Welcome

Talking with Your Students About AI

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Session Goals & Outcomes

What's your level of comfort with or understanding of GenAI?

Image source: DALL·E with the prompt, Create an abstract representation of generative AI and its effect on teaching and learning

GenAI: Briefest of Primers

Common GenAI text platforms:
- ChatGPT (OpenAI)
- Claude (Anthropic)
- Copilot (Microsoft)
- Gemini (Google), formerly Bard
- Perplexity

Image Source: AI for Education

Expert System AI
Programmers teach AI exactly how to solve specific problems by providing precise instructions and steps.

Artificial Intelligence
The theory and methods to build machines that think and act like humans.

Machine Learning
The ability for computers to learn from experience or data without human programming.

Deep Learning
Mimics the human brain using artificial neural networks such as **transformers** to allow computers to perform complex tasks.

Generative AI
Generates new text, audio, images, video or code based on content it has been **pre-trained** on.

ChatGPT   Midjourney   Bard

AI for Education

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Academic Dishonesty

AI-based detection for AI-generated writing has yet to prove itself as reliable and accurate.

Image source: DALL·E with the prompt, "Create a visually appealing image of a magic bullet"

Academic Dishonesty

From OpenAI (creator of ChatGPT):

Do AI detectors work?

"In short, no, not in our experience. Our research into detectors didn't show them to be reliable enough given that educators could be making judgments about students with potentially lasting consequences."

Image source: DALL·E with the prompt, "Create a visually appealing image of a magic bullet"

Image source: Adobe Firefly with the prompt, "Create a stylized image of a magic potion."

Aim to minimize cheating.

Some Methods to Consider & Combine

- Academic integrity pledges
- H.O.T.S. assignment (re)design, especially those supporting critical thinking and metacognitive skills
- Scaffolded assignments
- Iterative writing/drafting
- Authentic assessments
- Current/local assignment prompts
- Reflective writing
- Oral submissions (live/recorded)

GenAI: Student Guidance on Usage

Prohibit
Students' Use

Allow Some Use
with Attribution

Encourage /
Model Use

Image source: DALL·E with the prompt, "Three images of small sailboats from different time periods.

Student Guidance

Early and often, tell students

- Whether or not they can use GenAI

- If use is permitted, how they should cite AI to avoid plagiarism

- About the limitations of AI (e.g., hallucinations, potential for bias, and misleading/deceptive data

Image source: DALL·E with the prompt, "Create an image of a college classroom with various kinds of cyborgs at students' desks"

Generative AI: Student Guidance

What GenAI Can and Can't Do Is Changing

"What the large language models are good at is saying what an answer should sound like, which is different from what an answer should be" (Brooks qtd. in Hale 2024).

Try these Experiments with a GPT of Your Choice

- Solo – Submit each of your prompts for discussions, responses, reports, essays, etc. for a given course to a GPT, and scrutinize strengths and weaknesses.

- In-class or asynchronously – Submit an assignment to a GPT to respond, and then explain where its response measures up to expectations and where it doesn't. Alternatively, before you demo/annotate the response, prompt students to compare the GPT response to knowledge/rubric.

Generative AI: Student Guidance

AI as a Study Buddy

Type this prompt into a GenAI platform of your choice:

"You are a skilled and encouraging tutor. I am a <u>sophomore</u> student in an <u>anatomy and physiology</u> course. Right now, we are learning about <u>veins</u>. Please explain <u>the [sub]topic</u> to me in detail. Use analogies, examples, stories, and other tactics that will make the concept easier for me to learn and remember. Start out by telling me a little about why learning this information might be important."

Then follow up with this prompt:

"Ask me ten multiple choice questions to see if I understand this information, and then give me feedback on my correct and incorrect answers."

(Replace underlined sections with the specifics of your course and students.)

Options for Faculty Use

Image source: DALL·E with the prompt, "Image of an ancient map of earth. The areas of oceans should include dragons and other mythical creatures."

Guidance for Faculty for Using AI

ACUE's Recommendations:

1. Set clear learning objectives.

2. Choose the right AI tool for the job.

3. Encourage experimentation and play.

4. Acknowledge and teach voice, representation, access, and data privacy.

5. Infuse collaboration and critical thinking.

6. Personalized and differentiated learning.

7. Integrate with existing curriculum...and start small.

8. Balance theory and practical application.

9. Connect to future careers and professional opportunities.

10. Emphasize human-AI interaction.

Content Creation

Drafting help with

- course outlines

- written materials:
  - feedback on quiz responses
  - case studies
  - discussion prompts
  - scripting videos/podcasts

- assignments (disciplinary or framework; e.g., TiLT)

- rubrics

- images for communications:
  DALL·E, Adobe Firefly, Craiyon

Image source: DALL·E with the prompt, "Create a fun representation of an open mind. Use a variety of vibrant colors."

