

MIT 4101G-001  
Special Topics in MIT: Automation in Practice  
Winter 2021  
Lecture / Workshops: Mondays 2:30-4:30 (Online)  
1 hour asynchronous learning / participation weekly

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Office Hours: Thursdays 10:30-11:30 or by appointment

**Outline Description of Module:**

Governments and corporate bodies worldwide are trying to make greater use of data by linking up their own datasets, combining them with other data points and analysing this data to generate significant insights. Across fields of study and sectors varying terms are used when discussing the activities that comprise this shift towards greater data governance. These terms include algorithmic governance, artificial intelligence, machine learning, predictive analytics, probabilistic policymaking and Big and Open Linked Data. We can find examples of automation in practice across: smart cities as more and more cities make use of the internet of things; newsrooms through uses of automated reporting; places of work to sort job applications and review performance; law and justice as predictive techniques inform legal strategy, sentencing and policing; our homes through the use and linking up of 'smart' devices like Alexa; our schools to assess students and inform teachers and public services in ways that influence funding and access to services and benefits.

The rapid implementation of new and emerging automated and machine learning systems by government and corporate bodies presents us with great opportunities to advance research, services and decision-making. These systems also present great risk as they can be used in ways that discriminate, infringe upon human rights, socially sort, limit access to services and intensify surveillance. For government and corporate bodies, a common problem is that those implementing these systems fail to appreciate the complexity of the efforts they are undertaking as well as longer term impacts. For citizens, a major problem is they do not know where and how these systems are being introduced into public and private services or have the resources to hold these systems to account. Another challenge, is that in practice, working with data is context specific. Applications vary depending on the "ideas, instruments, practices, contexts, knowledges and systems" that influence the "situated techniques" of data use (Kitchen et al. 2015, Amoore and Piotukh 2015).

The aim of this project-based module is to provide you with an opportunity to investigate, learn about and report on a specific example of automation in practice. This means that you will be asked to identify a type of datafied practice that you would like to investigate, conduct an

investigation and then produce an output that outlines your investigation and the implications of your findings. The style of investigative output can vary. For example, some people may choose to do a media report about concerns being raised about smart Barbie, while others may choose to follow the model of an NGO report and investigate the benefits and risks of legal tech for lawyers, others may choose to produce a website. In our class time each week we will: discuss key readings provided to help inform the quality of your questions, critically interrogate different examples data investigations as a means to generate ideas, workshop investigative strategies and challenges and share findings.

As this is a project-based learning course, the goal is to provide you with an opportunity gain knowledge and also the investigative and communication skills needed to apply this knowledge in a way that addresses a real world problem.

**On completion of the module a student should be able to:**

- Point to their own independent investigative report about a specific example of automation in practice, ideally this can be used as a practice-based example of work
- Understand, and engage with, the current debates around ‘automation’
- Discuss automation from a nuanced perspective that recognizes the importance of attending to power, agency and context
- Have experience with conducting team investigative projects
- Develop expertise in data literacy through first-hand experience gained investigating data practices and working to communicate about these practices for a general audience

**Requirements**

Key Debates Overview: Due Feb. 1	25%
Project Output: Due March 22	30%
Team Project: March 29	Required - Not graded
Project Diary: April 9	35%
Participation	10%

Key Debates Overview (25%) due Feb. 1

For this assignment everyone will choose a topic from a list provided. The aim of this assignment is to provide an overview of key debates as related to the topic chosen. For example, if you select the topic “Government Surveillance in Canada” you will be asked to provide an overview of current debates about government surveillance practices. If you choose to write about corporate data collection you might choose to focus on a particular platform and the ongoing debates related to how data is being collected and used. A guidebook with further details will be posted to OWL.

### Project Output (30%) due March 22

Everyone will join a team based on topic interests. The project team will collectively decide on an output goal (report, website, media analysis, etc.). Team members will make decisions about how to reach their output goal and divide tasks accordingly in a staged process. The project output assignment will be what each team member produces as part of the project goal. For example, if the group decides to produce a report about predictive policing one person may be tasked with writing the executive summary. For the project output, this person will need to produce the executive summary and also outline their rationale for drafting the summary the way they did. Guidelines with further details will be posted to OWL.

### Team Project (required but not graded) due March 29

Each team will be required to develop and finish a research output. The team will collectively, through ongoing task driven workshops: identify a problem or object of analysis, develop a strategy to research this problem, decide how they want to communicate their research findings and who their target audience is, divide tasks, develop their research output and share this output with the class. This discovery-based project is not graded, but it does provide an opportunity for team-based learning.

