THECB Learning Object Repository Metadata Creation Guide

Prepared for

The Texas Higher Education Coordinating Board

by

The Texas Course Redesign Repository Team

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1. Introduction

This document presents the metadata creation guidelines for the metadata records contained in the THECB Learning Object Repository (LOR). The THECB LOR Metadata Application Profile provides the basis for the inclusion of metadata elements, their characteristics, etc. This Guide provides the submitter of resources to the THECB LOR with detailed instructions to create appropriate metadata records at the time a resource is submitted to the THECB LOR. The THECB LOR Metadata Application Profile provides the Name of the Term (i.e., how the metadata element is known by the system), and a human readable label intended for display to the metadata creator for input and for record displays, and also vocabularies for data values. This guide does not include some metadata which are system supplied automatically. The elements (listed by the human-readable label) addressed in this document are:

- Access and Use License
- Access and Use Rights
- Author's Affiliation
- Authors
- Course Name
- Creation and Ownership Information
- Date Created
- Date issued
- Difficulty Level
- Discipline and Sub-Discipline
- Domain Cataloger
- Educational Interactivity Level
- Educational Interactivity Type
- Has a Component Part of
- Has Component Parts
- Identifier
- Instructional Method
- Intellectual Property Rights
- Intended Educational Audience
- IMS Content Package
- Learning Object Description (IMS)
- Language
- Learning Object Type
- Learning Object's Content
- Media Format
- Metadata Cataloger
- Other Contributors
- Other Titles
- Publisher
- Rights Holder
- Size of Object
- Subjects
- Summary
- Technical Requirements
- Texas Common Course Number
- Title
- Title (IMS)
- Typical Learning Time
2. Instructions for Creating THECB LOR Metadata

2.1. Access and Use License (Dublin Core Element Refinement)

Definition: A legal document giving official permission to do something with the resource.

Chief Source of Data: Consult the beginning of an electronic resource (i.e. digitized book/dissertation), or the end of an HTML page.

Guidelines for Content Creation: Licensing rights information is best obtained through the use of a URI. The Creative Commons Web site: http://creativecommons.org/licenses/ contains a list of license types that are commonly used. Alphanumerical values are accepted. For THECB LOR, use the default value.

Examples:

2.2. Access and Use Rights (Dublin Core Element Refinement)

Definition: Information about who can access the resource or an indication of its security status.

Chief Source of Data: Usually available at the beginning of an electronic resource (i.e. digitized book/dissertation), or at the end of an HTML page.

Guidelines for Content Creation: Access rights information must be entered in the form of text if a URI is not available. If both, URI and text are available, the URI is the preferred choice for this element. When using text, punctuation and syntax are not mandatory if not already contained in the resource. If both, URI and text are available, the URI is the preferred choice for this element. Alphanumerical values are accepted. For THECB LOR, use the default value.

Examples

2.3. Author’s Affiliation (Locally Defined Dublin Core Element Refinement)

Definition: An organization that author has affiliations with.

Chief Source of Data: authors’ associated affiliation

Guidelines for Content Creation: Enter the full name of the affiliation associated with first author. For hierarchical affiliation, list the parts of the hierarchy from largest to smallest, separated by a comma and a space. If no affiliation can be found, leave this element blank. For some collections in THECB LOR, this element uses default value.

Examples: University of North Texas University of North Texas, School of Library and Information Science; University of North Texas, College of Art Education, Department of Learning Technologies

2.4. Authors (Dublin Core Refinement Element)

Definition: An entity primarily responsible for making the content of the resource.
**Chief Source of Data:** Formally presented evidence found in the title screen(s), initial display(s) of information, home page(s), file header(s), document properties, and encoded metadata (such as XML tags), as applicable.

**Guidelines for Content Creation:** This element can be repeated for each person or entity responsible for the content. Personal names should be entered in the appropriate box for Last Name and First Name. If the name has a suffix such as Jr., Sr., or III, add it to the end of the first name (but do not separate with a comma) and follow with a period. Do not include any titles such as Dr. unless the title is necessary to identify the person. If the surname has added prepositions such as van or de, place them before the surname, and capitalize (or not) as it appears in the original. For organizations or other group names enter the full name in the Last name field only. Enter the name exactly as it appears in the resource keeping any additional article such as “The” where it naturally appears in the name (e.g., The University of Texas). For hierarchical organizations, list the parts of the hierarchy from largest to smallest, separated by a period and a space. Enter each name in the order it appears in the resource - for example, if there are three authors given, enter the first listed author first, the next author second, and the last author third. If no author name can be found, leave this element blank. **For some collections in THECB LOR, this element uses default values.**

