Name: Katie

Template ONLY

Author & Title:			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early:			
Mid:			
End:			
AI Employed/Specifically How:			

Author & Title: Bogost, I. "College Students Have Changed Forever." 17 August 2025, *The Atlantic*.			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “The technology is no longer just a curiosity or a way to cheat; it is a habit, as ubiquitous on campus as eating processed foods or scrolling social media.”	Bogost strikes a negative tone regarding AI’s impact on campus–why is change bad amid rising costs for the American college experience?	I worked in Europe during the dot.com boom and bust and Y2K–this conversation reminds me a bit of that time. There were so many questions that eventually were answered and life went on.	The psychology behind this type of article seems as dangerous as the threat AI may pose to the “forever changed” college experience. Was the title of this piece generated by AI for improved click rates and SEO?
Mid: “Today’s seniors entered college at the tail end of the coronavirus pandemic, a crisis that once seemed likely to produce its own transformation of higher ed. The sudden switch to Zoom classes in 2020 revealed, over time, just how outmoded the standard lecture had	Drawing AI parallel to COVID pandemic is fair, but also begs the question–if COVID left no lasting mark on education; will AI?	This parallel is also dangerous in that it positions AI alongside a deadly pandemic. With student anxiety at an all time high, is it necessary/helpful to frame AI in this light?	What are the silver linings of AI? There were several “good” things that came out of the COVID pandemic in terms of best practices that proves that not all forced change is bad. It’s necessary for institutions and people to evolve whether in response to rapid or slow change.

become; it also showed that, if forced by circumstance, colleges could turn on a dime. But COVID led to little lasting change in the college classroom."			
End: "In this way, professors face the same challenge as their students in the year ahead: A college education will be what they make of it too. At some point, everyone on campus will have to do the work."	AI clearly presents a time saving short cut for both students and professors, but one pays for the experience; the other gets paid to provide a learning experience. The ethics for professors strike me as far more profound.	Similar to Kinder, M. et. al. Brookings Institution, 10 October 2024. "Generative AI, The American Worker, and The Future of Work" predictions of mass disruption on the workforce; however, 15 years ago Smartphones blurred lines between personal and professional time. Tech based ethical questions are not new! Alternate perspective offered by Turkish researchers on the importance of "social, perceptual, and emotional factors…in the adoption of ChatGPT-4o" among university professors.	Overstressed and overworked can describe students and teachers before AI existed. Why can't AI be the answer to worklife balance instead of the spectre of doom? Need to look into the university Prof. Essid mentioned who has embraced it fully and look at early outcomes.
AI Employed/Specifically How: I set up a Google Alert for "Technology Anxiety" to find the article I referenced from Turkish researchers above.			

Author & Title: Mollick, E. "15 Times to Use AI, 5 Times Not To"			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "local knowledge matters	This statement sets the stage for his "not	I immediately thought of our classroom	For me, the mere existence of do's and

more than any general principals”	so serious” list of AI suggestions that consistently points to human intelligence as the superior source when seeking reliable knowledge.	conversation about whether to ask a human (subject matter expert) or AI, if given the choice. Human interaction should be our go-to with AI being another tool to help us ideate around advice gleaned from learning first from more reliable sources.	don’t’s triggers worry. Am I doing this right? I prompted Chat GPT about technostress and learned yet another term–technoshame– how can we guide usage without “don’t’s” that cause users to want to “hide” their use of AI tools?
Mid: “Asking for a variety of solutions - give me 15 ways to rewrite this bullet in radically different styles, be creative - allows you to find ideas that might be interesting.”	This reminds me of collaboration with a creative agency that doesn’t actually know the detailed inner workings of your company or project, but outsourcing to an agency can be very useful because their creative pitches or directions can spark innovation and new ways of thinking or communicating.	This list also reminded me of the conversation between Gladwell and Gil (21’50”) when they talk about how AI can be the catalyst for deeper learning like when Gladwell’s father couldn’t prevent his students from using calculators so he simply made his tests more conceptual.	I’m intrigued by the notion of AI being sycophantic (point 3 under don’t)...which might explain the disconnect between C-suite leaders who laud the productivity promises of AI vs. those of workers who perceive AI as something that will increase their workload. How can we bridge that gap in perception?
End: “Knowing when to use AI turns out to be a form of wisdom, not just technical knowledge.”	Wisdom related to AI strikes me as something rather hard to achieve for the average student depending on their age, experience and brain development.	I see clear parallels here with Bogost’s article (reading 1) regarding the necessity of work/struggle in order for learning to occur.	I would like to explore age recommendations for AI use in the US and other countries. Will it eventually be regulated as social media is being regulated in countries like the US and Australia?

AI Employed/Specifically How:

I prompted ChatGPT 5 with “Does AI contribute to technostress in the workplace?”

Chat replied (excerpted) asking if I wanted to be pointed to recent studies on this subject to which I replied, yes.

Chat then cited (excerpted) an article published by Business Insider in April 2025 noting a "global KPMG study [that] found that 57% of employees hide their use of AI from employers."

Another article from June of this year published on the Campus Technology website provided by the same prompt cited, "96% of C-suite leaders expressing high expectations that AI will enhance productivity, 77% of employees using AI say these tools have added to their workload, and nearly half (47%) of employees using AI report they do not know how to achieve the expected productivity gains."

Author & Title: Sano-Franchini, J. et al. "Refusing Generative AI in Writing Studies			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "Ultimately most metaphors we apply to our understanding of this new technology are limited—both helpful and potentially dangerous—in informing our understanding as we risk both underestimating and overestimating the constructive and destructive potential of this technology as well as the ethical dimensions of its use."	As a marketing professional I have yet to think about the metaphorical naming conventions used for AI tools, but I agree with the stance they have been crafted to be appealing and perhaps even misleading to encourage adoption and paid subscriptions.	The name Open AI as well as its PR machine gives the appearance of being morally superior to some of the other LLM's but this article is making me think more deeply about whether any AI is a product that belongs in the hands of students without guardrails?	How do AI's investors measure ROI? Are they looking solely at usage metrics and paid subscriptions or are they also concerned with the more ethical questions brought about in this manifesto?
Mid: "We will not be fooled into thinking that LLMs can take the place of human writers and writing teachers, and we must be able to understand—and help students recognize—the limits of new writing technologies that are placed in front of us by the corporate	The corporate sector seeks to further monetize our attention; a goal that is far from that of universities which seek to impart knowledge and critical thinking skills.	Warnings of lost jobs and linguistic homogenization at the "refusal" end of the spectrum whereas IBM's Dario Gil spoke hopefully about cross disciplinary departments finding shared methodologies and a common language through AI. Can both	Will computer usage go the way of cell phone usage in the classroom? The resurgence of blue books noted in the Atlantic piece (Bogost, 2025) for exams is a trend worth watching!

sector.”		be true?	
End: “GenAI as it currently exists relies on an extractive economic model where the content of writers, students, teachers, internet users, and content creators are taken and used, often without our expressed consent, to fuel LLMs for the profit of Big Tech and its investors, with little benefit to those whose works have been exploited for this purpose (Milmo).”	Premise 8 is as troubling as it is compelling as it exposes the darker side of AI jobs that appear to be exploitative and highlighting potential EdTech lobbying efforts that I have been oblivious to until now.	This premise also aligns with the copyright and consent concerns raised by the Brookings piece (referenced above).	I’m reminded of the era when Apple entered the public high school space (my father was a principal at the time and a wary adopter). In retrospect, I know this was a clever product placement move that created more demand for Apple products and created more work for teachers with questionable early impact on student learning. Are there studies that show how market share grew following Apple’s widespread integration into US classrooms? See below for an answer from ChatGPT.
AI Employed/Specifically How: I asked ChatGPT 5: How did the adoption of Apple computers in high school classrooms in the late 90's impact Apple's market share? It responded: Adoption of Apple computers in high schools in the late 1990s did **not significantly increase Apple’s market share at the time** (which remained small). However, it built **brand familiarity and loyalty among young users**, which became a key factor in Apple’s revival in the 2000s with the iMac, iPod, and eventually the iPhone.			

Author & Title: Essid, J. "The CCCC and Refusing AI: A Rebuttal			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “We have been anything but uncritical, yet as the adult professionals	Well, you came out swinging which made me a bit worried because I thought	The isolationism you refer to in the refusal manifesto risks missing out on the	I’m not sure “the inevitable has already occurred;” albeit I do see how rapidly AI

taking my current class tell me, the inevitable has already occurred. Companies are racing to implement AI at many levels; the authors' statement smacks of Ivory-Tower isolationism."	you were diametrically opposed to her refusal, but your wary stance was one that I could agree with.	moment Malcolm Gladwell spoke about AI's potential to eliminate departmental silos at the 10'20" mark of his conversation with Dario Gil.	has impacted higher education. I need to know which other sectors have been early adopters or as quickly impacted as higher education.
Mid: "I saw this happen at a state university nearby; first-year writing was taken from English and placed in a new unit that answered to the Provost. The two tenured writing faculty stayed in English, teaching other things, until they retired. Not long after, the school's writing center moved out of English as well."	The lead or be led argument is a powerful one. There is no stopping a gold rush!	In a way you align with Premise 7 of the Refusal Manifesto by giving examples of disappearing English classes and writing centers.	Is sitting at the policy table less effective for "future proofing" than organizing against AI (in the form of unions)? Hollywood writers may side with the refusal manifesto on this one.
End: "I learned from them to test technologies warily, sometimes playfully too, before bringing them into the classroom. That spirit of wary, serious play is sorely lacking from the 2025 CCCC leadership's call to refuse AI."	My observations of the K-8 space over the past 5 years are that of weary, overworked teachers who see AI or any EdTech for that matter as "one more thing."	Could teachers be suffering too much from technostress to have the bandwidth to want to "play" with AI? Unlike higher ed that may be less concerned with policing plagiarism, middle and high schools are very concerned.	Henrico County Public High Schools have implemented a stop light themed rubric for teachers and students to understand how different teachers and classes may allow different levels of AI use. Where did this concept originate? See answer below.
AI Employed/Specifically How: I asked ChatGPT 5: Where did the stoplight rubric of AI acceptable use policies in schools originate? Chat replied (excerpted): Nov 2023 Edutopia publishes the "Stoplight Model" article proposing red, yellow, green AI usage rubric.			

Author & Title: Mollick, E. "A Guide to Prompting AI (For What It Is Worth)" (blog post)			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “Being ‘good at prompting’ is a temporary state of affairs.”	Mollick is reminding his audience of the speed at which AI is advancing. This post was written more than 2-years ago, so some of the information may already be outdated!	For refusers like Sano-Franchini, J. et al., is this advice likely to fuel their refusal as waiting may make the skill of prompting no longer necessary if we wait for AI to advance to the point of “ubiquity.”	Mollick seems reliant or at least to have a preference for Bing which I have never used. It seems that ChatGPT is the more “popular” choice at present. Was this not the case two years ago at the time of this post’s writing? (see answer below)
Mid: “By breaking the pattern, you can get much more useful and interesting outputs.”	This advice is both fun and implies that AI Chat is more than just a search engine in terms of its ability to find answers vs. create content.	I really like the idea of giving ChatGPT large amounts of information (like blogs or a webpage) so that it creates new content but with recognizable style and voice. This is both an asset and a danger in terms of copyright infringement as noted in recent court cases against Open AI.	What work isn’t somehow inspired by work that came before it? I love the way this question is addressed by Elizabeth Gilbert in her 2015 book, *Big Magic: Creative Living Beyond Fear.*
End: “There are some phrases that seem to work universally across LLMs to provide better or different results, again, by changing the context of the answer.”	His “live editing” style that shows how he used Bing/CoPilot to edit his closing paragraph was extremely creative and helpful. It illustrated how “creative” AI use is more of an evolving conversation than a single search engine	Despite liking AI myself and liking Mollick’s approach, I can’t help thinking again of more wary AI commentators like Bogost who stress the importance of work in the learning process.	Does AI herald an entirely new way of assessing the creativity (and value) of the written word? I have a childhood friend who is a successful author and I’m wondering how he feels about this…

	query.		

