School of Information Management
INFO 6840 (Content Management Systems)
Summer 2022
<mark>**Please note: syllabus/schedule subject to change**</mark>

Course Type (e.g. F2F, online, blended): online (asynchronous/synchronous)
Instructor name/title: Sandi Stewart
Contact info (E-mail): sandi.stewart@dal.ca (response time: up to 48 hours)
Office hours: by appointment via MS Teams
Course website: 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
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), as well as Omeka (http://omeka.org / https://omeka.net) and CollectiveAccess (https://www.collectiveaccess.org/) — two open source content management systems. And we may explore other online resources, e.g. Archivematica (https://www.archivematica.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, CollectiveAccess, 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. Students will need to be able to work with the online (freely-accessible) versions of WordPress, Omeka, and CollectiveAccess. These technology requirements and expectations will be discussed at the beginning of the course.

DESCRIPTION OF CLASS FORMAT
Asynchronous lecture videos and/or additional materials will be made available on Mondays before 12pm (Halifax time). Weekly synchronous Q&A sessions (optional) will take place throughout the term. This is an opportunity for students to drop-in and discuss weekly content and/or ask questions. These sessions are meant to be more informal check-ins and will not be recorded as a result. Student availability will be taken into consideration before finalizing the weekly timeslot. Please complete the availability survey released in the first week. Guest lectures (TBA) may be scheduled at different times during the week depending on availability. Students are encouraged to attend the synchronous sessions whenever possible. Details regarding dates and times will be released on Brightspace. The recordings will be posted after each session. The discussion tool on Brightspace will be used weekly to evaluate engagement and participation.

LEARNING MANAGEMENT SYSTEM SITE INFORMATION
The course will make extensive use of the Learning Management System for course information and course content as well as for the submission of 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 in the schedule below.

METHODS OF EVALUATION
A detailed outline of criteria for the assessment of individual assignments will be provided on Brightspace. 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.

Detailed instructions regarding each assignment will be provided. 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 online participation (weekly online discussion posts) (15%) b: share video reflection of guest lecture (5%)	a: ongoing b: once during term	20%
A02: Digital tools reports	2 brief reports on experiments with CMS	17 June 15 July	10% 10%
A03: Report	Individual research topic	04 July	30%
A04: Group collection & presentation	Working digital collection & presentation	22 July	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 and/or course concepts
Completion of reflections	25%	The student completes thoughtful written and/or video reflections that incorporates evidence, involving weekly readings, relevant technologies and guest lectures
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.

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
Please note: All course readings can be found through Novanet unless stated otherwise.

week	date	topics, readings, technologies, & assignments
		02-MAY-2022 - 26-JUL-2022
1	02-May	**Introduction to the course**
		overview of course, topic, assignments, readings, and technology
		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

2	09-May	**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
		Cabot, J. (2018). WordPress: A Content Management System to democratize publishing. *IEEE Software*, *35*(3), 89-92.
		Gonçalves, M., Fox, E., Watson, L., & Kipp, N. (2004). Streams, structures, spaces, scenarios, societies (5s): A formal model for digital libraries. *ACM Transactions on Information Systems (TOIS)*, *22*(2), 270-312.
		Technology:
		Ratto, M. (2011). Critical Making: Conceptual and Material Studies in Technology and Social Life. The Information Society, 27(4), 252-260.
		Yermolenko, A., & Golchevskiy, Y. (2021). Developing Web Content Management Systems – from the past to the future. *SHS Web of Conferences*, 110, 5007.
3	16-May	**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. *Journal of Librarianship and Scholarly Communication*, *6*(1)
		Duranceau, E., & Kriegsman, S. (2013). Implementing Open Access Policies Using Institutional Repositories. American Library Association.
4	23-May	**Remediation and critical design**
	23-May	Victoria Day, University closed
		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
		Bardzell, J., & Bardzell, S. (2013). What is "critical" about critical design? Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 3297-3306.
		Bolter, J. (2000). Remediation and the Desire for Immediacy. Convergence: The International Journal of Research into New Media Technologies, 6(1), 62-71.

		Lied, L. I. (2019). Digitization and manuscripts as visual objects: Reflections from a media studies perspective. In *Ancient Manuscripts in Digital Culture* (pp. 15-29). Brill. (Find through Google Scholar)
		Technology:
		Kucsma, J., Reiss, K., & Sidman, A. (2010). Using Omeka to build digital collections: The METRO case study. *D-Lib magazine*, *16*(3/4), 3-4. (Find through Google Scholar)
		Rehberger, D. (2013). Getting oral history online: Collections management applications. *The Oral History Review*, *40*(1), 83-94.
5	30-May	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. *Cataloging & Classification Quarterly, 55*(5), 289-306.
		Hooland, S., Méndez Rodríguez, E., & Boydens, I. (2011). Between commodification and engagement: On the double-edged impact of user-generated metadata within the cultural heritage sector. *Library Trends*, *59*(4), 707-720.
		Idacavage, S., & Swadosh, J. (2017). Case study on cataloguing fashion adaptations. *Art Libraries Journal*, *42*(1), 35-40.
		Iliadis, A., & Pedersen, I. (2018). The fabric of digital life. *Journal of Information, Communication & Ethics in Society (Online)*, *16*(3), 311-327.
6	06-June	**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
		Binici, K. (2021). What are the information technology skills needed in information institutions? The case of "code4lib" job listings. *The Journal of Academic Librarianship*, *47*(3), 102360.
		Gonzales, B. (2019). Computer programming for librarians: A study of job postings for Library Technologists. *Journal of Web Librarianship, 13*(1), 1-17.
		Lambert, D., & Frisch, M. (2013). Digital curation through information cartography: A commentary on oral history in the digital age from a content management point of view. *The Oral History Review*, *40*(1), 135-153.
		Marsh, E. (2017). Chickens, aprons, markets, and cans. *Digital Library Perspectives*, *33*(4), 361-377.