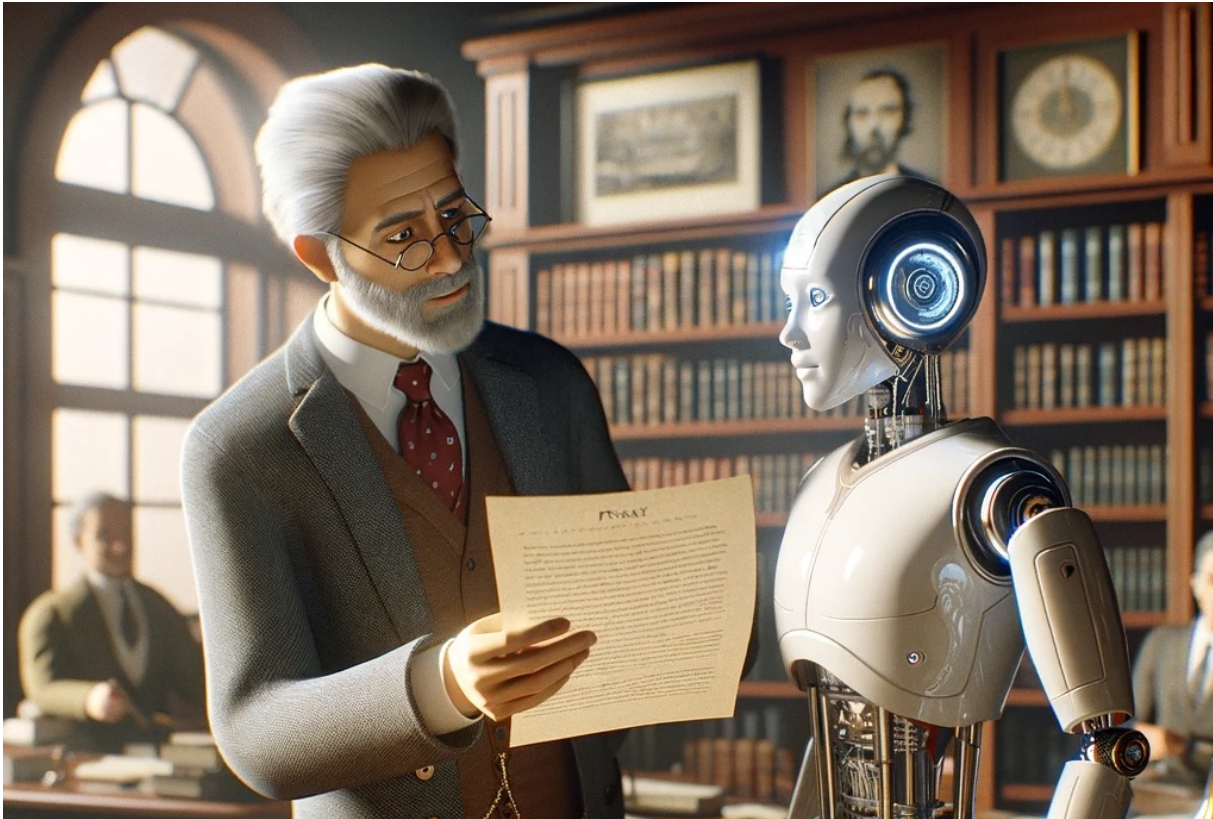# Generative AI: Options for Faculty

Image source: DALL·E with the prompt, "Create an image of a robot showing a printed essay to their college professor."
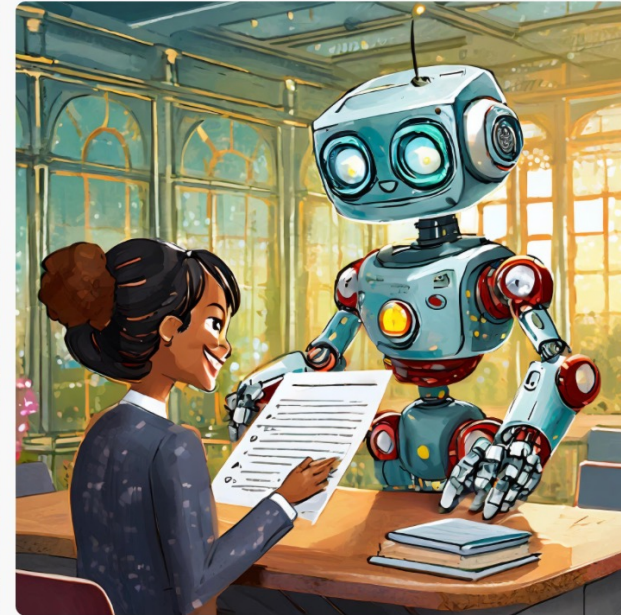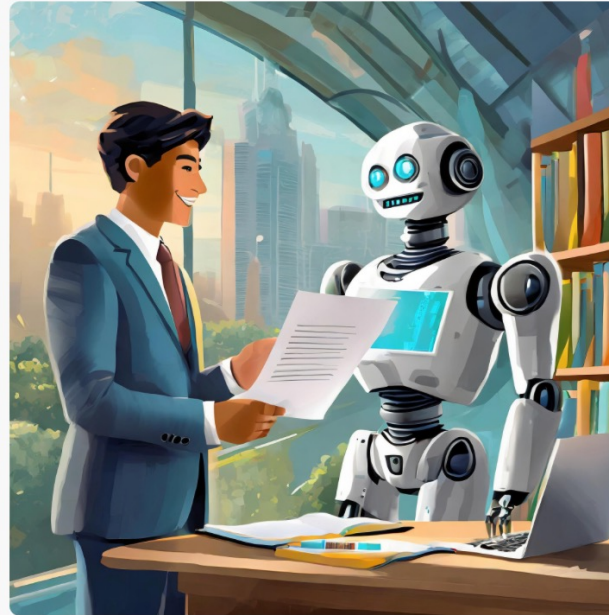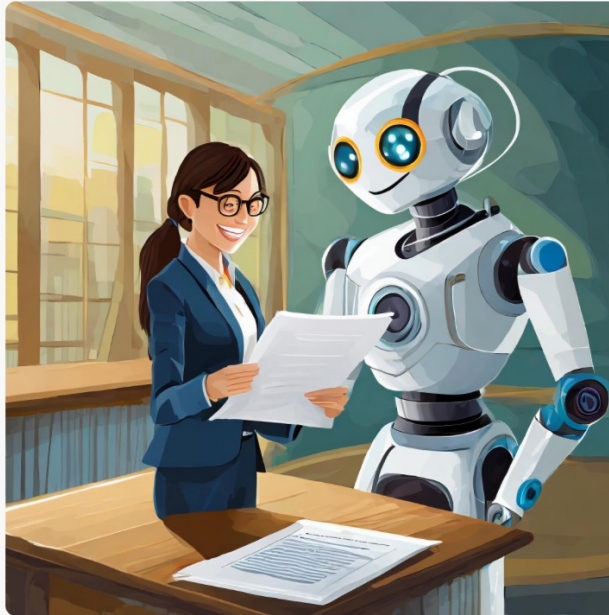
Generative AI: Options for Faculty

Image source: Adobe Firefly with the prompt, "Create an image of a robot showing a printed essay to their college professor."

Notice Firefly's representations of faculty compared to DALL·E's version (previous slide), which leaned *heavily* into stereotyping/biases.

Your Research

- Idea Generation

- Proposal Drafts

- Literature Reviews (e.g., Elicit)

- Hypothesis Generation

- Experimental Designs

- Text Mining

- Data Interpretation

- Chatbots for Research Surveys

- Task Automation

Image source: Adobe Firefly with the prompt, "Create a fun representation of an open mind. Use a variety of vibrant colors."

Learning More About the Next

Podcasts:

[Teaching Higher Ed](#)
[Tea for Teaching](#)

Webinars:

[USG Webinar with Cynthia Alby](#)
(August 2023)
[Online Learning Consortium Webinar on AI Opportunities and Threats](#) (May 2023)

Image source: Adobe Firefly with the prompt, "Grey-scale representation of a professor's brain from the 1950s."

Microwave Model (vs. calculator)

- Proposed by Erin E. Kelly, director of the academic and technical writing program at the University of Victoria in British Columbia, Canada
- Early faulty assumptions of the microwave as replacement for all cooking appliances

Image source: Craiyon with the prompt, "Modern microwave."

Questions?

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