**School of Information and Library Science**
**University of North Carolina, Chapel Hill**
**INLS 740W: Digital Libraries**
*[Last Updated: 2014-12]*

**Meeting Time**: January 7- April 24, 2015
**Location**: Web
**Credits:** 3.0
**Perquisite**: None
**Instructor:** Ayoung Yoon
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**Course Web Site**: https://sakai.unc.edu/

## Course Description and Objectives

This course will address research and development issues in digital libraries, including: collection development and digitization; mass digitization; text and multimedia materials; metadata; interoperability; architecture; searching and services; economic, legal, and social policies such as copyright; and management and evaluation. Students will read and discuss literature on DLs, evaluate a DL of their choice, and work as a group to develop a prototype DL.

By the end of the course, students will:
- Gain knowledge of major issues constituting the basis of digital libraries,
- Understand the technologies involved in the construction of digital libraries,
- Be able to make collection development decisions for building a digital library,
- Be able to make decisions regarding the implementation of services and automation for a digital library,
- Be able to evaluate a digital library with regard to its content and user base,
- Be able to be involved in the construction and maintenance of a digital library.

## How we will conduct "Class"

While online courses afford great convenience, they also demand extra effort from both a instructor and students. Because there is no face time for lectures, discussions, group work, or other activities, all this must take place through the course site on Sakai. This involves extensive writing and creation of slides, videos, and other media we will use to communicate our ideas and questions. The syllabus, assignments, and many of the readings (unless available online) will be posted on Sakai. At the end of each week I will provide slides or notes and brief "lectures" on important points (this is AFTER you complete the class discussion), but much of the work of the course will take place in the

forums via discussion of the readings, videos, and slides, and your own work (discussion, assignments, and group work).

We will be working with one of DL platforms, Omeka (http://omeka.org/). For the convenience of DL project, we will be using **Omeka.net,** which is an outgrowth of the Omeka project. This is a Web-based tool that does not require sever and FTP client. More instructions will be provided.

## Online Etiquette (Netiquette) Guideline

- http://www.indiana.edu/~icy/netiquette.html
- http://www.brighthub.com/education/online-learning/articles/26946.aspx

## Readings and Sources

Readings are on Sakai or links on the World Wide Web. It is expected that students will have read the materials before class, as we will be referring to them in lectures and in the exercises.

**Textbook**:

There is one text for this course:
- Witten, I. H., Bainbridge, D., & Nichols, D. M. (2010). How to Build a Digital Library, 2nd ed. San Francisco, CA: Morgan Kaufman Publishers. (http://search.lib.unc.edu/search?R=UNCb6057977)

Available as an ebook though the UNC libraries. If you prefer to hold paper in your hands, this book is also available in the Student Stores and on reserve in the SILS library. Also available from Amazon or any online bookseller.

**Additional reading:**

- Reese, T. & Banerjee, K. (2007). *Building Digital Libraries: A How-to-do-it Manual*. 1st ed. Neal Schuman Publisher.
- Lesk, M. (2005). *Understanding Digital Libraries*. 2$^{nd}$ ed. San Francisco, CA: Morgan Kaufman Publishers.
- Arms, W. Y. (2000). *Digital Libraries*. Cambridge, MA: The MIT Press. (Online version: http://www.cs.cornell.edu/wya/diglib/MS1999/index.html)
- Bishop, A. P., Van House, N. A., & Buttenfield, B. P. (Eds.). (2003). *Digital Library Use: Social Practice in Design and Evaluation*. Cambridge, MA: The MIT Press.
- Borgman, C. L. (2000). *From Gutenberg to the Global Information Infrastructure*. Cambridge, MA: The MIT Press.
- Lesk, M. (1997). *Practical Digital Libraries: Books, Bytes, and Bucks*. San

Francisco, CA: Morgan Kaufman Publishers.
- Special issues of journals:
  - ○ *Library Trends*, 49(2), Fall 2000. Assessing Digital Library Services, Edited by Thomas A. Peters.
  - ○ *Information Processing & Management*, 41(1), January 2005. An Asian Digital Libraries Perspective, Edited by E. A. Fox and E. Logan.
  - ○ You should read *D-Lib Magazine* and the *International Journal on Digital Libraries* regularly.

Several conferences devoted to digital libraries exist:

- Joint Conference on Digital Libraries (JCDL)
- International Conference on Theory and Practice of Digital Libraries (TPDL, formerly the European Conference on Digital Libraries (ECDL))
- International Conference on Asian Digital Libraries (ICADL)
- The Digital Humanities Conference also has a lot of DL-related content

## Assignments and Grading

Grades will be based on class participation (including assigned tasks), discussion, and exercise with a series of assignments.

