

**University of Toronto
Faculty of Information**

INF2256 – Digital Scholarship

Winter, 2022

Tuesday, 6.30-8.30pm, BL728

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Office hours: Tuesday, 5.30-6.30pm

Calendar description

This course examines the sources of data, methods of inquiry, and dissemination outputs in current threads of digital scholarship across the humanities, social sciences, and sciences. Digital scholarship facilitates new modes of research and learning that challenge and alter the way we think about scholarship in academic and public discourse. Topics in digital scholarship frequently intersect with legal, labour, and advocacy issues around access, preservation, and knowledge mobilization. Information professionals are increasingly required to provide support services in data management, specialized software and tool training, and publishing. The skills and knowledge to be taken away by the student include both the theoretical and methodological knowledge above, as well as hands-on experience with current projects, software and technologies, and to create a digital scholarship project to support an organization's goals and strategies.

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1. Expectations and Objectives

Course Outline and Objectives

Digital scholarship is a growing community of practice in post-secondary and cultural institutions that requires new modes of research and learning to challenge and alter the way we do scholarship. The information professions, especially librarians, archivists, and museum professionals, have spearheaded research and learning services in support of knowledge organizations' need to rapidly curate and publish dissemination outputs for academic and public discourse. Digital scholarship has become an essential part of the humanities, social sciences, and sciences research process as can be found in the data and collection repositories, analytical and visualization tools, and partnerships that have emerged in recent years. Amongst this plethora of resources has emerged the field of digital scholarship to support and develop research and learning services across the information professions through journals, conferences, and trade publications. The academic rationale behind this course is to introduce graduate students to the topics and issues in the field of digital scholarship, while also questioning the ways in which digital tools, methods, and publications can exacerbate inequalities and injustices.

The course learning objectives are to familiarize students with current thinking within digital scholarship. The core focus for every question asked will be how digital technologies impact the ways we gather and analyze data and produce knowledge dissemination outputs to increase academic and public discourse. To that end, students will be first introduced to concepts and theory surrounding the field of digital scholarship, the production and curation of research data, methods of inquiry to analyze and visualize data, research data management and post-custodial relationships with partners, and the sustainability of digital projects to ensure long term access and preservation to any knowledge dissemination output.

Course Format

Classes will follow the format of a 1-hour lecture and class discussion, followed by a 1-hour project and tool workshop. The lecture and class discussion sessions will examine the weekly topic or issue in digital scholarship. The project and tool workshop will be dedicated to discussion around a specific digital project where students analyze and critique how these projects and tools impact research and public knowledge. Students are expected to contribute to discussions of core arguments, traditions, and influential threads of digital scholarship across the information professions.

Course Learning Outcomes

Upon successful completion of the course, students will be able to:

1. Describe, analyze, and critique digital scholarship issues and arguments using interdisciplinary theories and methods (demonstrated through in-class activities and in all assignments);
2. Evaluate the sustainability, accessibility, and management of digital scholarship projects (demonstrated through in-class activities and in assignment 1);
3. Evaluate the integrity and reliability of tools, systems, and technologies used in digital scholarship (demonstrated through in-class activities and in assignment 2);
4. Apply digital scholarship principles and practices in a variety of project contexts (demonstrated in all of the assignments);

5. Describe the role and importance of digital scholarship in an organization and identify projects and tools that support organizational goals and strategy (demonstrated through in-class activities and in all assignments);
6. Develop a project that applies digital scholarship principles and practices to ensure the project is accessible, sustainable, and equitable (demonstrated through in-class activities and in all assignments).

