Class Hours: Mondays 6:30 – 8:50p  
Office Hours: Mondays 1:00-3:00p, Tuesdays 2:00-3:00pm, and by appointment  
Credits: 3  
Prerequisites: LIS 652 and LIS 654, or by permission  
Location: PMC 611  

**Bulletin Description:**

This course will examine the current state of digital libraries in a new context. We will look at: the history and background of digital libraries; particular areas of digital librarianship including digitization, preservation and subscription and other third party resources. Finally we will look at communities of practice that can be served by digital libraries, with emphasis on the shifting world of learning, scholarship and play.

**Detailed Description:**

This course will cover the theoretical, practical and technical aspects involved in creating, using, and deploying digital libraries. Students will study the evolution of digital libraries, consider the relationship between digital libraries and their social, spatial and technical elements, and collaboratively design a digital library or a new program or service related to digital libraries. Additionally, students will have the opportunity to enact their design vision using digital tools in the small-scale build-out. Students will be asked to think creatively and critically about the future of digital libraries and where to best direct future development effort.
Course Goals:

- To become familiar with the history and evolution of digital libraries, particularly with respect to the changing socio-technical environment that digital libraries are situated.
- To understand the current and emerging tools and methods used to curate, facilitate access to, and preserve digital objects.
- Apply the latest research and one’s creativity to collaboratively design an innovative digital library or related service.

Student Learning Objectives:

- Students will be able to work with a team to implement a digital library using open source software.
- Students will be able to create metadata for digitized and born digital materials.
- Students will understand the issues and best practices in digitizing materials.

Course Schedule and Readings

1/14 – Introduction

- Overview of Syllabus and Design Project
- Assign weekly presenters of class readings
- Post a photo of yourself and fill-out your profile on the LMS

1/21 – No Class; MLK Holiday

1/28 – Defining Digital Libraries


Further Reading:


Essential Questions:

How does Witten, Bainbridge and Nichols (2010) define a digital library? How might have new developments over the last decade have changed how we view digital libraries (e.g., the extensively annotated photo collections available in Facebook).

2/4 – Metadata and Identifiers

Further Reading:


Further Reading on Automating Metadata Creation:


Essential Questions:

Witten, Bainbridge, and Nichols (2010) discuss a wide-variety of metadata formats for a variety of content types. Pick a metadata format and discuss. Why would you want to use it? Why wouldn’t you want to use it? Why even bother to use the format that someone else came up with?

2/11 - Integration and Interoperability


Further Reading:


OAI for Beginners - the Open Archives Forum online tutorial http://www.oaforum.org/tutorial/

Open Archives Initiative homepage - http://www.openarchives.org/

Essential Questions:
This week’s reading discusses communication formats developed for sharing information within a digital library context (Z39.50, OAI-PMH, DOIs, OpenURL and Web Services). Why would you want a digital library (or other digital system) to interoperate with other digital libraries (or other digital systems)? If you can think of an example, please share.

2/18 - Preparing materials for the Digital Library: Visual Stills


Further Reading:


Essential Questions:

What are some of the choices that a digitization project has to make? What affects the answers if you are scanning:

- a famous manuscript (e.g. the Declaration of Independence)
- large collections of manuscripts (e.g. the papers of some Senator)
- printed 18th or 19th century books
- recent printed material
- flat works of art (paintings, posters, ...).
Technical Question: A collection of 96,000 4 X 5-inch transparencies is scanned at 400 dpi, 24-bit color, and then losslessly compressed at a 1.3:1 ratio. Calculate the cost of hard disk storage (at .75 cents/GB) needed for this collection.

2/25 - Moving Image and Sound Assets


Further Reading:


Essential Questions:

Assume that we are digitizing a collection of oral histories available on audiocassette.  We choose to use the digitizing standard recommended by the International Association of Sound and Audiovisual Archives (IASA), which is 96 kHz (sample rate) and 24-bit (quantization).  We know that we have 36 cassette tapes, and those could run as long as 120 minutes (as the tape manufacture label indicates).  However, how long would an interview ideally take?  60 minutes?  How could you find out without listening to every tape?  Assume if we used 24-bit/96kHz stereo audio and create uncompressed files, what is the low-end and the high-end of disk space we would need?

