**Appendix A: Why IP in E-Learning?**

 Faculty members who teach online have multiple stakes in intellectual property (IP): as creators, consumers and distributors of digital materials. As creators of copyrighted contents (by default), they stand to gain from the sweat of their creative brows. As consumers of copyrighted contents, they benefit from the intellectual work of colleagues and peers to enhance their teaching and their own research. As distributors of information, through websites, digital repositories, presentations, and learning / course management systems (LCMSes), they share digital materials with the public.

 Why should faculty be aware? First, they have some IP rights to their own creations and should be able to benefit from those innovations. Second, there’s an implied indemnification assumption (often put into defined contracts) that they bear some responsibility if they break IP, trademark or patent laws. If faculty have acted within their roles and the university policies and laws, they may assume some legal protection from their educational institutions. Often, those that don’t may not be supported by their university’s legal counsel.

*Figure 1*: Copyrighted vs. Public Domain Materials



**The Nature of E-Learning (that Affects IP)**

E-learning involves the use of archived digital materials on an online site, with contents that often fall under [digital rights management](http://en.wikipedia.org/wiki/Digital_rights_management) protections. Some online courses may be permanently archived, and in that “storage” of contents, there may be IP implications. The password protection of learning / course management systems (L/CMSes); the use of streaming vs. download of audio and video; the wide use of a well tailored IP policy in the course, the use of trackable digital resources using digital watermarking and search spiders may mitigate some of the liability, but what would be most helpful is to build e-learning cleanly (legally) and to teach online cleanly. Even with an outside environment that involves all sorts of IP contravening and mash-ups, faculty need to maintain high standards to protect their reputations and the “deep pockets” of their respective institutions.

**Some Laws to Keep on the Radar: IP, Trademarks, Patents and Trade Secret Protections**

 Faculty do have resources on campus that they should consult about any intellectual property (IP) questions they may have. This article strives to provide a cursory overview of some IP laws that may enhance their work in e-learning. As a principle, all current laws regarding intellectual property apply to the online environment.

1. **Basic Intellectual Property Tenets**

A work has de facto copyright at the moment of its creation. A © symbol is not required to establish the copyright. A work has copyright the moment it is fixed in tangible form. Owners of a work have rights to copy, distribute and gain reward from their works. Works created after 2002 are protected for 70 years after the death of the author or 95 years from date of publication if a work of “corporate authorship”. Then, without copyright renewal, these often move into the public domain.

[**Fair Use of the US Copyright Act – Section 107 (1976)**](http://www.copyright.gov/fls/fl102.html)

Section 107 of the Copyright Act (1976) includes fair use exceptions for **teaching, scholarship and research** … but this covers only some educational uses.

“Fair use” depends on the following **four points**:

1. The purpose and character of the use (whether commercial or non-profit educational)
2. The nature of the copyrighted work
3. The amount and substantiality of the portion in relation to the copyrighted work as a whole
4. The effect of the use on the potential market or value of the copyrighted work

[**The Digital Millennium Copyright Act -- DMCA (1998)**](http://www.copyright.gov/legislation/dmca.pdf)

 This federal law criminalizes copyright infringement on the Internet. It especially focuses on technologies and services that help break digital rights management endeavors that protect digital copyrighted materials.

[**The Technology, Education and Copyright Harmonization Act (TEACH Act) (2002)**](http://www.ala.org/Template.cfm?Section=Distance_Education_and_the_TEACH_Act&Template=/ContentManagement/ContentDisplay.cfm&ContentID=25939)

The Technology, Education and Copyright Harmonization Act -- TEACH Act (2002) protects educators’ abilities to display and perform copyrighted works in an online course, somewhat similarly to what may be shown in a F2F setting. Here, learners are able to perform skits and poems and have these captured and shown online for educational purposes without payment to the owners of the plays and poems.

