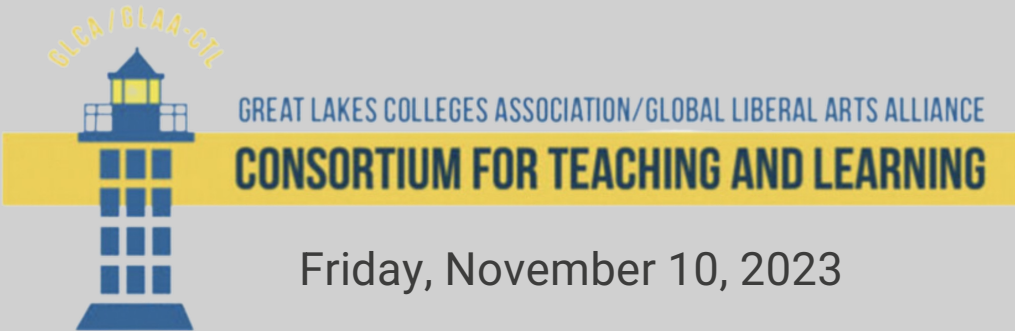


THE COLLEGE OF
WOOSTER

ChatGPT and Chill:

AI Literacy and Next-Generation
Student Empowerment

Dr. Jennifer Hayward and Caitlyn Deeter



Friday, November 10, 2023



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Three acts . . .

01.

Course Motivation

- Why AI Literacy Matters
- Why *This* Course?
- Challenges and Opportunities in Higher Education



02.

The Class

- Demographics and Experience
- Student Experiments with AI
- Culminating Course Project



03.

Looking Forward

- Student Post-course Survey Insights
- Future Trajectory
- Encouraging Ethical Creativity



A warm, dimly lit desk scene. A laptop is open on the left, with a white Apple logo on the lid. A cup of coffee sits on the right. A cat is curled up on a dark blanket in the center, its head resting on the desk. A yellow lamp provides a soft glow from the left. In the background, several potted plants are visible.

01.

Motivation for the Course

Why ChatGPT and Chill?



The 2022 Chat-pocalypse . . .
how do we prepare students for
an AI-integrated future?

CURRICULUM AND INSTRUCTION NEW YORK CITY DEPARTMENT OF EDUCATION

NYC education department blocks ChatGPT on school devices, networks

By Michael Elsen-Rooney | Jan 3, 2023, 8:32pm GMT-4

Seattle Public Schools bans ChatGPT; district 'requires original thought and work from students'

BY TAYLOR SOPER on January 16, 2023 at 1:25 pm



Image generated by Bing Chat (powered by DALL-E 3) with the prompt "Higher Education students gaining critical thinking skills working with AI on a liberal arts college campus"

Dr. Jennifer Hayward

AI Literacy:

The ability to understand, use, monitor, and critically reflect on AI applications."

Laupichler et al, 2022

...as well as recognizing bias, weighing ethical considerations, and assessing complex issues related to AI use.

