The Texas Course Redesign Learning Object Repository:
Research and Development for a Production System

Copyright Licensing Issues
Implicated by the Learning Object Repository

White Paper

Prepared for

The Texas Higher Education Coordinating Board

by

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1. Introduction

As a component in the broader project, The Texas Course Redesign Learning Object Repository: Research and Development for a Production System, carried out by the Texas Center for Digital Knowledge (TxCDK) at the University of North Texas, we are examining issues related to intellectual property (IP) and licensing of course content produced as part of the Texas Course Redesign Project (TCRP). Intellectual property is a type of intangible rights protecting potentially commercially valuable products of the human intellect. The intellectual property most associated with the TCRP is copyrights, and to a much lesser extent trademarks and patents.

The TxCDK project team created a learning object repository (LOR) to hold course content produced from the TCRP awards. This LOR, the Texas Course Redesign Repository (TCRR), was a demonstration of how course content can be decomposed into discrete learning objects, described with metadata, and stored in a digital repository. The TCRR provides end users with the ability to search, browse, view, and download individual learning objects (see Section 3 below for additional information about the TCRR).

In 2009, the Texas Higher Education Coordinating Board (THECB) began working with the University of Texas Telecampus to develop and implement a statewide LOR, which will hold the outputs of the Texas Course Redesign Project and other learning materials. This new repository, referred to as TxLOR (Texas Learning Object Repository), will inherit the IP and licensing issues related to Texas Course Redesign materials as well as IP and licensing for all other materials submitted to the TxLOR.

Of particular concern for the reuse of content resulting from the Texas Course Redesign Project is whether the awardees of the Course Redesign grants have any documentary evidence about any existing copyright or licenses that cover the course components. Subsequent distribution, licensing, sale, or other potential reuses could be severely affected if THECB cannot document any proprietary or copyrighted or licensed materials included in the course content.

This document outlines and discusses the IP and licensing issues we have identified in our examination of the TCRP materials. It is intended to list the various issues that will need to be addressed as the TxLOR moves forward, and it provides a set of recommendations to guide future action.

2. Review of Existing RFP and Contract Language

To understand what the developers and THECB intended with the TCRP grants, we reviewed the language of Phase II, Phase III, and Phase IV Request for Proposals (RFP), and generic contract language proposed for the contracts between the THECB and the course developers. The researchers did not review specific signed contracts between the THECB and the developers, so we could not identify any IP issues specific to any one contract or identify differences among the contracts. When referencing contract language in this white paper, the researchers are referring to the generic contract language. Modifications made by course developers in their individual contracts may affect on a case-by-case basis how this analysis implicates the work of those developers.

2.1. RFP Language

The Texas Higher Education Coordinating Board made awards to Texas institutions to redesign large-enrollment undergraduate courses and produce course content that exploited new learning and instructional technologies. In the Request for Proposals, the following language related to intellectual property, licensing, distribution, etc. appeared:

The intellectual property developed as part of the TCRP pursuant to this contract is the property of the THECB. The THECB grants to the Award Applicant(s) a license to sell the intellectual property described in this RFP to private institutions of higher education, as well as to other institutions of higher education outside Texas. The profits of such sales will be divided equally between THECB and the Award Applicant(s). The intellectual property described in this RFP will be made available without charge to public institutions of higher education in Texas.

2.2. Contract Language

The language of the Phases II, III, and IV RFPs between the course developers and THECB is essentially the same for each Phase, as quoted above. The contract language between THECB and the course developers differs from the language in the RFPs:

(8) OWNERSHIP OF WORK.
     (a) All property rights, including publication rights, to all products developed hereunder shall be retained by the THECB. However, the THECB shall ensure that duplication and distribution rights at no cost are secured to XXXX.
     (b) Upon any request by the THECB for the remittance of any work papers or work product, XXXX shall immediately remit such work papers or work product. Any failure to immediately remit such work papers or work product shall be considered a breach of this Contract.
     (c) XXXX understands and acknowledges that as a Texas state agency, the THECB is subject to the provisions of the Texas Public Information Act.
     (d) XXXX understands that the intellectual property developed as part of the Texas Course Redesign Project pursuant to this contract is the property of the THECB. The THECB grants to XXXX a license to sell the intellectual property to private institutions of higher education, as well as to other institutions of higher education outside Texas. The profits of such sales will be divided equally between THECB and XXXX. The intellectual property will be made available without charge to public institutions of higher education in Texas.

The contract is silent on any requirement to document or acknowledge others' intellectual property that might be included within a learning object. While THECB may have envisioned that each course developer would create every learning object from scratch, the generic contract language itself did not mandate original work. The contract gives the intellectual property "developed as part of the Texas Course Design Project" to the THECB, but does not address how to treat included material the course developer does not own and without which the course elements may not function academically or technically.

If the course developers used materials, images, textual material, or computer code from other sources, the developers may not have the right to transfer ownership of those materials to THECB or to distribute those materials "to public institutions of higher education in Texas." While fair use may come into play in face-to-face teaching and distance education, commercial use of material such as is contemplated in the above contract clause increases the need for scrupulous documentation of sources, licensing agreements, and permissions. As discussed below, the licensing aspects of some of the materials included within the learning objects may not permit further distribution or modification, both of which may be negotiated terms of use in downstream licensing.

2.2.1. Proprietary information

The contract specifically requires the course developer to identify any "proprietary information" (which is undefined) included within the learning objects created:

(2) PROPRIETARY INFORMATION.
     (a) All information submitted to the THECB pursuant to this Contract becomes public record. Therefore, such information is subject to disclosure under the Texas Public Information Act, unless an exception under the Texas Public Information Act is applicable. XXXX shall notify the THECB at least seven (7) days prior to releasing any information related to any Program(s) to any third party.
     (b) Any proprietary information included in XXXX proposal is subject to disclosure unless such

proprietary information is clearly identified by XXXX as proprietary on submission to the THECB. If XXXX claims any information or documentation submitted under this Contract is exempt from disclosure under the Texas Public Information Act, XXXX must state the specific reason(s) an exception from the Texas Public Information Act is being claimed.

(c) If XXXX failed to clearly identify proprietary information with the original submission of the proprietary information, then those sections will be deemed non-proprietary and made available upon public request. The production of any material under this Contract shall not have the effect of violating or causing the THECB to violate any law, including the Texas Public Information Act.

Under subsection (b), the developer must identify all material that the developer believes is exempt from disclosure under the Texas Public Information Act (TPIA). (See Section 5.4 for a discussion of the issues related to the TPIA.) This clause would have the effect of requiring each developer to identify and document every piece of other creators' intellectual property that the developer has included within an object. The purpose of such documentation would be to inform THECB that such information must be made available pursuant to a TPIA request, though not reproduced by THECB. Certainly the developers are aware of their responsibility to attribute the sources they used in creating their learning materials. Academic standards for attribution would demand no less.