The expanded rights of Section 110 (2) allow the following:

1. Transmitting performances of all of a non-dramatic literary or musical work (~ a poetry or short story reading; all music besides opera and music videos and musicals)
2. Transmitting “reasonable and limited portions” of any other performance such as films, videos, and any dramatic musical works
3. Transmitting displays of any work “in amounts comparable to face-to-face displays” (~ images)…with caveats

The contextual assumptions include that there will be limited use of copyrighted materials by an accredited (nonprofit) educational institution, which has an institutional policy regarding the use of copyrighted materials. TEACH applies in the context of digital educational work. The works have to be lawfully made and acquired, and they should be an integral part of the course session and learning. There should only be reasonable portions of the work used. Downstream controls should limit the transmission of these works and should disallow retaining of the works for longer than the course session (through IP tracking, print disabling, paste disabling, content time-outs, streaming multimedia, and other endeavors). Both policy and technological means would be employed to protect the original digital work from inappropriate copying and distribution. Learners themselves need to be notified of the copyright limitations. The TEACH Act applies often to in-class performances and displays.

Exemptions to the TEACH Act apply to the following:

* E-reserves, coursepacks (electronic or paper) or interlibrary loan materials; the digital delivery of supplemental reading materials
* Commercial documents
* Textbooks or digital contents “provided under license,” and
* The conversion of materials from analog to digital formats, “except when the converted material is used solely for authorized transmissions and when a digital version of a work is unavailable or protected by technological measures,” according to the Copyright Clearance Center.
1. **Basic Trademark Tenets**

A trademark or service mark …

* **identifies** the source of products or services
* **distinguishes** the trademark’s owner’s products or services from others’
* **helps consumers** identify goods and services
* **protects the consumer** by preventing confusion or fraud
* **protects the trademark owner’s investment** in the trademark, his/her reputation and goodwill
* **offers** a “continuous mechanism to accumulate and advertise progress in design, quality, and/or features” according to E. Rony and P. R. Rony in *The Domain Name Handbook: High Stakes and Strategies in Cyberspace* (1998) .

U.S. Trademark Law observes four categories:

1. trademarks for **goods and products**;
2. service marks such **slogans, catch phrases, or mottos**;
3. certification marks such as **endorsements** or **seals of approval**, and
4. collective **membership marks** (words which refer to specific groups of people).

For higher education, it is critical to avoid trademark or service mark dilution. Mark trademarks with the requisite ® or ™ based on the status of the trademark (according to the US Patent and Trademark Office or [USPTO](http://www.uspto.gov/)). Respect others’ trademarks for words, phrases, designs, and packaging. Protect your own trademarked elements. Do not vary the trademark. Abbreviation, hyphenation, pluralizing, changing the spelling, and other changes may diminish trademark protection and cause confusions. Use a course / web site disclaimer to clarify which words are brands. Define the limits of the brand name uses, and withhold endorsements of brands. Make sure brand names are not turned into generic language (like aspirin, cellophane, thermos, trampoline, yo-yo, escalator, and linoleum). Once these words have become co-opted as a generic, the brand value disappears. Do not turn a trademark into a verb or a noun or an adjective. Always treat a trademark as a trademark.

1. **Basic Patent Tenets**

 A due diligence process has to be followed to verify that an idea or process or product or technology is indeed new and not emulative of other existing patents. A patent can be given for a [non-obvious](http://www.uspto.gov/main/patents.htm) creation. A patented innovation must be useful and have application. Patented innovations and technologies cannot be used without legal release by the patent holder. (Note: More may be shared but would likely go beyond the purview of this article.)

