

English 380w: Writing with Language Models

Emory University

Fall 2024

<i>Location:</i>	Candler 122
<i>Day & Time:</i>	MW 10-11:15AM EDT
<i>Instructor:</i>	Dr. Ben Miller / b.j.miller@emory.edu
<i>Office Location:</i>	Callaway N123
<i>Office Hours:</i>	By appointment

Course Description

In this course, we explore how writing machines influence writing practices. That exploration will take three forms – critical investigations of scholarship on prior writing machines, experiments with contemporary writing machines, and writing recommendations for the possibility for effective and ethical inclusion of writing machines in writing practices.

Students in this class can develop a sense of the long history of technical interventions in writing, strategies for how to include technical interventions in their writing, and more information about the current debates around language models.

The two primary goals of this course are, (1) to help you develop an informed writing practice, and (2) to help you explore some of the history and criticism around contemporary writing technologies. Assignments include two short “state of the field” reports, one explainer explanation, weekly writing experiments, and a reflective letter.

The course was adapted from the 3-0-6 model, meaning for a 16-week semester, 3 hours of time in the classroom, 0 hours of time in a lab, and up to 6 hours of time outside of class working on the course. If you find yourself involuntarily spending more time on the course than that basic guidance, talk to me and we can discuss strategies for working more efficiently!

Land Acknowledgment

Emory University is located on Muscogee (Creek) land. Emory was founded in 1836, during a period of sustained oppression, land dispossession, and forced removal of Muscogee (Creek) and Ani’yunwi’ya (Cherokee) peoples from Georgia and the Southeast. Emory owes an immense debt to the Muscogee, Ani’yunwi’ya and other original peoples, and their descendants, who have cared for and inhabited these lands.

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General Learning Outcomes

Thoughtful integration of writing machines in writing practice; practice in media studies and critical theory; expanded knowledge of contemporary language models and generative AI in practice; development of authorial voice.

Course Materials and Readings

Reading can mean many different practices. One can read closely and spend many minutes on each page. One can skim and only look at the lead lines of each paragraph. One can tinker with a Python notebook or watch a series of explainer videos. Reading code can mean a focus on the conditions of production, understanding the motive behind the development of a piece of software and its role in society and technology, summarizing the functional goals of the artifact, or mapping its processes. Venues like [MIT's Software Studies](#) offer many examples of how scholars outside of software engineers engage with code as a critical object.

For this class, you will practice many types of readings. You will also not have enough time to read everything closely. Prioritize your readings to what seems important to you, and manage your time well. Don't read for completion – read for time. If you have already spent 5 hours for the week on coursework, budget your remaining hour.

All readings are linked to from the syllabus or course Canvas page.

Assignments and Evaluations

Your grade will be determined based on the following assignments:

Assignment	Value	Length	Expected Effort
Writing Experiments	50%	Five submissions. 1 page gloss + creative output.	5 hours per
State of the Field Report	15%	3 pages	8 hours
State of the Field Report Update	5%	Revision of 3 pages	2 hours
Explainer Explained	15%	3-5 minute presentation, two slides, ½ page written summary.	4 hours
Portfolio Reflection	10%	2 pages	4 hours
Discussion Contributions and Class Participation	15%	ongoing	20 hours

Grade Levels:

Average Score	College Grade
93 and above	A
90 to 92.99	A-
87 to 89.99	B+
83 to 86.99	B
80 to 82.99	B-
77 to 79.99	C+
73 to 76.99	C
70 to 72.99	C-

67 to 69.99	D+
60 to 66.99	D
0 to 59.99	F

Assignment Descriptions

Writing experiments

Five times over the course of the semester, either develop or try a writing experiment you read about. An experiment could be as simple as using a GenAI tool to analyze the structure of a short story, provide you with an outline of a scene from that story, and then you writing in new characters, description, and dialogue into that schema. It could be as complex as tuning a language model for a domain like law or medicine and co-authoring a document in that domain with the tool. For each of these experiments, provide the following:

- A description of the method (no more than ½ page, bullet points are fine, figures optional).
- Either the output, a link to the output, or a summary of the output.
- A critical review of the method and output (what worked, what didn't, what ethical/creative/technical issues arose). No more than ½ page. Bullet points are fine.

