

## ISP 547 Managing Electronic Records Spring 2007

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This course introduces students to the long-term management and preservation of digital materials, particularly electronic records. Students who complete the course will have a thorough understanding of the conceptual issues posed by digital materials as well as a practical understanding of approaches and methods for ensuring continuing access and preservation.

Students taking this course should have an understanding of basic archival and records management principles and concepts.

### **Topics include:**

- Understanding digital information (formats, processes, information structures, etc.);
- Issues presented by electronic records and other digital information for librarians and archivists;
- Identifying, classifying and describing digital information including preparing and capturing descriptive metadata;
- Selecting electronic records and other digital information for long-term preservation;
- Preparing digital information for preservation and access discussing migration and emulation as strategies for preservation and methods for providing access to information in digital formats.

### **Instructor:**

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**Office Hours:** By appointment.

### **Textbook:**

There are no required textbooks for this course. Reading assignments are found below. Students are encouraged to remain current with reading assignments in order to complete the course successfully.

### **Communication:**

Electronic mail is a vital communication tool for this course. Questions, clarifications, news and other information will be distributed by electronic mail. Students are encouraged to contact the instructor via electronic mail at the address above.

### **Grading:**

- Class and electronic participation: (10%)
- Grades on three in-class quizzes on assigned readings: (30%)
- Active participation in three practicum assignments. (25%)
- Research paper and presentation to class on a significant issue relating to electronic records preservation, management or access. (35%)(Due May 7)

### Class Schedule

Class Date	Topic
<b>Background and context for preserving digital information.</b>	
January 22	Introduction to course, topics and clarification of expectations. Introduction to issues presented by materials in digital formats.
<b>Readings:</b>	None.
<b>Practicum:</b>	Receive course disk with assignment due 1/29/06: Import and analyze the Annual Survey of Indian Country Jails, available at ICPSR. < <a href="http://webapp.icpsr.umich.edu/cocoon/ICPSR-SERIES/00158.xml">http://webapp.icpsr.umich.edu/cocoon/ICPSR-SERIES/00158.xml</a> > Follow instructions for Practical Exercise 1.
January 29	Fundamentals: Data Archives and Data Libraries - We will review and understand the concepts and operations of Data Archives and Data Libraries. These institutions have been preserving and making available digital data since the late 1960's. We will also establish understanding of fundamental concepts such as metadata, records, data, authenticity, migration and the concept of "born digital."
<b>Readings:</b>	<p>Jeff O'Brien, "Electronic records: Basic concepts in preservation and access" &lt;<a href="http://scaa.usask.ca/e-paper.html">http://scaa.usask.ca/e-paper.html</a>&gt;</p> <p>UK Economic and Social Data Service, Advice for Depositing Data. &lt;<a href="http://www.esds.ac.uk/aandp/create/depintro.asp">http://www.esds.ac.uk/aandp/create/depintro.asp</a>&gt; See especially the section on research management and documentation</p> <p>Lynch, Clifford, "Authenticity and Integrity in the Digital Environment: An Explortory Analysis of the Central Role of Trust" in <i>Authenticity in a Digital Environment</i> Council on Library Resources, 2000. &lt;<a href="http://www.clir.org/pubs/reports/pub92/lynch.html">http://www.clir.org/pubs/reports/pub92/lynch.html</a>&gt;</p>
<b>Practicum</b>	Present and discuss results of Practicum Assignment 1.
February 5	Understanding Digital Materials - We will review and understand the various forms and formats of digital materials. This
<b>Readings:</b>	<p>Roberts, David. "Defining Electronic Records, Documents and Data." <i>Archives and Manuscripts</i> 22:1 (14-26), May 1994 &lt;<a href="http://www.records.nsw.gov.au/publicsector/erk/df/define-1.htm#top">http://www.records.nsw.gov.au/publicsector/erk/df/define-1.htm#top</a>&gt;</p> <p>Library and Archives Canada, "Guidelines for Computer File Types, Interchange Formats and Information Standards" June 2004. &lt;<a href="http://www.collectionscanada.ca/information-management/0612/061204_e.html">http://www.collectionscanada.ca/information-management/0612/061204_e.html</a>&gt;</p>
<b>Identifying and Classifying Digital Materials</b>	
February 12	Modern Records, record making and recordkeeping concepts
<b>Readings:</b>	Bearman, David, "Recordkeeping Systems." in <i>Electronic Evidence: Strategies for</i>

