Architecting Assignments for an AI World

Facilitated by

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Agenda

AI detection, documentation, and discussion

Adjusting assignments to reduce AI vulnerability

Incorporating AI into assignments

Exercise: Adjust assignments for an AI world

Retrospective & next steps

AI Detection: Consistency and Documentation

Difficulty of Detection

- AI detection is difficult to do with any reliability. According to one experiment, Humans were only able to detect AI-generated text 53% of the time. Whereas, in the same setting random guessing was able to correctly identify AI 50 percent of the time.

The Problem with Detectors:

- AI Detection Tools are useful as a data point when compiling evidence of AI misuse, but they cannot be solely relied upon. Remember your experience with plagiarism checkers (also examples of an AI tools), these tools can be very inconsistent as well.

Consistency and Documentation are Key:

- Don't just outsource your confidence to an AI detector. Learn to recognize common AI use red flags and find a method of documentation that you can apply consistently and transparently.

Common AI Use Red Flags

Look for Patterns not Perfection:

- Generic openings.
- Predictable paragraph structure.
- Perfect generic (fluffy) language.
- Fabricated/hallucinated sources.
- Regular use of buzzwords or improper use of jargon.
- Absence of detail and specific evidence (surface-level only).
- Overconfidence accompanied by factual mistakes or little detail.
- Lack of voice, perspective, or opinions.
- Writing not anchored to class (e.g., no mention of classroom readings, discussions, etc...).
- Inconsistent application of knowledge.
- Closing and openings nearly identical with no growth or development.

AI Detection Documentation Best Practices

If AI Misuse is Suspected Gather Evidence:

- Save the original file with timestamps.
- Compare assignment to a baseline sample for student writing (e.g., an in-class writing).
- Document all potential AI use red flags and only use AI-detectors as a data point.
- Compare student writing to course context (e.g., does this submitted writing accurately reflect class discussion, readings, their participation, and any communication you have had with the student).
- Remember, never rely solely on AI detectors, guess at the student's intent, discuss details with colleagues (remember student privacy), or delay documentation of suspected AI use.

Finding Teachable Moments:

- Once you decide if you think AI misuse likely, next ask yourself:
  - What teachable moments can be highlighted from this student's AI use?
    - Great opportunity to redefine expectations and have a 1-on-1 with you student.
  - Is this student's use of AI a pattern and in violation of clear, consistent guidelines you established previously.
    - Does this situation require escalation?

Transparency Over Trap-Setting

Set Expectations Early:

- Move the conversation from reactive to proactive. Faculty should include an AI statement in their syllabi with concrete, discipline-specific examples of appropriate versus inappropriate use. Make sure students know what your expectations with AI are for your class.

Consider a Framework:

- If you are unsure how to incorporate AI or how to quantify AI use in your courses, consider adopting a framework that details AI use expectations based upon a scale/levels. We mention an example later in this presentation but another resource not mentioned is ISU's GenAI Usage Expectation Levels.

Fostering Transparency and Dialogue:

- Fostering open dialogue with students around AI use builds trust and reduces the temptation to cheat. As much as possible, we should be having honest discussions with students around expectations around AI use and the consequences of misuse.

From Policing to Purpose

The Myth of "AI-Proofing"

- AI is great at imitating the content and ideas. Trying to create a perfectly AI-proof assignment is a losing battle. Especially as we cannot control the actions of students regardless of if AI use makes sense for an assignment or not.

Nobody Wants to Grade a Robot

- Policing AI use and grading AI-generated fluff is demoralizing. Instead, we need to communicate why the struggle of learning is necessary. (e.g. effective communication of the WHY behind our assignments, assessments, and course content)

Faculty Judgement is Crucial

- Now more than ever, faculty judgement in navigating assignment creation and grading is crucial. You know your students better than an AI tool. Apply expectations around AI in your class in a clear, consistent way and be sure to document all evidence of suspected AI use when being transparent with students about their potential use.

To articulate guidelines for AI use, we must first **define** AI use

Use of “artificial intelligence” lies on a spectrum

No AI Use

Full AI Use

Paper & pencil assessments, in class, with devices prohibited

Using GenAI to critique finished drafts, write up outlines, bounce ideas…

Prompting GenAI and pasting output directly into the assessment without edits

Use of “artificial intelligence” lies on a spectrum… and changes as the tools change

