Copyright and Virtual Educational Environments

In academic fields, there is an increasing demand for information and training about the digital reproduction and distribution of legally protected materials. Our University of Hawaii (UH), for example, has recently launched its newly formed Virtual Museum (http://www.museum.hawaii.edu/) consisting of many living and non-living collections. UHVM like many other virtual educational environments is on one hand interested to broadly disseminate its informative data collection to the largest number of audience possible, and on the other hand, it is obliged to protect the integrity of such academic data and the legal rights of their scholarship.

While the desire to broadly inform the public and the duty to protect information are not necessarily two conflicting factors, they could pose some managerial challenges for the UHVM staff and others working in similar educational environments. These challenges could be reduced through research and training in the areas of intellectual property rights and the operative legal standards, such as Fair Use, designed for academic production, reproduction, and use of knowledge.

This paper attempts to provide a brief overview of the legal issues surrounding copyright, its history, its functions, and its role in educational institutions. Furthermore, it provides its reader with a list of exceptions and remedies to the law protecting educational and non-profit institutions. And, finally, the paper fleetingly examines a few specifics of the University of Hawaii’s copyright policy pertaining to the UHVM.
As a disclaimer, this author explicitly expresses that the information presented here is primarily of academic value and should not be perceived as legal advice. Should specific legal questions arise, the reader is expected to consult a copyright attorney, who is licensed to practice law in the reader’s respective state. Copyright laws, exceptions, and legal remedies are so complex that even the most experienced attorneys often hesitate to comfortably predict the outcome of a copyright trial (Bielefield viii).

To better understand the complexities of copyright, one needs to begin with the most basic question: What is copyright? Copyright is a form of legal protection provided by the United States laws (Title 17, U.S. Code) rendered to authors of original authorship and other arts, respectively listed as: Literary, musical, dramatic, pantomime, choreographic, sculptural, pictorial, graphic, cinematographic, audio, multimedia, and architectural works (http://www.copyright.gov/title17/92chap1.html#102). “Copyright protection subsists, in accordance with this title (17), in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of machine or device” (Section 102).

Historically, however, the first system to protect, and more importantly to censor printed works was implemented by the British in the early 17th century. This system was especially designed to protect the Crown against religious and political rebels who struggled with the imperial and colonial domination of the British. Later on, in 1710, the British parliament passed The Statute of Anne that is known to be the progenitor of the current United States Copyright law. The 1710 Statute was officially titled, “An act for
the encouragement of learning, by vesting the copies of printed books in the authors or purchasers of such copies, during the time therein mentioned” (Bonner 1-2). This law would ordinarily run its course for close to fourteen years during which the authors of original work had the exclusive rights to print, publish and republish their work (2).

The United State Constitution in describing the national Congress states, that “The Congress shall have Power… To promote the progress of Science and useful Arts by securing for limited Times to authors and Inventors exclusive Right to their respective Writing and Discoveries” (U.S. Constitution, Article I, Section 8, cl.8). According to Bonner, from this Article, the following five prominent guiding principles are formed: 1. Copyright gives an author some economic incentives, so he/she would create more work; 2. Author’s exclusive rights are reserved for a limited time, so when this time expires a greater public may benefit from his/her original work; 3. Copyright protects the author first and then his/her publisher; 4. Copyright protects creative expressions only; 5. To qualify for copyright protection, an author’s work must possess an air of creativity in its making (2-3).

The above five principles are at the heart of nearly all the intellectual property laws in the United States. As stated in the term intellectual property, creative and original creation of one’s mind is also his/her possession worthy of fair dealing. For legal purposes, intellectual property is primarily divided into three categories each of which dealing with a specific group of intellectual and artistic creations. These categories are: Patent, Trademark, and Copyright. The US Patent law protects inventions, while the Trademark law blankets brand names and logos complimenting the final and largest
intellectual property category, *Copyright* whose purpose is to protect most of the other published and unpublished intellectual creations.

This paper, however, contemplates only on copyright and on the fair use of *copyrightable* material in educational and not-for-profit environments. According to the US Copyright Office, “Copyright protects original works of authorship that are fixed in a tangible form of expression. The fixation need not be directly perceptible, so long as it may be communicated with the aid of a machine or device,” such as a computer monitor, computer hard disk, computer central processing device (CPR), compact disk (CD), digital video device (DVD), audio-video recorders, and any other internal or external data-storage device (http://www.copyright.gov/).