### Project Diary (35%) due April 9

The project diary provides an opportunity for students to track the development of their ideas, detail problem solving, keep track of progress and reflect upon project development and learning throughout their research and development over the term. The diary will be ongoing and submitted at the end of the course. Further details about the diary and expectations will be posted to OWL.

### Participation (10%)

Participation is a vital component of this course. This grade is determined by attendance and engagement throughout the term.

**Submission of Assignments:** Some assignments will be submitted to OWL, others (such as the project output) will be submitted directly to me (Joanna Redden).

### **Attendance:**

You are expected to engage with content posted to OWL and to also actively participate in group workshops and in shared project development with your team members.

### Important notes regarding Online Teaching:

Some of the remote learning sessions for this course will be recorded. The data captured during these recordings may include your image, voice recordings, chat logs and personal identifiers (name displayed on the screen). The recordings will be used for educational

purposes related to this course, including evaluations. The recordings may be disclosed to other individuals under special circumstances.

Please contact the instructor if you have any concerns related to session recordings. Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Some components of this course will involve online interactions. To ensure the best experience for both you and your classmates, please honour the following rules of etiquette:

- please “arrive” to class on time
- please use your computer and/or laptop if possible (as opposed to a cell phone or tablet)
- ensure that you are in a private location to protect the confidentiality of discussions in the event that a class discussion deals with sensitive or personal material
- to minimize background noise, kindly mute your microphone for the entire class until you are invited to speak, unless directed otherwise
- please be prepared to turn your video camera off at the instructor’s request if the internet connection becomes unstable
- unless invited by your instructor, do not share your screen in the meeting

The course instructor will act as moderator for the class and will deal with any questions from participants.

To participate please consider the following:

- if you wish to speak, use the “raise hand” function and wait for the instructor to acknowledge you before beginning your comment or question
- remember to unmute your microphone and turn on your video camera before speaking
- self-identify when speaking
- remember to mute your mic and turn off your video camera after speaking (unless directed otherwise)

General considerations of “netiquette”:

- Keep in mind the different cultural and linguistic backgrounds of the students in the course.
- Be courteous toward the instructor, your colleagues, and authors whose work you are discussing.
- Be respectful of the diversity of viewpoints that you will encounter in the class and in your readings.

- The exchange of diverse ideas and opinions is part of the scholarly environment. “Flaming” is never appropriate.
- Be professional and scholarly in all online postings. Cite the ideas of others appropriately. Note that disruptive behaviour of any type during online classes, including inappropriate use of the chat function, is unacceptable. Students found guilty of Zoom-bombing a class or of other serious online offenses may be subject to disciplinary measures under the Code of Student Conduct.

### Schedule at a Glance

\* Note that the specific details of each class may change depending on timing and circumstances

Date	Topic
Week 1 (Jan. 11)	Introduction: Critically Engaging with Datafication
Week 2 (Jan. 18)	Class - What is Critical Data Studies? Workshop: Team building and working together
Week 3 (Jan. 25)	Class - Investigating Data Practices: Government and Corporate Examples Workshop: Producing a research diary
Week 4 (Feb. 1)	Class - Analytical Frameworks: Power, Relations, Subjectivity, Agency Workshop: Identifying research problem / object of analysis <b>Key Debates Overview: Due Feb. 1</b>
Week 5 (Feb. 8)	Class - Assessing Implications: Democracy, Social justice, and Human rights Workshop: Deciding on project output(s)
Week 6 (Feb. 5-19)	Reading Week
Week 7 (Feb. 22)	Class - Data literacy: Considering Examples Workshop: Developing a research strategy, timeline, schedule, key milestones, divide tasks and set deadlines
Week 8 (Mar. 1)	Class - Investigative Challenges and How to Overcome Them Workshop: Group meetings to discuss progress
Week 9 (Mar. 8)	Class - Work in Progress Presentations and Feedback Workshop: Presentation on progress, peer feedback (learning from trial and error)

Week 10 (Mar. 15)	Class - Debating Datafied Futures Workshop: Group meetings to develop project
Week 11 (Mar. 22)	Class - Communicating Findings Group meetings to discuss project <b>Project Output: Due March 22</b>
Week 12 (Mar. 29)	Project Presentations <b>Team Project: March 29</b>
Week 13	Project Diary Due - April 9

