

Simmons College Graduate School of Library and Information Science

LIS 444 ARCHIVING AND PRESERVING DIGITAL MEDIA SYLLABUS

Fall 2008 Tuesday, 2.30-5.30

Instructor: Ross Harvey ross.harvey@simmons.edu

Rooms C101 and P213

INTRODUCTION

This course presents and discusses the challenges and issues of archiving and preserving digital media. Although the terrain is dynamic and practice is still fluid, the lessons learned to date offer considerable guidance about how to archive and preserve a range of digital materials.

The preservation and retention of media in digital environments are increasingly urgent issues for archival digital repositories. This course focuses on archiving and preserving a wide variety of digital media (primarily text, image, sound, moving images, and web sites) as well as thinking in a long-term way about overcoming the many challenges. Topics discussed will include the characteristics of digital media that make a difference in their long-term preservation, media formats, rights issues, digital asset management; each addressed theoretically, historically, and practically.

COURSE OBJECTIVES

This course will prepare students to:

- Become familiar with key preservation projects and players;
- Think soundly about digital preservation;
- Apply appraisal and assessment standards to digital materials;
- Understand the ethical and rights issues at stake in digital media projects; and
- Describe the currents and pressures at play in the digital preservation and archives arena.

Student Learning Outcomes

1. Demonstrate the ability to apply standards relevant to specific information service activities.
4. Analyze, synthesize, and communicate information and knowledge in a variety of formats.
5. Recognize existing and potential problems in a workplace and devise strategies to resolve them.
6. Assess, create, and evaluate systems for managing content.

COURSE CALENDAR

Date	Topics	Laboratory Sessions	Assessment
Introduction and Basics			
09.09	Welcome and introduction to the course <ul style="list-style-type: none"> • Goals and agenda • The issues • Types of information • Types of media • The curation lifecycle as focus • Lab sessions: the scenario 		
09.16	The Problems: Obsolescence, reproduction, longevity Access vs. preservation	Introduction to the scenario Media obsolescence	
Developing a Digital Archive			
09.23	The OAIS Reference Model The Curation Lifecycle as the basis of a digital archive	Determining the approach: key steps	
09.30	Essentials: Metadata, planning, standards <i>Lifecycle Actions:</i> Metadata, Planning, Community Watch	Getting data off obsolete media Disk imaging software	
10.07	Making digital materials preservation-friendly <i>Lifecycle Actions:</i> Conceptualise, Create or Receive, Ingest	Identifying formats Format repositories	
10.14	Getting data into the archive <i>Lifecycle Actions:</i> Appraise and Select, Dispose, Reappraise	Opening files and migrating Open Office software	'Reporting on ...' assignment due
10.21	Preserving the data <i>Lifecycle Actions:</i> Preservation Action, Store	Viewers Emulation software	
10.28	Aside: preservation methods	Encapsulation Xena software	
11.4	A focus on users <i>Lifecycle Actions:</i> Access, Use & Reuse, Transform, Migrate		Encyclopedia Entry assignment due
11.11	<i>No Class – Veteran's Day</i>		
Digital Preservation in Practice			
11.18	To be advised		
11.25	Institutional Repositories		
12.02	To be advised		Paper due
Future Challenges and Research			
12.09	Challenges: capturing constantly changing digital materials, scalable solutions, dealing with petabytes etc Research desiderata		

LABORATORY SESSIONS

These will be held in the GSLIS Technology Lab (P-213). The practical sessions will be scenario-based.

The scenario: You are in charge of the preservation program of a university library. A former faculty member of the university has offered his papers to the university library, and this offer has been accepted. The donation includes a number of three-and-a quarter inch diskettes and Zip disks containing digital files that need to be preserved so that they are usable in the future. Your task is to develop and implement a plan for preservation of these digital files, with the aim of ensuring that the content of these files is able to be used and understood by users in the future. The diskettes will be available to you during the practical sessions. The instructor will be available to answer questions.

Topics that will be covered in the practical sessions are related to the scenario. They include:

- Introduction to the scenario
- Determining the approach: what are the possibilities for preserving these files?
- What are the files? Is the metadata with them sufficient?
- Appraisal: are all the files worth keeping? What is the basis on which we make decisions?
- Disk imaging software
- Identifying file types and formats
- Opening files and migration; Open Office software
- Emulation software
- Encapsulation: Xena software
- Putting it all together: what is the 'product'? What do we need to do to keep it usable in the future?

READINGS

References to appropriate readings will be advised at the first class and will also be available on the Simmons eLearning website. These readings will as far as possible be online. Digital preservation is a field where there is a wealth of high-quality information available on the web. It is also a field where there are, as yet, few common understandings, and it changes quickly. These factors make it very important to keep up to date with what is changing.

