IST 666: Digital Libraries
University at Albany, College of Computing and Information
Department of Information Studies
Summer 2009
TTH 6:00-9:30pm

Instructor:
Catherine Stollar Peters

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Office Hours:
Wednesdays 7:00-8:00pm (contact instructor to ensure she will be in the office)
and by appointment as arranged by student and instructor.

Course Description:
This course will focus on methodology and techniques of creating and using
digital libraries. Topics covered in the course include collection development and
selection, digitization, metadata, organization, access and use of digital libraries,
preservation and project management. Students will research current issues
relating to digital libraries, evaluate existing digital libraries, learn hands-on
methods of developing a digital library and work in teams to produce a small
digital library. Upon completion of this course, students will have a foundation for
future research in digital libraries and should be able to participate in the planning
and management of digital libraries.

Course Objectives:
By the end of the course, students should be able to complete the following
course objectives:
- Demonstrate an understanding of practical skills and theoretical concepts
  related to digital library development, management and use
- Understand and be able to implement national digitization and metadata
  standards
- Understand concepts in data and digital object interoperability, use and
  reuse
- Develop project management and teamwork skills

Required Text:
Lesk, Michael. (2005). *Understanding Digital Libraries.* (2nd Edition) San
Francisco, CA: Morgan Kaufmann.

6/19/2009

Recommended Text:
Reese, Jr., Terry and Kyle Banerjee. (2008). *Building Digital Libraries: A How-To-Do-It Manual.* New York, NY: Neal-Schuman Publishers, Inc.

Course Expectations:
Students are expected to attend every class, participate in class discussions, complete assignments on time and contribute to the final class project.

Assignments and Grading:
Review of Existing Digital Library (10%):

Students will review an existing digital library and present the results of their review to the class in a (15-20 minute presentation). Presentations will be given during class from July 14- August 6. A list of potential digital libraries to review will be provided on the first day of class (only one student may review each digital library.) The review will include (but not be limited to) discussion of management, content, technical infrastructure and access. Students should consider the following questions in their review:

- Management
  - o Who owns or manages the digital library?
  - o What is the digital library owner's purpose or goal in making the collection available?
  - o How long has it been available?
  - o Is the digital library run by one institution or a consortium?
- Content
  - o What topics are covered in the digital library?
  - o Are resources downloadable, do they require particular plug-ins or viewers?
  - o What sort of metadata or indexing is used?
  - o Are there any unique metadata, indexing, or storage issues related to the type of resources in the digital library?
  - o Does the digital library hold material from multiple institutions?
  - o Are digital objects reused (i.e., from a previous iteration of the digital library) or can they be reused (i.e., through metadata harvesting)?
- Technical Infrastructure
  - o What software does the digital library use?
  - o Was the software programmed in-house or is an off-the-shelf software package used?
  - o What file formats are used?
  - o Are related images grouped together?
- Access
  - o Who is the audience for the digital library?

- o What sort of searching and browsing features are provided?
- o Are there any unique access issues related to the type of resources in the digital library?
- o Is copyright information available in the digital library?

Quality Control Assignment (5%):
After discussing digital image creation, students will perform quality control on a sample image. Students will be provided a sample image and list of imaging requirements for an imaging project. Each student must determine if that image meets appropriate quality standards or if the image would need to be re-scanned. Students will submit a written evaluation of the image.

Metadata Assignment (5%):
Students will be given a MARC record to transform into MARC XML and then transform into Dublin Core XML Record.

Review of Readings (40%) (8 in-class quizzes worth 5% each):
Students will answer a few short questions through Blackboard about the required readings for that day's class. Students will have time in-class to answer the questions. If a student misses class, the student may also answer the questions through Blackboard prior to returning to class. 10 quizzes will be assigned; the top 8 will make up 40% of the final grade.

Final Class Project (30%) Individual Work (10%) Review of project participations by group members:
The culminating project in the course will be to develop a digital library from existing images and metadata created by the New York State Archives. I have chosen the Hugh L. Carey Collection covering years 1975-1982 in the New York State Archives' Digital Collections as the source of images and metadata to reuse because the collection is small (380 images), image metadata is complete, it is publicly available and it includes intriguing images. An alternate collection matching the Carey collection in terms of size, completeness, availability and interest may be substituted.

The final product of the project will be a small digital library of the Carey collection for eventual use on the New York State Archives website. The design of the site will be based on web presence guidelines established by the State Archives. The digital library will include images, selected metadata and search and browse interfaces.

The class will be broken into three groups of students. Each group will focus on one aspect of designing digital libraries including design, technical infrastructure and metadata for the digital library. Each group will need to work with the other two groups to create the final product. I will reserve time at the end of each class for students to work on the project. Students will be given guidance on website

design to match accessibility and display standards, but will be encouraged to think creatively about how to reuse existing objects in a new web presence.

Final project will be due August 13, 2009.

Class grading:
10% Review of Existing Digital Library
5%   Quality Control Assignment
5%   Metadata Assignment
40% Review of Readings (8 @ 5% In class quizzes)
30% Main Project Grade
10% Review of Main Project Participation by Group Members

Any readings not from the required textbook (by Lesk) and not available online will be available through E-Res.