Relationship MI Program Learning Outcomes

Digital scholarship is a topic that requires students to apply a range of concepts, theories, and practices derived from a range of information-related disciplines (Program Outcomes 1 & 2). As digital scholarship becomes an increasingly studied area of research, students will develop the ability to contribute through research to the continuous expansion of knowledge in digital scholarship, including the sub-body of knowledge underlying the information and archival sciences (Program Outcome 3). Digital scholarship's historical centrality to the preservation and dissemination of human knowledge, means that the evolving modes of research and learning are a core concern for information professionals, especially those who work to ensure access to knowledge (Program Outcome 2). Understanding the changing forms of digital scholarship, requires a synthesis of theoretical and practical knowledge, linking theories of interpretation to specific encoding and digitization technologies, which will be explored in the digital project review, digital tool review, and digital project assignments (Program Outcome 4 & 5). The knowledge and skills developed by students in this course will enable them to facilitate new modes of research and learning in their professional careers and life beyond the course and program (Program Outcome 6).

2. Assignments and Grading

This course has a hybrid structure that mixes lectures, group and class discussion, and workshops to study the projects and tools of digital scholarship. Final grades will be assessed based on the performance of each task/assignment according to the weighting below. The result will be a produced digital pedagogy resource that combines the course's theoretical dimension with the practical needs of an organization's goals and strategies. A premium is put on any kind of digital pedagogy resource that facilitates a new mode of research and learning. The assignment structure is iterative by design. The project and tool review assignments allow students to examine and evaluate these objects while applying digital scholarship principles and practices learned in the course. The final digital pedagogy resource assignment builds on the foundational knowledge acquired in the course and in the project and tool review assignments to develop a sustainable digital pedagogy resource that meets an organization's goals and strategies.

Class Participation and Attendance (20%)

- Students will actively participate in class during the group discussion and workshop portions of the class. Students will be evaluated individually on their participation in our class. The aim of class participation is to get students to think critically about the course material during the class and to work through the knowledge and skills required to complete the assignments.

Assignment 1: Project Review (20% Due Week 5)

- For this individual assignment, students will write a 1,000 to 1,500-word individual review that examines and evaluates the sustainability, accessibility, and management of a digital scholarship project.

Assignment 2: Tool Review (20% Due Week 8)

- For this individual assignment, students will write a 1,000 to 1,500-word review that examines and evaluates the integrity and reliability of a tool, system, or technology used in digital scholarship activities.

Assignment 3: Digital Pedagogy Resource (40% Due Week 12)

- For this individual assignment, students will create a digital pedagogy resource that facilitates modes of learning and challenges the way we think about scholarship in academic and public discourse. Digital pedagogy resources can be lesson plans, workshops, or overviews on how to develop skills and knowledge around a digital tool or technology. Students will submit a 500-word reflection on the rationale and development of their produced resource and present their project in a lightning talk format in the final week of the course. The breakdown of the assignment will be 30% pedagogy resource, 5% reflection, and 5% presentation.

Required texts

- All course texts will be made available on Quercus via the Library Reading List tab as PDF files or hyperlinks, such as journal articles, chapters of books, and online essays.

Assignments, Due Dates and Lateness Penalties

All formal assignments must make consistent use of an accepted citation format (preferably APA style, see Quercus for a style guide). The use of reference managers (e.g., Zotero, Mendeley, or EndNote) is highly recommended. All work is due on the dates and times indicated in the course timeline. Late assignments will incur a 10% late penalty per week. All assignments are also to be handed in via Quercus. Deadline extensions will be granted only with authorized documentation or at the instructor's discretion.

Grading

Please consult the Faculty of Information's:

- [Grade Interpretation Guidelines](#)
- [The University Assessment and Grading Practices Policy](#)
- [The Guidelines on the Use of INC, SDF, & WDR](#)

These documents will form the basis for grading in the course.

3. Rules and Regulations

Acknowledgement of Traditional Land

I acknowledge this land on which the University of Toronto operates. For thousands of years it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the

Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are grateful to have the opportunity to work on this land.

Equity and Diversity Statement

I and the University of Toronto are committed to equity, human rights, and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. I and the University of Toronto do not condone discrimination or harassment against any persons or communities.