7	13-June	**the user domain & access management**
		An examination of user-centred approaches to content management system projects and the challenges this involves
		Albertson, D. (2015). Synthesizing visual digital library research to formulate a user-centered evaluation framework. *New Library World*, *116*(3/4), 122-135.
		Brawley-Barker, T. (2016). Integrating library, archives, and museum collections in an open source information management system. *Art Documentation*, *35*(1), 86-113.
		Pattuelli, M. (2011). Modeling a domain ontology for cultural heritage resources: A user-centered approach. *Journal of the American Society for Information Science and Technology*, *62*(2), 314-342.
		Somerville, M., & Brar, N. (2009). A user-centered and evidence-based approach for digital library projects. *The Electronic Library*, *27*(3), 409-425.
	17-June	**1st brief report on digital tools due (10%)**
8	20-June	**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. *OCLC Systems & Services: International Digital Library Perspectives*, *31*(1), 11-34.
		Black, E. (2011). Selecting a Web Content Management System for an academic library website. *Information Technology and Libraries*, *30*(4), 185-189.
		Dressler, V. (2016). Investigating and implementing an extensible, adaptable game plan for digital initiatives at a large state university. *Electronic Library*, *34*(4), 588-596.
		Gaona-García, P. A., Martin-Moncunill, D., & Montenegro-Marin, C. E. (2017). Trends and challenges of visual search interfaces in digital libraries and repositories. *Electronic Library*, *35*(1), 69-98.
		Katre, D. (2011). Digital preservation: Converging and diverging factors of libraries, archives and museums – an Indian perspective. *IFLA Journal*, *37*(3), 195-203.
9	27-June	**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. *Future Generation Computer Systems*, *55*, 129-146. *Trying to make DELOS and 5S work together*

		Skevakis, G., Makris, K., Kalokyri, V., Arapi, P., & Christodoulakis, S. (2014). Metadata management, interoperability and Linked Data publishing support for Natural History Museums. *International Journal on Digital Libraries*, *14*(3-4), 127-140.
		Thompson, K., & Richard, J. (2013). Moving our data to the Semantic Web: Leveraging a Content Management System to create the Linked Open Library. *Journal of Library Metadata*, *13*(2-3), 290-309.
		Veve, M. (2016). From Digital Commons to OCLC: A tailored approach for harvesting and transforming ETD metadata into high-quality records. *Code4Lib Journal*, (33).
	01-July	Canada Day, University closed
	02-July	University closed
10	04-July	**discovery & access**
		Challenges for discovery and access
		Drivas, I., Kouis, D., Kyriaki-Manessi, D., & Giannakopoulos, G. (2021). Content Management Systems performance and compliance assessment based on a data-driven search engine optimization methodology. *Information (Basel)*, *12*(7), 259.
		Hunter, J., & Gerber, A. (2010). Harvesting community annotations on 3D models of museum artefacts to enhance knowledge, discovery and re-use. *Journal of Cultural Heritage*, *11*(1), 81-90.
		Pansera, M., Melf-Hinrich, E. & Kerschner, C. (2019). Unlocking wise digital techno-futures: Contributions from the degrowth community. *Futures: The Journal of Policy, Planning and Futures Studies*, *114*, 102474.
		Ruotsalo, T., Jacucci, G., Myllymäki, P., & Kaski, S. (2015). Interactive intent modeling. *Communications of the ACM*, *58*(1), 86-92.
		Sadler, B. & Bourg, C. (2015). Feminism and the future of library discovery. *The Code4lib Journal*, (28)
	04 July	**Research Report Due (30%)**
11	11-July	**questions**
		Looking at the questions that remain about the future of content management systems and digital libraries
		Handfield, A. (2017). The future of electronic reserves and the presence of librarians in content management systems: A case study at Manhattan College. *Journal of Access Services*, *14*(4), 163-170.
		Mayernik, M. S., Phillips, J., & Nienhouse, E. (2016). Linking publications and data: Challenges, trends, and opportunities. *D-Lib Magazine*, *22*(5/6), 11.
		Montoya, R. (2016). Advocating for sustainability: Scaling-down library digital infrastructure. *Journal of Library Administration, 56*(5), 603-620.
		Soltis, P., Nelson, G., & James, S. (2018). Green digitization: Online botanical collections data answering real-world questions. *Applications in Plant Sciences, 6*(2), N/a.
	15-July	**2nd brief report on digital tools due (10%)**

12	18-July	presentations
	22-July	**Group Collection presentation & group collection due (30%)**