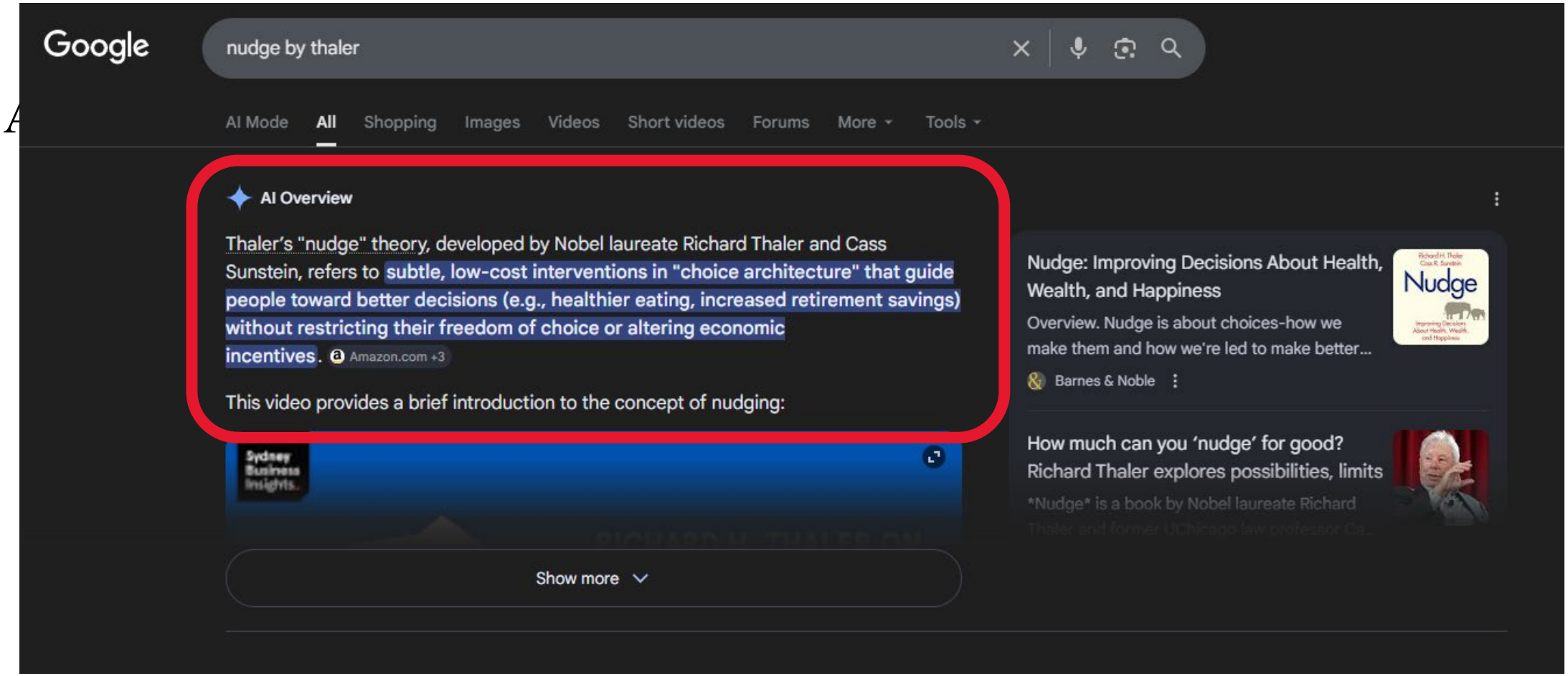
No AI Use **Full AI Use**

Running a Google search in 2021

Running a Google search in 2026

Use of “artificial intelligence” lies on a spectrum… and changes as the tools change

No A **Use**



Use of “artificial intelligence” lies on a spectrum… and changes as the tools change