**Tips for Faculty (as Creators, as Consumers and as Distributors)**

|  |  |  |
| --- | --- | --- |
| **As Creators** | **As Consumers** | **As Distributors** |
| Make sure that all work is lawfully made. Ensure all elements in the build legally provenanced and acquired, with legal releases.  Make sure all documentation of releases are documented and archived, in case of need for later reference. Double check information for accuracy.Avoid infringing on others’ privacy. Be careful not to defame people. Avoid infringing on trademark, copyright and patents. Avoid plagiarism. Cite all materials used. In research, get permissions to use images, and quotes of 50 words or longer from a single source. Review the [Kansas Board of Regents](http://www.kansasregents.org/academic/distance.html) distance education policy for the ownership of such course materials. This depends in part on whether the curriculum was institution directed and / or funded, and whether the faculty member was compensated for this curricular build. Review EULAs (end user license agreements) in immersive spaces and games. Patents need to meet the standards of innovation, non-obviousness, usefulness, and domain-specific legal thresholds.  | Use purchased materials from third-party content providers or vendors (with contractual release) within the limits of the contract only.Use instructor-created or cross-functional team-created (original) content with clear copyright release for every element and from every team member and the organizational entity overseeing the contents. Use anything for which the university has documented copyright release (with defined terms of usage). Use anything on the electronic databases subscribed to by the university—provided that there’s contractual release of the materials for password-protected online course use. (University database librarians provide helpful information here.) Use any student work *for which* students have signed legally-vetted copyright releases (which are not linked at all to their course participation, grade or other official course aspects), of the students’ own free will. This has to be a non-coercive agreement.  Use legally purchased items on physical and / or e-reserves based on laws and policies. Use original researched primary and secondary information, with proper citations.  Use open-source “found objects” and experiences on the WWW and through links. Have a clear copyright policy.  | Put a copy on reserve in an e-reserve (but following all laws and policies). Get copyright permission to put the materials on the password-protected course site. Find a reputable live link with the contents. Ask learners to purchase a copy, possibly at an educationally discounted price. Summarize or paraphrase (not quote) the information in your own words and cite the resource. Make consuming the resource optional for learners. Ask them to search for the resource online or in the digital databases (that they have access to as students).  Ensure that the digital contents are accessible, with proper textual labeling, transcription and annotation (of images, interactive online experiences, audio files and video files). In **distributing student work**, adhere to [FERPA](http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html) privacy guidelines. Get copyright releases from students professionally and legally (and without any requirement of signing over copyright in order to participate in the course or to get a grade). Use student work only for educational value, not for private or personal gain. In **distributing primary research**, properly represent the information used. Avoid learner misconceptions. Give credit where it’s due. Offer the latest information. Follow professional ethics in the collection and vetting of information, particularly as it relates to people.  |

1. **Trade Secret Protections**

 Trade secrets are formulas, patterns, compilations, programs, devices, methods, techniques or processes that have economic value or potential; these are not generally known and are not readily available to the public. Generally, efforts have been made to maintain their secrecy. Federally, the [Uniform Trade Secrets Act](http://en.wikipedia.org/wiki/Uniform_Trade_Secrets_Act) (UTSA) protects trade secrets. State statutes apparently provide the main legal protections. For businesses, civil and commercial trade secrets protection policies are in place through non-disclosure agreements (NDAs) and non-compete clauses.

 This offers a cursory look at intellectual property in e-learning. Faculty should probably talk with their legal counsel on their respective campuses for further clarification.

**Disclaimer**: The author is not a lawyer. Legal counsel should be engaged for related questions. This article is for information only, not for advisement. Use this information at your own risk.

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**Sidebar: A Web 2.0 Culture of Sharing**

**Open Educational Resources**

* <http://en.wikipedia.org/wiki/Open_educational_resources> (Wikipedia definition and linked resources)
* [Open Courseware Consortium](http://www.ocwconsortium.org/)  (OCC)
* [MIT OpenCourseware](http://ocw.mit.edu/OcwWeb/web/home/home/index.htm)  (MIT OpenCourseware) –with multi-language translations, zipped whole modules, full course documentation, and usable slideshows (albeit with required texts)
* [Open Learn – The Open University](http://www.open.ac.uk/openlearn/home.php) (UK)
* [OCW Finder](http://cosl.usu.edu/publications/white-papers/OCW%20Finder.pdf/view) (of The Center for Open and Sustainable Learning)
* [Wikiversity](http://en.wikiversity.org/wiki/Wikiversity%3AMain_Page)
* [Open Educational Resources](http://www.oercommons.org/) (OER) Commons

**Open Archives Access: Metadata and Data Repositories**

* [Open Archives Initiative](http://www.openarchives.org/)  … for object reuse and exchange
* [OAIster](http://www.oaister.org/) (using Open Archives Initiative Protocol for Metadata Harvesting)
* Wikipedia’s [definition](http://en.wikipedia.org/wiki/Open_Archives_Initiative) of the Open Archives Initiative

**Creative Commons Releases**

* Find digital materials that include a [Creative Commons](http://creativecommons.org/) copyright release . These may allow for educational use or greater rights regarding modifying the original work, so it’s not “All Rights Reserved”.
* Give credit to the original creator as a requirement of use and professionalism.
* [Video Explanation](http://search.creativecommons.org/) of Creative Commons copyright releases.
* GNU General Public License
* A “GPL” or general public license allows a release of certain informational and modding liberties for a “free” (not necessarily non-cost) software license.
* This generally requires that released improved versions of this software be free.
* This often allows the source code of the software to be modded and improved by the user community.
* GPL-released software may [cost money](http://www.gnu.org/philosophy/philosophy.html) even if the software is communally shared.
* [GNU](http://www.gnu.org/) is a “recursive acronym” for “GNU’s Not Unix”.
* “Free But” and “Free”

