

INFO 6850. Metadata for GLAM

Winter 2025

Course Type: In Person (F2F)

Location: CHEM 223 ([Chemistry Building](#))

Instructor name/title: Dr. Stacy Allison-Cassin (she/her)

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Office hours: By Appointment

Course website: Brightspace

STATEMENT AND ACKNOWLEDGEMENT OF THE LAND

Dalhousie University operates in the unceded territories of the Mi'kmaw, Wolastoqey, and Peskotomuhkati Peoples. These sovereign nations hold inherent rights as the original peoples of these lands, and we each carry collective obligations under the Peace and Friendship Treaties. Section 35 of the Constitution Act, 1982 recognizes and affirms Aboriginal and Treaty rights in Canada.

DALHOUSIE HISTORICAL ACKNOWLEDGEMENT

The Dalhousie University Senate also acknowledges the histories, contributions, and legacies of African Nova Scotians, who have been here for over 400 years.

COURSE DESCRIPTION

Metadata in cultural heritage is a broad field concerned with managing cultural heritage collections across a broad domain, including libraries, archives, museums, cultural centres, and other organizations, institutions, and individuals. Metadata, as data about data, is fundamental to describing, organizing, and caring for collections and cultural expressions across numerous sectors. Contemporary collection description, access, management, and preservation encompasses an increasingly wide range of activities where formally distinct activities related to specific descriptive practices, such as library or archival description, interact within specific and external systems. Ensuring that data about collections, creators, and other elements can be found, used, and interact across information systems and within the broader web is an increasingly important aspect of information work as data about collections is moving from a system of individually created discrete records to being mixed, reused, and amplified through inter-system connection. The widespread adoption of AI-based systems and tools provides both opportunities and challenges for the practice of describing collections as the ability for machine-driven description becomes a possibility.

This course will cover basic concepts and principles of metadata practices for GLAM with a focus on libraries and archives, including metadata standards used for describing collections; cleaning, transforming, and publishing collections data; linked data practices and principles; vocabularies, ontologies, and thesauri; and

emerging issues and trends such as natural language processing (NLP) and machine learning in the context of the collections. Attention to issues of equity, ethics, sustainability, and connections to data science, big data, and AI will be woven into the content of the course. The course is structured with lectures, presentations, and hands-on assignments to create familiarity and extend understanding and connections between metadata and descriptive practices. It will prepare students to work in various contexts within GLAM organizations and beyond. Further essential elements covered in the course include the adoption of ethical data practice, growing tools and resources for Indigenous data, Queer data, and feminist data.

COURSE PRE-REQUISITES

- INFO5515 (Organization of Information)

COURSE LEARNING OUTCOMES

At the end of this course, students will be able to:

- Understand and explain the fundamentals of metadata and Linked Data, including encoding standards, vocabularies, and ontologies used within libraries, archives and similar applications.
- Critically assess and describe metadata applications within GLAM contexts and projects, including digital exhibits, repositories, and digital preservation systems.
- Utilize tools for the creation, publishing, and querying of metadata in the context of GLAM and cultural heritage collections.
- Explain the opportunities and challenges presented by metadata and linked data within the GLAM context including current trends in the area such as machine learning and natural language processing.
- Compare and evaluate metadata applications and contexts in relation to digital projects within the GLAM sector
- Demonstrate awareness of ethical issues related to metadata applications and work within the context of collections description and management
- Articulate the ways metadata can contribute to the advancement of equity and justice while recognizing and respecting the knowledge, experiences, and aspirations of Indigenous and other equity-deserving communities.

TECHNOLOGY REQUIREMENTS

Students will need access to a laptop or desktop computer. Students will need to download and deploy software. Ideally students have access to a laptop they can bring to class.

****Tablet computers such as iPads are not sufficient to complete course activities. ****

DESCRIPTION OF CLASS FORMAT

The class is fully in-person and attendance in person is expected. Class time will consist of lecture, discussion, and tutorials. Ad hoc hybrid attendance is only supported due to illness or other issues with class attendance.

