



School of Communication and Information

MLIS 17:610:558

Digital Library Technologies (online)

Spring 2015

Course Syllabus

Instructor:	Mitch Brodsky
Email:	mjbrodsky@gmail.com 24-hour turnaround on email correspondence
Office hours:	By appointment (by phone, chat, or Google Hangout)
Class website	http://rutgersonline.net
Pre- or Co-requisite	17:610:550 and 17:610:553
Textbook:	No textbook required, all readings are available online

Catalog Description

Organizational, technical, and logistical issues concerning the design and implementation of electronic collections, documents, and services.
Students learn in the context of building their own prototype digital library.

Learning Objectives

By the end of this course students will be able to

1. Describe the key components of software and hardware to build and maintain digital libraries.
2. Recognize emerging technologies and how they affect the digital libraries field.
3. Implement project management techniques to see a project through to successful completion.
4. Create a functional digital library.

eCollege Course Management System:

This is a fully online course, which can be accessed through the Rutgers-Pearson eCollege site at <http://onlinelearning.rutgers.edu/> starting the first day of class. You will need your Rutgers NetID username and password to log into the eCollege course management system. Students having login problems are welcome to contact the

eCollege Help Desk by phone at 877-778-8437 (24 hours a day, 7 days a week) or by email at help@ecollege.rutgers.edu if you need technical assistance. Additional information can be found under the Course Home section in the online course.

Organization of the Course

This course builds on previously obtained knowledge on Digital Libraries. Integrating theory with practice, it provides hands-on experience with basic digital library technologies and key concepts, such as software decisions, imaging techniques, project management, storage, and more. Aiming to assess components of digital libraries, including platforms and skills necessary to develop a collection, each unit focuses on one or more aspect of digital library technologies with the help of relevant reading material, sample digital libraries, and related technologies, processes, practices, and protocols. Students will then be able to apply the material and exercises presented toward the course project, which is to create a prototype of a digital library.

Key Assignments

Unit Discussion Boards (12 discussions, 1% each):

The forum is the venue of discussing weekly readings, assignments, and any new technologies emerging during the course. Students are expected to actively participate in the discussion by posting at least once a week in each topic. Discussions are closed Sunday nights at 12am, unless otherwise noted.

Weekly Exercise (14 assignments, 4% each)

Students will complete an exercise with each unit to reinforce presented concepts. These assignments are either analytical or technical and all require a deliverable. The point of this course is not to overburden students with long assignments, but rather to give students a chance to thoroughly absorb concepts by applying lessons to scenarios and situations in the real world. Assignments are due 12am midnight on Sunday nights, unless otherwise noted.

Term Project (3 submissions points, 32% total)

The term project (see details below) starts in week 3, and groups will complete a digital library prototype by the end of week 14. Developing a prototype digital library from beginning to end entails narrowing down a theme, choosing a platform, assuming roles, collecting and digitizing objects, experimenting with layouts, creating metadata, and delivering the final product. During the course, students will become familiar with

digital library management issues, and gain experience in learning from mistakes and finding solutions.

Method of Assessment and Grading

Final grades will be assigned according to the following scale:

- A = 90-100%
- B+ = 86-89
- B = 80-85
- C+ = 76-79
- C = 70-75
- F = 64 or below

The percentage points earned toward the final grade are accrued throughout the semester according to the following breakdown:

<p>Unit Discussion Boards (14, 1% each)</p> <p>Discussion points are earned only for <u>meaningful</u> participation in the form of at least one post or response to another student's post. Some weeks will feature a secondary extra-credit discussion topic. Discussion forum rubric is posted in online course.</p>	<p>14%</p>
<p>Weekly Exercise (14, 4% each)</p> <p>Assignments are classified either as analysis assignments or technique assignments. In general, analysis assignments are judged based on content and ideas contained within, and technique assignments on completeness and demonstration of strategic thinking.</p>	<p>56%</p>
<p>Term Project Total (breakdown below)</p>	<p>30%</p>
<p>Term Project – Project Plan</p> <p>The project plan will be due at the end of Week 5 (Feb. 22) and will include a physical description of the proposed collection (quantity, format(s), location(s)), the significance of the collection, an initial work breakdown structure with timeline, and a SWOT analysis (strengths, weaknesses, opportunities, threats).</p>	<p>4%</p>

