

## **Final Map Documentation Manual**

Project Title: Team 2: Electronic theses/dissertations (ETDs)

Project Collaborators: Willem Helf, Bria Pickel, MJ Ray, Yuan Sciscent  
Metadata Design | Professor Alexandra Provo | Fall 2025

### **Table of Contents**

Introduction.....	1
Project Principles and Functional Requirements.....	2
ETDs Domain Model.....	5
Element Set.....	6
Crosswalk.....	8
Metadata Entry Form.....	10
Cataloging Best Practice Guidelines.....	11
Introduction.....	12
Authority Control / Value Constraints Quick Guide.....	13
Team 2: ETDs Elements List.....	14
Metadata Entry Mechanism Example.....	15
Team 2: ETDs Metadata Elements.....	16
Appendices:.....	23

## **Introduction**

Welcome to Team 2: Electronic Theses and Dissertation Metadata Application Profile (MAP). This manual and the MAP were created by Willem Helf, Bria Pickel, MJ Ray, and Yuan Sciscent under the mentorship of Professor Alexandra Provo.

The MAP was created for a collection of twenty electronic Master's theses and dissertations written about typography from various repositories in the United States, Canada, the United Kingdom, the Netherlands, France, Chile, and Australia. This profile contains a set of metadata elements used to describe an electronic thesis or dissertation, as well as mappings, crosswalks, and other supporting documentation to aid in the continuation of this project and the processing of future electronic theses and dissertations collections.

The metadata elements within this MAP utilize two distinct schemas: **Metadata Object Description Schema (MODS)** Version 3.8 and the Networked Digital Library of Theses and Dissertations: an **Interoperability Metadata Standard for Electronic Theses and Dissertations (NDLTS ETD-MS)** Version 1.2.

## **Project Principles and Functional Requirements**

### **Project Principles**

The list of project principles outlines the values the project collaborators adhered to throughout the creation of the metadata application profile. The qualities this project and our principles aim to capture are consistency, representativeness, completeness, and conformance to expectations.

1. Metadata should be easily understandable by both humans and computers.  
Project members should use clear and accessible terminology, controlled vocabularies, and definitions that can be read by researchers, museum professionals, librarians, and computers. This can enable preservation, discoverability, and a positive user experience for all individuals interested in interacting with the metadata. (Baca)
2. Metadata creation should be guided by empathy, ethics, and consideration.  
Project members recognize that metadata describes people, communities, and cultural materials that carry deep meaning, and the terminology used should be intentional and respectful to the people and communities being described. (Baca)
3. There is no “one-size-fits-all” metadata schema or controlled vocabulary or data content (cataloging) standard.  
Project members will carefully select the appropriate suite of metadata schemas and controlled vocabularies (including collection-specific thesauri and local pick lists), as well as the most suitable cataloging standards (including local cataloging guidelines based on published standards), to best describe and provide access to their collections and other resources. (Baca)
4. Consider context.  
Project members acknowledge that data are not neutral or objective. They are the products of unequal social relations, and this context is crucial for conducting accurate and ethical analysis. (D’Ignazio and Klein)
5. Prioritizing Consistency and Searchability  
Project members will prioritize standards and communication to maximize searchability, including but not limited to consistency in formats such as dates, authors, or abbreviations, separate entries for fields like subjects and authors, and the use of controlled vocabularies.
6. Embracing Complexity and Adaptability  
Project members recognize that standards change over time, so we will make every decision with the idea that things will evolve. Additionally, the description of ETDs presents challenges that have no single, definitive solution. Because ETDs vary across institutions, disciplines, and technologies, we recognize the need to develop flexible and

iterative practices. Evolution ensures that metadata is accountable, accessible, and collaborative.

7. An iterative and collaborative process

Project members understand that each brings a unique set of skills, prior knowledge, and experiences that contribute to the project's success. Members also understand that just as there is no singular "right" metadata standard, there is no singular "right" way for a project to come together, and that completing it successfully will require embracing different approaches and ideas throughout various stages of the project.

### **Functional Requirements**

The following list outlines how the collaborators envision the elements to be interacted with by the user.

"We want users to:

- Search by:
  - Title
  - Translated Title
  - Identifier
  - Author
  - Abstract
  - Subject
  - Author First Name
  - Author Last Name
  - Committee Member First Name
  - Committee Member Last Name
  - Degree Level
  - Degree Discipline
- Browse/filter by:
  - Title
  - Translated Title
  - Language
  - Author
  - Subject
  - Author First Name
  - Author Last Name
  - Committee Member First Name
  - Committee Member Last Name
  - Degree Level
  - Degree Discipline
- View:
  - Title
  - Translated Title
  - Identifier
  - Type
  - Format
  - Language
  - Author
  - Abstract

- Date
- Subject
- Degree
- Committee Member
- PDF File
- Rights Information
- Committee Member Role
- Author Role
- Repository Name
- Degree Level
- Degree Name
- Degree Discipline
- Grantor
- Grantor Identifier
- Sort by:
  - Date
  - Title (A-Z)
  - Author (A-Z by surname)

Behind the scenes, we need to:

- Link PDF file locations and identifier(s) to descriptive metadata records.”  
(Assignment Requirements)

### **ETDs Domain Model**

For our Domain Model, we chose to keep the main focus on the Electronic Thesis and Dissertation (ETD) itself and prioritize the source information. In addition to the ETD, we wanted to capture metadata on the author, contributors, and the degree the author is applying for. This resulted in 4 main entities, ETDs, Author, Contributor, and Degree. Later, we decided to capture the degree granting institution as its own entity instead of as an element within Degree, making it the 5th entity. In the end we had 5 entities.