	<p><u>Managing Records in Contemporary Organizations</u>, 1994:Archives and Museum Informatics, Pittsburgh, PA. (distributed in class)</p> <p>National Archives of Australia, Recordkeeping Responsibilities statement &lt;<a href="http://www.naa.gov.au/recordkeeping/overview/responsibilities.html">http://www.naa.gov.au/recordkeeping/overview/responsibilities.html</a>&gt;</p> <p>University of Michigan, Bentley Historical Library, Electronic Mail Guidance &lt;<a href="http://www.umich.edu/~bhl/bhl/uarphome/digimail.htm">http://www.umich.edu/~bhl/bhl/uarphome/digimail.htm</a>&gt;</p> <p>Center for Technology in Government "A survey of system development process models", completed as part of the Models for Action Project, 1996. &lt;<a href="http://www.ctg.albany.edu/publications/reports/survey_of_sysdev?chapter=1">http://www.ctg.albany.edu/publications/reports/survey_of_sysdev?chapter=1</a>&gt;</p>
February 19	NO CLASS Winter Break
February 26	Functional Requirements for Electronic Recordkeeping
<b>Readings:</b>	<p>Functional Requirements to Ensure the Creation, Maintenance, and Preservation of Electronic Records, Center for Technology in Government, Models for Action Project &lt;<a href="http://www.ctg.albany.edu/publications/reports/functional/functional.pdf">http://www.ctg.albany.edu/publications/reports/functional/functional.pdf</a>&gt;</p> <p>Minnesota State Historical Society, Trustworthy Information Systems Handbook, sections 1, 3 and 4. &lt;<a href="http://www.mnhs.org/preserve/records/tis/tableofcontents.html">http://www.mnhs.org/preserve/records/tis/tableofcontents.html</a>&gt;</p>
March 5	Quiz 1 Digital Art and other media and intellectual property
<b>Readings:</b>	<p>Howard Besser, "Digital Preservation of Moving Image Material?" &lt;<a href="http://www.gseis.ucla.edu/~howard/Papers/amia-longevity.html">http://www.gseis.ucla.edu/~howard/Papers/amia-longevity.html</a>&gt;</p> <p>Richard Rinehart, "The Straw that Broke the Museum's Back? Collecting and Preserving Digital Media Art Works for the Next Century", 2000.&lt;<a href="http://switch.sjsu.edu/web/v6n1/article_a.htm">http://switch.sjsu.edu/web/v6n1/article_a.htm</a>&gt;</p>
<b>Preserving Digital Materials</b>	
March 12	Digital Preservation Approaches and Issues
<b>Readings:</b>	<p>Paul Wheatley, "Migration - a CAMiLEON discussion paper" October 2001. &lt;<a href="http://www.ariadne.ac.uk/issue29/camileon/">http://www.ariadne.ac.uk/issue29/camileon/</a>&gt;</p> <p>Bearman, David, "Reality and Chimeras in the Preservation of Electronic Records" D-Lib Magazine 5(4)(April 1999) &lt;<a href="http://www.dlib.org/dlib/april99/bearman/04bearman.html">http://www.dlib.org/dlib/april99/bearman/04bearman.html</a>&gt;.</p> <p>Jeff Rothenberg, Avoiding Technological Quicksand: Finding a Viable Technical Foundation for Digital Preservation Council on Library Resources, 1998.</p>

