The University of Western Ontario (UWO), Faculty of Information and Media Studies (FIMS)
Library and Information Science Masters Program (MLIS)
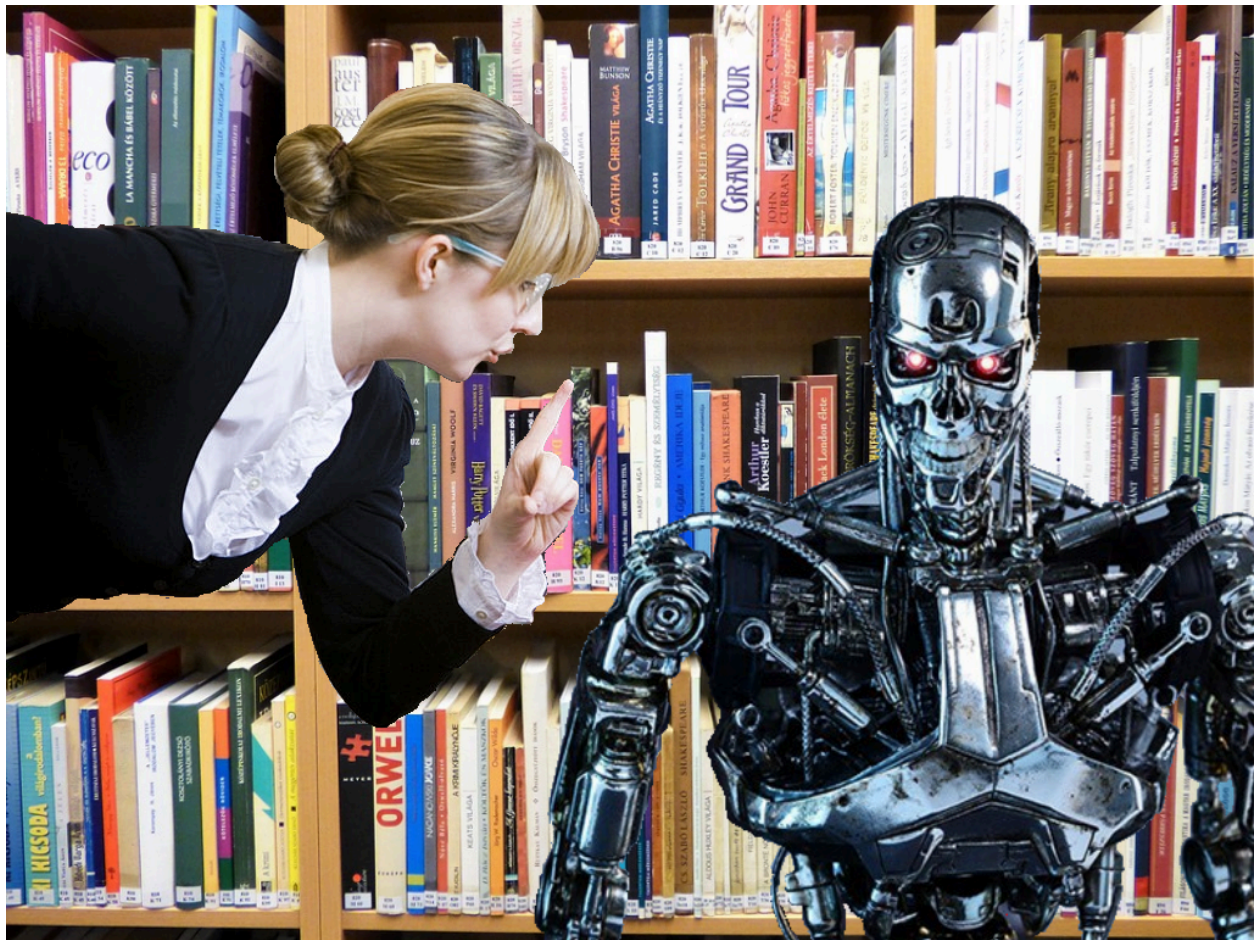**LIS 9704: Librarianship and Evolving Technologies**

Instructor: Alex Mayhew   Class Time: Tuesdays 1:30-4:30
amayhew@uwo.ca   Class Location: Via Zoom
Office Hours: by Appointment

COURSE DESCRIPTION

Technological changes have had a profound impact on society and are poised to have an even greater impact in the future. Due to its history, the field of Library and Information Science (LIS) is uniquely positioned to help students navigate many of the effects of these technologies. The advent of modern information technologies and automation presents unique challenges and opportunities for the future of the profession. This course will give students a window into these issues in the form of concepts, theories and thinkers about librarianship and the future of technology.