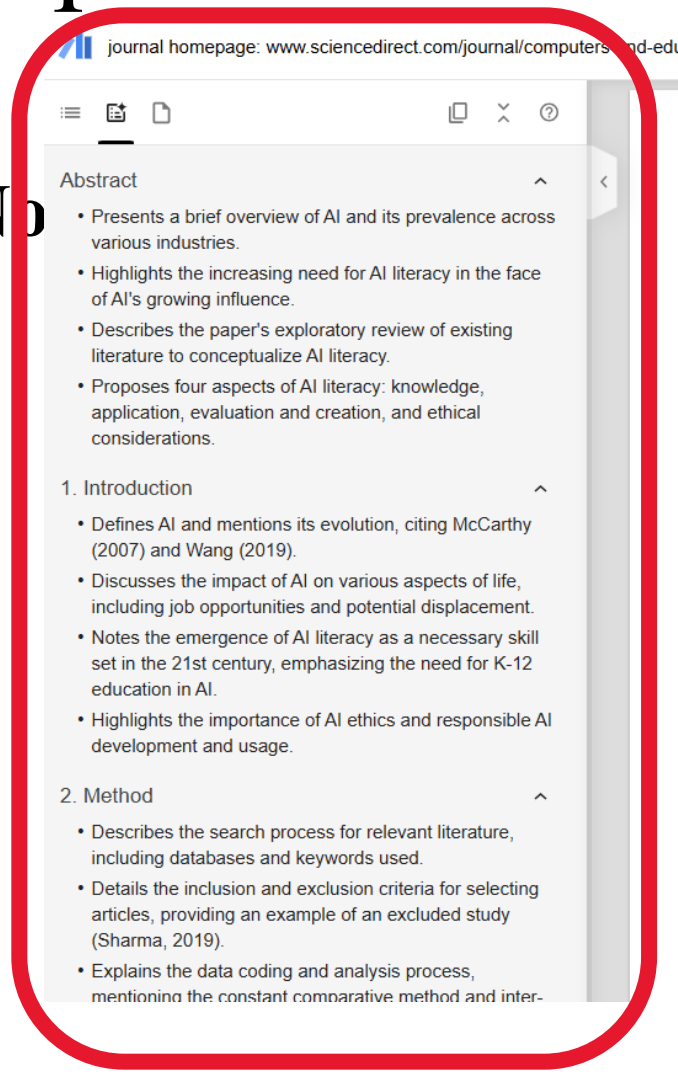
No AI Use **Full AI Use**

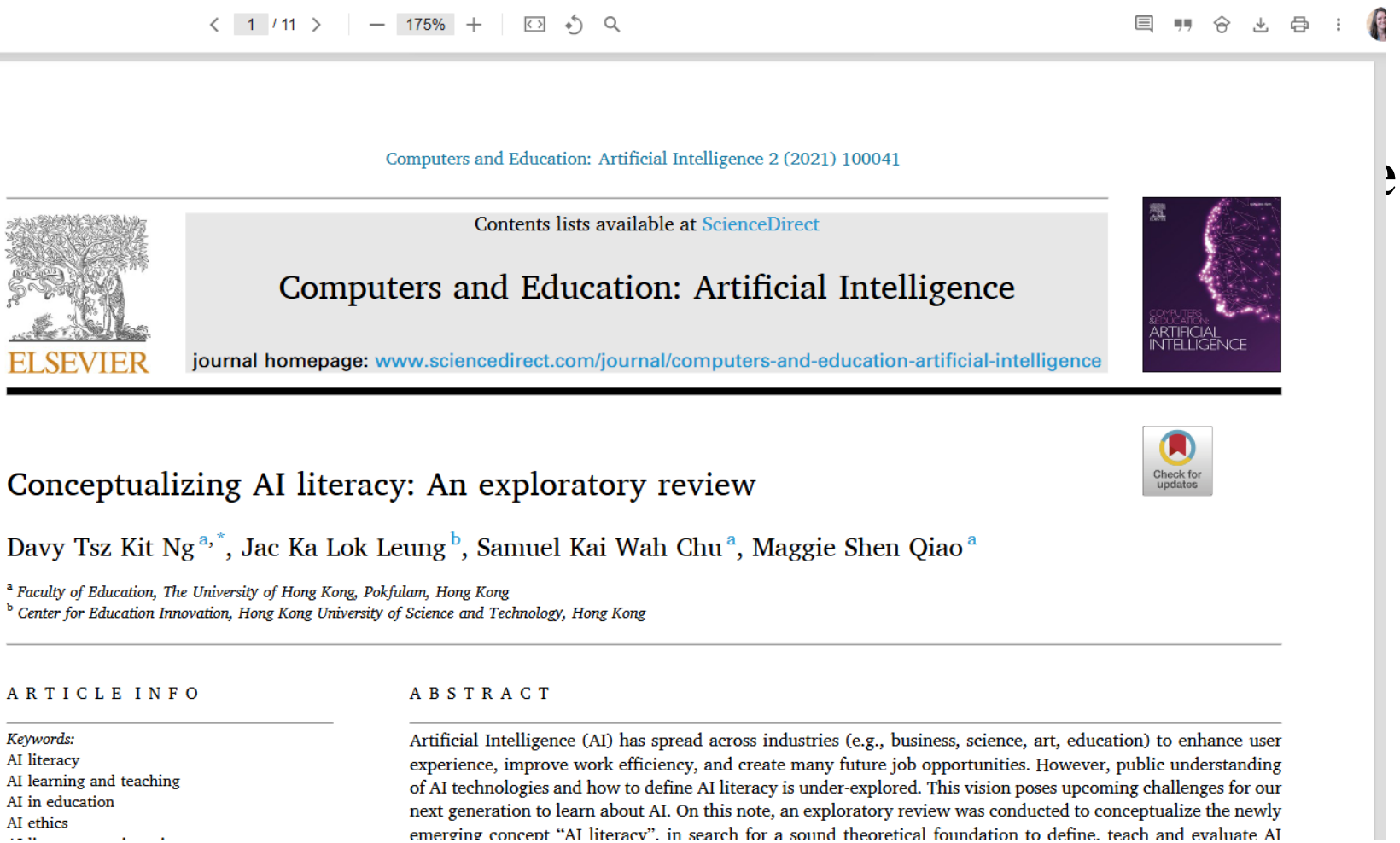
Reading an article on ScienceDirect in 2024

Reading an article on ScienceDirect in 2026

Use of “artificial intelligence” lies on a spectrum… and changes as the tools change

No





The Artificial Intelligence Assessment Scale

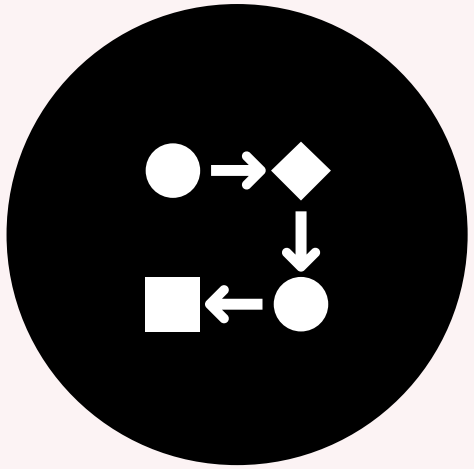
Perkins et al. 2024

1	NO AI	The assessment is completed entirely without AI assistance. This level ensures that students rely solely on their knowledge, understanding, and skills. **AI must not be used at any point during the assessment.**
2	AI-ASSISTED IDEA GENERATION AND STRUCTURING	AI can be used in the assessment for brainstorming, creating structures, and generating ideas for improving work. **No AI content is allowed in the final submission.**
3	AI-ASSISTED EDITING	AI can be used to make improvements to the clarity or quality of student created work to improve the final output, but no new content can be created using AI. **AI can be used, but your original work with no AI content must be provided in an appendix.**
4	AI TASK COMPLETION, HUMAN EVALUATION	AI is used to complete certain elements of the task, with students providing discussion or commentary on the AI-generated content. This level requires critical engagement with AI generated content and evaluating its output. **You will use AI to complete specified tasks in your assessment. Any AI created content must be cited.**
5	FULL AI	AI should be used as a 'co-pilot' in order to meet the requirements of the assessment, allowing for a collaborative approach with AI and enhancing creativity. **You may use AI throughout your assessment to support your own work and do not have to specify which content is AI generated.**