Furthermore, in its *Copyright Basics*, the Copyright Office explains that there are some material objects that are *not copyrightable*. They are: Works that are not fixed in a tangible form of expression; titles, names, short phrases, slogans; mere listings of information, contents, and ingredients; ideas, procedures, methods, systems, processes, concepts, principles, and discoveries; works consisting entirely of information that is common property and containing no original authorship (for example, standard calendars, height and weight charts, tape measures and rulers, and lists or tables taken from public documents or other common sources); any work produced by or under the commission of the federal government; any work whose copyright is expired and is already in the public domain; any factual part of a database (Exception is made for the interpretive work stored in a database system as being copyrightable.).
“Once works are in the public domain, anyone may use the work and create derivative works without the permission of the original copyright holder. Using public domain materials in new ways is not a violation of copyright. These new uses often result in a benefit for the original creator of the work, while, at the same time, benefiting society” (Bonner 5). This is why the Copyright Office rejects any registration application requesting digitally scanned and reproduced material objects, such as photographs whose copyright expired and was not properly renewed. The United States Copyright Office provides a searchable database on the terms and current status of copyrighted material. Public is encouraged to visit the Copyright Office online and search this database before submitting a registration application for a new work that is in part a derivative of another original work (http://www.copyright.gov/onlinesp/).

The duration of copyright depends on a variety of factors, such as the date the work was created and if the copyright was properly renewed or not. According to the Center for Intellectual Property (CIP) the following categories describe the statues of material objects in question: Any work published in the US before 1923 is in public domain; work published without a copyright notice in the US between 1923 and March 1, 1978 is in the public domain; work that was published in the US between 1923 and 1963 with a copyright notice but copyright was not renewed is in the public domain; work that was published in the US between 1923 and 1963 with a copyright notice and properly renewed copyright is protected for ninety five (95) years after its publication date; work published with notice in the US between 1964 and 1977 is automatically protected for ninety five (95) years; currently, work created on or after January 1, 1978, as long as the
work is fixed in a tangible medium of expression, is protected for seventy (70) years after the death of the author (http://www.umuc.edu/distance/odell/cip/cip.shtml).

The most recent and revised US copyright law (Title 17, U. S. Code) indicates that any original and somewhat creative work fixed in a tangible medium of expression is automatically recognized as being copyrighted. While it is advisable to include a copyright notice (Copyright © John Doe 2008) to every new work, such marking is not a qualifying requirement. If there should be infringement on the intellectual property of an unsuspecting creative mind, such violation may only go into a legal trial if the work is properly registered with the Copyright Office. Proper registration includes a completed application form, fees, and a fixed copy of the original work. The application process and all the payments could easily be made online (Copyright.org).

According to Rebecca Butler, many students and unsuspecting creative people fall victim to copyright violations because of a myth, generally known as, poor man’s copyright. These folks do not seem to feel comfortable with the idea of registering their intellectual property with the Copyright Office and paying the related fees. So, they mail their, for example, original poems printed on paper or recorded on a CD back to themselves in a sealed and postmarked envelope under the false pretense that in a court of law their unpublished poems will be protected. “It is a fallacy that sending a copy of your original work to yourself is a poor man’s copyright. The poor man’s copyright is meaningless under current copyright law” (154). One must always properly register his/her work with the US Copyright Office before taking his/her case to a trial.
“Fundamentally, originality in copyright law means that the work came from your inspiration, and that you did not copy it from another source. One may also find originality in a new arrangement of existing facts or information. Based upon this principle, the content and layout of most websites are certainly copyrightable” (Crews 3). Nevertheless, if the original work is already in the public domain, its translation to another language, its adaptation for a movie, or any derivative work of that original work may be copyrightable. For example, any translation, staged adaptation, motion picture, or interactive website based on the Homeric epic of The Iliad is approached as a totally new interpretive work that is copyrightable (Crews 4).

In most common law court rulings photographs are favorably looked at as being sufficiently original, creative, and therefore copyrightable. In a 1999 case (Bridgeman Art Library, Ltd. V. Corel Corp., 36 F. Supp. 2d 191), however, “a federal court ruled that a direct and accurate photographic reproduction of a two-dimensional artwork lacks sufficient creativity to be original” (Crew 4). One may infer from the ruling in the Bridgeman case that perhaps most directly scanned and digitized images lack sufficient creativity to be original and therefore not copyrightable.