PURPOSE OF THE COURSE

This course serves a number of purposes: First, to make students aware of the current and emerging technological landscape and the effects it will have on society. Second, to provide opportunities for students to think about and plan for the use of these technologies in the context of libraries and information organizations. Finally, to demonstrate to the students the inevitability of change, the uncertain nature of that change, and the tangibility of that change.

LEARNING OUTCOMES

By the end of the course, as a successful student, you will be able to:	Demonstrated, in part, through:
1. Demonstrate familiarity with the contemporary and emerging technological landscape, its history, and its relevance to LIS contexts and institutions; (Program-level learning outcomes 1 and 2)	- In class discussion - Participation - Reflection papers
2. Assess, evaluate, and recommend technological solutions and risk factors for a variety of institutions and their user groups; (Program-level learning outcome 4, 6, and 8)	- Term-length project - Participation
3. Successfully create novel technology based experiences and programs in an LIS setting, keeping in mind opportunities to translate these skills into other areas of LIS; (Program-level learning outcome 4 and 7)	Term-length project
4. Gain understanding of the emerging technological environment and reflect critically and thoughtfully on those predictions through multiple forms of writing. (Program-level learning outcome 9)	- Reflection papers - In class discussion

ATTENDANCE

Students will be required to complete individual and group assignments and to participate in in-class discussions and activities. In keeping with FIMS MLIS program policy, attendance at classes is required. Attendance of at least 80% of classes is necessary to pass the course. The exception includes circumstances that have accommodation. Please follow the procedures below for obtaining an accommodation. Any missed material is your responsibility.

SUPPORT SERVICES

Students who are in emotional/mental distress should refer to MentalHealth@Western
https://www.uwo.ca/health/psych/index.html for a complete list of options about how to obtain
help.

Please reach out to the services available if you are experiencing any mental health issues. There
are staff and services here to help and support you.

ACCESSIBLE EDUCATION WESTERN (AEW)

Western is committed to achieving barrier-free accessibility for all its members, including
graduate students. As part of this commitment, Western provides a variety of services devoted to
promoting, advocating, and accommodating persons with disabilities in their respective graduate
program.

Graduate students with disabilities (for example, chronic illnesses, mental health conditions,
mobility impairments) are strongly encouraged to register with Accessible Education Western
(AEW), a confidential service designed to support graduate and undergraduate students through
their academic program. With the appropriate documentation, the student will work with both
AEW and their graduate programs (normally their Graduate Chair and/or Course instructor) to
ensure that appropriate academic accommodations to program requirements are arranged. These
accommodations include individual counselling, alternative formatted literature, accessible
campus transportation, learning strategy instruction, writing exams and assistive technology
instruction.

Enrollment in this course is restricted to graduate students in the MLIS program

DIGITAL AND CLASSROOM PARTICIPATION

Students are encouraged to actively participate and to come to class prepared in order to get the
most out of the course. Participation also extends online to the course site
(https://westernu.brightspace.com/d2l/home), where assignments and additional resources can be
accessed. Use of digital technologies will be required in class for several activities. Laptops for
class use are available from the Graduate Resource Library on the 3rd floor of the FIMS and
Nursing Building (FNB). There is no required textbook for the course. Readings will be assigned
from a selection of books and articles on reserve on the OWL Course Website.

ACADEMIC ACCOMMODATION
Academic accommodation will be made only on medical or compassionate grounds and
for religious holidays. For religious holiday accommodation, the student must notify the
Instructor at least one week in advance (please check all class dates and assignment
deadlines and notify us as soon as possible if there is any conflict). Please review the
procedure at this link: http://academicsupport.uwo.ca/accessible_education/register.html

STATEMENT ON ACADEMIC OFFENCES

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site: http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_grad.pdf Students are encouraged to use laptops or other devices to take notes and otherwise participate, however the expectation is that these devices will be used for course-related purposes only during class time. What constitutes non-course related use is at instructor's discretion.

