# INLS 750: Introduction to Digital Curation

## The Instructor.

Dr. Helen R. Tibbo ☎: (919) 962-8063(w); (919) 929-6248(h)

Office: 211 Manning Hall FAX #: (919) 962-8071

🖥: Tibbo at email dot unc dot edu Class Listserv: INLS750-Summer18@ sakai.unc.edu

## Office Hours.

We will set up a regular office hour schedule when the semester starts and have some face-to-face sessions that fit into your schedules. Feel free to call me at home in the evening before 9:00 PM.

## Course Timeline.

First Module Starts: Wednesday, May 16, 2018

Last Module Ends: Monday, June 18, 2018

Final Project Due: Wednesday, June 20, 2018

## Brief Course Description.

This course introduces students to the emerging field of digital curation. Centered on the Digital Curation Lifecycle, this course focuses on best practices for the creation, selection, storage, provision, and long-term preservation of digital entities. It discusses the digital/data curation lifecycles and identifies the activities associated with each stage and their social, legal, ethical, and policy implications. Policy development and use of community standards are major foci. This course also includes the characteristics, requisite training, and roles and responsibilities of data curation professionals.

## Course Objectives.

By the end of the course, the student should be able to:

- Identify the key individuals, projects, and events in the history of digital preservation and curation.
- Define and apply essential terminology related to digital curation.
- Be able to discuss the significant characteristics of good data.
- Distinguish between the concepts underlying digital preservation and digital curation.
- Understand the digital curation lifecycle from conceptualization through disposition.
- Understand the primary issues and challenges with digital preservation and curation activities.
- Demonstrate familiarity with a variety of digital preservation and curation projects worldwide.
- Understand basic digital curation functions, tasks, and workflows.
- Identify standards that are important to the digital curation lifecycle.
- Be able to list and define the array of metadata types and their functions.

- Identify best practice guidelines and organizations that are creating them for digitization and digital curation.
- Discuss how the OAIS model fits into the trusted digital repository movement.
- Discuss what makes a repository "trustworthy."
- Identify tools and standards for audit and certification of digital repositories.
- Understand the potential costs of digital curation services and plan appropriate facilities and resources.
- Understand how to manage a digital project/service based on strategic plans and policies.
- Write a well-argued and constructed funding proposal for a developing a trustworthy digital repository.

## Class Participation (Forum Posts) 20% of Grade.

- You are expected to participate in the class forum every module. Posts are due on the last day indicated in each module. Summer is accelerated so each module is less than a week.
- You may create a new discussion topic, but please try to advance the discussion of an existing topic.
- Posts may address the readings, lectures, and the other materials that are part of that module's assignments as well as any other source relevant to a given module's content.
- Grades will be assigned based on the quality of the posts not the length of each post.
- Posts will be assessed based on the following criteria:
  - Relevance of the post to the question/conversation, i.e. the degree to which a post advances the discussion (hint – this is easier if you post early before others have made the most obvious points!)
  - Depth of understanding of the material, i.e. the level of preparation shown in the post.
  - Level of insight displayed by the post - does the post reflect the nuances of the question or situation posed?
  - Inclusion of relevant materials outside the assigned readings.

The purpose of the forum discussions is to help students to think critically about issues and challenges related to digital curation and management, and to address ways that the literature may affect practice. It is helpful, when preparing each Module's work, to consider how that session's particular theme and readings may apply to your area of professional interest. You are also encouraged to share current news and events you find informative to issues of data curation through the class listserv.

Please work to stay on top of the forum posts. This is the primary way we will share with each other and act as a class during the semester. Be prepared to give your most thoughtful comments and learn for others' posts.

## Assignments and Evaluation.

| Assignment | % of Grade | Due Date |
|---|---|---|
| Funding Proposal Discussion with Instructor | | May 21 |
| Digital Curation Landscape Presentation | 5% | May 23 |
| Preliminary Report on Funding Proposal | 10% | May 29 |
| Briefing Paper 1: Interview with Digital Curator | 15% | June 4 |
| Briefing Paper 2: Ingest Survey | 15% | June 7 |
| Funding Proposal Presentation | 10% | June 14 |
| Peer Review of Proposals | 5% | June 17 |
| Funding Proposal | 20% | June 20 |
| Class Participation | 20% | On-going through forums |
| **Total** | 100% | |

## Graduate Grading Scale. (Pluses and minuses not given for semester grades thus a semester P is 80-94 inclusive)

H (95-100): "Clear excellence," superior work: complete command of subject, unusual depth, great creativity or originality; above and beyond what is required

P+ (90-94): Above average performance: solid work somewhat beyond what was required and good command of the material

P (85-89): Satisfactory performance that meets course requirements (expected to be the median grade of all students in the course)

P- (80-84): Acceptable work in need of improvement

L (70-79): Unacceptable graduate performance: substandard in significant ways

F (< 70): Performance that is seriously deficient and unworthy of graduate credit

IN: Work incomplete (only given under extreme circumstances, such as serious illness)

## Academic Policies.

By enrolling as a student in this course, you agree to abide by the University of North Carolina at Chapel Hill policies related to the acceptable use of online resources. Please consult the Acceptable Use Policy on topics such as copyright, net-etiquette, and privacy protection.

As part of this course, you may be asked to participate in online discussions or other online activities that may include personal information about you or other students in the course. Please be respectful of the rights and protection of other participants under the UNC-Chapel Hill Information Security Policies when participating in online classes.