**Avoid “Free…Buts”**

* Open-source but with financial cost
* Free for a trial period only
* Free but with advertising “bombardment”
* Free but in trade for private information and email account access
* Free but not portable off the host site; free to experience

**Real Free**

* Royalty-free but with copyright permissions and credits given (Please read the fine print!)
* [http://www.downloads.com](http://www.downloads.com/) c/net (some freeware)
* <http://office.microsoft.com/en-us/clipart/default.aspx?ofcresset=1> Microsoft (clip art and sounds)

**WWW Linking Solution**

* Use live URL links for certain resources.
* Check these regularly to make sure that the links are live, and the quality of the information in the sites is accurate.
* Include a disclaimer that shows that while URLs are listed, the instructor and the university are not advocating the sites per se or vouching for the information provided there.

**Terms and Definitions**

**authoring tool (n):** Software used to create digital contents

**clipart (n):** Small graphics and illustrations used to illustrate or label

**copyright (n):** The exclusive right to exploit, license, sell and copy a creative work as its creator

**digital library (n):** A curated collection of related digital objects (including digitized versions of physical objects and documents, and wholly born-digital documents)

**digital repository (n):** A collection of digital images, learning objects, or other items for storage, use and distribution (often without curatorship)

**disclaimer (n):** A disavowal of responsibility, to clarify the limits of legal liability

**freeware (n):** Computer software distributed without a financial cost but with legal limitations

**intellectual property (n):** The concept and laws that protect the ownership of original creative thought (involving copyright, trademarks and patents)

**metadata (n):** Data about data

**open source (n):** A philosophy and approach for sharing digital contents that allow users to digitally edit and manipulate the digital objects through software coding (Some of the open source materials may be used without charge, but others require membership or other related fees but are “open” still to coding changes by users.)

**patent (n):** Legal official protection of an inventor’s exclusive right to manufacture, use and sell an invention for a certain length of time

**provenance (n):** The establishment of the origin or source, a record of lineage of ownership

**trademark (n):** A distinctive mark (image, design, symbol, logo) that is registered and designated as a representative of a product, a company, an individual, an organization, or other entity

Appendix B: Ten Tips for Faculty to Make Accessible E-Learning Courses

In the Summer of 2007, Kansas State University passed the Course Accessibility Standards Policy. (Course Accessibility Standards Policy F125 is located at

<http://www.k-state.edu/academicservices/fhbook/fhsecf.htm>.) This policy addresses the federal laws of the Americans with Disabilities Act and the Rehabilitation Act. It also addressed the Kansas Information Technology Policy 1210 / Web Accessibility Requirements. These are the underpinnings for the university push to make all online courses accessible—so there is equal access to course content for all students, including those with disabilities.

Disabilities may relate to challenges with sight, hearing, mobility, and information processing. As you create content for your course you will want to think about how these individuals may be affected. Often times, simple and subtle changes can make the difference between inaccessible content and accessible content. This tips handout addresses ten basic ways to make a course accessible. These are simple ways to create course accessibility. **Items marked with an asterisks (\*) should be considered a priority when putting content on-line.**

## 1. Use course file types in universal product formats.

Use mainline commercial products that output digital files in a universal product format. A universal product format means one that may be accessed using typical browser plug-ins or browsers with the embedded players or readers.

* Text files in the .doc, .txt, .rtf and .pdf formats are generally considered universal.
* Image files in the .jpg or .gif for the Web are generally considered universal.
* Video files in the Windows Media (.wmv), Real Media (.rm), Quicktime (.mov), and Flash (.mp4, .swf and .flv) formats are considered universal.
* Audio files in the .wav or .mp3 are considered universal.
* HTML (hypertext markup language) is generally considered accessible; it is also platform-independent.