**Class participation, tasks, and discussion (30% of total grade**, **Due every Thursday**)

Students are required to post a brief reflection (couple paragraphs) of assigned readings and a discussion to answer the questions if I post. In addition to the reflection, students are also required to post a comment (at least one) to other students' reflection, by "reply" to the original post.

A few rules about posting in the Forum on Sakai:
- The tone of your voice should be similar to the tone you would use in a classroom discussion, and should be placed in the appropriate forum.
- "**General discussion**" is designed for posting your reflections, discussion and tasks.
- "**Question**" should be used to ask questions that other students may benefit from the answers. You can also questions about Omeka.
- "**Wiki**" will be used to form a group for your final group project (3-4 per group)
- In the class discussion, present more than your opinion. If you present an opinion, present some support from the readings or from other sources that you have discovered (direct quotation is acceptable with appropriate reference information) or logical argument from commonly accepted beliefs. It also applies to your comments to others, and you should "agree" or "disagree" using supporting facts or information new to the discussion.

- Be respectful when you disagree with others. Instead of using a vague statement (e.g., "It could be …" or "It seems as if"), make strong statement with supporting materials (e.g., literature or your own experiences).

**Assignment overview (70% of total grade)**
* All assignments must be turned in through the Sakai class website (assignment area). Late submissions will not be accepted unless students have consulted with the instructor prior to the late submission. Check out Sakai Assignment space for the details about the assignments.

**Individual assignment 1**
- Definition of "Digital Libraries" and the role of digital librarians (5%, 1-2 pages, double spaced)
- Due Jan 23, Friday midnight.
- Submit to both "Assignment" (for grading) and "Forum" (for others to review) on Sakai

**Individual assignment 2**
- Review of existing digital libraries (20%, 10 pages, double spaced)
- Due Mar 6 Friday Midnight
- Submit to "assignment" on Sakai.

**Final group project (45% - cumulative from assignment 1 to 4)**
A group of students (3-4) will create a digital library project (prototype) using Omeka.net. Omeka.net provides a free account, limiting to 500MB. Due to the server space limitation, you will not be able to develop a full DL project as you'd like to, but the purpose of this project is to give a sense of hands-on experience using a tool, Omeka.

- Review the Omeka website, both omeka.org and omeka.net.
- YouTube Video: Building a collection in Omeka (omeka.org): https://www.youtube.com/watch?v=Kiy27DGCC9g

The project should be online and should include at least X number of digital objects (as many as the account allows) that can be accessed through searching and browsing. A metadata schema must be used to organize information about the digital objects. A write-up of the project as well as the URL of the digital library should be submitted as the final project.

    **Group project assignment 1**.
- Form a group at Sakai Wiki.
- Create ONE account per group. You will share this account to develop a prototype.
- Due during the week 3

    **Group project assignment 2**. Your digital library topic (10%)

- Due Feb 20, Friday Midnight.
- Submit to both "Assignment" (for grading) and "Forum" (for others to review) on Sakai

**Group project assignment 3.**
- Working with Omeka.net (30%) to develop a prototype.
- Work through Week 10 to 13.

**Group project assignment 4.**
- A final report (45%, 10-15 pages, double spaced)
- Due Apr 28 Tue Midnight
- Submit to "assignment" on Sakai.

**\* Special Needs:** If you need an accommodation for a disability or have any other special need, please make an appointment to discuss this with me. I will be most able to address special circumstances if I know about them early in the semester. My office hours and contact information are listed at the beginning of this syllabus.

## Important note on plagiarism
Unless otherwise specified in an assignment, all submitted work must be your own, original work. Any experts from the work of others must be clearly identified as a quotation, and a proper citation provided. Be aware of the University of North Carolina policy on plagiarism. All cases of plagiarism (unattributed quotation or paraphrasing) of anyone else's work, (e.g. from published materials) will be officially reported and dealt with according to UNC policies (Instrument of Student Judicial Governance, Section II.B.1. and III.D.2, http://instrument.unc.edu).

## Evaluation
Based on UNC Registrar Policy for graduate-level courses (http://registrar.unc.edu/AcademicServices/Grades/ExplanationofGradingSystem/index.htm#grad), both assignment and semester grades will be H, P, L or F. Few students will obtain an "H," which signifies an exceptionally high level of performance (higher than an "A" in an A-F systems). The following is a more detailed breakdown used for class assignments:

**H**      Superior work: complete command of subject, unusual depth, great creativity or originality

**P+**      Above average performance: solid work somewhat beyond what was required and good command of the material

**P**      Satisfactory performance that meets course requirements (expected to be the median grade of all students in the course)

**P-** Acceptable work in need of improvement L Unacceptable graduate performance: substandard in significant ways F Performance that is seriously deficient and unworthy of graduate credit