Academic Integrity

Please consult the University's site on [Academic Integrity](#). The Faculty of Information has a zero-tolerance policy on plagiarism as defined in section B.I.1.(d) of the University's [Code of Behaviour on Academic Matters](#). You should acquaint yourself with the Code. Please review the material in Cite it Right and if you require further clarification, consult the site [How Not to Plagiarize](#). Cite it Right covers relevant parts of the U of T [Code of Behaviour on Academic Matters \(1995\)](#). It is expected that all Faculty of Information students take the Cite it Right workshop and the online quiz. Completion of the online Cite it Right quiz should be made prior to the second week of classes as the workshop is now interactive. To review and complete the workshop, visit the [Orientation Workshop](#) portion of the Inforum site.

Accommodations

Students with diverse learning styles and needs are welcome in this course. If you have a disability or a health consideration that may require accommodations, please feel free to approach me and/or the [Accessibility Services Office](#) as soon as possible. The Accessibility Services staff are available by appointment to assess needs, provide referrals and arrange appropriate accommodations. The sooner you let Accessibility Services and I know your needs, the quicker we can assist you in achieving your learning goals in this course.

Absence Declaration Tool

During the COVID-19 pandemic, the University is temporarily suspending the need for a doctor's note or medical certificate for absences from academic participation; students should use the [Absence Declaration tool on ACORN](#) to declare an absence if they require consideration for missed academic work; students are responsible for contacting instructors to request the academic consideration they are seeking; students should record each day of their absence as soon as it begins, up until the day before they return to classes or other academic activities.

Academic Dates

Faculty of Information's [academic dates and deadlines](#).

FIPPA

This course, including your participation, will be recorded on video and will be available to students in the course for viewing remotely and after each session. Course videos and materials belong to your instructor, the University, and/or other source depending on the specific facts of each situation, and are protected by copyright. In this course, you are permitted to download session videos and materials for your own academic use, but you should not copy, share, or use

them for any other purpose without the explicit permission of the instructor. For questions about recording and use of videos in which you appear please contact your instructor.

Writing Support

As stated in the Faculty of Information's Grade Interpretation Guidelines, "work that is not well written and grammatically correct will not generally be considered eligible for a grade in the A range, regardless of its quality in other respects." With this in mind, please make use of the writing support provided to graduate students by the [SGS Office of English Language and Writing Support](#). The services are designed to target the needs of both native and non-native speakers and all programs are free. Please consult the current [workshop schedule](#) for more information.

4. Course Schedule

Week 1 – What is Digital Scholarship? (January 11)

Required readings:

- Lewis, V., Spiro, L., Wang, X., & Carthorne, J. E. (2015). Building expertise to support digital scholarship: A global perspective. Council on Library and Information Resources. [\[e-report\]](#)
- Vinopal, J. & McCormick, M. (2013). Supporting digital scholarship in research libraries: Scalability and sustainability. *Journal of Library Administration*, 53(1): 27-42. [\[e-article\]](#)
- Cox, J. (2016). Communicating new library roles to enable digital scholarship: A review article. *New Review of Academic Librarianship*, 22(2-3): 132-147. [\[e-article\]](#)

Suggested reading:

- Smiley, B. L. (2019). From humanities to scholarship: Librarians, labor, and the digital. In M. K. Gold & L. F. Klein (Eds.), *Debates in the digital humanities 2019* (pp. 413-419). University of Minnesota Press. [\[e-book\]](#)
- Carrigan, M. (2020, April 10). Are we all digital scholars now? How the lockdown will reshape the post-pandemic digital structure of academia. *LSE Impact Blog*. [\[e-article\]](#)

Projects and Tools

- [Programming Historian](#), [DLFteach Toolkit](#)

Week 2 – Data (January 18)

Required readings:

- Cordell, R. (2017). "Q i-jtb the Raven": Taking dirty OCR seriously. *Book History*, 20: 188-225. [\[e-article\]](#)
- Troudet, J., Grandcolas, P., Blin, A., Vignes-Lebbe, R., & Legendre, F. (2017). Taxonomic bias in biodiversity data and societal preferences. *Scientific Reports*, 7: 9132. [\[e-article\]](#)
- Arroyo-Ramírez, E. (2016, October 30). Invisible defaults and perceived limitations: Processing the Juan Gelman files. *Medium – On Archivy*. [\[e-article\]](#)

