Generative AI: Concepts, Ethics, and the Future of Higher Education

Mitchell A. L. Haas
Online Learning Librarian, Assistant Professor
Compliance and Technology Fellow
Center for Faculty Development and Innovation (CFDI)

The Roadmap

Session 1(Today/Feb 4): Generative AI: Concepts, Ethics, and the Future of Higher Education

Session 2 (Feb 12/18): Prompt Engineering & AI-Enabled Teaching

Session 3 (Feb 26/Mar 4): Architecting Assignments for an AI World

Session 4 (Mar 19/25): Leveling Up Research with GenAI

Session 5 (Mar 26/Apr 1): Who Owns the Output? Fair Use & IP

The Spectrum of Engagement

Which camp do you see yourself in?

1. Existential Threat(This will ruin my field/the world).
2. Cautious Optimism (There is potential, but I'm wary).
3. Active Experimentation (I'm using it daily).

Common Misconceptions

- **The Comprehension Error:** "AI understands what I'm asking."
  - *The Reality:* It predicts based on patterns. It has syntax, but not semantics. It generates language, not thought.
- **The Replacement Error:** "AI can replace researchers or writers."
  - *The Reality:* It can *assist* with drudgery, but it lacks critical thinking, originality, and ethical judgment.

Discussion: What misconceptions or confusion have *you* encountered in your classrooms? Do students overestimate what the tool can do?"

Capabilities

Possible Use Cases: 'The Drudgery Engine'

- Summarizing massive texts.
- Overcoming cognitive load.
- Overcoming 'blank page' syndrome.

Discussion: In what ways have you found AI to be genuinely useful if you have used it? Have you had a positive experience that surprised you?"

Limitations, Pitfalls, & Ethics

- Hallucination: AI may fabricate facts, citations, or entire studies. It prioritizes plausibility over truth.
- Bias: An image generator might associate 'CEO' with men and 'nurse' with women because it reflects the bias in its training data.
- Lack of Transparency: You often can't trace where the information came from. It is a 'Black Box.'
- Overconfidence: It presents incorrect information with absolute authority

Environmental Impact

Why it matters: Generative AI models require massive computing power to train, deploy, and maintain. This translates into high electricity usage and significant water consumption for cooling data centers. Every prompt has a physical cost.

Discussion: "Looking at these risks—Hallucination, Bias, Environment—which one concerns you the most for your specific field or your students?

Discourse: Teaching

Policing vs. Pedagogy

Prompt: 'If AI can produce a B-minus essay on our core topics, what does that tell us about the prompts we are asking?'

Discourse: Research

Efficiency vs. Intellectual Debt

Prompt: 'Where is the line between efficiency and outsourcing thinking?'

Conclusion, Further Discussion, and Next Steps

Upcoming Sessions:

Session 2 (Feb 12/18): Prompt Engineering & AI-Enabled Teaching

Session 3 (Feb 26/Mar 4): Architecting Assignments for an AI World

Session 4 (Mar 19/25): Leveling Up Research with GenAI

Session 5 (Mar 26/Apr 1): Who Owns the Output? Fair Use & IP