**F** An unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content.

## Course overview and assignment due at a glance

**Week 1** Introduction to the class
**Week 2** Definition of DL (cont.) History and current status
  • Individual assignment 1. Due Jan 23, Friday midnight.
**Week 3** Project planning and building DL collections
  • Group project set up (assignment 1): During this week.
**Week 4** DL architecture and design 1
**Week 5** DL architecture and design 2
**Week 6** Collection development
  • Group project assignment 2. Due Feb 20, Friday Midnight.
**Week 7** Metadata and representation
**Week 8** Access, discovery and interface
  • Individual assignment 2. Due Mar 6 Friday Midnight
**Week 9** No class, spring break
**Week 10** Digitization
  • Working on the group project (assignment 3)
**Week 11** Preservation
  • Working on the group project (assignment 3)
**Week 12** Users and DL evaluation
  • Working on the group project (assignment 3)
**Week 13** Intellectual property
  • Working on the group project (assignment 3)
**Week 14** Future of DL
**Week 15** No class. Working on the project.
  • Group project assignment 4. Due Apr 28 Tue Midnight

## Course Schedules and Readings

## Week 1 (Week of Jan 12): Introduction to the class and overview of DL
Your reflection, discussion, and comments due on Thursday, Sakai Forum
Task: **Your Brief Bio**
Your first task is to share your bio with your other classmates on the Forum space on Sakai, include your name, contact information (email), brief work history, your reasons behind for taking this class, hobbies if you like and any other information you will like to

share with the class. These bios will act as an icebreaker and help you identify your colleagues and indicate which of you have the same professional interests as you.

Topics:
- What is a digital library?
- What is not a digital Library?
- What are your preconceptions of a digital library?

Required readings:
- Read syllabus thoroughly!
- Watch TED Video (20 minutes): Brewster Kahle, Builds a free digital library. http://www.ted.com/talks/brewster_kahle_builds_a_free_digital_library.html
- Darnton, R. (2010, October 28). Can we create a national digital library? The New York Review of Books. http://www.nybooks.com/articles/archives/2010/oct/28/can-we-create-national-digital-library/
- Rothman, D. H. (2011, February 24). It's time for a national digital library system. The Chronicle of Higher Education. Retrieved from http://chronicle.com/article/Its-Time-for-a-National/126489/
- Borgman, C. L. (1999). What are digital Libraries -Competing Visions, *Information Processing & Management, 35*(3), 227-243.
- Ross, L. & Sennyey, P. (2008). The Library is dead, long live the library! The practice of academic librarianship and the digital revolution. *Journal of Academic Librarianship, 34*(2), 145-152.

Additional reading:
- Watch YouTube, Robert Darnton: The Library in the Digital Age: https://www.youtube.com/watch?v=ojiVpu7x8zE
- Akst, D. (2003). The digital library:  It's future has arrived.  Carnegie Reporter.
- President's Information Technology Advisory Committee (2001). Digital Libraries: Universal Access to Human Knowledge – Report to the President
- Kuny, T. & Cleveland, G. (1996). The Digital Library: Myths and Challenges. IFLA Conference paper.

**Week 2 (Week of Jan 19):** Definition of DL (cont.) History and current status
Your reflection and comments due on Thursday, Sakai Forum
Assignment 1: **Definition of DL and D-Librarians (Due Jan 23, Friday Midnight)**

Topics:
- Definitions of DL (cont.)
- Digital libraries as sociotechnical systems
- Digital Libraries: History and vision
- Digital librarians: Who are they?

Required readings:
- Watch YouTube: History digital libraries, Part 1 and 2 by Dr. Jeff Pomerantz
  - Part 1: http://www.youtube.com/watch?v=iaCDZvu-59Q (14 min)
  - Part 2: http://www.youtube.com/watch?v=oJAfNQvJCAQ (11 min)
- Van House, N. A., Bishop, A. P. & Buttenfield, B.P. (2003). Introduction: Digital Libraries as Sociotechnical Systems, in *Digital Library Use* (chapter 1).
- O'Day, Vicki L, and Bonnie A. Nardi. (2003). An Ecological Perspective on Digital Libraries, in *Digital Library Use* (chapter 4).
- Choi, Y. & Rasmussen, E. (2009.) What Qualifications and Skills are Important for Digital Librarian Positions in Academic Libraries? A Job Advertisement Analysis. Journal of Academic Librarianship, 35(5), 457-467.