The following is a list of the Attributes for each Entity:

#### ETDs

- Title
- Translated title
- Identifier
- Type
- Format
- Language
- Author
- Abstract
- Date
- Subject
- Degree
- Committee member
- PDF file
- Repository name
- Rights information

#### Author

- Author first name
- Author last name
- Author role

#### Contributor

- Committee member first name
- Committee member last name
- Committee member role

#### Degree

- Degree name
- Degree level
- Degree discipline

#### Grantor

- Grantor
- Grantor identifier

The degree granting institution, labelled as the Grantor entity, is captured with a controlled identifier through The Library of Congress Name Authority File (LCNAF) Number, making it the 5th entity. We chose to make it its own entity because we needed to add both a display label and the LCNAF number.

See [Appendix A](#)

### **Element Set**

After identifying our 5 entities as ETDs, Author, Contributor, Degree, and Degree Grantor, we had to consider which schema we would choose our elements from, which would ultimately shape how they are defined, what controlled vocabularies we could use, and what metadata will be used in what ways to meet our Functional requirements.

Element sets we reviewed in our research:

**ETD-MS** is a metadata schema that is widely used in various institutions in the USA, UK, and Australia, specifically for the materials in our collection. Since this is a widely used and established schema, we can benefit from learning about the vocabularies as they relate to the functional requirements in our project.

- We found this schema in a paper called “An Analysis of Evolving Metadata Influences, Standards, and Practices in Electronic Theses and Dissertations” by Sarah Potvin and Santi Thompson
- Because of how many repositories and other well used element sets reference this schema, we chose multiple elements from ETD-MS to put in our own element set.

**Les métadonnées des thèses électroniques françaises (translation: Metadata of French Electronic Theses) (TEF)**

- TEF metadata schema is used for electronic theses in France. Though it is a metadata schema, it uses XML formats, METS headers, and Dublin Core elements. Combining elements from other schemas and utilizing XML allows this schema to be interoperable and readable in other systems and vice versa. This metadata schema covers descriptive metadata and management metadata. The latest version was last updated in 2006.
- TEF metadata schema would be a good fit for our project because its elements and properties effectively support the functional requirements we intend to establish.

**Texas Digital Library Descriptive Metadata Guidelines for Electronic Theses and Dissertations**

- This schema was created specifically for a group of Texas Universities to have consistent metadata across their institutions' ETDs, as well as a goal to make them all accessible via the same system. Our project is on ETDs specifically, and this schema gives a great baseline for ideas of how to organize the niche information.
- We found this schema using the MODS Implementation Registry after searching for the keyword “dissertation”.
- After much discussion, even though this schema introduces a new element, it is more of an element set than a unique new metadata schema. It was still useful to see an example of a well used element set and helped guide out thinking about what schemas and elements we would borrow from, but we ultimately had nothing new to choose from this set.

Originally, we were going to go with DublinCore elements because the ETD-MS schema also used DublinCore. After deeper investigation, we went with MODS instead because MODS is generally more granular. We could parse names out and capture both given names and family

names. The structure matched the structure we laid out in our domain model closer. MODS is also better suited for library applications.

The final element set is as follows:

Entity Label	Element Label	Element
ETD	TITLE	<mods:titleInfo lang="__"><title>
ETD	TRANSLATED TITLE	<mods:titleInfo lang="__" type="translated"><title>
ETD	IDENTIFIER	<mods:identifier>
ETD	TYPE	<mods:typeOfResource>
ETD	FORMAT	<physicalDescription><internet MediaType>
ETD	LANGUAGE	<mods:language>
ETD	AUTHOR	<mods:name>
ETD	ABSTRACT	<mods:abstract>
ETD	DATE	<mods:dateIssued>
ETD	SUBJECT	<mods:subject><topic>
ETD	DEGREE	<etd-ms:thesis.degree>
ETD	COMMITTEE MEMBER	<mods:name>
ETD	PDF FILE	<mods:location><url>

ETD	REPOSITORY NAME	<mods:location>
ETD	RIGHTS INFORMATION	<mods:note type=rights>
AUTHOR	AUTHOR FIRST NAME	<mods:name><namePart type="given">
AUTHOR	AUTHOR LAST NAME	<mods:name><namePart

		type="family">
<b>AUTHOR</b>	<b>AUTHOR ROLE</b>	<mods:name><role type=text>
<b>COMMITTEE MEMBER</b>	<b>COMMITTEE MEMBER FIRST NAME</b>	<mods:name><namePart type="given">
<b>COMMITTEE MEMBER</b>	<b>COMMITTEE MEMBER LAST NAME</b>	<mods:name><namePart type="family">
<b>COMMITTEE MEMBER</b>	<b>COMMITTEE MEMBER ROLE</b>	<mods:name>role type=text>
<b>DEGREE</b>	<b>DEGREE NAME</b>	<etd-ms:thesis.degree.name>
<b>DEGREE</b>	<b>DEGREE LEVEL</b>	<etd-ms:thesis.degree.level>
<b>DEGREE</b>	<b>DEGREE DISCIPLINE</b>	<etd-ms:thesis.degree.discipline>
<b>GRANTOR</b>	<b>GRANTOR</b>	<etd-ms:thesis.degree.grantor>
<b>GRANTOR</b>	<b>GRANTOR IDENTIFIER</b>	<mods:identifier>

See [Appendix B](#).

