AI and Literature

LLCU 301 – Fall 2022
MW 11:35 - 12:55, Rm 491 688 Sherbrooke

"Up til now a few things still had to be set by hand. But from this moment it works all by itself."

- Franz Kafka, *In the Penal Colony*

Professor Andrew Piper
Office: Rm 484, 680 Sherbrooke
Phone: 514-398-4400 x094504
Email: andrew.piper@mcgill.ca
Office Hours: MW 2 pm – 3 pm

Course Description

How does the automated processing of language impact our understanding of literature? What can artifical forms of intelligence reveal to us about the nature of creative human expression? Moving from experiments in machine learning to contemporary AI-generated text, this course will take you through the ways data and automation are changing how we study literature and creative writing. Each week will combine foundational works in literary theory with new computational approaches to literary analysis. In doing so, we will traverse foundational questions such as: Why do humans tell stories? What are characters for? How do we navigate literary space? We will engage with cutting-edge methods in data science ranging from natural language processing, machine learning, social network analysis, and geographic information systems. The course will conclude with a series of experiments using new publicly-available AI text generation tools.

Readings

All readings are available through MyCourses or links in the syllabus

Weekly Assignments

Wk. 1 08.31   Course Introduction

Wk. 2 09.05   **Labour Day Holiday**

      09.07   From text to numbers
                    - Jurafsky, "Vector Semantics", pp. 1-10
                    - Piper, "Distributions," *Enumerations*, pp. 1-6, 13-18
                    - Gavin, "Is there a text in my data?"

Wk. 3 09.12   What is machine learning?
                    - Monkeylearn [stop at "Get Started"]
                    - "Theory in, Theory Out"

      09.14   Model Thinking
                    - Piper, "Think Small"

- Lancashire, "Vocabulary Change in Agatha Christie"

Wk. 4 09.19   Why do we tell stories?
                              - Herman, *Basic Elements of Narrative* (Chap. 1)
                              - Boyd, *On the Origins of Stories* (Chap. 11)

        09.21   Why do we tell stories?
                              - Piper, "Towards a data-driven theory of narrativity"

Wk. 5 09.26   Agents and Agency (Characters)
                              - Frow, *Character and Person* (Chap. 1)
                              - Propp, *Morphology of the Folktale* (pp. 8-12)
                              - Engelhardt, "What Robots Can Do"

        09.28   Agents and Agency (Characters)
                              - Piper, "Character," *Enumerations* (Chap. 5)

Wk. 6 10.03   What happened? (Plot)
                              - Kukkonen, "Plot"
                              - Hühn, "Event and Eventfulness"

        10.05   Modeling Plot Arcs
                              - Jockers, "Sentiment and Plot Arcs with the Syuzhet Package.
                              - Boyd, "The Narrative Arc"

Wk. 7 10.10   **Thanksgiving Holiday**

        10.11   **Reading Break**

        10.13   Mid-Term Review

Wk. 8 10.17   **Mid-Term Exam**

        10.19   Things (Objects)
                              - Brown, "Thing Theory"
                              - Piper, "A quantitative study of fictional things"

Wk. 9 10.24   Story Space (Setting)
                              - Ryan, "Space"
                              - Piatti, "Mapping Literature"

        10.26   Story Space (Setting)
                              - Wilkens, "The Geographic Imagination of Civil War Era
                              American Fiction"

Wk.10 10.31   Genres and Other Textual Systems

- Bourdieu, "The Field of Cultural Production"
    - Cohen, "History and Genre"

      11.02   Life Cycles
    - Underwood, "The Life Cycles of Genres"

Wk.11 11.07   Cultural Capital
    - Bourdieu, "Forms of Capital"

      11.09   Cultural Capital
    - Erlin, "Cultural Capitals"

Wk.12 11.14   Bias and Inequality
    - Noble, "Algorithms of Oppression"
    - Caliskan, "Semantics derived automatically from language corpora contain human-like biases"

      11.16   The Data of Cultural Inequality
    - Svaikovsky, "Racial Lines"
    - Kraicer, "Social Characters"
    - So, *Redlining Culture* (Intro)

Wk.13 11.21   It writes itself - experimenting with large language models
    - Bender, "On the dangers of stochastic parrots"
    - Elkins, "Can GPT-3 pass a writer's Turing Test?"

      11.23   Lab Experiments in automatic writing

Wk.14 11.28   Lab Experiments in automatic writing

      11.30   Lab Experiments in automatic writing

Wk.15 12.05   Closing Discussion

Academic Integrity

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see http://www.mcgill.ca/integrity/ for more information).

Course Requirements

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

Class Participation   10%

Reading Assignments	10%
Mid-Term Exam	30%
Final Exam	50%

Class Participation. You are expected to attend every class and actively participate in class discussions with observations and questions derived from close and thoughtful reading of each week's texts. Our aim is to engage critically with existing studies and to think creatively about new ways of understanding texts.

Reading Assignments. During each week there is an assigned reading, you will be asked to submit a one page 3-2-1 reading assignment document for **one** reading that week. "3-2-1s" involve documenting three key issues in the reading, two things you found unclear, and one big question you want to ask the author. A 3-2-1 guide will be available on myCourses.

Exams. Exams will consist of short + long answer format. You will be expected to engage critically with studies and concepts discussed over the course of the semester.

Students who receive a grade of D,F, or J will not be allowed to do supplemental work. Three or more missed classes will result in a lowering of the student's overall grade. According to Senate regulations, instructors are not permitted to make special arrangements for final exams. Please consult the Calendar, section 4.7.2.1, General University Information and Regulations at www.mcgill.ca. In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change. © Instructor generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are protected by law and may not be copied or distributed in any form or in any medium without explicit permission of the instructor. Note that infringements of copyright can be subject to follow up by the University under the Code of Student Conduct and Disciplinary Procedures.