	<a href="http://www.clir.org/pubs/reports/rothenberg/contents.html">http://www.clir.org/pubs/reports/rothenberg/contents.html</a>
March 19	The Migration Challenge
<b>Readings:</b>	<p>Risk Management of Digital Information: A File Format Investigation Gregory W. Lawrence, William R. Kehoe, Oya Y. Rieger, William H. Walters, and Anne R. Kenney, Council on Library Resources June 2000. <a href="http://www.clir.org/pubs/reports/pub93/pub93.pdf">http://www.clir.org/pubs/reports/pub93/pub93.pdf</a> .</p> <p>Shelby Sanett, "The Cost to Preserve Authentic Electronic Records in Perpetuity: Comparing Costs across Cost Models and Cost Frameworks", RLG Diginews, August 15, 2003  <a href="http://www.rlg.org/preserv/diginews/v7_n4_feature2.html">http://www.rlg.org/preserv/diginews/v7_n4_feature2.html</a></p>
<b>Practicum</b>	Practicum Assignment 2. Migrate a collection of typical office documents to a specified target format.
March 26	Digital Preservation OAIS, Research at UCSD et al. Topics for final research paper due Quiz 3
<b>Readings:</b>	<p>CCSDS Reference Model for an Open Archival Information System (OAIS), pp. 10-90 only &lt;  <a href="http://public.ccsds.org/publications/archive/650x0b1.pdf">http://public.ccsds.org/publications/archive/650x0b1.pdf</a> &gt;</p> <p>PERPOS Project Report, "The Presidential Electronic Records Pilot System: Results of Laboratory Experiments and Use by Archivists." W. E. Underwood. PERPOS TR ITTL/CSITD 03-1, November 2003  <a href="http://perpos.gtri.gatech.edu/perpos/publications/TR2003-01.pdf#page=1">http://perpos.gtri.gatech.edu/perpos/publications/TR2003-01.pdf#page=1</a></p> <p>Yale University: Ingest Guide for University Electronic Records, (Draft) 2005  <a href="http://dca.tufts.edu/features/nhprc/reports/3_1_draftpublic2.pdf">http://dca.tufts.edu/features/nhprc/reports/3_1_draftpublic2.pdf</a></p> <p>Moore, Regan, et al., "Collection-Based Persistent Digital Archives - Part 1", D-Lib Magazine, March 2000 &lt;<a href="http://www.dlib.org/dlib/march00/moore/03moore-pt1.html">http://www.dlib.org/dlib/march00/moore/03moore-pt1.html</a>&gt;</p> <p>Moore, Regan, et al., "Collection-Based Persistent Digital Archives - Part 2", D-Lib Magazine, April 2000 &lt;<a href="http://www.dlib.org/dlib/april00/moore/04moore-pt2.html">http://www.dlib.org/dlib/april00/moore/04moore-pt2.html</a>&gt;</p> <p>Jaja, Joseph et al. "Digital Archiving and Long Term Preservation: An Early Experience with Grid and Digital Library Technologies", 2004. &lt;<a href="http://www.archives.gov/era/papers/thic-04.html">http://www.archives.gov/era/papers/thic-04.html</a>&gt;</p>
<b>Practicum</b>	Review of Practical Assignment 2.
April 2	NO CLASS. Spring Break
April 9	NO CLASS. Spring Break
<b>Authenticity and Integrity in a Digital Environment</b>	

April 16	Preserving authentic digital materials - InterPARES
<b>Readings:</b>	<p>Cullen, Charles T., "Authentication of Digital Objects: Lessons from a Historian's Research", in <i>Authenticity in a Digital Environment</i>, CLIR, 2000  <a href="http://www.clir.org/pubs/reports/pub92/cullen.html">http://www.clir.org/pubs/reports/pub92/cullen.html</a></p> <p>InterPARES Project, Authenticity Task Force, Draft Report. October 2001.  <a href="http://www.interpares.org/documents/atf_draft_final_report.pdf">http://www.interpares.org/documents/atf_draft_final_report.pdf</a></p>
April 23	Electronic Mail
<b>Readings:</b>	<p>Main, Eron, "Records Management for Electronic Mail", <i>Katharine Sharp Review</i>, No. 6, Winter 1998 <a href="http://www.lis.uiuc.edu/review/6/main.html">http://www.lis.uiuc.edu/review/6/main.html</a></p> <p>US Department of Defense, Design Criteria Standard for Electronic Records Management Applications" US DOD 5015.2. <a href="http://jitc.fhu.disa.mil/recmgt/p50152s2.pdf">http://jitc.fhu.disa.mil/recmgt/p50152s2.pdf</a></p>
<b>Practicum</b>	Practicum 3 Assigned: Ingest, prepare for preservation, provide authenticity argument and describe a collection of electronic mail messages.
April 30	Quiz 3 Web sites, digital publications intellectual property control
<b>Readings:</b>	<p>The Internet Archive "Visit the site only. <a href="http://www.archive.org/index.html">http://www.archive.org/index.html</a></p> <p>Cathro, Warwick, "Archiving the Web: The PANDORA Archive at the National Library of Australia" 2001. Reviews the project at the National Archives of Australia.  <a href="http://www.nla.gov.au/nla/staffpaper/2001/cathro3.html">http://www.nla.gov.au/nla/staffpaper/2001/cathro3.html</a></p> <p>Karen Coyle, "Descriptive metadata for copyright status" <i>First Monday</i>, volume 10, number 10 (October 2005). <a href="http://www.firstmonday.org/issues/issue10_10/coyle/">http://www.firstmonday.org/issues/issue10_10/coyle/</a></p>
<b>Practicum</b>	Review Practicum 3 Assignment.
Final Class	
May 7	Student presentations on research projects.