SIMMONS

LIS-448-OL2: Digital Stewardship
Fall Semester 2020

Faculty Information

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Catalog Description

This course teaches the core concepts and skills needed to create and manage digital collections and repositories. It covers the digital convergence of cultural heritage information in libraries, archives and museums. It introduces strategies for managing digital objects over the long term through active, ongoing oversight of the total environment (content, technologies, and user expectations) during all phases of the information life cycle. The course also includes extensive discussion of policy issues affecting digital collections, including sustainability issues for digital repositories, and open access to digital resources.

Course Summary

LIS 448 is a required course for the SLIS Cultural Heritage Informatics (CHI) concentration and meets the preservation requirement for the Archives Management concentration. This course provides a foundation for jobs which involve creating, preserving, and providing access to digital information in LAM (library-archives-museum) institutions. The topics covered in LIS 448 relate to and complement other SLIS courses related to digital content, including LIS 477 (Digital Asset Management in Libraries, Archives, and Museums) and LIS 444 (Digital Preservation). Drawing on the professional and academic literature, this course examines and critiques a number of analytical concepts underpinning digital stewardship, and gives students a practical introduction to some of the tools and techniques used in the field. In general, the course is designed to help information professionals better understand the complex and changing roles digital collections are likely to play in LAM institutions in the future, with an emphasis on working across organizational and technical boundaries in managing digital collections and services.

Learning Objectives

This course is designed to help students prepare for a wide range of professional career paths involving digital collections and repositories. The assignments for have projected learning outcomes that closely match the mission and general learning objectives adopted by SLIS, and with a particular focus on the following:

1. **Apply professional standards, tools, and best practices in the information field and across specialized areas.**
2. **Communicate effectively across different audiences.**
3. **Demonstrate the technological skills required to help information professionals and organizations achieve their goals**.
4. Critically analyze and apply research.
5. **Select, implement, or create services, programs, and resources/systems that respond to the needs of diverse communities and stakeholders**.
6. Develop individual and collaborative leadership potential.
7. Be guided by professional ethics and values.

Course Structure

The course will follow a regular weekly schedule through the semester, as indicated in Moodle, with an assignment due each week. The class will be conducted asynchronously, so you will not be required to log in at any specific time. However, this is not a self-paced course, and all students will be expected to keep up with the schedule and to contribute to each week's class discussion.

Course Readings

The readings for this course will be available online, whether openly on the Web, through the e-journal databases provided by Simmons Library, or via the Moodle course page.

Due Dates and Lateness Policy

All assignments for this course will have specific due dates corresponding to our regular weekly class schedule. This means that all assignments posted to Moodle should be uploaded by 11:59pm (Eastern time) on the specified due date. My routine practice is to grade and provide feedback on all assignments within one week after the due date, or before the next week's assignment is due. Please note that I do accept late assignments without a grade penalty, up to the last official date of classes for each semester, but I do not guarantee written feedback for assignments posted after the due date.

Evaluation Guidelines

Based on the SLIS learning outcomes (see above), I use the following general rubric:

1) *Knowledge*: Students will be expected to demonstrate mastery of the course content, including comprehension of key concepts and relevant details in the readings and lectures. In the unit assignments, students will be expected to base their conclusions on detailed evidence from relevant primary and secondary sources.

2) *Analysis*: Students will be expected to demonstrate effective critical thinking skills in applying course concepts and in drawing conclusions. Also, students will be rewarded for showing a willingness to raise questions and to critique potential solutions.

3) *Communication*: Students will be expected to present arguments and ideas in clear, concise and grammatical language, and to use visual or oral communication effectively. All students should communicate in a consistently professional, respectful manner.

4) *Technology*: Please note that students in 448 are not expected to demonstrate mastery of digital technology. Instead, students are expected to demonstrate active engagement with technology, including a willingness to experiment with unfamiliar systems and computing applications, and to document their efforts to solve technology-related problems as they arise in the assignments.