LEARNING MANAGEMENT SYSTEM SITE INFORMATION

Brightspace is the main learning hub for the course information and materials. The course Teams space may be used for sharing of files or other information not well supported by Brightspace.

INSTRUCTIONAL METHODS

This class will be conducted through a variety of activities including class discussion of learning materials, and exercises. Typically the first half of the class will be devoted to lecture, discussion and demonstration of the

week's topic and the second half of the class to collaborative hands-on work. Students should anticipate a mix of practical and theoretical approaches to metadata.

Because the field of information is ever-changing in relation to technology, this course centres process-based learning. This form of learning means the stress of the learning is on the doing, experiencing, and problem-solving of technical work rather than on perfecting skills with software.

LEARNING MATERIALS

There is no formal textbook. Learning materials will include book chapters, articles, reports, podcasts, and tutorials.

METHODS OF EVALUATION

Students are expected to attend and be prepared for all class sessions. Classes build on each other; consistent attendance is necessary for success. See the [Grading Policy](#).

COMPONENT	DUE DATE	WEIGHT
Metadata in the Media	January 16 th , 2025	10%
Technical Exercise and Reflection Journal 1. Describing Images	January 23 rd , 2025	10% individual
Technical Exercise and Reflection Journal 2. Dublin Core Metadata Schema	February 6 th , 2025	10% individual
Technical Exercise and Reflection Journal 3. Thesauri, Vocabularies, and Ontologies	February 20 th , 2025	10% individual
Metadata in Mi'kma'ki	February 27 th , 2025	15% individual
Technical Exercises and Reflection Journal 4. Application Profiles	March 6 th , 2025	10% individual
Case Study Group Presentation and Report	April 3 rd , 2025	30% collaborative
Participation	Throughout	5% individual

Assignment Descriptions

Metadata in the Media

Weight 10% | Due January 16th, 2025

This short assignment is intended to get you thinking about metadata.

Metadata is a frequent topic in the media, from news reports on cybersecurity, AI, to articles on healthcare or highlighting data analysis. Metadata is critical to contemporary society, but we often don't notice its vital role. The purpose of this assignment is to connect information organization to everyday activities and to help identify its application by analysing the content of a text-based media artifact.

Scan a credible news source for an article you feel is highlight an example of metadata or an example of a cultural heritage (GLAM) collections issue in the news. Appropriate sources are newspapers or websites, podcasts, or popular press magazine. **Do not** select an academic source such as a peer reviewed article, scholarly book, or policy report or document.

In your own words, write a very brief analysis of 300 to 500 words of the item. Your analysis should clearly identify the example of metadata usage; if you can tell, the kind of information organization (metadata, AI, database, search) used; any relationships to ethics or equity or similar, and anything you think is interesting.

Your discussion should not be summation. Do not merely summarize the article.

Use 12-point font size; use APA style citations for any sources you use.

Assignments will be graded out of 10 for: suitability of media source and its connection to metadata (3 points); strength of your analysis (5 points); format and mechanics (grammar, style, readability) (2 points)

Technical Exercises and Reflection Journal.

Weight: 4 x 10% | Jan 23, Feb. 6, 20, March 6

Throughout the term students will complete four (4) assignments focused on gaining skills and understanding of technical skills related to metadata as well as a critical reflection on these activities. Time will be given during the lab portions of class to work on assignments. Students will use a reflection journal to keep track of learning experiences, points of tension, and questions. A template will be provided for the journal, but students are encouraged to work with a system that work best for them.

Assignments will be graded out 20, with 10 points for the technical portion of the assignment and 10 points for the reflection. Technical exercises will be graded for accuracy (5), completion (2), effort (3). Reflection journals will be graded for critical thinking (7), evidence of effort (3).

Details regarding the assignments and supporting materials are posted online in Brightspace and Teams.

Metadata in Mi'kma'ki and Good Relations

Weight: 15% | Due February 27th at 11:59 pm.

Ensuring ethical approaches to metadata work is critical and considerations of Indigenous matters such as data sovereignty, naming, and responsible and respectful approaches to our work is important no matter

one's role. Further, it is important that we consider our roles as learners in Mi'kma'ki and consider our roles as treaty people. This assignment is intended to give you an opportunity to learn more about the Peace and Friendship treaties, Mi'kma'ki peoples, cultures, and histories, as well as data-related topics.