CLASS SCHEDULE

Week	Topics, Readings (APA), in class Exercises, and Supplemental readings
Week 1 May 7	Topics: Course Introduction and Digital Literacy In class: Digital Literacy self-assessment Readings: A Taxonomy of Digital Literacy. Link O'Connor, Sobol, Wong. (2023) T*he critical role of libraries for digital literacy.* Link Supplement: The Coming AI Invasion - vlogbrothers. Link
Week 2 May 14	Topics: A Brief History of Technology and Power in Libraries Readings: McCallum, S. (2003). 40 Years of Technology in Libraries: A Brief History of the IFLA Section on Information Technology, 1963/64 - 2003. Link Supplement: Makerspaces in Libraries. Link
Week 3 May 21	Topics: The Internet and Global Reach Readings: Buschman, J. (2018). The New Technocracy Positioning Librarianship's Core Values in Relationship to Technology Is a Much Taller Order Than We Think. In *Applying Library Values to Technology.* Association of College and Research Libraries. Supplement: CBT Nuggets. (2019). A Story about the TCP/IP Protocol Stack. Link
Week 4 May 28	Topics: Open Access, Open Source and Copyright Readings: Doctorow, C. (2017). Cory Doctorow: A New Deal for Copyright. *Locus Online*. Link Supplement: Kitchener, C. (2017). Mentorship Cut Short by Suicide. *The Atlantic*. Link MedLifeCrisis. (2021). Should Knowledge Be Free? Link

Week 5 Jun 4	Topics: Technological Forecasting In class: Future Shock self-evaluation Readings: Yudkowsky, E. (2001). *Future Shock Levels*. Link Long, A. D. (2023). The "public debate" about AI is confusing for the general public and for policymakers because it is a three-sided debate. *Less Wrong*. Link Supplement: Bourg, C. (2017). What happens to libraries and librarians when machines can read all the books? Link Henshall, W. (2023). 4 Charts That Show Why AI Progress Is Unlikely to Slow Down. *Time*. Link
Week 6 Jun 11	Topics: Accelerationism: The Future Will Be Good Readings: Transhumanism, Singularity, and Efficiency Reading Pack on Brightspace Neuralink (2024) Neuralink Live Update - March 2024. Link Supplement: Howcroft, E., Bridge, A. and Singh, M. (2023). 'Verified human': Worldcoin users queue up for iris scans. *CTVnews*. Link Petraeus, M. (2023). How to survive AI? Microsoft publishes a list of skills needed by human employees in 2023. *Vulcanpost.com*. Link Marc Andreessen, M. (2023). The Techno-Optimist Manifesto. Link
Week 7 Jun 18	Topics: Pragmatism: The Near Term Will Be Bad Readings: Piper, K. (2023). There are two factions working to prevent AI dangers. Here's why they're deeply divided. *Vox*. Link Supplement: Jason Edward Lewis (2021). Indigenous AI 101. *The Radical AI Podcast*. Link Chiykowski, P. (2024). How to spot AI generated Images. Link Nelson, J. (2023). OpenAI Quietly Shuts Down Its AI Detection Tool. *Decrypt.co*. Link Philip. (2020). GPT-3 Bot Posed as a Human on AskReddit for a Week. *kmeme.com*. Link
Week 8 Jun 25	Topics: Doomerism: The Long Term Will Be Catastrophic Readings: Karnofsky, H. (2020). The Most Important Century. *Cold-takes.com* Link Tangermann, V. (2024). Protesters Swarm OpenAI. futurism.com. Link Supplement: Byrnes, S. (2024). "Artificial General Intelligence": an extremely brief FAQ. *Less Wrong*. Link Miles, R. (2024). The True Story of How GPT-2 Became Maximally Lewd. *Rational Animations*. Link
Jul 2	Reading week

Week 9 Jul 9	Topics: Privacy, Surveillance, and Censorship In class: Digital Privacy self-evaluation Readings: ALA. (2024) Issues & Advocacy: Privacy. Link Supplement: Last Week Tonight with John Oliver. (2015). Government Surveillance. Link Al Jawaheri, H.. (2020). Deanonymizing Tor hidden service users through Bitcoin transactions analysis. *Computers & Security*, 89, 101684. Link
Week 10 Jul 16	Topics: Modular technologies and obsolescence Readings: Sieg, K. (2021). Europe Is Guaranteeing Citizens the "Right to Repair" *NextCity*. Link Brown, C. (2023). It's official: Smartphones will need to have replaceable batteries by 2027. Link Supplement: Watkins, D. (2017). Hacking the farm with low-cost, open source tool designs. *Opensource.com*. Link Jakubowski, M. (2017). Open-sourced blueprints for civilization. *Ted.com*. Link