Suggested reading:

- National Heritage Digitization Strategy. (2019). NHDS Digitization Best Practices and Recommendations. [\[e-report\]](#)

Projects and Tools:

- [Internet Archive](#), [Global Biodiversity Information Facility](#), [Bit Curator](#)

Week 3 – Metadata (January 25)

Required reading:

- Mathieu, C. (2017). Practical application of the Dublin Core standard for enterprise metadata management. *Bulletin of the Association for Information Science and Technology*, 43(2): 29-34. [[e-article](#)]
- Godby, C. & Smith-Yoshimura, K. (2017). From records to things: Managing the transition from legacy library metadata to linked data. *Bulletin of the Association for Information Science and Technology*, 43(2): 18-23. [[e-article](#)]
- Wieczorek J., Bloom D., Guralnick R., Blum S., Döring M., Giovanni R., Robertson, T., & Vieglaiss, D. (2012) Darwin Core: An Evolving Community-Developed Biodiversity Data Standard. *PLoS ONE* 7(1). [[e-article](#)]

Suggested reading:

- Global Biodiversity Information Facility. (2021). What is Darwin Core, and why does it matter? *Global Biodiversity Information Facility*. [[e-article](#)]
- Watson, B. (2019, June 18). Homosaurus and the digital transgender archive. The American Archivist Reviews Portal. [[e-article](#)]

Projects and Tools:

- [Dublin Core](#), [Darwin Core](#), [Homosaurus](#) & [Digital Transgender Archive](#)

Week 4 – Rights and Permissions (February 1)

Required reading:

- Manžuch, Z. (2017). Ethical Issues In Digitization Of Cultural Heritage. *Journal of Contemporary Archival Studies*, 4: 4. [[e-article](#)]
- Editorial. (2018, March 27). Cambridge Analytica controversy must spur researchers to update data ethics. *Nature*, 555: 559-560. [[e-article](#)]
- Pinheiro, I. (2021). Storytelling Strategies for Immigrant Justice in the U.S. WITNESS. [[e-article](#)].

Suggested reading:

- franzke, a. s., Bechmann, A., Zimmer, M., Ess, C. and the Association of Internet Researchers (2020). Internet Research: Ethical Guidelines 3.0. *Association of Internet Researchers*. [[e-report](#)]
- Canadian Intellectual Copyright Office. (2019, August 27). A guide to copyright. Government of Canada. [[e-article](#)]
- National Heritage Digitization Strategy (2020). NHDS RightsStatements Report. [[e-report](#)]

Projects and Tools:

- [WITNESS Resources](#), [Fair Use Evaluator](#), [AoIR Ethics Chart](#)

Week 5 – Text Analysis (February 8 Assignment 1 due by 11.59pm)

Required reading:

- Cummings, J. (2013). The text encoding initiative and the study of literature. In R. Siemens & S. Schreibman (Eds.), *A companion to digital literary studies* (pp. 451-476). John Wiley & Sons. [[e-book](#)]

- Stuart, D. (2020). Text analysis and mining. In *Practical Data Science for Information Professionals* (pp. 113-132). Facet Publishing. [[e-book](#)]
- Underwood, T. (2017). A genealogy of distant reading. *Digital Humanities Quarterly*, 11(2). [[e-article](#)]

Suggested reading:

- Rogers, R. (2019). Starting with query design. In *Doing digital methods* (pp. 21-39). Sage. [[e-book](#)]
- Brett, M. R. (2012). Topic modelling: A basic introduction. *Journal of Digital Humanities*, 2(1). [[e-article](#)]

Projects and Tools:

- [Text Encoding Initiative](#), [Digital Methods Initiative Tools](#), [Documenting the Now](#)

