



**DALHOUSIE
UNIVERSITY**

FACULTY OF MANAGEMENT
School of Information Management

**School of Information Management
INFO 6840 Content Management Systems
Fall 2021**

Course Type: in-person / blended

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Office hours: Tuesdays 1:00 – 3:00

Course website: <https://simcms602098411.wordpress.com/> & Brightspace

COURSE DESCRIPTION

Information professionals need to understand the increasingly complex and important domain of digital collections and content management systems. The course will introduce students to the theory of digital collections, to the established methods and elements of digital collections, and to the types of software and technical standards relevant for the creation and maintenance of digital collections. This course will also encourage students to explore related issues, trends, and research.

The name Content Management Systems refers to specific systems used to make digital collections organized and accessible. The course will help students understand the concepts crucial to content management systems, to the challenges for those who work with them and who develop collections with them and to the software configurations and specific examples of content management systems.

COURSE PRE-REQUISITES

None

LEARNING OUTCOMES

By the end of the course students will

1. Understand key aspects of best practice for digital collections such as: metadata management, management of digital assets, digital preservation, interoperability, program or collection evaluation, and user management
2. Be able to apply key aspects of user-centered design and accessibility as they relate to digital collections
3. Apply intellectual property rights as they pertain to digital collections
4. Analyze major issues in the development and management of digital collections
5. Implement a small-scale digital collection using a Digital Collection Management System
6. Identify resources to support the ethical and responsible development and maintenance of digital libraries

TECHNOLOGY REQUIREMENTS / Technology Used

Access to a computer is necessary, but the range of technologies used will vary from student to student. However, we will all make use of at least WordPress (wordpress.com) and Omeka (<http://omeka.org/> / <https://omeka.net>) — an open source content management system. And we may explore other online resources, e.g. Archivemata (<https://www.archivemata.org/en/>) which includes access to a sandbox.

Hands-on Technology work.

Some of this technology can be used in a free version online (Omeka and WordPress) and we will make use of these. Other technologies are freely available but must be installed on a system in order to be accessible.

As this course is online, the expectations for student success in hands-on working with software systems are flexible, and dependent in part on what computer hardware students have access to. This experiential learning can be valuable, rewarding, and even fun. However, it can also be frustrating. Students' circumstances as well as students' records of their efforts will be part of judging success in this part of the course.

It goes without saying that students need to have access to computer hardware that will allow this hands-on work. In addition, students will ideally have access to computer equipment that will allow them to install and experiment with a Linux environment.

This could be either

- Your personal computer (Mac or PC) as long as you have enough storage space and memory to install VirtualBox (<https://www.virtualbox.org/>) which will allow you to install Debian or Ubuntu Linux
- A Raspberry Pi (<https://www.raspberrypi.org/>) computer (available for about \$100 (<https://www.buyapi.ca/>) as long as you have a monitor, keyboard, and mouse to use with it.)
- Failing this, students will need to be able to work with the online (freely-accessible) versions of WordPress and Omeka.

These technology requirements and expectations will be discussed at the beginning of the course.

LEARNING MANAGEMENT SYSTEM SITE INFORMATION

The course will make extensive use of the Learning Management System for course information and some course content as well as for the submission of some assignments.

INSTRUCTIONAL METHODS

Readings and discussion of readings, lectures, individual work and experiential learning with technologies, group work and projects, student presentations.

LEARNING MATERIALS

Course readings are outlined below in the schedule below

METHODS OF EVALUATION

A detailed outline of criteria for the assessment of individual assignments will be provided in a separate document. Success in individual assignments is dependent on engagement with the assigned topic, with the relevant literature, and with the broader topics of the course, and, for hands-on assignments, attention to detail and critical engagement with the assigned technologies. Clarity of expression and presentation, and critical thinking are important.

Assessment of all assignments is directly related to attention to the instructions, clarity of expression and presentation, and evidence of significant analysis and reflection.

See also the [SIM Grading Policy](#).

COMPONENT	DETAILS	DUE DATE	VALUE
A01: Participation	a: Evaluation of class-by-class online participation b: leading an online discussion on a reading	a: ongoing b: once during term	20%
A02: Digital tools reports	2 brief reports on experiments with CMS	12 October 23 November	10% 10%
A03: Report	Individual research topic	02 November	30%
A04: Group collection & presentation	Working digital collection & presentation	30 November & 8 December	30%
total			100%

PARTICIPATION EVALUATION RUBRIC

CRITERIA	WEIGHTING	INDICATORS
Preparation	25%	The student has read and thought about the readings and has ideas about them
Quality of contributions	25%	The student makes interesting and thoughtful comments and respects the opinions of others
Frequency of participation	25%	The student is an active participant in the online discussion of readings
Completion of in-class work	25%	The student completes in-class activities involving relevant technologies
Total	100%	Participation comprises 20% of a student's final grade