Deeter & Hayward

Course Goals

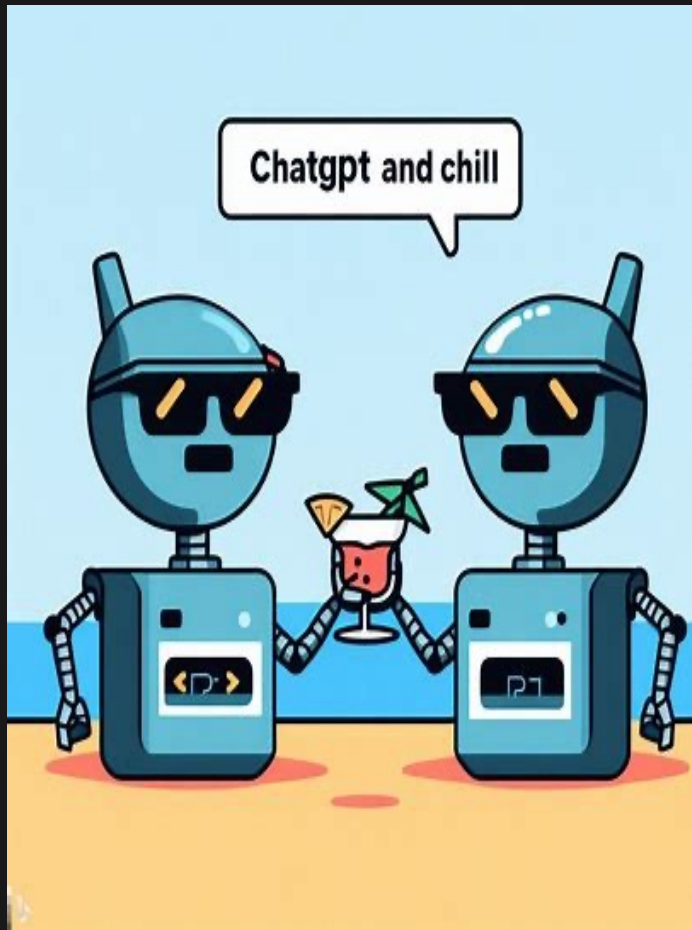


Image generated by Bing Chat (powered by DALL-E 3) with the prompt "ChatGPT and Chill"

Students will demonstrate their ability to:

- 1) Describe several types of Artificial Intelligence models, distinguish among them, and define key AI terminology.
- 2) Evaluate the uses and limitations of several AI models and assess distinctions between human- and machine-generated content.
- 3) Develop a range of prompts to generate text and images using AI.
- 4) Assess the ethical and practical implications of AI in academic and professional contexts.
- 5) Articulate criteria for using the technology intentionally, creatively, ethically, and inclusively.

Higher Education Applications

(Rudolph, Tan et al, 2023)



Challenges

- Does AI mean the death of the traditional essay assignment?
- Large language models generate 'hallucinations,' or plausible but invented material.
- Students are using AI in ways faculty don't always see or understand.

What do we teach? How do we teach it?

Are we just teaching our students how to cheat better? Students are given a wide range of syllabus policies.

Build a collection of students that are "Savvy, but Skeptical" – students who understand not only the consequences, but also the broader implications of unethical use of AI.

- AI can inspire more innovative assessments that build creativity and critical thinking.
- Faculty can build students' AI literacy to teach critically informed, responsible, ethical, and creative use of AI.
- Faculty can use AI to provide immediate feedback, counter-arguments, problem-based learning scenarios, etcetera.

Opportunities



A clear need for AI literacy...

Colleagues across the country – and internationally – are beginning to create courses like ours.

Informed students make informed citizens.

Students can't move AI forward ethically if we shield them from it.



Image generated by MidJourney with the prompt : The juxtaposition of AI and A Higher Education Learner as the empowerment of students as the next generation of digital thinkers through the teaching and training of AI literacy in the classroom v4



A cozy night scene featuring a cat curled up on a laptop. The room is dimly lit with a warm yellow lamp in the background and several potted plants. A white text box with a red border is overlaid on the image, containing the text '01. Questions?'. Below the text box are several blue diagonal lines.

01.

Questions?



02.

The Class

What is ChatGPT and Chill?

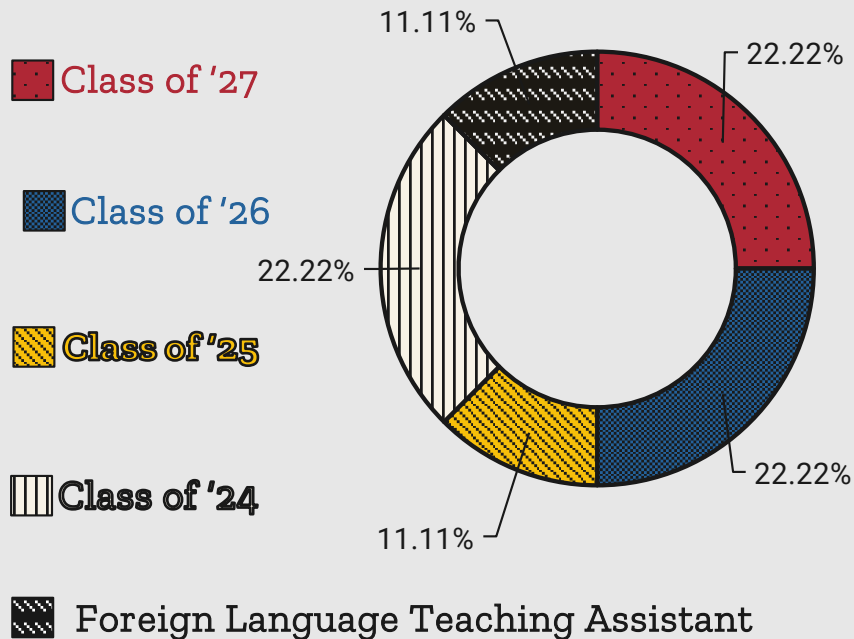
Students will learn how [AI] technology works; understand its uses, limitations, and pitfalls; practice training, fine-tuning, and generating text using ChatGPT or similar AI models; and hone the critical thinking skills necessary to evaluate AI output... By the end of the course, students will have developed skills they can take into the workplace and understand how to responsibly and ethically incorporate AI language models into their writing practice.