Material that developers include in their learning materials may be used subject to one of the standard "copyleft" licensing schemes such as Creative Commons or GNU Public License. (See Sections 5.2 and 5.3 for discussion of the types and coverage of these types of licenses.) Copyleft (a play on copy*right*) licenses have restrictive clauses that limit how downstream copies must, may, or may not be distributed. Copyleft describes a class of licenses that allows others to freely modify and distribute copies of works released under those licenses, subject to the standardized conditions of the license attached. Many of the copyleft schemes require free distribution of any resulting works. For example, a copyleft license may state that users may use a given work but may not adapt it, or may only distribute any resultant adaptations if they release the adaptations at no cost. Frequently, a license provision requires that identical licenses must be attached to all resulting derivative works. Obviously such restrictions would impact any release of the material through a Texas Public Information Act request. For example, if someone were to request a copy of a learning object containing GNU Public Licensed code, the THECB would be obliged to include not only the resulting object, but the object's source code as well. (See Sections 5.4 on the Texas Public Information Act and 5.3 on Downstream License Issues for more detailed information.)

2.2.2. Indemnification

The contract requires the course developers to indemnify the THECB for any infringement of patent, copyright or trademark within the learning objects.

(7) <u>LIABILITY AND INDEMNIFICATION</u>.
(c) Additionally, if XXXXX requires or desires to use any design, trademark, device, material or process covered by letters of patent or copyright, XXXX shall indemnify, defend and hold harmless the State of Texas, the THECB, as well as officers, agents, and employees of the THECB, from any liability, for any and all claims, demands, fees, suits or actions of any nature whatsoever, from any and all claims for infringement by reason of the use of any such patented design, device, trademark, copyright, material or process in connection with the work agreed to be performed and shall indemnify the State of Texas, the THECB, as well as officers, agents, and employees of the THECB, from any cost, expense, royalty or damage which the State of Texas, the THECB, as well as officers, agents, and employees of the THECB may be obligated to pay by reason of any infringement at any time during the performance of or after completion of the work.

While THECB may not be liable for any intellectual property infringement, one of the equitable remedies available to a copyright owner whose work has been infringed is that of injunction. The copyright owner of a protected work being marketed, adapted, distributed, or reproduced without appropriate license may petition a court for an injunction to prevent the further use of the materials, which would affect operation of the TCRR or TxLOR. While states and their agencies have been found immune from copyright

infringement penalties in some cases,[1] there is no case law that addresses equitable remedies such as injunction. Nevertheless, injunctive relief against a state entity might be available under the doctrine of *Ex Parte Young*, 209 U.S. 123 (1908). Of concern to the developers is the theory that they might be liable for copyright infringement in their individual capacities (as opposed to their official capacities, which have immunity). Further, the course developers (in their individual capacities) and/or THECB may be liable in contract for any violation of the license in copyleft materials if the materials are used or redistributed outside the grant of license. The indemnification above refers only to infringement, and not to contractual issues as a result of the licenses attached.

2.2.3. Records Retention

The contract requires the course developer to maintain certain records of the development process:

(11) AUDIT AND ACCESS TO RECORDS.
(a) XXXX shall maintain and make available for review, inspection and/or audit all books, records, documents, and other evidence reasonably pertinent to performance on all work under this Contract, including negotiated changes or amendments thereto, in accordance with accepted professional practices. XXXX shall also maintain and make available the financial information and data used in the preparation or support of any cost submission required by the THECB under this Contract or any negotiated sub-agreement or change order and a copy of the cost summary submitted to the THECB. The THECB, through any of its duly authorized representatives, shall have access to such books, records, documents, and other evidence for the purpose of review, inspection, copying, and/or audit. All such information shall be handled by the parties in accordance with good business ethics. XXXX shall also follow procedures developed by the THECB audit staff as required by the THECB.

and

(13) REPORTING REQUIREMENTS. XXXX shall be required to complete several reports for the project funded by this Contract, including some reports that may not be expressly described in this Contract. Full payment shall not be awarded until the THECB approves all reports and requested information by the THECB; the THECB will not unreasonably withhold such approval. Reporting format will be provided to XXXX by the THECB.

These sections do not specifically address intellectual property concerns, but might be interpreted to include them. For example, section 11 references "all books, records, documents, and other evidence reasonably pertinent to performance on all work under this Contract." Records of permissions and licenses negotiated in the course of creating learning objects arguably could be within this definition. Section 13 could allow the THECB to require the developer to generate an intellectual property inventory and license status of all non-original material used within an object.

2.3. Conclusion

The contract in its present iteration leaves some intellectual property issues unresolved and does not provide THECB with sufficient information to be able to effectively license the material within the present repository. All these issues will be addressed in the remainder of this white paper.

3. The Repository, the Learning Objects, and Rights Statements

TxCDK received funding from the THECB through the TCRP program to design and implement a LOR that would store and make accessible the course content resulting from the TCRP awards. An important design requirement for the repository was to allow potential faculty members and instructional developers

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[1] *See*, *e.g.*, *Chavez v. Arte Publico Press*, 204 F.3d 601 (5th Cir. 2000) (finding that the state university and its officials (in their official capacity only) could not be held liable for copyright infringement despite wording in the statute to the contrary).

to search and discover appropriate materials that could be reused in existing or new courses. The final version of the repository is called the Texas Course Redesign Repository (TCRR) and is available at: http://txcdk1.unt.edu/TCRR/. Additional information about the entire project is at: http://thecblor.unt.edu/.

Two things pertinent to this report are the following:

- The course redesign projects did not necessarily or explicitly create "learning objects" but they created course content and materials, sometimes in the form of complete courses. TxCDK project staff decomposed the course materials into varying levels of granularity (i.e., chunks of learning materials). The assumption is that any intellectual property claims by THECB on the resulting content covers all content no matter how it is disaggregated into discrete learning objects.

- The early TCRP RFPs (and we assume the executed contracts) did not have a requirement for the TCRP awardees to submit the resulting course content to a repository. After the preliminary project on the learning object repository was completed, THECB saw the value of a repository approach for storing and making accessible the TCRP content.

Each learning object in the TCRR is associated with a metadata record that describes the object and also contains metadata elements that contain statements about the IP and licensing. Currently, each metadata record contains four elements: Rights, Rights Holder, Access Rights, and License. The default text currently used for each of these elements follows:

- Rights: *This learning object was developed as part of the Texas Higher Education Coordinating Board's Texas Course Redesign Project (TCRP), and all intellectual property developed as part of the TCRP is the property of the THECB. The THECB grants to the organization that developed this learning object a license to sell the intellectual property described in this RFP to private institutions of higher education, as well as to other institutions of higher education outside Texas. The profits of such sales will be divided equally between THECB and the developing organization. The intellectual property developed as part of the TCRP is available without charge to public institutions of higher education in Texas.*

- Rights Holder: *The Texas Higher Education Coordinating Board. P.O. Box 12788, Austin, TX 78711. Voice: (512)427-6101. http://www.thecb.state.tx.us*

- Access Rights: *This learning object can be used and repurposed without charge to public institutions of higher education in Texas. Parties interested in purchasing or licensing this learning object should contact the Texas Higher Education Coordinating Board.*

- License: *Use and reuse of this learning object is governed by a license available at Texas Higher Education Coordinating Board.*

These rights statements, however, do not reflect the use of material in the learning object that is copyrighted or patented by a third party (someone other than the course developer). As noted above, the contract to the course redesign projects did not request nor did the developers provide any documentation of materials used within the learning objects under a claim of license, permission, or fair use.

