

Digital Preservation, Fall 2018
University of Maryland
College of Information Studies, LBSC 784

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Office Hours: I am available after class, or by appointment (in-person or online)
Location: Susquehanna Hall Rm. 1101 (SQH 1101)
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Course Description

This course focuses on issues and practices regarding digitization of analog materials and preservation of digital materials, both digitized and born digital.

Course Goals

This course will acquaint students with best practices in digital preservation. Students will explore current questions and issues that archivists and digital curators are currently confronting, and provide students with an opportunity to embark upon digital preservation planning and policy development with relevant organizations.

Learning Outcomes

After completing the course, students should be able to:

- Identify and assess standards for digital preservation
- Assess and understand digital preservation policies and organizational structures to determine readiness for digital preservation projects
- Evaluate digital preservation strategies, methods, and tools and decide what may be appropriate for particular content types and user communities
- Locate resources for keeping up with rapid developments, standards, and tools for digital preservation
- Communicate with a variety of stakeholders about technical, social and policy issues related to digital preservation

Materials

The textbook for this course is *The Theory and Craft of Digital Preservation*. You can access a PDF copy of the text through ELMS. Beyond this, there are a range of course readings. Most readings are openly available on the web. A few journal articles will require you to find them through the University of Maryland Library's database subscriptions.

Course Context

The historical record is increasingly digital. Over the last half century, under headings of “electronic records management” and “digital preservation,” librarians, archivists, and curators have established practices to ensure that our digital scientific, social and cultural record will be available to scholars and researchers

into the future. This course is intended as a point of entry into that theory and practice.

Through years of leading collaborative national digital strategy efforts to ensure long-term access to digital content, I have observed that many experts in digital media and libraries, archives, and museums often end up talking past each other as they work toward their mutual goals. All too often, discussions of digital preservation fail to fully state and engage with the nature digital objects and media, thereby undermining our ability to fully do this work in a strategic or coherent fashion.

This failure of understanding is rooted in two key fundamental issues: First, that preservation itself is not a single area of activity, but has always been historically intertwined with distinct disciplines that have grappled with the affordances of various historically “new” mediums. Second, that there are distinct affordances of digital media that require rethinking those diverse perspectives on preservation and conservation. The central contribution of this course is to put the lineages of preservation in dialog with the affordances of digital media as basis to articulate a theory and craft of digital preservation.

The first section of the course considers the history of preservation in a range of areas (archives, manuscripts, recorded sound, etc.) and sets that history in dialog with work in new media studies, platform studies, and media archeology. The later parts of the course build from this theoretical framework as a basis for an iterative process for the practices of digital preservation.

This course serves as both a basic introduction to the issues and practices of digital preservation and a theoretical framework for deliberately and intentionally approaching digital preservation as a field with multiple lineages.

Reading, Blogging and Commenting Strategy

As a graduate seminar, the expectation of this course is that we will work as a group of professionals or budding professionals to make sense of key issues and themes in our field. This course involves a significant amount of reading and writing. This section of the syllabus includes information about how to best succeed in this work.

Read Purposefully and Strategically

The seminar involves a lot of reading. If you haven't already, you are going to need to learn to read strategically. You need to get what you need out of the book or article, this often does not require reading every word in an article or a book. For some suggestions on this see, [Miriam Sweeney's How to Read for Grad School](#) or [Larry Cebula's How to Read a Book in One Hour](#). Ultimately, learning to do this kind of reading is one of the most important skills you can pick up in graduate school.

Course Blogging

One of the objectives of this seminar is to develop and demonstrate professional communication skills. At this point in the profession, that means we need to engage

in public writing on the web. To this end, a significant amount of our course communication is going to happen in a public course blog. On the first day of class I will show you how to use the blog. You are expected to post assignments to the blog. We will sign up for who writes about what on the first day of class.

These are blog posts, and as such they should not be written like term papers. Part of the goal of this approach is to become familiar with the genre and format of thoughtful blogging. You need to get in, say something interesting, synthesize some thoughts and get out. Ideally briefly summarize, synthesize and comment on readings and then end with an invitation to discussion. You should think of your posts as mixing the features of a well-composed academic book review and the well conceived blog post. [Read this for a sense of the features of an academic book review](#). For notes on [how to write blog posts see this post](#). Posts for a given week must be on the web at least four days before class (yes, if you want you can post it at 11:59 PM on that day).