1. **The Good the Bad and the Ugly**
Large Language Models
Prompt Engineering
Image Generators
2. **Theory into Practice**
How Much is Too Much?
AI Ethics
3. **Forward Thinking**
Presentation to Campus Community

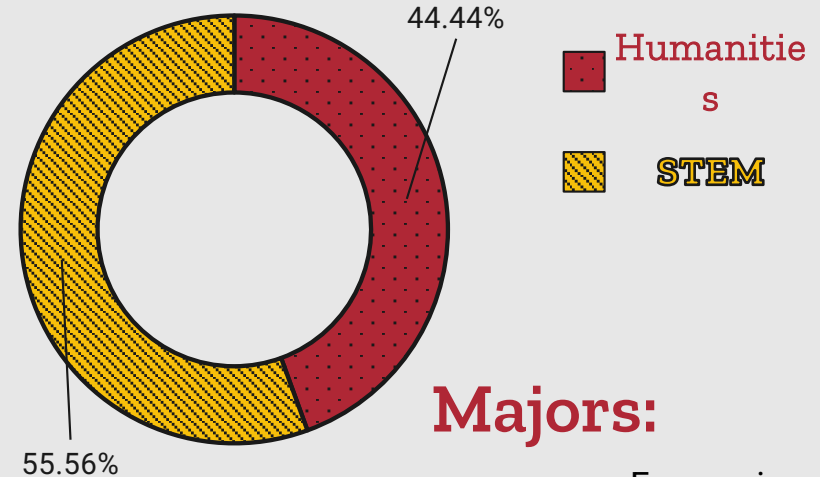


Who was ChatGPT and Chill?

Class Year



Area of Study

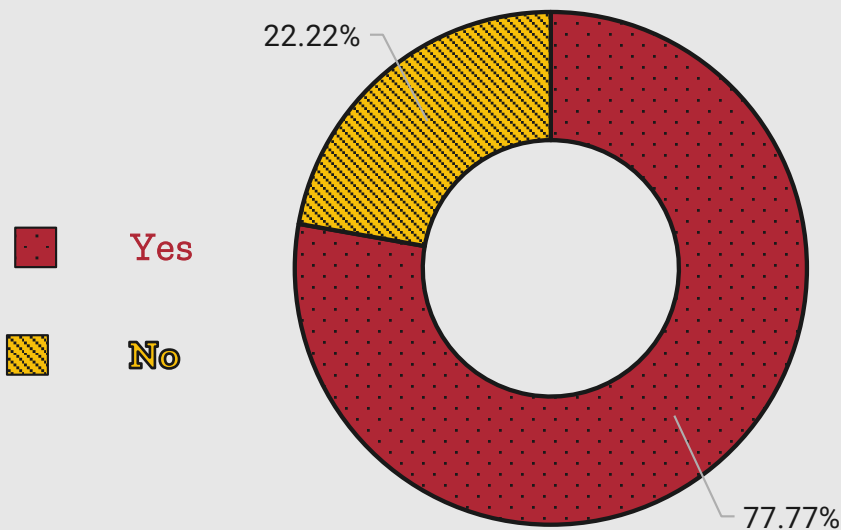


Majors:

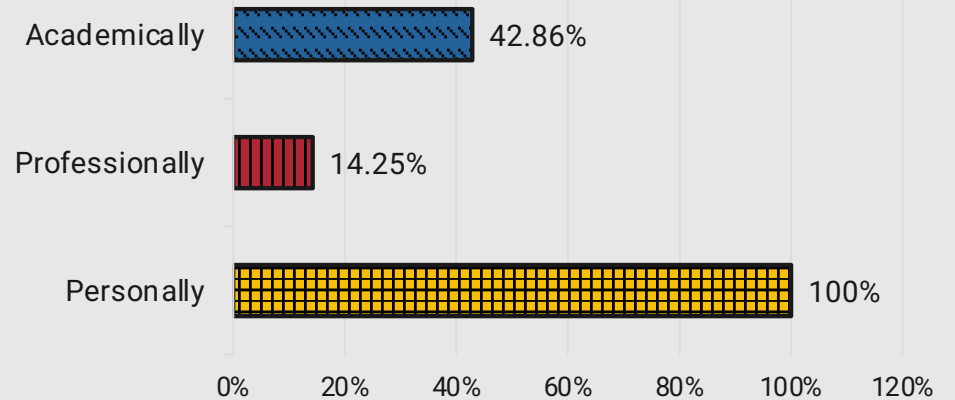
- English
- Global Media and Digital Studies
- Computer Science
- Economics
- Statistical and Data Analysis
- Chemistry
- German

AI Literacy

AI Experience?



Use Examples



- Creating Parodies/Entertainment
- Create a list of needed items for College
- Recipe generation
- Writing emails
- Brainstorming

Engagement, Learning and Debate



Labs

Weekly AI experiments to test use cases, including brainstorming, essay topic generation, library search strategies, creative writing, and more.

Reflection

Weekly reflections on ethics, bias, industry impacts, and more.

In-Class Debates

Regular debates on AI bias, ethical issues, student and faculty use cases, how much AI use is too much, etcetera.

Prompt Catalog

Final project cataloguing student use cases, with examples, ethical considerations and more.

Community Presentation

How students could/should use AI, future impacts, need for regulations at all levels, ethical considerations of use in all areas



Final Writing Project

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A Prompt Catalog:

Collection of helpful prompts with explanations and examples for students looking to ethically integrate AI into their academic work.

Was it helpful?

- Asked them to think about ethical uses, and how to craft prompts
- Thinking about the college campus more broadly than their own bubbles



The background image shows a wooden boat on a body of water under a clear blue sky. A white rectangular text box with a thin red border is centered over the boat. The text '02.' is positioned above the box, and 'Questions?' is inside the box. Below the box, there are several small blue diagonal lines.

02.

Questions?



03.

Looking
Forward

Lightning Talk Insights

An outlook on the Future of AI for us!

"As AI platforms and the underlying technology will evolve, future research will need to investigate if and to what extent the role played by generative AI will be increasingly relevant in triggering innovation outcomes." (Dwivedi et al., 2023, p 6)

- ❖ How is AI helpful to students in higher education?
 - Can be used as a resource to expands the student's creative mind.
- ❖ Future of AI is the school system
 - Open resource for students and faculty, and policies put in place to avoid plagiarism
- ❖ Policies that can be used or made for the classroom?
- ❖ Future for AI beyond the academic side.
 - Jobs, industries, future of it as a whole
- ❖ Why AI should be an acceptable resource for students to utilize?

- ❖ How should faculty view the use of AI from students?

Positives and Negatives of the use of AI currently for students?

Pros

- AI can be useful to the creative process and creative mind for students.
- It can be a useful resource
- It teaches new skills and shows bad skills

Cons

- It can backfire , How...?
- Give false info
- How a student uses it could guarantee an F grade
- Give too much info that was not needed
- Doesn't understand basic ethics
- Has biases and corrupt algorithmic patterns

What should the College of Wooster do about AI usage?

Wooster is in dire need of a consensus on how we will treat AI in academic policies.

How can we do this?

- Foster discussion about AI that is open to the **entire college community**
- Replace the stigma surrounding AI with knowledge through workshops
 - Workshops would also explore AI bias and controversy, as seen in readings referenced within our class
- Produce a standard campus-wide academic policy to be included in syllabi
 - *To be modified where necessary.*

Lightning Talk Insights

- Language models used what people would plug into AI in the future trainings of AI
- Causes mistrust in using AI for creative writing purposes
- Fear of your own ideas getting recycled as well as a fear that the results AI is giving you include pieces of someone else's work without consent.

- Human intervention is still always needed to look over and critically view what AI produces
Ex:
 - Dangerous mushroom book
 - Harmful bias in the AI written play (Perrigo, 2021)
- It is important for AI to be used as a tool rather than a replacement
- Human intervention is so important, which I think embodies the fact that the human mind will always be better than AI in the areas it truly matters

So, what is meaningful to us as humans, and what do we value across different cultures and values?