When using online resources offered by organizations not affiliated with UNC-Chapel Hill, such as Google or YouTube, please note that the terms and conditions of these companies and not the University's Terms and Conditions apply. These third parties may offer different degrees of privacy protection and access rights to online content. You should be well aware of this when posting content to sites not managed by UNC-Chapel Hill.

When links to sites outside of the unc.edu domain are inserted in class discussions, please be mindful that clicking on sites not affiliated with UNC-Chapel Hill may pose a risk for your computer due to the possible presence of malware on such sites.

## Honor Code & Class Conduct.

### Honor Code:

*The University of North Carolina at Chapel Hill has had a student-administered honor system and judicial system for over 100 years. The system is the responsibility of students and is regulated and governed by them, but faculty share the responsibility. If you have questions about your responsibility under the honor code, please bring them to your instructor or consult with the office of the Dean of Students or the Instrument of Student Judicial Governance. This document, adopted by the Chancellor, the Faculty Council, and the Student Congress, contains all policies and procedures pertaining to the student honor system.* **Your full participation and observance of the honor code is expected.**

This class follows the UNC Honor System. Information on the Honor Code can be found at: http://honor.unc.edu/. Please read through The Honor System's Module at: http://studentconduct.unc.edu/students/honor-system-module to become familiar with the UNC Honor Code and to understand the rights and responsibilities defined therein.

The Instrument of Student Judicial Governance, (http://instrument.unc.edu/) which contains the provisions of the Honor Code, states that students have four general responsibilities under the Code:

1. Obey and support the enforcement of the Honor Code;

2. Refrain from lying, cheating, or stealing;

3. Conduct themselves so as not to impair significantly the welfare or the educational opportunities of others in the University community; and

4. Refrain from conduct that impairs or may impair the capacity of University and associated personnel to perform their duties, manage resources, protect the safety and welfare of members of the University community, and maintain the integrity of the University.

   The Instrument (http://instrument.unc.edu/) prohibits giving or receiving unauthorized aid on examinations or in the completion of assignments. **The Honor Code defines plagiarism as "deliberate or reckless representation of another's words, thoughts, or ideas as one's own without attribution in connection with submission of academic work, whether graded or otherwise."** *Whenever you use the words or ideas of others, this should be properly quoted and cited.* You should adopt a style guide – e.g., American Psychological Association, Chicago Manual of Style, MLA, or Turabian – and use it consistently. (I do not care which one you select!) Students who are discovered attempting to take credit for work performed by others will be referred to the Honor Court for resolution.

Please include the following pledge on all submitted work: "On my honor, I have neither given nor received unauthorized aid on this assignment."

## Accommodations or Special Needs

If you feel that you may need an accommodation for a disability or have any other special need, please contact me. I will best be able to address special circumstances if I know about them early in the semester.

## Diversity Statement

"In support of the University's diversity goals and the mission of the School of Information and Library Science, SILS embraces diversity as an ethical and societal value. We broadly define diversity to include race, gender, national origin, ethnicity, religion, social class, age, sexual orientation, and physical and learning ability. As an academic community committed to preparing our graduates to be leaders in an increasingly multicultural and global society we strive to:

- Ensure inclusive leadership, policies and practices;
- Integrate diversity into the curriculum and research;
- Foster a mutually respectful intellectual environment in which diverse opinions are valued;
- Recruit traditionally underrepresented groups of students, faculty and staff; and
- Participate in outreach to underserved groups in the State.

The statement represents a commitment of resources to the development and maintenance of an academic environment that is open, representative, reflective and committed to the concepts of equity and fairness."

*~[The faculty of the School of Information and Library Science](#)*

## Class Policies:

- Be prepared for each module's lessons by completing the assigned reading and exercises, enabling you to ask questions and participate in class discussion online.
- Be an active and positive participant in online discussions, characterized as:
    - Having a clear command of the readings for the module;
    - Sharing analyses and opinions based on the readings;
    - Respecting other students' views and opinions; and
    - Freely agreeing and disagreeing with others when warranted.
- Follow the netiquette guidelines below.
- Please note: An intellectual exchange of ideas is the cornerstone of education, but any criticism should be limited to an idea and not the person specifically.
- Turn in assignments by the due date unless you make previous arrangements with the instructor. Unexcused late assignments are unfair to your classmates.

## Penalty for Late Assignments.

I expect you to pass in assignments on time. This is important for at least two reasons: 1) the need to meet deadlines is a reality of professional life, and 2) giving some people more time for an assignment than others in the class is not equitable. However, life happens to all of us at one

time or another. If you cannot meet an assignment deadline please tell me why PRIOR to the due date. I will negotiate a new deadline with anyone who has a valid reason for needing this (i.e., NOT "I just didn't get it done."). Otherwise, late assignments will drop 2 points for each day late.

## Online Etiquette Guidelines.

http://www.albion.com/netiquette/

http://www.indiana.edu/~icy/netiquette.html

http://www.brighthub.com/education/online-learning/articles/26946.aspx

## Course Readings.

## Textbooks.

Please purchase these items as we will read them in their entirety and they will be staples on your digital curation bookshelf:

- Oliver, Gillian & Ross Harvey. *Digital Curation* 2$^{nd}$ ed. (Chicago: Neal Schuman, 2016).
- Prom, Christopher J., ed. *Digital Preservation Essentials*. (Chicago: SAA, 2016). Available online or in print from SAA. (modules 12 & 13).
- Shallcross, Michael and Christopher J. Prom, eds. *Appraisal and Acquisition Strategies*. (Chicago: SAA, 2016). (modules 14-16).