"State of the Field" Report

In no more than three pages (~750 words) inclusive of figures, describe the current landscape of generative writing technology and experiments. Your description can provide an overall framework, but would ideally emphasize a particular space within that landscape. For example, the use of generative writing in games, or in legal writing, or teleplays and screenplays. Cite sources, draw on evidence, provide examples. Write for your peers and the general public. Avoid claims without evidence.

"State of the Field" Report

Near the conclusion of the semester, look to update your State of the Field report. The update should take into account what you've learned over the term and any changes in the field. Look to keep the same focus as the initial report. The update can be up to ½ page longer, but can be the same length.

Explainer explained

In a 3-5 minute presentation and a ½ overview summary, explain the argument, evidence, shortcomings, and value of an explainer. Explainers are more generalist descriptions of technologies or concepts, such as transformers. The written summary can include 1-2 figures from the source.

Examples of explainers are videos or podcasts, such as Dale Merkowitz' "Transformers, explained: Understand the model behind GPT, BERT, and T5," (<https://youtu.be/SZorAJ4I-sA>) or posts on blogs, such as "Language Model Scaling Laws and GPT-3," by Cameron Wolfe (<https://cameronrwolfe.substack.com/p/language-model-scaling-laws-and-gpt>).

Portfolio Reflection

In a 500-750 word letter directed towards a potential reader of your writing this semester, reflect on how your work speaks to the course learning objectives. Look to guide your reader through the course outcomes and the larger patterns of your writing. What do you see in your writing as a whole? Look to discuss one piece of your work in depth, addressing its content, structure, and audience. Lastly, how can you transfer the knowledge about communication and description that you developed in this course to your other coursework? Typical outcomes to address are your understanding of how to write in different genres for different audiences and purposes; how writing supports critical thinking; and how to think about writing and communication as a process, and most importantly, how language technology interacts with your writing. Aim for a clear letter buttressed by specific evidence, well-reasoned analysis, good transitions and sign-posting, and an overall organization that makes sense given the content.

Exit Tickets

At the end of each class, students can turn in one idea from the class that they can't stop thinking about, that they wish to discuss further, that they disagree with, etc. You can either email them to me at b.j.miller@emory.edu, or respond to the exit ticket assignment on Canvas.

Discussion Contributions

Throughout the semester, the course takes place both in the classroom and on the Canvas-based message boards. As a member of the class, your job is to actively participate in both forums. As you do so, remember to be respectful, generous, and critically engaged.

Course Schedule

August 2024

- **Wed, Aug 28**
 - Readings:
 - Marcel Broodthaers, Interview With A Cat, Recorded at the Musée d'Art Moderne, Département des Aigles, Düsseldorf, 1970. <https://www.e-flux.com/journal/136/538900/interview-with-a-cat/>
 - Wordcraft Writers Workshop. <https://wordcraft-writers-workshop.appspot.com/>
 - Assignment: Explore the writers workshop pieces. Describe the methodologies used by at least one writer.
- **Mon, Sep 2 – NO CLASS**
- **Wed, Sep 4**

- Readings:
 - Ippolito, Daphne, et al. "Creative writing with an ai-powered writing assistant: Perspectives from professional writers." *arXiv preprint arXiv:2211.05030* (2022). <https://arxiv.org/pdf/2211.05030>
- Assignment:
 - How well did your description of methodologies align with Ippolito's critical descriptions?
 - Workshop Writing Experiment 1

September 2024

- **Mon, Sep 9**
 - Readings:
 - Riedel, Mark, Amal Alabdulkarim, Louis Castricato, Siyan Li, and Xiangyu Peng. An Introduction to AI Story Generation. Jan. 4, 2021. <https://mark-riedl.medium.com/an-introduction-to-ai-story-generation-7f99a450f615>
 - AI for Humanists. Glossary. <https://aiforhumanists.com/glossary/>
 - Assignment:
 - Writing Experiment 1 due.
- **Wed, Sep 11**
 - Readings:
 - Johnston, David. "ReRites: Machine Learning Poetry Edited by a Human." *Glia*, nd <http://glia.ca/rerites> (2019). <https://glia.ca/rerites/>
 - Assignment: Begin drafting "State of the Field" report
 - Assignment: Peer review of Writing Experiment 1 (in class)
- **Mon, Sep 16**