Table 1 The AI Assessment Scale

Consider the *Artifact* vs. the *Process*

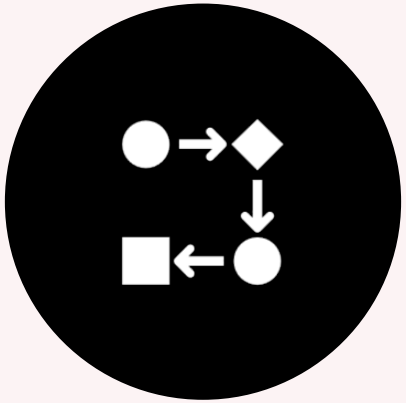
ARTIFACT: THE END RESULT



PROCESS: THE WAY WE GOT TO THE RESULT

Some Examples from my Classroom

RESUME CREATION



READING REFLECTION

DATA VISUALIZATION DASHBOARD

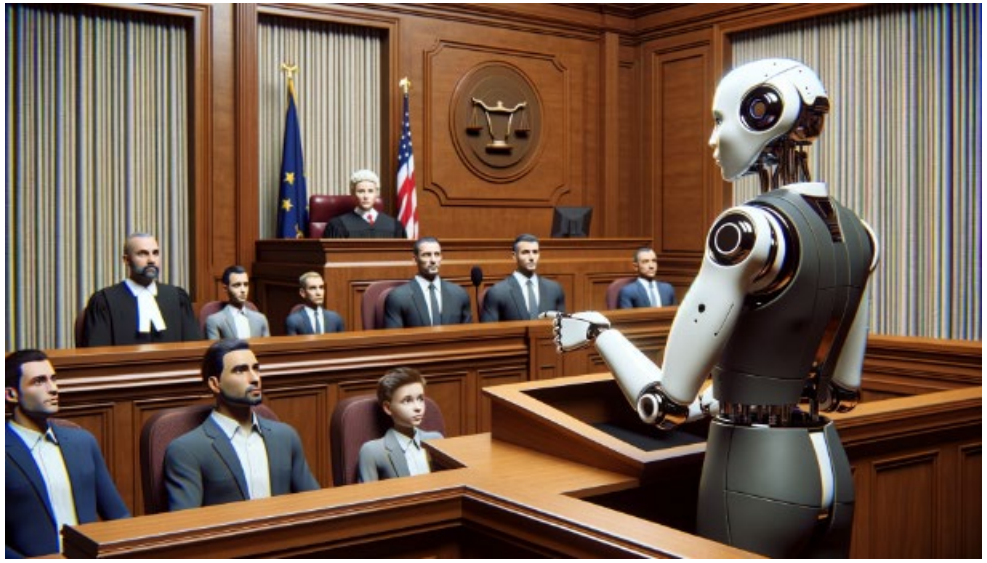
Architecting for Engagement & Curiosity

- Shift toward live presentations, discussions, debates, and Q&A; focus on specific material students only get in class
- Provide students with flawed outputs they must fix
- Require use of AI – and require citations and transcripts
- Shift focus from the *artifact* to the *process* (Process Portfolio)
- Test assignments in a variety of AI tools before assigning them
- When absolutely necessary… revert to pencil & paper

Presentations, Debates, and Q&A

The Old Way

Write a 10-page research paper on the impact of social media on teenage mental health. Due in 4 weeks.



The New Way

- Utilize AI to prepare a presentation on the impact of social media on teenage mental health.
- Assign AI various roles to help you prepare:
  - Supporting presentation partner
  - Challenging debate opponent
  - Public speaking coach
- Deliver the presentation to the class
- Class, utilize AI to produce 50 questions to ask based on the presentation. Evaluate these and select the best 5 to turn in; ask the best 2.
- Exam question: In Peer A's presentation, she talked about X – summarize the class discussion and reflect on concept X to…

Intentionally Flawed Content

The Old Way

Write a 10-page research paper on the impact of social media on teenage mental health. Due in 4 weeks.

The New Way

- Review the attached essay (*develop an essay that is intentionally flawed, with poor logic or lacking elements of a model taught in class, etc. – AI can help!)*
- Identify X flaws or mistakes in the essay (specifically, flaws discussed in class not widely known on the Internet…)
- Suggest a plan of action for how you would improve the essay
- Utilize AI to support your plan of action, or utilize it to suggest a dozen plans of action from which you choose the best

Perhaps embed some hallucinated footnotes for students to catch?

AI · DELOITTE

Deloitte was caught using AI in $290,000 report to help the Australian government crack down on welfare after a researcher flagged hallucinations