In addition to the texts above, other required readings will be available online. Note: Accessing these materials requires you either to use a computer with a UNC IP address or visit the associated sites through a UNC proxy server. See Off-Campus Access for more information. If you're off campus and want to enter a given page through a UNC proxy server, you can use the following bookmarklet: http://libproxy.lib.unc.edu/login?url=

## Supplemental Online Resources.

Digital Curation Center. (DCC) Glossary: http://www.dcc.ac.uk/digital-curation/glossary

DCC *Curation Reference Manual*: http://www.dcc.ac.uk/resources/curation-reference-manual/completed-chapters

DCC How-To Guides: http://www.dcc.ac.uk/resources/how-guides

DCC Briefing Papers: http://www.dcc.ac.uk/resources/briefing-papers

Digital Preservation Coalition. (DPC) *Digital Preservation Handbook*: http://www.dpconline.org/handbook

# Module 1: May 16-17:

## Introductions & What Is Digital Curation?

### Goals for Session:

- Review course site and understand expectations.
- Introduce ourselves to each other.
- Define the general scope of digital and data curation.
- Discuss the basic motivation and goals for digital curation.

### Forum Questions for the Module: (Please post by May 17).

- Add a Profile picture to your Sakai account (which will show as an icon next to your posts for the rest of the semester). View instructions.
- Introduce yourself; specify your personal pronouns; and share where you are from, what degrees you have and where you have gone to school, and why you are taking this course.
- Name one thing you are excited to learn more about and one thing that makes you anxious/worried about taking this class (or any online class).
- Define digital curation and the 3 most important components/functions. Explain why these components/functions are so important.
- Find (and post the URL of) 3 or more job descriptions that utilize digital curation skills that are not based in libraries or archives (the title of the job does not have to include "curator").

### 1-1.    Welcome and Introduction

Introduction to the class, instructors, and students. We will discuss through Sakai how we want to conduct the class and the nature of the assignments and the expectations of all of us.

View the video, Digital Preservation and Nuclear Disaster: An Animation: http://www.youtube.com/watch?v=pbBa6Oam7-w.  There are several more videos in this series from DigitalPreservationEurope. They are fun and, I think, get their points across quite nicely. Have fun with this and any others you find.

### 1-2.    What Are Digital and Data Curation?

Please watch this short video first from the NYU Health Sciences Library, 2012. This sums up much of what is going on in data sharing and the challenges data curators face on a day-to-day basis that is a part of the digital curation story. Enjoy. I laugh out loud every time I see this. http://www.youtube.com/watch?v=N2zK3sAtr-4

Beagrie, Neil. "Digital Curation for Science, Digital Libraries, and Individuals." *International Journal of Digital Curation* 1/1 (Autumn 2006): 4-16. http://www.ijdc.net/index.php/ijdc/article/viewFile/6/2

DigCurv Project. "What Is Digital Curation?" 2013. Video. 5:16 minutes. https://www.youtube.com/watch?v=6cuOdgvYRGM

Digital Curation Centre. *Managing Research Data.* Video Documentary. (UK: Piers Video Production, 2012). 12:35 minutes.  http://youtu.be/2JBQS0qKOBU

Oliver & Harvey. "Part I: Digital Curation: Scope and Incentives." 1-52.

Patch, Chuck and Helen Tibbo. "Digital Curation: The Next Frontier." Museum Computer Conference, November 2011. Video. 43 minutes.
https://www.youtube.com/watch?v=NBRU9r2admI

Poole, Alex H. "The Conceptual Landscape of Digital Curation." *Journal of Documentation* 72/5 (November 2016): 961-986.

Tibbo, Helen. "Placing the Horse before the Cart: Conceptual and Technical Dimensions of Digital Curation." *Historical Social Research* 37 (2012): 187-200. http://www.cceh.uni-koeln.de/files/Tibbo_final.pdf.

# Module 2: May 18-19:

# Lifecycle Approaches, Disciplinary Models, and Data

## Goals for Session:

- Begin to understand the digital curation lifecycle from conceptualization through disposition (we will continue to explore this all semester).
- Discuss the importance of a life cycle approach to digital curation.
- Identify concepts, principles, tools, practices, and terminology that are central to data curation and management.
- Discuss the characteristics of good data.

## Forum Questions for the Module: (Please post by May 19).

- Data Email: Your grandparents find out that you have started a graduate program in data curation and send you a congratulatory e-card! At the bottom, they ask "By the way, what are data anyway?" Respond to their query by defining data and the three most important characteristics of "good data" in laymen's terms.
- What is so important about a lifecycle approach to caring for digital content?

### 2-1.    A Lifecycle Approach

DCC Curation Lifecycle Model. http://www.dcc.ac.uk/docs/publications/DCCLifecycle.pdf.

Higgins, Sarah. "The DCC Curation Lifecycle Model." International Journal of Digital Curation, Vol 3, No 1 (2008). http://www.ijdc.net/index.php/ijdc/article/view/69.

### 2-2.    Disciplinary Models

Lee, Christopher. Matrix of Digital Curation Knowledge and Competencies:
http://ils.unc.edu/digccurr/digccurr-matrix.html

CCSDS 650.0-M-2: Reference Model for an Open Archival Information System (OAIS). Magenta Book. June 2012. [This Recommendation has been adopted as ISO 14721:2012. http://public.ccsds.org/publications/archive/650x0m2.pdf.

### 2-3.    Data, Big Data, Good Data, and Data Characteristics

Carlson, Samuelle and Ben Anderson. "What Are Data? The Many Kinds of Data and Their Implications for Data Re-Use." *Journal of Computer-Mediated Communication* 12/2 (2007): 635–651. UNC Libraries.