Additional reading:
- Arms, W. Y. (2000). Digital Libraries. Cambridge, MA: The MIT Press. Chapter 1. http://www.cs.cornell.edu/wya/DigLib/MS1999/Chapter1.html
- Bush, V. (1945). As We May Think. *The Atlantic Monthly. 176*(1), 101-108.
- Mischo, W. H. (2005). Digital Libraries: Challenges and influential work. D-Lib Magazine, July/August 2005.
- NSF/DARPA/NASA Digital Libraries Initiative: http://www.dlib.org/dlib/july98/07griffin.html
- Google Book Digitization Project (2004): http://newsbreaks.infotoday.com/nbreader.asp?ArticleID=16307
- Greenstein and Thorin (2002). The Digital Library: A Biography: http://www.clir.org/pubs/reports/pub109/pub109.pdf
- Levy, David. "Digital Libraries and the Problem of Purpose." D-Lib Magazine 6, no. 1 (1, 2000). http://www.dlib.org/dlib/january00/01levy.html.
- Kling, Rob. "What is Social Informatics and Why Does it Matter?." D-Lib Magazine 5, no. 1 (1, 1999). http://www.dlib.org/dlib/january99/kling/01kling.html.
- Choi, Y. & Rasmussen, E. (2006). What do digital librarians do? JCDL 2006.
- Marion, L. (2001). "Digital Librarian, Cybrarian, or Librarian with Specialized Skills: Who Will Staff Digital Libraries?" Crossing the Divide: Proceedings of the Tenth National Conference of the Association of College and Research Libraries. Denver, Colorado, March 15-18, 2001), pp143-149. http://www.ala.org/acrl/sites/ala.org.acrl/files/content/conferences/pdf/marion.pdf

**Week 3 (Week of Jan 26):** Project planning and building DL collections
==Reflection, discussion and comments due on Thursday, Sakai Forum==
**==Group project set up==** ==(assignment 1): During this week==

Topics:
- What must a digital librarian consider when creating a digital library collection?

- Short- and long-term planning of DL projects
- Development of sustainable projects
- Disruptions and boundaries

Required readings:
- National Initiative for a Networked Cultural Heritage. (2002). *NINCH Guide to Good Practice in the Digital Representation and Management of Cultural Heritage Materials*.
Read **chapters I. Introduction, II. Project Planning**, and **IX. Working with Others**: http://www.nyu.edu/its/humanities/ninchguide/.
- Rieger, O. Y. (2007). Select for Success: Key Principles in Assessing Repository Models. *D-Lib Magazine* 13, no. 7/8.
http://www.dlib.org/dlib/july07/rieger/07rieger.html.
- Marshall, C. C. (2003). Finding the Boundaries of the Library Without Walls, in Digital Library Use (chapter 3).

Additional reading:
- Agre, Philip E. "nformation and Institutional Change: The Case of Digital Libraries," in Digital Library Use (chapter 9).
- Cervone, H. Frank. How not to run a digital library project. *OCLC Systems & Services 20*, no. 4 (2004): 162 –166.
- Cervone, H. Frank. "Standard methodology in digital library project management." OCLC Systems & Services 23, no. 1 (2007): 30 – 34.
- Cervone, H. Frank. "The system development life cycle and digital library development." OCLC Systems & Services 23, no. 4 (2007): 348 – 352.
- Dietrich, Dianne, Jennifer Doty, Jen Green, and Nicole Scholtz. "Reviving Digital Projects." The Code4Lib Journal 5 (December 15, 2008).
http://journal.code4lib.org/articles/685

**Week 4 (Week of Nov 10):** DL architecture and design 1
<mark>Discussion, reflection, and comments due on Thursday, Sakai Forum</mark>

Topics:

- Digital library architecture
- Distributed Models of digital libraries
- Digital Object and DOI

Required readings:
- Arms, W. (1995.) Key Concepts in the Architecture of the Digital Library. D-Lib Magazine, 1(1). Available at: http://www.dlib.org/dlib/July95/07arms.html
- Arms, W. Blanchi, C. & Overly, E. (1997). An Architecture for Information in Digital Libraries, D-Lib Magazine:

http://www.dlib.org/dlib/february97/cnri/02arms1.html
- R. Kahn and R. Wilensky, (2006). A framework for distributed digital object services. *International Journal on Digital Libraries, 6*(2): 115–123 DOI 10.1007/s00799-005-0128-x. http://www.doi.org/topics/2006_05_02_Kahn_Framework.pdf
- Paskin, N. (2003). DOI: A 2003 progress report. *D-Lib Magazine, 9*(6). DOI: 10.1045/june2003-paskin. http://www.dlib.org/dlib/june03/paskin/06paskin.html

Additional reading:
- Erickson, J. (2003). "Digital Object Identifier", In McGraw-Hill Yearbook of Science & Technology: http://www.doi.org/topics/je-mh-doi-030970.pdf
- Brogan, M. (2006). *Contexts and Contributions: Building the Distributed Library*. Digital Library Federation (DLF) Report, November 2006.
- Goncalves, MA, Fox, EA, Watson, LT, et al. (2004). Streams, structures, spaces, scenarios, societies (5S): A formal model for digital libraries. *ACM Transactions of Information Systems, 22* (2): 270-312. http://www.dlib.vt.edu/projects/5S-Model/5s6.pdf
- Candela, L. et al. (2007). Setting the Foundations of Digital Libraries. *D-Lib Magazine 13*(3/4). http://www.dlib.org/dlib/march07/castelli/03castelli.html