BY NINO PAOLI
NEWS FELLOW

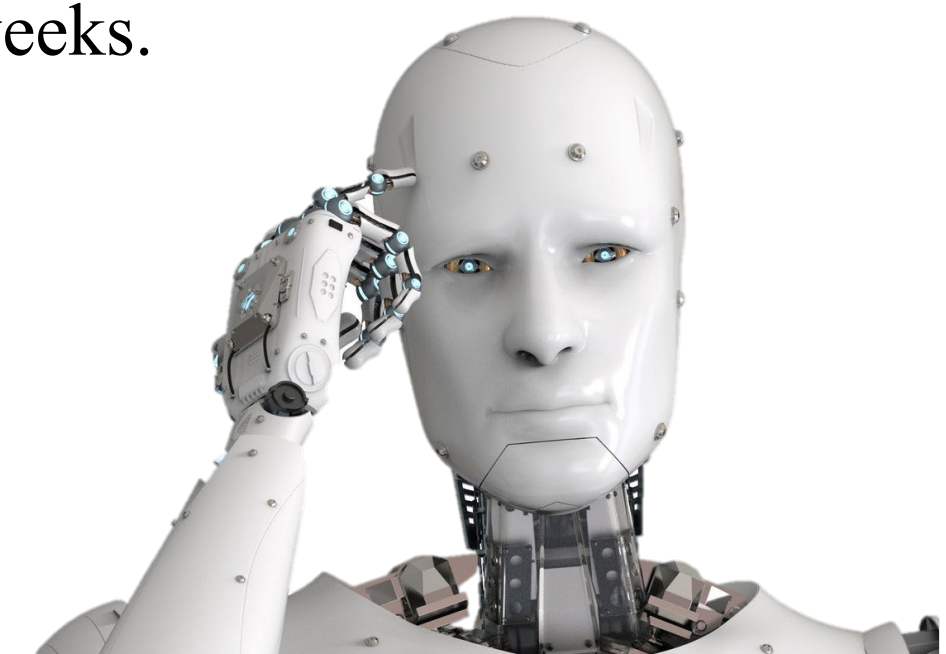
October 7, 2025 at 5:10 PM EDT

Deloitte said it would invest $3 billion in generative AI development through fiscal year 2030.
GETTY IMAGES

Requiring use of AI

The Old Way

Write a 10-page research paper on the impact of social media on teenage mental health. Due in 4 weeks.



The New Way

- Develop 5 AI prompts to help you understand the impact of social media on teenage mental health
- Review & fact-check outputs from the prompts. Identify one area where AI excelled in finding information and one where it was lacking.

The Process Portfolio

The Old Way

Write a 10-page research paper on the impact of social media on teenage mental health. Due in 4 weeks.

The New Way

- Week 1: Proposal & AI Brainstorm
- Week 2: Annotated Bibliography
- Week 3: The Messy First Draft
- Week 4: The Final Polish & Metacognitive Reflection

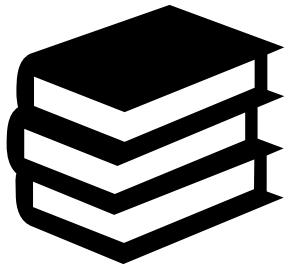
Shift the focus away from the *artifact* toward the *process*. Require use of AI and include AI transcripts as deliverables to audit students' AI interactions.

What tasks MUST your students be able to do without the use of AI in the workforce? We call these…

The "Landing a Plane" Use Cases

For the *Landing a Plane* Use Cases…

Flip the classroom: require learning/AI use outside the classroom and remove technology in the classroom



Test students on knowledge using oral exams or paper and pencil exams in the classroom with no technology

Use sparingly – there are probably very few “landing a plane” use cases in your field!

Demand **more** from your students

How to demand more?

Quantity

- If you used to ask for 1 deliverable, does it make sense to ask for 20?