# Module 3: May 21-22:

## A Brief History of Digital Curation & Funding Opportunities

### Goals for Session:

- Identify the key events in the history of digital preservation and access.
- Become familiar with important individuals, projects, and accomplishments in digital curation.
- Learn how to write grant proposals to fund digital curation projects.
- Become familiar with organizations that support digital curation.

### Forum Questions for the Module: (Please post by May 22).

You are in charge of a new Digital Curation awards ceremony. You have been tasked to select two inaugural achievement winners of the award:

- Foundational Achievement: for events 1885-1995
- Contemporary Achievement: for events 1996-2016

You should select events from this module. Write a brief press release (>200 words) describing why these companies, individuals, or products deserve your inaugural awards.

### 3-1.    Brief History of Digital Technology to 1995 as Precursor to Digital Curation

Cornell University. "Digital Preservation Management Tutorial: Implementing Short-term Strategies for Long-term Problems." [http://www.dpworkshop.org/dpm-eng/timeline/index.html](http://www.dpworkshop.org/dpm-eng/timeline/index.html)  Please read "Setting the Stage," look at the timeline, and take the timeline quiz.

Data's Shameful Neglect." *Nature* 461/7261 (September 10, 2009). [http://www.nature.com/nature/journal/v461/n7261/full/461145a.html](http://www.nature.com/nature/journal/v461/n7261/full/461145a.html)

"Digital Archiving: History Flushed." *The Economist* April 28, 2012. [http://www.economist.com/node/21553410](http://www.economist.com/node/21553410)

Hirtle, Peter B. "The History and Current State of Digital Preservation in the United States." In: *Metadata and Digital Collections: A Festschrift in Honor of Thomas P. Turner.* (Ithaca, NY: Cornell University, 2010): 121-140. [http://cip.cornell.edu/DPubS/Repository/1.0/Disseminate?view=body&id=pdf_1&handle=cul.pub/1238609304](http://cip.cornell.edu/DPubS/Repository/1.0/Disseminate?view=body&id=pdf_1&handle=cul.pub/1238609304).

### 3-2.    Digital Preservation and Curation after 1996

Heidorn, P. Brian. "The Emerging Role of Libraries in Data Curation and E-science." *Journal of Library Administration.* 51 (2011): 662-672.

Waters, Donald, and John Garrett, eds. "Preserving Digital Information: Report of the Task Force on Archiving Digital Information. Rep. The Commission on Preservation and Access and The Research Libraries Group, 1 May 1996. Web. 15 Jan. 2013. https://www.oclc.org/content/dam/research/activities/digpresstudy/final-report.pdf

### 3-3. Key Funding Programs and Grant Writing

Please visit the websites of the following funders and explore funding opportunities for digital preservation research and implementation projects: IMLS, NSF, NEA, NEH, NHPRC, Andrew W. Mellon Foundation, and the Alfred P. Sloan Foundation

Lyrasis. "Funding Resources for Preservation." Preservation Services Leaflet. 2010. https://www.lyrasis.org/LYRASIS%20Digital/.../Preservation%20PDFs/FUNDING.pdf

Preservation Directory.com. "Grants and Funding Sources." 2017. http://www.preservationdirectory.com/PreservationGeneralResources/GrantsFundingSources.aspx

# Module 4: May 23 - 24:

# Permanence, Terminology, Fundamental Concepts

## Goals for This Session:

- Distinguish between the concepts underlying digital preservation and digital curation.
- Define and apply essential terminology related to digital preservation and digital curation.
- Explore the notion of permanence and how it relates to digital curation.

## Forum Questions for the Module: (Please post by May 24).

- Digital Curator Job Creation: You are the New York Public Library's new Chief Digital Officer and have been given enough budget for 3 new employees to staff the NYPL's digital curation efforts. What are the 3 most important positions for you to create? For each position, briefly describe why you think this opening will be essential. Provide links to similar job postings for each position and expand upon their descriptions, including adding more skills, experience, or other requirements that are needed. Alternatively, feel free to describe reasons why you would remove certain requirements of the previously-created postings.
- Why is archival theory and practice so important to digital curation?
- James O'Toole wrote "On Permanence" before the Internet and the burgeoning of digital content. What do you think is the next chapter in how we perceive "permanence"?

### 4-1. Digital Curators

Higgins, Sarah. "Time to Become a Profession of Our Own?" Digital Preservation Coalition Blog, July 25, 2017. http://www.dpconline.org/blog/time-to-become-our-own-profession

Oliver & Harvey. 53-63.

### 4-2. Foundations in Archival Science (Authenticity, Provenance, Stewardship)

Adam, Sharon. "Preserving Authenticity in the Digital Age." *Library Hi Tech* 28/4 (2010): 595-604.

Bradley, Rachael. "Digital Authenticity and Integrity: Digital Cultural Heritage Documents as Research Resources." *portal: Libraries and the Academy* 5/2 (2005): 165-175.

Glossary of Terms (on Digital Curation) Digital Curation Centre. Browse. http://www.dcc.ac.uk/resource/glossary/

Oliver & Harvey. Part II: Key Requirements for Digital Curation." 65-101.

### 4-3.	On the Idea of Permanence

O'Toole, James M. "On the Idea of Permanence." *American Archivist* 52 (Winter 1989): 10-25. **O**


# Module 5: May 25-26:

## Digital Preservation and Curation Challenges and Opportunities, Projects and Programs

### Goals for This Session:

- Describe the primary issues and challenges with digital preservation and curation activities.
- Discuss what 4th Paradigm Science is and why digital curation is essential to it.
- Identify key funding programs for digital curation.