Do not assume your reader has detailed knowledge of the things you are writing about. One of the goals of the blog is to invite interested third parties into a conversation with our course. If we are doing this right you can expect comments and dialog with historians, humanists, librarians, archivists, curators, and bloggers who are not participating in the course as students but who are participating in the public conversation we initiate through the blog.

Your identity and the blog

This is public so one of our first considerations is going to be personal identity. While this is a practical matter it is also, very directly, part of the subject matter of the course. I would encourage you to blog with your real name, [it is a good idea for you to start building a web presence for yourself](#). It has even been suggested that in the emerging interdisciplinary field of digital humanities you can either “[be online or be irrelevant](#).” With that said, [many people have good reasons not to use their real names on the web](#). With that in mind, if you are uncomfortable with sharing your name publicly, you should feel free to use a pseudonym or a handle. If there is a reason that you do not want to share your work on the web please send me an email or meet with me after class. I feel that this public dialog is an important course goal, but I will of course understand and accommodate anyone that needs a different arrangement. If at the end of the course you would like to continue blogging I will be happy to show you how we can pull all your posts out and into a new blog of your own. We will talk about this identity decision on the first class day.

Keep the conversation going

Posting is not the end of the assignment. After posting you need to foster the discussion you are initiating. When people comment you need to give substantive responses. Try to engage everyone who comments in some fashion and try to use the comments to sustain a conversation you began at the end of your post. Do not hesitate to ask if you would like help with this process or want any advice about how to keep the conversation going.

Commenting is also an assignment

Beyond posting you are expected to contribute substantive comments to a minimum of 12 of your peers posts. Your comments should extend and contribute to the conversation. Good comments are an important genre unto themselves.

[Profhacker's guidelines for comments](#) for a sense of the kind of comment ecosystem we are trying to produce. Along with that, see [this piece on how to write a great blog comment](#) for some suggestions on the format for comments. Comment early so that others have a chance to read them.

The course blog is the required reading we write ourselves

Beyond posting and commenting, everyone needs to read everything on the blog before class each week. This is the part of the course readings that we write ourselves and in all honesty, this is the most important springboard for our in-class discussions. The blog extends the function of classroom and it is essential that everyone follow and participate in it.

General Course Blogging Assignments

Intro Blog Post (5 Points): For your first post to the blog, 1) introduce yourself and your interest in the course and 2) briefly comment and reflect on the initial course readings. Read everyone else's posts and post a substantive comment on at least one other student's post.

Readings Blog Posts & Facilitating Discussion (20 Points): (Due 4 days before the sessions you sign up for) On the first day of class, everyone will sign up for two weeks for which they will help facilitate discussion in class and/or through the course blog. The individuals who have signed on for a given week will (1) write a 800-1500 word blog post synthesizing and discussing key themes and issues in the course. The post is due the Sunday before the class. They will then come to class prepared to help facilitate the discussion of the readings. If the course week you sign up for is virtual, we will be hosting discussion entirely through the course blog so plan to spend an additional two hours over the course of that week engaging in discussion in the comments.

Class Participation (throughout) (20 Points): Come to class each session prepared. That means you have 1) read the readings 2) read all your classmates blog posts and 3) you have commented on at least one of those posts. In class, you need to be an active part of the discussion. You can miss up to one class session before it will begin to affect your grade. If you are going to miss class contact me in advance. In weeks where we have virtual class, you will need to plan on spending additional time commenting and engaging in discussion on the course blog. For those weeks, plan to engage in extended asynchronous discussions of readings for at least two hours.

Digital Preservation Consultant Project

An academic understanding of the issues in digital preservation is necessary but not sufficient for professional digital preservation work. Digital preservation is fundamentally about making the best use of what are always limited resources to best support the mission of an organization. As such, to really learn how to do digital preservation you need to apply these concepts in the practical realities of an organizational context.

Aside from participating in discussion of the course readings through the course blog, the other course assignments will require you to act as a digital preservation consultant for a cultural heritage organization. For a variety of reasons I suggest this be a small institution. Below are the five assignments you must complete over the course of the semester as part of this project.

(1) Establish Partnership With Small Cultural Heritage Org (5 Points)

Due September 20

For most of the course assignments, you will need to find a small cultural heritage organization that you can work with as a digital preservation consultant. I have identified a list of organizations that are up for participating, but you are free to find other organizations as well. The key requirements here are that 1) they have consented to working with you 2) they have some set of digital content but 3) their collections are not so complex that you couldn't possibly do the project. Example institutions include an independent organization (like a house museum, a community archive or library), a small department or subset of an institution (say the archives of a student newspaper or radio station, the special collections department at a public library, or the archives in a museum).