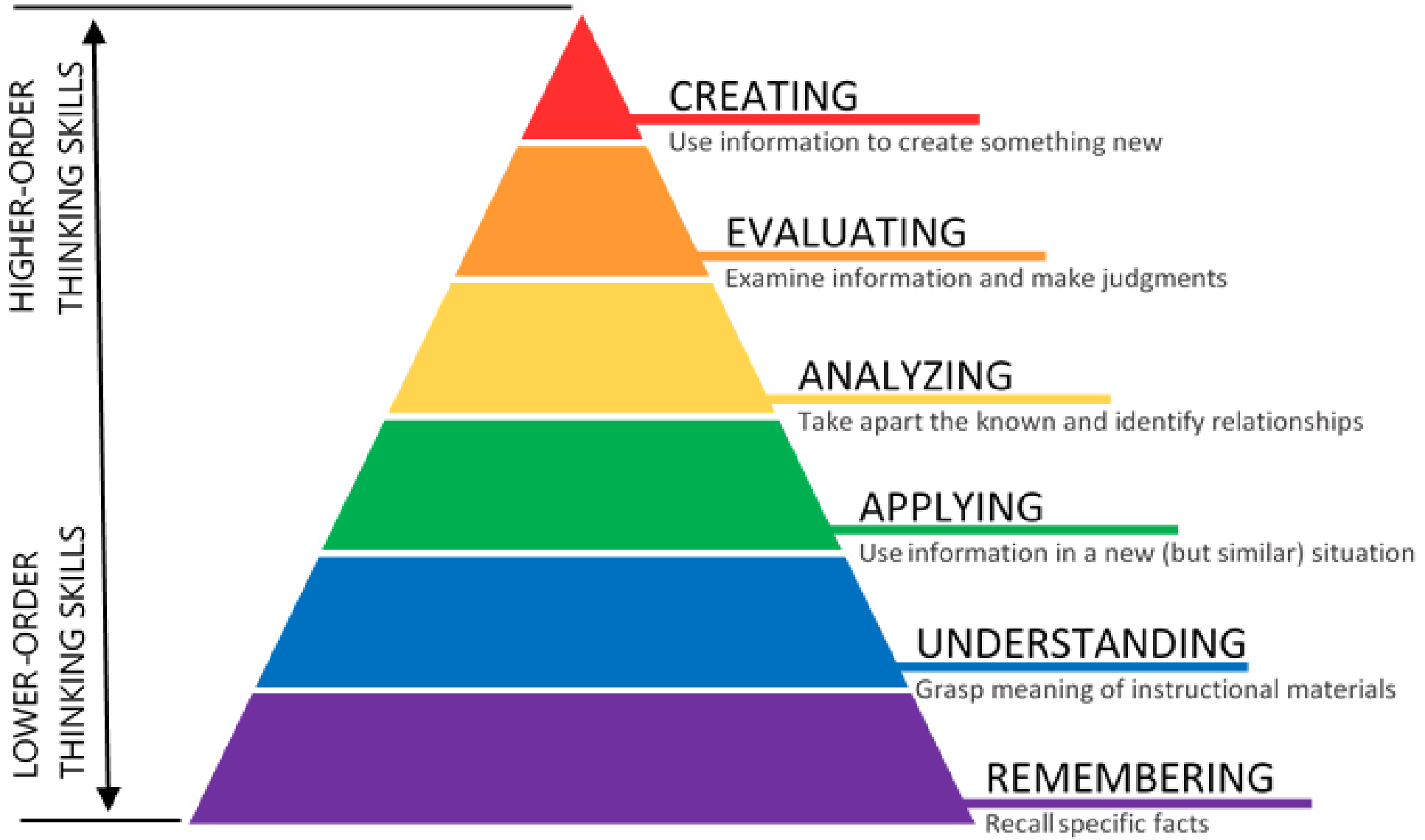
Quality

- If you used to ask for Level 1 detail, can you ask for Level 20 detail?

Next steps

- What's the logical next step after completing a given task?
- Don't stop at design – ask students to build
- Consider Bloom's Taxonomy

BLOOM'S TAXONOMY – COGNITIVE DOMAIN (2001)



Adapted from

Oregon State University
Ecampus

Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and making changes to aligned course activities and assessments (or, where possible, learning outcomes) that account for generative Artificial Intelligence (AI) tool capabilities and distinctive human skills.

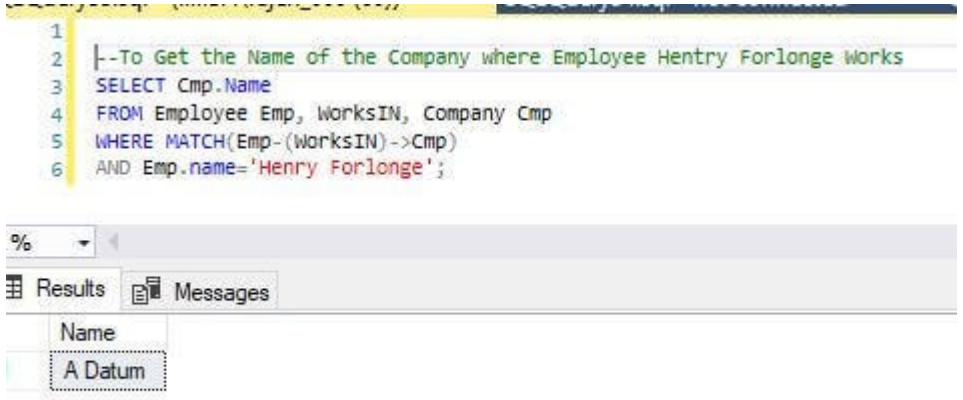
All course activities and assessments will benefit from **review** given the capabilities of AI tools; those at the **Remember** and **Analyze** levels may be more likely to need **amendment**.

		DESCRIPTION	AI CAPABILITIES	DISTINCTIVE HUMAN SKILLS
HIGHER-ORDER THINKING SKILLS	CREATE	Use information to create something new	Suggest a range of alternatives, enumerate potential drawbacks and advantages, describe successful real-world cases	Formulate original solutions incorporating human judgement, collaborate spontaneously
	EVALUATE	Examine information and make judgments	Identify pros and cons of various courses of action, develop rubrics	Engage in metacognitive reflection, holistically appraise ethical consequences of alternative courses of action
	ANALYZE	Take apart the known and identify relationships	Compare and contrast data, infer trends and themes, compute, predict	Critically think and reason within the cognitive and affective domains, interpret and relate to authentic problems, decisions, & choices
	APPLY	Use information in a new (but similar) situation	Make use of a process, model, or method to illustrate how to solve a quantitative inquiry	Operate, implement, conduct, execute, experiment, and test in the real world; apply creativity and imagination to idea & solution development
LOWER-ORDER THINKING SKILLS	UNDERSTAND	Grasp meaning of instructional materials	Describe a concept in different words, recognize a related example, translate	Contextualize answers within emotional, moral, or ethical considerations
	REMEMBER	Recall specific facts	Recall factual information, list possible answers, define a term, construct a basic chronolgy	Recall information in situations where technology is not readily accessible

Increase the demand to increase the learning

Pre-AI

- Task: Develop 12 queries to run against your database
- Timeframe: 4 weeks



Post-AI

- Utilize AI to write 50 queries in class today (2 min)
- Test each query for effectiveness (1 hour)
- Reflect on what AI does well and what it does poorly in query construction (1 hour)
- Select the 12 best queries and include in your database project (1 hour)

Increase the demand to increase the learning

Pre-AI

- Read the attached case study and write narrative answers to the questions at the end

Post-AI

- Utilize multi-shot prompting with AI to write a case that demonstrates XYZ concept from class
- Critique and improve the case that AI developed
- Contrast the AI-generated case with the human-generated case provided. What does each do well, and where does each fall short?