Copyright laws in the United States and in the other 161 signatories to the Berne Convention seem to have become increasingly friendly toward the notion of non-commercial use and less forgiving in regards to the commercial use of copyrighted materials. A common copyright myth suggests that partial use of copyrighted material if such use remains within certain limitations is not infringement even if the end product is for sale. But, today we know that such partial use of copyrighted material no matter how
small it may be, is most probably a copyright violation. According to Stanford University Library, in a 2004 case (Bridgeport Music v. Dimension Films 420 F. 3d 792) that was brought to the Sixth Circuit Court of Appeals, the Court ruled that any commercial use of a copyrighted material even if it is only a two-second music sampling is still an infringement of the copyrighted work. Among its other important explanations, the court further stressed in its majority opinion that specially “when it comes to sound recording there was no permissible minimum sanctioned under copyright law” (http://fairuse.stanford.edu/Copyright_and_Fair_Use_Overview/chapter0/0-g.html).

The current copyright law (Article 17, U. S. Code) provides for some important exceptions of use and remedies pertaining to educational institutions. The three broad grounds for copyright protection in educational environments are through: The United States legislative statutes (Title 17, U.S. Code) that often follow our nation’s commitment to certain international treaties such as the Berne Convention in which the US became a member on March 1, 1989; the current US statutory laws and common law court decisions pertaining to copyright infringements in the context of breach of contract; and, a third-party licensing of use method generally referred to as Creative Commons (CC).

The most relevant section of Article 17 that provides for an umbrella of protections and benefits in educational environments is, of course, Section 107, fair use. It “enables the use of the copyright owner’s exclusive rights for activities that serve the common good and foster debate, criticism, education, and scholarship. Fair use serves a unique role in balancing the rights of the copyright holder and the needs for a free and open society” (Bonner 9). Whether the new and yet derivative work is protected under
the umbrella of fair use or not is a decision that can only be made in a court of law as a part of our judiciary and not legislative system.

US courts consider the following four important factors before ruling on a fair use case: *Purpose, nature, amount, and public effect of use*. Fair use, Section 107, provides for a copyright exception if the copyrighted material is used for nonprofit educational purposes, the *nature* of the original work is in itself relevant to and necessary in the making of such an educationally derivative work, the *amount* of the original work used should not be deemed superfluous, and finally the derivative-nonprofit-educational work should not unnecessarily have a damaging *effect* in the market for the copyrighted work (Bonner 10).

It is often recommended that academic faculty and students when in doubt about the fair use of copyrighted materials, first consult one of the many *fair use checklists* provided by the nation’s reputable educational institutions. Nevertheless, this author recommends one that is provided by the Management Center of the Indiana University at Indianapolis ([http://www.copyright.iupui.edu/checklist.htm](http://www.copyright.iupui.edu/checklist.htm)), and another by the Copyright advisory Office of the Columbia University Libraries and Information Services ([http://www.copyright.columbia.edu/fair-use-checklist](http://www.copyright.columbia.edu/fair-use-checklist)).

Article 17, in addition to its general fair use exception, in Sections 108 to 121 provides for a set of more specific exceptions. Some of these specific exceptions to the US copyright law, specially those pertaining to virtual educational environments, cover the following: *Library copying* allows libraries and archives to scan and copy copyrighted material mainly for the purpose of preservation, research, and interlibrary
loans (Section 108); the first-sale doctrine permits the transfer of public display, rent, and resell rights to a buyer of, for instance, a book or a DVD (Sections 109a and b); the display and performances in face-to-face as well as distance teaching exceptions render nearly unlimited academic freedom in using of copyrighted materials for related educational purposes (Sections 110—1 and 2); the computer software exception permits the owner of a program CD to make an emergency backup copy of his/her purchased copy (Section 117); the architectural works exception protects the design of all copyrighted designs but permits photographing buildings that are modeled after such copyrighted design (Section 120); finally Section 121 provides an exception for educational institutions to make new copies of any non-dramatic literary work and change its format for the use of persons who are blind or have other disabilities.

More than any other development in the area of copyright the Digital Millennium Copyright Act (DMCA) of 1998 and the Technology Education and Copyright Harmonization (TEACH) Act of 2002 are the two most important in the areas of classroom and distance (online) education. Their relevance also extends to other virtual educational environments, such as virtual museums and libraries.

The DMCA made changes to the US copyright law especially in the areas of digital and distance education. Its implementation aligned US copyright law with the treaties upheld by the United Nations’ World Intellectual Property Organization (WIPO) and Berne Convention for the Protection of Literary and Artistic Works. The most dramatic change of policy resulting from WIPO in the US is the acceptance of the use of technological control codes and devices, such as electronic locks by copyright owners of
the Web and fixed digital contents. “Electronic locks are technological copy protection devices used to lock computer codes. Circumvention of technological measures (locks and others) used by copyright owners could result in civil remedies and criminal penalties” (Butler 61-62).