3/4 - Preservation of Digital Content

Kickerstarter Design Project Proposal Due.


Further Reading:

Essential Questions:

Have you had any digital preservation challenges in your past experiences (e.g., unable to access digital content) and what were they? How do you imagine that this kind of challenge might by amplified within a library or institutional context?

3/11 – No Class; Spring Break

3/18 – User Interface, Usability and Human Factors in Digital Libraries


Further Reading:


Jakob Nielsen’s Alert box: http://www.useit.com/alertbox/


Essential Questions:

Discuss the reading in terms of a user interface that you love OR hate. Why does it provoke such feelings of love or hate? How did your feelings about it change (or not) after using it for a period of time?

3/25 - Social Media and Digital Libraries


Further Reading:


**Essential Questions:**

Cocciolo (2010) discusses creating an institutional repository using a Web 2.0 or social media perspective, and Shirky (2005) discusses knowledge organization from a similar perspective. Do you gravitate to this perspective? What do you like and what do you dislike?

**4/1 – Digital Libraries in Organizations: Knowledge Management (KM) and Digital Asset Management (DAMs)**


**Further Reading:**


**Essential Questions:**

This week’s reading discusses digital libraries in organizations, particularly as used in Knowledge Management. The author discusses the need to be able to transfer knowledge between generations of “knowledge workers” (while ignoring more obvious uses, such as enabling offshoring/outsourcing). Do you think it is possible to capture not only explicit but tacit knowledge that can be transferred among individuals in an organization? How can digital libraries help (or inhibit) making this possible?

**4/8 – With the Physical Library? Spatial Considerations and the Future of Digital Libraries**

**Guest Speaker:** Prof. Carla Leitao from Pratt Graduate Architecture, speaking on Information Spaces, [http://www.huffingtonpost.com/carla-leitao/](http://www.huffingtonpost.com/carla-leitao/)


**Suggested Readings from our Guest Speaker, Carla Leitao:**


Essential Questions:

When one speaks of a “digital library,” it can easily be construed as what comes after or replaces the [physical] library. In the field of LIS, there is ongoing discussion and debate regarding what to do with the physical library and how it should relate to its digital counterparts (e.g., websites, digital libraries, digital displays, mobile devices, etc.). What is your vision for the relationship between physical and digital libraries?

4/15 – Rights Management


Essential Questions:

[Something about the HathiTrust Lawsuit]


Further Reading:


As Lesk points out, digital libraries necessarily intersect with a number of intellectual property issues (e.g., copyright, trademark, and digital rights management). In working with digital libraries, professionals (e.g., librarians, “old media” like newspaper or magazine publishers) have tended to work within the bounds of intellectual property law, believing that the creator is entitled to some form of compensation for their creative work. However, outside of professional circles (such as personal-use or non-professional or emerging media settings), respect for intellectual property rights through file sharing continues to grow, especially with younger people. This is both a problem for rights holders (who could receive less income as a result) and for librarians, who often cannot provide the kind of access illegal routes provide, thus creating services that some users may see as inferior to their illegal counterparts. Do you have a solution to this problem?

4/22 – Licensing Digital Libraries: Subscription and Third-party resources


Further Reading:


Essential Questions:

Past class sessions have dealt with designing your own digital library. This week's readings deal with subscribing to digital libraries owned by third parties. What are the issues involved in making a digital library available to your patron community when the content is owned by someone else?

4/29 – Evaluating Digital Libraries


Further Reading:

Essential Questions:

5/6 – Kickstarter Design Project Presentations.

Design Documents are due.