4. Fair Use and Course Material Creation

Fair use is an affirmative defense to copyright infringement. 17 U.S.C.A. § 107 (West 2010). Fair use employs a balancing test of four factors to determine if a given use is "fair." *Id.* One of the factors considered in a fair use assessment is whether the use proposed is non-profit or commercial. Another factor asks if the proposed use impacts the market for or value of the original work. Commercial use is presumptively unfair, subject to a fact analysis. *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464

U.S. 417, 451 (1984). Each individual item used in the creation of a learning object would be subject to a separate fair use assessment.

4.1. Traditional Course Material Creation

Preparation of material for face-to-face university courses by individual faculty members follows an established set of intellectual property guidelines. Typically a professor owns his teaching materials or uses limited amounts of the work of others under a claim of fair use. Further uses beyond fair use (such as the creation of course packs of readings) require licensing. In an online or digital environment, the playing field shifts to an unrecognizable landscape. Ownership of intellectual property has shifted from an instructor-owned model to one of university ownership or shared ownership (Armatas, 2008). Nevertheless, instructors may still use the materials of others under a claim of fair use. Fair use contemplates limited (in both scope and duration) use of materials. However, use of materials under license from the copyright owner may additionally generate liability under state contract law if the licensee exceeds the rights licensed (Armatas, 2008). And use for a commercial purpose (even if the ultimate end user will use the materials for teaching) is a use that is presumptively unfair (Armatas, 2008).

4.2. Digital Course Material Creation

As more instruction moves online or into a networked environment, instructors digitize instructional materials (or create born-digital materials) to create content-rich courses and they frequently employ the works of others (either in whole or in part) within their course materials. The use of the works of others within an instructor's online course may still entitle the individual instructor to the protection of a claim of fair use under the TEACH Act. Pub. L. No. 107-273, 116 Stat. 1758 (2002). But when the instructor's course materials are distributed beyond his own use and licensed to others (either for free or for a fee), complex intellectual property issues must be resolved to protect all the parties to the transaction. These issues can be grouped around four key concepts:

1. Source of materials in courses issues
2. Upstream license issues
3. Downstream license issues
4. Texas Open Records issues

The following sections address each of these in turn. For maximum return on the THECB investment in developing these learning objects, THECB and TxLOR will need to develop policies that serve the needs of the content creators, state university end users, Texas non-public university licensees, out of state licensees, and the THECB.

5. Issues

After interviewing stakeholders and reviewing the generic contract and three versions of the requests for proposal, the researchers identified four key issues that affect the content produced through the TCRPs and the content held in the TCRR. The first involves the sources of materials the developers used in creating their courses. The second concerns the licenses that may be attached to material that developers incorporated in their course materials, either on the surface or within computer code. The third implicates how the licenses attached to material used by developers will influence the ability of THECB to further license the developed content. And the final issue includes the effect of the Texas Public Information Act on the contractual ability of developers to license their content to Texas private universities and out-of-state universities.

5.1. Sources of Materials in Courses Issues

As a baseline proposition, a creator owns the copyright in a work he creates. Barring some other specific arrangement that would grant some or all of the rights to another or otherwise limit the rights of the creator, the creator may determine how and when his work may be used, subject to the limitations of fair use. As Sections 5.2 and 5.3 will demonstrate, clear documentation of the origin and license of each

piece of non-original material within a learning object is critical to determine what distribution and commercialization options exist for material included in the learning object repository (TCRR or TxLOR).

In preparing this report, the researchers conducted preliminary interviews with creators of learning objects contained in the TCRR to gain an understanding of the types of materials within the TCRR and the processes used in their creation. The researchers then conducted more in-depth interviews with additional course developers to clarify some of the issues raised during the preliminary discussions.

The first issue of concern about material source was that some course developers have incorporated student work in the course materials. Students automatically own the copyright in the works they create, even if the work is created during the course of instruction. 17 U.S.C.A. § 106 (West 2010). Student work generates issues of permission, along with concerns about Family Educational Rights and Privacy Act (FERPA) compliance if students may be identified from their work.

The most startling and concerning finding from the preliminary interviews was that many of the developers relied heavily on content from other sources, such as online material from textbook publishers and images from books and websites as the foundation for their learning objects. Some had assistance—from teaching or research assistants and campus based development centers—in creating their objects. When asked if the developers could identify the sources of all the material included within their learning objects, the interviewees were confident that they could not, especially for material created by assistants and development centers. In inspecting samples of learning objects, few documented the source of images and sound recordings, for example. Provenance of the non-original materials, including bits of computer code in applets, widgets and web page functionality, will be almost impossible to document retroactively, according to the preliminary interviewees. Those who assisted the creators by making web pages or integrated documents are now likely graduated and gone from campus, and even if they were available to interview would likely not be able to document the sources of the materials they used. Without an understanding of the source of the materials, it will be exceptionally difficult to determine if materials are available to license in any commercial endeavor (see Sections 5.2 and 5.3). As the recent discovery of GPL licensed code in Microsoft applications has shown (Fried, 2009), diligence in identifying material used under restrictive licenses is critical before further distribution of derivative products in a manner that may violate the terms of the original license.

5.2. Upstream License Issues

The course developers have relied upon a rich source of images, widgets, applets, software, and music to create engaging learning objects. The developers chose whole and recognizable items created by others, in most instances, but some incorporated portions of works by others into new creations (such as using computer code applet libraries to add functionality to web pages). Nevertheless, some inquiry into the authority to use the borrowed material is appropriate. Many of the works will be covered by some license or other constraints on use and sharing. For example, if a professor uses material found on the web site of the publisher of the textbook the professor chose for his course, access to that material may be conditioned on the professor's selection (and the students' purchase) of the associated text. Another professor who uses an object created with that material may not have access to the resource if the second professor does not choose the same textbook. Further, if the first professor actually copied the material from the textbook publisher's website, he may have permission to use that material within his own classes but not to adapt or further distribute the material. If a professor uses an image from a Creative Commons licensed web site, his use of that image is conditioned on acceptance of the license restrictions the image creator applied to the image. Each potential license type can generate multiple scenarios depending on the specific facts involved. Below are thirteen different scenarios of license options that could appear in even a single, complex learning object. Many other licensing schemes are possible – these are only the major alternative licenses in widespread use.

1. **Public domain material:** Professor uses public domain materials in a learning object. The public domain material may be freely adapted. The owner of the copyright in the resulting learning object owns only the material added to the public domain material. The original public domain material remains in the public domain forever.

2. **Original material created previously by professor:** Within a new learning object that will reside in the repository, Professor uses material he created previously. If the professor owns the copyright in the material being used, the professor may grant himself permission to use his own material. Use within the repository would be covered by the same conditions as material created by others outside the university. However, if the professor has included that material in other works, such as articles or textbooks, the copyright on those materials may no longer belong to the professor even though he originally created them. In that case, the professor may require permission to use the previously created material from the current copyright owner. The material may be owned (in whole or in part) by a previous educational employer, in which case there may be restrictions on how the professor may use the material. For example, the professor may have retained a right to use the material personally, but does not have the right to re-license the work to others. Each previously created work included within a learning object will need a separate analysis.

3. **Material created and owned by others:** Professor uses commercially available material or other material the rights of which are owned by others. Examples of such material would be charts and graphs from books, student work, commercially available maps or images, poems, essays, plays or other textual materials not created or owned by THECB-governed institutions. Such materials may be suitable for a claim of fair use when an individual professor selects those items to use in a face-to-face or restricted-access online course, or when a small excerpt is used for criticism or commentary. Professor may not adapt the material (including translation) without permission of the copyright holder. Neither professor nor THECB owns the content, but may own content around which this material is used.