### **Crosswalk**

In order to maximize interoperability, we crosswalked our element fields to [Schema.org](#), DublinCore and CollectionBuilder elements. The mappings are laid out in our element set (Appendix B).

#### [Schema.org](#)

All of our elements map to [Schema.org](#) well and did not require any transformations.

#### DublinCore

Not as many elements were able to be crosswalked to DublinCore due to its flatter structure and more general granularity as compared to the specificity involved with cataloging ETDs. The elements that could be crosswalked were:

- Title → DCTERMS:title
- Translated Title → DCTERMS:alternative
- Identifier → DCTERMS:identifier
- Type → DCTERMS:type
- Format → DCTERMS:format
- Language → DCTERMS:language
- Author → DCTERMS:Creator

- Abstract → DCTERMS:description
- Date → DCTERMS:date
- Subject → DCTERMS:subject
- Committee Member → DCTERMS:contributor
- PDF File → DCTERMS:format
- Repository Name → DCTERMS:publisher
- Rights Information → DCTERMS:rights

DublinCore as a flat structure struggles to have fields that could properly capture the degree related information including the academic roles attributed to the contributors. In the case of needing to crosswalk to DublinCore, it might be necessary to combine with our fields as local fields, or use a note or description field to capture the degree information.

### CollectionBuilder

Our fields mapped relatively to the CollectionBuilder fields, although it is a flat structure just like DublinCore, so it did require some shifting and transformation. There were seven fields that we were unable to map and had to opt for local elements instead.

- Translated Title → translated\_title
- Committee Member → committee\_member
- Degree → thesis\_degree
- Degree Name → thesis\_degree\_name
- Degree Level → thesis\_degree\_level
- Degree Discipline → thesis\_degree\_discipline
- Grantor → thesis\_degree\_grantor

Due to the flat structure, we also had to opt to omit a few fields when crosswalking to CollectionBuilder, including the fields for authors and committee members first and last names as those were for indexing and are unable to be mapped. It also included the author role, because this field is also for indexing and it is unnecessary to display author role in the cell with the author name, like we chose to do with the committee members, when that is assumed. Crosswalking to CollectionBuilder requires a few transformations in order to comply:

- Identifier numbers must be changed to have the leading letters of the number (ETD) in lowercase (etd)
- There is a requirement for the type field that at minimum it must include DCMI Type Vocabulary, but can be followed by a more specific type separated by a semicolon. Inputs become "Text; Bachelor's Thesis", "Text; Master's Thesis", and "Text; Doctoral Dissertation"
- For format, you must use CollectionBuilder default options, so input becomes "PDF"
- For language, CollectionBuilder only uses the language tags, omitting the full written term, so use of the tags only for the field in CollectionBuilder.
- Committee Member roles must be combined with the respective committee member names in the committee member field enclosed in parentheses
- Any fields that have multiples (ex. creator, subject, committee member) must be in the same entry and separated by a semicolon.

See [Appendix C](#).

### **Metadata Entry Form**

While the metadata application profile is organized as a nested structure, the Metadata Entry Form is expressed in the form of a spreadsheet, which presents the data in a flat structure.

Within this Metadata Entry Form, there are four subtabs:

- Main Entry
- LCSH Subject Tags
- People
- IETF Language Tags

All people's names, separated from their roles, are located in the “People” subtab. Originally, we wanted to combine an individual’s role next to their name; however, we felt it was not a sustainable choice, as the individual’s role may change depending on the thesis or dissertation. Without this foresight, it could have led to issues with the MAP's longevity.

To create a simulation of an actual catalog form for the cataloger, we programmed certain element fields with auto-populated values. These values are ‘Identifier’, ‘Format’, and ‘Author Role’. We made the ‘Identifier’ field auto-populate because we felt that identifiers would normally not be created by the cataloger, but by the computer, institutional system, or an external source (i.e., barcodes).

We decided to make the ‘Format’ and ‘Author Role’ element fields auto-populate because the values were consistent across all items being cataloged.

For consistency, we also incorporated a drop-down menu with pre-determined values for elements ‘Type’ and ‘Degree Level’.

All other element fields are open-text, as we want the metadata entries to be exactly as written on the paper. It was important to us to remain true to the material content as closely as possible.

See [Appendix D](#).

### **Cataloging Best Practice Guidelines**

The cataloging guidelines accompany the Metadata Entry Mechanism and are designed to assist catalogers in cataloging ETD materials. The guidelines also outline information related to the Metadata Application Profile and the details contained in the Element Set. Some components in our elements that are reflected in the guidelines are: the MODS/ETD-MS element and cardinality. We felt it was also important to highlight the authority controls and value constraints. The table of contents in our guidelines is as follows:

- Introduction
- Authority Control / Value Constraints Quick Guide
- Elements List
- Metadata Entry Mechanism Example
- Elements Guidelines

## **Best Practices Guidelines**

Metadata Design | Professor Alexandra Provo | Fall 2025

Project Title: Team 2: Electronic theses/dissertations (ETDs)

Project Collaborators: Willem Helf, Bria Pickel, MJ Ray, Yuan Sciscent

### **Table of Contents**

Introduction	1
Authority Control / Value Constraints Quick Guide	3
Team 2: ETDs Elements List	4
Metadata Entry Mechanism Example	5
Team 2: ETDs Metadata Elements	6

### **Introduction**

Welcome to Team 2: Electronic theses/dissertations (ETDs). For our metadata application profile, we decided to use two metadata schemas to describe our files: [ETD-MS \(Version 1.2\)](#) and [MODS \(version 3\)](#).