Textbooks, Readings, and Materials

Required Texts:

Supplementary Texts:


Course Requirements

Students’ course grades will be determined by performance on the following activities:

1. Class Participation (20%)
2. Weekly Responses (20%) – 11 responses required over the course of the semester
3. Kickstarter Design Project (50%)
   3a. Proposal (2-5 pages) (10%) – March 4, 2013
   3b. Design Document (10-15 pages) (15%) - due May 6, last day of class
   3c. Presentation with Kickstarter Page (10%) – present on May 6, last day of class
   3d. Small-scale Build-out (15%) – due May 6, last day of class
4. Self-Assessment (10%)

Class Participation

Students are expected to be prepared and to contribute to class discussions each week with scholarly analyses and insights. In addition, each week one student or a team of two students will present their
perspective on the topic of the readings for the week. This is an opportunity to consolidate your (or your team’s) understanding on a topic, to articulate your perception, to make novel connections to other domains, and to relate the readings to real-world experience. Presenters may use the essential questions posed (available on the LMS) to guide their presentations, or may choose their own direction in discussing the readings. Presenters should be prepared to make around a 10-minute presentation, and conclude with some questions or issues they would like to discuss more thoroughly. Remember that everyone in the class has read the week’s readings, so it should not simply be a summarization of what we have already read.

The schedule of presenters will be decided on the first day of class.

**Weekly Responses**

Each week, students are expected to write at least two paragraphs in response to the essential questions posted on The LMS. Students should respond to the question on the LMS by 5pm (at the latest) on the day of class (late responses will receive a reduced grade). Please do not bring in a hard-copy or email unless the LMS is unavailable. The purpose of these responses is to allow students the opportunity to reflect on the readings and share their reflections with the other members of the class. Students are encouraged to read the responses by their fellow classmates (this is, however, not a requirement). Based on interests, students may choose two weeks NOT to do a weekly. This means by the end of the semester, each student should have posted 11 responses.

Please note that the instructor will refer to these responses during class discussion and may ask students to further clarify or expand on their response.

**Kickstarter Design Project**

**Overview**

The primary assignment for the course is to participate in a team that will draw on the digital libraries research and literature to design a digital library or a new program or service related to digital libraries (e.g., facilitating access to and/or preserving digital objects)—and figuring out how to fund it through Kickstarter. Groups should use this opportunity to be innovative and think creatively and critically about digital libraries (What is a digital library? What counts as a digital library? Why do we need this?). In order to ensure innovativeness, teams should consider the work being done by outside groups and ask: does our project have something to offer that these projects don’t? Why is our project innovative?

Designers will seek funding for their project through Kickstarter (http://www.kickstarter). Kickstarter is a “funding platform for creative projects” that is “full of ambitious, innovative, and imaginative projects that are brought to life through the direct support of others.”¹ Students may want to consider projects that have used Kickstarter to start digital preservation projects, including projects on the National Digital Stewardship Alliance Kickstarter page (of which Pratt Institute is a member): http://www.kickstarter.com/pages/NDSA.

The class will be divided into design groups with around four members. Time will be provided in class for groups to meet; however, meeting out of class time may be required. Each group will be expected to deliver a project proposal, a project design document, a small-scale build-out, and a presentation on the last day of class that makes use of Kickstarter. Details on these aspects are below:

**Proposal**

The Proposal should be 2-5 pages and outline the idea for your project. The proposal should be considered a less fully-fleshed-out version of the project design document (see below). The instructor will provide feedback on the proposal which you can use in further refining your project.

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¹ http://www.kickstarter.com/help/faq/kickstarter%20basics?ref=nav
Design Document

The project design document should be 10-15 pages (this page count can include figures, but not references or other appendices). The design document should address:

a) What is the purpose of your project?