## Week 5 (Week of Feb 9): DL architecture and design 2
<mark>Discussion, reflection, and comments due on Thursday, Sakai Forum</mark>

Topics:
- Identifiers. (Cont.)
- Digital library building blocks: XML, databases, and Resource Description Framework (RDF)
- Tools for building digital libraries

Required readings:
- Hakala, J. (2006). The seven levels of identification: An overview of the current state of identifying objects within digital libraries. *Program: electronic library and information systems 40*(4): 361 – 371.
- Vitello, G. (2004). Identifiers and Identification Systems: An Informational Look at Policies and Roles from a Library Perspective. D-Lib Magazine 10(1). http://www.dlib.org/dlib/january04/vitiello/01vitiello.html
- Witten et al. (2010). Chapter 7. **Read 7.3.** and **7.6.**
  - Watch YouTube about Fedora: https://www.youtube.com/watch?v=hNfKYYpgAFQ
  - Watch YouTube about DSpace: https://www.youtube.com/watch?v=I5kPb_nplOg

- Ianella, R. (1998). An Idiot's Guide to the Resource Description Framework." New Review of Information. Networking 4.
- Review:
  - Omeka: http://omeka.org/ and Omeka.net: http://www.omeka.net/
  - Watch YouTube about Omeka: https://www.youtube.com/watch?v=hNfKYYpgAFQ

Additional reading:
- Arms, W. (2000). Digital Libraries. Chapter 12: Object Models, Identifiers, and Structural Metadata. http://www.cs.cornell.edu/wya/diglib/MS1999/Chapter12.html
- Bourret, Ronald. XML and Databases. http://www.rpbourret.com/xml/XMLAndDatabases.htm
- A Metadata Architecture for Digital Libraries (1998): http://ieeexplore.ieee.org.libproxy.lib.unc.edu/stamp/stamp.jsp?tp=&arnumber=670428
- Smith et al. (2003). DSpace: An Open Source Dynamic Digital Repository. D-Lib Magazine 9(1). DOI: 10.1045/january2003-smith). http://www.dlib.org/dlib/january03/smith/01smith.html
- Fedora Architecture: http://www.fedora.info/
- Pitti, Daniel V. Introduction to XML. http://archive1.village.virginia.edu/dvp4c/xmlintro.html
- Berners-Lee, Tim. (1998). Why RDF model is different from the XML model. http://www.w3.org/DesignIssues/RDF-XML.html


## Week 6 (Week of Feb 16) Collection development
Discussion, reflection, and comments due on Thursday, Sakai Forum
**Group project assignment 2. Due Feb 20, Friday Midnight.**

Topics:
- Defining digital collections
- Building digital collections

Required readings:
- Lagoze, C., & Fielding, D. (1998). Defining Collections in Distributed Digital Libraries. D-Lib Magazine. http://dx.doi.org/cnri.dlib/november98-lagoze
- National Information Standards Organization. (2007). A Framework of Guidance for Building Good Digital Collections. **Review the section Collection**: http://www.niso.org/publications/rp/framework3.pdf
- Review:
  - American Memory http://lcweb2.loc.gov/ammem/techdocs/digcols.html

Relevant readings: (You can skim/use the readings for your collection development

purpose):
- Witten et al. (2010). Chapter 4. Textual documents
- Witten et al. (2010). Chapter 5. Multimedia
- Moving theory into practice: Digital imaging tutorial (2003.) available at: http://www.library.cornell.edu/preservation/tutorial/conte nts.html
- Powell, T. and Paynter, G. (2009). Going grey? Comparing the OCR accuracy levels of bitonal and greyscale images. D- Lib Magazine. 15(3/4). Available at: http://www.dlib.org/dlib/march09/powell/03powell.html
- BCR's CDP digital imaging best practices version 2.0. (2008).
- National Information Standards Organization (NISO). (2007). A Framework for guidance for building good digital collections. 3rd Edition. Baltimore, MD: National Information Standards Organization. **Section on Objects** http://framework.niso.org/node/37
- JISC (2008). Naming convention advice available at http://www.jiscdigitalmedia.ac.uk/guide/choosing-a-file-name/
- Optional: TEI Consortium. (2004). Text encoding initiative: TEI guidelines. http://www.tei-c.org/Guidelines/

## Week 7 (Week of Feb 23) Metadata and representation
<mark>Discussion, reflection, and comments due on Thursday, Sakai Forum</mark>