**Examples:**

Last name = Brand    First name = Amy
Last name = van der Meer    First name = Jeff Jr.
Last name = Toshio Yamada    First name =
Last name = The University of North Texas    First name =
Last name = School of Library and Information Science. Metadata Committee    First name =

2.5. Course Name (Locally defined Dublin Core Element Refinement)

**Definition:** A name given to a course.

**Chief Source of Data:** Formally provided by the course author.

**Guidelines for Content Creation:** The title should be expressed using the general rules for capitalizing words in document titles set out in The Chicago Manual of Style: 1. Always capitalize the first and the last word; 2. Capitalize all nouns, pronouns, adjectives, verbs, adverbs, and subordinate conjunctions ("as", "because", "although"); 3. Lowercase all articles, coordinate conjunctions ("and", "or", "nor"), and prepositions regardless of length, when they are other than the first or last word; 4. Lowercase the "to" in an infinitive. If the course name is not provided by the author, the submitter should give a name for the course based on the content of the course. The course name may select according to DDC discipline category..

**Examples:** U.S. History I

2.6. Creation and Ownership Information (Dublin Core Element)

**Definition:** A statement of any changes in ownership and custody of the resource since its creation that are significant for its authenticity, integrity and interpretation.

**Chief Source of Data:** consult the resource itself and the resource creator.

**Guidelines for Content Creation:** The statement may include a description of any changes successive custodians made to the resource. **For THECB LOR, use the default value.**

**Examples:**
2.7. Date Created (Dubline Core Element Refinement)

**Definition:** Date of creation of the resource.

**Chief Source of Data:** the date related to when the item was created.

**Guidelines for Content Creation:** The date format should consult be in YYYY.

**Examples:** 2007

2.8. Date Issued (Dspace Defined)

**Definition:** Date of publication or distribution.

**Chief Source of Data:** the date related to when the item was published.

**Guidelines for Content Creation:** The date format should consult be in YYYY, MMM, leave the day out.

**Examples:** 2007 June

2.9. Difficulty Level (LOM Element Refinement)

**Definition:** How hard it is to work with or through this learning object for the typical intended target audience.

**Chief Source of Data:** IEEE LOM Difficulty Level Vocabulary

**Guidelines for Content Creation:** Selecting values from the drop down value list according to the submitted learning materials. According to IEEE LOM Difficulty Level Vocabulary, there are three values for this element: very easy, easy, medium, difficult, very difficult.

**Examples:** easy

2.10. Discipline and Sub-Discipline (LOM Element Refinement)

**Definition:** A particular term within a taxonomy. A taxon is a node that has a defined label or term. A taxon may also have an alphanumeric designation or identifier for standardized reference. Either or both the label and the entry may be used to designate a particular taxon.

**Chief Source of Data:** Taxon Terms.

**Guidelines for Content Creation:** Terms will be selected from default discipline and sub-discipline vocabulary.

**Examples:** History

2.11. Domain Cataloger (Locally Defined GEM Element Refinement)

**Definition:** The name of the individual responsible for creation of the description (metadata record) of a resource.
Chief Source of Data: If you created some domain metadata, for example the subjects, summary, your name is the source.

Guidelines for Content Creation: In THECB LOR, all names of THECB LOR team members have been given as default values, catalogers need to select their names from the name list given by the system. If there is more than one cataloger, this element can have more than one value by holding down “CTRL” or “Shift” key to select more than one value for this element from the drop down list.

Examples: Kelly McMichael

2.12. Educational Interactivity Level (LOM Element Refinement)

Definition: The degree of interactivity characterizing this learning object. Interactivity in this context refers to the degree to which the learner can influence the aspect or behavior of the learning object.

Chief Source of Data: IEEE LOM Interactivity Level Vocabulary

Guidelines for Content Creation: Selecting values from the drop down value list according to the submitted learning materials. According to IEEE LOM Interactivity Level Vocabulary, there are three values for this element: very low, low, medium, high, very High. Learning objects with 2.11: Educational.InteractivityType="active" may have a high interactivity level (e.g., a simulation environment endowed with many controls) or a low interactivity level (e.g., a written set of instructions that solicit an activity). Learning objects with 2.11: Educational.InteractivityType="expositive" may have a low interactivity level (e.g., a piece of linear, narrative text produced with a standard word processor) or a medium to high interactivity level (e.g., a sophisticated hyperdocument, with many internal links and views).