In applying the above rubric, I would recommend that you follow a basic checklist in completing the assignments:

1) Have you provided evidence that you have read and understood the readings and lectures?

2) Have you provided thoughtful, original analyses of the course content, especially attempting to apply the course themes to case examples of LAM institutions and collections.

3) Have you presented your ideas in clear, concise, well-reasoned, respectful language that is free of serious grammatical or spelling errors?

4) For the hands-on assignments, have you managed to solve any technology-related problems that have arisen, and if not, have you documented your efforts to solve the problems?

Grading and Course Deliverables

Assignment	Percent
Learning Library APIs Assignment	15%
Archival Collections in ArchivesSpace Assignment	15%
Virtual Exhibits in Omeka Assignment	15%
Digital Stewardship Tool Evaluation	25%
Online Discussions and Exercises	30%

All assignments are due at 11:59pm eastern time on the date specified unless otherwise specified.

Learning Library APIs Assignment
Archival Collections in ArchivesSpace Assignment

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Virtual Exhibits in Omeka Assignment
Digital Stewardship Tool Evaluation

Online Disucssions and Exercises

Office of Accessibility Services

Students who wish to receive academic accommodations for this course must first register due to a documented diagnosis/disability with the *Office of Accessibility Services (OAS)*. The most commonly requested accommodations are *extended time for testing* and *use of the OAS Testing Center*. OAS will provide eligible/registered students with an *Academic Accommodations Authorization* form to share with each instructor to confirm the student's authorized accommodations. The OAS is located on the 1st floor of Lefavour Hall in the Center for Student Success and is open from 8:30am to 4:30pm Monday through Friday. For more information about the services and accommodations available through the *Office of Accessibility Services*, please review the following link: simmons.edu/access.

Honor Code

Students are expected to conduct themselves in a way that is consistent with University policies and in a manner appropriate with the University's mission as an educational institution. The University Corporation retains authority over the granting of degrees and the disciplining of students at the University. In academic matters, mutual responsibility between instructors and students requires cooperation and trust in maintaining the details and spirit of an honor system. This insures that a high level of integrity and honesty will be maintained within the academic programs. *For more information, please see https://internal.simmons.edu/students/slis/current/honor-code*.

Gender-Based Misconduct Policy

Title IX Federal law states that all students have the right to gain an education free of gender-based discrimination. Some examples of gender-based discrimination, as defined by this law, include sexual harassment or exploitation, sexual assault, domestic/dating violence, and stalking. In compliance with Title IX, Simmons University has a 'Gender-Based Misconduct Policy' which defines these forms of misconduct, outlines University protocol and procedures for investigating and addressing incidences of gender-based discrimination, highlights interim safety measures, and identifies both on and off-campus resources.
Click to view the full [Simmons University Gender-Based Misconduct Policy](#).

Schedule Overview

Dates	Weekly Topic	Assignments Due
Sept 2- Sept 6	0: Introductions	

Sept 7- Sept 13	1: Definitions and Orientation to Digital Stewardship	
Sept 14- Sept 20	2: Digital Stewardship Frameworks	
Sept 21- Sept 27	3: Digital Stewardship in Libraries I	
Sept 28- Oct 4	4: Digital Stewardship in Libraries II	Library API assignment
Oct 5- Oct 11	5: Digital Repositories	
Oct 12- Oct 18	6: Digital Stewardship in Archives I	
Oct 19- Oct 25	7: Digital Stewardship in Archives II	
Oct 26- Nov 1	8: Digitizing Material Objects	ArchivesSpace Assignment
Nov 2- Nov 8	9: Digital Stewardship in Museums I	Final Assignment Proposal
Nov 9- Nov 15	10: Digital Stewardship in Museums II	
Nov 16- Nov 22	11: Digital Repositories and Open Data	
Nov 23- Nov 29	12: HOLIDAY BREAK	Omeka Assignment
Nov 30- Dec 6	13: Climate Change and LAMs	
Dec 7- Dec 13	14: Preservation Actions	
Dec 15		Final Assignment

Weekly Schedule

Week 0: Introductions

This week will be an opportunity for us to use Moodle to meet each other and get comfortable with the platform while beginning to orient ourselves to the work of this class through a few introductory readings on digital objects and the types of work that can be accomplished through a digital stewardship approach.