Using the digital copy of review the assigned materials and students will imagine what connections could be made between the Peace and Friendship archival documents and other documents, object, beings, spaces. Students may create a list, create a database, a graph, create a drawing, record an audio reflection or use a similar creative method. Students should include a reflection of 800-1000 words to explain their work and include a bibliography.

Case Study Project

Weight 30% | Due April 3rd, 2025. 11:59 pm

Students will work in groups of 3-4 to assess a project from a list provided by the instructor. Groups will be formed during class time. Groups will create a Team Charter and a Group Role Report that will be submitted along with the final report.

The project consists of two parts, a class presentation and a written report. The purpose of the assignment is to encourage students to use critical thinking and assessment skills and apply their knowledge in the assessment of a metadata project.

Overall, project assessments should assess the metadata applications used in the project (schemas, software, etc.), how the project is making use of metadata, and focusing on the strengths and weaknesses of the implementation, as well as critical issues within the project such as ethics, equity and justice, and any points of interest.

Presentation: Student groups will give a 20-minute presentation on the chosen case study, introducing the case study subject and outlining the assessment criteria areas outlined above. Presentations should additionally refer to appropriate subjects discussed in class and appropriate course readings. Students are encouraged to share presentation materials with the class.

Report: Student groups will submit a written report of 2000 words on the chosen case study. introducing the case study subject and outlining the assessment criteria areas outlined above. Reports should additionally refer to appropriate subjects discussed in class and appropriate course readings. Reports should include a introduction; analysis; recommendations and a conclusion.

Reports should use 12-point font. The use of headings is strongly encouraged. You may use bullet points were needed.

PARTICIPATION EVALUATION RUBRIC

CRITERIA	WEIGHTING	INDICATORS
Preparation	40%	The student demonstrates consistent preparation for class; readings and exercises are always completed and the student is able to relate readings to each other and to other course material
Quality of contributions	40%	The student's comments are relevant and reflect understanding of readings and other

		course material. The student's contributions move the discussion forward. The student participates in class group activities.
Frequency of participation	10%	The student is actively engaged in the class and/or discussions at all times.
Attendance/Punctuality	10%	The student is always punctual and no unexcused absences.

INTEGRATION OF [MI Competencies](#)

MI Competencies: Adaptation (1); Collaboration (2); Commitment to equity, diversity, inclusion, accessibility, and decolonization (3); Communication (4); Digital and technological literacy (5) Evidence-based practices (6); Leadership (7), Learning (8); Management (9); User centred design (10)

COURSE ASSESSMENT	COURSE LEARNING OUTCOME MAPPING	PROGRAM COMPETENCY
Metadata in the Media	- Demonstrate awareness of ethical issues related to metadata applications and work within the context of collections description and management - Articulate the ways metadata can contribute to the advancement of equity and justice while recognizing and respecting the knowledge, experiences, and aspirations of Indigenous and other equity-deserving communities. - Explain the opportunities and challenges presented by metadata and linked data within the GLAM context including current trends in the area such as machine learning and natural language processing. - Compare and evaluate metadata applications and contexts in relation to digital projects within the GLAM sector	3, 5, 8, 9, 10
Metadata in Mi'kma'ki	- Critically assess and describe metadata applications within GLAM contexts and projects, including digital exhibits, repositories, and digital preservation systems. - Explain the opportunities and challenges presented by metadata and linked data within the GLAM context including trends in the areas of machine learning and natural language processing. - Demonstrate awareness of ethical issues related to metadata applications and work within the context of collections description and management - Articulate the ways metadata can contribute to the advancement of equity and justice while recognizing and respecting the knowledge, experiences, and aspirations of Indigenous and other equity-deserving communities.	3, 5, 8, 9, 10
Metadata Exercises and Reflection Journal.	- Understand and explain the fundamentals of metadata, and Linked Data, including encoding standards, vocabularies, and ontologies. - Critically assess and describe metadata and LOD applications and opportunities for GLAM organizations and projects. - Utilize tools for the creation, publishing, and querying of Linked Data in the context of GLAM and cultural heritage collections.	1, 3, 4, 5, 6, 7, 8, 9, 10