### Forum Questions for the Module: (Please post by May 26).

- Choose a grant-funding institution that provides opportunities for digital preservation research and implementation projects (such as IMLS, NSF, NEA, NEH, NHPRC, Andrew W. Mellon Foundation, and the Alfred P. Sloan Foundation). Using the institution's mission as a starting point, pick the top three areas that they should focus on supporting in the near future and describe your reasoning.
- Describe at least 2 different data management challenges that are different for scientists versus digital curators (4 challenges total).

### 5-1.	Key Digital Curation Challenges

Ross, Seamus. Digital Preservation, Archival Science and Methodological Foundations for Digital Libraries." New Review of Information Networking, 17 (2012):43–68. http://info.iibi.unam.mx/~mt14s01q/contenido/data/file/Ross_digital.pdf

Thibodeau, Kenneth. "Keynote: Wrestling with Shape-Shifters: Perspectives on Preserving Memory in the Digital Age." In L. Duranti & E. Shaffer (Eds.), *The Memory of the World in the Digital age: Digitization and Preservation: An international conference on permanent access to digital documentary heritage, Vancouver, Canada, 26-28 September 2012* (pp. 15-23). Vancouver, Canada: UNESCO. Retrieved from http://www.unesco.org/webworld/download/mow/mow_vancouver_proceedings_en.pdf

### 5-2.    4<sup>th</sup> Paradigm Science

Bell, G., Hey, T., and Szalay, A. "Beyond the Data Deluge." *Science* 323 (5919 6 March 2009): 1297-1298.
http://www.cloudinnovation.com.au/Bell_Hey%20_Szalay_Science_March_2009.pdf

Lynch, Clifford. "Jim Gray's Fourth Paradigm and the Construction of the Scientific Record." In Tony Hey, Stewart Tansley, and Kristin Tolle, eds. *The Fourth Paradigm: Data-Intensive Scientific Discovery.* 2009: 177-184. Online at: https://www.microsoft.com/en-us/research/wp-content/uploads/2009/10/Fourth_Paradigm.pdf or available in print at Amazon.

Grant Watch. Current. https://www.grantwatch.com/grant-search.php

### 5-3.    Important Organizations

Walters, Tyler and Katherine Skinner. *New Roles for New Times: Digital Curation for Preservation.* (Washington, DC: Association of Research Libraries, March 2011).
http://www.arl.org/storage/documents/publications/nrnt_digital_curation17mar11.pdf

Please visit at least 5 of the following organizations' websites and explore their role in digital curation and preservation:

- Australian National Library
- Bitcurator Consortium
- British Library
- Coalition for Networked Information
- Digital Curation Centre
- Digital Preservation Coalition
- Digital Library Federation
- the KB of the Netherlands (Dutch National Library)
- Library of Congress (NDIIPP)
- Lyrasis
- National Digital Stewardship Alliance
- Northeast Document Conservation Center
- National Archives (UK)
- National Archives (US)
- OCLC
- Open Preservation Foundation, and
- RLG.

## Module 6: May 29-30:

## Two Foundational Standards: OAIS & ISO 16363

### Goals for This Session:

- Describe the OAIS Reference Model and its components.
- Explain how the OAIS Reference Model fits into the trusted digital repository movement.
- Discuss the fundamental components and conditions that make a repository "trustworthy."
- Identify tools and standards for audit and certification of digital repositories.

### Forum Questions for the Module: (Please post by May 30).

- What is a "designated community" and is it inherently restrictive and/or discriminatory? Why or why not?
- After browsing through the standard, what are your initial impressions of the OAIS Reference Model?
- Select a repository and briefly describe what you believe is its designated community.(See if you can find evidence of this on its website.) Choose a digital object that would be a good fit for the repository and describe its significant properties and how those relate to the specific audience.
- For what can digital curators use ISO 16363 besides formal audits?

#### 6-1.    OAIS: The Primary Standard for Repositories

CCSDS. *CCSDS 650.0-M-2: Reference Model for an Open Archival Information System* (OAIS). Magenta Book. June 2012. [http://public.ccsds.org/publications/archive/650x0m2.pdf](http://public.ccsds.org/publications/archive/650x0m2.pdf). (This is the CCSDS version of the ISO standard. It is essentially identical and freely available on the internet whereas the ISO version (the official international standard) is expensive.

Lavoie, Brian. "Meeting the Challenges of Digital Preservation: The OAIS Reference Model." *OCLC Research* (2000).  [http://www.oclc.org/research/publications/library/2000/lavoie-oais.html](http://www.oclc.org/research/publications/library/2000/lavoie-oais.html)

O'Meara, Erin and Kate Stratton. "Preserving Digital Objects." Module 12.  In Christopher J. Prom, ed. *Digital Preservation Essentials* (Chicago: SAA, 2016): 5-73.

#### 6-2.    ISO 16363: Proving a Repository's Trustworthiness

CCSDS. Recommended Practice. *CCSDS 652.0-M-1. Audit and Certification of Trustworthy Digital Repositories.* Magenta Book. September 2011.  [https://public.ccsds.org/Pubs/652x0m1.pdf](https://public.ccsds.org/Pubs/652x0m1.pdf)

#### 6-3.    Designated Communities

#### 6-4.    Significant Properties

Hockx-Yu, Helen and Gareth Knight. "What to Preserve?: Significant Properties of Digital Objects." *International Journal of Digital Curation.* 3/1 (2008). Faniel, Ixchel, [http://www.ijdc.net/index.php/ijdc/article/view/70](http://www.ijdc.net/index.php/ijdc/article/view/70)

& Elizabeth Yakel. "Significant Properties as Contextual Metadata." *Journal of Library Metadata*, 11/3-4(2011): 155-165.