**MODS** – a multi-purpose bibliographic description schema implemented in XML that enables creation of original resource description records. As well as its own specific fields, it includes a subset of MARC fields but, unlike MARC, uses language-based tags rather than numeric tags.

**ETD-MS** – A standardized set of metadata elements used for describing electronic theses or dissertations. It is composed mainly of Dublin Core elements, but adds a new element (*thesis*) specifically for descriptions of theses.

#### **Cataloger Tools:**

**[ETDs: MAP Cataloging Work Tracker](#)**

Please express any questions, concerns, or comments in our [Feedback Form](#).

## Authority Control / Value Constraints Quick Guide

**Type:** This field only has two value options which is “masters thesis” or “doctorate dissertation”

**Format:** This field uses a [MIME Type](#) called “application/pdf”. The metadata entry mechanism will autopopulate this value.

**Language:** This field uses [IETF Language Tag](#). The metadata entry mechanism asks that you search by full name of the language.

**Date:** This field is represented in the form of YYYY pattern which indicates the year found on the dissertation or thesis PDF file.

**Subject:** This field uses [LC Subject Headings \(LCSH\)](#). If inputting subjects, please include the name and the identifier number. Identifier numbers are found in the search results and generally start with the prefix “sh”.

**Grantor:** This field uses [LCNAF](#). Please include the name of the institution as found in LCNAF and the identifier number. Identifiers are found in the search results and all LCNAF types for universities are “LC Name: CorporateName”.

## Team 2: ETDs Elements List

*Click on any element below to learn more information about the element and its cataloging instructions.*

### List of **Mandatory** elements

Identifier  
Title  
Type  
Format  
Language  
Author  
Author first name  
Author last name  
Author role  
Date  
Subject  
PDF file  
Degree name  
Degree level  
Degree discipline  
Grantor  
LCNAF Number

### List of **Optional** elements

Translated Title  
Abstract  
Committee Member  
Committee member first name  
Committee member last name  
Committee Member Role  
Repository Name  
Rights Information

## Metadata Entry Mechanism Example

Element	Example Value
Identifier**	ETD_0000
Title	Un Ananas sous la Mer
Translated Title	A Pineapple under the Sea
Type	Masters Thesis
Format**	application/pdf
Language	English, French
Author	Spongebob Squarepants
Author Role**	author
Abstract	Who lives in a pineapple under the sea? Absorbent and yellow and porous is he!
Date	1999
Subject	Graphic design (Typography), Advertising layout and typography
Committee Members	(1) Eugene Krabs
	(2) Sheldon Plankton
Committee Member Role	(1) Advisor
	(2) First Reader
PDF File	https.blahblah.pdf
Repository Name	Texas State University Digital Repository
Rights Information	© 2025 Spongebob Squarepants
Degree Name	Masters of Science in Marine Biology
Degree Level	Masters
Degree Discipline	Marine Biology
Grantor	Texas State University
LCNAF Number	no2013139568

\*\* this field will autopopulate as you input various fields as instructed in the Metadata Entry Mechanism

## Team 2: ETDs Metadata Elements

### Identifier [Mandatory]

**MODS element:** <mods:identifier>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the unique identifying number accompanying each individual record created by the metadata cataloger.
  - For metadata entry mechanism: the system will autopopulate this field once the “Title” element has been filled out. See [“Title” element guidelines for instructions](#).
  - The identifier format is “etd\_####”

[Return to Element List](#)

### Title [Mandatory]

**MODS element:** <mods:titleInfo lang="\_\_"><title>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the title of the thesis or dissertation. Use the author given title. Can be cross-checked with the PDF.
  - Provide complete title as found on the title page of the thesis or dissertation
  - If there is a translated version of this title in a different language provided in the pdf file, please include that in the “Translated Title” element. See [“Translated Title” element guidelines for instructions](#).

### Translated Title [Optional]

**MODS element:** <mods:titleInfo lang="\_\_" type="translated"><title>

**Cardinality:** 0:n

**Guidelines:**

- This element reflects the additional title of the thesis or dissertation such as in a different language
  - This element is optional unless there are two titles, in which case, it is MANDATORY to include the language tag and the name of the title in that language.
  - If the PDF only contains one title, whether it is in English or another language, then it does not have a translated title. Do not use any translation service or platform to create a translated version of the title.
  - See [“Language” element guidelines for instructions on how to add appropriate languages tags](#).

[Return to Element List](#)

### Type [Mandatory]

**MODS element:** <mods:typeOfResource>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects an academic work that is produced as part of the requirements for obtaining a master's or doctoral degree. In this case, it will only be Thesis or Dissertation.
  - For metadata entry mechanism: pick one of the following option from the picklist: "Masters Thesis" or "Doctoral Dissertation"

[Return to Element List](#)

**Format [Mandatory]**

**MODS element:** <physicalDescription><<internetMediaType>

**Cardinality:** 1:1

**Guidelines:**

- The material type/form of the resource. For all materials in this collection, the field is application/pdf.
  - For metadata entry mechanism: this field (Column F) will autopopulate the text "application/pdf" once you input the "Type" field in the "Metadata Entry" subtab.
  - This element uses the [MIME Type](#) authority control.