	• Explain the opportunities and challenges presented by metadata and linked data within the GLAM context including trends in the areas of machine learning and natural language processing. • Have an awareness of ethical issues involved in metadata applications and working within LOD frameworks.	
Case Study	• Understand and explain the fundamentals of metadata, and Linked Data, including encoding standards, vocabularies, and ontologies. • Critically assess and describe metadata and LOD applications and opportunities for GLAM organizations and projects. • Explain the opportunities and challenges presented by metadata and linked data within the GLAM context including trends in the areas of machine learning and natural language processing. • Have an awareness of ethical issues involved in metadata applications and working within LOD frameworks.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10

CLASS POLICIES

Attendance

Class attendance is required in all MI courses and is included in the participation mark. Attendance records will be kept by the instructor.

Citation Style

MI courses use APA as the default standard citation style. Unless the instructor provides alternative written instructions, please use the APA citation style in your assignments to briefly identify (cite) other people's ideas and information and to indicate the sources of these citations in the References list at the end of the assignment. For more information on APA style, consult Dalhousie Library website at <https://libraries.dal.ca/help/style-guides.html> or the APA's Frequently Asked Questions about APA

Late penalties for assignments

A penalty for late assignments will be assessed, unless prior permission has been given by the instructor to submit an assignment late, which normally will be for extended illness, medical, or family emergencies only (see below). Late submissions will be assessed a penalty of five percent per day, including weekends. Assignments will not normally be accepted seven days or more after the due date; in such cases the student will receive a grade of zero.

Missed or Late Academic Requirements due to Student Absence:

Dalhousie University recognizes that students may experience short-term physical or mental health conditions, or other extenuating circumstances that may affect their ability to attend required classes, tests, exams or submit other coursework.

Dalhousie students are asked to take responsibility for their own short-term absences (3 days or less) by contacting their instructor by phone or email prior to the academic requirement deadline or scheduled time **AND** by submitting a completed [Student Declaration of Absence form](#) to their instructor in case of missed or late academic requirements. Only 2 separate Student Declaration of Absence forms may be submitted per course during a term.

GRADING POLICY

A+	90-100	Demonstrates original work of distinction.
A	85-89	Demonstrates high-level command of the subject matter and an ability for critical analysis.
A-	80-84	Demonstrates above-average command of the subject matter.
B+	77-79	Demonstrates average command of the subject matter.

B	73-76	Demonstrates acceptable command of the subject matter.
B-	70-72	Demonstrates minimally acceptable command of the subject matter.
F	<70	Unacceptable for credit towards a Master's degree.

ACCOMMODATION POLICY FOR STUDENTS

The Student Accessibility Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students on the Halifax campus who request accommodation as a result of: a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (NS, NB, PEI, NFLD).

If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your inclusion please contact the Student Accessibility Centre. Please visit www.dal.ca/access for more information and to obtain the Request for Accommodation form.

A note taker may be required as part of a student's accommodation. Visit https://www.dal.ca/campus_life/academic-support/accessibility/accommodations-/classroom-accommodation.html for more details.

Please note that your classroom may contain accessible furniture and equipment. It is important that these items remain in the classroom, undisturbed, so that students who require their use will be able to fully participate.

ACADEMIC INTEGRITY

In general:

The commitment of the Faculty of Management is to graduate future leaders of business, government and civil society who manage with integrity and get things done. This is non-negotiable in our community and it starts with your first class at Dalhousie University. So, when you submit any work for evaluation in this course or any other, please ensure that you are familiar with your obligations under the Faculty of Management's Academic Integrity Policies and that you understand where to go for help and advice in living up to our standards. You should be familiar with the Faculty of Management Professor and Student Contract on Academic Integrity, and it is your responsibility to ask questions if there is anything you do not understand.