Topics:
- Metadata standard
- Controlled vocabulary
- Interoperability

Required readings:
- Baca, Murtha (Ed.) (2008). Introduction to metadata. Online edition. Version 3.0. Los Angeles, CA: Getty Information Institute. **Read Chapter: Practical Principles for Metadata Creation and Maintenance** (and skim rest if you think you need it). http://www.getty.edu/research/publications/electronic_publications/intrometa data/principles.html
- Witten et al. (2010). Chapter 6. Metadata: Elements of organization. **Read 6.1., 6.2., and 6.5.**)
- Chan, L. M., and Zeng, M.L. (2006). Metadata Interoperability and Standardization – A Study of Methodology Part I: Achieving Interoperability at the Schema Level. *D-Lib Magazine 12*(6). http://www.dlib.org/dlib/june06/chan/06chan.html
- Levy, David M. (2003). Documents and Libraries: A Sociotechnical Perspective. in *Digital Library Use* (chapter 2).
- McDonough, J. (2008). Structural Metadata and the Social Limitation of Interoperability: A Sociotechnical View of XML and Digital Library Standards

Development. In Proceedings of Balisage: The Markup Conference 2008. Balisage Series on Markup Technologies (1). http://www.balisage.net/Proceedings/vol1/html/McDonough01/BalisageVol1-McDonough01.html.


Review:
- Dublin Core Metadata Element Set: http://dublincore.org/documents/dces/

Additional readings:
- JISC (2008). Metadata for digital libraries: State of the art and future directions. http://www.jisc.ac.uk/media/documents/techwatch/tsw_0801pdf.pdf
- Miller, S. J. (2011). Metadata for Digital Collections. New York: Neal-Schuman. **Read sections 1.7 &2.1, & chapter 5**. **Read the rest of chapters 1 & 2 if you think you need it**
- Duval, E., Hodgins, W., Sutton, S., Weibel, S. L. (2002). Metadata Principles and Practicalities. D-Lib Magazine, 8(4). http://dx.doi.org/10.1045/april2002-weibel
- National Information Standards Organization (NISO). (2007). A Framework of Guidance for Building Good Digital Collections, **Review the section**: http://www.niso.org/publications/rp/framework3.pdf
- MARC XML reference http://www.loc.gov/standards/marcxml/
- MODS reference http://www.loc.gov/standards/mods/
- Marshall, C. C. (1998). Making Metadata: A Study of Metadata Creation for a Mixed Physical-Digital Collection." In Proceedings of the third ACM conference on Digital libraries, 162-171. Pittsburgh, Pennsylvania, United States: ACM. http://www.csdl.tamu.edu/~marshall/dl98-making-metadata.pdf.
- CDL Guide of Digital Object: http://www.cdlib.org/services/access_publishing/dsc/contribute/docs/GDO.pdf
- Zeng, Marcia Lei, and Lois Mai Chan. (2006). Metadata Interoperability and Standardization – A Study of Methodology Part II: Achieving Interoperability at the Record and Repository Levels." *D-Lib Magazine 12(*6). http://www.dlib.org/dlib/june06/zeng/06zeng.html


**Week 8 (Week of Mar 2)** Access, discovery and interface
<mark>Discussion, reflection, and comments due on Thursday, Sakai Forum</mark>
<mark>**Individual assignment 2. Due Mar 6 Friday Midnight.**</mark>


Topics:
- Resource discovery and searching
- Interface design
- Search and access interfaces
- Information visualization

Required readings:
- Witten et al. (2010). Chapter 3. Presentation: User Interface (Skim this chapter focusing on provided examples)
- Paepcke, A. (1996). Digital Libraries: Searching Is Not Enough. D-Lib Magazine. http://www.dlib.org/dlib/may96/stanford/05paepcke.html
- Smith, A. G. (2000). Search features of digital libraries. Information Research, 5(3). http://www.informationr.net/ir/5-3/paper73.html
- Borgman, Christine L. Designing Libraries for Usability, in Digital Library Use (chapter 5).
- Manduca, C. A.; Iverson, E. R.; & Fox, S. (2005). Influencing user behavior through digital library design. *D-lib Magazine 11*(5). http://www.dlib.org/dlib/may05/fox/05fox.html