**Language [Mandatory]**

**MODS element:** <mods:language>

**Cardinality:** 1:n

**Guidelines:**

- The languages used in the thesis or dissertation. Can be repeated for multiple languages used.
  - For metadata entry mechanism: use the dropdown menu or type to search for language(s) in PDF File.
  - If you are unsure of the language, use Google Translate "Detect Language" on the "Translate from" function and copy/paste some text from your PDF File.
  - This is a repeatable element so use all languages that apply.
  - This element uses [IETF Language tag](#) authority control.

[Return to Element List](#)

**Author [Mandatory]**

**MODS element:** <mods:name>

**Cardinality:** 1:n

**Guidelines:**

- This element reflects the Master's or Doctorate degree candidate responsible for writing and submitting theses or dissertations.
  - For metadata entry mechanism:
    - Step 1: Open up the "People" subtab and input the fields "name", "first name", "last name".
      - Include the full name as it appears on the theses and dissertation, including spaces and special characters.

- If there are more than one author in the thesis or dissertation, please include all names in their own entry in the “People” subtab.
- Step 2: Return to Metadata Entry subtab. Use the dropdown menu provided in the “Author” column (Column I) and select the author or authors that correspond to the PDF file you are cataloging.
- Other names listed as advisor or committee member should be labelled under the “Committee Member” element. See [“Committee Member” element guidelines for instructions](#).

### Author First Name [Mandatory]

**MODS element:** <mods:name><namePart type="given">

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the author's first or given name
  - For metadata entry mechanism: open up the “People” subtab and input the fields “first name”.
  - First names can include special characters.
  - Do not include middle names or middle initials.

[Return to Element List](#)

### Author Last Name [Mandatory]

**MODS element:** <mods:name><namePart type="family">

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the author's surname or family name
  - For metadata entry mechanism: open up the “People” subtab and input the fields “last name”.
  - Last names can include spaces and special characters.

### Author Role [Mandatory]

**MODS element:** <mods:name><role type=text>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the role of the author/creator, will almost always be "Author"
  - For metadata entry mechanism: In column J, this field (Column J) will autopopulate once you input the “Author” field in the “Metadata Entry” subtab. See [“Author” element guidelines for instructions](#).

[Return to Element List](#)

### Abstract [Optional]

**MODS element:** <mods:abstract>

**Cardinality:** 0:1

**Guidelines:**

- This element reflects the author written abstract section pulled directly from the text of PDF

- For metadata entry mechanism: In column K, copy/paste the abstract text if provided from the PDF file.
- This is reflected as a string and spaces, punctuation, and special characters are allowed.

[Return to Element List](#)

### Date [Mandatory]

**MODS element:** <mods:dateIssued>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the four digit entry of year stated in theses or dissertation
  - For metadata entry mechanism: In column L, the value is a date and should be written as YYYY.
  - Only refer to the year provided on the PDF file.
  - This is NOT a repeatable element so do not add more than one value to this field.

### Subject [Mandatory]

**MODS element:** <mods:subject><topic>

**Cardinality:** 1:n

**Guidelines:**

- This element reflects the keywords of the subject matter of theses or dissertation, may be referenced in PDF, if not should be decided on by the cataloger
  - For metadata entry mechanism: In column M, use the dropdown menu to add values to this field using pre-existing subject headings.
  - If you would like to add more subject headings to describe the content of your PDF file, click on the “LCSH Subject Tags” subtab, and fill out the subject name and subject identifier that begins with “sh”. Return to the “Metadata Entry” subtab and use the dropdown feature to add your subject heading.
  - This element uses [LCSH](#) authority control.

[Return to Element List](#)

### Committee Members [Optional]

**MODS element:** <mods:name>

**Cardinality:** 0:n

**Guidelines:**

- This element represents any contributor mentioned in the PDF. This element can be repeated for multiple contributors.
  - For metadata entry mechanism:
    - Step 1: Open up the “People” tab and input the fields “name”, “first name”, and “last name”.
      - Include the full name as it appears on the theses and dissertation, including spaces and special characters.
      - In cases of multiple contributors, please include all names in their own entry in the “People” subtab.

- Step 2: Return to Metadata Entry subtab. Use the dropdown menu provided in the “Committee Member 1” column (Column N) and select the name that corresponds to the PDF file you are cataloging.
- If there are more than one Contributor, repeat Step 1 and Step 2 in column “Committee Member 2”.
- If more than 3 committee members are listed, please reach out to the ETD Team via email.
- Other names listed as author should be labelled under the “Author” element. See [“Author” element guidelines for instructions](#).

### Committee Member First Name [Optional]

**MODS element:** <mods:name><namePart type="given">

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the Committee member's first or given name
  - For metadata entry mechanism: open up the “People” subtab and input the fields “first name”.
  - First names can include special characters.
  - Do not include middle names or middle initials.

[Return to Element List](#)

### Committee Member Last Name [Optional]

**MODS element:** <mods:name><namePart type="family">

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the committee member's surname or family name
  - For metadata entry mechanism: open up the “People” subtab and input the fields “last name”.
  - Last names can include spaces and special characters.

### Committee Member Role [Optional]

**MODS element:** <mods:name>role type=text>

**Cardinality:** 0:n

**Guidelines:**

- This element reflects the Committee member’s role, usually a confirmation committee member or an advisor.
  - For metadata entry mechanism: This is an open-text field so add the role of the committee member as written, if explicitly stated in the PDF file.
  - If there is no clear indication of their role or involvement, leave blank.
  - Enter the role of Committee Member 1 in Committee Member 1 Role and Committee Member 2 in Committee Member 2 Role (if applicable).