1) Why do we need it?
2) What extent (if at all) does your project make use, or re-imagine, digital library concepts?
3) What educational or learning goals will motivate this effort, if any?
4) What populations of users (if any) will be served?
5) What type of community (if any) will be fostered by this effort?
6) What role (if any) will librarians play in this project?
7) What will be the size of this effort?
8) What resources will be required?
9) How will the project be assessed?
10) Why is this project innovative?

b) What are the features and functions of the project? Please be specific.

c) Include one or more prototypes of the project. These prototypes can come generated electronically (Adobe Illustrator, Photoshop, Powerpoint, etc.) or by-hand (drawings on paper, etc.). These prototypes should strive to be more than sketches; they should be visibly assembled with care.

i) Screen shots: What would a user see when interacting with this system? What elements make up the user interface (if any)?

ii) Diagrams: Illustrations that convey flows or networks of interaction.

iii) Visualizations: How would you convey the design’s social and/or human interactions? Be creative.

d) Implementation: What do you think would be involved to make this design a reality? Provide estimations.

e) What does the literature and research on digital libraries offer in thinking about this project?

Presentation

Each group will get 20 minutes to present, and a 10 minute question and answer period. Each group should:
a) Make it fun and educational! Be creative! We have all been subject to ill-prepared or low-energy presentations- avoid it!

b) Discuss the goals, why your project is needed, and what makes your project innovative.

c) Provide a way of demonstrating your prototypes to the class. These may include electronic illustrations (Powerpoint), an interactive simulation, or large paper/drawing presentations. You may also want to consider handouts for the class.

Small-scale Build-Out (SSBO)

The SSBO provides students with the opportunity to enact their design vision using digital tools. Each group will be responsible for building-out some aspect of their design project. This could include using
open source digital library application, such as Omeka or WordPress, to build a small digital library collection that reflects the overall intent of the design project. Students can use free services available on the web (e.g., Omeka.net), use their own webserver space (e.g., godaddy.com), or use Pratt SILS’s webserver (prattsils.org), which the instructor can provide access to.

**Kickstarter Information - [http://www.kickstarter.com/](http://www.kickstarter.com/)**

Groups should be careful not to make their Kickstarter page’s public (unless of course, your group actually decides to go forward with the project after the class is over). Also, groups should avoid setting up the financial aspects of their Kickstarter page, unless of course your group decides to move the project forward after the class is over.

Students should create an email address for the project (using Gmail, Yahoo, etc.), and create a Kickstarter account using that email address. At the end of the semester, groups should include the login information to their Kickstarter page in their design document (for the instructor’s further review).

Groups are encouraged to create a short video highlighting the strengths and benefits of their project, as most successful Kickstarter campaigns have done. These videos can be composed using voice-overs (recorded in a quiet space), and assembled with visuals using programs like iMovie or Garage Band (available on the computers on the PMC 5th floor computer lab). Additionally, students can use video equipment (e.g., video camera on phone or video cameras available for checkout at the Pratt Brooklyn library). The purpose of the video is to convince people to fund your project based on its value it provides to the communities being served.

**Self-Assessment**

In one or more pages, reflect on your contribution to the Kickstarter Design Project. What role did you play in it? What were your specific contributions? How would you rate your performance, and how does it compare to your fellow group members? Please submit by the end of the final class electronically via the LMS.

**Course Assessment and Evaluation**

1. All assignments must be completed in order to receive a passing grade in the course.
2. Assignments must be turned in electronically using the LMS. Late assignments will receive a reduced grade.
4. Late papers will receive a grade but no comments.
5. Pratt policy: Students with extensive absences (three or more for any reason) will be required to drop the course.

**Pratt’s grading scale:**

- Superior work: A 4.0 (96-100)  A- 3.7 (90-95)
- Very good work: B+ 3.3 (87-89)  B 3.0 (83-86)  B-2.7 (80-82)
- Marginally satisfactory: C+ 2.3 (77-79)  C 2.0
- Failed: F 0.0 (0-69)

**Policies**

All Institute-wide policies are listed in the Bulletin under “Community Standards,” which include policies on attendance, academic integrity, plagiarism, computer, and network use. Students who require special accommodations for disabilities must obtain clearance from the Office of Disability Services at the beginning of the semester. They should contact Mai MacDonald, Disability Services Coordinator, in the Office of the Vice President for Student Affairs, Main Building, Lower Level: 718-636-3711.