Week 6 – 3D Materials (February 15)

Required reading:

- Hardesty, J. L., Johnson, J., Wittenberg, J., Hall, N. Cook., M., Lischer-Katz, Z., Xie, Z., & McDonald, R. (2020). 3D data repository features, best practices, and implications for preservation models: Findings from a national forum. *College & Research Libraries*, 81(5). [[e-article](#)]
- Tucker, A. (2019). Beyond ‘whiz-bang]: 3D printing and critical making in the humanities. In C. Crompton, R. L. Lane, & R. Siemens (Eds.), *Doing more digital humanities: Open approaches to creation, growth, and development* (pp. 110-124). Routledge. [[e-book](#)]
- Dambrogio, J., Ghassaei, A., Smith, D.S. Jackson, H., Demaine, M. L., Davis, G., Mills, D., Ahrendt, R., Akkerman, N., van der Linden, D., & Demaine E. D. (2021). Unlocking history through automated virtual unfolding of sealed documents imaged by X-ray microtomography. *Nature Communications* 12: 1184. [[e-article](#)]

Suggested reading:

- Bushwick, S. (2021, April 12). Algorithm virtually unfolds a historical letter without unsealing it. *Scientific American*. [[e-article](#)]

Projects and Tools:

- [Cultural Heritage Imaging’s Digital Lab Notebook](#) & [Practical Scientific use of Photogrammetry](#), [Letterlocking Project](#)

Reading Week (February 22)

Week 7 – Post-Custodial (March 1)

Guest Lecture: Michael Wynne, Washington State University

“Mukurtu”

Required reading:

- Alpert-Abrams, H., Bliss, D.A., & Carbajal, I. (2019). Post-custodial archiving for the collective good: Examining Neoliberalism in US-Latin American Archival Partnerships. *Journal of Critical Library and Information Studies*, 2(1): 1-24. [[e-article](#)]
- Risan, R. (2019). Colonial violence and the postcolonial digital archive. In *New digital worlds: Postcolonial digital humanities in theory, praxis, and pedagogy* (pp. 47-64). Northwestern University Press. [[e-book](#)]

- Aguirre, C. & Doyle, K. (2013). Types of documents relevant to the investigation of human rights. In *From silence to memory: Revelations of the AHPN* (pp. 50-100). University of Oregon Libraries. [[e-book](#)]

Suggested reading:

- St. Hubert, H., Isasi, J., Medina, N. F., & Montañez, M. (2021). Capacity assessment of Latin American and Caribbean partners: Report of Symposium and Recommendations. *Council on Library and Information Resources*. [[e-report](#)]
- Gauthereau, L. (2018, August 7). Post-custodial archives and minority collections. *Recovering the U.S. Hispanic Literary Heritage Blog*. [[e-article](#)]

Projects and Tools:

- [Early Caribbean Digital Archive](#), [Digital Archive of the Guatemalan National Police Historical Archive](#), [Mukurtu](#)

Week 8 – Data Management (March 8 Assignment 2 due by 11.59pm)

Required reading:

- Carroll, L., Farr, E., Hornsby, P., & Ranker, B. (2011). A Comprehensive Approach to Born-Digital Archives. *Archivaria*, 72: 61-92. [[e-article](#)]
- Lynch, C. (2017). Stewardship in the ‘age of algorithms’. *First Monday*, 22(4). [[e-article](#)]
- Social Sciences and Humanities Research Council (2013). Capitalizing on Big Data: Toward a Policy Framework for Advancing Digital Scholarship in Canada. Government of Canada. [[e-report](#)]

Suggested Reading:

- Government of Canada. (2021, March 15). Tri-Agency Research Data Management Policy. [[e-article](#)]
- Foster, E. D. & Deardorff, A. (2017). Open Science Framework (OSF). *Journal of the Medical Library Association*, 105(2): 203-206. [[e-article](#)]
- Paprica, P. A., Thorogood, A., Ryan, A., McGrail, K., & Schull, M. J. (2020, September 10). Health data collected during the coronavirus pandemic needs to be managed responsibly. *The Conversation*. [[e-article](#)]