Deliverable: The output of this phase is to identify this organization and confirm that you have a commitment from them to participate. We will check in on this in class as we go, but by the date of this assignment you need to have confirmed participation of an organization that meets these requirements and have posted what organization you are working on in a list on the course website. On the site, post the name of the organization, your name (or handle) and two or three sentences about the organization and its digital content.

(2) Institutional Digital Preservation Survey and Report (20 Points)

Draft by October 11 to your org. Incorporate comments and publish by October 25

For your organization, interview one or two staff members to get a handle on their digital collections and practices. Draw from the [NSDA levels of preservation](#) as an overall framework for conducting your survey. You will want to focus on gathering information about their practices in five key areas.

- o First, what is the scope of their digital holdings?
- o Second, how is that digital content currently being managed?

- Third, what are the staff at the organization's perceptions of the state of their digital content (are they concerned about it, do they see it as mission critical or a nice to have, what do they see as their own self efficacy and their organization's capacity for sustaining their content)?
- Forth, what kinds of digital content would the organization like to be collecting but currently isn't?
- Fifth, what, if any resources, do they have that they could bring to bear on this problem (if they have some significant potential resources that's great, but realize that there may well be very meaningful smaller resources that could be brought to bear. For example, could one staff member spend 2-4 hrs a week on digital preservation, could they bring in community volunteers, how much could they spend on things like extra hard drives etc.) Throughout all of this, it will be important to understand what the organization's collecting mission is. You want to begin to probe all the questions above, but you need to be able to map their answers to the NDSA levels.

Deliverable: You will write and publish a post to the course blog (1200-3000 words) in which you present the findings of your survey. The post should first provide context, what is this organization what are its digital holdings what does it want to be collecting them. From there, work through presenting an accurate and coherent report of the themes and issues that came through in your interviews. At this point you are primarily interested in accurately representing the state of their work. Do not get into making recommendations. Simply do your best to succinctly and coherently explain what you found about the five areas of questioning discussed above. Before publishing this, you must present it to your org for their feedback to make sure you have their input on how you are describing the state of their work.

(3) Institutional Digital Preservation Next Steps Preservation Plan (20 Points)

Due Nov 1

Now that you have the results of your survey, it is time to take out the NDSA levels of digital preservation and the rest of our course readings and figure out what a practical set of next steps would be for your organization.

Deliverable: Post your next steps plan to the course blog (1200-3000 words). After a brief introduction providing context about the organization and its collections, you should work through reviewing the organization's current work on digital content using each of the areas of the NDSA levels of digital preservation. Complete by identifying three different levels (low, medium and high resource requirement) of next steps they could take to improve their rating on the NDSA levels of digital preservation. Be creative here, for example could they upload collection items to the Internet Archive or Wikimedia Commons? Or could they buy an extra hard drive and make copies and swap it with a backup buddy at another organization in a different region of the country, etc. The point here is to think about how to get them the furthest up some of the levels with the resources at hand. Before publishing this, you should present it to your organization for them to review and provide input.

(4) Draft a Digital Preservation Policy for Your Org (10 Points)

Due Nov 29

Now that you have put in place a set of recommendations, it is important to also draft up a set of digital preservation policies and practices for the organization. If this is to have any impact you are going to need to be able to articulate what the organization's policies could be going forward.

Deliverable: Drawing on the example digital preservation policies we read in class, draft up a short policy document for your institution tuned to what you have learned from working with them. Draw from the examples for models for aspects of this document. Share it with them for some input and feedback. Then Post it to the blog (800-1500 words).

(5) Synthesizing Results and Lessons Learned (10 Points)

Due Dec 6

After doing this work, presenting it, and getting feedback from your organization, you need think through what worked and didn't work for the project. Taking time for reflection and teasing out the lessons you've learned about both digital preservation and working with a cultural heritage organization.

Deliverable: Return to each of the documents you created thus far. You will now produce a 1 page cover page and a 1 page executive summary for your work. Synthesise and explain the work you completed and then append the full set of documents to this as if it were a final report you are presenting to your organization. Publish a blog post (500-1000 words) reflecting on what you learned from the project and the course and attach your full report to the post. Take time preparing and refining this final document as it will be a useful piece for your own professional portfolio.