Readings:

- Robert Kahn and Robert Wilensky, "A Framework for Distributed Digital Object Services," *International Journal on Digital Libraries* 6, no. 2 (2006).
    - Read: 2.1 "Informal overview" (pp. 116-117)
- Justin Sorensen, "Reconstructing the Past Through Utah Sanborn Fire Insurance Maps a Geospatial Approach to Library Resources, *D-Lib Magazine* 21, no. 3/4 (March/April 2015).
  http://www.dlib.org/dlib/march15/sorensen/03sorensen.html

Week 1: Definitions and Overview of Digital Stewardship

This week will firmly ground us in the ideas we'll be engaging with throughout the semester, all related to the decades-long trends around digital cultural heritage institutions and the interactions between technological trends and LAMs.

Readings:

- Borgman, C. (1999). What are digital libraries? Competing visions. *Information Processing & Management*, *35*, 227–243. https://www.sciencedirect.com/science/article/abs/pii/S0306457398000594
- Marty, Paul F. "Digital Convergence and the Information Profession in Cultural Heritage Organizations: Reconciling Internal and External Demands." *Library Trends*, vol. 62 no. 3, 2014, p. 613-627. *Project MUSE*, doi:10.1353/lib.2014.0007.
- Ross, S. (2012). Digital Preservation, Archival Science and Methodological Foundations for Digital Libraries. *New Review of Information Networking*, *17*(1), 43–68. https://doi-org.ezproxy.simmons.edu/10.1080/13614576.2012.679446

Week 2: Digital Stewardship Frameworks

The work of digital stewardship across institutions is built upon a shared set of standards and frameworks. This week, we will introduce a number of these which have shaped and will continue to affect the field.

Readings:

- Sarah Higgins, "The DCC Curation Lifecycle Model," *International Journal of Digital Curation* 1, no. 3 (June 2008). http://www.ijdc.net/index.php/ijdc/article/view/69
- Lee, C. (2009). Open Archival Information System (OAIS) Reference Model. In M. J. Bates & M. N. Maack (Eds.), *Encyclopedia of Library and Information Sciences, Third Edition* (pp. 4020–4030). CRC Press. https://doi.org/10.1081/E-ELIS3
- Houghton, B. (2015). Trustworthiness: Self-assessment of an Institutional Repository against ISO 16363-2012. *D-Lib Magazine*, *21*(3/4). https://doi.org/10.1045/march2015-houghton
- Wilkinson, M. D., Dumontier, M., Aalbersberg, Ij. J., Appleton, G., Axton, M., Baak, A., Blomberg, N., Boiten, J.-W., da Silva Santos, L. B., Bourne, P. E., Bouwman, J., Brookes, A. J., Clark, T., Crosas, M., Dillo, I., Dumon, O., Edmunds, S., Evelo, C. T., Finkers, R., … Mons, B. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data*, *3*, 160018. https://doi.org/10.1038/sdata.2016.18
- Kussmann, C., Alliance, D. S., Graham, W., Atkins, W., & Reich, A. (2020). 2019 LOP Matrix. Retrieved from osf.io/2mkwx

Week 3: Digital Stewardship in Libraries I

This week we will begin a series of deeper dives into stewardship and curation practices in LAM institutions, beginning with libraries. Building on the first few weeks of the course, we will look at some of the key projects and ideas in digital stewardship coming out of libraries specifically.