4. **Creative Commons[2] attribution (only) licensed material:** Professor uses Creative Commons attribution licensed material within a learning object. The material may be adapted and included within other objects as long as the material is appropriately attributed to the original creator.

5. **Creative Commons noncommercial licensed material:** Professor uses Creative Commons noncommercial licensed material within a learning object. Professor is free to use the material within his own classes. Use for licensed course materials, however, is not within the license for the Creative Commons material. Additional permission is needed for inclusion within the repository if the parties anticipate commercial licensing.

6. **Creative Commons no-derivatives licensed material:** Professor uses Creative Commons no-derivatives licensed material within a learning object. Professor is free to use the material within his own course as long as he makes no changes to the Creative Commons material.

7. **Creative Commons share-alike licensed material:** Professor uses Creative Commons share-alike licensed material within a learning object. Share-alike licenses are used in conjunction with other Creative Commons licenses, so the professor will need to investigate other license restrictions on the material. Professor may use the material within his learning objects if other licensing restrictions are met.

8. **GNU Public License[3] licensed material:** Within a learning object Professor uses some computer code or other material that was made available under the GNU Public License. If the Professor includes the original GNU-licensed material intact within his learning object, he must conspicuously and prominently display on each copy an appropriate copyright notice. If Professor modifies the original work he must include notice of who made the modifications and when. Further, additional modifications to the software may not be patented unless use is free to all.

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[2] Creators who use Creative Commons licenses may combine more than one license condition into the license for a given work. When such is the case, the use of the work relies on meeting the conditions of all aspects of the various licenses. See the discussions of other Creative Commons licenses to understand the impact of a specific licensing provision. For a full explanation of Creative Commons and its licenses go to: http://creativecommons.org/about/licenses.

[3] All GNU licenses are maintained by the Free Software Foundation, and may be viewed in their entirety at http://www.gnu.org/licenses/. The site has links to many other types of licenses, as well.

Professor or learning object repository may not build in any type of protection mechanism to prevent access to the GNU Public licensed material.

9. **GNU Lesser Public License licensed material:** Professor uses material licensed under a GNU Lesser Public License (LPL) within a learning object. The Lesser Public License is similar to the Public License, except that the section of the Public License that would prevent installation of a protection mechanism is omitted. Further, Professor may combine GNU LPL licensed material and other non-public domain material (such as proprietary material from other sources or material written under a grant) under any license Professor chooses as long as the GNU LPL material is "prominently" identified as being included and so licensed. Professor must also include the copyright notice for the GNU LPL material, include a copy of the GNU LPL license document, and follow one of two protocols if the work is computer software.

10. **GNU Affero Public License licensed material:** Professor uses material licensed under a GNU Affero Public License within a learning object. Most of the terms of the GNU GPL apply. If used on any network (including the Internet), Professor must include a prominent notice to offer users the corresponding source code of the work and the ability to download the source.

11. **Free Art License licensed material:** Professor uses within a learning object some artwork that is included under the Free Art License. The original artwork is protected by copyright, but downstream users are allowed to reproduce and modify copies under the Free Art License. The professor must attach the identical Free Art License to all copies of the work or indicate precisely where the license can be found, specify to the recipient the name(s) of the author(s) of the originals (including the Professor's if he has modified the work), and specify to the recipient where to access the originals (either initial or subsequent). If the work has been modified the work must so indicate and, if it is possible, what kind of modifications have been made. If the artwork can no longer be accessed apart from the larger work in which it is incorporated, then incorporation shall only be allowed under the condition that the larger work is subject either to the Free Art License or a compatible license. To use the Free Art License, Professor must mention the following elements on his work:

[Name of the author, title, date of the work. When applicable, names of authors of the common work and, if possible, where to find the originals].

Copyleft: This is a free work, you can copy, distribute, and modify it under the terms of the Free Art License http://artlibre.org/licence/lal/en/

12. **Design Science License licensed material:** Professor uses material—either textual, graphic, or software code—under a Design Science License within a learning object. Any derivative work must have a new name so there can be no confusion with the original. Professor must attribute the original elements to the original creator and clearly identify any additions or changes, along with the dates. Professor must either include the source data with the work or include a dated offer to provide the source data, good for three years or as long as the resulting work is in print (whichever is longer). In addition, Professor must also provide a publicly-accessible URL where a potential user can request a copy of the source code at a cost not to exceed transportation and media costs. An additional alternative is to pass along a third-party's offer to provide source code, but it only applies to non-commercial users and if such an offer was included with the object when Professor got the work.

13. **Commercially licensed material:** Professor uses material licensed through institutional subscriptions (such as links to the website of the publisher of an adopted text or direct links to journal articles or images available through a campus subscription) as part of a learning object. URLs which comprise links are not copyrightable information, similar to a street address. However, the content represented by the link is protected by the publisher and may have either terms of use associated with the web page or some type of access protection mechanism (such as a login and password). Depending on the terms of the publisher's license to the Professor or the Professor's employing university, the content may not be available to a licensee of the learning object. Each link source must be evaluated separately. As a technical consideration,

links may not be persistent, meaning that the existence of the work at the URL included in the course is not under the control of the course developer or the licensee. If the course material contains the actual image or file of material, the learning object will always be able to maintain appropriate access to the information. When the material is only available by link, the course developer relies on the web host to maintain access to the work at the specific URL the course developer included in the material.

5.3. Downstream License Issues

Inclusion of copyright protected material within learning objects that will be downstream licensed generates a multitude of legal concerns. Each professor who contributes learning objects to the repository may have used some material from outside sources. While the professor's use of these outside sources of material is likely a fair use under United States copyright law, when the resulting works are licensed to other institutions the educational performance and display exemptions fall away. An individual end-user may claim the exemption, but the intermediate provider of the course materials may not have a viable claim, especially if the exchange is a commercial transaction (Armatas, 2008). Claims of fair use will still attach, but are more difficult to achieve in a commercial environment.

Downstream licensees likely will want to modify learning objects to suit individual teaching styles and student profiles. In addition, interviews with learning object developers showed that they are concerned that material distributed to other universities will be adapted in ways that may not reflect favorably on the original creator. The developers indicated that they would like to see adaptation restrictions placed on downstream users. Some scenarios discussed include either a disclaimer of ownership to the original creator when an object is modified, or a history of modifications maintained as part of the metadata for each learning object. Several of these options are already included in the copyleft licenses discussed below, so if the developer included material used under those licenses the attribution or adaptation provisions would automatically follow any works derived under those licenses.

It is still unknown what types of access potential licensees would find most appealing: campus-wide licenses to the entire TCRR or TxLOR content; individual faculty member licenses to the entire TCRR or TxLOR content; or some form of individual object license. A fee-per-student license is another option. Potential licensees may have other ideas for licensing strategies. Clarifying license issues for an individual item will be much simpler for a small object. However, when licensing an entire course that may be filled with objects used under any number of licenses, each of which sets specific downstream requirements, both the licensor and licensee have a mountain of obstacles to overcome.