- AI has good structures and organization
- Content lacks a human voice, emotion, and depth
- “artists, publishers, journalists, editors and journalism union leaders to take a pledge for human values against the use of generative-AI images” (Klein, 2023, pg.9)

After 6 weeks of Experimentation, they're considering ethical AI the same way we are...



Student's parting thoughts






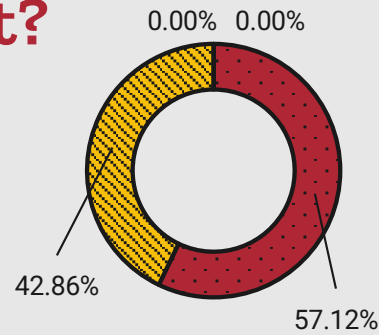
- “Continue to believe that **AI art and AI Image generators steal others’ artwork**. I think it is completely unethical...”
- “Worried that it will become a **crutch**... [students might] **forget to think for themselves** and leave everything to AI”
- “AI is a **useful resource for students and professors**”
- “AI is a **beautiful tool** that the general people will have access to... z’
- “AI use **should be encouraged by educational institutions and not shunned** because it benefits students in many ways”
- “...it is important to stay informed...AI use creatively is something I don’t think should really be supported at all, bias really needs to be fixed with the responsibility falling on the corporations creating them, we need to be careful not to become to dependent on AI, and **humans should be valued above anything AI produces**”
- “Beneficial to focus on advantages of AI... we can **learn how to use AI efficiently, save time and still critically evaluate it while understanding the ethics of AI usage** for potential future applications”






Will they use AI? How?

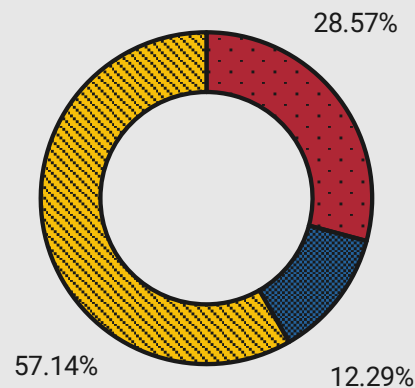
Is it Misconduct?

-  Any use is misconduct
-  I would always ask first
-  Some uses acceptable
-  Never Misconduct



Will you use it in coursework?

-  No
-  Yes
-  Maybe



Make Outlines
 Ethical Way
 Use for feedback
 powerful tool
 Editing
 Won't really help unless stumped
 AI is Everywhere
 Consult with a professor
 Research
 check course [syllabus]
 Not comfortable enough yet
 Not reliable enough
 Has to meet efficiency and ethical needs
 not "smart" enough to be helpful
 Don't want to become too reliant
 Minimal use
 Find topics
 Not on a paper

(Un)Ethical Uses

Unanimous agreement that ethical uses of AI Exist their unethical examples include

Commit Crimes
doing entire assignments
Write paper or story
use without critique
presentation as own original work
manipulate public opinion
Personal gain at expense of others
engage in propaganda
Create Misinformation
not citing
Not Crediting
contextual use
become too reliant

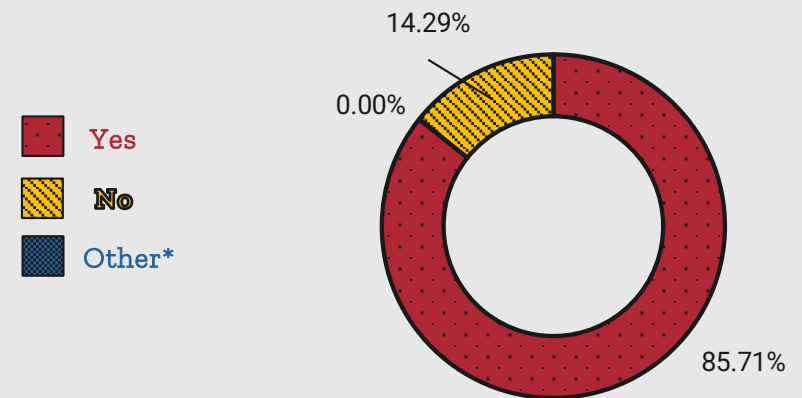
not citing
Commercial use
Not Crediting
sell art as "easy money"
Remove artist jobs with creation
beyond "drawing inspiration"
presentation as own original work
Harms public image
Create Misinformation
misinformation
claim as "human art"



Impact on Student Futures

could replace workers
Aid in getting career
make work efficient
become more popular
not have ginormous effect
proper policies and regulations
Regulations prevent replacement
Career heavily influenced
Some will integrate
Hopefully not by Much
Some might lose jobs

Do you feel prepared?