# NOTES FROM THE FIMS DEAN'S OFFICE

Winter 2021

## Rights and Responsibilities

The conditions governing a student's ability to pursue their undergraduate education at Western are ratified by Senate and can be found on the Academic Policies section of the University Secretariat:

[http://www.uwo.ca/univsec/academic\\_policies/rights\\_responsibilities.html](http://www.uwo.ca/univsec/academic_policies/rights_responsibilities.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\\_undergrad.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf)

## Plagiarism

Students must write their essays and assignments, including take-home exams, in their own words. Whenever students take an idea, or a passage from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major academic offence. All papers may be subject to submission for textual similarity review to the commercial plagiarism detection software Turnitin under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system.

## Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: [Academic Accommodation for Students with Disabilities](#)

## Academic Consideration for Student Absence

Students will have two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment

for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- during exam periods,
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are NOT met, students will need to provide a Student Medical Certificate or equivalent documentation, if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact the FIMS Undergraduate Student Services Office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's home Faculty.**

For Western University policy on Consideration for Student Absence, see [Policy on Academic Consideration For Student Absences - Undergraduate Students in First Entry Programs](#) and for the Student Medical Certificate (SMC), see: [http://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/medicalform.pdf](http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf)

**In the event of a Covid-19 resurgence, it is possible that different procedures may need to be put in place on short notice.**

## Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the [Western Academic Calendar](#).

## Grading at FIMS

- Normally, first year courses required for entry into an MIT or MPI module (MIT 1020E and MIT 1025F/G) are expected to have a course average between 68-72%.
- Normally, second year required courses (MIT 2000, 2100, 2200, 2500) are expected to have a course average between 70 and 75%.
- Normally, third year required courses (MIT 3000, 3100) are expected to have a course average between 72 and 77%.

**Elective courses and 4<sup>th</sup> year seminars have no recommended course averages.**

## Support Services

Students who are in emotional/mental distress should refer to Mental Health@Western for a complete list of options about how to obtain help.

<http://www.uwo.ca/uwocom/mentalhealth/>

## SUPPORT SERVICES - LINKS

### Office of the Registrar:

[www.registrar.uwo.ca](http://www.registrar.uwo.ca)

### Mental Health Support:

<https://www.uwo.ca/health/psych/index.html>

### Accessible Education:

[http://academicsupport.uwo.ca/accessible\\_education/index.html](http://academicsupport.uwo.ca/accessible_education/index.html)

### Accessibility Information:

[www.accessibility.uwo.ca/](http://www.accessibility.uwo.ca/)

### Writing Support Centre:

<http://writing.uwo.ca/>

### Learning Skills Services:

<https://www.uwo.ca/sdc/learning/>

### Academic Learning and Support for Online Learning:

<https://www.uwo.ca/se/digital/types/academic-and-learning-support.html>

### Indigenous Services:

<https://indigenous.uwo.ca/>

### Western International:

<https://international.uwo.ca/>

### Career Centre:

<http://careerexperience.uwo.ca/>

## Appendix A: Suggested Grade Ranges in MIT, MPI and MTP

### Guidelines to the MIT Grade Range

These guidelines are benchmarks, and are not to be followed as rigid regulations. They will be adjusted as appropriate to take into account the level of the course and any specific instructions given by a professor. As well, competency in English language usage (including spelling and grammar) may be taken into account in the assignment of grades by individual instructors. Note that the 70-79 grade range is broken into two divisions, as this is the grade range into which a large number of students fall.

#### 90-100 (Outstanding, A+)

The report shows sparkling originality and exhibits a high degree of critical analysis of the topic. Sophisticated synthesis and analysis of the theoretical and conceptual dimensions of the topic are demonstrated. Mastery of complex material and ideas is immediately evident. The topic is treated with sensitivity and subtlety of thought. The quality of the writing and background research is exemplary.

#### 80-89 (Excellent, A)

The report shows originality and exhibits a high degree of critical analysis of the topic; it gets to the heart of the matter with comments and/or questions. It is clearly focused and logically organized. The quality of writing makes the report immediately understandable. Mastery of complex material and ideas is demonstrated. The report is of appropriate length, while preserving the priorities and emphasis of the material, so that the result is meaningful, not simplistic.