Note on Virtual Class Days

You will notice that some days on the syllabus are noted as virtual class days. We will not meet face to face on those days. Instead, over the course of the week we will put the time that would have gone into our face to face meeting into further discussion and engagement on the course blog. If it is your week to facilitate discussion, then just plan to get your blog post up on time and then actively facilitate discussion on the blog over the course of the week.

Week by Week of the Course

Getting Beyond Digital Hyperbole (Aug 30 and Sep 6 - Virtual)

We will not meet face to face for the first two class sessions. Instead, focus on completing the readings and tasks listed below.

Among the public, there is a persistent belief that if something is on the Internet, it will be around forever. At the same time, warnings of a potential impending “digital dark age,” where records of the recent past become completely lost or inaccessible appear with regular frequency in the popular press as well. To many, it seems like the world needs someone to design a system that can “solve” the problem of digital preservation. The wisdom of the cohort of digital preservation practitioners in libraries, archives, and museums who have been doing this work for half a century suggests this is an illusory dream not worth chasing. Working to ensure long-term access to digital information is not a problem for a tool to solve. It is a complex field with a significant ethical dimension.

By September 6th

- Get an account for the course blog (email Trevor with the username you would like ASAP)
- Complete all the readings listed below
- Introductions : Post your introductory blog post to the blog (see directions for the post in the assignments section)
- Review the Syllabus: Reach out to Trevor if you know there are any class days you will miss.
- Sign up for which weeks you will blog and co-facilitate discussion (sign up for 2 weeks) [Sign up here](#)
- Start thinking about what cultural heritage organization you might want to work with for the course project.

Readings:

- *Introduction: Getting Beyond Digital Hype and Digital Anxiety*, in *The Theory and Craft of Digital Preservation* (PDF available in ELMS)
- Working Group on Defining Digital Preservation. (2007). *Definitions of Digital Preservation* (Text). ALCTS Preservation and Reformatting Section. Retrieved from <http://www.ala.org/alcts/resources/preserv/defdigpres0408>
- Ghosh, P. (2015) Google’s Vint Cerf warns of “digital Dark Age.” <http://www.bbc.com/news/science-environment-31450389>
- Lyons, B. (2016). There Will Be No Digital Dark Age. <https://issuesandadvocacy.wordpress.com/2016/05/11/there-will-be-no-digital-dark-age/>
- Kuny, T. (1997). A digital dark ages? Challenges in the preservation of electronic information of electronic information. In *63rd IFLA Council and General Conference*. <http://archive.ifla.org/IV/ifla63/63kuny1.pdf>

- Tansey, E. (2016, May 23). Institutional Silences and the Digital Dark Age. <https://issuesandadvocacy.wordpress.com/2016/05/23/institutional-silences-and-the-digital-dark-age/>

The Fundamentals of Digital Preservation (Sep 13)

The whole course is about digital preservation, but this class is about getting everyone on the same page with the key information needed to really get started with your course project. Pay particularly close attention to the NDSA levels of digital preservation as this will be the basis of the work you do on your project. It's important to learn the OAIS vocabulary to be able to talk digital preservation jargon.

In Class Activities

- We will discuss any questions you have about the syllabus and the course project in the beginning. In particular, by next week, we need to sort out which organization you will work with. So we will make sure everyone leaves class prepared to finalize the org they are working with.
- We will spend some time walking through each level and block in the NDSA levels to make sure that everyone leaves with a solid understanding of what they are and, to an extent, why it is arranged how it is.

Reading

- Owens, Chapter Four, *The Craft of Digital Preservation, Theory and Craft of Digital Preservation*.
- Chudnov, D. (2008). The Emperor's New Repository. *Computers in Libraries*, 28(9), 39–41. <http://yalearchivalreadinggroup.pbworks.com/w/file/fetch/92927244/2008-10-chudnov.pdf>
- Phillips, M., Bailey, J., Goethals, A., & Owens, T. (2013). The NDSA Levels of Digital Preservation: An Explanation and Uses. *IS&T Archiving*, Washington, USA. Retrieved from http://www.digitalpreservation.gov/documents/NDSA_Levels_Archiving_2013.pdf
- Rudersdorf, A. (2016). The proof is in the standards pudding [AVPreserve]. <https://www.avpreserve.com/blog/the-proof-is-in-the-standards-pudding/>
- Lavoie, B. F. (2014). *The Open Archival Information System (OAIS) Reference Model: Introductory Guide*. Retrieved from <http://dx.doi.org/10.7207/TWR14-02>