* "Other" response qualified that they were "somewhat" prepared

Students indicated there was a shared responsibility to prepare them for an AI-integrated Future

Do Students Seek AI Literacy?

- “I think this class should **continue to be offered to students** as we continue to navigate the AI world. Eventually, I believe **AI classes could be offered in all major disciplines** as it can help all of these students.”
- “Interesting course material, the **college should continue building upon this course**”
- “I encourage our schools to **continue hosting more AI classes for students** to know better about these tools in the future”

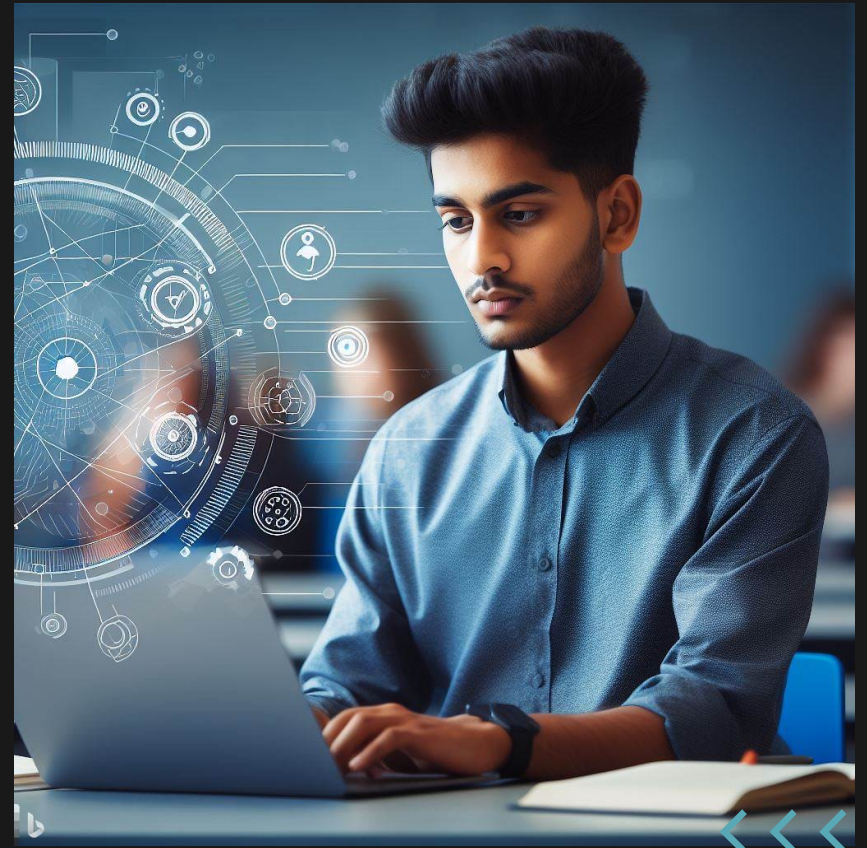


Image generated by Bing Chat (powered by DALL-E 3) with the prompt "Higher Education students gaining critical thinking skills working with AI on a liberal arts college campus"

Caitlyn Deeter

Ethical Engagement Methods



Image generated by Bing Chat (powered by DALL-E 3) with the prompt "Ethical Engagement of AI in the Higher Education Classroom"

- Discuss **effective and ethical AI use** with students, to develop collaborative course policies.
- Build student understanding of the **liberal arts skills** they are in college to develop: **critical thinking, creativity, problem-solving, ethical judgement, etcetera.**
- **Play!** Explore a wide variety of tools and functions: use AI platforms for writing and image generation, research, idea development, creative purposes, etcetera.
- For each experiment, **critically assess the outputs and reflect on the process.**
- Provide **real-life examples of AI's risks: hallucinations; bias** in the data, training methods, reinforcement learning, etcetera; **inequities** of access and use; **unethical use** of intellectual property or AI-generated content; etcetera.
- **Explore the risks** offloading the writing process to AI: could we atrophy key creative and critical skills in ourselves? (See Chan and Hu 2023, 4: "the widespread use of GenAI can pose a **serious threat** to academic integrity in higher education . . . there is a particular concern towards **holistic competency development such as creativity, critical thinking.**")