- Readings:
 - Howe, Daniel C., and A. Braxton Soderman. "The aesthetics of generative literature: lessons from a digital writing workshop." *Hyperrhiz Journal of New Media Cultures* (2009). <http://hyperrhiz.io/hyperrhiz06/essays/the-aesthetics-of-generative-literature-lessons-from-a-digital-writing-workshop.html>
- Assignment: Decide on an Explainer to explain
- **Wed, Sep 18**
 - Readings: Hayles, N. Katherine, and Anne Burdick. Chapter 5: Experiencing Artists' Books. In *Writing machines*. Vol. 10. Cambridge, MA: MIT press, 2002. https://canvas.emory.edu/files/12465317/download?download_frd=1
 - Assignment: Writing Experiment #2 due
- **Mon, Sep 23**
 - Readings:
 - Google Creative Lab. Experiments with Google, AI + Writing. 2019. <https://experiments.withgoogle.com/collection/aiwriting>
 - Assignment: Peer review of Writing Experiment 2 (in class)
- **Wed, Sep 25**
 - Assignment: Present Explain an Explainer (day 1)
- **Mon, Sep 30**
 - Readings:
 - Carter, Shan, and Michael Nielsen. "Using artificial intelligence to augment human intelligence." *Distill* 2.12 (2017): e9. <https://distill.pub/2017/aia/>
 - Assignment: Present Explain an Explainer (day 2)

October 2024

- **Wed, Oct 2**
 - Readings:
 - Assignment: Writing Experiment #3
- **Mon, Oct 7**
 - Readings:
 - Lee, Linus. Prism: mapping interpretable concepts and features in a latent space of language. Thesephist.com. June 22, 2024. <https://thesephist.com/posts/prism/>
 - Assignment: "State of the Field" report due
- **Wed, Oct 9**
 - Readings:

- Mishkin, Pamela. Nothing Breaks like A.I. Heart. The Pudding. 2021.
<https://pudding.cool/2021/03/love-and-ai/>
 - Assignment: Peer review of Writing Experiment 3 (in class)
- **Mon, Oct 14 – NO CLASS**
- **Wed, Oct 16**
 - Readings:
 - Assignment:
- **Mon, Oct 21**
 - Readings:
 - Dzieza, Josh. "The great fiction of AI: The strange world of high-speed semi-automated genre fiction." *The Verge* 20 (2022).
<https://www.theverge.com/c/23194235/ai-fiction-writing-amazon-kindle-sudowrite-jasper>
 - Assignment:
- **Wed, Oct 23**
 - Readings:
 - Assignment: Writing Experiment #4
- **Mon, Oct 28**
 - Readings:
 - Alammur, Jay. The Illustrated Transformer. July 27, 2018.
<https://jalammar.github.io/illustrated-transformer/>
 - Assignment:
- **Wed, Oct 30**
 - Readings:
 - Rohrer, Brandon. Transformers from Scratch. October 29, 2021.
<https://e2eml.school/transformers.html>
 - Assignment: Peer review of Writing Experiment 4 (in class)

November 2024

- **Mon, Nov 4**
 - Readings:
 - Anna Rogers, Olga Kovaleva and Anna Rumshisky . "A Primer in BERTology: What We Know About How BERT Works," 2020.
https://direct.mit.edu/tacl/article/doi/10.1162/tacl_a_00349/96482/A-Primer-in-BERTology-What-We-Know-About-How-BERT
 - Assignment:

