MUC 250: AI and ML in the Arts

Times: Tuesday and Thursdays, 10am - 11:50am
Location: Cascade TEB 219
Instructor: Henderson Reed Hummel (you may call me Reed)
Contact: henderson.hummel@pcc.edu (this email is checked once daily in the evening.)
Course webpage: https://henderson.lol/pages/muc250/

Overview:
Covers theories and frameworks related to computational or artificial creativity and approaches to endowing machines with creative behaviors. Involves examination of artificial intelligence (AI) and machine learning (ML) in connection with a comprehensive range of arts and creative enterprises such as musical composition and interpretation, sound design, video game creation, drawing, painting, image generation, writing, storytelling, poetry, and design-related tasks.

Learning Objectives:

Upon completion of the course students should be able to:

- Define artificial intelligence (AI) and machine learning (ML) and key vocabularies of AI/ML to understand and engage in public and academic discourse.
- Recount the technological and social histories of AI/ML, including the technological lineages and surrounding narratives.
- Define computational creativity (artificial creativity or metacreation) and illustrate its historical and contemporary roles with real-world examples in multiple arts (sonic arts, visual arts, literary arts) and from artists of diverse cultural and national identities.
- Demonstrate competence with historical and contemporary AI and ML creative applications, technologies, softwares and/or toolchains.

Class Structure:
On *Tuesdays* we will discuss the readings in small groups and as a class.
On *Thursdays* we will work on assignments, do some activities to familiarize ourselves with AI and ML techniques and technologies, and engage in some light critique of art pieces from the broader art world that were created with AI.

Readings:
Links to the readings can be found on the course website (see the beginning of this document). They may include some academic texts, essays, contemporary news articles, and artworks that we will reflect on.

Assessment and grading:

- 60%: participation
- 15% exercises
- 25% final project

Regarding participation: because it makes up the majority of your grade, this is predominantly determined by your engagement with the material and your peers during our discussions and activities, not simply attendance

Exercises:

What is below are simply short summaries. Each exercise will have an accompanying page of resources when they are assigned.

Exercise 1: generated imagery
Following on from the class activities using generative images, explore the use of image generation tools as a means for creative expression. Does the output of these tools match what you are interested in creating? What images do the AI tend to create?

Pick out a concept and generate a series of images to bring to class and share.

Exercise 2: generated music
In class we worked to generate some snatches of music. At home, research some of the tools available for AI music generation and explore their applications. Consider also listening to some AI music to get a sense of how the broader world is using these tools.

Generate some music, and refine it a few times. Once you're satisfied you've done some exploration, submit the song to D2L, along with a brief (100 word) review of the music that you generated. Write also about the experience of generating the music and how it might fit into your art practice.

Exercise 3: generated code
Although you may not have much or any programming experience, these tools do much to make programming accessible. Can you use the code these machines generate to produce works of art?

Generate some p5.js code and run it in the p5.js online editor. Submit a shareable link to your generated code, and a 100 word reflection on how this felt as an artistic experience.

Final project:
This final project is a choose-your-own-adventure where you will synthesize the results of your explorations from the prior exercises into a new piece of work that can incorporate any or all of the AI/ML techniques and technologies from this term. This is an opportunity to explore and speculate how these technologies might fit into your practice. You will present your work during the last week of class (3-5m).

Student Responsibilities:

- Your number one responsibility is to engage meaningfully with your peers about this topic.
- Please communicate early and often regarding absences, late/missed work or accommodations you may need. I would like to be flexible but I need your communication in order to be so.

AI Policy:
Naturally, we will be using AI heavily in this course, and I wouldn't teach this course if I didn't think there were some really interesting applications of this category of technologies. However: in any *writing* you submit, I would greatly prefer that you not use homework-help type LLM assistance.

I'd much rather read a raw, un-edited draft of your original thoughts, than one that has been massaged into corpo-speak by one of these machines.

I understand that many of you may have experiences with nitpicking or difficult graders on their writing, and I respect that you may still choose to use these tools. However, I will not be grading on grammar or other kinds of technical aspects of your writing, and am more interested in what thoughts you are communicating.