Required reading for the first two classes:

- Association for Library Collections and Technical Services (2007) *Definitions of Digital Preservation* (2007) <http://www.ala.org/ala/alcts/newslinks/digipres/index.cfm>
- Entlich, Richard & Ellie Buckley (2006). 'Digging Up Bits of the Past: Hands-on With Obsolescence' *RLG-Diginews* v. 10 no.5 (The best way to locate this on the web is using a search engine)

- Higgins, Sarah (2008). 'The DCC Curation Lifecycle Model', *International Journal of Digital Curation* vol. 3 no. 1 <http://www.ijdc.net/>
- Lavoie, Brian & Lorcan Dempsey (2004). 'Thirteen Ways of Looking at ... Digital Preservation', *D-Lib Magazine* v.10 no.7/8 <http://www.dlib.org/dlib/july04/lavoie/07lavoie.html>

For those of you keen to explore the subject immediately, the PADI website is recommended. This site, established by the National Library of Australia, is rich in resources and is an essential starting point for all areas of digital preservation:

PADI: Preserving Access to Digital Information.
<http://www.nla.gov.au/padi/index.html>

GRADING AND ASSESSMENT

Your grade for the course will be determined by:

Class participation	10%
Reporting on digital preservation	25%
Encyclopedia entry	25%
Paper	40%

Assignments will not be accepted late unless prior arrangements are made with the instructor. If an extension is granted, a late penalty (of 2% per day) may be imposed, except in cases of legitimate illness or emergencies. All assignments will be graded according to the GLSIS grading system (<http://my.simmons.edu/gslis/resources/forms/policies.shtml#grades>).

Class Participation 10%

Your grade will be determined on the basis of your attendance record, the amount you participate in class, and/or the ways in which you demonstrate initiative in the course.

Reporting on Digital Preservation 25% Due date October 14

There is copious mention of digital preservation in the popular press (newspapers, and magazines such as *Time*, *Newsweek*, *New Scientist*). Select three of these articles and report on them, addressing the questions: Are the articles accurate? What do they tell us about the need for more attention to be paid to digital preservation? Word limit: 1,200 words.

Encyclopedia Entry 25% Due date November 4

There are two parts to this assessment item:

- 1) Write an entry for an encyclopedia of digital preservation (word limit 900 words)

2) Provide additional material (sources you used, etc – word limit 300 words).

For 1), select one topic from the list that will be provided by the instructor in Week 2. Research this topic and then write an entry about it for an encyclopedia of digital preservation. Your entry should include up to three annotated resources which you have decided are the key resources for your topic. Keep in mind that the best encyclopedia entries are concise, so as you write think carefully about whether you need all the words you have written. The intended audience of the encyclopedia is the general public and information professional, not technical experts.

For 2), provide a brief rationale for your entry, explaining why you identified what to include and what to omit, and other points you feel will help the marker to understand your entry; and also provide a list of the most useful of the resources that you used to research the entry.

Paper 40% Due date December 2

Write a 2,500-3,000 word essay on a topic in the field of digital preservation. You may choose a topic from the list below, or select one of interest to you. If you choose the latter option, your topic must be agreed to by the instructor.

Topics:

1. Automated tools are important for digital preservation. Explain the reasons why they are important, and provide some examples of tools in common use.
2. Explain how you would future-proof digital materials you create and are responsible for. ('Future-proof' means create in such a way as to ensure, as far as possible, the long-term survival of the materials). Your answer should cover both born-digital materials and materials digitised from another form.
3. Description and representation information are essential at all stages in the digital curation lifecycle. Explain what they are and why they are essential. Your answer should include some examples.
4. Migration is the most commonly applied preservation method. Explain the migration process, indicate how it changes digital material that has been migrated, and explain the implications of this change for digital preservation.
5. A topic of your choice in the field of digital curation. This topic must **be approved by the instructor** before you start work on it.

Assignments will be assessed on the following criteria:

- ability to identify important aspects of the topic
- completeness of your answer: are all important aspects addressed?
- extent and quality of your observations: not simply descriptions
- clarity of your description
- satisfactory range of reading and research
- correct acknowledgment of sources.

Please note: Reasonable accommodations will be provided for students with documented physical, sensory, systematic, cognitive, learning and psychiatric disabilities. If you have a disability and anticipate that you will need reasonable accommodation in this class, it is important that you contact the Academic Support Center early in the semester. Students with disabilities are also encouraged to discuss their individual needs for accommodations with their specific faculty.

Please revisit the College honor code, which is on the web at <http://my.simmons.edu/gslis/resources/student-info/honor-code.shtml>