Further reading

- Smith, A. (1998). Preservation in the future tense. *CLIR Issues*, 3, 71–76. <http://www.clir.org/pubs/issues/issues03.html#preserve>
- Smith, M. (2005). External Bits. *IEEE Spectrum: Technology, Engineering, and Science News*. <http://spectrum.ieee.org/computing/hardware/external-bits>

Section 1: Historicizing Preservation & Understanding Digital Info

With a basic understanding of digital preservation in hand, we can now step back a little bit and unpack two parts of the concept. It's important to understand what preservation is, more importantly, all the different things that preservation can mean in different professional contexts. It's also critical to understand what digital information is. So we will spend two weeks digging into these issues more deeply before returning to more practical issues.

Preservation's Divergent Lineages (September 20)

Interdisciplinary dialog about digital preservation often breaks down when an individual begins to protest "but *that's* not preservation." Preservation means a lot of different things in different contexts. Each of those contexts has a history. Those histories are tied up in the changing nature of the mediums and objects for which each conception of preservation and conservation was developed. All too often, discussions of digital preservation start by contrasting digital media to analog media. This contrast forces a series of false dichotomies. Understanding a bit about the divergent lineages of preservation helps to establish the range of competing notions at play in defining what is and isn't preservation. This week we will read about some of these different lineages.

In Class Activities:

- We will finalize all of the organizations you are working on your project with. Come to class with your organization confirmed.
- We will spend some time mapping out key commonalities and differences between different disciplinary conceptions of preservation.

Readings:

- Owens, Chapter 1, *Preservation's Divergent Lineages, The Theory and Craft of Digital Preservation*
- Daston, L. (2012). The Sciences of the Archive. *Osiris*, 27(1), 156–187.
<https://www.jstor.org/stable/10.1086/667826>
- Guyau, J.-M. (1880). Memory and Phonograph. In *Gramophone, Film, Typewriter*, Trans. by Geoffrey Winthrop-Young and Michael Wutz (Stanford: Stanford University Press, 1999), Pp. 30- 33 (First Publ. in *Revue Philosophique de La France et de L'étranger* 5 (1880), 319-22).
<http://faculty.weber.edu/mwutz/6610/Guyau.Phonograph.htm>
- Rinehart, R., & Ippolito, J. (2014). *Re-collection: art, new media, and social memory*. Cambridge, Massachusetts: The MIT Press. Read pages 1-27 available online at
<http://wdn.ipublishcentral.net/mit/viewinside/61435564707596>
- Smigel, L., Goldstein, M., Aldrich, E., & Coalition, D. H. (2006). *Documenting Dance: A Practical Guide*. Dance Heritage Coalition. Retrieved from
<http://www.danceheritage.org/DocumentingDance.pdf>

Further Reading

- Binkley, R. C. (1936). *Manual on methods of reproducing research materials; a survey made for the Joint Committee on Materials for Research of the Social Science Research Council and the American Council of Learned Societies*. Ann Arbor, Mich., <http://hdl.handle.net/2027/mdp.39015003329243>

Understanding Digital Objects (Sep 27 Virtual)

Doing digital preservation requires a foundational understanding of the structure and nature of digital information and media. This week is intended to provide such a background by focusing on the nature of hard drives, digital formats, and source code.

We will not meet this week, however, there is a considerable amount of readings so do plan to use the time you would have used for class to read and discuss these readings on the blog.

Readings

- Owens, Chapter Two *Understanding Digital Objects, Theory and Craft of Digital Preservation*.
- Chan, S., & Cope, A. (2014). Collecting the present: digital code and collections. Presented at the Museums and the Web. Retrieved from <http://mw2014.museumsandtheweb.com/paper/collecting-the-present-digital-code-and-collections/>
- Kirschenbaum, M. G. (2004). Extreme inscription: Towards a grammarology of the hard drive. *Text Technology*, 13(2), 91. http://texttechnology.mcmaster.ca/~texttech/pdf/vol13_2/vol13_2_06.pdf
- Kirschenbaum, M. G., Ovenden, R., Redwine, G., & Donahue, R. (2010). *Digital forensics and born-digital content in cultural heritage collections*. Citeseer. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.449.9324&rep=rep1&type=pdf> (64 p.)
- Lee, C. A. (2012). Digital Curation as Communication Mediation. *Handbook of Technical Communication*, 507–530. <https://ils.unc.edu/caltee/p507-lee.pdf>
- Sterne, J. (2012). *MP3: the meaning of a format*. Durham: Duke University Press. Read the intro “Format Theory” available online -> <https://www.scribd.com/document/96153131/MP3-by-Jonathan-Sterne>