Week 11
Jul 23
	Topics: The digital divide.
	Readings:
	Van Dijk, J. (2020). *The digital divide*. John Wiley & Sons. Chapter 1
	Supplement:
	Fordyce, R., Heemsbergen, L., Mignone, P., & Nansen, B. (2015). 3D printing and university
	            makerspaces: Surveying countercultural communities in institutional settings. *Digital Culture*
	            & Education, 7(2). Link
	Tafirenyika, M. (2017). Mobile phone users in Africa and the Middle East get free Wikipedia. *The*
	            Africa Report. Link

Week 12 Jul 30	Topics: Citizen, Patron, Content Creator Readings: Clay Shirky. (2008). Gin, Television, and Cognitive Surplus. *edge.com*. Link Supplement: Clay Shirky. (2005). Institutions vs. collaboration. *TED*. Link Gladstone.ai. (2024). Action-plan. Link
Week 13 Aug 6	Topics: Course Conclusion: Responsibility for Advocacy In class: Changing your mind assessment Supplement: Toby Ord (2021). Humanity on the precipice. *Rationally Speaking*. Link Ngo, R. (2022). Techno-humanism is techno-optimism for the 21st century. Link

EVALUATION

In Class Exercises (4 worth 5% each)	**20 %**
3 Small Reflections (worth 10% each, one for each third of the course, Due Sundays)	**30 %**
1 Final Project Proposal (Due end of week 6 - Sunday Jun 18)	**10 %**
1 Final Term Project (Due End of week 12 - Sunday Aug 6)	**25 %**
Participation (substantive, constructive participation in class: discussion, questions, etc)	**15 %**
Total	**100 %**

3 Small Reflections (10% each)

How we got here: Week 1,2, 3, or 4	Reflection paper 1 due by this date on one of these readings, lectures, or in class discussions
Where we are going: Week 5, 6, 7, or 8	Reflection paper 2 due by this date on one of these readings, lectures, or in class discussions
The challenges: Week 9, 10, 11, or 12	Reflection paper 3 due by this date on one of these readings, lectures, or in class discussions

Students will be required to write three short (1-2 page or 300-500 words) reflection papers. Students should write about questions or interests that arise naturally from the readings, the lecture, or the class discussion. The reading responses should never be summaries of the readings or lecture that week, but thoughtful commentary, analysis, or a substantive researched-based opinion that reflects analytical or critical engagement with the week's course material. What is your contribution to this conversation? Do not waste your time summarizing or setting up large ideas from that week's lecture—get to the nitty-gritty interesting contribution as soon as you can. You only have about 300-500 words, and you want to give yourself space to say something!

Consider comparing two ideas, making a judgment, prescribing a course of action, or otherwise taking a stand. I want to know your opinion and what you think that opinion implies.

Due Date: These papers are due on the Sunday of each week for the topic covered. If you wish to write on the topics covered in week 1, you must submit your reflection by the Sunday that follows the week 1 class. Students can respond to the readings, the lectures, and/or the in-class discussion. There are three groups of papers, indicated by the colours above, and one reflection must be written from each group. This means students must turn in at least one reflection in the first third of the course, one in the second third, and one in the final third.

An alternative to these written reflections will be offered. Optional instruction on GitHub, XML, and Amazon Web Services (AWS) + Ubuntu, will be offered outside of regular class time. Students may choose to complete small projects related to these topics instead of the written reflection.