Additional readings:
- Witten et al. (2010). Chapter 12. Design patterns for advanced user interfaces
- Martin, R. S. (2003). Reaching across Library Boundaries. In: Emerging Visions for Access in the Twenty-first Century Library. (CLIR report &CDL Conference Proceedings). http://www.clir.org/pubs/reports/pub119/martin.html
- Arms, W. (2000). Digital Libraries. Chapter 7. Access management and security. http://www.cs.cornell.edu/wya/diglib/MS1999/Chapter7.html
- Arms, W. (2000). Digital Libraries. Chapter 8: User interface and usability. http://www.cs.cornell.edu/wya/diglib/MS1999/Chapter8.html
- Arms, W. (2000). Digital Libraries. Chapter 10: Information Retrieval and Descriptive Metadata. http://www.cs.cornell.edu/wya/diglib/MS1999/Chapter10.html
- Chowdhury, S., Landoni, M. and Gibb, F. (2006). Usability and impact of digital libraries: a review. Online Information Review. (30)6. 656--680. DOI: 10.1108/14684520610716153
- Kumar, Vijay, Richard Furuta, and Robert B. Allen. (1998). Metadata visualization for digital libraries: interactive timeline editing and review. *In Proceedings of the third ACM conference on Digital libraries*, 126-133. Pittsburgh, Pennsylvania, United States: ACM, 1998.


## Week 9 (Week of Mar 9): No class, spring break


## Week 10 (Week of Mar 16) Digitization
Discussion, reflection, and comments due on Thursday, Sakai Forum
Working on the group project assignment 3

Required readings:
- Watch YouTube: Preservation and Access: Digitization Services at the National Archives: https://www.youtube.com/watch?v=fyKsNOTIwJk

- Smith, A. (2001). Strategies for Building Digitized Collections.
  http://www.clir.org/pubs/reports/reports/pub101/pub101.pdf
- Impacts of Mass Digitization Projects on Libraries and Information Policy;
  http://www.asis.org/Bulletin/Oct-06/hahn.html
- Digitization of Library Materials in Academic Libraries: Issues and Challenges:
  http://www.jiii.org/uploadfile/2014/0113/20140113034520805.pdf
- Cloud - sourcing Research Collections : Managing Print in the Mass-digitized
  Library Environment:
  http://www.oclc.org/content/dam/research/publications/library/2011/2011-
  01.pdf?urlm=162949

Additional readings:
- Dulock and Long. (2011) The Conference on world affairs archive online:
  Digitization and metadata for a digital audio pilot. D-Lib 17(3/4). Available at
  http://www.dlib.org/dlib/march11/dulock/03dulock.html
- JISC. (2009). Digitizing analogue media (moving images) available at:
  http://www.jiscdigitalmedia.ac.uk/movingimages
- Strategies for Implementing a Mass Digitization Program
  http://conservancy.umn.edu/bitstream/handle/11299/169379/Strategies_Mass
  _Digitization.pdf?sequence=5&isAllowed=y
- Selecting Research Collections for Digitization: Applying the Harvard Model.
  Library Trends 48 (2000) :
  http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.224.3365
- Audio and Video at Scale: Indiana University's Media Digitization and
  Preservation Initiative: https://smartech.gatech.edu/handle/1853/52882
- Digitization and Digital Archiving: A Practical Guide for Librarians (book)
- Digital Technology and the Contemporary University: Degrees of Digitization
  (book)

## Week 11 (Week of Mar 23) Preservation
Discussion, reflection, and comments due on Thursday, Sakai Forum
Working on the group project assignment 3

Required readings:

- Watch YouTube video about Why Digital Preservation is Important for
  Everyone:https://www.youtube.com/watch?v=qEmmeFFafUs
- Witten et al. (2010). Chapter 9. Read 9.2.
- Conway, P (2010). Preservation in the Age of Google: Digitization, Digital
  Preservation, and Dilemmas. The Library Quarterly: Information, Community,
  Policy 80(1). 61-79

- Amanda Kay Rinehart , Patrice-Andre Prud'homme , Andrew Reid Huot , (2014) "Overwhelmed to action: digital preservation challenges at the under-resourced institution", OCLC Systems & Services, Vol. 30 Iss: 1, pp.28 - 42
- Kirchhoff, Amy J. (2008). Digital preservation: challenges and implementation. Learned Publishing, Volume 21, Number 4, October 2008, pp. 285-294(10)

Additional readings:
- Watch YouTube video about Preservation: Evolving Roles and Responsibilities of Research Libraries: https://www.youtube.com/watch?v=HfUCHumFjTA
- Hedstrom, H. (1997). Digital Preservation: A Time Bomb for Digital Libraries. Computers and the Humanities Volume 31, Issue 3 , pp 189-202

## Week 12 (Week of Mar 30) Users, users' need and DL evaluation
Discussion, reflection, and comments due on Thursday, Sakai Forum
Working on the group project assignment 3