INTEGRATION OF [MI Competencies](#)

PROGRAM COMPETENCY	COURSE LEARNING OUTCOME	COURSE ASSESSMENT
Information Management Leadership	1, 3, 6	A04: group collection
User-centred Information Services	2	A04: group collection
Management of Information Technology	2, 3, 5	A02: digital tools reports; A03: research report; A04: group collection
Research and Evaluation	4, 6	A03: research report
Risk Management	1, 2, 5	A02: digital tools reports; A03: research report; A04: group collection
Change Management	1, 2, 5	A02: digital tools reports; A03: research report; A04: group collection

Workplace Skills & Attributes:	1, 6	A01: Participation; A02: digital tools reports; A03: research report; A04: group collection
Collaborate & communicate	5, 6	A01: Participation; A02: digital tools reports; A04: group collection
Organize, Plan & Manage	5, 6	A02: digital tools reports; A04: group collection
Develop Personally & Professionally	1, 4, 5, 6	A01: Participation; A02: digital tools reports; A03: research report; A04: group collection

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

SIM 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.

LICENSING



This version of INFO 6840 is based on the version of the course created in 2017 by Roger Gillis. Alterations have been made to Roger Gillis's original content; however, Professor Gillis licensed the course under a [Creative Commons Attribution 4.0 International License](#).

SIM 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

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect. As a student, you are required to demonstrate these values in all of the work you do. The University provides [policies and procedures](#) that every member of the university community is required to follow to ensure academic integrity.

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 plagiarism detection software that checks for originality in submitted papers. Any paper submitted by a student at Dalhousie University may be checked for originality to confirm 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 Academic Dishonesty](#) contained in the 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 on demand. 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 cheating by colleagues or lapses in standards by a professor, you may use the confidential email: ManagementIntegrity@dal.ca which is read only by the Assistant Academic Integrity Officer.

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

week	date	topics, readings, technologies, & assignments
		07-SEP-2021 - 07-DEC-2021
1	07-Sep	Introduction to the course
		overview of course, topic, assignments, and readings
		Arms, W.Y.(1995) Key concepts in the architecture of the digital library. D-Lib 1(1). http://www.dlib.org/dlib/July95/07arms.html
		introduction to assignments, readings, and technology

2	14-Sep	architecture
		examining how content management systems are designed and built, and how these structures create or contain digital libraries
		an outline of our goals for technical exploration of content management systems and related technologies
		Candela, L. et al. (2011). Digital Library Manifesto. DL.org http://nrl.northumbria.ac.uk/30014/1/booklet21x21_manifesto_web.pdf
		Gonçalves, M., Fox, E., Watson, L., & Kipp, N. (2004). Streams, structures, spaces, scenarios, societies (5s): A formal model for digital libraries. <i>ACM Transactions on Information Systems (TOIS)</i> , 22(2), 270-312.
		Technology:
		Ratto, Matt (2011) "Critical Making: Conceptual and Material Studies in Technology and Social Life," https://www.tandfonline.com/doi/abs/10.1080/01972243.2011.583819 .
3	21-Sep	acquiring, processing, describing
		the work of planning and creating a content management project, focusing on the example of Institutional Repositories
		Bull, J., & Schultz, T. (2018). Harvesting the academic landscape: Streamlining the ingestion of professional scholarship metadata into the institutional repository. <i>Journal of Librarianship and Scholarly Communication</i> , 6(1). (find through scholar.google.ca)
		Duranceau, E. F., & Kriegsman, S. A. (2013). Implementing open access policies using institutional repositories. In P. Bluh and C. Hepfer (Eds.), <i>The institutional repository: Benefits and challenges</i> (pp. 75–97). Chicago: American Library Association. Retrieved from https://dash.harvard.edu/handle/1/10202474
4	28-Sep	Remediation and critical design
		considering basic questions about the status and identity of digital objects, the consequences of the digital shift, and ideas of critical design
		considering the role of small projects and basic technology solutions
		Bolter, J. (2000). Remediation and the Desire for Immediacy. <i>Convergence: The International Journal of Research into New Media Technologies</i> , 6(1), 62-71.
		Bardzell, Jeffrey and Shaowen Bardzell (2013), "What is 'Critical' about Critical Design?" https://dl.acm.org/citation.cfm?id=2466451 .
		Lied, L. I. (2019). Digitization and Manuscripts as Visual Objects: Reflections from a Media Studies Perspective. In <i>Ancient Manuscripts in Digital Culture</i> (pp. 15-29). Brill. (Google Scholar & Brightspace)