While this change in the US copyright law helps the advancement of online file management and distribution technologies which are required for the successful implementation of third-party site licensing and click-through contract agreements, it however causes concerns over the practicality of fair use and free access to the public domain and its material objects. DMCA, on one hand, empowers educational institutions, so they can tighten their grip on access to their copyrighted work, and on the other hand, it creates a serious obstacle for the same educational institution to circumvent access to other protected material objects (Crews 93).

In only one of its six exceptions, DMCA allows circumvention of electronic control measures. This exception is designed to help non-profit libraries, archives, museums, and other educational institutions enter and review a controlled fixed or virtual environment before making a good faith decision as to whether they wish to obtain authorized access to a work or not (http://www.copyright.gov/legislation/dmca.pdf). The other five exceptions have mainly to do with protection of minors, personal privacy and law enforcement measures (DMCA 5).

DMCA divides electronic control measures into two categories: Measures preventing unauthorized access to and measures that prevent copying of copyrighted work. “Making or selling devices or services that are used to circumvent either category
of technological measure is prohibited” if the circumventing device is primarily designed
to circumvent and has no other use or commercially significant purpose but to circumvent
digital control measures (DMCA 4).

Interestingly, while DMCA prohibits circumventing digital locks and codes that
control access to a copyrighted work, its Section 1201 does not prohibit circumventing
copying copyrighted work that are under electronic lock. This means that a student, if
he/she knows how to circumvent a device that prevents downloading photographs or
another that locks digital watermarks in online photographs, he/she can actually use the
image. In other words, if a teacher uses a program, such as Adobe Photoshop, which is
not solely designed for the removal of digital watermarks, to successfully eliminate a
watermark for the purpose of his/her fair use of a photograph, he/she is not technically in
violation of copyright law (DMCA).

DMCA suggests that the distinction between prohibiting unlawful access and not
prohibiting copying a copyrighted work is “to assure that the public will have the
continued ability to make fair use of copyrighted works. Since copying of a work may be
a fair use under appropriate circumstances, Section 1201 does not prohibit the act of
circumventing a technological measure that prevents copying. By contrast, since the fair
use doctrine is not a defense to the act of gaining unauthorized access to a work, the act
of circumventing a technological measure to gain access is prohibited” (DMCA 4).

The DMCA provisions allow for the Librarian of Congress to review, revise, and
add to the provisions of the law every three years. The next revision of the DMCA, for
example, will be in 2009. One of the most significant additions to the DMCA provision
is the creation of a *safe harbor* for limiting liability. Currently, DMCA recognizes some technological limitations and distinct functions of digital networks and communications. Under some complex and yet periphery circumstances non-profit Online Service Providers (OSPs) may be exempt from liability when providing the following services to their users: When “transmitting, routing, or providing connections for infringing material; when system caching or the intermediate and temporary storage of material on a system or network controlled or operated by the OSP; when placing information on a system or network at the direction of users; and, when linking users to infringing sites or using information location tools, such as directories, indexes, and hypertext (html) links” (Bonner 91).

As DMCA casts some serious doubts on fair use of copyrighted material, the *TEACH Act* of 2002 provides some relief for face-to-face as well as virtual educational environments and distance learning. The TEACH act draws limits and requires responsibilities. In return, it provides numerous benefits to educators, scholars, researchers, and students alike.

Requirements of the TEACH Act are divided into three categories: *Institutional*, *technological*, and *instructional* requirements. The TEACH Act operates to protect our nation’s nonprofit educational institutions whose members are well informed about their institutions’ up-to-date copyright policies (that are in accordance with the US copyright law). The Act also “requires the said institutions to implement a variety of technological methods for controlling access to, and limiting the further dissemination of copyrighted works by its members” (Crews 69).
Furthermore, the TEACH Act in its last measure of control over the instructional use and dissemination of copyrighted material requires such non-profit institutions to allow teachers, for the purpose of their classroom performance and display, take responsibility in selecting their own proper educational but copyrighted material (Crews 71). Laura Gasaway’s accurate and very easy to follow chart may help teachers to better follow the provisions of the TEACH Act (http://www.unc.edu/~unclng/TEACH.htm).

Virtual nonprofit educational environments and commercial online sites alike may choose not to solely rely on the US copyright law. They may find copyright cases expensive and hard to win. So instead, they may choose to create contracts that if agreed to could provide for limited or unrestricted access to a variety of copyrighted contents and products. “A license is a legally binding contract between two parties governing the use of an identified product or content for a specified purpose. Licenses, for users, can define the ways that a protected (copyrighted) work can be used” (Butler 46).