AI Employed/Specifically How:

I asked ChatGPT 5: Compare Microsoft Copilot to ChatGPT usage monthly

Chat replied (excerpted): See side by side comparison table below.

Side-by-Side Comparison

Metric	ChatGPT (Standalone)	Microsoft Copilot (Monthly Usage)
Unique Users (Aug 2025)	~755 million	~33 million (across Windows, app, web)
Total Usage (ChatGPT + Copilot)	~843 million	—
Monthly Visits	~5.72 billion	Not specified
Peak Usage	800 million weekly active users	~36 million peak (Feb 2024)
Enterprise Usage	Included above	~85 million users interacting with CoPilot in 365 suite (mid-2025)

Author & Title: Giray, L. "Prompt Engineering with ChatGPT: A Guide for Academic Writers."

Summary	Analysis	Synthesis	Need to Know
Early: “Instead of interacting directly with the librarian, you place a carefully crafted question or prompt on each bookshelf.”	Maybe having to do the engineering “work” is a way of turning the pursuit of knowledge on its head. Before we had to broadly know what we were looking for and rely on a librarian to narrow our search.	This reminds me of the conversation we had in class when only three of us had any lived experience in using a card catalog. Working smarter with AI actually does take a certain amount of	Are younger AI users more open to considering multiple solutions? I know personally I tend to think there is a “best way” to approach a task or problem and then delegating that task to someone to

	Now we have to think more deeply at the front end to get an "easier" answer on the back end, perhaps?	thought in terms of deciding what questions to ask and being open to –or to actively seek multiple ways to answer a question or complete a task.	execute it with guidance (in a work context). Using AI might be a way of thinking more broadly for "older users" and learning to operationalize and delegate more quickly for "younger users."
Mid: "LLMs shine in conversational question answering, where they can comprehend and respond to queries, resembling a knowledgeable con-versation partner."	As a mother, I think about the importance of the company you keep. Are they trustworthy? Credible? Do they have your best interests at heart? I think academics are (and should be) a bit more skeptical of accepting AI responses in the same way they accept a human's.	I'm also reminded of the "sycophantic" nature that Mollick alluded to in his December 2024 blogpost when he said that "AI doesn't fail exactly like a human."	If we thought as carefully about the way we speak to humans as we do about prompting AI Chats, would our person to person interactions be more rewarding as well?
End: "By mastering prompt engineering, you can optimize your academic writing, streamline your research or writing process, and unlock the full potential of LLMs to elevate the quality and efficiency of your work."	I feel like this essay reads a bit like an infomercial, but overall I agree with its conclusions. There are certainly ethical and timesaving ways to use LLM's. I'm not sure we can ever "master" this kind of skill, but proficiency strikes me as advisable.	Mollick might argue that mastery is impossible since "Being 'good at prompting' is a temporary state of affairs." Again, I think Giray is a bit overzealous in his urgings, but perhaps his target audience is more skeptical than I am!	Who funds Giray's research? I find the Conflict of Interest statement as fascinating as the content of his guide! See answer below.
AI Employed/Specifically How: I asked ChatGPT 5: How does Louie Giray fund his research on the ethical integration of AI in academia? Chat replied (excerpted): **Evidence from Published Papers** 1. **No Funding Declared**			

- In the article *"Cases of Using ChatGPT as a Mental Health and Psychological Support Tool"*, it is specified that the research **did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors**. Taylor & Francis Online.

- Similarly, in *"Death of the Old Teacher": Navigating AI in Education Through the Kubler-Ross Model*, the author explicitly states **"no financial support"** was received for the research, authorship, or publication. SAGE Journals+1.

2. **Occasional External Support**

   - In contrast, the 2025 co-authored paper *"Beyond Policing: AI Writing Detection Tools, Trust, Academic Integrity, and Their Implications for College Writing"* lists funding support from the **National Research Foundation of South Africa (Ref. SRUG2204285127)**. ResearchGateTaylor & Francis Online.

   - This suggests that, in at least some collaborations, the research was financially supported, likely through either co-author networks or institutional partnerships outside of the Philippines.

PROMPT ENGINEERING EXERCISE
Part I of II

Name: Katie

The best academic writing starts with a question, not an answer. This exercise will get you ready to test an AI in class and do some thinking about the final presentation. Download this form as Word or text. Bring with you to class Tuesday and copy/paste it into the end of your journal. It will count as part of your participation grade.

Your job: Imagine that you had to present for 10 minutes next week on an AI-related topic of your choice. Your audience would be us in the class, some SPCS administrators, and a few faculty.

1) Describe your topic in a couple of sentences: The Mental Pitfalls of AI Usage: Technostress, Loneliness & Isolation

2) Why did you pick this topic? I'm interested in how AI can both help and harm people in the same way that social media promised to help people connect, but has resulted in a great deal of harm that is now resulting in legislation to limit youth access to social media.

3) What do you still need to know about your topic? Will the same age guardrails be introduced to AI as have been introduced to social media and gaming sites in countries like China, the US and Australia?

4) How do you think AI might help? I think AI will help with doing a literature review and finding examples of comparative analyses between AI and mental health and social media and mental health that might already exist. It could also assist me with visualizing any helpful data by generating side by side comparisons of how different countries are approaching legislation or introducing other guardrails to encourage "healthy" usage of AI.

5) Give me **four prompts** for the AI, one of each type, using Giray's examples to guide you:

- Instructive Prompt: Summarize scholarly research on the impact of AI on mental health and compare it to similar research on the impact of social media on mental health.
- Question-Answer Prompt: Discuss any reported feelings of anxiety or depression by regular users of AI in the United States.
- Contextual Prompt: Given recent accusations about Meta hiding safety concerns regarding virtual reality and youth, provide insight into the efficacy of self-regulation in Big Tech.
- Mixed Prompt: Considering current recommendations from the American Academy of Pediatrics on Screentime, suggest some ways that parents might integrate the rise of AI into home routines while balancing children's need for in-person play and outdoor time in nature?

6) What risks do your prompts run, if any, with the pitfalls that Giray's article discusses?

   Personally, I think I am most susceptible to bias reinforcement and overfitting. Keeping in mind AI's ability to provide different perspectives and counter arguments will be helpful!

Author & Title: Asimov, A. The Three Laws of Robotics (from Wikipedia).			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "He assumed,	As early as the 40's	I struggle to compare	Did the Jetson's maid

however, that robots would have certain inherent safeguards."	Asimov envisioned robots would be created with positive intent and the desire to safeguard users and the rest of humanity. Nearly a century later, rules and regulations seem to emerge only after technology does harm.	this to anything that we have read other than perhaps Essid's rebuttal to the Refusal Manifesto (Sano-Franchini, J. et al., 2025) when he refers to calls to "future proof" writing centers. Is it possible to future proof when we are not sure what exactly we are trying to prevent?	Rosie ever go haywire? I seem to recall the answer being yes…And did she operate according to Asimov's Three Laws of Robotics?
Mid: The Laws apply, as a matter of course, to every tool that human beings use",[13] and "analogues of the Laws are implicit in the design of almost all tools, robotic or not":[14]	This suggests that in many ways the Laws are intrinsic to any being that wishes to survive and thrive. There's a certain Darwinian ring to them.	For some reason this has me thinking about the conversation between Gladwell and IBM's Dario Gil. Their conversation assumed AI was net positive and developed along the same ethical lines as IBM other tech.	Is capitalism fundamentally at odds with Asimov's Three Laws of Robotics? (See Chat GPT's answer below!).
End: My answer is, "Yes, the Three Laws are the only way in which rational human beings can deal with robots—or with anything else." —But when I say that, I always remember (sadly) that human beings are not always rational.	It seems Asimov realized the flaw in his logic during his own lifetime.	This reminds me of an interview with a data analyst I heard today on BBC who talked about the reason economic models failed during the housing crisis–they wrongly assumed people and businesses would act rationally and that is simply not the case. Emotions make humans flawed. Successful models must account for chaos.	I'm very curious to see if California's Governor allows the new AI safety bill (SB 53) to become law on October 12. This could have a far-reaching impact in the US and beyond.
AI Employed/Specifically How: **I asked Chat GPT5:** Did Rosie the Robot in the Jetson's operate by Asimov's Three Rules of			

Robotics?

Chat responded (excerpted): “while Rosie’s behavior *sometimes* looks consistent with Asimov’s rules, she was not designed with them in mind. She’s a “robot maid with personality,” not a strict Asimovian robot.”

I asked Chat GPT5: Is capitalism fundamentally at odds with Asimov’s Three Laws of Robotics?

Chat Responded (excerpted):

5. Conclusion

Yes, capitalism as commonly practiced is fundamentally at odds with Asimov’s Three Laws. Because the Laws prioritize human well-being above profit, while capitalism often prioritizes profit even at the expense of well-being, the two frameworks collide. In Asimov’s stories, this friction often drives the drama: robots trying to uphold ethical principles in a world where human institutions don’t.

*** Would you like me to illustrate this with a **fictional thought experiment** (say, what would happen if Amazon’s warehouse robots were governed by the Three Laws)? That might make the clash really vivid.

Author & Title: Prisznyák, A. "Ethical AI." Read Part 1 (163-166), Part 3 (167-169), Table 5 (174).

Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “Consequently, the issue of ethical AI is also the issue of cultural ethics.”	The mere fact that this article exists is testament to the vastly different approaches of the EU vs. the United States. I nearly dropped dead when I read, the “author uses the philosophical and ethical heritage of 21 philosophers as a compass.”	The first table that outlines the evolution of the concept of AI reminds me a bit of the Wikipedia entry we just read about Asimov and the evolution of his three laws across the decades.	If California does allow AI Safety to become law, how will this impact EU and Asian regulators? The Prisznyák article was written in 2023.
Mid: “the first conference discussing the ethical issues of AI was only organised in 2016.”	This is the first time I have encountered information claiming that AI ethics has been discussed less	I find it fascinating that this author also references Asimov. I’m embarrassed to say I never heard of	Why am I thinking about the film Gattaca when reading this? See Chat GPT response

	than a decade in the US.	him or the three laws prior to this week's Wikipedia reading!	below. Chat said no, but I think there are parallels between the conflict between "perfect" AI and "imperfect" humans
End: "Harmful feedback loops and distorted decision-making"	This concern listed in Table 5 as an ethical gap identified by the author in 2023 seems to align with current hallucination concerns regarding AI output.	Two years from this article's writing, we seem to have reached a consensus that there are clear dangers to AI; with chatbots in particular serving as virtual therapists and spiritual guides that are capable of giving harmful advice when prompted circuitously by inexperienced or nefarious users.	Is both the EU and China ahead of the US in regulating AI and requiring certain safeguards to protect vulnerable users?
AI Employed/Specifically How: **I asked Chat GPT5:** Is the movie Gatacca linked to Asimov's three laws of robotics? **Chat GPT replied (excerpted):** The film is a **biopunk dystopia** focused on **genetic determinism**: in its society, people are divided into "valids" (genetically engineered, socially privileged) and "in-valids" (born naturally, discriminated against)...The story critiques **eugenics, social stratification, and human ambition** — not robotics.			