# May 31 – June 1:

## Metadata & Representation

### Goals for This Session:

- Identify the primary categories/types of metadata and what their purposes/functions are.
- Identify important metadata standards.
- Discuss the challenges involved with metadata creation and maintenance.
- Identify tools and standards for audit and certification of digital repositories.

### Forum Questions for the Module: (Please post by June 1).

- You have been tasked with developing a metadata strategy at a specific repository of your choosing. In an email-like memo to your supervisor, please describe:
    - why you should be utilizing the PREMIS standard, and
    - the three most important functions that metadata will fill.
- What is needed to move metadata collection/creation from an artisanal activity to a high-production workflow?

### Readings for all the topics:

Baca, Murtha, ed. *Introduction to Metadata.* 3rd ed. (Los Angeles: Getty Publications, 2016). http://www.getty.edu/publications/intrometadata.

Riley, Jenn. Metadata: *Understanding Metadata: What Is Metadata, and What Is It For?* (Baltimore, MD: NISO, 2017). http://www.niso.org/apps/group_public/download.php/17446/Understanding%20Metadata.pdf

**7-1.    What Are Metadata and Why Are They Important?**
**7-2.    Types of Metadata**
**7-3.    Metadata Standards and Schemes**
**7-4.    Functions of Metadata**

# Module 8: June 2-4:

## Institutional Readiness for Repositories & Preservation Strategies, Planning, & Policies

### Goals for This Session:

- Discuss the Three-Legged Stool Model and why it is important to digital curation activities.
- Apply the Five Stages of Institutional Readiness as a digital curation maturity model.

- Discuss why organizations should manage their digital curation activities through a hierarchy of nested strategies, policies, and implementation plans.

## Forum Questions for the Module: (Please post by June 4).

- You are in a new management position at an institution:
    - One of your first tasks is to create explicit, written policies for your team's digital curation activities. Explain to your employees why this is important.
    - A team member balks at their assignment to identify where the institution resides within the Five Stages of Institutional Readiness. How do you respond?
    - Your team received funding that will only cover one "leg" of the DPM stool. Which do you choose and why? Why is the relationship of the three legs important?
- Why is it important to manage your digital curation activities through explicit, written policies?

**8-1.    Three-Legged Stool Model**
**8-2.    Five Stages of Institutional Readiness**

Anne R. Kenney & Nancy Y. McGovern. "The Five Organizational Stages of Digital Preservation." In Patricia Hodges; Maria Bonn; Mark Sandler; John Price Wilkin, eds. *Digital Libraries: A Vision for the 21st Century: A Festschrift in Honor of Wendy Lougee, on the Occasion of her Departure from the University of Michigan.* Ann Arbor, MI: University of Michigan, 2003. http://quod.lib.umich.edu/cgi/t/text/text-idx?c=spobooks;idno=bbv9812.0001.001;rgn=div1;view=text;cc=spobooks;node=bbv9812.0001.001%3A11

**8-3.    Digital Preservation Planning and Strategic Policy Framework**

Noonan, Daniel. "Digital Preservation Policy Framework: A Case Study." *Educause Review* 2014. http://er.educause.edu/articles/2014/7/digital-preservation-policy-framework-a-case-study

OSU's Digital Preservation Policy Framework can be found at: https://library.osu.edu/document-registry/docs/260

# Module 9: June 5-6:

# Community Watch, Tools & Workflows

## Goals for This Session:

- Locate a range of community tools for digital curation.
- Discuss what digital curation community watch involves, and why it is more than "watching."
- Identify the basics of digital curation workflows.

## Forum Questions for the Module: (Please post by June 6).

- What are some of the best ways for digital curators to become involved in the broader digital curation community? Please explain your selections.
- Please provide a brief review of the COPTR website and its potential usefulness.

- What are key barriers for smaller repositories to enter into the digital curation arena?
- How can digital curators best keep up with the field?

### 9-1. Community Watch and Involvement

Digital Preservation Coalition. Technology Watch Reports. http://www.dpconline.org/knowledge-base/tech-watch-reports "The DPC Technology Watch Report series is intended as an advanced introduction to specific issues for those charged with establishing or running services for long term access. They identify and track developments in IT, standards and tools which are critical to digital preservation activities." Please browse these reports.

Lee, Christopher A. et al. "From Code to Community: Building and Sustaining BitCurator through Community Engagement." 2014. http://www.bitcurator.net/wp-content/uploads/2014/11/code-to-community.pdf

Oliver & Harvey. "Sharing Knowledge and Collaborating." 93-101.

### 9-2. Digital Curation Tools

Digital Preservation Coalition. "A Beginner's Guide to Digital Preservation Tools." http://www.dpconline.org/handbook/technical-solutions-and-tools/tools

Community Owned Digital Preservation Tool Registry (COPTR). "COPTR describes tools useful for long term digital presesrvation and acts primarily as a finding and evaluation tool to help practitioners find the tools they need to preserve digital data. COPTR is collating the knowledge of the digital preservation community on preservation tools in one place. Instead of organisations competing against each other with their own registries, COPTR is bringing them together. In doing so it's objective is to provide the best resource for practitioners on digital preservation tools." http://coptr.digipres.org/Main_Page Please browse.

