LIS690 Digital Libraries

Spring, 2012, Hong Zhang

Course Description & Objectives

This course focuses on the theoretical, technological, human factors and evaluative components of digital library (DL) research and practice. Students will read and discuss literature on DLs, review existing technologies and proof-of-concepts implementation projects, and work as a group to develop a prototype but operational DL. This course is foundational for students wishing to engage seriously in the world of digital librarianship.

Upon completion of this course, students should be able to:

- Understand the technologies involved in the construction of digital libraries
- Evaluate critically the features offered by various digital libraries
- Create and work with a variety of digital asset metadata
- Articulate the issues involved in the creation, implementation and management of DL assets
- Build a prototype DL using the Omeka open-source software

Textbook:


Additional readings will be provided in the Course Schedule.

Prerequisites

Students are expected to have a solid understanding of information organization and access issues and the traditional professional practices of librarianship (i.e., the body of knowledge found in LIS601 and LIS602). Students are expected to have a basic understanding of information technology, either by completing LIS636 or through equivalent training/experience.

Technical Requirements

Having a Headset, good network connection, and the ability to use Adobe Connect for group discussion and presentation.
Requirement & Assignments:

Every week, you are expected to read the readings and participate in discussion on Blackboard, go through the provided slides, and do the lab task. Before mid-term, you must turn in a comparison topical essay. For the term project, each group will build a prototype but operational digital library with open source DL software Omeka.

Blackboard discussion (weekly): 20%

You are expected to contribute on the discussion board every week before the due time (Monday 9am). A missed week will have 1.5% deducted. Please note that the quality of your contributions counts. Informed comments, thoughtful exchanges with your fellow students and demonstrating your interest and engagement with the assignments, reading materials, and general topics are the sure path to a good participation grade.

Lab Task: 20%

Each week students will be given a lab task to complete at home. Students will be expected to comment upon the lab task as a discussion board posting.

Topical Essay: 25%

This will be submitted formally as per instructions. Both content and form will be evaluated. The basic content of the essay will be a comparative evaluation of three or four extant DL systems with a special emphasis on discovering features and techniques that could be used as inspiration for the student's own DL system. The systems can be on Omeka or other types of DL systems (e.g., Greenstone, Fedora, etc.). The purpose of the essay is to demonstrate that the student has a fundamental and broad understanding of the feature options available to DL creators and to prompt them to explore the necessary techniques to make these features available to users. Minimum length is 2500 words. Detailed instructions will be provided.

Building a Digital Library (Group project): 40%

Groups of three or four students will build DLs with the content of their choices. It is expected that the groups should be able to integrate components, features and techniques from the individual Lab Task assignments into a larger, more comprehensive, DL system. These DLs will be required to include at least two types of documents: text, still image, audio, and video. Appropriate implementation of metadata, interface, browsing and search features will be evaluated. Implementation of DL features beyond the basics will be rewarded. Explanatory documentation of the DL features implemented is required. Detailed instructions will be provided as the term progresses and the group assignments will be made once we have a stable class list.

Topics:

- Introduction to digital libraries
- Components & architectures of digital libraries
- Digital libraries user needs
- Metadata (two sessions: metadata principles and standards; metadata interoperability)
- Information retrieval in digital libraries
- Evaluation of digital libraries
- Usability and design
- Document representation
- Multimedia formats and standards
- Preservation
- Intellectual property, security and privacy