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SI 640 - Digital Libraries and Archives, Winter 2009

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Week 1 (January 12): Definitions and Key Constructs
The first course session will review the structure of the courses and outline its principal underlying themes. We will explore perspectives on the idea of libraries and archives, digital or otherwise, collaborate to establish a shared definition of a digital library, and frame this definition within the broader notion of “convergence culture” and the functional convergence of libraries, archives, and museums.

Required Readings:


**Resources:**


**NB: Due to the MLK Holiday, we will cover Week 2 content in Weeks 1 and 3.**

**Week 2 (January 19): Origins and International Perspectives**

Digital libraries have a distinctive history, a consideration of which sheds light on the predispositions of those who design and build them. This session will contrast design/build perspectives on an international basis with what we do and do not know about the people who use them. This session will cover the major sources of information on digital libraries and archives.

**Required Readings:**


**Resources:**


JISC: Joint Information Systems Committee. [http://www.jisc.ac.uk/](http://www.jisc.ac.uk/)

Week 3 (January 26): Content Landscapes: How Much Information
In spite of the fact that the manufacture of paper continues unabated, we are living in a digital world. This session will explore alternative scenarios for describing the landscape of digital content, using as a point of departure a seminal study that attempts to measure the volume of information created annually.

Required Readings:

[http://www2.sims.berkeley.edu/research/projects/how-much-info-2003/]

[http://www.oclc.org/reports/2004format.htm]


[http://www.ariadne.ac.uk/issue36/powell/intro-alternative.html]

Resources:

[http://www.diglib.org/collections/reg/reg.htm]

Digital Library Federation. DLF Aquifer.  
[http://www.diglib.org/aquifer/]

HangingTogether [blog]  
[http://hangingtogether.org/]

JISC Collections: delivering resources online.  
[http://www.jisc-collections.ac.uk/]

Week 4 (February 2): Research Agendas
Sometimes it’s useful to make lists. Research agendas for digital libraries, digital preservation capabilities, and the management of electronic records provide insight into the shifting perspectives on needs and requirements. This session will explore at least a decade’s worth of research agendas against our emerging understanding of what digital libraries are.

Required Readings:

[http://www.ercim.org/publication/ws-proceedings/EU-NSF/metadata.html]


[http://www.clir.org/pubs/abstract/pub107abst.html]


Resources:

http://dkc.jhu.edu/usability_1.html

http://www.dli2.nsf.gov/dlione/

UM Collaboratory Working Groups. http://www.si.umich.edu/UMDL/EU_Grant/home.htm

Week 5 (February 9): Interface and Metadata Infrastructure
What you see isn’t necessarily what you get. This session will explore the distinction between the user interface and the underlying structure of information used to describe, structure, and administer a digital archive or repository. We will work with several XML models of digital library metadata infrastructure and explore the elements of interface design that enable or constrain use.

Required Readings:


http://doi.acm.org/10.1145/1065385.1065411


Resources:


**Week 6 (February 16): Representation of Image/Text and Visual Digital Libraries**

This session will look closely at theories of representation – particularly through the transformation of visual and textual resources into digital formats. The rapidly emerging interdisciplinary of “Digital Humanities” will serve as a framework for testing notions of who digitization influences how users interpret meaning in a digital library/archive context. A project on diagnosing and detecting image representation will be introduced.

**Required Readings:**


**Resources:**


Handout on digital imaging guidelines [on CTools]


Text Encoding Initiative http://www.tei-c.org/index.xml
**SPRING BREAK (February 23)**

**Week 7 (March 2): Case Studies on Building Collections**
This week builds on the theories of representation explored in Week 6 by examining closely three very significant digital library projects. *American Memory* of the Library of Congress and the Online Archive of California represent large general purpose collections; the *Walt Whitman Archive*, built under the auspices of the Institute for Advanced Technology in the Humanities, is a great example of purpose-built collections oriented toward specific digital humanities scholarship.

**Required Readings:**


**Resources:**


Walt Whitman Archive. About the Archive. [http://www.whitmanarchive.org/about/index.html]

**Week 8 (March 9): Cyberinfrastructure**
This session will introduce the concept of “cyberinfrastructure” and explore the concept’s relevance to the technical and policy issues associated with science, social science, and humanities data and users.

**Required Readings:**


Arms et al. [2006] “A Research Library Based on the Historical Collections of the Internet Archive.” [http://www.dlib.org/dlib/february06/arms/02arms.html]


**Resources:**


**Week 9 (March 16): Scholarly Communication and Digital Library Use**
Models of scholarly communication (which vary somewhat by discipline) provide a framework for exploring access and use issues in digital libraries. This and next week’s sessions together will force us to confront the ongoing tensions between the idealization of digital libraries and the barriers presented by the technical, organizational, and policy constraints.

Required Readings:


http://www.arl.org/resources/pubs/br/br211.shtml


http://www.acm.org/pubs/citations/proceedings/dl/276675/p152-levy/


http://www.arl.org/resources/pubs/br/br244.shtml

Resources:


http://www.arl.org/sc/models/index.shtml


Week 10 (March 23): Institutional Repositories and Trust
This session will look closely at emerging models of institutional repositories, their relationship to emerging preservation requirements, including data modeling and trust systems.

Required Readings:

http://www.arl.org/sparc/IR/ir.html

Green and Gutmann. [2006] “Building Partnerships Among Social Science Researchers, Institution-based Repositories and Domain Specific Data Archives.” [preprint on CTools]

Lavoie and Dempsey. [2004] “Thirteen Ways of Looking at...Digital Preservation.”
http://www.dlib.org/dlib/july04/lavoie/07lavoie.html


Resources:


NESTOR: Network of Expertise in Digital Long-term Preservation (Germany) http://www.langzeitarchivierung.de/index.php?newlang=eng


Week 11 (March 30): Case Study of UM Deep Blue and Blue Stream
This session takes a close look at two technologies at the University of Michigan that support the university’s digital repository efforts, including the ingest and processing of digital multi-media resources. The case study explores the extent to which multiple technologies are and are not yet integrated from the perspective of infrastructure and interface.

Required Readings:

Deep Blue http://deepblue.lib.umich.edu/

Blue Stream http://sitemaker.umich.edu/bluestream/home

Week 12 (April 6): Sustaining Digital Libraries
Sustainability could turn out to be one of the principal challenges of digital libraries (an open question). This final session will explore a variety of incentive mechanisms associated with designing, building, and using digital libraries/archives and their use.

Required Readings:
Keller, Reich, and Herkovic. [2003] “What is a library anymore, anyway?”

http://www.dlib.org/dlib/july05/lynch/07lynch.html

http://www.dlib.org/dlib/november05/lagoze/11lagoze.html


Resources:

Digital Curation Center. http://www.dcc.ac.uk/index

Week 13 (April 13): Wrap-up and Research Paper Reports
This and the final session will provide opportunities for synthesis across seminar topics, taking as a point of departure the issues explored in student research papers. Project reports will be grouped conceptually into panels; each project will be allotted roughly five minutes for a succinct presentation on the core concept and key findings of the project.

Week 14 (April 20): Research Paper Reports
Completion of project reports.