- **Wed, Nov 6 – NO CLASS**
- **Mon, Nov 11**
 - Readings:
 - Underwood, Ted. “Do Humanists Need BERT?” July 15, 2019.
<https://tedunderwood.com/2019/07/15/do-humanists-need-bert/>
 - Assignment:
- **Wed, Nov 13**
 - Readings:
 - Assignment:
- **Mon, Nov 18**
 - Readings:
 - Emily Bender, Timnit Gebru, et al., “On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?” Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (March 2021): 610-623.
 - Assignment:
- **Wed, Nov 20**
 - Readings:
 - Assignment: Writing Experiment #5
- **Mon, Nov 25**
 - Readings:
 - AI Colonialism. MIT Technology Review. April 19, 2022.
<https://www.technologyreview.com/supertopic/ai-colonialism-supertopic/>
 - Assignment: Peer review of Writing Experiment 5 (in class)
- **Wed, Nov 27 – NO CLASS**

December 2024

- **Mon, Dec 2**
 - Assignment: Workshopping
 - Assignment: Update State of the Field Report
- **Wed, Dec 4**
 - Assignment: Presentations of work
- **Mon, Dec 9**
 - Assignment: Presentations of work
 - Assignment: Portfolio Reflection

Coursework Policies

The following are the policies for the course:

- Attendance and Participation
 - Attendance is mandatory. You are allowed 2 absences.
 - Participation is also mandatory. Speak up. Keep all discussion focused on the course topics and work to maintain a respectful, generous, and kind discourse with your peers and instructors.
- Late Work
 - The schedule is designed so that the deadlines make sense for the workflow. With the exception of presentations, assignments can be submitted on the following class session without being considered late.
- Revisions
 - No revisions will be allowed in this course unless the assignment description calls for it.
- Incompletes
 - Receiving an Incomplete: The notation of “I” may be given to a student who, for nonacademic reasons beyond his or her control, is unable to meet the full requirements of a course. In order to qualify for an “I”, a student must:
 - Have completed most of the major assignments of the course (generally all but one); and
 - Be earning a passing grade in the course (aside from the assignments not completed) in the judgment of the instructor.

When a student has a nonacademic reason for not completing one or more of the assignments for a course, including examinations, and wishes to receive an incomplete for the course, it is the responsibility of the student to inform the instructor in person or in writing of the reason. A grade of incomplete is awarded at the discretion of the instructor and is not the prerogative of the student. Conditions to be met for removing a grade of incomplete are established by the instructor.

Academic Honesty

The Emory University Honor Code, available at <http://catalog.college.emory.edu/academic/policies-regulations/honor-code.html>, describes the basic precepts of participation in the academic community at the university. Namely, that as members of the Emory community, “[our] mission—to create and apply knowledge in the service of humanity—can only be fulfilled when we, as its members, value the great responsibility we have been entrusted and conduct our lives to the dictates of the highest integrity.”

With regards to writing and ideas, the honor code states: “A writer's facts, ideas, and phraseology should be regarded as his or her property. Any person who uses a writer's ideas or phraseology without giving due credit is responsible for plagiarism.”

Campus Services for Writing, Accessibility, and Counseling

The Writing Center

I will give you advice and feedback on your writing, but the Emory Writing Center is also an excellent resource for student writers of all kinds. The consultants there provide individualized, conference-style help with anything from job applications and statements of purpose to research papers and radical revision. You will not be required to visit the Writing Center, but I recommend you visit at least once. Visit <http://writingcenter.emory.edu/> for information and to make an appointment.

Office of Accessibility Services

OAS is committed to advancing an accessible and “barrier-free” environment for students, faculty, staff, patients, guests and visitors by ensuring that the principles of access, equity, inclusion and learning are realized in and by the Emory community. Visit <http://accessibility.emory.edu/> for more information.

Counseling and Psychological Services

Emory University is invested in supporting the varied mental health needs of its diverse students, which involves attention to both individual student needs and the needs of its overall student body. This support is provided through various Campus Life offices including Counseling & Psychological Services, Student Health Services (e.g., most students needing psychotropic medications can be managed at Student Health Psychiatry without visit fees or session limits), Office of Health Promotions, Student Success Services, CASAA, and Residence Life, among others. Campus Life also partners with various offices across the university (e.g., Office of Spiritual & Religious Life, Office of Undergraduate Education) to provide additional student support. Visit <http://studenthealth.emory.edu/cs/index.html> for more information.