What follows will discuss the sample scenarios identified in Section 5.2 above in terms of the effect of the included materials on downstream licensing.

The downstream licensing aspects of each scenario below will necessitate an inventory of the non-original aspects of each learning object to determine if commercial licensing of the learning object is possible, what objections the creators of the objects have to the licensing terms, and what risks the THECB and the developers take in licensing the objects to others.

1. **Public domain material:** Any learning object based on or including public domain material may be sold, licensed, or given freely. If an instructor at an out-of-state or Texas private university wishes to pull the public domain material from an object licensed from THECB, there is nothing to prevent such use. The material is freely available to all, and any attempt to extend copyright-like protection through restrictive licensing may be considered abuse of copyright.

2. **Original material created previously by Professor:** Whether the THECB may license material a Professor created previously will depend on the ownership of the materials. If the Professor owns the copyright in the material being used, the Professor may grant THECB a license to use the material or may transfer ownership of the material to the THECB outright. A transfer of the copyright must be done explicitly, in writing. Use within the repository would be covered by the same conditions as material created by others outside the university. However, if the Professor has included material from other works, such as articles or textbooks, and the copyright on those

materials no longer belongs to the Professor, THECB will need to pursue permission or license to include the works in any further distribution or licensing. The same process will affect any material owned (in whole or in part) by a previous educational employer. Each previously created work (or portion thereof) included within a learning object will need a separate analysis.

3. **Material created and owned by others:** Material owned fully by others withholds the right of distribution. While the right of first sale allows <u>physical</u> copies to be transferred without permission (such as giving away a copy of a book), redistribution of digital copies is generally covered by license. The material must be licensed for both free and commercial distribution.

4. **Creative Commons attribution (only) licensed material:** Professor uses Creative Commons attribution licensed material within a learning object. Material may be redistributed by THECB, either without charge or commercially, as long as the Creative Commons material is appropriately attributed to the original creator. Downstream licensees may also redistribute the Creative Commons material within the learning object, and neither THECB nor the Professor can prevent such distribution of the Creative Commons attribution (only) portion of the learning object. Downstream users may also adapt the Creative Commons portion of the learning object, and neither THECB nor the Professor can prevent such modification of the Creative Commons portion of the learning object.

5. **Creative Commons noncommercial licensed material:** Professor uses Creative Commons noncommercial licensed material within a learning object. Since use for Texas state universities is free, distribution to those entities is within the license. Use for licensed course materials, however, is not within the noncommercial license for the Creative Commons material.

6. **Creative Commons no-derivatives licensed material:** Professor uses Creative Commons no-derivatives licensed material within a learning object. The no-derivatives licensed materials may be included in material distributed free or commercially, but downstream licensees may not adapt or change the no-derivatives licensed material.

7. **Creative Commons share-alike licensed material:** Professor uses Creative Commons share-alike licensed material within a learning object. Share-alike licenses are used in conjunction with other Creative Commons licenses. Any distribution of the Creative Commons share-alike material must be under the same conditions as the original license. For example, if the share-alike material also contained a "noncommercial" license, any such material that the Professor included in a learning object could not be commercially distributed, and anyone who obtained a copy of the learning object would also be bound by the noncommercial license, as well.

8. **GNU Public License licensed material:** Professor uses some computer code or other material that was made available under the GNU Public License within a learning object. Any work based on the GNU licensed work must be distributed without restriction, and include both the copyright notice of the original work plus a disclaimer of warranty to make clear that any modifications to the original are not the responsibility of the original authors. Further, additional modifications to the software may not be patented unless use is free to all. GNU Public Licensed material may be sold, so inclusion will not prevent commercial licensing, but the licensing must allow further development and distribution by the recipients, which may be a problem for object creators. All work that includes GNU licensed code must be distributed with the resulting source code[4] (or access to it), as well.

9. **GNU Lesser Public License licensed material:** Professor uses material licensed under a GNU Lesser Public License within a learning object. Professor or learning object repository may install a protection mechanism. Further, GNU LPL licensed material combined with non-free material may be distributed under any license as long as the GNU LPL material is "prominently" identified as being included and so licensed, includes the copyright notice for the GNU LPL material,

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[4] When "source code" is mentioned in the above licenses, it refers to the editable version of a work. For example, in the case of software written in C language and compiled, the version in C is the source code, and the compiled version is the object code. In the case of a PDF document, the editable version of the document (in Word or Adobe format) is the source code and the PDF is the object code.

includes a copy of the GNU LPL license document, and follows one of two protocols if the work is computer software.

10. **GNU Affero Public License licensed material:** Professor uses material licensed under a GNU Affero Public License within a learning object. Most of the terms of the GNU GPL apply. Professor or learning object repository may also add some or all of the following terms to the license of material derived from Affero licensed material as long as the original license owner does not object:

   a. Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or

   b. Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or

   c. Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or

   d. Limiting the use for publicity purposes of names of licensors or authors of the material; or

   e. Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or

   f. Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

   Note that to add any of the terms above, learning object repository operators must contact the original license owner for permission (actually, lack of objection). Additionally, if the work is used on any network (including the Internet), all GNU APL licensed works must have a prominent notice to offer users the corresponding source code of the work and the ability to download the source. The GNU APL also allows APL and GPL licensed works to be combined into one and conveyed together, with two licenses attached each governing their respective parts.

11. **Free Art License[5] licensed material:** Professor uses within a learning object some artwork that is included under the Free Art License. The authors of the originals may have given the right to distribute the originals under the same conditions as the copies. Further, any distribution of the derivative work must be under the same license or any compatible license. If the artwork can no longer be accessed apart from the larger work in which it is incorporated, then the larger work must be subject either to the Free Art License or a compatible license. Sub-licenses are not authorized by this license.

12. **Design Science License licensed material:** Professor uses material—either textual, graphic, or software code—under a Design Science License (DSL) within a learning object. Any reproduction or derivative work of the original must be distributed under the same license, but any work within which the derivative work is included does not need to be so distributed (e.g., a web page that includes a DSL-licensed widget does not have to be distributed under the DSL license, though the widget itself is free for anyone to use). Professor or learning object repository may not add any additional restrictions to the Design Science License. The license contains a specific disclaimer of warranty and liability sections.

13. **Commercially licensed material:** Professor uses material licensed through institutional subscriptions (such as links to the website of the publisher of an adopted text) as part of a learning object. Each license will require individual evaluation to assess whether the license allows the original institutional licensee to distribute links to the content to downstream users. The need for access to proprietary information that requires a second license or subscription should

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[5] The Free Art License covers works of art and entertainment. View the license in its entirety at http://artlibre.org/licence/lal/en.

be made clear to potential licensees before purchase, and any warranty disclaimed in the information provided by third party providers.

Many other licenses could potentially impact a given learning object.

Particularly with respect to private university licensees, because THECB is immune to prosecution for copyright, patent and trademark infringement under the holdings in *College Savings Bank v. Florida Prepaid Postsecondary Education Expense Board and Florida Prepaid Postsecondary Education Expense Board v. College Savings Bank,* entities without immunity will likely refuse to license material if the THECB will not indemnify the licensee from a copyright infringement claim. *College Savings Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 119 S. Ct. 790 (1999)*; Fla. Prepaid Postsecondary Educ. Expense Bd. v. College Savings Bank*, 527 U.S. 666 (1999). Private entities do not enjoy the same protection as does a state entity under the holdings in these cases, and the licensee could be left as the exposed party in a successful intellectual property lawsuit (Armatas, 2008).