Dalhousie offers many ways to learn about academic writing and presentations so that all members of the University community may acknowledge the intellectual property of others. Knowing how to find, evaluate, select, synthesize and cite information for use in assignments is called being "information literate". Information literacy is taught by Dalhousie University Librarians in classes and through Dalhousie Libraries' online Citing & Writing tutorials.

Do not plagiarize any materials for this course. For further guidance on what constitutes plagiarism, how to avoid it, and proper methods for attributing sources, please consult the University Secretariat's Academic Integrity page.

Please note that Dalhousie subscribes to software that checks for originality in submitted papers. Any paper submitted by a student at Dalhousie University may be checked for originality to support instructors in confirming that the student has not plagiarized from other sources. Plagiarism is considered a very serious academic offence that may lead to loss of credit, suspension or expulsion from the University, or even the revocation of a degree. It is essential that there be correct attribution of authorities from which facts and opinions have been derived. At Dalhousie, there are University

Regulations which deal with plagiarism and, prior to submitting any paper in a course; students should read the Policy on Intellectual Honesty contained in the Academic Calendar.

Furthermore the University's Senate has affirmed the right of any instructor to require that student assignments be submitted in both written and computer readable format, e.g.: a text file or as an email attachment, and to submit any paper to a check such as that performed by the plagiarism detection software. As a student in this class, you are to keep an electronic copy of any paper you submit, and the course instructor may require you to submit that electronic copy to plagiarism detection software. Use of third-party originality checking software does not preclude instructor use of alternate means to identify lapses in originality and attribution. The result of such assessment may be used as evidence in any disciplinary action taken by the Senate.

Finally: If you suspect a lapse in academic integrity by colleagues or a professor, you may confidentially share your concerns via DeanManagement@dal.ca.

Faculty of Management clarification on plagiarism versus collaboration:

There are many forms of plagiarism, for instance, copying on exams and assignments. There is a clear line between group work on assignments when explicitly authorised by the professor and copying solutions from others. It is permissible to work on assignments with your friends but only when the professor gives you permission in the specific context of the assignment. University rules clearly stipulate that all assignments should be undertaken individually unless specifically authorised.

Specific examples of plagiarism include, but are not limited to, the following:

- Copying a computer file from another student, and using it as a template for your own solution
- Copying text written by another student
- Submitting the work of someone else, including that of a tutor as your own

An example of acceptable collaboration includes the following:

- When authorised by the professor, discussing the issues and underlying factors of a case with fellow students, and then each of the students writing up their submissions individually, from start to finish.

UNIVERSITY STATEMENTS

This course is governed by the academic rules and regulations set forth in the [University Calendar](#) and the Senate.

ACCESSIBILITY

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. We work collaboratively with Dalhousie and King's students, faculty, and staff to create an inclusive educational environment for students. The Centre is responsible for administering the university-wide [Student Accommodation Policy](#) working across all programs and faculties.

STUDENT CODE OF CONDUCT

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

DIVERSITY AND INCLUSION

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2).

INTERNATIONALIZATION

At Dalhousie, “thinking and acting globally” enhances the quality and impact of education, supporting learning that is “interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders.”

RECOGNITION OF MI'KMAQ TERRITORY

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people. For more information about the purpose of territorial acknowledgements, or information about alternative territorial acknowledgements if your class is offered outside of Nova Scotia, please visit <https://native-land.ca/>.

The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit the office in the McCain Building (room 3037) or contact the programs at elders@dal.ca or 902-494-6803 (leave a message).

FAIR DEALING POLICY

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie.