Schedule and Readings:

Date	Topics and Readings	Assignments
7/07	Class 1: Introduction • Lesk, Chapter 1. Optional: Bush, V. (1945). As We May Think. *The Atlantic Monthly*, 176(1), 101-108. http://www.theatlantic.com/doc/194507/bush	
7/09	Class 2: Project Management and Planning Digital Library Projects • Lesk, Chapter 10. • Hughes, Lorna M. (2004.) *Digitizing Collections: Strategic issues for the information manager*. London: Facet Publishing. Chapters 6 and 7. • IMLS. NLG Project Planning: A Tutorial. Available at http://www.imls.gov/Project_Planning/index1.asp Optional: Reese, Jr. and Banerjee Chapter 1.	In-class quiz
7/14	Class 3: Digital Library Development, Design and Organization • Lesk, Chapter 6. • Arms, William. (1995.) "Key Concepts in the Architecture of the Digital Library." *D-Lib 1*(1).Available at: http://www.dlib.org/dlib/July95/07arms.html, • Besser, Howard. (2002). "The next stage: Moving from isolated digital collections to interoperable digital libraries." *First Monday, 7*(6). Available at: http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/958/879. Optional: Reese, Jr. and Banerjee Chapters 2 and 3	In-class quiz

7/16	Class 4: Metadata • Lesk, Chapter 5. • Baca, Murtha (Ed.) (2008). *Introduction to metadata. Online edition. Version 3.0.* Los Angeles, CA: Getty Information Institute. Available at http://www.getty.edu/research/conducting_research/standards/intrometadata/index.html • MARC XML reference http://www.loc.gov/standards/marcxml/. • Dublin Core Metadata Initiative reference http://dublincore.org/. Metadata Assignment (due next class): Students given MARC record to transform into MARC XML and then transform into Dublin Core XML Record. Optional: Reese, Jr. and Banerjee Chapters 4, 5, and 6	In-class quiz
7/21	Class 5: Sharing Metadata and Federated Searching • Reese, Jr. and Banerjee Chapters 6 and 7	In-class quiz Metadata Assignment due
7/23	Class 6: Working with Images and Multimedia • Lesk, Chapter 4 • National Archives and Records Administration. (2004.) Technical Guidelines for Digitizing Archival Materials for Electronic Access: Creation of Production Master Files - Raster Images. Washington, DC: NARA. Available at: www.archives.gov/preservation/technical/guidelines.pdf • BCR's CDP Digital Imaging Best Practices Version 2.0. (2008). Available at: http://www.bcr.org/cdp/best/index.html • Cornell University Library. (2000). Moving theory into practice: Digital imaging tutorial. Retrieved September 3, 2008, from http://www.library.cornell.edu/preservation/tutorial/contents.html	In-class quiz

	Quality Control Assignment (due next class.)	
7/28	Class 7: Working with Manuscripts and Text • Lesk, Chapters 2 and 3. • TEI Consortium. (2004). Text Encoding Initiative: The XML Version of the TEI Guidelines. Available at: http://www.tei-c.org/release/doc/tei-p4-doc/html/	In-class quiz Quality Control Assignment due
7/30	Class 8: Intellectual Property • Lesk, Chapter 11. • Besek, June M. (2003). Copyright issues relevant to the creation of a digital archive: A preliminary assessment. Washington, DC: CLIR. Available at: http://www.clir.org/pubs/abstract/pub112abst.html • Covey, Denise Troll. (2005.) Acquiring Copyright Permission to Digitize and Provide Open Access to Books. Washington, DC: CLIR. Available at: http://www.clir.org/pubs/abstract/pub134abst.html • Harper, Georgia. (2001.) Crash Course in Copyright. University of Texas at Austin. Available at: http://www.utsystem.edu/ogc/Intellectualproperty/cprtindx.htm	In-class quiz
8/04	Class 9: User Interfaces and Usability • Lesk, Chapter 7 and 8. • Tedd, Lucy A. & Large, Andrew, 2005. *Digital Libraries: Principles and Practice in a Global Environment*, Munchen: K. G. Saur Verlag. Chapter 6.	In-class quiz
8/06	Class 10: Digital Archiving and Preservation Required reading: • Lesk, Chapter 9. • Thibodeau, Kenneth. (2002). "Overview of Technological Approaches to Digital Preservation and Challenges in Coming Years" in *The State of Digital Preservation: An International Perspective*, Washington, D.C.: CLIR. available at http://www.clir.org/pubs/reports/pub107/thibodeau.html • Lavoie, Brian F. (2004.) "The Open Archival Information System Reference Model: Introductory Guide." www.dpconline.org/docs/lavoie_OAIS.pdf Suggested reading: • Jones, Maggie, and Beagrie, Neil. (2001.) Preservation Management of Digital Materials: A Handbook. (Introduction	In-class quiz

	and Digital Preservation sections.) http://www.dpconline.org/graphics/handbook/index.html (Digital Preservation Section only.) • (Or if the introductory guide isn't enough) Reference Model for Open Archival Information System (OAIS.) (2002.) http://public.ccsds.org/publications/archive/650x0b1.pdf	
8/11	Class 11: Project workday	
8/13	Class 12: Presentation to New York State Archives	Final Project Due

I reserve the right to alter this syllabus with timely notice to students. I will announce any changes in class and/or notify students by email in sufficient time to avoid misunderstandings.