Section Two: Doing Digital Preservation

Preservation Intent, Authenticity & Selection (Oct 4)

What is it about the thing you want to preserve that matters and what do you need to do to make sure it is there in the future? To many, this seems like a simple question. It is not. Too often we take for granted that there is a de facto answer to this question. However, as a result of the nested platform nature of digital information and the fact that most of what we care about is the meaning that can be

made from collections of objects, it is critical to be deliberate about how we answer this question in any given situation. This is why digital preservation must be continually grounded in the articulation of preservation intent. In some cases, someone can clearly articulate this intent at the start of a project. But for most preservation projects it is often best to be purposeful and strategic around the preservation intention. This is particularly critical given that deciding what matters most about some set of material can lead to radically different approaches to preserving and describing it. These questions around intent and significance of material circle back to notions of what is authentic about it. So we will also spend a bit of time parsing out some related but distinct notions of authenticity.

Readings:

- Owens, *Chapters 3 and 5 in Theory and Craft of Digital Preservation*.
- Web, C., Pearson, D., & Koerben, P. (2013). "Oh, you wanted us to preserve that?!" Statements of Preservation Intent for the National Library of Australia's Digital Collections. *D-Lib Magazine*, 19(1/2).
<http://doi.org/10.1045/january2013-webb>
- Yeo, G. (2010). "Nothing is the same as something else": significant properties and notions of identity and originality. *Archival Science*, 10(2), 85–116. <http://discovery.ucl.ac.uk/1318039/3/1318039.pdf>
- Shilton, K., & Srinivasan, R. (2007). Participatory Appraisal and Arrangement for Multicultural Archival Collections. *Archivaria*, 63(0). Retrieved from <http://archivaria.ca/index.php/archivaria/article/view/13129>
- Jules, B. (2015, November 24). Preserving Social Media Records of Activism. Retrieved August 5, 2016, from <https://medium.com/on-archivy/preserving-social-media-records-of-activism-26e0f1751869?source=latest>
- Drake, J. M. (2016, April 22). #ArchivesForBlackLives: Building a Community Archives of Police Violence in Cleveland. <https://medium.com/on-archivy/expanding-archivesforblacklives-to-traditional-archival-repositories-b88641e2daf6#.6w6jkmgul>
- Arms, C., & Fleischhauer, C. (2005). Digital formats: Factors for sustainability, functionality, and quality. In *Archiving Conference* (Vol. 2005, pp. 222–227). Society for Imaging Science and Technology. Retrieved from http://memory.loc.gov/ammem/techdocs/digform/Formats_IST05_paper.pdf
- Stovel, H. (2008). Origins and Influence of the Nara document on authenticity. *APT Bulletin*, 39(2/3), 9–17.
<http://is.muni.cz/el/1423/podzim2013/SOC310/crd/jar/aut/Stovel-Nara-Document-on-Authenticity-APT-2008.pdf>
- Bruner, E. M. (1994). Abraham Lincoln as authentic reproduction: A critique of postmodernism. *American Anthropologist*, 96(2), 397–415.
<https://is.muni.cz/el/1423/jaro2016/SOC283/re/ci/Bruner-Abraham-Lincoln-as-Authentic-Reproduction-AA-1994.pdf>

Further Reading:

- Dappert, A., & Farquhar, A. (2009). Significance Is in the Eye of the Stakeholder. In M. Agosti, J. Borbinha, S. Kapidakis, C. Papatheodorou, & G. Tsakonas (Eds.), *Research and Advanced Technology for Digital Libraries* (pp. 297–308). Springer Berlin Heidelberg. Retrieved from http://link.springer.com/chapter/10.1007/978-3-642-04346-8_29

From Bit Preservation to Digital Preservation (Oct 11)

Taking into account the challenges and opportunities of digital preservation, it is important to bracket the work into two different challenges: bit preservation and digital preservation. Bit preservation, ensuring authentic copies of digital objects, is the most pressing problem. Thankfully, it is a relatively straightforward problem for which there are a range of simple solutions. With that said, ensuring those authentic copies are interpretable, comprehensible and usable is far more challenging. Thankfully, this work of digital preservation is a much less time sensitive activity.