<table>
<thead>
<tr>
<th>Interactivity Type</th>
<th>Very Low</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>Test questions formatted for printing</td>
<td>Links provided with instructions for their exploration</td>
<td>Online multiple-choice exercise providing feedback</td>
<td>Dissection simulation with pre- and post-tests</td>
<td>3-D immersive simulation for completing prescribed series of steps</td>
</tr>
<tr>
<td><strong>Expositive</strong></td>
<td>Essay formatted for printing</td>
<td>Video clip with play, pause, and replay controls</td>
<td>Hypertext in which readers choose ending</td>
<td>Dissection simulation without evaluation components</td>
<td>3-D immersive environment for exploring remote location</td>
</tr>
</tbody>
</table>

Examples: low

2.13. Educational Interactivity Type (LOM Element Refinement)

Definition: Predominant mode of learning supported by this learning object.

Chief Source of Data: IEEE LOM Interactivity Type Vocabulary

Guidelines for Content Creation: Selecting values from the drop down value list according to the submitted learning materials. According to IEEE LOM Interactivity Type Vocabulary, there are three values for this element: active, expositive and mixed. In "active" mode, learners learn by doing, and it is
supported by content that directly induces productive action by the learner. An active learning object prompts the learner for semantically meaningful input or for some other kind of productive action or decision, not necessarily performed within the learning object's framework. Active documents include simulations, questionnaires, and exercises. In "expositive" mode, learning (e.g., passive learning) occurs when the learner's job mainly consists of absorbing the content exposed to him (generally through text, images or sound). An expositive learning object displays information but does not prompt the learner for any semantically meaningful input. Expositive documents include essays, video clips, all kinds of graphical material, and hypertext documents. When a learning object blends the active and expositive interactivity types, then its interactivity type is "mixed". **Active:** Most of the learners' time is spent interacting through input and feedback. **Mixed:** Requiring input from the user and responding to this. (Thus resources which require the following of links cannot be classified as Interactive.) **Expositive:** No response to the user that is dependent on the user's input, beyond the normal responses of hypertext. (i.e. clicking on links.)

**Examples:** mixed

### 2.14. Is a Component Part of (Dublin Core Element Refinement)

**Definition:** Describe the relationship of a child LO to its parent LO in the same course.

**Chief Source of Data:** This element will be extracted from the relation of the submitted resource with other resources.

**Guidelines for Content Creation:** This element will contain the title and identifier URL which points to its parent learning object.

**Examples:** http://zed.lis.unt.edu:8083/dspace/handle/2188/217: Lesson One: Pre-Columbian America

**Note:** Lesson One includes five topics one of which is this resource. So this LO is a component part of Lesson One

### 2.15. Has Component Parts (Dublin Core Element Refinement)

**Definition:** Describe the relationship of a parent LO to its children LOs in the same course.

**Chief Source of Data:** This element will be extracted from the relation of the submitted resource with other resources.

**Guidelines for Content Creation:** This element will contain the title and identifier URL which points to its children learning objects.

**Examples:** The Americas Before Columbus: http://zed.lis.unt.edu:8083/dspace/handle/2188/25
How Did the First People Come to the Americas?: http://zed.lis.unt.edu:8083/dspace/handle/2188/26

**Note:** This LO is the Lesson One: Pre-Columbian America. It has five topics as the example. So this LO has the above component parts.
2.16. Identifier (Dublin Core Element)

**Definition:** An unambiguous reference to the resource within a given context.

**Chief Source of Data:** This information is system-supplied.

**Guidelines for Content Creation:** This information is system-supplied.

**Examples:** [http://hdl.handle.net/123456789/23](http://hdl.handle.net/123456789/23)

2.17. Instructional Method (Dublin Core Element)

**Definition:** A process, used to engender knowledge, attitudes and skills, that the resource is designed to support.

**Chief Source of Data:** consult the THECB LOR Instructional Method Terms

**Guidelines for Content Creation:** Selecting values from the drop down value list according to the submitted learning materials. To select more than one value in the list, you may have to hold down the "CTRL" or "Shift" key.

**Examples:** Case Study

**Suggested Vocabulary:** The following is the table of suggested Instructional Method Vocabulary. The left volume provides the method terms and the right column provides associated definitions.