5.4. Texas Public Information Act Issues

Governmental entities in Texas are subject to the Texas Public Information Act (TPIA). Tex. Gov't Code Ann. §§ 552.001-.353 (Vernon 2010). For the purposes of the TCRR or TxLOR, "public information" includes information collected, assembled or maintained in connection with the transaction of official business for the government entity and the governmental entity owns the information or has a right of access to it. *Id.* at § 552.002(a). Public information is further defined as information on media that include "a magnetic, optical or solid state device that can store an electronic signal." *Id.* at § 552.002(b). Under section 8(a) of the contract with the TCRR or TxLOR developers, the THECB claims all property rights to the learning objects contained within the LOR; the learning objects are computer files saved on magnetic or optical drives. Therefore the objects in the TCRR or TxLOR would be considered public information. Unless a piece of information is statutorily excepted from disclosure, the governmental entity must produce any public information for inspection or copying on the request of "the public". *Id.* at § 552.006. The Act does not define whether the requestor must be a citizen of Texas or even a citizen at all. The act defines a requestor as "a person who submits a request to a governmental body for inspection or copies of public information." *Id.* at § 552.003(6). While the Act includes many exceptions from mandated disclosure, none of the exceptions apply to the TCRR or TxLOR directly. Nevertheless, the Texas Attorney General has opined that a government body need not make copies of works that are protected by copyright, but it must still provide access to the materials and allow the requestor to make his own copies, unassisted by the government body. Op. Tex. Att'y Gen. No. JM-672 (1987); Tex. Att'y Gen. ORD-550 (1990).

As applied to the TCRR or TxLOR, this ruling implies that if a learning object contained copyright-protected material owned by someone other than THECB, the TCRR or TxLOR would be obligated to allow anyone to view or copy the material but would not have to actively provide copies of the copyright protected information. Material owned wholly by THECB would be subject to full disclosure and reproduction under the Public Information Act even though it may be protected by a THECB copyright because copyright protection is automatic upon creation. If a government entity could avoid the necessity to reproduce its documents simply by having a copyright in its own works, there would be no government document subject to reproduction because copyright vests the moment a work is fixed in tangible form. 17 U.S.C.A. § 102 (West 2010).

5.4.1 Contract Provisions Related to the Texas Public Information Act

The executed contracts, unless modified individually, contained a clause that acknowledged the role of the Texas Public Information Act:

(c) XXXX understands and acknowledges that as a Texas state agency, the THECB is subject to the provisions of the Texas Public Information Act.

Therefore, the parties were aware of and acknowledged the impact of the Texas Public Information Act in developing their agreement, however they may not have realized that the TPIA could circumvent the planned licensing strategy.

6. Current TCRR Status

As discussed in Section 3, TxCDK project staff decomposed the course content (and sometimes complete courses) that resulted from the course redesign projects. The THECB ownership of intellectual property asserted in the RFP and course redesign contracts covers all content, no matter how it is made into discrete learning objects. That ownership is reflected in statements about the IP and licensing included in the metadata records for each learning object. But these "rights statements" in the metadata presently attached to the TCRR objects do not address any upstream copyrights and licenses that may cover some or all of the content of a specific learning object.

In the in-depth interviews with course developers, some of the participants focused on the fact that they did not know their learning objects would be included in a shared repository at the time the objects were created. Some of the material included in the courses was licensed specifically for that course and that institution, and would not be available for further distribution in Texas or other locations without re-negotiating the original license agreements. In addition, when creating original content, the permission form signed for interview subjects and performers did not indicate potential licensing or sale, which would cause problems with union performers. One participant expressed concern that use of unique course materials would disadvantage some institutions that have gained a reputation for particularly innovative courses. Some of the developers indicated that they were aware that the material would eventually be shared within Texas and that they understood their role was to design everything from scratch and not incorporate third party content, but that they were not aware that the materials would be licensed for a fee out of state.

When asked if developers had incorporated computer code into their learning objects, participants were divided. Several replied that they had not, but one reported that they did incorporate code such as Creative Commons licensed code into their objects. The developer who reported using Creative Commons code said that the code used was under a Creative Commons public domain designation, which would have no affect on downstream licensing. Another developer reported that they had used in-house programmers to create objects but had no knowledge if all the code was created by the programmers or if they had used bits of code from external sources.

When asked the same question in regard to images, several developers reported that they considered image licenses when creating their objects. One reported considerable difficulty licensing images for use in objects, so included links to web displays rather than including the images themselves. Some included no images within the objects in the repository. One participant reported incorporating images from an image bank licensed through her institution's library, which may be licensed for all Texas state universities. Whether such links would work at other institutions is an open question. One participant explained that an included course had produced many original videos, and the permission agreements with the performers and owners of artworks included in the videos restricted the further use of the videos.

At least one developer affirmed that he incorporated student work into course materials, possibly as exemplars or as student contributions to group projects. The licensing status of the student work is unknown.

Since the preliminary interviews indicated that several developers incorporated material from textbook publishers into the object content, the researchers asked how much publisher content was included in the objects created by these participants. Several participants agreed that they had incorporated publisher content into the learning objects, either directly or through links. Access to some of the links is through license with the developer or the developer's institution and may be behind a password that prevents use of the material for anyone who does not adopt the specific publisher's text. One course developer reported that her institution licensed content at minimal cost from the National Repository of Online

Courses (NROC), a "non-profit project, supported by The William and Flora Hewlett Foundation, [which] is an Open Educational Resource (OER) and facilitates collaboration among a community of content developers to serve students and teachers worldwide" (http://www.montereyinstitute.org/nroc/nroc.html). The developer indicated that the NROC encourages the materials to be used, but was unsure what downstream licensing issues would apply if the TCRR were to further license materials (either for free or for a fee) including that content.

Documentation issues appear to be widespread among the participants. When asked if the developers could backtrack to find the source and licensing terms of any incorporated content, some indicated that all the material was original while others were either not sure or were positive that the material was licensed just to the creating institution. At least one developer reported that content incorporated into objects created for the course redesign were negotiated for this project only, and would not be available for downstream licensing in the TCRR. Course developers expressed a strong preference for an intellectual property checklist that would guide their creation and documentation of learning objects, and access to intellectual property consultants to guide their negotiations for downstream licensing rights.

Asked to reflect on what they might have done differently in creating their objects, several affirmed that they would have had a discussion with intellectual property advisors. One said she discovered that it was virtually impossible to backtrack credit issues when creating source metadata at the conclusion of development. When asked for their recommendations on future contributions to the TCRR, the developers suggested an intellectual property checklist that would guide developers in assessing and using outside content in course materials destined for the TCRR. They were uniformly positive about having clear rules about what may be included in objects.

In summary, the researchers found the following significant:

1. The course developers did not document intellectual property with a thought to downstream licensing, so metadata may not contain all necessary information needed to properly license or distribute the learning objects.
2. Permissions received for some materials used in courses were limited to use at the creating institution or for the course developer, therefore additional investigation and negotiation will be required before objects may be further distributed.
3. Some developers are unaware of the genesis of some of the computer code included within their course materials.
4. Developers were more careful about the licensing status of images within their courses, and they may have only included links to images rather than actual image files. The links may be to content available through license to the home university which may not be available to downstream licensees.
5. Learning objects may contain student work. The licensing status of the student work is unknown in many cases.
6. Learning objects may contain textbook publisher content that is only available to purchasers of that particular textbook.
7. The course developers felt uninformed on the topic of intellectual property rights, and were unsure what information they should collect and how they should or could negotiate with copyright owners for downstream licensing rights.