Project Deadlines:

- Institutional Digital Preservation Survey and Report drafted & submitted for review to your organization

Readings:

- Owens, Chapter six, *Managing Copies and Formats, Theory and Craft of Digital Preservation*
- Schumacher, J., Thomas, L. M., VandeCreek, D., Erdman, S., Hancks, J., Haykal, A., ... Spalenka, D. (2014). *From Theory to Action: Good Enough Digital Preservation for Under-Resourced Cultural Heritage Institutions* (Working Paper). Retrieved from <http://commons.lib.niu.edu/handle/10843/13610>
- Altman, M., Bailey, J., Cariani, K., Gallinger, M., Mandelbaum, J., & Owens, T. (2013). NDSA Storage Report: Reflections on National Digital Stewardship Alliance Member Approaches to Preservation Storage Technologies. *D-Lib Magazine*, 19(5/6). <http://doi.org/10.1045/may2013-altman>
- National Digital Stewardship Alliance. (2014). *What is Fixity, and When Should I be Checking It?* Washington, D.C. Retrieved from <http://www.digitalpreservation.gov/documents/NDSA-Fixity-Guidance-Report-final100214.pdf>
- Dietrich, D., Kim, J., McKeegan, M., & Rhonemus, A. (2016). How to Party Like it's 1999: Emulation for Everyone. *The Code4Lib Journal*, (32). <http://journal.code4lib.org/articles/11386>

No Class, Oct 18th,

Use this time to work on components of your project due next week.

Describing, Organizing & Arranging Digital Objects (Oct, 25)

The story goes that shortly after the Library of Congress signed an agreement with Twitter to begin archiving all of the tweets, a cataloger asked “But who will catalog *all* those tweets?” The idea of describing billions of objects was dauntingly

incompressible to those who lacked experience with the nature of digital media. Like most digital objects, tweets come with a massive amount of transactional metadata: timestamps, usernames, unique identifiers, links out to URLs on the web. Like most digital objects, the tweets can largely describe themselves. The usability of digital information will be largely dependent on how we organize, arrange, and describe it. Arranging and describing digital objects needs to conceptually shift to embrace the nature of digital media and to recognize a distinct transition which has occurred in terms of computability. Digital media continually generates massive amounts of metadata and because it is computable, it is also increasingly possible to process digital data to derive descriptive information and metadata. As a result, arranging and describing digital content should increasingly be focused on limited amounts of expert intervention in chunking and describing content in aggregate and leaving lower levels of description to the objects themselves.

Project Deadlines:

- Institutional Digital Preservation Survey and Report Due posted to the blog before class.

Readings

- Owens, *Arranging and Describing Digital Objects, Theory and Craft of Digital Preservation*.
- Bailey, J. (2013). Disrespect des Fonds: Rethinking Arrangement and Description in Born-Digital Archives - Archive Journal Issue 3. *Archive Journal*, (3). <http://www.archivejournal.net/issue/3/archives-remixed/disrespect-des-fonds-rethinking-arrangement-and-description-in-born-digital-archives/>
- Marshall, C. C. (2011). Digital Copies and a Distributed Notion of Reference in Personal Archives. In M. A. Winget & W. Aspray (Eds.), *Digital media: technological and social challenges of the interactive world* (pp. 89–115). Lanham, Md: Scarecrow Press.
<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.220.6861>
- Drake, J. M. (2016, April 6). RadTech Meets RadArch: Towards A New Principle for Archives and Archival Description. <https://medium.com/on-archivy/radtech-meets-radarch-towards-a-new-principle-for-archives-and-archival-description-568f133e4325#.8a5icd8uw>
- Peterson, C. (2015, June 12). Archival Description for Web Archives. Retrieved from <https://icantiemyownshoes.wordpress.com/2015/06/12/archival-description-for-web-archives/>
- Lev Manovich. (1997). Database as a Genre of New Media. Retrieved July 30, 2016, from http://vv.arts.ucla.edu/Al_Society/manovich.html

Divergent, Multimodal & Ethical Access and Use (Nov 1)

When a user in a research library asks to see a book in an obscure language a librarian will generally bring it out and let them look at it. That librarian may have no idea how to make sense of the text, but they know how to provide access to it and it is assumed that the researcher needs to come with the skills to make sense of it. At the most basic level, we can provide this kind of access to any digital objects we are preserving. The affordances of digital media open up significant potential for access and use of digital content. At the same time, our experience with commercial software can get in the way of letting others access digital content until one can provide a simple way for any user to double click on a digital object and have it “just work.” It is critical for us to get over the assumptions that are embedded in this mentality and embrace the divergent and multimodal nature of access that digital media present us with.