<table>
<thead>
<tr>
<th>Method</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment Item</td>
<td>An item designed to measure student learning</td>
</tr>
<tr>
<td>Activity Exercise</td>
<td>A task that students are asked to do that develop particular skills, knowledge, or habits of mind</td>
</tr>
<tr>
<td>Case Study</td>
<td>A learning resource that is a detailed account of a process or activity</td>
</tr>
<tr>
<td>Computer-Based Tutorial Instruction</td>
<td>A computer-based resource that provides guided, practical information about a specific subject</td>
</tr>
<tr>
<td>Computer simulations</td>
<td>A representation of a process, activity, organization, or object</td>
</tr>
<tr>
<td>Course Lecture Presentation Notes</td>
<td>A set of notes or slides that accompany a course, lecture, presentation, speech, or classroom session</td>
</tr>
<tr>
<td>Cooperative learning</td>
<td>Learning engaged in by groups of 2 or more students</td>
</tr>
<tr>
<td>Demonstrations</td>
<td>A video or audio recording or a transcript of a practical exhibition of a process, activity, or object</td>
</tr>
<tr>
<td>Curriculum Syllabus</td>
<td>Outlines of courses and modules and their contents. General material describing a course or unit of study</td>
</tr>
<tr>
<td>Discussions</td>
<td>Activity that generates discussion from a student or students</td>
</tr>
<tr>
<td>Examination Test</td>
<td>Several assessment items that measure student learning</td>
</tr>
<tr>
<td>Experiential learning</td>
<td>Hands-on highly active learning that includes discussion, case studies, role-playing, and simulations</td>
</tr>
<tr>
<td>Glossary</td>
<td>A collection of specialized terms and their meanings</td>
</tr>
<tr>
<td>Interdisciplinary</td>
<td>Instructional item that can be used across disciplines</td>
</tr>
<tr>
<td>Learning Module</td>
<td>Complete lesson that contains all content for a specific topic</td>
</tr>
<tr>
<td>Lecture Presentation</td>
<td>A video or audio recording or a transcript of a lecture, presentation, speech or classroom session</td>
</tr>
<tr>
<td>Multiple Activities</td>
<td>Activity that contains multiple items</td>
</tr>
<tr>
<td>Multimedia Instruction</td>
<td>Activity that includes audio and video, in addition to text</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Project-based learning</td>
<td>Activity that includes hands-on learning extending over time</td>
</tr>
<tr>
<td>Role playing</td>
<td>Activity that includes in-class role playing</td>
</tr>
<tr>
<td>Games</td>
<td>Activity that includes gaming or gaming theory that can be used in-class or online</td>
</tr>
<tr>
<td>Simulations</td>
<td>Activity that includes simulations that can be used online or in-class</td>
</tr>
<tr>
<td>Student Success guide</td>
<td>A guide created to provide students with hints, techniques, or management ideas in a particular area</td>
</tr>
<tr>
<td>Teaching guide</td>
<td>A guide created to provide teachers with hints, techniques, or management ideas in a particular area</td>
</tr>
<tr>
<td>Podcast</td>
<td>An audio recording of content</td>
</tr>
<tr>
<td>Vodcast</td>
<td>A video recording of content</td>
</tr>
<tr>
<td>Visual instruction</td>
<td>Object used primarily for its ability to convey content visually. Includes images and flash maps</td>
</tr>
</tbody>
</table>

2.18. Intellectual Property Rights (Dublin Core Element)

**Definition:** Information about rights held in and over the resource.

**Chief Source of Data:** Consult a cover page, or if an electronic resource, the end of the document.

**Guidelines for Content Creation:** Rights information, maintained by the author or rights holder, must be entered in the form of text if a URI is not available. If URI and text is available, the URI is the preferred choice for this element. If text is the only option, full sentences and punctuation are not mandatory, if not already contained in the resource. Alphanumerical values are accepted. For THECB LOR, use the default value.

**Examples:**

2.19. Intended Educational Audience (Dublin Core Element Refinement)

**Definition:** A general statement describing the education or training context. Alternatively, a more specific statement of the location of the audience in terms of its progression through an education or training context.

**Chief Source of Data:** consult the resource itself, and select data from THECB LOR Audience Educational Level Terms

**Guidelines for Content Creation:** Selecting values from the drop down value list according to the submitted learning materials.