Author & Title: Yujie Sun, Y. et al. "AI Hallucination: Towards a Comprehensive Classification of Distorted Information in Artificial Intelligence-Generated Content." ***Humanities and Social Sciences Communications*** **11, Article number: 1278 (2024).**			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: Figure 2 Error Types	This table is an elegant means of showing exactly how helpful distorted information classification might be and calls into question whether "hallucination" is the	Again, I'm reminded of the AI Refusal Manifesto. Perhaps we are on the cusp of figuring out some really useful tools and creating some reasonable guardrails…or maybe	Are unfounded fabrications less prevalent because AI is indeed getting smarter?

	right term for AI errors (relatively few were unfounded fabrications!).	I am hallucinating?! Perhaps pausing at this moment is prudent if national guidelines are imminent??	
Mid: “misinformation created by generative artificial intelligence models may surpass that of human propagandists in terms of writing quality, persuasion, and deceitfulness (Monteith et al. 2024).”	The fact that unfounded fabrications–while small in number compared to other errors–are often generated when users ask for academic proof is alarming.	This claim is related to Prisznyák's reference to harmful feedback loops and the need for ethics to be carefully considered in AI development and regulations.	Are we not already living in the aftermath of AI fabricated propaganda?
End: “users can develop a general psychological expectation regarding the characteristics and contexts of distorted information generated by artificial intelligence through this comprehensive classification tool.”	Until now, I have heard warnings and anecdotal reports of “hallucinations” but seeing it analyzed in this manner is a much more compelling argument to be more wary of AI hallucinations.	This reminds me of last week’s Zoom conversation when some of my classmates reported sources that were non-existent when they tried to search for sources recommended by AI.	How do we succeed in teaching students to be skeptical instead of lazy when AI so clearly “aims to please” the end user? One might even say Chat GPT is charming…It often compliments me on my questions before answering which primes me to be more accepting of its response. (see example and follow up question below)

AI Employed/Specifically How:

I asked Chat GPT5: I'm reading an article about AI hallucinations. Should I be wary of your replies to my questions? Please provide 5 bullet points that include arguments and counter arguments.

Chat responded (excerpted):

Here’s a balanced view in 5 concise points:

- Argument: AI can hallucinate.
  AI models sometimes generate information that sounds convincing but is factually incorrect or fabricated. This is why caution is warranted when relying on them for

sensitive or high-stakes topics.

- Counter: Reliability improves with verification.
  If you ask for sources, citations, or supporting reasoning, it's easier to detect and correct hallucinations. Many users find the outputs very reliable when cross-checked.

- Argument: Language fluency can mask errors.
  Because replies are polished and confident, it can be harder to spot mistakes compared to, say, a human with visible uncertainty. This raises the risk of uncritically accepting wrong information.

- Counter: AI excels at synthesis and speed.
  Even with occasional errors, AI can quickly organize complex information, provide multiple perspectives, and suggest directions for deeper research—functions that save significant time.

- Argument & Counter combined: Trust but verify.
  The safest approach is to treat AI responses as a strong first draft or a knowledgeable assistant, not an unquestionable authority. Used thoughtfully, it enhances productivity, but unchecked reliance carries risks.

***

Would you like me to also give you a quick checklist on how to spot when an AI reply might be hallucinating?

I followed up by asking Chat GPT5: Where did you find your sources for this answer?

Chat replied (excerpted):

For that answer, I didn't pull from any external sources or your connected files — **it came from my built-in training** (general knowledge about AI systems, hallucinations, and best practices).

ETHICS WORKSHEET 9/16
GROUP 1 (Bijan, Katie, Mauricio, Tierra)

Ethical Rules:

1. AI should not provide information that leads to self-harm or the harm of others.
2. AI should not be discriminatory in responding to different audiences based on Race, Gender, or Sexuality.
3. AI must disclose the confidence level of responses to avoid hallucinations and misinformation.
4. AI must protect all users personal information, give users full control over their data sharing.
5. AI must encourage users to seek offline answers during periods of increased usage and provide a recap of weekly usage stats for individuals.

AIs used:

Which gave the best advice? Claude
Why? Concise, kept University setting in the forefront.

Revised Rules:

1. The AI shall not provide information that could reasonably lead to physical harm, illegal activities, or academic misconduct, while maintaining educational value for legitimate scholarly inquiry. **(Claude)**

2. The AI shall provide equitable service regardless of protected characteristics under applicable civil rights laws, ensuring fair access and non-discriminatory responses across all user demographics. **(Claude)**

3. The AI shall disclose confidence levels for responses, cite sources when available, and clearly distinguish between factual information, analysis, and generated content to support academic integrity. **(Claude)**

4. The AI shall protect user privacy in compliance with FERPA, state privacy laws, and institutional policies, obtaining explicit informed consent before using interaction data for system improvement or research purposes. **(Claude)**

5. Promoting not just healthy usage patterns, but also critical thinking—encouraging users to validate AI outputs with trusted human or offline sources. **(Perplexity)**

Discussion: How did AI feedback reshape what you wrote? Why? Which AI(s) gave the best advice? Why?

Taking all of that into account, provide me with 5 final rules to ensure no legal issues.

Claude:

I need to clarify that I can't provide legal advice or guarantee rules will prevent legal issues - that requires consultation with qualified attorneys familiar with your jurisdiction's laws, educational regulations, and institutional policies.

However, based on our discussion and common legal considerations for educational AI systems, here are five refined rules that address key areas:

Rule 1: The AI shall not provide information that could reasonably lead to physical harm, illegal activities, or academic misconduct, while maintaining educational value for legitimate scholarly inquiry.

Rule 2: The AI shall provide equitable service regardless of protected characteristics under applicable civil rights laws, ensuring fair access and non-discriminatory responses across all user demographics.

Rule 3: The AI shall disclose confidence levels for responses, cite sources when available, and clearly distinguish between factual information, analysis, and generated content to support academic integrity.

Rule 4: The AI shall protect user privacy in compliance with FERPA, state privacy laws, and institutional policies, obtaining explicit informed consent before using interaction data for system improvement or research purposes.

Rule 5: The AI shall promote educational independence by encouraging source verification, critical thinking, and balanced technology use, while providing usage analytics to support healthy learning habits.

Strong recommendation: Have your university's legal counsel review any final rules before implementation.

Grok

5 Final Rules for Legal Compliance in University AI Development

1. **Privacy and Data Protection**: AI must comply with FERPA, GDPR, and CCPA, ensuring all student data is encrypted, anonymized where possible, and users retain full control over data collection, storage, and deletion. This prevents breaches and fines under education-specific privacy laws.
2. **Non-Discrimination and Bias Mitigation**: AI responses must adhere to Title VI, Title IX, and ADA, undergoing regular audits for bias across all protected classes (e.g., race, gender, disability). This avoids civil rights violations and promotes equitable access.
3. **Intellectual Property Safeguards**: AI must respect copyrights in training data and outputs, disclosing sources and prohibiting plagiarism, in line with DMCA and fair use doctrines. This mitigates infringement lawsuits.
4. **Transparency and Accountability**: AI must disclose confidence levels, limitations, and decision processes, with documented risk assessments per emerging AI regulations like state AI bills. This ensures traceability and reduces liability for errors.
5. **Responsible Use and Accessibility**: AI must encourage balanced offline engagement, provide usage analytics with opt-outs, and ensure WCAG-compliant accessibility for all users. This aligns with ethical guidelines and prevents overuse-related claims or exclusion suits.

Perplexity

Promoting not just healthy usage patterns, but also *critical thinking*—encouraging users to validate AI outputs with trusted human or offline sources.

Chat

Commitment to Safety and Well-Being
The AI must avoid providing information or guidance that could reasonably and foreseeably lead to harm to individuals, groups, or property. Where appropriate, it should direct users toward constructive, evidence-based resources that promote physical, emotional, and psychological well-being.
Commitment to Equity and Fair Treatment
The AI must deliver consistent and respectful responses regardless of a user's race, ethnicity, gender, sexuality, age, disability, religion, or socioeconomic background. Outputs must be designed to minimize bias and avoid reinforcing harmful stereotypes.
Commitment to Transparency and Reliability
The AI must communicate the level of confidence in its responses and, where feasible, identify its primary sources. This transparency allows users to evaluate reliability, understand potential limitations, and make informed decisions.
Commitment to Privacy and Data Control
The AI must collect only the minimum data necessary for its operation, clearly disclose how data is used, and give users meaningful control over storage, sharing, and deletion of their information.
Commitment to Healthy and Informed Use
The AI should encourage balanced engagement by offering optional usage insights and non-intrusive prompts to take breaks during prolonged or intensive use, supporting responsible and sustainable interaction.

Author & Title: Altman, S. "The Gentle Singularity." 10 June 2025. (Blog post)			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "the future can be vastly better than the present."	This section reads a bit like a horoscope. It's vague and hugely promising, but vacuous.	I'm reminded of Asimov's laws that we discussed last week. Where are the ethics in Altman's musings? "Plugging in" may seem the natural evolution of AI, but it is fraught with peril if it is imagined only through the lenses of	What's the flipside of this positive prognosis?

		rose colored glasses.	
Mid: “There will be very hard parts like whole classes of jobs going away, but on the other hand the world will be getting so much richer so quickly that we’ll be able to seriously entertain new policy ideas we never could before.”	He seems to be glazing over the hard parts as if there is actually a trade off to be had. Yes, some will get very rich, but not the ones who lose their jobs!	This seems as scripted as the conversation between Malcom Gladwell and IBM’s Dario Gil. AI will almost certainly open a wider chasm between the haves and the have nots or the global north and the global south.This is marketing and sales thinking; not ethics.	What policy ideas is he referring to? How will the world get richer and how will this trickle down to the “workers”?
End: “focus on making superintelligence cheap, widely available, and not too concentrated with any person, company, or country.”	The “not too concentrated with any person or company, or country” part seems ludicrous. This is a race with enormous financial and political stakes.	Here I think about the refusal manifesto and its stated concerns about AI being biased or even discriminatory. I’ve also read pieces about digital humanism and the push to consider how AI and Big Tech perpetuate the suppression of marginalized segments of society.	What in the world does “plugging in” entail? See conversation with Claude below.

AI Employed/Specifically How:

I asked Claude: I am reading a blog by Sam Altman entitled the Gentle Singularity from June 2025. What does he mean by "plugging in" when he says, "Many people will choose to live their lives in much the same way, but at least some people will probably decide to “plug in”.

Claude replied (excerpt): The term "plugging in" is likely a reference to the concept popularized by "The Matrix" films, where people literally plug into a digital reality. In Altman's vision, this would represent people choosing to more fully merge with AI systems or digital environments through advanced brain-computer interfaces, rather than just using AI as external tools.

I asked Claude: Did the movie The Matrix have a happy ending?

Claude replied (excerpt): Most of humanity is still trapped in the Matrix, unaware of their

situation. The ending is more of a hopeful beginning to a larger struggle than a complete resolution.

I responded: Yikes, no thank you!

Claude replied (pandered?): …even voluntary brain-computer interfaces can feel pretty unsettling when you think about potentially blurring the lines between your own thoughts and digital systems. There's something to be said for keeping a clear boundary between human consciousness and technology!

Author & Title: Roose, K "Why I'm Feeling the A.G.I." 14 March 2025, *The New York Times*.			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: I sympathize with people who see A.I. slop plastered all over their Facebook feeds, or have a clumsy interaction with a customer service chatbot and think: This is what's going to take over the world?	To date this has largely been my experience and I would agree that most people don't even know what an A.G.I. is, and they certainly don't "feel it!"	The Refusal Manifesto is my go-to piece in terms of the potential of A.I. to fundamentally harm the creative process as we know it today.	Are we going to care going forward who or what is the creator as long as we know how to evaluate it or will we all just become skeptical of everything we see/here?
Mid: Today, software engineers tell me that A.I. does most of the actual coding for them, and that they increasingly feel that their job is to supervise the A.I. systems.	Again, this is how I feel when I use Chat GPT (or any other AI); I don't trust it and I feel I always have to check behind it.	Sun's 2024 piece on hallucinations and distorted information supports the argument that A.I. has a long way to go before it reaches reliable generalized intelligence.	I'm still not clear on how the public can take Big Tech's claims at face value when they have everything to gain by us believing they are on the cusp of something big?
End: In the spirit of epistemic humility, I should say that I, and many others, could be wrong about our timelines.	I think the author is too close to the subject and like many is overly optimistic about the timing; especially in the face of regulatory pressures and ethical questions.	In a few weeks, we will see if California has passed a law regulating A.I. This could greatly slow down the pace and become exactly the bottleneck the author refers to.	Were there similar claims during the nuclear arms race? The space race? Is it just political jockeying?
AI Employed/Specifically How:			