#### 75-79 (Very Good, B+)

The report shows above average analysis, critical thinking and independent thought. Claims are supported by ample evidence and the components of the topic are well-researched and presented. The topic is addressed in reasonable depth and/or breadth and covers material appropriate to the course. The analysis is organized around focal points and the argument is easily followed. The report demonstrates an above average ability to write in an intelligible style and to condense material meaningfully and with a concern for priorities of that material.

#### 70-74 (Good, B)

The report shows an attempt at analysis and critical thinking. Claims are supported by reasonable evidence. The topic is addressed in some depth and/or breadth, with references to the appropriate literature and course material. The analysis is organized around focal points. The report is generally well written and well argued.

#### 60-69 (Competent, C)

The report demonstrates adequate comprehension of the topic. The report is on topic and is a reasonable summary of material covered in the course, but goes no further. Facts are stated accurately; the quality of writing is sufficiently intelligible with enough elaboration and enough connections made between ideas to permit a reader to understand the point of the report.

#### 50-59 (Marginal, D)

The report shows less than adequate comprehension of the topic and of the material covered by the course. The report is a less than adequate summary of sources and/or is considerably off-topic. Facts are stated inaccurately or ambiguously; the writing style is difficult to follow; there is insufficient elaboration to permit reader's comprehension of relations among ideas; little judgment is shown in selecting detail for inclusion in the report.

#### Below 50 (Unacceptable, F)

The report demonstrates a failure to comprehend the topic. The material is disorganized and unintelligible. The report clearly does not meet the minimal requirements of the assignment.

## Appendix B: Guidelines of Academic Appeals for FIMS Students

### Grounds for Appeal:

The Faculty of Information and Media Studies does not view the appeals process as an opportunity for students to solicit a second opinion on a grade assigned to a particular piece of work. Appeals must pertain to the final grade in a course, and will only be entertained if sufficient grounds for appeal can be met, including: medical or compassionate circumstances, a defect in the evaluation process, bias, inaccuracy or unfairness.

### Stages in the Appeals Process:

**The first stage of the process is a discussion of the disputed grade with the appropriate Teaching Assistant (if applicable), and subsequently, the course Instructor.** For grades assigned to individual assignments, essays, lab reports, projects and tests completed throughout the term, the student first must appeal to the Teaching Assistant or Instructor of the course, within three weeks of the date on which the Instructor or Teaching Assistant returned the assignments to the class. The Appeals Committee will not hear any further appeals about the final grade in any course unless this first step has been taken.

**If completion of the first stage has not resolved the matter, the student may appeal the final grade in the course to the FIMS Appeals Committee.** Appeals of final grades must be **within the time frame indicated in the Undergraduate Calendar.** It is the student's responsibility to ensure that the appeal is submitted within the deadline. The student shall submit a formal letter to the FIMS Appeals Committee outlining the grounds for the appeal, the remedy sought and relevant materials including the information about when and with whom (Teaching Assistant and/or Instructor) the student met, as described in Stage 1. If the appeal involves a request for work to be regraded, the original marked work and a clean copy (if possible) must be included. If the appeal is commenced once the deadline has passed, it will not be considered either by the Appeals Committee or by the Associate Dean.

### **The FIMS Appeals Committee has the discretion to determine whether the grounds for appeal have been met.**

If the Committee deems that the reasons for the appeal are not legitimate, the Associate Dean will be informed. The appeal will be terminated and the student will be informed.

### **If the Committee decides that the grounds for appeal have been met, the following steps will be taken:**

1. the course Instructor will be shown the appeal letter and offered an opportunity to make a written response;
2. if work is to be regraded, a reader will be appointed who is competent in the area in question and was not involved in the assignment of the original mark. The reader will consider the work in question and will arrive at an independent evaluation. If there is a large discrepancy between the original mark and the regraded mark, a second reader may be appointed by the Committee. **If the appointed reader(s) arrive at a grade within five marks of the original, the original grade will stand.**

### **The FIMS Appeals Committee will review the evidence and will make a recommendation on the case to the Associate Dean Undergraduate.**

The Associate Dean Undergraduate will consider the recommendation from the Appeals Committee, and will make a decision. The student and the instructor will be notified promptly and in writing by the Associate Dean of the decision and of the change in grade, if any. Within the Faculty of Information and Media Studies, the Associate Dean's decision on the matter is final.

Further appeals are possible under certain circumstances to the Senate Review Board Academic (for Undergraduate students) or to the Faculty of Graduate Studies (for Graduate students) but the student should carefully consult the guidelines regarding such Appeals.