**Examples:** Graduate

2.20. IMS Content Package (Dublin Core Element Refinement)

**Definition:** A reference to a related resource.

**Chief Source of Data:** IMS Content Package Identifier.

**Guidelines for Content Creation:** Your may leave it blank unless you get the related IMS content package identifier URL which is under the collection of IMS Content Packages
Examples:  http://hdl.handle.net/2188/1226

2.21. Learning Object Description (Dublin Core Element Refinement, for the collection of IMS Content Packages)

Definition: A reference to a related LOs.

Chief Source of Data: the relating LO's handle URI.

Guidelines for Content Creation: Your may check the relating LOs in collections under History Courses community and put the handle URI.

Examples:  http://hdl.handle.net/2188/707

2.22. Language (Dublin Core Element)

Definition: A language of the intellectual content of the resource.

Chief Source of Data: The resource itself.

Guidelines for Content Creation: Choose a vale from the drop down menu provided. If the information entity appears in more than one language, you may have to hold down the “CTRL” or “Shift” key.

Examples: en

2.23. Learning Object Type (Dublin Core Element)

Definition: The nature or genre of the content of the resource.

Chief Source of Data: The content of the resource itself. The data is select from the DCMI Type Vocabulary [DCMITYPE].

Guidelines for Content Creation: This element includes terms describing different types of resources. Recommended best practice is to use a controlled vocabulary such as the DCMI Type Vocabulary [DCMITYPE]. Select the value(s) for this element from the drop down list. If the resource being submitted contains several resource types, you may have to hold down the “CTRL” or “Shift” key to select more than one value in the list. To describe the file format, physical medium, or dimensions of the resource, use the Technical Requirement (2.22.) element.

Examples: Lesson

2.24. Learning Object’s Contents (Dublin Core Element Refinement)

Definition: A list of subunits of the content of the resource.

Chief Source of Data: Consult the contents of the resource.
Guidelines for Content Creation: Can simply list the topics that are part of the lesson or course. For the history course Learning Objects in THECB LOR, you may refer to the following table:

<table>
<thead>
<tr>
<th>Learning Object’s Contents (use this as a guide to fill in this area)</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lesson</td>
</tr>
<tr>
<td></td>
<td>Single lesson page within lesson XX</td>
</tr>
</tbody>
</table>

Examples:

Lessons’ Topic:

1. The Americas Before Columbus
2. How did the First People Come to the Americas?
3. Central and South American Natives

2.25. Media Format (Dublin Core Element)

Definition: The physical or digital manifestation of the resource. Typically, Format may include the media-type.

Chief Source of Data: the Learning Object itself.

Guidelines for Content Creation: Selecting values from the drop down value list according to the submitted learning materials.

Examples: Audio

2.26. Metadata Cataloger (GEM Element Refinement)

Definition: The name of the individual responsible for creation of the description (metadata record) of a resource.

Chief Source of Data: If you are submitting a resource or created metadata, your name is the source.

Guidelines for Content Creation: In THECB LOR, all names of THECB LOR metadata team members have been given as default values, catalogers need to select their names from the name list given by the system. If there is more than one cataloger, this element can have more than one value by holding down “CTRL” or “Shift” key to select more than one value for this element from the drop down list.

Examples: Amy Brand

2.27. Other Contributors (Dublin Core Element Refinement)

Definition: An entity responsible for making significant contribution to the content of the resource
Chief Source of Data: Formally presented evidence found in the title screen(s), initial display(s) of information, home page(s), file header(s), document properties, and encoded metadata (such as XML tags), as applicable.

Guidelines for Content Creation: Use this element if: a) the primary author is unknown or irrelevant, and/or 2) there are entities named whose input is clearly secondary to that of the main author(s). If these two conditions are not applicable, then this element may be left blank. If used, this element should be repeated for each person or entity who contributes to the content. Personal names should be entered in the appropriate box for Last Name and First Name. If the name has a suffix such as Jr., Sr., or III, add it to the end of the first name (but do not separate with a comma) and follow with a period. Do not include any titles such as Dr. unless the title is necessary to identify the person. If the surname has added prepositions such as van or de, place them before the surname, and capitalize (or not) as it appears in the original. For organizations or other group names enter the full name in the Last name field only. Enter the name exactly as it appears in the resource keeping any additional article such as “The” where it naturally appears in the name (e.g., The University of Texas). For hierarchical organizations, list the parts of the hierarchy from largest to smallest, separated by a period and a space. Enter each name in the order it appears in the resource - for example, if there are three contributors given, enter the first listed contributor first, the next contributor second, and the last contributor third. If no contributor can be found, leave this element blank.