Some faculty may find that having files in two formats (.doc and .pdf, .ppt and .pdf) may make course materials much more accessible as some learners may not have readers for some file types. Offering learners options may be helpful. With the new .docx file format with the latest Microsoft Word, students may need to download a .docx converter.

Ensure that the software “authoring tools” used offer options for accessibility accommodations. These programs may offer 503 accessibility standards to label images and transcribe audio and video.

## \*2. Ensure that text documents are not just digital image graphics.

If you use PDFs you must make sure that the files also contain text. PDFs of a scanned document are usually graphics. We see the text, but one cannot copy and paste the text as if it is a word processing document. To add text use an OCR program; the “Recognize Text using OCR” option under “Documents” in the menu of Adobe Acrobat Professional may also work.

## \*3. Use tags used for document structure and markup.

Use tags in your Word, and PDF files. These tags behave much like html tags in that they create structure for the document. Tags help maintain visual differences in text files such as headings, they also have the ability to relay this information to students using software to read the text to them, such as screen readers. For example, a student who is blind can use their software to navigate the headings just as a visual student may use bold words to scan a document. For PDF files these tags are behind the scenes but just as important. Using tags in Word documents will also make it easier to write long documents and maintain formatting.

## 4. Use clear, simple English.

Write the contents in a way that is suitable for many different levels of understanding. Use the precise words that are meant, and follow the basic grammar and syntax rules of English. Avoid slang or colloquial expressions, which may be culturally-based. Avoid imprecision.

## 5. Label informational graphics. Transcribe and label audio and video.

All informational graphics—images, photos, tables, drawings, and others—should be accompanied by alt text. This text should both contextualize and describe the graphic to convey necessary information. Decorative graphics do not require alt text descriptions. Branding logos and labeling graphics should be described in a textual way because such images embed meaning.

Ensure that all audio and video files are accompanied by a verbatim transcript. These should have occasional and accurate time stamps linked to the sound, so learners may track with the video. Optimally, video would have synchronous captioning.

## \*6. Make accessible PowerPoint™ slideshows.

When using PowerPoint™, use the layouts provided. Do not create your own text boxes. Only text typed in provided layouts will be available for students using adaptive technology such as screen readers. When writing your slides make sure that you also write your text in the order you want it read. When putting files on-line try to also provide a text, or .rtf, version as well to increase accessibility to the information. If you use PowerPoint™ files often, consider purchasing the software LecShare ([www.lecshare.com](http://www.lecshare.com)) to make this process easier.

## 7. Use color in an accessible way.

Colors need to be sufficiently contrasted for those with low vision. Colors that do not register with those who are color blind (such as red and green) should not be used for informational purposes. Also, colors should not be used alone to differentiate between elements; rather, text, layout, and other strategies should also be brought in, so that those with visual acuity issues can still acquire the same information and learning. For example, use bold words in text as it may help many learners, but add an asterisk before the word for those using text reading software (Example: \***important**)

## 8. Summarize and label data tables.

Text readers need to be able to understand how to read tables. Because screen readers read in a serial, linearized way (straight across from top left to the bottom right), accessible informational tables require clear cell labeling. A summary of the table’s layout should be explained—so those using a text reader understand the table’s orientation. Row and column headers should be defined for each cell especially in larger data tables. The W3 consortium has an important resource on this in regards to using html: [http://www.w3.org/tr/html4/struct/tables.html](http://www.w3.org/TR/html4/struct/tables.html).

## 9. Plan live online events to be accessible.

If there will be live guest speakers or live synchronous events--using a live virtual classroom, interactive television, voice chat or text chat—some preparation would enhance the accessibility. This may mean pre-event setup with textual script and information. This may mean soliciting ideas and participation from learners prior to the live event, which may feel more pressured to students. Post-event transcripts should be offered, so the learning value of that live event has been captured. During the event, if a textual version may be made available, that would enhance the real-time accessibility. If you have students who are deaf or blind you should contact Disability Support Services to find out how you can prepare the event for accessibility. This should be done at least one month in advance.

## 10. Support user control of automations and sequenced actions, as much as possible.

Automations should be controllable by the users. Sequenced actions should not be set on a timer but directed by the users. All automated interactivity should also have some textual description for those unable to access the automated experience. This may refer to the use of immersive spaces, simulations, games, and other such interactions. Much of the technologies used to create these experiences are not accessible for those who are blind or visually impaired.