<p>Term Project – Progress Report</p> <p>This report will provide a measurement of how well your project execution is matching your initial plan. It is expected that there will be changes and deviations from the plan. It is important that those changes are recognized and explained in order to maintain the project funder’s confidence.</p>	<p>4%</p>
<p>Term Project – Digital Library prototype delivery</p> <p>Students will submit a URL for the digital library. The end product itself will be graded by measuring it against the initial project requirements.</p>	<p>6%</p>
<p>Term Project – Recorded Demo</p> <p>Each student is required to take part in a portion of the project demo, the specific requirements of which are outlined in the Term Project Description. Students will be graded individually on this portion of the deliverable based on clarity, conciseness, flow, and demonstrated fluency in how the product works.</p>	<p>6%</p>
<p>Term Project - Development Documentation</p> <p>Each group will be provisioned a Google Site which will be used to record all stages of the project development and execution. 50% of this grade will apply to each member of the group equally based on content. The remaining 50% will be an individual grade based on weight of participation.</p>	<p>10%</p>

Late Policies

Unless otherwise noted, all written assignments, discussion board and group project are due at the time and date listed in the syllabus. If you experience an unavoidable personal situation that prevents you from completing work on time, please inform the instructor prior to the date the work is due. Any assignment delivered late without prior approval will result in points deducted:

- up to 24 hours late: -25 points
- up to 48 hours late: -50 points
- up to 72 hours late: -75 points
- more than 72 hours late results in 0 points

Tentative Course Schedule:

WEEK OF	UNIT TOPICS	WHAT TO DO (<i>LO = Learning Objective</i>)
1/20 – 1/25	1. Course Introduction <ul style="list-style-type: none"> • Course overview • The components of a DL • Examining technical standards 	- Analysis: DL Industry Assessment - Online Discussion (ungraded) (<i>LO 2</i>)
1/26 – 2/1	2. Digital Project Management <ul style="list-style-type: none"> • What is a project? • The PMI process groups • Tools and tips 	- Technique: Information Gathering - Online Discussion (<i>LO 3</i>)
2/2 – 2/8	3. Software Platforms <ul style="list-style-type: none"> • Open source software • DL software functionality • Most-used platforms 	- **Term Project: Groups formed on 2/2 - Analysis: Evaluating software packages - Online Discussion (<i>LO 1,2</i>)
2/9 – 2/15	4. Metadata <ul style="list-style-type: none"> • Dublin Core • MODS • OAI-PMH 	- Technique: Utilizing OAI-PMH - Online Discussion (<i>LO 1,2</i>)
2/16 – 2/22	5. Resolution <ul style="list-style-type: none"> • Defining resolution • Still images vs. sound vs. video • The role of capture methods and display methods. 	- **Term Project: Project Plan Due 2/22 - Technique: Experimenting with resolution - Online Discussion (<i>LO 1</i>)
2/23 – 3/1	6. Workflow <ul style="list-style-type: none"> • Essential workflow for digitization • Quality control • The detail – quantity continuum 	- Analysis: Workflow design - Online Discussion (<i>LO 3,4</i>)
3/2 – 3/8	7. Paper-based digitization <ul style="list-style-type: none"> • Image capture technology • Post-processing technique • Still image file formats 	- Technique: Paper digitization project - Online Discussion (<i>LO 1, 4</i>)
3/9 – 3/15	8. Still Image file formats <ul style="list-style-type: none"> • Delivery mechanisms • OCR and data extraction • Existing UI tools and examples 	- Analysis: Digitized manuscripts analysis - Online Discussion (<i>LO 1, 4</i>)
3/16 – 3/22 Spring Break!		

3/23 – 3/29	9. Digitizing time-based material <ul style="list-style-type: none"> • Some history of analog A/V. • The difficulties of A/D conversion • Reviewing existing standards 	- Technique: Audio digitization project - Online Discussion <i>(LO 1, 4)</i>
3/30 – 4/5	10. Born-digital material <ul style="list-style-type: none"> • Differences between BD and paper • Tools for ingestion • Tools for digital preservation 	- **Term Project: Progress Report due 4/5 - Technique: Archivematica - Online Discussion <i>(LO 1, 2)</i>
4/6 – 4/12	11. Storage & Digital Preservation <ul style="list-style-type: none"> • Storage – is it really that cheap? • Cloud vs. on-premise vs. hybrid • DP for digitization projects 	- Analysis: Storage decision tree - Online Discussion <i>(LO 1, 4)</i>
4/13 – 4/19	12. Data management <ul style="list-style-type: none"> • Data normalization • XML vs. JSON and their uses. 	- Technique: Using Google Refine - Online Discussion <i>(LO 1, 2)</i>
4/20 – 4/26	13. The Future of Digital Libraries <ul style="list-style-type: none"> • 3D, augmented reality, mobile • User generated content • Integration with other platforms 	- Analysis: The Digital Library of 2030 - Online Discussion <i>(LO 2)</i>
4/27 – 5/3	14. AMA with guest speaker <ul style="list-style-type: none"> • Quiz a professional digital librarian about his/her job! 	- **Term Project: Submit demo, link, & paper due 5/3 - Online Discussion <i>(LO 4)</i>
5/4 – 5/11 (5/11 Last Day of Graduate Courses)	15. Final Session <ul style="list-style-type: none"> • Sustainability of DL projects • Looking for digital library jobs • Wrap-up 	- Analysis: Evaluation of other projects - Online Discussion <i>(LO 1, 4)</i>

Term Project

The goal of the group project is to provide an opportunity for students to work collaboratively on applying knowledge gained throughout the course to a real-world scenario in which students will build a digital library prototype.