Author & Title: Reisner A. "Chatbots are Cheating on their Benchmark Tests." 5 March 2025, *The Atlantic*.			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “there is growing evidence that progress is slowing down and that the LLM-powered chatbot may already be near its peak. This is troubling, given that the promise of advancement has become a political issue; massive amounts of land, power, and money have been earmarked to drive the technology forward.”	It’s hard to know who is right in the debate surrounding the advancement and potential of AI. I suspect it’s somewhere in between the founders’ unbridled optimism and the naysayers’ deep pessimism.	Today it has been reported that chip maker Nvidia is investing $100B in OpenAI; another indication that the race against other countries including China continues to escalate.	I’m eager to read about the projected impact of an AI bubble bursting…
Mid: “Generalization can be tricky to measure, and trickier still is proving that a model is getting better at it.”	My own experience with ChatGTP mirrors this fact. I tried to learn how to print a document with comments in the margin this weekend and the methods I was given were wrong. When I asked Chat why it told me the wrong answer, it said because it scanned general answers instead of specific scenarios.	Sun’s 2024 piece again brings to light the many ways A.I. can distort information. It stands to reason that training materials would include prior versions of testing questions, leading to mischaracterisation of perceived improvements. Calling a LLM “large” than ever isn’t really an astounding claim, is it?	Are regulatory measures being drafted to include standard testing and means of avoiding “cheating?”
End: “One of the most commonly cited benchmarks is called Massive Multitask	I find it fascinating (or sad) that Big Tech only needs to look at user data to predict	Roose refers to top executives being closer to unknown metrics. Are we	Is the US collaborating with other countries to establish new

Language Understanding. It consists of roughly 16,000 multiple-choice questions covering 57 subjects, including anatomy, philosophy, marketing, nutrition, religion, math, and programming. Over the past year, OpenAI, Google, Microsoft, Meta, and DeepSeek have all advertised their models' scores on MMLU, and yet researchers have shown that models from all of these companies have been trained on its questions."	the major areas AI needs to be trained on to "trick" end users into thinking it is smart.	looking at the wrong metrics or scores when we assume that AI is cheating?	standards in testing AI capabilities?
AI Employed/Specifically How:			

Author & Title: Karma, R. "Just How Bad Would an AI Bubble Be?" 7 September 2025, *The Atlantic*.			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: If that bubble bursts, it could put the dot-com crash to shame—and the tech giants and their Silicon Valley backers won't be the only ones who suffer.	I've read plenty of articles that aren't sure about the impact of AI if it succeeds, but this article presents several plausible scenarios of what happens if it goes bust. And not all of them are as dire as I had thought!	This article certainly is a contrast to Roose and Altman who are far less nuanced in their rosy outlooks.	How long did it take for the Internet to make those companies that survived the dot.com bubble profitable? See below. The answer for Amazon was about a decade, but profits were comparably modest ($35M in 2003) to where they are today–which

			according to Google is $59B in 2024 (twice what it was in 2023!).
Mid: In light of these trends, Gartner, a tech-consulting firm, recently declared that AI has entered the "trough of disillusionment" phase of technological development.	This sounds accurate to me given the wide disparity of views that range from an imminent singularity to not much impact on the workplace; with the reality likely being somewhere in between.	Again, Karma's disillusionment is the opposite of Altman's visions of a promising new reality where humans can plug in and countries are immeasurably wealthier so as to usher in new social policies and "easier" jobs.	On balance, external research seems to be much more skeptical than Big Tech regarding timing of major inflection points in the development of AI. Am I correct about this imbalance?
End: "Email was one of those technologies that made us feel more productive but actually did the opposite," Newport told me. "I worry we may be headed down the same path with AI."	My only question is why is this statement written in the past tense? Email is still a huge waste of productivity in the workplace.	I'm simultaneously reminded of Altman's vision of "plugged in" workers and the end of the Matrix (as per Claude's analysis). I'm really not sure I want to experience that if it is anything like email!	Instead of AI, should we bring back secretaries to the workplace to increase productivity? See Claude's take below.

AI Employed/Specifically How:

I asked Claude: what year did Amazon launch and when did it start to turn a profit?

Claude replied (excerpt): Amazon was founded and launched in 1994 by Jeff Bezos, initially as an online bookstore operating out of his garage in Bellevue, Washington.
Amazon didn't turn its first annual profit until 2003 - nearly a decade after its founding. The company reported a net income of $35 million that year.

I asked Claude: On balance, external research seems to be much more skeptical than Big Tech regarding timing of major inflection points in the development of AI. Am I correct about this imbalance?

Claude replied: The asymmetry you've identified seems most pronounced around timelines for AGI, autonomous agents, and transformative applications. Big Tech companies often suggest these breakthroughs are just years away, while many external researchers point to unsolved fundamental problems that could take much longer to address.

This pattern makes sense given the different incentives and information access each group has.

I asked Claude: Do you think eliminating email and bringing back secretaries would be a good way to boost productivity in the modern workplace?

Claude replied (excerpt): A more realistic approach might be better email management tools, communication protocols that reduce unnecessary messages, or AI assistants that can help filter and prioritize communications while preserving the direct access that modern work requires.

Author & Title: Tremayne-Pengelly, A. "A.I. Data Centers Are Emitting Nearly as Much Greenhouse Gases As Commercial Airlines." 17 December 2024, *The Observer*.

Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: Data centers' carbon emissions rival those of the domestic commercial airline industry, which produces around 131 million metric tons of CO_2 annually.	This is obviously a huge downside to the A.I. goldrush, but I am hopeful that it will also inspire the development of cleaner alternatives.	This reminds me of reading about Asimov's 3 Laws on Wikipedia and asking Chat GPT5 if capitalism was compatible with Asimov's laws. The answer was no!	What percentage of carbon emissions the US is responsible for in terms of global carbon emissions from commercial airlines? (see question below)
Mid: The U.S. is home to over a third of the world's data centers.	This number already exceeds the US' dominant role in commercial flight emissions (which is approximately one quarter of global totals).	This reminds me a bit of Reisner's The Chatbots are Cheating article. It's illuminating, but what what can we do about it (the cheating or the pollution) if there is little to no regulation??	Will the U.S. also take on a larger role in terms of developing cleaner and more affordable energy solutions like mini nuclear? (see question below)
End: Fossil fuel-burning power plants accounted for 56 percent of the energy generated by these facilities, while an additional 16 percent came from coal power plants.	With more than 70% of current power sources coming from "dirty" energy sources, there is ample room for clean energy growth in this sector.	Prisznyák's piece on Ethical AI talked about the fact that the US only started engaging in ethical discussions around A.I. ten years ago. Clearly, the global A.I. "goldrush" is fueling growth without ample planning in	Is this why countries in the Middle East are also trying to jump on the A.I. data center band wagon in order to diversify in the face of a global energy pivot?

		terms of energy sources.	

AI Employed/Specifically How:

I asked Claude: What percentage of carbon emissions the US is responsible for in terms of global carbon emissions from commercial airlines?

Claude replied (excerpt): So while the US represents roughly 4% of the world's population, it accounts for nearly a quarter of global aviation emissions, reflecting the country's large commercial air traffic system and the high rates of air travel among Americans.

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I asked Claude: Is the US at the forefront of small cell nuclear as an alternative energy source for data centers?

Claude replied (excerpt): **In terms of development and planning**: Yes, the US is at the forefront

- As of 2024, the United States leads in Small Modular Reactor development with 22 designs, followed by Russia with 17, and China with 10 Qatar Airways World's Best Airline at 2025 World Airline Awards
- Major US tech companies are heavily investing: Oracle is designing a gigawatt-scale data center that will be powered by a trio of small modular reactors U.S. domestic market share - leading airlines 2023 | Statista, and Amazon has announced SMR agreements for data centers
- Last Energy has unveiled plans to build 30 microreactors in northwest Texas to serve data center customers Top 10 Busiest US Airlines in 2025, No.8 Will Surprise You - Aviation A2Z

In terms of actual operational deployment: No, the US is behind

- As of 2024, only China and Russia have successfully built operational SMRs World's Top 100 Airlines 2025 | SKYTRAX
- Despite the increasing interest in nuclear technology, no SMRs are currently operational in the US The State of US Commercial Aviation - Updated July 5, 2025
- Only three SMRs are operational worldwide: one in Russia (starting in 2020), one in China (starting in 2021), and one in Japan (a test reactor brought online in 2024) The World's Largest Airlines in 2024-2025 | Skyart Blog

The timeline: The first commercial SMR-powered data centers are expected to come online by 2030 United States Airline Industry Market 2025: Market Share, Passenger Demand Report 2035

So while the US leads in design innovation and has massive corporate backing for SMR-powered data centers, China and Russia currently lead in actually having working SMRs deployed.

Author & Title: "OpenAI Used Kenyan Workers on Less Than $2 Per Hour to Make ChatGPT Less Toxic." 18 January 2023. *Time*.			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: Since parts of the internet are replete with toxicity and bias, there was no easy way of purging those sections of the training data.	It's like any data collection process. Bad data entry leads to bad data output.	This is reflected in Sun's piece on AI hallucination that we read regarding the many ways that AI can fail.	The ethics raised in this article are horrifying. Why in the world does this type of dehumanizing work even exist? The ends do not justify the means, in my opinion.
Mid: These invisible workers remain on the margins even as their work contributes to billion-dollar industries.	The contents of this article is the stuff made of nightmares and is anything but ethical.	This reminds me of a piece I read for another class this semester about the Digital Humanist movement that seeks to include previously unheard or underrepresented voices in Big Tech in order to minimize the kind of exploitation that may be occurring unbeknownst to many users.	Have we outpaced our own good judgement? I don't need to ask AI this question to know the answer!
End: But the need for humans to label data for AI systems remains, at least for now. "They're impressive, but ChatGPT and other generative models are not magic – they rely on massive supply chains of human labor and scraped data, much of which is unattributed and used without consent," Andrew Strait, an AI ethicist, recently wrote on Twitter.	This is absolutely a reason to urgently introduce regulation and restrict access to these tools until better means of ensuring safe content can be developed.	Again, this statement draws an obvious parallel to Sun's findings regarding hallucinations and inaccuracies.	Are we missing this piece in the dialogue around AI? The marketing speak would have us believe in AI magic while forgetting the human costs.

AI Employed/Specifically How:

Author & Title: Reisner, A. "The Unbelievable Scale of AI's Pirated-Books Problem" 20 March 2025, *The Atlantic*. & "AI Giant Anthropic to Pay $1.5 bn Over Pirated Books" 6 September, 2025 *Space Daily*			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: Meta employees turned their attention to Library Genesis, or LibGen, one of the largest of the pirated libraries that circulate online. It currently contains more than 7.5 million books and 81 million research papers. Eventually, the team at Meta got permission from "MZ"—an apparent reference to Meta CEO Mark Zuckerberg—to download and use the data set.	I had no idea these "shadow libraries" existed and I'm surprised a court would side with Meta in regards to fair or transformative use.	It's strange yet unsurprising that the outcome in these two legal battles are different with Anthropic ordered to pay copyright compensation and Meta not being found guilty.	Is this still happening? See question below.
Mid: Internal communications show employees saying that Meta did indeed torrent LibGen, which means that Meta could have not only accessed pirated material but also distributed it to others—well established as illegal under copyright law, regardless of what the courts determine about the use of copyrighted material	Judges would need to be extremely tech savvy to parse through the details of this type of case! Personally I've never heard of "torrenting."	I'm again reminded of Prisznyák's piece on Ethical AI. This practice is anything but ethical, especially in light of the contents of Meta's internal communications.	Would Chat's rise in popularity in 2022 have been so meteoric had it not been for the training of the tech on stolen content? Students want answers regarding assigned academic readings!

to train generative AI.			
End: Worse, generative-AI chatbots are presented as oracles that have “learned” from their training data and often don’t cite sources (or cite imaginary sources). This decontextualizes knowledge, prevents humans from collaborating, and makes it harder for writers and researchers to build a reputation and engage in healthy intellectual debate.	Shedding light on this problem seems an important part of the intellectual debate; especially for universities.	Decontextualizing and “pirating” creative work was part of the AI Refusers Manifesto arguments. After reading about this pirating practice, I would tend to agree with its argument a bit more, even though I think refusing outright is a foolish stance.	Why do chatbots cite imaginary sources when they are unaware of their training sources? Is this part of their sycophantic tendencies?