AI literacy and the liberal arts

Core liberal arts skills crucial to effective and ethical AI use

- Critical thinking
- Creativity
- Problem solving
- Ethical judgement
- Collaborative and interpersonal skills

Margaret McFadden, Davis Institute for Artificial Intelligence:

“We want to be sure our students have the **technological skills** they need, but also that they are learning to **think about technology in varied contexts**, using the **interdisciplinary critical thinking skills** that come from a **broad and deep liberal arts education** . . . when you use these [AI] tools you **risk diminishing your creating and thinking capacities – capacities that are deeply human**” (Meader 2021).



Image generated by Bing Chat (powered by DALL-E 3) with the prompt "Empowerment of students in liberal arts through key skills such as critical thinking, problem solving, ethical judgment and collaboration"

ChatGPT and Chill



AI Literacy

- Ability to understand, use, monitor, and critically reflect on AI applications . . .
- While acknowledging bias, ethical problems, the digital divide, and other complex issues with AI.



Core Skills

- Critical thinking
- Ethical judgement
- Creative problem solving
- Collaborative and interpersonal skills



Forward Thinking

- What does it mean to be human?
- How does creativity work?
- If we outsource creative and critical thinking to AI, will those skills atrophy?



03.

Questions?

Other Resources

Lew Ludwig's ChatGPT Intro

Derek Bruff's "A Bigger, Badder Clippy: Enhancing Student Learning with AI Writing Tools"

Lance Eaton's "Syllabi Policies for AI Generative Tools" – a toolkit for seeing other syllabus policies around the world!

Dr. Cynthia Alby's "AI Prompts for Teaching: A Spellbook" – truly a spellbook for any use you can think of needing a prompt for as an educator!

AI for Education's "GenAI Chatbot Prompt Library for Educators" – regardless of your role, there's a prompt example here for you!

Daniel Stanford's "AI Tool List for Educators" – an amazing way to quickly find a good AI resource for whatever task you may be trying to accomplish!

Dr. Laura Dumin's Repository of AI Information – a great list and Laura is about to embark on their own teaching journey with AI!

Dr. Sydney Dobrin's "AI and Writing" – recently released! You can also see his "Talking about Generative AI" Pamphlet for an AI 101 overview!

Matt Miller's Ditch That Textbook conversations on AI – he recently went back to the classroom and is talking about how he will use it and how it's worked – or hasn't – for him!

Want to hear from an AI Ethicist on the emerging global regulations on AI? Check out Ravi Dotan

References

- GenAI Chatbot Prompt Library for Educators: <https://www.aiforeducation.io/prompt-library?fbclid=IwARoOis9ewcxVFG5FKLW4tdtbug6A9sD074WTffaqKtHqpEvjN5tOqZFOKl4>
- Chan, C. K. Y., & Hu, W. (2023). "Students' voices on generative AI: Perceptions, benefits, and challenges in higher education: Revista de Universidad y Sociedad del Conocimiento." *International Journal of Educational Technology in Higher Education*, 20(1), 43. <https://doi.org/10.1186/s41239-023-00411-8>
- Laupichler, M. C., Aster, A., Schirch, J., & Raupach, T. (2022). "Artificial intelligence literacy in higher and adult education: A scoping literature review." *Computers and Education: Artificial Intelligence*, 100101.
- Meader, Laura. "Shaping the Future of AI (June 2021), <https://news.colby.edu/story/shaping-the-future-of-ai/>.
- Michel-Villarreal, R., Vilalta-Perdomo, E., Salinas-Navarro, D. E., Thierry-Aguilera, R., & Gerardou, F. S. (2023). "Challenges and Opportunities of Generative AI for Higher Education as Explained by ChatGPT." *Education Sciences*, 13(9), 856.
- Rudolf, Jürgen et al, "ChatGPT: Bullshit spewer or the end of traditional assessments in higher education?" *Journal of Applied Learning & Teaching EWS VOL. 6 NO. 1 (2023)*. DOI: <https://doi.org/10.37074/jalt.2023.6.1.9>
- Simmons, L. (2023). "In an Age of Ubiquitous AI, What Does It Mean to Be Human? The artificial intelligence explosion is making people rethink what makes us unique. Call it the AI Effect" [Web page]. *Stanford Graduate School of Business*. <https://stanford.io/3pQCawL>





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