7. Recommendations

In hindsight, the sponsor and the course developers apparently did not hold the same long-term view of the TCRP and subsequent TCRR. While the intellectual property difficulties that resulted from this disconnect may take months or years to resolve (if they can ever be completely resolved), the problems resulting from these first courses inform our recommendations for future contracts for additions to the TCRR or TxLOR. The following recommendations address topics including the initial contract with the course developer, the sources of materials used in the courses, upstream and downstream licensing, and Texas Public Information Act considerations.

7.1. Contract Recommendations

Contract recommendations involve clarifying the ultimate destination of the course redesign materials and the responsibility of the course developer to identify and document intellectual property issues for each piece of non-original content.

7.1.1. Clarifying of the use of the developed materials

Multiple developers reported that they did not know their materials would be available for commercial licensing. While the generic contract language clearly explains that the course developer may sell the content and share the proceeds with THECB, the developers apparently did not internalize that information. Emphasizing documentation of downstream licensing during the development process will clarify and reinforce the ultimate goal of the project.

7.1.2. Outlining the responsibility of the course developer regarding intellectual property issues

The generic contract refers frequently to Attachment A, which was not made available to the researchers. "XXXX shall develop and provide the Program(s) described in Attachment A, and shall ensure that each Program element described in Attachment A is delivered and each Program condition described in Attachment A is satisfied. . . ." If the course developers use Attachment A as a checklist to verify compliance with the contract terms, consider adding Program condition language similar to the following:

> In creating the course materials for the Program, course developer shall use only materials created by the course developer or other person working under this contract, with the exception of non-original materials in the public domain or with permission or license that will enable the resultant works to be further licensed. This clause contemplates incorporating applets, widgets, runtime modules, routines, and other computer code written by others but incorporated into the functionality of the Program.

> Course developer will identify and document in a format to be supplied by THECB the source; ownership; copyright status; license status, duration, and conditions; and/or permission status, duration and conditions of each piece of non-original material included within the Program, and submit that documentation to the THECB at the time the course materials are submitted.

> Course developer will submit a copy of each license and the original of each permission statement to THECB at the time the course materials are submitted. THECB will supply a permission statement to be used for the purposes of this release.

The contract should also be clarified to show if the developer has or does not have any indemnification responsibility to downstream private university licensees. (See discussion in Section 5.3).

7.2. Sources of Materials in Courses Recommendations

In accordance with the contract modifications made in 7.1 above, the course developer must document all material submitted to the TCRR or TxLOR as to origin and any pre-existing licensing or permission agreements. Restricting course developers to allow only original or public domain material in their learning objects is a safe route, but one that limits course creation, especially for today's media-hungry students. More reasonable is use of copyleft licensed materials (as discussed in Section 5.2), as long as the course developer is aware of the license(s) attached to the materials used.

7.2.1. Student work

Student work, if used at all, must be identified and permission obtained to avoid Family Educational Rights and Privacy Act (FERPA) problems. (20 U.S.C.A. § 1232(g) (West 2010)).

7.2.2. Non-original elements

Non-original sub-elements of each object must contain, at minimum in metadata, documentation of the creator, copyright status, type of license or permission, and any downstream licensing or adaptation restrictions. This recommendation would require retrospective investigation of each object currently in the repository and a prospective requirement for future contributors to include the necessary source information in the metadata of each contributed object. Material presently in the TCRR or TxLOR must be assessed to determine if upstream license or permission restrictions prevent downstream licensing or other distribution.

7.2.3. Intellectual property consultation

An intellectual property checklist could guide the creation and documentation of learning objects and assist course developers as they seek out and collect the information necessary to document the source and rights associated with all non-original materials. Access to intellectual property consultants to guide negotiations for downstream licensing rights would help protect the repository and the developers from later copyright action. Legal consultants should develop permission forms for developers to use as they collect non-original material for learning objects. The permission forms should be explicit about how THECB and the developer anticipate they will use the works containing the permitted material. THECB and the instructors should keep those signed permission forms for the duration of the copyright of the material used, since even after the derivative has been deleted from the THECB files, it may still exist on other servers worldwide.

7.3. Upstream License Recommendations

Each learning object within the TCRR or TxLOR, and each object as it enters the TCRR or TxLOR, should be checked for metadata that identifies copyright owners of all portions of the learning object, all potential licensing issues affecting a given object, as well as the creative history of the individual object. In the context of Digital Rights Management (DRM), it may be necessary to have accompanying digital rights metadata for each asset (whether that asset comprises a simple, one-file learning object or whether that asset is part of a complex learning object). Incoming content must be searched for such DRM metadata, and if it does not exist it should be added upon entry. The rights metadata could contain for each asset the following elements:

- name of a work's creator or creators;
- the name of the rights holder for the work;
- potential claimants for the rights of the work;
- the year the work was created;
- its publication status;
- copyright status, copyright notice;
- covering license(s)
- if published, the date.

The display of rights metadata for an asset can be implemented in various ways. For example, when a user views a specific learning object, there could be a link labeled: Check Rights and Licensing Status for This Learning Object. Following the link will take the user to the detailed rights metadata. If the asset is covered by an upstream license, the metadata can name the license with a link to the authoritative description of the license.

7.3.1.Selective acquisition and storage

If THECB wishes to collect only materials that are available for commercial licensing, there should be a plan in place to reject materials under non-commercial restrictions. If the TCRR or TxLOR will be a self-service course materials server, learning objects incorporating materials under licenses that require source code should be stored in an archived (e.g. "zipped") format only, where the archive file includes all the necessary parts to comply with the license. These various specialized licenses may conceivably make the TCRR or TxLOR highly labor intensive on the front end. If the interest is to reduce costs, eliminating

all materials using restrictive licenses would make sense; however, eliminating those materials may run the risk of less diverse, less interesting course materials in the TCRR or TxLOR.

7.4. Downstream License Recommendations

The downstream licensing considerations are made on the assumption that the TCRR or TxLOR will include learning objects containing materials used under a broad assortment of licenses and permissions. The fewer licenses that are included among the learning objects, the simpler licensing will be to accomplish, if only because there will be fewer options to track.

7.4.1. Classification of material available for license

Because of the multitude of potential licenses, THECB may need to classify the existing and incoming learning objects according to their availability to different classes of licensees. For example, when allowing Texas state universities to use the learning objects, the distribution is non-commercial so the TCRR or TxLOR may, within the context of a non-commercial license, distribute copies or derivative works. However, if licensing to Texas private universities or to out-of-state universities, the TCRR or TxLOR could not commercially license those same materials. To eliminate confusion about what is or what is not available for licensing, the classification system could be used by the TCRR or TxLOR to filter search results to show only those materials available for licensing to the searching entity.