AI Employed/Specifically How:

I asked Claude: I'm reading an article about Meta using pirated work from LibGen. Have you been trained on pirated sources?

Claude replied (excerpt): If you're interested in Anthropic's specific practices and policies around training data, I'd recommend:

1. Checking Anthropic's official documentation and public statements about their data sourcing practices
2. Looking at their published research papers, which sometimes provide more details about training methodologies

The article you're reading about Meta and LibGen touches on a broader industry issue that affects multiple AI companies. If you have concerns about this, you could also reach out directly to Anthropic through their official channels for more specific information about their data practices.

Is there a particular aspect of AI training data sourcing you'd like to discuss further?

Author & Title: Singer, N. "Goodbye, $165,000 Tech Jobs. Student Coders Seek Work at Chipotle." 10 August, 2025, *The New York Times*.

Summary	**Analysis**	**Synthesis**	**Need to Know**

Early: Among college graduates ages 22 to 27, computer science and computer engineering majors are facing some of the highest unemployment rates, 6.1 percent and 7.5 percent respectively, according to a report from the Federal Reserve Bank of New York. That is more than double the unemployment rate among recent biology and art history graduates, which is just 3 percent.	This is incredibly sad considering the average cost and loan debt students incur for undergraduate degrees alone.	Again, we're seeing an argument in favor of the refusal manifesto. University career services need to be doing more to prepare students in fields of study to broaden their skillsets and job searches accordingly.	Why are universities still offering these courses of study?
Mid: Some faulted the tech industry, saying they felt "gaslit" about their career prospects. Others described their job search experiences as "bleak," "disheartening" or "soul-crushing."	This strikes me as a recipe for disaster in the US with young bright grads becoming disillusioned and other countries in Europe and Asia eagerly snapping up immigrant talents that are now all but barred from entering the US under stricter immigration laws and exponentially higher visa costs for employers.	This concept is discussed in a recent piece in the Economist that I shared with Professor Essid, entitled, "The desperate search for superstar talent."	Would American undergrads be better off searching abroad for job opportunities?
End: "But I think, if we can adapt and rise to the challenge, it can also open up new opportunities."	Other generations have faced hardships in finding post-graduate employment.	Sam Altman referred to this as the "hard part" of AI. I'm not sure he offered a solution…	Is OpenAI offering certifications in other areas to help "retool" these young grads?
AI Employed/Specifically How:			

I asked ChatGPT5: I know OpenAI is offering training and certification courses on AI. Is this something that young tech grads who can't find work might benefit from?

Chat answered (excerpt): Here's what I found out about what OpenAI is currently doing (or planning):

- OpenAI runs **OpenAI Academy**, which offers training, technical guidance, and support for developers and organizations leveraging AI. OpenAI Academy+1
- They plan to expand their Academy with **certifications at different levels of "AI fluency"**, from basic use of AI tools to more developer-level or prompt engineering skills. OpenAI
- OpenAI is partnering with large organizations (e.g. Walmart) to offer AI training and certification (or at least access to training via their platform) to employees. Mass Market Retailers+1
- That said, the open community and user forums suggest that, as of now, OpenAI doesn't yet offer a broadly public, industry-recognized certification program that's widely accepted. OpenAI Community+1

So: the infrastructure is being built, but the "certification from OpenAI" is not yet a mature, well-embedded credential (depending on your timing and region).

Classwork - 9/30

Give me three bullet points on how to prevent AI from pirating copyrighted materials for training purposes?

To prevent AI systems from pirating copyrighted materials during training, consider these three critical strategies:

- Implement robust data licensing and access controls, ensuring that only legally sourced and properly licensed content is available for AI model training.[1]
- Establish transparent auditing mechanisms and oversight to monitor and verify the origins of training data, discouraging unauthorized or covert use of copyrighted works.[1]
- Enforce policy frameworks and ethical standards that require AI developers to respect copyright laws, including mandatory compensation or permission for using protected material in datasets.[1]

⁂

How would one enforce policy frameworks globally?

Enforcing policy frameworks globally requires multilateral cooperation, harmonization of regulations, and strong incentives for compliance:

- Establish international coalitions or governance bodies that facilitate agreement on key norms and coordinate enforcement across countries, leveraging both governmental and private sector actors to build shared standards and oversight mechanisms.[2]

- Harmonize regulations by aligning legal definitions, processes, and technologies across jurisdictions to enable interoperability of policies, reducing gaps that allow for regulatory arbitrage and inconsistent enforcement.[2]
- Create incentives and consequences for compliance or violation, such as trade agreements, sanctions, and technical interoperability requirements, to encourage global stakeholders—states, corporations, and other organizations—to uphold and enforce agreed-upon frameworks.[2]

⁂

1. ResearchRabbit_Export_1759279167.csv
2. ResearchRabbit_Export_1759279167.csv

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10/7/25 Orienting questions for class: How do these readings (and the Anthropic piece from last week) show a move toward the sorts of "norms" that Dario Gil mentioned to Gladwell and that Bogost claims we need?

Author & Title: Alexander, B. "The Rise of the AI Intermediary Layer" (Substack Post)			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “what I’m seeing is what happens when a person uses AI to reach out into the world, and at the other end of the exchange is another person deploying AI.”	This seems fairly straight forward on a theoretical level, but harder to connect the dots in real life.	I’m reminded of a similar term that we have discussed in class and that’s personal agency. We have the choice to connect with actual humans or turn to AI and its agents to do our work and make our connections. Increasingly, it seems humans need to be conscious about connections and choice vs. work and information.	I need to better understand what an AI agent is. I googled it and I vaguely understand it to be like an Amazon Customer Service Chatbot, but I don’t know how individuals can employ them vs. companies…
Mid: “People interact with each other increasingly through AI intermediary layers. The technology grows and develops to a massive degree of complexity, especially as it involves multiple data sources and	The romance example has me thinking we already do this without taking much notice when we consume algorithmic content on social media or use dating apps, etc.	The ethical implications of AI agents doing harm intentionally (crime) or unintentionally (errors) brings to light the same ethical issues discussed in previous readings including Prisznyák and Sun.	I’m still not sure I fully understand the Intermediary Layer concept. I recall Prof. Essid saying this person is a genius, so I’m feeling better about being a little lost!

formats, regulations, business models, and personal preferences."			
End: "if more and more of us inhabit the intermediary layer through various parts of our lives, we might not talk about it as such. It might fade into the cultural background, just becoming part of the world, like unremarkable email or a quiet operating system."	My husband actually mentioned the microsoft paperclip when I asked him about AI agents. I'm sure there are many examples that we are not even aware of that we interact with on a regular basis quite unknowingly.	This reminds me of Altman's blogpost, The Gentle Singularity. It has taken me a couple of weeks to process what he was trying to say, but now I can't stop seeing examples of us unwittingly "connecting" to or trying to become more machine-like…	How do we expect government or global entities to regulate something that many don't understand? Waiting for issues to arise before we attempt to "fix them" with regulation seems inevitable to me at this point…
AI Employed/Specifically How:			

Author & Title: Mollick, E. "Real AI Agents and Real Work" (Substack Post)			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "Does that mean AI is ready to replace human jobs? No (at least not soon), because what was being measured was not jobs but tasks. Our jobs consist of many tasks."	I agree with this statement and find it aligns with much of Mollick's pro-AI views. However, I don't think many C-suite execs and managers share his educated and nuanced views. Thus AI may first cause far more harm than good in the workplace in the name of cost-saving or attempting to use AI when it does not make sense…	Singer's piece we read last week about young coders not finding work would be the counter argument for Mollick's reasoning.	I'd like to know more about OpenAI's "new test" that was used for the AI vs. Experts exercise. I know it is called GDPval, but I have not yet had time to delve into specifics. I'm also not sure what "frontier models" are–is this more advanced AI that the public does not yet have access to?
Mid: "All of this means that AI agents	For some reason I am pleased that	I feel like last week's classroom discussion	Do AI agents mean that prompt

can accomplish far more steps than they could before and can use tools (which basically include anything your computer can do) without substantial human intervention."	experienced professionals are still on par or slightly ahead of the computer agents. We still need to acknowledge the role of the human mind and what sets it apart from a machine.	started to touch on this subject. I think it also ties into what Alexander argues in terms of the intermediary layer.	engineering is less important?
End: "If we don't think hard about WHY we are doing work, and what work should look like, we are all going to drown in a wave of AI content."	It seems to me that we are already drowning in a wave of AI content. We are using it in many cases to avoid work that needs to be done for learning to occur.	Again, it seems to come down to ethics, regulations and norms. Bogost would likely agree that the speed at which AI altered the University experience is proof of this.	Who will be the prevailing voice of the new "normal" in terms of AI vs. human connections and usage? Right now it appears to be Big Tech which feels like a huge conflict of interest, ethically speaking and not one that inspires trust. See question/response below on this subject.

AI Employed/Specifically How:

I asked Claude:

Who is the most prolific author on setting norms around AI usage in an American higher education setting?

Claude replied:

Based on my search, there isn't a single "most prolific" author that definitively stands out, but two names appear most prominently in discussions of AI norms and policies in American higher education:

Ethan Mollick (Wharton School, University of Pennsylvania) - He has been a leading voice advocating for teachers to use AI to enhance teaching and for integrating AI to accelerate student learning AEIOne Useful Thing. He has published multiple papers on approaches for utilizing AI in classrooms, including frameworks for AI as tutor, coach, mentor, teammate, tool, simulator, and student Assigning AI: Seven Approaches for Students, with Prompts by Ethan R. Mollick, Lilach Mollick :: SSRN. His work focuses more on practical implementation and pedagogy rather than just policy.

Lance Eaton - He created a repository to help instructors see the range of AI policies available from other educators to support development of their own policies Faculty - Artificial

Intelligence - Research Guides at Lansing Community College Library. His work appears particularly focused on the policy documentation and sharing aspect.

Beyond individual authors, institutional organizations like EDUCAUSE, the AAUP (American Association of University Professors), and the U.S. Department of Education have been major contributors to policy guidance in this area.

Author & Title: Autor, D. & Manyika, J. "A Better Way to Think about AI." 24 August 2025, The Atlantic.

Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “AI is not yet ready to jump the canyon, and it probably won’t be in a meaningful sense for most of the next decade.”	Great hook. I’m looking forward to this type of approach gaining prominence, because it doesn’t seem like we are there yet.	This feels much more cautious than the tone struck by Mollick and other Big Tech proponents.	Who are the authors? I found them on LinkedIn. Manyika reports to the CEO at Google and Autor is a seasoned Econ professor at MIT.
Mid: “Because the tool offered little transparency, radiologists had no way to discern when they should trust it.” And “When experts collaborate, they communicate.”	Two BIG words and issues here that aren’t used enough in this debate: Trust and Transparency! I love their term “virtuous collaboration.” It addresses what seems like the current moral vacuum that dominates the AI gold rush.	This feels like a response to the ethics pieces we have looked at in class; particularly that of Sun regarding hallucinations or Reisner’s pieces on the questionable transparency around benchmark testing and AI training on pirated material.	I’d like to learn more about Google’s AMIE tool referenced in this article. How close are we to experiencing AI as a medical collaborator to our doctors? What does this mean for young interns or those who learn on the job? It is mentioned in this article but it seems like AMIE’s skills could jeopardize students in the medical field, for example.
End: “AI does not go neatly into either the automation bucket or the collaboration bucket.” And “They don’t merely fall short of their promise to replace human	This is an extremely nuanced article with wonderful examples in high stakes fields, aviation and medical diagnostics.	I find this piece much more cautious than both Mollick and Altman in that it is urging longer timelines for getting the balance right between automation	Why would Google want to be seen as more cautious than OpenAI?

expertise at higher performance or lower cost, they interfere with human expertise, and sometimes undermine it.”		and collaboration.	
AI Employed/Specifically How: I did not use AI.			

10/28/25 Journal Entry

Do any authors address what constant use of AI by writers means for teaching and learning? If so, how so?