Projects and Tools:

- [Research Data Canada](#), [Dataverse](#), [Open Science Framework](#)

Week 9 – Partnerships (March 15)

Guest Lecture: Perry Collins, University of Florida

“Digital Library of the Caribbean”

Required reading:

- Asencio, M. (2017). Collaborating for success: The Digital Library of the Caribbean. *Journal of Library Administration*, 57(7): 818-825. [[e-article](#)]
- Broadwell, G. A., Guzmán M. G., Lillehaugen, B. D., Lopez, F. H., Plumb, M. H., & Zarafonitis, M. (2020). Ticha: Collaboration with Indigenous communities to build digital resources on Zapotec language and history. *Digital Humanities Quarterly*, 14(4). [[e-article](#)]
- Svensson, T. (2021). Curating the Partition: Dissonant heritage and Indian nation building. *International Journal of Heritage Studies*, 2: 216-232. [[e-article](#)]

Suggested reading:

- Christen, K. (2019). Memorandum of Agreement overview for a digital return project. *Sustainable Heritage Network*. [[e-document](#)]

Projects and Tools:

- [Digital Library of the Caribbean](#), [Ticha](#), [1947 Partition Archive](#)

Week 10 – Rapid Response (March 22)

Guest Lecture: Tim Ribaric, Brock University

“COVID-19 in Niagara”

Required reading:

- Gil, A. & Ortega, É. (2016). Global outlooks in digital humanities: Multilingual practices and minimal computing. In C. Crompton, R. L. Lane, & R. Siemens (Eds.), *Doing digital humanities: Practice, training, research* (pp. 22-34). Routledge. [[e-book](#)]
- Currie, M. & Paris, B. S. (2017, February 21). How the ‘guerilla archivists’ saved history – and are doing it again under Trump. *The Conversation*. [[e-article](#)]

Suggested reading:

- Dreyfuss, E. (2018, June 25). ‘Ice is everywhere’: Using library science to map the separation crisis. *Wired* [[e-article](#)]
- Mortillario, N. (2016, December 14). U of T heads ‘guerilla archiving event’ to preserve climate data ahead of Trump presidency. *CBC News* [[e-article](#)]

Projects and Tools:

- [The Nimble Tents Toolkit](#), [Torn Apart / Separados](#), [End of Term Web Archive 2016](#), [COVID-19 in Niagara](#)

Week 11 – Sustainability (March 29)

Required reading:

- Narlock, M. Johnson, D., & Vecchio, J. (2021). Digital preservation services at digital scholarship centers. *The Journal of Academic Librarianship*, 47(3): 1-4. [[e-article](#)]
- Smithies, J., Westling, C., Sichani, A-M., Mellen, P., & Ciula, A. (2019). Managing 100 digital humanities projects: Digital scholarship & archiving in King’s Digital Lab. *Digital Humanities Quarterly*, 13(1). [[e-article](#)]
- Milligan, I. (2016). Lost in the Infinite Archive: The Promise and Pitfalls of Web Archives. *International Journal of Humanities and Arts Computing*, 10(1), 78–94. [[e-article](#)]

Suggested reading:

- Biemen, E. & Vinh-Doyle, W. (2021, March 5). National Heritage Digitization Strategy – Digital Preservation File Format Recommendations. *Government of Canada*. [[e-article](#)]
- Gil, A. (2015, May 21). The user, the learner, and the machines we make. *Minimal Computing*. [[e-article](#)]

Projects and Tools:

- [Archive-It](#), [The Endings Project](#), [The Sustainable Heritage Network](#)

Week 12 – Class Showcase (April 5 Assignment 3 due by 6.30pm)

No lecture, discussion, or workshop this week. Students present their digital pedagogy resources in a lightning talk format to wrap-up the course.