In Class Activities

- Half of our class will focus on discussing this week’s reading. But we will also back up and think through how each of the sections of work we have gone through in the last few weeks fit together with this work.

Readings

- Owens, Chapter Eight, *Enabling Multimodal Access and Use, The Theory and Craft of Digital Preservation*
- AIMS Working Group. (2012). AIMS born-digital collections: An inter-institutional model for stewardship. *University of Virginia Library*. <http://dcs.library.virginia.edu/aims/white-paper/> (Read Access section)
- despens. (2012, April 9). Authenticity/Access | One Terabyte of Kilobyte Age. Retrieved from <http://contemporary-home-computing.org/1tb/archives/3214>
- Padilla, T. G., & Higgins, D. (2014). Library Collections as Humanities Data: The Facet Effect. *Public Services Quarterly*, 10(4), 324–335. http://thomaspadilla.org/papers/padillahiggins_humdata_postprint.pdf
- Christen, K. (2008). Archival challenges and digital solutions in aboriginal Australia. *SAA Archaeological Recorder*, 8(2), 21–24. <https://research.libraries.wsu.edu/xmlui/bitstream/handle/2376/5703/7-archival.pdf?sequence=1&isAllowed=y>
- Sadler, B., & Bourg, C. (2015). Feminism and the Future of Library Discovery. *The Code4Lib Journal*, (28). <http://journal.code4lib.org/articles/10425>

Section 3: Completing Digital Preservation Projects & Digital Preservation Policy

Your Work on Digital Preservation (Nov 8)

Come prepared to share out the status of your projects. Everyone will give a short 3 minute update on the status of and we will work together to talk through challenges and issues that are emerging in the process of doing this work.

Project Deadlines:

- Institutional Digital Preservation Survey and Report published to the course blog.

Next Steps & Preservation & Collection Policy (Nov 15)

A key theme that has come through our work in digital preservation this semester is that it is not primarily a technical issue. The rules and policies organizations put in place for both doing the work of digital preservation and collecting digital information are essential parts of doing the work of digital preservation. This week we will review and discuss some policy documents in this area as preparation for you to draft up policy documents for your organization to consider adopting.

In Class Activities

- Half of the class will focus on reviewing everyone's next steps projects. Everyone will give a 5-minute presentation their suggestions for next steps for their cultural heritage organization.
- The other half of class will focus on discussion of digital preservation and digital collection development policy in preparation for your next project deliverable.

Project Deadlines:

- Institutional Digital Preservation Next Steps Preservation Plan due, publish to course blog.

Readings:

- Sheldon, M. (2013). *Analysis of Current Digital Preservation Policies: Archives, Libraries and Museums*. The Library of Congress.
<http://www.digitalpreservation.gov/documents/Analysis%20of%20Current%20Digital%20Preservation%20Policies.pdf> (Read at least 4 of the policies referenced in this paper.)
- Rimkus, K., Padilla, T., Popp, T., & Martin, G. (2014). Digital Preservation File Format Policies of ARL Member Libraries: An Analysis. *D-Lib Magazine*, 20(3/4). <http://doi.org/10.1045/march2014-rimkus>
- Stanford University Libraries. Web Archiving: Collection development. Retrieved August 5, 2016, from <http://library.stanford.edu/projects/web-archiving/collection-development>

No Class Holiday: Nov 22**Digital Preservation Policies Presentations and Discussion Nov 29**

This week everyone will present their digital preservation policy drafts. Given that policy reflects considerations from across every aspect of digital preservation this

will be a natural place to return to many of the issues raised over the course of the semester.

Project Deadlines:

- Draft a Digital Preservation Policy for Your Org assignment due. Posted to the course blog the class session would have occurred. Read all the other students policies and engage in discussion on at least 4 other students posts

Reflections on Doing Digital Preservation (Dec 6th)

Review your writing and reading for the course to date. Come to class with a set of three key things you will take away from the course going forward and one open question you want to pose to the rest of the class. This will serve to help you begin to put together your reflection post for the course.

Project Deadlines

- Publish your reflection blog post. Engage in discussion with at least three other student's reflection blog posts.
- Fill out your course evaluations