you must use the Library of Congress Information System (LOCIS) using Telnet (for PC users):

1. Start menu: Select Run.
2. Run: Enter the address "telnet locis.loc.gov" then click OK.
3. Telnet: Type "1" and press ENTER to access Copyright Information choices.
4. Telnet: You will see copyright information for works registered since 1978, including software and books. Type "1" and press ENTER.
5. Telnet: to learn how to search using LOCIS, type "help" and press ENTER.
6. Telnet: Type "9" to return to the search window

Summary

As we move forward into the Digital Age, copyright issues are becoming far more complex. When creating Multimedia content you should have some sense of how you can respect the intellectual property rights of others when incorporating copyrighted materials. You must ensure that the correct permissions have been granted and that you are not violating any copyright laws. You should also be attending to your own property rights as a Multimedia author and consider methods for protecting your materials from infringement.

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