The term project is to be done in groups which will be formed early in week two (after all students have submitted their introductions). I will make my best attempt to group students of various backgrounds, skill levels, and interests. In the real world as well as

the academic world, it is important that team members recognize the various strengths of one another, and utilize those strengths to create a project that is successful.

Students will be given a scenario in which the goal is to build a prototype digital library fulfilling specific requirements in order to receive additional funding to pursue a project of similar features but broader scope. Once project teams are formed, students will immediately begin applying lessons from the course units to their work on the term project, beginning with a project plan due in week 5. There is a progress report due in week 9 to ensure teams are on track, and the final project submissions are due in week 14 (one week before end of term).

The deliverables for the term project are:

1. Project Plan
2. Progress Report
3. URL for the digital library
4. Project development documentation
5. A recorded demo presentation in which each team member will participate

Students will use Rutgers-hosted Omeka software to build the digital library prototype. While there is far more choice in the real world, keeping the software platform consistent allows for easier support from a technical side and allows all students to have an equal experience. Omeka is a current tool which demonstrates many of the common features across digital library software platforms. In many of the course units, students will be asked to assess various digital libraries and the underlying software to allow students to gain exposure to many different technologies besides Omeka as well.

The project development documentation will take the form of one Google Sites project site per team. In Week 2, students will learn about project management, and the expectations and techniques regarding virtual team communication and documentation will be addressed. The instructor will have the ability to track each team's progress on its Google Site and will periodically jump in with questions or suggestions to guide students toward a successful outcome.

A major part of the job of any digital project manager or developer is mastering virtual communication skills. It is not uncommon for stakeholders, vendors, and even team members themselves to be in disparate localities, but the modern world does not allow this inconvenience to halt progress. Therefore, the final "pitch" in which the team will demonstrate the prototype and make the argument for more funding will be done with a pre-recorded demonstration and presentation. **Each team member's voice must be**

present in some portion of the recording. In the project description in the eCollege portal, more information on techniques and tools for achieving this is available.

About the Instructor

Mitchell Brodsky is currently the Digital Archives Manager at the New York Philharmonic. Since 2009, he has been coordinating and managing the digitization and online presentation of the New York Philharmonic Leon Levy Digital Archives, which will make every scrap of paper in the archives – 3 million pages of marked music scores, programs, business records, images, press clippings, and more – freely available online at <http://archives.nyphil.org>.

Mr. Brodsky has spoken on digital archives topics, non-profit administration, and project management across the U.S., including several sold-out project management workshops for information professionals in New York City. He is the founder of Past Made Present, an organization that celebrates social action rooted in historical legacy, as demonstrated in many of the rich archival collections in New York and around the world. He is also a former Executive Board member of the Archivists Round Table of Metropolitan New York.

Prior to his work at the Philharmonic, Mr. Brodsky was the Digital Archivist at the American Jewish Joint Distribution Committee where he led projects in mass digitization, library automation, and digital asset migration among others. He received his MLIS from Rutgers University, prior to which he received an MM degree in orchestral trumpet performance from Mannes College of Music.

Academic integrity

The consequences of scholastic dishonesty are very serious. Rutgers' academic integrity policy is at <http://academicintegrity.rutgers.edu/>.

Multimedia presentations about academic integrity may be found at <http://www.scc.rutgers.edu/douglass/sal/plagiarism/intro.html> and http://wps.prenhall.com/hss_understand_plagiarism_1/0,6622,427064-,00.html

If you are doubtful about any issue related to plagiarism or scholastic dishonesty, please discuss it with the instructor.

Serving Students with Disabilities

Students with documented disabilities who wish accommodations in this class must do so through the Rutgers Disabilities Services Office. See <http://disabilityservices.rutgers.edu/> for details. SC&I Assistant Dean Kevin Ewell <kevin.ewell@rutgers.edu> will coordinate your services locally. Student who develop disabling medical problems or other issues during the semester that affect your ability to complete coursework should request advising from [insert name of the director of the academic program] or SC&I Assistant Dean Kevin Ewell <kevin.ewell@rutgers.edu>.