Topics:
- Users' needs
- Evaluating digital collections and libraries

Required readings:
- Witten et al. (2010). Chapter 2. People in digital libraries.
- Marchionini, Gary, Catherine Plaisant, and Anita Komlodi (2003). "The People in Digital Libraries: Multifaceted Approaches to Assessing Needs and Impact". in *Digital Library Use* (chapter 6).
- Bishop, Ann Peterson, Bharat Mehra, Imani Bazzell, and Cynthia Smith, "Participatory Action Research and Digital Libraries: Reframing Evaluation," in *Digital Library Use* (chapter 7).
- Saracevic. (2005). How Were Digital Libraries Evaluated? Paper presented at the DELOS WP7 Workshop on the Evaluation of Digital Libraries, University of Padua, Padova Italy on 4-5 October 2004. https://comminfo.rutgers.edu/~tefko/DL_evaluation_LIDA.pdf
- Review the evaluation tools
  - Emerging tools for evaluating digital library services: Conceptual adaptations of LibQUAL+ and CAPM (Journal of Digital Information, 4(2), June, 2003). https://journals.tdl.org/jodi/index.php/jodi/article/view/102/101

Additional readings:
- Coleman, A.; & Sumner, T. (2004).  Digital Libraries and User Needs: Negotiating the Future. *Journal of Digital Information, 5*(3), http://journals.tdl.org/jodi/article/view/119/123

- Maness, Jack M., Tomasz Miaskiewicz, and Tamara Sumner. "Using Personas to Understand the Needs and Goals of Institutional Repositories." D-Lib Magazine 14, no. 9/10 (9, 2008). http://www.dlib.org/dlib/september08/maness/09maness.html
- Covey, D. (2002). Usage and Usability Assessment: Library Practices and Concerns. CLIR. http://www.clir.org/pubs/reports/pub105/pub105.pdf

## Week 13 (Week of Apr 6) Intellectual property, legal and economic issues in DL

Discussion, reflection, and comments due on Thursday, Sakai Forum
Working on the group project assignment 3

Topics:
- Copyrights  & Open access
- Security, privacy, and Intellectual property
- Economics

Required readings:
- Covey, D. T. (2005). Acquiring copyright permission to digitize and provide open access to books. Washington, DC: CLIR. Available at: http://old.diglib.org/pubs/dlf105/dlf105.htm
- Wilkin, J. P. (2011). Bibliographic indeterminacy and the scale of problems and opportunities of "rights" in digital collection building. Washington, DC: CLIR. Available at: http://www.clir.org/pubs/ruminations/01wilkin/wilkin.html
- Arms, W. (2000).  Digital Libraries. Chapter 6. Economic and legal issues. http://www.cs.cornell.edu/wya/diglib/MS1999/Chapter6.html
- May, C. (2003). Digital Rights Management and the Break Downs of Social Norms. *First-Monday, 8*(13). http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1097/1017

Additional readings:
- Schlosser, M. (2009). Unless otherwise indicated: A Survey of copyright statements on digital library collections. College & Research Libraries. 70(4). 371-85. http://crl.acrl.org/content/70/4/371.full.pdf+html
- Hoorn, E. & van der Graaf, M. (2006). Copyright Issues in Open Access Research Journals. *D-Lib Magazine, 12*(2). http://www.dlib.org/dlib/february06/vandergraaf/02vandergraaf.html
- Copyright Law for the Digital Library: A Bibliography (2003 ver.) http://variations2.indiana.edu/pdf/V2_Bibliog_Version_091203.pdf

## Week 14 (Week of Apr 13) Future of DL

Topics:
- Web 2.0. Library 2.0. DL 2.0.
- Sematic libraries
- Future digital librarians

Required readings:
- Watch the YouTube video, Completely digital library opens in Texas: https://www.youtube.com/watch?v=sv7TnDezFqM
- Law, D. (2009). Academic digital libraries of the future: An environment scan. New Review of Academic Librarianship, 15:53–67.
- CILIP (2014). 10 thoughts on digital libraries: where they're going - See more at: http://www.cilip.org.uk/cilip/blog/10-thoughts-digital-libraries-where-theyre-going#sthash.1smcdAQY.dpuf
- Witten et al. (2010). Chapter 9. **Read 9.1., 9.3., and 9.4**.
- Michael Agresta, What Will Become of the Library? How it will evolve as the world goes digital. http://www.slate.com/articles/life/design/2014/04/the_future_of_the_library_how_they_ll_evolve_for_the_digital_age.html

Additional readings:
- Check out Library 2.0: http://www.library20.com/ and its archive.
- Davidow, Ari. "Fedora, Drupal, and Cloud Computing for a Low-Cost, Sustainable DAM." In Museums and the Web 2009: Proceedings. Toronto: Archives & Museum Informatics, 2009. http://www.archimuse.com/mw2009/papers/davidow/davidow.html
- Lynch, C. (2005). Where do we go from here? The Next Decade for Digital Libraries. *D-Lib Magazine 11*(7/8). http://www.dlib.org/dlib/july05/lynch/07lynch.html


**Week 15 (Week of Apr 20): No class. Working on the project.**