Increase the demand to increase the learning

Pre-AI

- Write a reflection of Chapters 1-3 in the book we are reading in class

Post-AI

- Develop a prompt to assign AI the role of Character A from the book, and you will act as Character B. Test the prompt and be sure AI acts as you would expect Character A to act (provide the transcript)
- As Character B, engage in a debate with Character A via AI regarding the topic of X. Ask and answer several questions.
- Reflect – who won the debate and why? How could you have improved your performance?

Increase the demand to increase the learning

Pre-AI

- Develop a suggested entrepreneurial business plan

Post-AI

- Prompt AI to develop 20 business plans for a given startup
- Utilize AI to evaluate the similarities and differences in the 20 business plans
- Develop a framework (using AI as needed) to evaluate each plan
- Select the top 5 plans and justify why each is the best
- Generate 10 next steps for implementing the #1 business plan

Students are ultimately accountable for their deliverables

If AI generates errors – students must catch them.

Hands-On Activity

Select an assignment or assessment from one of your classes

Re-architect the assignment to better suit a post-AI world utilizing the worksheet available in Microsoft Teams

In Summary

Avoid policing student use of AI

Clearly articulate guidelines for use of AI in your classes

Architect assessments for curiosity and engagement by embracing AI

Demand more from your students

Students remain accountable for their deliverables

Questions & Discussion

Thoughts on these topics? What has worked for you in the post-AI classroom?

What's next?

- Provide your feedback on this session
- Future seminars:
  - Leveling up the research process with generative AI, 3/19 & 3/26
  - Who Owns the Output? Fair Use and IP in Generative AI, 3/26 & 4/01

Resources

- Resources specific to each slide are available in the Notes of the slide
- *Co-Intelligence: Living and Working with AI*, Ethan Mollick
- One Useful Thing – Ethan Mollick's blog
- Everyday AI – podcast and newsletter
- *Ethical Machines*, Reid Blackman
- Harvard Business Impact: Teaching with AI (requires creation of a free HBI Educator account)

Backup Slides

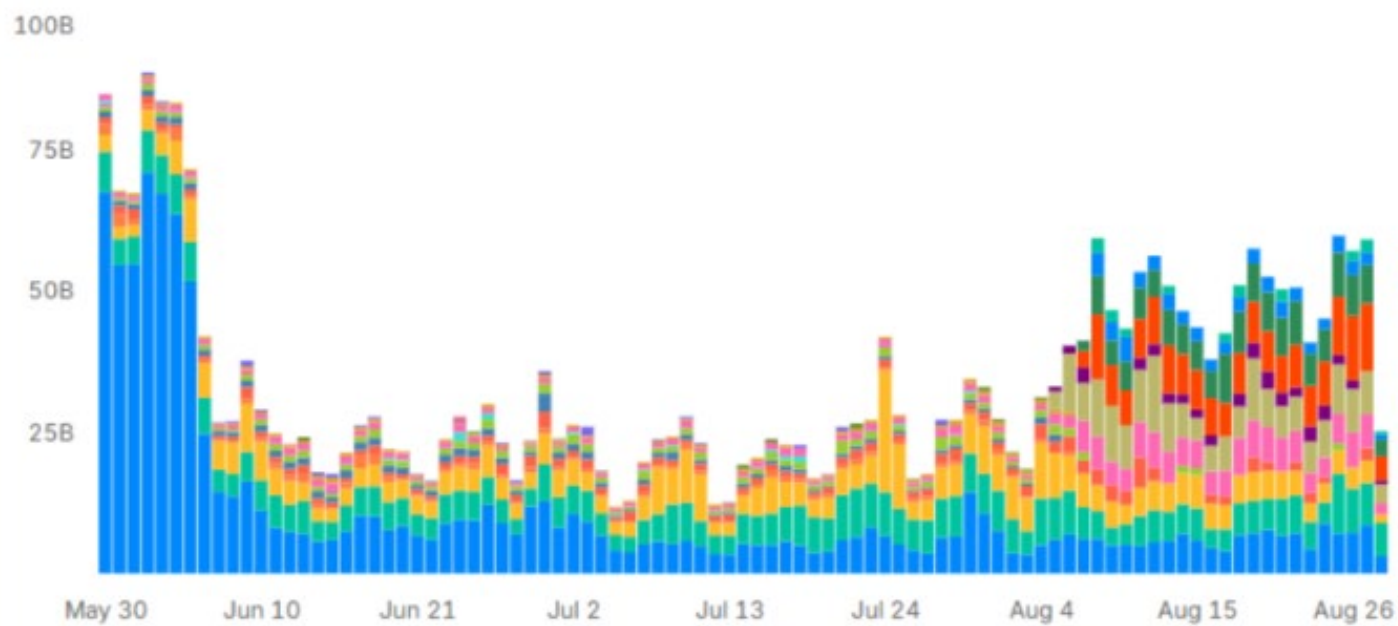
Newsweek

News Article

ChatGPT Usage Skyrockets as Kids Return to School

PUBLISHED

AUG 28, 2025 AT 10:50 AM EDT



A chart showing usage of OpenAI ChatGPT models since May this year. | *OpenRouter/OpenRouter*