COURSE SCHEDULE

***Note: Readings only. Please check Brightspace for full list of weekly learning resources.**

Date of Class	Learning Materials
Class 1 Introduction to the class and review of metadata.	Allison-Cassin, S., & Seeman, D. (2022). Metadata as Knowledge. KULA: Knowledge Creation, Dissemination, and Preservation Studies, 6(3), 1–4. https://ezproxy.library.dal.ca/login?url=https://dx.doi.org/10.18357/kula.244 Pomerantz, J. (2015). “Definitions” Chapter 2. Metadata. The MIT Press. https://dal.novanet.ca/permalink/01NOVA_DAL/ev10a8/cdi_skillsoft_books24x7_bkb000135384
Class 2. Collections data from a meta-perspective.	Galliland, A. (2016, July 20). “Setting the Stage” In Baca, M. <i>Introduction to Metadata</i> [InteractiveResource]. Getty Research Institute, Los Angeles. https://www.getty.edu/publications/intrometadata/setting-the-stage/ Gartner, Richard. Chapter Chapter 1 & 3. Metadata: Shaping Knowledge from Antiquity to the Semantic Web. Springer EBooks, 2016. https://dal.novanet.ca/permalink/01NOVA_DAL/1nek75v/alma990051437660107190 Schwartz, J. M. (2002). Coming to Terms with Photographs: Descriptive Standards, Linguistic “Othering,” and the Margins of Archivry. <i>Archivaria</i> , 142–171. https://archivaria.ca/index.php/archivaria/article/view/12861

	Robertson, A. T. (2016, March 21). digitization: Just because you can, doesn't mean you should. Tara Robertson. http://tararobertson.ca/2016/oob/
Class 3 GLAM Metadata Schemas	Woodley, M. (2016, July 20). "Metadata Matters: Connecting People and Information" In Baca, M. <i>Introduction to Metadata</i> [InteractiveResource]. Getty Research Institute, Los Angeles. https://www.getty.edu/publications/intrometadata/setting-the-stage/ Johnson, D., & Dehmlow, M. (2019). Digital Exhibits to Digital Humanities: Expanding the Digital Libraries Portfolio. In K. J. Varnum (Ed.), <i>New top technologies every librarian needs to know</i>. ALA Neal-Schuman. https://dal.novanet.ca/permalink/01NOVA_DAL/1nek75v/alma990063150850107190 Salse, M., Guallar-Delgado, J., Jornet-Benito, N., Bretos, M. P. M., & Silvestre-Canut, J. O. (2022). GLAM metadata in museums and university collections: A state-of-the-art (Spain and other European countries). <i>Global Knowledge, Memory and Communication</i>, 73(4/5), 477–495. https://doi.org/10.1108/GKMC-06-2022-0133
Class 4 Schemas and Mappings for Collections	Hooland, S. van, & Verborgh, R. (2014). Chapters 3 and 4. <i>Cleaning and Reconciling. Linked data for libraries, archives and museums: How to clean, link and publish your metadata</i>. Facet Publishing. https://dal.novanet.ca/permalink/01NOVA_DAL/1vjc6md/alma9970526580807190 Piedboeuf, F., Berre, G. L., Alfonso-Hermelo, D., Charbonneau, O., & Langlais, P. (2024, January 31). The state of OAI-PMH repositories in Canadian Universities. <i>Proceedings of the International Conference on Dublin Core and Metadata Applications. International Conference on Dublin Core and Metadata Applications</i>. https://doi.org/10.23106/dcmi.953359643 Ziku, M. (2020). Digital Cultural Heritage and Linked Data: Semantically-informed conceptualisations and practices with a focus on intangible cultural heritage. <i>LIBER Quarterly</i>, 30(1), Article 1. https://doi.org/10.18352/lq.10315
Class 5 Controlled Vocabularies, Thesauri, and Ontologies	Dublin, T. C. (n.d.). <i>Formal Ontologies: A complete novice's guide: Parthenos training</i>. https://training.parthenos-project.eu/sample-page/formal-ontologies-a-complete-novices-guide/ Harpring, P. (2010). Chapter 1. <i>Controlled Vocabularies in Context</i>. In <i>Introduction to Controlled Vocabularies</i> (Getty Research Institute). Getty Research Institute. https://www.getty.edu/research/publications/electronic_publications/intro_controlled_vocab/index.html Hooland, S. van, & Verborgh, R. (2014). Chapter 2. <i>Modelling. Linked data for libraries, archives and museums: How to clean, link and publish your metadata</i>. Facet Publishing. https://dal.novanet.ca/permalink/01NOVA_DAL/1vjc6md/alma9970526580807190 Littletree, S., & Metoyer, C. A. (2015). Knowledge Organization from an Indigenous Perspective: The Mashantucket Pequot Thesaurus of American Indian Terminology Project. <i>Cataloging & Classification Quarterly</i>, 53(5–6), 640–657. https://doi.org/10.1080/01639374.2015.1010113