Examples:
- Last name = Brand    First name = Amy
- Last name = van der Meer     First name = Jeff Jr.
- Last name = Toshio Yamada        First name =
- Last name = The University of North Texas      First name =
- Last name = School of Library and Information Science. Metadata Committee       First name =

2.28. Other Titles (Dublin Core Element Refinement)

Definition: Any form of the title used as a substitute or alternative to the formal title of the resource.

Chief Source of Data: Formally presented evidence found in the title screen(s), initial display(s) of information, home page(s), file header(s), document properties, and encoded metadata (such as XML tags), as applicable.

Guidelines for Content Creation: The alternative title should be expressed using the general rules for capitalizing words in document titles set out in The Chicago Manual of Style: 1. Always capitalize the first and the last word; 2. Capitalize all nouns, pronouns, adjectives, verbs, adverbs, and subordinate conjunctions ("as", "because", "although"); 3. Lowercase all articles, coordinate conjunctions ("and", "or", "nor"), and prepositions regardless of length, when they are other than the first or last word; 4. Lowercase the “to” in an infinitive.

Examples: Creating Web Pages with HTML

2.29. Publisher (Dublin Core Element)

Definition: An entity responsible for the original publication of the resource.

Chief Source of Data: Formally presented evidence found in the title screen(s), initial display(s) of information, home page(s), file header(s), and encoded metadata (such as XML tags), as applicable.

Guidelines for Content Creation: This element should be repeated for each entity responsible for the original publication of the resource. For organizations or other group names enter the full name in the Last name field only. Enter the name exactly as it appears in the resource keeping any additional article such as “The” where it naturally appears in the name (e.g., The University of Texas). For hierarchical
organizations, list the parts of the hierarchy from largest to smallest, separated by a comma and a space. If no publisher can be identified, leave this element blank. For some collections in THECB LOR, this element uses default values.

Examples: The University of North Texas, School of Library and Information Science

2.30. Rights Holder (Dublin Core Element)

Definition: A person or organization owning or managing rights over the resource.

Chief Source of Data: Consult the beginning of an electronic resource (i.e. digitized book/dissertation), or the end of an HTML page.

Guidelines for Content Creation: The URI and/or the name of an individual or entity can be used for the Rights Holder element. If the rights holder is an individual, the order of Last Name First Name must be followed (do not separate with a comma). If there is doubt as to what order should be used, the name should not be inverted. If the name has a suffix such as Jr., Sr., or III, add it to the end of the first name (but do not separate with a comma) and follow with a period. If the surname has added prepositions such as van or de, place them before the surname. If the rights holder is an organization or other group, the name must be entered exactly as it appears in the resource keeping any additional article such as “The” where it naturally appears in the name (The University of Texas). For hierarchical organizations, list the parts of the hierarchy from largest to smallest, separated by a period and a space. The name of the individual or organization should be followed by an URI, if available. A space, semi-colon (;), space must separate the name of the individual or entity, and the URI. Follow capitalization as it appears in the resource. For THECB LOR, use the default value.

Examples:

2.31. Size of Object

Definition: Describe the functional granularity of a LO.

Chief Source of Data: The structure of the LO.

Guidelines for Content Creation: Select the granularity level of the LO.

Examples: level I

Note: level one is a smallest chunk of LO. It cannot be divided.

2.32. Subjects (Dublin Core Element)

Definition: The topic of the resource. Controlled subject term(s) chosen from the THECB LOR Subject Terms.

Commentary: This element can be repeated. This element must appear at least once in a metadata record.

Chief Source of Data: THECB LOR Subject Terms.

Guidelines for Content Creation: THECB LOR terms and phrases are used as data values for this element. They must be selected so as to significantly and concisely describe the content of the resource.
Submitters can select a major category or a narrower category as a subject term. But if the content warrants it, submitters can select both a broad category and a narrower category. The element must appear at least once in a metadata record. No additional rules, pertaining to syntax, are necessary, as these terms and phrases are pre-determined. If there are no terms fit to this resource, metadata creator can create according to the contents of this resource. For THECB LOR, use the default subject vocabulary which can be developed by THECB LOR team.

Examples: Hopewell

2.33. Summary (Dublin Core Element Refinement)

Definition: A summary of the content of the resource in the form of a formal abstract.