Readings:

- Padilla, T. G. (2018). Collections as Data: Implications for Enclosure. *College and Research Libraries News, 79*(6), 296-300. http://dx.doi.org/10.5860/crln.79.6.296
- Centivany, A. (2017). The Dark History of HathiTrust. In *Proceedings of the 50th Hawaii International Conference on System Sciences* (p. 1).
- Sandy, H. M., & Freeland, C. (2016). The Importance of Interoperability: Lessons from the Digital Public Library of America. International Information & Library Review, 48(1), 45–50. https://doi.org/10.1080/10572317.2016.1146041

Week 4: Digital Stewardship in Libraries II

This week is the second part of our look at stewardship and curation practices in libraries. We will broaden our scope and look at additional projects and trends which exemplify digital stewardship work in library settings.

Readings:

- Fondren, E., & McCune, M. M. (2018). Archiving and preserving social media at the library of congress: institutional and cultural challenges to build a Twitter archive. *Preservation, Digital Technology & Culture*, *47*(2), 33-44.
- Kautonen, H. and Nieminen, M., 2018. Conceptualising Benefits of User-Centred Design for Digital Library Services. *LIBER Quarterly*, 28(1), pp.1–34. DOI: http://doi.org/10.18352/lq.10231
- Salanje, G. F. (2011). Creating digital library collections: the experience of Malawi university libraries. *Innovation: journal of appropriate librarianship and information work in Southern Africa*, *2011*(43), 38-49. http://wiredspace.wits.ac.za/bitstream/handle/10539/11531/Salanje%20-%20Creating%20digital%20library%20collections.pdf
- Brown, S., & Simpson, J. (2013). The curious identity of Michael Field and its implications for humanities research with the semantic web. In *2013 IEEE International Conference on Big Data* (pp. 77-85). IEEE.

Week 5: Digital Repositories

This week, we will introduce the concept of Digital Repositories, an important infrastructure element for many LAMs. The readings for this week highlight the history and future trajectory for these organizations.

Readings:

- Paul Ginsparg, "ArXiv at 20," *Nature* 476 (August 11, 2011).
- Clifford Lynch, "Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age," *Portal: Libraries and the Academy* 3, no. 2 (April 2003).

- Limor Peer, "Committing to Data Quality Review," *International Journal of Digital Curation* 9, no. 1 (2014).
http://www.ijdc.net/index.php/ijdc/article/view/9.1.263
- Yakel, E., Faniel, I. M., Kriesberg, A., & Yoon, A. (2013). Trust in Digital Repositories. *International Journal of Digital Curation*, *8*(1), 143–156.
https://doi.org/10.2218/ijdc.v8i1.251
- Mitchell Whitelaw, "Generous Interfaces for Digital Cultural Collections," *Digital Humanities Quarterly* 9, no. 1 (2015).
http://www.digitalhumanities.org/dhq/vol/9/1/000205/000205.html

Week 6: Digital Stewardship in Archives I
This is part one of a two week deeper dive into digital stewardship issues and projects in archival institutions. The readings for this week focus on

Readings:
- Berry D. Digitizing and Enhancing Description Across Collections to Make African American Materials More Discoverable on Umbra Search African American History https://des4div.library.northeastern.edu/digitizing-and-enhancing-description-across-collections-to-make-african-american-materials-more-discoverable-on-umbra-search-african-american-history/
- Ricardo Punzalan, "Understanding Virtual Reunification," *The Library Quarterly* 84, no. 3 (July 2014).
- Kimberly Christen, "Opening Archives: Respectful Repatriation," *American Archivist* 74 (Spring/Summer 2011).