Class 6 Perspectives on Indigenous Data	Battiste, M. (2018). Narrating Mi'kmaw Treaties: Linking the Past to the Future. In <i>Living Treaties: Narrating Mi'kmaw Treaty Relations</i>. Cape Breton University Press. http://ebookcentral.proquest.com/lib/dal/detail.action?docID=4814 Lewis, J. E., Arista, N., Pechawis, A., & Kite, S. (2018). Making Kin with the Machines. <i>Journal of Design and Science</i>. https://doi.org/10.21428/bfafd97b Tuck, E., & Yang, K. W. (2012). <i>Decolonization is not a metaphor</i>. <i>Decolonization: Indigeneity, Education & Society</i>, 1(1), Article 1. https://jps.library.utoronto.ca/index.php/des/article/view/18630
Class 7 Repositories and Application Profiles	Babcock, K., & Di Cresce, R. (n.d.). Impact of International Image Interoperability Framework (IIF) on Digital Repositories. In <i>New Top Technologies Every Librarian Needs to Know: A LITA Guide</i>. https://dal.novanet.ca/permalink/01NOVA_DAL/1nek75v/alma990063150850107190 Matienzo, M. A., Roke, E. R., & Carlson, S. (2017, December 2). Creating a Linked Data-Friendly Metadata Application Profile for Archival Description. <i>Proceedings of the International Conference on Dublin Core and Metadata Applications</i>. <i>International Conference on Dublin Core and Metadata Applications</i>. https://doi.org/10.23106/dcmi.952137947 Karuk Tribe, Hillman, L., Hillman, L., Harling, A. R. S., Talley, B., & McLaughlin, A. (2017). Building Sípnuuk: A Digital Library, Archives, and Museum for Indigenous Peoples. <i>Collection Management</i>, 42(3–4), 294–316. https://doi.org/10.1080/01462679.2017.1331870
Class 8 Linked Data	Carlson, S., Lampert, C., Washington, A., & Melvin, D. (2020). Several Chapters. <i>Linked Data for the Perplexed Librarian</i>. American Library Association. Douglas, J., Bak, G., McLellan, E., van Hooland, S., & Frogner, R. (2018). Decolonizing archival description: Can linked data help? <i>Proceedings of the Association for Information Science and Technology</i>, 55(1), 669–672. https://doi.org/10.1002/pr2.2018.14505501077
Class 9 Data preservation and provenance	Ansovini, D., Babcock, K., Franco, T., Jung, J. A., Suurtamm, K., & Wong, A. (2022). Knowledge Lost, Knowledge Gained: The Implications of Migrating to Online Archival Descriptive Systems. <i>KULA: Knowledge Creation, Dissemination, and Preservation Studies</i>, 6(3), Article 3. https://doi.org/10.18357/kula.234 Anyaoaku, E. N., Echedom, A. U. N., & Baro, E. E. (2018). Digital preservation practices in university libraries: An investigation of institutional repositories in Africa. <i>Digital Library Perspectives</i>, 35(1), 41–64. https://doi.org/10.1108/DLP-10-2017-0041 Börjesson, L., Sköld, O., Friberg, Z., Löwenborg, D., Pålsson, G., & Huvila, I. (2022). Re-purposing Excavation Database Content as Paradata: An Explorative Analysis of Paradata Identification Challenges and Opportunities. <i>KULA: Knowledge Creation, Dissemination, and Preservation Studies</i>, 6(3), https://doi.org/10.18357/kula.221
Class 10 Collections as Data	Hawkins, A. (2022). Archives, linked data and the digital humanities: Increasing access to digitised and born-digital archives via the semantic web. <i>Archival Science</i>, 22(3), 319–344. https://doi.org/10.1007/s10502-021-09381-0

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