### 9-3. Digital Curation Workflows

Boock, Michael and Brian E. Davis. "Next Steps for Building a Flexible and Robust Digital Preservation Infrastructure at Oregon State University Libraries & Press." 3/3/2017. URI: http://hdl.handle.net/1957/60365

Fisher, Katherine. "Barriers to Digital Preservation in Special Collections Departments." 45/4 *Preservation, Digital Technology & Culture.* (Feb. 2017): 180-185.

Archivematica. https://www.archivematica.org/en/. Please browse site.

DuraCloud. http://Duracloud.org

ExLibris. Rosetta. http://www.exlibrisgroup.com/category/RosettaOverview Please browse site.

Preservica. http://preservica.com/ Please browse site.

Please visit the SCAPE Project website now curated by the Open Preservation Foundation for examples of preservation policies: http://wiki.opf-labs.org/display/SP/

## Module 10: June 7-8:

## Appraisal and Collection Development

### Goals for This Session:

- Identify the key factors in appraising digital content.
- Understand the importance of collection development and appraisal policies.
- Understand what records management is as an activity and profession.

### Forum Questions for the Module: (Please post by June 8).

- You presently appraise analog materials at a repository. Your supervisor emails you to say that your institution wants to start including digital materials, but is unsure how to add that into your current duties. Create a response message that describes the key factors (if any) that makes appraisal of digital materials different from appraisal of analog materials and be sure to include information on how reappraisal affects digital files as well
- What is a records schedule and what is its purpose?

**10-1. Appraisal Theory**

Huth, Geof. "Appraising Digital Records." In: Michael Shallcross & Christopher J. Prom, eds. *Appraisal and Acquisition Strategies*. Module 14. (Chicago: SAA, 2016): 7-68.

Oliver & Harvey. 129-148.

Stuckey, Steve. "Western Theories of Appraisal - From Europe to America to the Perspective of an International Society." Archival Meeting in Tokyo (November 15, 2004): 1-13. http://www.archives.go.jp/publication/archives/wp-content/uploads/2015/03/acv_18_p127.pdf

**10-2. Collection Development**

Bernard, Megan and Gabriela Redwine. "Collecting Digital Manuscripts and Archives." In: Michael Shallcross & Christopher J. Prom, eds. *Appraisal and Acquisition Strategies*. Module 15. (Chicago: SAA, 2016): 69-116.

**10-3. Records Management and Records Schedules**

JISC. *Records Management: An Introduction to the Key Concepts of Record Creation and Management in Further and Higher Education.* (2012). https://www.jisc.ac.uk/guides/records-management

Sloyan, Victoria. "Born-digital Archives at the Wellcome Library: Appraisal and Sensitivity Review of Two Hard Drives." *Archives and Records* 37/1 (April 25, 2016): 20-36. http://www.tandfonline.com/doi/full/10.1080/23257962.2016.1144504

## Module 11: June 9-11:

## Working with Content Creators & Ingesting Content

### Goals for This Session:

- Identify steps in the ingest process per the OAIS Reference Model.
- Explain what PAMAIS is and why it is important.
- Discuss the role of digital curators working with content creators to plan digital objects and recruit content, and cite techniques that work well.

### Forum Questions for the Module: (Please post by June 11).

- How can digital curators best work with content creators to secure significant material for a repository?
- How does PAMAIS support ingest?

#### 11-1.    Recruiting Content and PAIMAS

Faulder, Erin. "Accessioning Digital Archives." In: Michael Shallcross & Christopher J. Prom, eds. *Appraisal and Acquisition Strategies*. Module 16. (Chicago: SAA, 2016): 117-137.

ISO 20652: Space Data and Information Transfer Systems. *Producer-Archive Interface - Methodology Abstract Standard.* Find free online at: CCSDS. CCSDS 651.0-M-1. *Producer-Archive Interface - Methodology Abstract Standard.* Recommended Standard. Magenta Book. 2004, renewed until 2022. https://public.ccsds.org/Pubs/651x0m1.pdf

Oliver & Harvey. "The Digital Curation Lifecycle in Action." 103-128.

#### 11-2.    Ingesting/Accessioning Content into a Repository

Faulder, Erin. "Accessioning Digital Archives." In: Michael Shallcross & Christopher J. Prom, eds. *Appraisal and Acquisition Strategies*. Module 16. (Chicago: SAA, 2016): 137-185.

Oliver & Harvey. "Ingesting Data." 149-158.

## Module 12: June 12-13:

## Storing Content & Preserving It

### Goals for This Session:

- Describe what a format registry is and why they are so hard to maintain.
- Discuss the "sustainability" of formats.
- Discuss various types of digital storage options and their significant characteristics.
- Explain why a hierarchy of strategies, policies, and plans is essential to trustworthy digital curation.

### Forum Questions for the Module: (Please post by June 13).

- You are working with a team to develop a new institution that includes digital curation. They want to start collecting data and materials first and develop strategic policies and plans later.

- o Write an email that describes why strategic policies and plans so important to digital curation.
- o Later, your team wonders which storage options should be utilized at the new repository. Provide suggestions on the best way to evaluate the options available (such as Preservica)?
- What is "the format registry problem" and why is it a problem?

### 12-1.    All about File Formats

dpBestFlow. (http://www.dpbestflow.org/file-format/file-format-overview.

FADGI. http://www.digitizationguidelines.gov/ Browse site, guidelines, and articles.

McGath, Gary. "The Format Registry Problem." *code{4}Lib Journal* (2013). http://journal.code4lib.org/articles/8029

Oliver & Harvey. "Creating Data." 113-128.

Sustainability of Digital Formats. https://www.loc.gov/preservation/digital/formats/ Browse this site.