Week 7: Digital Stewardship in Archives II
This week is the second part of our look at digital stewardship projects in archives,

Readings:
- Modiba, T., Ngoepe, M., & Ngulube, P. (2019). Application of Disruptive Technologies to the Management and Preservation of Records. *Mousaion*, *37*(1), 1–14. https://doi-org.ezproxy.simmons.edu/10.25159/2663-659X/6159
- Sutherland, T. (2016). From (archival) page to (virtual) stage: the virtual vaudeville prototype. *The American Archivist*, *79*(2), 392-416.
- Vardigan, M., & Whiteman, C. (2007). ICPSR meets OAIS: Applying the OAIS reference model to the social science archive context. *Archival Science*, *7*(1), 73–87.
https://doi.org/10.1007/s10502-006-9037-z

Week 8: Digitizing Material Objects
This week we will explore the digitization process whereby LAMs create digital objects to represent the essential information contained in their material collections. We will examine key concepts in digital imaging, and we will discuss some of the tradeoffs involved in digitizing LAM collections for online access.

Readings:

- Federal Agencies Digitization Initiative (FADGI) Still Image Working Group, "Technical Guidelines for Digitizing Cultural Heritage Materials: Creation of Raster Image Master Files" (2010). http://www.digitizationguidelines.gov/guidelines/digitize- technical.html
  - o Please note that the FADGI guidelines were given a formal update in 2016, but I've continued to use the assigned passages (see below) from the previous (2010) edition, mainly because it provides a clearer discussion of the basic concepts we'll be focusing on here. The 2016 edition mainly updates the more technical aspects of the guidelines to reflect advances in technology since the previous edition was published.
  - o Read: pp. 1-2 (Read section: "Master files"). pp. 3-5 (Read sections: "Spatial Resolution," "Signal Resolution," and "Color Mode"). pp. 54-58 (Read section: "Illustrations of Record Types").
- Jenny Newell, "Old Objects, New Media: Historical Collections, Digitization and Affect," *Journal of Material Culture* 17, no. 3 (2012).
- Nanna Bonde Thylstrup. (2019). *The Politics of Mass Digitization*. The MIT Press. Chapter 1 "Understanding Mass Digitization"

Week 9: Digital Stewardship in Museums I

This week we move onto museums as the final set of LAM institutions to engage with on a deeper level. This week's readings highlight important and interesting projects which have used museum collections to advance digital stewardship goals.

Readings:

- Dallas, C. (2016). Digital curation beyond the "wild frontier": A pragmatic approach. *Archival Science*, *16*(4), 421-457.
- Kalfatovic, M.R., Kapsalis, E., Spiess, K.P. *et al.* Smithsonian Team Flickr: a library, archives, and museums collaboration in web 2.0 space. *Arch Sci* **8,** 267 (2008). https://doi.org/10.1007/s10502-009-9089-y
- Ben Fino-Radin, "Digital Preservation Practices and the Rhizome Artbase" (2011). http://media.rhizome.org/artbase/documents/Digital-Preservation-Practices-and-the-Rhizome-ArtBase.pdf
  - o Read: pp. 9-14 ("Primary Risks & Inherent Vice")

Week 10: Digital Stewardship in Museums II

This week we continue our look at digital stewardship projects in museums, focusing on a series of case studies and guidance for museums in providing broad access to their collections.

Readings:

- Thomer, A. K., Weber, N. M., & Twidale, M. B. (2018). Supporting the long-term curation and migration of natural history museum collections databases. *Proceedings of the Association for Information Science and Technology*, *55*(1), 504–513. https://doi.org/10.1002/pra2.2018.14505501055
- Stimler, Neal and Rawlinson, Louise. "Where Are The Edit and Upload Buttons? Dynamic Futures for Museum Collections Online.." *MW19: MW 2019*. Published April 4,

2019. Consulted July 21, 2020.
https://mw19.mwconf.org/paper/where-are-the-edit-and-upload-buttons-dynamic-futures-for-museum-collections-online/

- Anderson, J., & Christen, K. (2013). 'Chuck a copyright on It': dilemmas of digital return and the possibilities for traditional knowledge licenses and labels. *Museum Anthropology Review*, *7*(1-2), 105-126.