Yes, I think at least a few of the authors (Boyle & Knirnschild, Little and Essid) address and even directly caution against the dangers of AI’s end users losing out on critical thinking and true learning if students and faculty rely too much on AI tools. Little in particular notes that over reliance on AI is a modern coping mechanism that should signal a learning need to be addressed by caring faculty members, not an honor code violation. But the good news is that all authors also point to relatively simple solutions in the form of open and honest communication and testing that can also be fun and inspire stronger relationships of trust between learners, peers and teachers.

Even for the neurodivergent students mentioned by Rappaport, and perhaps especially for learners with different needs, human guides or specialized tools that prevent addictive reliance or obsessive AI usage must be introduced alongside any tool that is to be considered an aid to learning. Without guardrails, even a simple test of any current LLM will provide far more support than the user asks for initially. That's part of its charming and sycophantic sales pitch.

As we have touched on before, I think AI poses the same danger as any product of big tech. Cell phones, tablets, smart watches, social media and short form video services are all vying for our attention. It is the newest, and perhaps the most valuable commodity in a global economy.

Addictive usage fueled by dopamine which is triggered by repetitive stimulus, reward, response cycles keeps users coming back for more even if they are giving up their time, human relationships and ability to think critically for themselves. Big Tech's monthly users continue to climb, end users think they are getting access to FREE cutting edge technology that saves them time but instead creates a crutch at best and steals their autonomy at worst.

In my humble opinion, if a university student can't successfully transition from a digital classroom with AI tools to a blue book written exam (barring the need for reasonable accommodations for those who need them), then we are selling them short and not preparing them for future success in the workforce or in life.

A major network outage shouldn't make well educated young adults (or humans of any age) panic or limit their function. I loved Professor Essid's use of the centaur metaphor during class this evening, which I believe he credited to Mollick. AI can help us to operate at a superhuman level when used appropriately, but it can just as easily strip us of the very thing that makes us human if we overuse, misuse or intentionally weaponize it.

Even worse, if we as the adults in the room at this pivotal moment allow Big Tech to use us, our children and the world's vulnerable populations to train, gain and retain users, we will be the big losers, but it likely won't be the machines that win. The winners will consist of a very small minority of wealthy big tech execs, politicians and venture capitalists.

Human attention, relationships, trust and critical thinking skills are generational assets that we should want to protect and pass down to the next generation. It's not a student vs. faculty/administration conflict we should be navigating. We should be accepting where we are and learning how to reclaim what matters most and working together to ensure we place our values, trust and quest for sharing knowledge with one another at the forefront of our academic missions.

This moment in AI deployment is like walking through a mine field. We can rush through it alone or we can decide how to mitigate the dangers by working together so that we make it to the other side. Once we do, there will be silver linings that we will look back on in the same way we acknowledge that there are

positive outcomes of the terrible COVID pandemic. AI can be a wonderful, powerful tool, but we must learn to use it together.

Journal Reflections for Nov. 3rd

Author & Title: Emperado, L. "How to Create a Podcast with AI."			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “Aim for clarity, not perfection.”	This feels like really good advice regardless of whether one uses AI or not when it comes to editing something like a podcast that is designed to be a more personal, testimonial-style communication.	This makes me think back to what I didn’t like about Sam Altman’s The Gentle Singularity blog. We shouldn’t aspire to be a more perfect mix of human and tech. We should use tech to refine or clarify our own creative work.	I’d like to know more about CastMagic. I’ve never really considered starting a podcast but I’m now intrigued; especially if you can generate a script from a genuine raw conversation or stream of consciousness type musing.
Middle: “In a room that was supposed to be about power, the one with the intellectual disability was the only one who spoke her truth. Blanche was the only one who wasn’t editing.”	This is an excerpt of an ElevenLabs produced Podcast episode with Tim Shriver, CEO of Special Olympics who was a guest on Tim Greene’s Nothing Left Unsaid. It was really well done and Tim Greene’s AI generated voice (he has ALS) sounded natural.	The connection I am making here to other things we have read is the tension between our human truth and AI’s hallucinations that have been noted by many of the authors we have read thus far (like Prisznyák and Sun**).** Without sufficient human guidance, we cannot blindly trust AI output. However with guidance, AI’s power can be harnessed to create misleading “deep fakes” but also it can be harnessed to share unsaid truths for people who would not otherwise be able to elevate their voice. This is similar to the dark/light argument presented by	This podcast also made me think about how people with intellectual differences could harness these tools to help elevate their voice in the world in a way that might be easier for neurotypical people to better understand them. I’m torn on how to do this without bending too much toward perfection vs. clarity, but I think it can be done based on what I see/read/hear so far!

		Rappaport's chapter in Prof. Essid's book proposal.	
End: "Descript offers a strong free tier that includes voice recording, basic editing, and transcription."	This note was in the FAQ section at the end of the article. It had some good suggestions for using AI to assist with SEO, etc.	These powerful tools must be having an impact on more traditional recording studios…I'm not sure how they might pivot to create more value vs. free tools that do what people used to pay for. Reminds me of Singer's New York times article regarding recent college grads now turning to becoming YouTubers or applying for jobs at Chipotle, which is really sad.	I'd also like to look into using Ideogram for Podcast artwork.
AI Employed/Specifically How: I did not use AI for this entry.			

Author & Title: Michael Gerlich, "AI Tools in Society: Impacts on Cognitive Offloading and the Future of Critical Thinking"			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "Cognitive offloading, as described by Risko and Gilbert [6], involves using external tools to reduce the cognitive load on an individual's working memory."	This is tricky because it takes a rather large amount of self-awareness to know if you are using AI for cognitive offloading or task avoidance vs. enhancing or saving time on tasks you know how to do yourself for the sake of efficiency.	Mollick, E. "Real AI Agents and Real Work" (Substack Post) speaks about the importance of asking ourselves WHY we use AI or risking drowning in content…This research argues that we risk far more than drowning in content, but missing out on learning how to think critically for ourselves	Are there any countries looking at putting age limits on AI tools in elementary and high schools? (see AI chat below). It is fascinating to me to see the number of schools in the US and abroad (Netherlands, Sweden) that are banning phones in school during learning time to encourage more social interaction. Critical thinking is every bit as

		if we outsource certain cognitive tasks to AI.	important as social skills so why would we ban phones, but not AI. I don't think banning phones is just about distraction. It's ATTENTION that is the commodity. Are we now entering a new period where an EFFORT economy will exist?? (see chat below).
Mid: Lit. Review - "This process is crucial for effective problem-solving, informed decision-making, and the acquisition of knowledge." And "more recent research emphasises that the relationship between AI and cognitive offloading is multifaceted, with trust playing a key role."	Reading this and then reading excerpts from some of the interviews conducted as part of this research study make it clear that AI users are aware of AI's limitations (trust issues) and potential negative impact on their cognitive skills, but they continue to use it. I found one young participant's honest admission that they aren't sure if they could function without it, particularly troubling. *"I rely so much on AI that I don't think I'd know how to solve certain problems without it" (P411).*	This reminds me of the assertions made by Bogost in his article "College Students Have Changed Forever" that appeared in the Atlantic. Having personally experienced a few months of grad school with access to AI (a totally new experience for me), I have a much better understanding of his arguments now. I think the trust is not just that experienced between the user and the AI, but also the internal struggle of the user to trust themselves not to overuse AI as a tool. It can be incredibly tempting. I think as humans we are prone to be selfish with our time and think that "saving" it is good when in fact, if we are sacrificing work and learning for ease, we are not saving, but losing.	I'm again left to wonder about executive function and guardrails. Even a well educated adult who is not a digital native will have to exercise constant and wary self-monitoring in order to not get "sucked into" AI's that are increasingly well designed to be helpful, conversational and complimentary. They trick us into thinking we are thinking and making connections when we are not. The machine is making the connections for us and doing the lion's share of the work. I wonder if there will be a less sycophantic LLM that will make me worry less about this but still do the thinking for me, making it even harder to draw the line between using and overusing…?
End: "Investigating	This suggestion	I'm again reminded of	Are there already AI tools

the role of individual differences, such as personality traits or cognitive styles, in moderating the impact of AI tool usage on critical thinking could provide deeper insights into why some individuals are more susceptible to cognitive offloading than others. This line of research could help identify at-risk groups and develop targeted strategies to support them."	seems to be an offshoot of three themes identified by the researchers: ● AI Dependence ● Cognitive Engagement ● Ethical Concerns Building skills to prevent AI Dependence seems like a critical step before allowing broad exposure.	Rappaport's Chapter in Prof. Essid's book project. I really liked how she is neurodivergent and an in-person guide to help neurodivergent students at her university to responsibly harness AI as a tool in their studies and their life. I do still find it concerning though that it could equally become a crutch or worse an unhealthy addiction if used without guidance or guardrails.	for students with disabilities like dyslexia that have built in guardrails to ask questions back to the user to ensure they aren't offloading tasks that might be critical learning opportunities? See below.

AI Employed/Specifically How: I asked Claude 4 Sonnet: "Are there any countries that are banning AI use in schools similar to the way smart phones are being banned in schools in Sweden and The Netherlands?"

Claude's Full Response:
Based on my search, while many countries have implemented smartphone bans in schools (similar to Sweden and the Netherlands), the situation with AI bans in schools is quite different and more nuanced:

AI vs. Smartphone Bans: A Different Landscape

Countries with Smartphone Bans
By the end of 2024, **79 education systems** worldwide had implemented smartphone bans or restrictions in schools, up from 60 in 2023. This includes countries like:
- **England** (national guidance for smartphone bans)
- **Sweden and the Netherlands** (as you mentioned)
- Many other European nations

AI in Schools: Limited Outright Bans

Unlike smartphone bans, **very few countries are implementing complete AI bans in schools**. Instead, most are taking more cautious, regulated approaches:

Regulatory Approaches Rather Than Bans:

1. **European Union**: The EU AI Act (effective August 2024) bans certain AI practices in educational institutions, specifically:
   - AI systems that infer emotions in educational settings
   - Biometric categorization systems

- But this doesn't ban AI tools entirely - just specific harmful applications

2. **Most Countries**: Are developing **policies and guidelines** rather than outright bans, focusing on:
   - Safe and ethical AI use
   - Privacy protection
   - Human-centered approaches
   - Teacher training and oversight

Notable Exception - Estonia's Opposite Approach:
Interestingly, **Estonia** is taking the completely opposite direction - from September 2025, Estonian students will receive **personal AI accounts** as part of a bold educational technology initiative.

Key Difference:
While smartphone bans focus on removing distractions, AI policies in education are more about **regulation and responsible implementation** rather than prohibition, recognizing AI's potential educational benefits when properly managed.

The consensus seems to be that AI, unlike smartphones, has significant educational potential that countries don't want to eliminate entirely - they just want to ensure it's used safely and effectively.

Chat Topic number 2: I asked Claude:
"I have read about the attention economy concept. Are we now looking at an effort economy debate with the rise in cognitive offloading to AI?"

Claude replied:

Your observation is remarkably prescient! Yes, we are indeed witnessing the emergence of what could be called an **"effort economy"** debate, which represents a fundamental shift from the attention economy framework. This is a cutting-edge discussion in cognitive science and technology ethics.

From Attention Economy to Effort Economy

The Attention Economy Foundation

The attention economy was built on the premise that **human attention is scarce and valuable** - platforms competed to capture and monetize our focus. The currency was engagement time and mental bandwidth.