		Technology:
		Wells, M. D., & Rosenbeck, C. (2015). The Crossroads of Embracing Content Management: Using the BeagleBone Black Microcomputer to Host Omeka. (Find through Google Scholar)
5	05-Oct	Metadata
		The challenges of developing relevant and appropriate metadata for content management projects
		Farnel, S., Shiri, A., Campbell, S., Cockney, C., Rathi, D., & Stobbs, R. (2017). A Community-Driven Metadata Framework for Describing Cultural Resources: The Digital Library North Project. <i>Cataloging & Classification Quarterly</i> , 55(5), 289-306.
		Kennedy, M. (2008). Nine questions to guide you in choosing a metadata schema. <i>Journal of Digital Information</i> , 9(1). Retrieved from https://journals.tdl.org/
		Nathan, Lisa, Shaffer, Elizabeth and Maggie Castor. (2015). "Stewarding Collections of Trauma: Plurality, Responsibility, and Questions of Action." <i>Archivaria</i> 80: 89-118.
6	12-Oct	skills and formats
		An examination of skills relevant to work in the content management systems world
		An overview of the challenge of digital formats and standards for digital objects
		Gonzales, B. (2019). Computer Programming for Librarians: A Study of Job Postings for Library Technologists. <i>Journal of Web Librarianship</i> , 13(1), 1-17.
		Binici, Kasım. (2021). What are the information technology skills needed in information institutions? The case of "code4lib" job listings. <i>The Journal of Academic Librarianship</i> , 47(3), 102360.
		1st brief report on digital tools due (10%)
7	19-Oct	the user domain & access management
		An examination of user-centred approaches to content management system projects and the challenges this involves
		Somerville, M., & Brar, N. (2009). A user-centered and evidence-based approach for digital library projects. <i>The Electronic Library</i> , 27(3), 409-425.
		Albertson, D. (2015). Synthesizing visual digital library research to formulate a user-centered evaluation framework. <i>New Library World</i> , 116(3/4), 122-135.

		Pattuelli, M. (2011). Modeling a domain ontology for cultural heritage resources: A user-centered approach. <i>Journal of the American Society for Information Science and Technology</i> , 62(2), 314-342.
8	26-Oct	preservation and evaluation
		An examination of the challenges of maintaining digital collections and of evaluating systems and collections
		Becker, C., Faria, L., & Duretec, K. (2015). Scalable decision support for digital preservation: An assessment. <i>OCLC Systems & Services: International Digital Library Perspectives</i> , 31(1), 11-34.
		Gaona-García, Paul Alonso, Martin-Moncunill, David, & Montenegro-Marin, Carlos Enrique. (2017). Trends and challenges of visual search interfaces in digital libraries and repositories. <i>Electronic Library</i> , 35(1), 69-98.
9	02-Nov	harvesting, linking, & distribution
		The challenge of making digital objects available, sharing them, and encouraging their use
		Agosti, M., Ferro, N., & Silvello, G. (2016). Digital library interoperability at high level of abstraction. <i>Future Generation Computer Systems</i> , 55, 129-146. <i>Trying to make DELOS and 5S work together</i>
		Veve, M. (2016). From Digital Commons to OCLC: A tailored approach for harvesting and transforming ETD metadata into high-quality records. <i>Code4Lib Journal</i> , (33).
		Research Report Due (30%)
	09-Nov	Study break
10	16-Nov	discovery & access
		Challenges for discovery and access
		Ruotsalo, T., Jacucci, G., Myllymäki, P., & Kaski, S. (2015). Interactive intent modeling: information discovery beyond search. <i>Commun. ACM</i> , 58(1), 86-92.
		Sadler, B., & Bourg, C. (2015). Feminism and the future of library discovery. <i>code4lib Journal</i> . Issue 28
		Pansera, Mario, Ehlers, Melf-Hinrich, & Kerschner, Christian. (2019). Unlocking wise digital techno-futures: Contributions from the Degrowth community. <i>Futures : The Journal of Policy, Planning and Futures Studies</i> , 114, 102474.

11	23-Nov	questions
		Looking at the questions that remain about the future of content management systems and digital libraries
		Millar, Laura (2002) "The Death of the Fonds and the Resurrection of Provenance: Archival Context in Space and Time," https://archivaria.ca/index.php/archivaria/article/view/12833/14048
		Mayernik, M. S., Phillips, J., & Nienhouse, E. (2016). Linking publications and data: Challenges, trends, and opportunities. D-Lib Magazine, 22(5/6), 11.
		2nd brief report on digital tools due (10%)
12	30-Nov	Group Collection presentation & group collection due (30%)