### 12-2.    Storing Content

Digital Preservation Coalition (DPC). "Storage" in *DPC Handbook* http://www.dpconline.org/handbook/organisational-activities/storage

Oliver & Harvey. "Storing Data." 177-196.

O'Meara, Erin and Kate Stratton. "Module 13: Digital Preservation Storage." In Digital Preservation Essentials, Christopher J. Prom, ed. (Chicago: SAA, 2016): 75-125.

### 12-3.    Preservation Strategies

Digital Preservation Coalition (DPC). "Preservation Planning." http://www.dpconline.org/handbook/organisational-activities/preservation-planning and "Institutional Strategies." http://www.dpconline.org/handbook/institutional-strategies

Oliver & Harvey. "Preserving Data." 159-175.

# Module 13: June 14-15:

## Student Presentations.

### June 14: Grant Presentations Due by 11:55 PM.

## Understanding Users and Providing Access

### Goals for This Session:

- Explain what a DIP is and how they might vary across designated communities.
- Describe the challenges of creating well-formed user surveys and other user assessment tools.
- Discuss the value of a "culture of assessment" for repository users.

### Forum Questions for the Module: (Please post by June 15).

- What is a DIP and what is its relationship to a digital object's "significant properties" and "designated community"?
- Why are user surveys and other user-based evaluations so important to the provision of access to digital content?
- In your experience, what are the biggest barriers to the development of a culture of assessment in the workplace?

### 13-1.  User Needs and Profiles and Provision of Access

Green, Harriett E. and Angela Courtney. "Beyond the Scanned Image: A Needs Assessment of Scholarly Users of Digital Collections." *College & Research Libraries* 76/5 (July 2015): 690-707.

Liebst, Anne and David Feinmark. "Tools of Academic Library Assessment: the User Survey." *Journal of Library Administration* 56/6 (Aug/Sep2016): 748-755.

Oliver & Harvey, "Using and Reusing Data." 197-214.

Westbrook, Lynn. "User Needs: A Synthesis and Analysis of Current Theories for the Practitioner." *RQ* 32/5 (Summer 1993): 541-549.

### 13-2.  Dissemination Information Packages

CCSDS 650.0-M-2: Reference Model for an Open Archival Information System (OAIS). Magenta Book. June 2012. [This Recommendation has been adopted as ISO 14721:2012. http://public.ccsds.org/publications/archive/650x0m2.pdf.  Section on DIPS.

### 13-3.  Developing a Culture of Assessment and Evaluation

Lakos, Amos & Shelley Phipps, *"*Creating a Culture of Assessment." *portal: Libraries and the Academy,* 4/3 (2004): 345–361.


# Module 14: June 16-18:

## June 17: Peer Review of Presentations Due by 11:55 PM.

## Costing & Sustainability

### Goals for This Session:

- Explain the major components in digital curation activities and their associated costs.
- Make a case for the value of a digital curation service and its digital contents.
- Discuss sustainability of digital content.

### Forum Questions for the Module: (Please post by June 18).

- Provide a brief review of the 4C and Curation Costs Exchange websites. Are these sites helpful in actually determining curation costs? Why or why not?

- Your supervisor confides that your repository's management team is considering the possibility of cutting its digital curation service. He asks you to help him figure out the three of the most important elements in making a case for the value of your digital curation service. How do you respond? Additionally, describe at least 2 of the biggest barriers to sustainability of digital content and how they ought to be mitigated by your team.

### 14-1.    What Does This All Cost?

4C Project http://www.4cproject.eu/

Curation Costs Exchange. http://www.curationexchange.org/

Rosenthal, David S. H. et al. "The Economics of Long -Term Digital Storage." In L. Duranti & E. Shaffer (Eds.), *The Memory of the World in the Digital age: Digitization and Preservation: An international conference on permanent access to digital documentary heritage, Vancouver, Canada, 26-28 September 2012* (pp. 513-528). Vancouver, Canada: UNESCO. Retrieved from http://www.unesco.org/webworld/download/mow/mow_vancouver_proceedings_en.pdf

### 14-2.    Making the Case for Value

DPC. Business Case Studies http://wiki.dpconline.org/index.php?title=Case_studies

DPC. Digital Preservation Business Case Toolkit. http://wiki.dpconline.org/index.php?title=Digital_Preservation_Business_Case_Toolkit

DPC. *Digital Preservation Handbook*. "Business Cases, Benefits, Costs, and Impact." http://www.dpconline.org/handbook/institutional-strategies/business-cases-benefits-costs-and-impact

### 14-3.    Sustainability

Blue Ribbon Task Force on Sustainable Digital Preservation and Access. "Sustainable Economics for a Digital Planet: Ensuring Long-Term Access to Digital Information." Feb. 2010. Web. 20 Jan. 2013. http://brtf.sdsc.edu/biblio/BRTF_Final_Report.pdf  Please read at least Executive Summary, p. 1–5.

Bradley, Kevin. "Defining Digital Sustainability." *Library Trends* 56/1 (Summer 2007): 148-163. https://muse.jhu.edu/article/223247/pdf

Lavoie, Brian F. "The Fifth Blackbird: Some Thoughts on Economically Sustainable Digital Preservation." *D-Lib Magazine* 14-3/4 (April/May 2008). http://www.dlib.org/dlib/march08/lavoie/03lavoie.html

Walters Tyler O. and Katherine Skinner. "Economics, Sustainability, and the Cooperative Model in Digital Preservation." 28/2 *Library Hi Tech* (2010): 259-272. https://doi.org/10.1108/07378831011047668

# June 20: Funding Proposal Due by 11:55 PM.