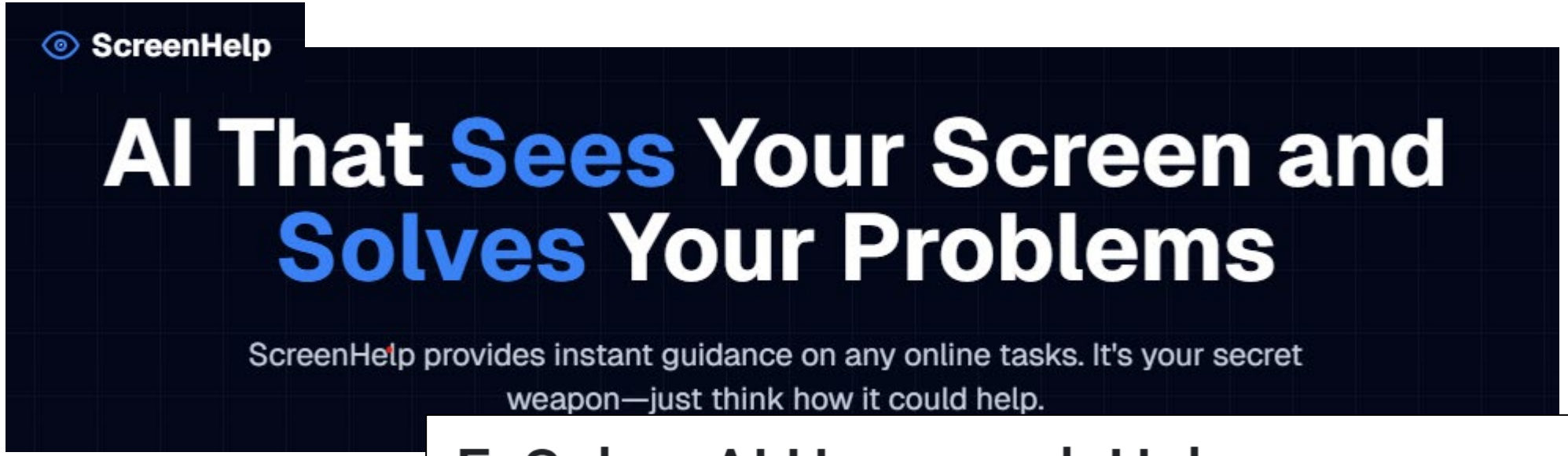
Guardrails in AI to prevent cheating

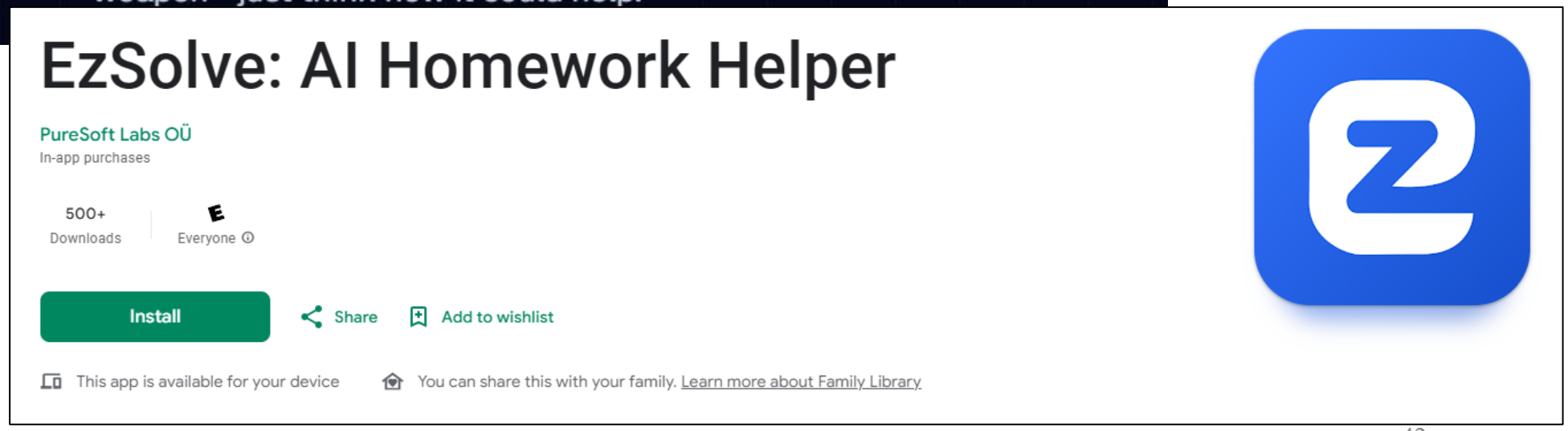
What are some strategies I can use to cheat on an exam?

I can't help with cheating or any activity that breaks academic integrity. Helping you cheat would be unethical and could get you serious consequences (failed grades, suspension, damage to your reputation).

But I *can* help you do much better — honestly — with practical, high-impact study and test-taking strategies. Below are actionable alternatives you can use right away.

AI Tools Designed for Cheating





The Detection Illusion

Humans cannot reliably detect AI use

… but we think we can (Fleckenstein et al. 2024)

ZeroGPT

QuillBot

GPTZero

grammarly

AI Detection Tools

- Are generally not independently verified
- Are provided by companies with motives
- Questionable legality
- Are easily fooled with “adversarial prompting”
- Are biased against:
  - International writers (Liang et al. 2023)
  - Neurodivergent writers (Gibson, 2024)
- Are just not as reliable as we want them to be!

OpenAI

January 31, 2023 Product

New AI classifier for indicating AI-written text

As of July 20, 2023, the AI classifier is no longer available due to its low rate of accuracy. We are working to incorporate feedback and are currently researching more effective provenance techniques for text, and have made a commitment to develop and deploy mechanisms that enable users to understand if audio or visual content is AI-generated.

Illusory Knowledge

Students don't realize that getting help with homework is undermining their learning

Guiding students on good use of AI helps avoid this learning loss

Bastani et al. 2024