[Return to Element List](#)

### PDF File [Mandatory]

**MODS element:** <mods:location><url>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the URI link to the PDF file found in excel sheet.
  - For metadata entry mechanism: copy and paste URI into free text field.

[Return to Element List](#)

**Repository Name [Optional]**

**MODS element:** <mods:location>

**Cardinality:** 0:1

**Guidelines:**

- This element reflects the entity responsible for making the resource available. This is typically the group most directly responsible for digitizing and/or archiving the work, and is stated in the dissertation. (ex: Texas Digital Repository)
  - For metadata entry mechanism: enter the name of the repository exactly as found in the pdf into the entry mechanism's free text field.

**Rights Information [Optional]**

**MODS element:** <mods:note type=rights>

**Cardinality:** 0:1

**Guidelines:**

- This element reflects any rights information available in the pdf.
  - For metadata entry mechanism: enter any rights information exactly as found in the pdf into the entry mechanism's free text field.

[Return to Element List](#)

**Degree Name [Mandatory]**

**MODS element:** <etd-ms:thesis.degree.name>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the Name of the degree associated with the work as it appears within the thesis or dissertation.
  - For metadata entry mechanism: Type in the full degree name in the free text field as stated on the thesis or dissertation.

**Degree Level [Mandatory]**

**MODS element:** <etd-ms:thesis.degree.level>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the Level of the degree being applied for.
  - For metadata entry mechanism: pick one of the following option from the picklist: "Masters" or "Doctorate"

[Return to Element List](#)

**Degree Discipline [Mandatory]**

**MODS element:** <etd-ms:thesis.degree.discipline>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the Area of study for the degree. If the school or department is listed on the thesis or dissertation, use this as a guide to the discipline. Otherwise, use the degree name without the degree level prefix as the discipline.
  - For metadata entry mechanism: Type in the full degree discipline in the free text field as stated on the thesis or dissertation.

[Return to Element List](#)

#### **Grantor [Mandatory]**

**MODS element:** <etd-ms:thesis.degree.grantor>

**Cardinality:** 1:1

**Guidelines:**

- This element reflects the name of the university responsible for being the degree grantor.
  - For metadata entry mechanism: use the full name of the institution, no abbreviations or acronyms.
  - Should be the authoritative name in [LCNAF](#) format.

#### **LCNAF Number [Optional]**

**MODS element:** <mods:identifier>

**Cardinality:** 1:1

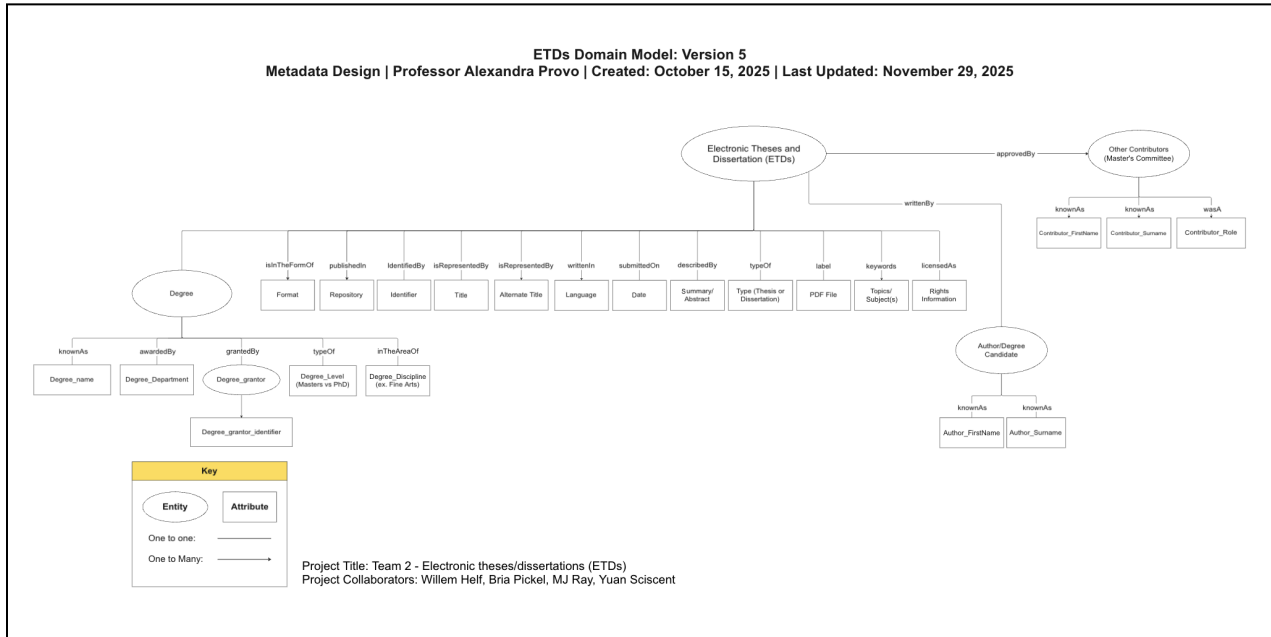
**Guidelines:**

- This element reflects the LCNAF number associated with the name of the university responsible for being the degree grantor.
  - For metadata entry mechanism: use the ID number found in the [LCNAF](#) search results for the name of the degree's grantor.