Final Project proposal (10%)
- Students will create a proposal for the final project. They will create a two-page document (500-600 words) that describes the topic or research question with a list of initial sources and the reasons for their choice. Please see the Term-Length Project description below for suggestions of possible projects.
- Due Date: Week 6 Sunday Jun 18

Term-length project (25%)
- By the end of the course students will create a project related to Technology and Libraries. The project is expected to be the equivalent to an 8 page paper and can be any sort of product related to technology and libraries: a website, a maker-space creation, an academic paper, or anything approved by the instructor. There will also be an additional 2 page reflection that will detail why the project was chosen, what impact projects like it can have on librarianship, and why it should be considered important. Please see the Term-Length Project description below for suggestions of possible projects. The final project will be hosted on Scholarship@Western.
- Due Date: Week 12 Sunday Aug 6

Participation (15%)
- There will be three in class reflection activities, to be submitted via the OWL forums. Submissions are expected to be roughly a paragraph in length. A particular goal of the reflection activities is to expose students to the value of changing their mind. Additionally, ongoing throughout the year, students will be encouraged to participate in class discussions.

Citations:
Any submitted work can use any established citation style (APA, MLA, Chicago, etc.). Please note what style is being used on the citation page, eg: Bibliography (APA)

Grade range:
For details about the requirements for the various grade ranges please consult the MLIS Grad Handbook on the FIMS intranet: http://intra.fims.uwo.ca/

Late policy:
Late assignments will lose 10% (out of 100) per day.

TERM-LENGTH PROJECT (DESCRIPTION)

Due Date: Week 12 - Sunday Aug 6

Value: 25%

The final project will consist of two parts, a 'project' and a reflection paper on that project. The purpose of this project is to create an original product related to Librarianship and Technology. One of the aims of this project is to create something that can be a part of your professional portfolio. The final project will be hosted on Scholarship@Western.

Project: The project itself can be any sort of product related to technology and libraries: a website, a maker-space creation, an academic paper, or anything approved by the instructor.

List of possible project ideas:
- A traditional essay on an agreed upon topic (~8 pages)
- Creation of a website related to librarianship or information science
- Creation of a wiki related to librarianship or information science
- Development of a policy document, research guide, or other professional resource
- Creation of an instructional document explaining a relevant technology
- Develop a library program related to issues in technology
- A physical prototype, perhaps created in a library makerspace. A photographic record of its creation and function.
- A how-to document for creation of an item in a makerspace.

Many projects outside of the ones listed here are possible. Please consult with the instructor if you have any questions. All projects are expected to be roughly equivalent to an 8 page essay.

Reflection:
The reflection paper will detail why the project was chosen, what impact projects like it can have on librarianship, and why it should be considered important. In the case of an essay this reflection can simply be one of the sections of the essay itself, but it will need to be clearly labeled as such. You can write about the challenges you had writing the paper: How your ideas changed over time, limitations of your final ideas, aspects you thought might be valuable but didn't have a chance to get into, or counter arguments that you might be able to think of. How did you get here, or where could you have gone? Alternatively, you could reflect on the meta-question: If the ideas are as important as you think, what are the barriers to adoption that you see and what would you do about them if you could? The reflection is 2 pages in addition to the 8 of the main project.

Format:
Please submit all written components as a Word file or a PDF where appropriate. Alternatively, please provide the link or the file of the resource you created
12-point font (preferably Times New-Roman).
1" margins.
Please note which citation style is used.

TERM-LENGTH PROJECT (GRADING RUBRIC)

Evaluation Criteria	Exemplary	Acceptable	Needs Improvement
Project Clarity	The purpose of the project is made readily apparent	The purpose of the project is apparent	The purpose of the project is unclear without substantial explanation
Project Originality	The project is based on a novel idea or approaches a topic in a novel way	The project attempts to explore an established topic in a new way	The project does not attempt to engage beyond the traditional bounds of the field
Project Engagement	The project invites participants to interact with it or otherwise seek out material related to it	The project elicits some further interest	The project is does not prompt participants to engage further
Reflection Clarity	Language used is clear and accessible Is free from spelling, grammar, and sentence structure errors	Language used is accessible Is mostly free from spelling, grammar, and sentence structure errors	Language used is obscure Has many spelling, grammar, and sentence structure errors
Reflection Context	The implications of the project on the broader LIS context is made explicit and is well supported	The implications of the project on the broader LIS context is implicit and is supported	The implications of the project on the broader LIS context is not substantially investigated
Reflection Evidence	Multiple sources of evidence are included, and all are integrated appropriately High-quality sources are primarily used	Multiple sources of evidence are included, and most are integrated appropriately Moderate-quality sources are primarily used	Few sources of evidence are included, and some are integrated appropriately Weak-quality sources are primarily used