Every year while surfing and using the Internet, more and more of us experience using click-wrap license agreements. On many occasions during the past six months, I have come across sites that limited my access to their content. They usually ask their users to first register with their site. That means answering to a few questions before choosing a user ID name and a password, and then clicking on the agree button to gain permission to enter their restricted sites.

A few months ago, I clicked on the electronic “agree” button in order to gain access to a popular adult site. I also had to click on another button to acknowledge that I was over twenty-one years of age. After, I read the terms of my license and studied its
content, I was prompted to go to a digitally secured page and fill up a short form asking me about my name, snail and e-mail addresses. Then I was asked to provide the site with my credit card information. To close this online licensing deal, I chose to click on the “Agree” button. This last voluntary action on my part constituted an acceptance not only to the terms of use of the site but also to the payment of the fee I agreed to for the use of the site. My new click-wrap license gave me permission to browse the site’s content for text and images. I was not allowed to download any image to my computer’s hard disk. Furthermore, under the terms of my license contract, I was given permission access only when I used my registered user ID and password. My unrestricted access to this commercial site was sanctioned for a limited period of time only.

This procedural example of closing a click-wrap licensing contract permitting an online client access and use of a restricted site is in principle the same technological procedure employed by nearly all commercial and non-commercial online content providers, such as the Amazon, e-bay, My-space, Face-book, etc. Nevertheless, an even less interactive licensing method is used by some Internet Service Providers (ISPs) that do not even require “clicking.” In a browse-wrap licensing contract, acceptance to the terms of use are implied when a client continues browsing the ISP’s website.

In the case of online schools, however, the terms of contract and the technology used to control content delivery of educational material are slightly different. When a few years ago, I enrolled in an online law school, I was not only asked to sign an online contract with the institution, but I also agreed to purchasing services provided by an online security and delivery company which is a third-party service provider. The third-
party service provider issued me a special license that enabled me to access my online school site and allowed me to browse, copy, play, chat, download copyrighted material, and attend live classroom sessions. In return, I agreed not to distribute or redistribute the school’s intellectual property to anyone else.

The DMCA as well as its related contract law regulatory provisions provides these commercial and nonprofit ISPs, as a measure of security, with a legally acceptable technological tool to trace the Internet Protocol (IP) addresses of all their clients. An IP address is a uniquely designated number to every computer that is connected to the World Wide Web (WWW). An IP is a computer’s fingerprint that could be used as an evidence of copyright infringement or breach of contract in a court of law. Every time an online client agrees to a click-wrap licensing terms or anytime such client passively browses a site using a computer, his/her computer’s IP number shows up in the records of the respective ISP (Bonner 95).

As you can see the area of copyright, especially as it may be enforced in our virtual educational environments, is still a work-in-progress. This is perhaps because of the fast pace of technological progress and the rapidly increasing number of online users that copyright laws appear to be very hard to understand and cumbersome to follow.

There are still new experiments, such as the concept of a Creative Commons (CC) that may completely liberate academic performance, display, and use of copyrighted materials by a network of peers (http://creativecommons.org/). What is clear, however, is the need for our educational institutions to join the conversation in regards to copyright and update their policies as fast as the way digital technology changes and advances.
In a brief study of University of Hawaii’s last officially published copyright policy (of 1992), I was shocked not to see any revision made as to the two significant legal developments, the DMCA and the TEACH Act that we have discussed in this paper. On the UHM’s Library site (http://library.manoa.hawaii.edu/about/copyright/atUH.html), we find the policies of our community colleges, such as Kapiolani and Leeward, to be more up-to-date compared to that of UH-Manoa’s.

At the end, this author recommends a complete revision of the University of Hawaii’s copyright policy to reflect the most recent legal changes in the area of intellectual property rights. This policy should be reviewed periodically and revised based on the pace by which change is measured in the areas of law and digital technologies. I also recommend providing our UH faculty and students with special workshops on the most commonly misunderstood issues pertaining to copyright and its impact on the academia. A variety of online educational institutions now offer free or almost free virtual workshops that are extremely useful. Some of these workshops could be easily integrated into the curriculum of most academic classes. University of Maryland University College’s Center for Intellectual Property, for example offers one of the most comprehensive and yet user-friendly educational environments dealing with Copyright (http://library.manoa.hawaii.edu/about/copyright/atUH.html).
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