[Return to Element List](#)

# Appendices:

## Appendix A. ETDs Domain Model: Version 5



## Appendix B. Element Set

Entity	Entity Label	Element	Element Label	Mandatory	Repeatable	Multivalue occurs	Value Data Type	Value Constraint	Value Constraint Type	Value Entity	Element Definition	Searchable	Browsable	Visible
ArticleShape	Article	dc:title	Title	TRUE	FALSE	1..1	string	Only AAT	journal	ArticleShape	Title of the article, formulated according to CDD rules.	TRUE	FALSE	TRUE
etdEntity	Entity ETD	<mods:info lang="..." type="title">	Title	TRUE	FALSE	1..1	string				Title of the thesis or dissertation. Use author given title. Can be cross-checked with the PDF.	TRUE	TRUE	TRUE
		<mods:info lang="..." type="translatedTitle">	Translated Title	FALSE	TRUE	0..n	string				Additional title of the thesis or dissertation such as in a different language.	TRUE	TRUE	TRUE
		<mods:identifier>	Identifier	TRUE	FALSE	1..1	string				Unique identifying number accompanying each individual record created by the metadata catalogue: {dc:authorSurnameName, authorFirstName, Date}	TRUE	FALSE	TRUE
		<modstypeOfResource>	Type	TRUE	FALSE	1..1	string	Thesis, Dissertation	journal		An academic work that is produced as part of the requirements for obtaining a master's or doctoral degree. In this case, will only be Thesis or Dissertation.	FALSE	FALSE	TRUE
		<physicalDescriptor>=<internetMediaType>	Format	TRUE	FALSE	1..1	string	MMF Type	MMF Type		The material type/form of the resource.	FALSE	FALSE	TRUE
		<mods:language>	Language	TRUE	TRUE	1..n	string	IEET Language tag	journal		The primary language of the theses or dissertation. Can be repeated for multiple languages used.	FALSE	TRUE	TRUE

## Appendix C. [Crosswalk](#)

CollectionBuilder Crosswalk	CollectionBuilder Transformation Instructions	Schema.org Crosswalk	Schema.org Transformation Instructions	Dublin Core Terms Crosswalk	Dublin Core Terms Transformation Instructions
Corresponding element in CollectionBuilder. See <a href="https://collectionbuilder.github.io/cb-docs/docs/metadata/csv_metadata/">https://collectionbuilder.github.io/cb-docs/docs/metadata/csv_metadata/</a> . If no CB element maps, you may copy elements from column C to this column	Instructions on how values for this element should be transformed when converted to the crosswalked schema.	For CollectionBuilder purposes, corresponding element from schema.org, if applicable. Do not include a prefix.	Instructions on how values for this element should be transformed when converted to the crosswalked schema.	For CollectionBuilder purposes, corresponding element from Dublin Core Terms, if applicable. Include all caps prefix DCTERMS:	Instructions on how values for this element should be transformed when converted to the crosswalked schema.
<i>title</i>		<i>name</i>	<i>concatenate values from fields</i>	<i>DCTERMS:title</i>	<i>split values based on separator (semicolon)</i>
title	Use the Author given title, which is cross referenced on the PDF.	name	Use the Author given title, which is cross referenced on the PDF.	<a href="#">DCTERMS:title</a>	Use the Author given title, which is cross referenced on the PDF.
translated_title		<a href="#">alternativeHeadline</a>	A secondary title of a creative work. We will define this as a translation to english when necessary. allowed in <a href="#">Schema.org</a> .	<a href="#">DCTERMS:alternative</a>	the alternative or secondary title of a creative work, specifically a translation to english when necessary

## Appendix D. [Metadata Entry Form](#)

Identifier	Title	Translated Title	Type	Format	Language	IEET Language Tag	Author	Author Role	Abstract	Date	Subject
"Will autopopulate once a title is captured"	Mandatory		Mandatory	Mandatory "will autopopulate when type is captured"	Mandatory "Put the primary language of the article first if there are multiple languages"	"TO BE HIDDEN, will autofill when Language is selected"	Mandatory "Add any new author to the "people" tab with the respective information prior to filling out this field"	**Will autopopulate when Author Name is filled out"	Can copy and paste from the document. Should be exactly as the author has written.	Mandatory the 4 digit year mentioned in the PDF	Mandatory
ETD_000	Un Ananas sous la Mer	A Pineapple under the Sea	Masters Thesis	application/pdf	French English	- fr_en	Spongebob Squarepants	- author	Who lives in a pineapple under the sea? Absorbent and porous is he!	1999	Advertising layout and typography Graphic design (Typography)
ETD_001	Encouraging Ethical Behaviour through Design: A design process		Masters Thesis	application/pdf	English	- en	Melissa A. Alaimoudi	- author	The phrase social responsibility appears with 1 power of design to publicize information and k controversial topic in the field of graphic design toward social topics around them while other c design to solve and promote social issues for social responsibility is usually limited by three organizations and returning from designing to from their final product do harm to people. In r of the operational terms of the problem, the ar the introductory sketching phase, the visual re feedback demonstrate a design process that c be more socially responsible. The findings are practical guide for designers, design students social responsibility.	2016	Design Social change
ETD_002	Handcraft as a Rhetorical Prop. An		Masters Thesis	application/pdf	English	- en	Saskia van Kampen	- author	This thesis paper examines how handcraft (m	2014	Handcraft Visual communication Postmodernism Graphic arts—History—20th century Graphic arts
ETD_003	La typographie à l'ère postmoderne	Typography in the Postmodern Era	Doctoral Dissertation	application/pdf	French	-	Alexandra Aïni	- author	Typography, the art of designing with type beg Johannes Gutenberg perfected the craft of pri Typography is the graphic designer's domain, a message. The expectations of designers are time is given to understanding the craft. In my broken down into five specific categories: call design and digital design. Calligraphy is the ar of crafting specific characters for a particular g alphabet including all of its characters number movable type to any type where the intended been created specifically for digital use. Today from the beginnings of their educations. The is type in the physical realm combined with the s typefaces has muddled the understanding of t my knowledge of typography through hand let installations. Within the field of graphic design element and the hardest to master, therefore i tactile process. The information you receive th substantially different than the insight you wou in educational facilities today, the approaches students with dyslexia are limited. This thesis teaching typography to students in a way that and auditory differences present in students w the learning disability itself, existing material i current accessibility standards for those with c solution to provide a more balanced learning e those with dyslexia. The aim of this study was standards and refocus and modify them for ea especially those with dyslexia.	2018	Visual communication Lettering Calligraphy Graphic design (Typography)
ETD_004	Building Character through Type		Masters Thesis	application/pdf	English	- en	Eli Marco Hill	- author		2011	Visual communication Lettering Calligraphy Graphic design (Typography)
ETD_005	Developing Visual Strategies for Teaching Typography to Collegiate Students with Dyslexia		Masters Thesis	application/pdf	English	- en	Brittany Stozzo	- author			Visual communication Graphic design (Typography) Graphic arts Dyslexia