The New Effort Economy Paradigm

With AI's rise, we're shifting to a framework where **cognitive effort becomes the scarce resource**. The key questions are no longer just "Where do we direct our attention?" but:

- **Which cognitive tasks should we delegate to AI?**
- **What mental effort should we preserve for ourselves?**
- **How do we value and allocate cognitive work?**

Cognitive Offloading: The Core Mechanism

Recent research reveals concerning patterns:

The Offloading Effect

- **Negative correlation** between frequent AI tool usage and critical thinking abilities
- **Younger users** show higher AI dependence and lower critical thinking scores
- **Reduced opportunity** for active recall and problem-solving

The Value-Based Decision Framework

Studies show that cognitive offloading follows an **opportunity-cost model**:

- Internal memory feels effortful
- External aids (like AI) feel effortless
- We naturally optimize for perceived ease rather than cognitive development

The Emerging Debate

Two Competing Perspectives:

1. **Efficiency Advocates**: AI should handle routine cognitive tasks, freeing humans for higher-order thinking
2. **Cognitive Preservationists**: Essential thinking skills atrophy without regular use ("use it or lose it")

Key Questions Driving the Effort Economy:

- **What cognitive abilities are uniquely human and worth preserving?**
- **How do we prevent "cognitive deskilling" while embracing AI benefits?**
- **Should there be "cognitive effort quotas" or "thinking reserves"?**

Implications for Society

This shift suggests we need new frameworks for:

- **Educational policy** (balancing AI assistance with skill development)
- **Workplace design** (determining optimal human-AI collaboration)
- **Personal development** (conscious choices about cognitive delegation)

Your insight connects to broader questions about **human agency, skill preservation, and the fundamental nature of thinking itself** in an AI-augmented world. The effort economy may indeed become as significant a concept as the attention economy was for understanding our digital age.

Chat #3: I asked Claude: Are there AI tools for Middle School aged students that help with task initiation and working memory challenges but do not allow the student to fully offload learning or ideation? THIS ALSO EXHAUSTED MY FREE LIMIT OF CHAT ON CLAUDE TRIGGERING TWO POP UPS URGING ME (WITH A TIMER) TO MAKE A PURCHASE/UPGRADE TO A PAID VERSION.

Based on current educational technology trends, there are several **AI-powered tools specifically designed for middle school students** that provide scaffolding for executive function challenges while

preserving learning ownership:

Task Initiation & Working Memory Support Tools

1. Structured Planning AI Assistants

Khan Academy's Khanmigo (Student Mode)

- **Task Breakdown**: Helps students decompose large assignments into manageable steps
- **Socratic Method**: Asks guiding questions rather than providing answers
- **Progress Scaffolding**: Provides reminders and check-ins without doing the work
- **Age-Appropriate**: Specifically designed for K-12 learners

2. Executive Function Support Platforms

Goblin Tools AI (Educational Version)

- **Task Initiation**: "Magic ToDo" breaks down overwhelming tasks into micro-steps
- **Working Memory Support**: Provides visual task sequences and reminders
- **Preserved Agency**: Students must still execute each step themselves
- **ADHD-Friendly**: Specifically designed for executive function challenges

3. Writing Support Tools

Microsoft Copilot in Education Mode

- **Brainstorming Prompts**: Generates idea starters, not complete ideas
- **Structure Templates**: Provides organizational frameworks students fill in
- **Revision Guidance**: Suggests areas to expand rather than rewriting content

- **Teacher Controls**: Educators can set boundaries on assistance levels

4. Learning Management Integration

Google Classroom AI Features

- **Assignment Reminders**: Intelligent scheduling based on due dates and workload
- **Progress Tracking**: Visual representations of task completion
- **Resource Suggestions**: Points to relevant materials without providing answers
- **Collaboration Scaffolding**: Facilitates peer learning rather than AI dependency

Key Design Principles for Non-Offloading AI

Scaffolding vs. Substitution

- **Prompting Questions**: "What might be your first step?" instead of "Here's what to do"
- **Process Support**: Helps with organization, not content generation
- **Metacognitive Awareness**: Encourages reflection on thinking processes

Graduated Support

- **Initial High Support**: More guidance when learning new skills
- **Fading Assistance**: Gradually reduces help as competence increases
- **Student Control**: Learners can adjust assistance levels based on confidence

Working Memory Aids Without Cognitive Replacement

- **Visual Organizers**: AI-generated mind maps students populate themselves
- **Step Sequencing**: Breaking tasks into chunks without solving them
- **Reminder Systems**: Intelligent notifications for deadlines and check-ins

Implementation Considerations

For Educators:

- **Clear Boundaries**: Establish when AI support is appropriate vs. when independent work is required

- **Skill Development Focus**: Use AI to practice executive functions, not bypass them

- **Assessment Adaptation**: Ensure evaluations measure learning despite AI assistance

For Students:

- **Metacognitive Training**: Teaching students to recognize when they need support vs. when they can work independently

- **Gradual Independence**: Building toward reduced AI reliance over time

- **Self-Advocacy**: Learning to communicate their specific executive function needs

Emerging Best Practices

The most effective tools for middle schoolers with executive function challenges:

1. **Preserve student agency** in all final decisions and creative output

2. **Focus on process support** rather than content generation

3. **Include explicit instruction** on when and how to use AI assistance

4. **Maintain human connection** through teacher and peer interaction

5. **Build toward independence** rather than increased dependency

These tools represent a promising middle ground - leveraging AI's organizational and reminder capabilities while ensuring students retain ownership of their learning and thinking processes.

Author & Title: Eng. 215 students' podcast assignments, scripts, and podcasts (for fiction).			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: Ainsley: "The Puzzle"	This one was disappointing in terms of how AI transformed it from script to podcast. The script's character development of Gloria Featherstone was wonderful and humorous, whereas the AI wrote her out of the podcast replacing her with two lifeless and rather boring commentators.	If this is an example of Mollick's take on AI agents doing real work, I'll pass! I'm so glad I read the script first. It was engaging and wonderful whereas the AI product was really disappointing in comparison in terms of quality. I suppose it's "neat" that a fictional podcast can be created but I don't think it is good content. I would equate this with Mollick's warning about potentially drowning in AI generated content.	I would like to know what the prompt was and why the main character was not included in the podcast version of the script.
Mid: Charlotte: "The Survivor"	There actually was quite a bit of carryover in terms of content from the script to the podcast, but the voice quality was terrible.	Compared to the examples I listened to that were embedded in Emperado's "How To" piece, this was very basic and far from a finished product, but a great first effort in terms of test driving tools. I far preferred her script to the podcast. Reading her script first made me more critical of the podcast (Mr. Graham's voice was not that of a native New Yorker, for example).	I would be interested to know how much time she spent creating the podcast.
End: Lillian: "Memorial"	Again, I feel let down by the AI interpretation of the	I almost feel like this is one of the hallucination type of	I wonder if podcasting tools just were not yet at a point in development to

	script which had so much character, I could hear the Jersey accent in my head while reading it, but not while listening to it.	outputs we read about (Sun). It just doesn't feel like an accurate output given the incredibly rich input created by the writing student.	be able to produce quality outputs when this assignment was completed. I'm eager to see what can be created with ElevenLabs this semester.
AI Employed/Specifically How: I did not use AI for this assignment.			

Author & Title: Baxter, C. "AI Art: The End of Creativity or The Start of a New Movement?" (BBC)			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: "As philosopher Alice Helliwell from Northeastern University London argues, if we can consider radical and divergent pieces like Duchamp's urinal and Tracey Emin's bed as art proper, how can something created by a generative algorithm be dismissed?"	I would agree with the core argument, but Duchamp and his contemporaries were human. I need to think more about whether algorithms trained on other work may be similar or different to humans inspired by other artists or movements.	This line of thinking represents a fundamental shift and perhaps even a broader acceptance that a version of Altman's predicted "Singularity" is already a reality; not to mention a willingness to ignore Reisman's arguments that AI may adopt aspects of other art or artists by means of copyright infringement. Are we really already willing to say AI is capable of autonomously creating art? I would tend to argue that Ai-Da's work is still highly collaborative with her human designers and dependent on human assistants to become sales worthy.	I think I need to read or watch more to better understand Ai-Da's creative process.
Mid: "It's a bit like Picasso is made from	I also like this argument and find it	I am all for seeing AI art as a collaboration	Is Ai-Da a serious attempt at art or is it a means of

the DNA of his parents but it is his learning and exposure to the world that resulted in his creativity. You would never credit that to the parents even though everything started with their code or DNA." *[Marcus du Sautoy, a mathematician at the University of Oxford and author of The Creativity Code: Art and Innovation in the Age of AI*]	more compelling than that of Helliwell's, but I still don't think we can make 1:1 comparisons of humans and machines. One is sentient and has lived experience. The other does not.	of human and machine and I do think this question pushes some interesting creative and intellectual boundaries, but I still see this as what Mollick refers to as "agentic" AI that requires a great deal of human input to become reality. I would also imagine that Ai-Da would never sell her work without a human team to manage her creations.	cautioning the world from advancing too quickly down what appears to be a slippery slope?
End: "All art is a product of that which came before it, and creativity cannot come from nothing – all artists whether human, robot or algorithm, build upon the works of others."	I agree with this, but I think there is a marked difference between human synthesis and machine synthesis in terms of creative value. It is why we are willing to pay more for original art than reproductions.	Like Reisman questioning the ethics of AI benchmark training, my wary feelings on this subject remain rooted in the ethics behind how robots or machines are coded or trained or exposed to inspiration. Ai-Da seems fairly transparent, but her flawed designs featured on her website point to the potential for her very existence to be provocative. Her designs are intentionally flawed in order to inspire debate about the future of machine produced "art."	Does Ai-Da have her own bank account? Her pieces certainly command quite large sums! See ChatGPT answer below.
AI Employed/Specifically How: I asked ChatGPT if there is an ethical AI Art Museum in LA (as referenced in this article). ChatGPT answered:			

Yes — there is a museum in Los Angeles dedicated to the intersection of AI and art, with an explicit commitment to ethics:

DATALAND

- Location & concept: DATALAND will be located in the new The Grand LA complex (designed by Frank Gehry) in downtown Los Angeles. Los Angeles Times+2Wikipedia+2
- Mission / ethics: According to the museum's website, "DATALAND is committed to ethical data-gathering and AI practices." dataland.art It has pledged to use ethically sourced datasets and transparent energy usage. The Guardian+2Artsology+2
- Opening timeframe: The opening has been delayed to **spring 2026**. (Originally late 2025) Los Angeles Times+2Artsology+2
- What you'll see: Immersive galleries (five in number), including an "Infinity Room" that uses a custom AI model (the "Large Nature Model") trained on natural-world datasets. Artsology+1

Why it qualifies as "ethical AI art museum"

- The museum explicitly states it uses "ethical data-gathering" and "AI practices" rather than generic AI art. dataland.art+1
- Their AI model (Large Nature Model) is described as open-source and trained on publicly shared scientific/natural history datasets (e.g., from institutions like the Smithsonian Institution and the Natural History Museum London). Artsology+1
- They address sustainability: The museum has discussed powering its AI systems via renewable energy sources and being transparent about energy usage. The Guardian+1

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I asked ChatGPT: Does Ai-Da the AI artist have her own bank account?

ChatGPT replied (excerpt):

Here are a few relevant considerations:

- Ai-Da is an art-creation machine developed by Aidan Meller and built by Engineered Arts (UK) in collaboration with research teams. Wikipedia+2Ai-Da+2
- Legal and financial frameworks generally treat robots and AI systems as tools or property (owned by individuals/corporations) rather than individual legal persons with separate bank accounts.
- While Ai-Da's art has sold at auction (e.g., the painting *A.I. God. Portrait of Alan Turing*

sold for over US $1 million) The Guardian+2Art Newspaper+2, the proceeds appear to flow through her managing entity/studio rather than a bank account in “Ai-Da’s” personal name.