Week 11: Digital Repositories and Open Data

This week we return to the theme of open access to digital objects and collections, focusing on "open data" or data sharing as both an opportunity and a problem for open access to high-value research information. We will also consider the ethical implications of open data, especially regarding culturally sensitive information representing non-Western cultures and communities.

Readings:

- Douglas, J., Bak, G., McLellan, E., van Hooland, S., & Frogner, R. (2018). Decolonizing archival description: Can linked data help? *Proceedings of the Association for Information Science and Technology*, *55*(1), 669–672. https://doi.org/10.1002/pra2.2018.14505501077
- Fenlon, K., Jett, J., Dubnicek, R., Cole, T. W., & Kudeki, D. (2018). Exploring linked data benefits for digital library users. *Proceedings of the Association for Information Science and Technology*, *55*(1), 799–800. https://doi.org/10.1002/pra2.2018.14505501122
- Kristin Kelly, "Images of Works of Art in Museum Collections: The Experience of Open Access" (June 2013). http://www.clir.org/pubs/reports/pub157/pub157.pdf
- https://www.ted.com/talks/tim_berners_lee_the_next_web
- Niu, J. (2016). Linked Data for Archives. *Archivaria 82*, 83-110. https://www.muse.jhu.edu/article/687083.

Week 12: Holiday Break

Week 13: Climate Change and LAMS

In this week's readings, we will shift gears a bit and look at an issue which has the potential to impact LAMs, the cultural heritage sector, and fields far beyond those which we focus on here at SLIS: climate change. These articles from the past few years highlight current thinking across the field and where we can go from here.

Readings:

- Tansey, E. (2015). Archival adaptation to climate change. *Sustainability: Science, Practice and Policy*, *11*(2), 45–56. https://doi.org/10.1080/15487733.2015.11908146

- Mazurczyk, T., Piekielek, N., Tansey, E., & Goldman, B. (2018). American archives and climate change: Risks and adaptation. *Climate Risk Management*, *20*, 111-125. https://doi.org/10.1016/j.crm.2018.03.005
- Pendergrass, K. L., Sampson, W., Walsh, T., & Alagna, L. (2019). Toward Environmentally Sustainable Digital Preservation. *The American Archivist*, *82*(1), 165-206.

- Scott, B., & Dulek, D. (2020). Waste Not, Want Not: Assessing the Environmental Sustainability of the University of Houston's Digital Preservation Program. *Archiving Conference*, *2020*(1), 49–54. https://doi.org/10.2352/issn.2168-3204.2020.1.0.49

Week 14: Preservation Actions

We conclude our semester with a focused look at digital preservation, an issue which has been looming in the background of many readings and case studies we have looked at already. The intention here is not to provide a comprehensive introduction to digital preservation but rather to illuminate some key issues in the field and point you in the right direction if and when you choose to dig deeper into this topic.

Readings:

- Jeffrey Darlington, et al., "Domesday Redux: The Rescue of the BBC Domesday Project Videodiscs," *Ariadne* 36 (July 2003). http://www.ariadne.ac.uk/issue36/tna/
- Mannheimer, S., Yoon, A., Greenberg, J., Feinstein, E., & Scherle, R. (2014). A balancing act: The ideal and the realistic in developing Dryad's preservation policy. *First Monday*, 19(8). Retrieved from http://journals.uic.edu/ojs/index.php/fm/article/view/5415
- Eschenfelder, K. R., Shankar, K., & Williams, R. D. (2018). Making the case for data archiving: The changing "value proposition" of social science data archives. *Proceedings of the Association for Information Science and Technology*, *55*(1), 123-132.
- Lynch, Clifford. "Stewardship in the" Age of Algorithms"." *First Monday* (2017).
- *Preserve This Podcast* Zine (Dana Gerber Margie, Molly Schwartz, Sara Nguyen, and Mary Kidd; 2018).

Changes to the Syllabus

Please note that this syllabus is a guide for the course and is subject to change. I will disseminate any changes or updates to the syllabus, readings, assignments, etc via Moodle or email.