Subtab: Main Entry

Subject Headings	Identifier
Search to <a href="#">Library of Congress Subject Headings (LCSH)</a> to add more subject labels to describe your file. Make sure to include name of the subject heading and identifier which usually begins with "sh"	
Graphic design (Typography)	sh97005138
Advertising layout and typography	sh85001204
Graphic arts	sh85056474
Graphic arts—Social aspects	sh85056474
Graphic arts—Moral and ethical aspects	sh85056474
Visual communication	sh85143917
Handicraft	sh85058715
Socialist feminism	sh2008005196
Capitalism and mass media	sh98001266
Jazz	sh85069833
Postmodernism	sh85105557
Graphic arts—History—20th century	sh85056474
Lettering	sh85076239
Calligraphy	sh85018955
Dyslexia	sh85040336
Rio de Janeiro (Brazil)—History	sh2008116686
Education	sh85040989
Painted signs and signboards	sh89005878
Architecture	sh85006611
Space (Architecture)	sh85125907
Layout (Printing)	sh85106790
Art deco (Architecture)	sh85007995
Architecture—Brazil—São Paulo—History—20th century	sh2009115395
Roman type	sh85139113
Printing—Italy—History—Origin and antecedents	sh2010108281
Modernism (Art)—Influence	sh2010102207
Design	sh85037197
Social change	sh85123918

### Subtab: LCSH Subject Tags

Full Name	First Name	Last Name
Eugene Krabs	Eugene	Krabs
Patrick Star	Patrick	Star
Spongebob Squarepants	Spongebob	Squarepants
Sheldon Plankton	Sheldon	Plankton
Mallaa A. Alamoudi	Mallaa A.	Almoudi
Saskia van Kampen	Saskia	van Kampen
Basma Almusallam	Basma	Almusallam
Jillian Coorey	Jillian	Coorey
AnnMarie LeBlanc	AnnMarie	LeBlanc
Stanley T. Wearden	Stanley T.	Wearden
David Cabianca	David	Cabianca
Sandra Gabriele	Sandra	Gabriele
Alexandra Aïn	Alexandra	Aïn
Caroline Courbières	Caroline	Courbières
Cécile Croce	Cécile	Croce
Bernard Lafargue	Bernard	Lafargue
Xavier Lambert	Xavier	Lambert
Vivien Philizot	Vivien	Philizot
Eli Marco Hall	Eli	Marco Hall
Ellyn E. Duncan	Ellyn E.	Duncan
Jason Murdock	Jason	Murdock
Celine Manoosingh	Celine	Manoosingh
Bradley Sturz	Bradley	Sturz
Napawan Sawasdichai	Napawan	Sawasdichai
Deborah A. Beardslee	Deborah A.	Beardslee

### Subtab: People

Language	IETF Subtag								
<a href="#">Afrikaans</a>	af								
<a href="#">Amharic</a>	am								
<a href="#">Arabic</a>	ar								
<a href="#">Mapudungun</a>	arn								
<a href="#">Moroccan Arabic</a>	ary								
<a href="#">Assamese</a>	as								
<a href="#">Azerbaijani</a>	az								
<a href="#">Bashkir</a>	ba								
<a href="#">Belarusian</a>	be								
<a href="#">Bulgarian</a>	bg								
<a href="#">Bengali</a>	bn								
<a href="#">Tibetan</a>	bo								
<a href="#">Breton</a>	br								
<a href="#">Bosnian</a>	bs								
<a href="#">Catalan</a>	ca								
<a href="#">Central Kurdish</a>	ckb								
<a href="#">Corsican</a>	co								
<a href="#">Czech</a>	cs								
<a href="#">Welsh</a>	cy								
<a href="#">Danish</a>	da								
<a href="#">German</a>	de								
<a href="#">Lower Sorbian</a>	dsb								
<a href="#">Divehi</a>	dv								
<a href="#">Greek</a>	el								
<a href="#">English</a>	en								

Subtab: IETF Language Tags