Chief Source of Data: Consult the beginning of the content of the resource.

Guidelines for Content Creation: Only the abstract of the resource can be used for this element, which can be extracted from the resource or created by the metadata creator. If neither option is available, the element Description must be employed to contain a description of the resource. Proper syntax and punctuation must be used if the abstract is created by the metadata creator. A concise but descriptive writing style (containing full sentences) is recommended, although there are no size limits enforced.

Examples: This project is intended to provide students, professors, and library professionals with metadata and cataloging practices and research.

2.34. Technical Requirements (LOM Element Refinement)

Definition: The technical capabilities necessary for using this learning object.

Chief Source of Data: examine the file extension to determine the file format. For example, a PDF viewer or editor for .pdf, a graphics program for .png, .gif or .jpg, a spreadsheet program for .xls or .ods, and a flash for .swf.

Guidelines for Content Creation: Selecting values from the drop down value list according to the submitted learning materials. To select more than one value in the list, you may have to hold down the "CTRL" or "Shift" key.

Examples: Flash

2.35. Texas Common Course Number (Locally defined Dublin Core Element Refinement)

Definition: Describe the Texas common course number.

Chief Source of Data: the LO’s Texas common course number system.

Guidelines for Content Creation: input the Texas common course number of this course.

Examples: HIST 1301

Note: It is provided by course creator. The website is http://www.tccns.org/
2.36. Title (Dublin Core Element)

Definition: A name given to the resource.

Chief Source of Data: Formally presented evidence found in the course outline, the title screen(s), initial display(s) of information, home page(s), file header(s), document properties, and encoded metadata (such as XML tags), as applicable.

Guidelines for Content Creation: The title should be expressed using the general rules for capitalizing words in document titles set out in The Chicago Manual of Style: 1. Always capitalize the first and the last word; 2. Capitalize all nouns, pronouns, adjectives, verbs, adverbs, and subordinate conjunctions (“as”, “because”, “although”); 3. Lowercase all articles, coordinate conjunctions (“and”, “or”, “nor”), and prepositions regardless of length, when they are other than the first or last word; 4. Lowercase the “to” in an infinitive. If there are multiple titles, other titles should be expressed in Other Titles (see 2.2 Other Titles). If no title at all can be found, the submitter must enter a simple, descriptive title of his/her own choosing. For the history course Learning Objects in THECB LOR, you may refer to the following table:

<table>
<thead>
<tr>
<th>Titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Units titled: Unit 1: Name of Unit</td>
</tr>
<tr>
<td>All lessons titled: Lesson 1: Name of Lesson</td>
</tr>
<tr>
<td>All pages titled: name of page</td>
</tr>
<tr>
<td>All objects titled: name of object</td>
</tr>
</tbody>
</table>

Examples: Central and South American Indians

2.37. Title (Dublin Core Element, for the collection of IMS Content Packages)

Definition: The title of the IMS content packages name.

Chief Source of Data: LOs’ structure and names.

Guidelines for Content Creation: You may create the title according to the style: Unit #, Unit # Lesson #, Unit # Lesson # Topic #, or Case Study #.

Examples: Unit 1

Unit 1 Lesson 1

2.38. Typical Learning Time (LOM Element Refinement)

Definition: Approximate or typical time it takes to work with or through this learning object for the typical intended target audience.

Chief Source of Data: consult the resource itself.

Guidelines for Content Creation: Select the learning time according to the following table. If there is no value fit the learning object, you may select "varies (see summary)", and then in the summary you can indicate the typical learning time.
<table>
<thead>
<tr>
<th>Learning Object Type</th>
<th>Learning Object Type</th>
<th>Instructional Method</th>
<th>Typical Learning Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>Lesson</td>
<td>Multimedia Instruction</td>
<td>10 hours</td>
</tr>
<tr>
<td>Lessons</td>
<td>Lesson</td>
<td>Multimedia Instruction</td>
<td>2.5 hours</td>
</tr>
<tr>
<td>Single page of Lesson XX</td>
<td>Lesson</td>
<td>Multimedia Instruction</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Freestanding Learning Object</td>
<td>Case Study Game Simulation Map Instructor Guide Glossary Curriculum Assessment Demonstration Music Audio Video</td>
<td>Will vary</td>
<td>Vary, ranging between 5 mins and several days, for the case studies (or games, simulations)</td>
</tr>
</tbody>
</table>

**Examples:** 10 hours, 5 minutes