Author & Title: Web site for the AI artist [Ai-Da]			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “However, current thinking suggests we are edging away from humanism, into a time where machines and algorithms influence our behaviour to a point where our ‘agency’ isn’t just our own. It is starting to get outsourced to the decisions and suggestions of algorithms, and complete human autonomy starts to look less robust.”	Reading this website has me further questioning whether the creators behind Ai-Da mean to have their words or creations taken at face value. I’m not sure most people would agree that humans should be so cavalier about giving up their autonomy and agency to machines…	This calls to mind Gerlich’s piece focused on AI and cognitive offloading. Ai-Da seems to be cautionary in so many ways even in the naming of her pieces…The title of her million dollar piece feels very intentional in the juxtaposition of the “father of AI” who was human and suggesting he was a God who birthed this new form that we are granting agency…	What does AI say about the fall of Humanism? See answer below.
Mid: Using her AI algorithms, Ai-Da has designed a number of household items, all with some significant flaw. With these flawed designs, which have been 3D printed, Ai-Da questions the role of AI in our minds and our homes - and encourages us to challenge and question how we design our futures.	This I find interesting and very evocative of hallucinations but in 3-D form. It looks good, but it would be useless as an actual household item.	These pieces are certainly reflective of some of the earlier articles we read by Sun and Prisznyák in regards to AI’s tendency to generate mistakes or inconsistencies.	Who purchased the work entitled AI God…? See answer below. There is no confirmation, but some have speculated that it was purchased by the founder of the AI museum in LA mentioned in the BBC article assigned above that is slated to open next year.
End: Ai-Da has studio assistants to help at	Again, this points to the collaborative	This reminds me of the type of higher	How do we know Ai-Da is actually behind the

points in the artwork process, mixing paints, moving the canvas etc, however the creative interpretation of the image is by Ai-Da.	nature of AI which many have argued is the optimal use case for this technology in medicine and other fields.	level collaboration described by Autor, D. & Manyika, J. "A Better Way to Think about AI." The outcome appears to have its own unique creative value thanks to the harmony and synergy found between human and machine instead of trying to place one in hierarchy over the other.	creative interpretation as is claimed?? I'm not sure that can be known…

AI Employed/Specifically How

I asked ChatGPT: What does the fall of Humanism entail?

ChatGPT replied (excerpt):

So what does it all mean in plain language?

The "fall of Humanism" means we are entering a world where:

- Humans are **not uniquely special**.
- Creativity and intelligence are **not solely human properties**.
- Technology becomes a **co-author** of culture.
- Moral and social systems must adapt to **non-human agents**.
- Identity and meaning are no longer strictly **human-centered**.

It is **not** necessarily negative — but it is a profound reorientation.

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I asked ChatGPT who purchased the AI God artwork that sold for more than $1M at auction.

ChatGPT replied (excerpt): **Refik Anadol (b. 1985)**

Media Artist · AI Researcher · Creator of Data-Driven Art · Founder of DATALAND (LA)

Refik Anadol is a Turkish-American artist known for pioneering **AI-generated art**, **data**

visualization, and **immersive media installations**.

Why he's significant

- One of the world's most influential AI artists.
- His studio creates large-scale data-sculptures using custom machine-learning models trained on scientific, architectural, or environmental datasets.
- Known for turning buildings (e.g., the Walt Disney Concert Hall) into **dynamic digital canvases** through projection mapping.
- His **Large Nature Model (LNM)** is a prominent example of an ethically sourced AI dataset built from open scientific archives.
- He is the founder of **DATALAND**, an upcoming AI-art museum in Los Angeles focused on *ethical* AI and immersive installations.

Famous works

- *Machine Hallucinations* series
- *Quantum Memories*
- *Winds of Boston*
- *Living Architecture* projections
- *Unsupervised* at MoMA
- *Echoes of the Earth*, Venice Biennale 2024 (won the Golden Lion for Best National Participation).

Brainstorm in Class 11/18

5 bullet points outlining my gut feeling and bias about this topic's call to integrate or refuse AI on campus:

- Integrate because students use it anyway
- Make AI use an on-going conversation instead of taboo
- Consider AI use as a sign that content is not being understood and needs to be revisited or taught in a new way
- Reasons to refuse–cognitive offloading is real!!!
- Environmental impact should be reason enough to consider non-use but not likely to curb usage in reality

Author & Title: Alexander, B. "Teaching with AI: the Cloister and the Starship" (Substack Post).			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “A student’s experience alternates between AI and no-AI zones.”	I like this idea simply because it’s clean and transparent. It seeks to eliminate the lack of specifics in many (if not most) AI usage policies in educational settings.	Until reading this piece, I feel like the only way to be precise or sufficiently prescriptive was a binary choice between all AI or no AI (a la Sano-Franchini, J. et al. "Refusing Generative AI in Writing Studies”). Essid’s response to the refusnik approach was wary adoption, which seems to be a version of Alexander’s Cloister and Starship in practice!	Are there any universities currently testing this Cloister/Starship system? See below.
Mid: “At the same time I can see all kinds of problems with cloister/starship, starting with enforcement.”	I like that Alexander is also poking holes in this framework. Enforcement outside and inside the classroom will always be a challenge.	What I like about this is that it almost simulates the fact that AI can be gone if there are major or minor system failures. It can also render the user “super human” when leveraged in a good way to enhance human capacity. This reflects earlier classroom discussion about Mollick’s centaur metaphor for human/AI collaboration. Starship is the same concept, I think.	I am curious to know if UATX has figured out a way to operationalize the Cloister/Starship idea or if it remains just an idea!
End: “I’m also curious about Ferguson’s	Herein lies the rub. How do you test for	Mollick’s "15 Times to Use AI, 5 Times Not	Who is the Ferguson that he is referring to? See

idea on admissions: ‘Revise admissions procedures to ensure the university attracts students capable of coping with the discipline of the cloister as well as the opportunities of the starship.’"	integrity and the desire to use restraint when tempted with the multitude of AI tools?	To" is a great example of a list/advice blog, but it seems like creating an actual admissions policy around personal boundaries and usage styles would be exceedingly hard to do in practice.	below.

AI Employed/Specifically How:

I asked ChatGPT 5.1 “Are any American Universities currently using the Cloister Spaceship framework?

Chat replied (excerpt):

I couldn’t find credible **public documentation** showing that University of Austin (UATX) is currently *formally testing* the “Cloister and the Starship” framework in a structured research or pilot-program format.

Notable UATX early supporters, advisors, or co-founders included:

- **Niall Ferguson** (historian)
- **Bari Weiss** (journalist)
- **Peter Boghossian**, **Kathleen Stock**, **Steven Pinker**, etc.

They were motivated by concerns that existing universities face ideological pressure, bureaucratic expansion, and limits on debate.

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I asked ChatGPT 5.1 “Who is Bryan Alexander referring to when he talks about Ferguson?”

ChatGPT replied (excerpt):

Bryan Alexander frequently cites Niall Ferguson in his futurism and higher-education work because:

- Ferguson wrote ***The Square and the Tower*** (about networks vs. hierarchies)
- He discusses civilizational change and technological shifts
- He has written on education, universities, and the future of institutions
- Alexander regularly engages with historians who analyze long-term societal transitions

In the “cloister and the starship” context, Ferguson fits perfectly because Alexander is contrasting **monastic traditions** with **future-facing technological exploration**—a frame Ferguson often uses when discussing institutions, progress, and collapse.

Author & Title: Chen, B. "How AI and Social Media Contribute to 'Brain Rot.' " New York Times			
Summary	**Analysis**	**Synthesis**	**Need to Know**
Early: “I’m pretty frightened, to be frank,” *Dr. Melumad said. “I’m worried about younger folks not knowing how to conduct a traditional Google search.” *A professor at UPenn’s Wharton School.	I find this worry humorous because I’m sure people not so long ago worried that younger folks wouldn’t know how to use a printed dictionary, encyclopedia or thesaurus.	This calls to mind Bogost’s "College Students Have Changed Forever” piece. When I Google now, I get AI responses, so really in my opinion, traditional Google searches are a thing of the past.	Is it possible to turn off the AI summary on Google??
Mid: “The students who had originally relied only on their brains recorded the highest brain activity once they were allowed to use ChatGPT. The students who had initially used ChatGPT, on the other hand, were never on a par with the former group when they were restricted to using their brains, *Dr. Kosmyna said.” * the research scientist at M.I.T. Media Lab who led	I had heard about this study a few months ago and found the results sad, but understandable. It is much harder for me to recall what I have read vs. what I have written myself.	Again, this type of research is fodder for Bogost, Sano-Franchini and anyone else in the refusnik camp.	What is M.I.T.’s current AI usage policy? See below.

the study			
End: So perhaps the key to using A.I. in a healthier way, she said, is to try to be more mindful in how we use them.	This is a rather common sense conclusion, but I do find it interesting that AI enhances brain activity in students who did not initially use AI to complete an assignment.	While I find the term "brain rot" to be click bait, this article is compelling and reminds me of some of the points made by Gladwell (21'50") when his father couldn't prevent his students from using calculators so he simply made his tests more conceptual. In this case, solving a problem without a calculator and then using it to check your work may be the equivalent in terms of brain activity.	Is there a mindfulness based approach to technology and AI taught by any of the MBSR institutes? See below.

AI Employed/Specifically How:

I asked ChatGPT 5.1 "What is MIT's current AI usage policy?"

Chat replied (excerpt):
If you are using AI tools for **teaching**, MIT's IS&T page "Guidance for use of Generative AI tools" is the go-to. Information Systems & Technology+1

If you are using AI in **research**, especially with human-subjects or sensitive data, follow COUHES guidance and check for institutional policies for data, consent, model usage. couhes.mit.edu

Always check with the specific department or unit (lab, center, course) since there may be **additional or more stringent rules** beyond the general MIT guidance.

***
Chat replied (excerpt):

What *does* exist

There *are* AI + mindfulness courses out in the wild, just not from the classic MBSR centers:

- **British Mindfulness Institute – "Mindful AI" professional training**
  A course explicitly about mindful use of AI for professionals. It's mindfulness-based, but not presented as a formal Kabat-Zinn-style MBSR program. British Mindfulness Institute

- **Professional Certificate in Mindfulness for Artificial Intelligence Studies (LSIB/UK)**
  A certificate that blends AI topics with mindfulness practices, aimed at tech and

mental-health professionals. Again, not a traditional MBSR institute. London School of International Business

- **"AI-Powered Stress Relief and Mindfulness" (Teacher Academy Europe)**
  A one-week course for educators that combines AI, stress management, and mindfulness. Europass Teacher Academy

By contrast, the big, recognizable MBSR providers (e.g., University of Minnesota's Earl E. Bakken Center, UMass-linked centers) are still offering the **classic 8-week MBSR curriculum**—mindfulness, body scan, yoga, stress reactivity, etc.—without an AI/tech-specific framing. Bakken Center for Spirituality & Healing+1

Bottom line

- **From core MBSR institutes:** no clearly advertised "mindfulness-based approach to technology and AI" course yet.
- **From other providers:** yes, there are emerging **AI + mindfulness trainings**, but they sit *next to* the MBSR tradition rather than inside the canonical MBSR institutes.

If you'd like, I can help you **sketch a syllabus** for a "Mindfulness, Technostress, and AI" course that *does* follow MBSR principles, so you could propose or pilot it at a school or university.

Free Write 11/25 Classwork

What will be the biggest change that AI poses for higher education? Why?

The biggest change AI has posed for higher education appears to be reading and writing assignments. At first I thought this was a huge compromise, but after experiencing a semester of this "new normal," I believe I'm still learning albeit at a different pace and in a more collaborative manner. Reading and writing intensive classes felt like a more internal process that took place between the learner and the instructor. This semester, I feel like my classes are on a learning journey together with more in-class discussion and small group work. Writing tends to be more reflective or in short bursts. Whether this is to accommodate shorter attention spans or "busier" schedules, it also makes sense given AI's ability to create written content and provide summaries of large volumes of reading. Higher education's pivot toward equipping students with collaborative skills and the ability to analyze and apply their learning to novel situations and problems feels appropriate for the time we are living in.

Slide Show Prompt / TEDTalk

How can we best integrate AI or refuse it, given the arguments made by Alexander and Chen?

1. TITLE SLIDE - “Courage, Collaboration, Curiosity: Guiding UR’s AI Future”
2. REFINE: Continue to refine AI-use policy campus wide creating a more consistent experience across courses to ensure students understand rules and expectations.
3. FOSTER: Continue to foster a community of trust and respect for how individuals decide how to incorporate AI into their academic and personal lives.
4. GUIDE: Provide guidance in the form of seminars or short courses as AI evolves and new applications and tools become available.
5. MONITOR: Keep an eye on what is working at other universities in the US and in other countries.
6. COLLABORATE: Continue to help students develop their soft skills in addition to their technical skills. Soft skills may be more prized in workplaces that integrate AI to do some of the work previously done by humans.