7.4.2. Immunity

To avoid the scenario discussed in Section 5.3 regarding immunity, THECB could agree to immunize downstream licensees from liability if they are successfully prosecuted for intellectual property infringement as a result of a learning object licensed from the TCRR or TxLOR. Naturally, if THECB is willing to immunize licensees, THECB would make maximum effort to assure that all material within a learning object is either owned by THECB or is appropriately licensed. The contract between THECB and the content developers immunizes THECB for potential infringements, but does not carry the developer's immunization forward to downstream licensees. Clarification on this issue in both the THECB-developer contract and the license contract with private institutions would be helpful.

When the license attached to incorporated content requires that anyone who receives a copy of the learning object containing the prior content may further distribute the object (see e.g., Creative Commons Share-Alike license or GNU Public License), THECB stands to have downstream licensees redistribute the content in competition with THECB. To avoid this scenario, THECB could simply bar course developers from using any prior content used under a non-commercial license. The disadvantage of such a decision would be to increase the cost to develop learning objects since each would have to be developed from scratch. Further, it might reduce the currency or appeal of learning objects if, for example, the development of a class wiki (using wiki software under a Creative Commons license) had to be substituted with something less appealing like writing a paper.

7.4.3. Creative Commons licensing option

As an alternative, THECB could distribute the learning objects through a Creative Commons license, as have several other states and institutions. See, e.g., MIT Open Courseware at http://ocw.mit.edu/OcwWeb/web/home/home/index.htm. The explanation of the MIT license is available at http://ocw.mit.edu/OcwWeb/web/terms/terms/index.htm#cc. The advantage of a Creative Commons scheme is that most of the course materials incorporating Creative Commons or other copyleft licensed content might be distributed through the TCRR or TxLOR under a similar license. Under the various copyleft licenses, the developers can be assured of attribution for their materials (or the inclusion of a disclaimer of warranty for changes, depending on the license scheme). The disadvantage is that THECB and the course developers could probably not commercially license (depending on the licenses attached) the courseware containing those elements.

Other states have provided an open forum for educators to share course materials and lesson plans. See, for example, ALEX, the Alabama Learning Exchange at http://alex.state.al.us/. An open access database such as ALEX relies on the "safe harbor" provisions of the Digital Millennium Copyright Act (DMCA) to

protect the service provider (in this case the Alabama Department of Education) from liability for infringement if a user posts infringing content on the site. To qualify for the safe harbor provisions of DMCA, installation of material to the site must be user-directed, operators of the site cannot have actual knowledge of infringement, they must take down infringing materials when asked, and they cannot profit from the infringement. 17 U.S.C.A. § 512(c) (West 2010). ALEX and similar user-contributed sites qualify for the safe harbor provisions of the DMCA because users are free to post material of their choosing (i.e., the operators do not actively scan incoming content for potential infringements), and the operators quickly remove any potentially infringing material when notified by the purported copyright owner. In addition, the site is free to use; advertisers do not pay for exposure that might increase if the site were known to have high-demand but infringing materials. The site operators stand to gain nothing from having infringing materials available for their users. Therefore, if any of the learning materials are found to infringe a copyright, the host site is protected from liability for infringement. The individual creators of the infringing materials, however, may still be liable depending on the specific facts.

As more states and institutions elect copyleft distribution models for learning materials, commercial licensing will be less appealing to potential downstream licensees. The availability of material through the Texas Public Information Act can also have a serious impact on potential licensing. Even though THECB does not have to provide copies of much of the information within the repository because it may be copyrighted by non-governmental entities, under the Attorney General opinions referenced earlier the THECB will have to provide access and allow copying by anyone who makes a Texas Public Information Act request to see the material. That person will then be responsible for any copyright violations that ensue from the person's use of the material. Such free availability generates less incentive for potential licensees to pay license fees. Given equal quality content in the TCRR, TxLOR and repositories such as MIT, a potential licensee would almost certainly choose the free content over the commercially licensed.

7.5. Texas Public Information Act Recommendations

TCRR and TxLOR operators have different responsibilities when faced with a TPIA request for material wholly owned by THECB or material that includes content owned or licensed by others. The operators must produce copies of wholly owned material, but must not provide copies of material owned by others (though they still must give the requestor access to those materials). Because the TPIA differentiates the obligations of the TCRR or TxLOR operators based on the copyright status of each learning object, each object will need to be identified as something wholly created for and owned by the State of Texas or something that contains material copyrighted by an entity that is not subject to the TPIA. Making these determinations at the same time that the metadata is prepared will simplify handling the material and will make responding to TPIA requests much simpler. For example, if the appropriate metadata is provided regarding the copyright status of a learning object, the system can easily sort results to indicate whether the THECB has sole copyright on the learning object or if the learning object contains materials for which a third-party has copyright claims.

Since the TCRR or TxLOR must provide upon request copies of any material owned by THECB, licensing wholly-owned material generates a new set of problems. Potential licensees will ask themselves, "Why pay for content we can get for free through a TPIA request?" Certainly THECB will continue to own the rights to its wholly-owned works even when a copy has been delivered under a TPIA request. But in order to verify its content has not been used without permission, the THECB will have to investigate what happened to the copy it delivered to the requestor. If THECB suspected that the TPIA requestor used the material in a way that could not be supported by fair use, THECB would have to prove that the requestor used the material in violation of THECB's copyright in the material. In the case of derivative works created by the TPIA requestor, THECB would have to prove that the requesting institution used THECB-owned content to create derivative works based on the THECB objects. This scenario puts THECB and/or the developers in the role of copyright policeman, a time-consuming and expensive undertaking that may not be justified by the anticipated revenue.

8. Conclusion

The TCRR in its present iteration, and the TCRP content to be placed in the TxLOR, will present significant challenges to license the content to private Texas institutions and out-of-state institutions. Depending on the license or permission status of the components of a given learning object, the material may not be available for downstream license. Because many of the components of the TCRP-created learning objects are of unknown provenance, but the developer knows that he or she did not create some of the components, downstream licensing or distribution could violate the terms of a license, especially if the borrowed material was used under one of the many copyleft licenses that have restrictions and conditions on distribution or adaptation.

Each learning object within the TCRR and the TxLOR should be identified as available for licensing within THECB institutions or out-of-state/Texas private institutions, or both, based on the licensing status of the material contained within that learning object. Restricted access to the TCRR and TxLOR could filter what an individual "shopper" might see as available for download or license. Further, licensing options for objects should address warranty and modification issues as dictated by the license attached to the material included. The researchers recommend that nothing be included in the publicly available database until all components have been identified and documented. All of the above recommendations may be moot, however, if potential licensees realize that they can simply request a copy of the objects in the database.

The TCRR and the TxLOR hold a wealth of information generated through state funds. The ultimate goal of the project—to review and revise entry-level lower division academic courses to improve student learning and reduce the cost of course delivery though the use of information technology—would be served by the TCRR and the TxLOR even if all material were provided freely to others. With the trend for educational institutions to apply liberal intellectual property rights to their academic capital, the creation of the necessary infrastructure to monitor and comply with restrictive licensing schemes may not justify the investment to create it. The inclusion in the TCRR and TxLOR of only the best learning objects, documented to show the many sources of information used within, can create a resource to serve the state and the world beyond. By demonstrating acknowledgement and respect for the intellectual property rights of others and showcasing superior accessibility in the organization and distribution of the learning objects, Texas can lead the world in providing resources to higher education.

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