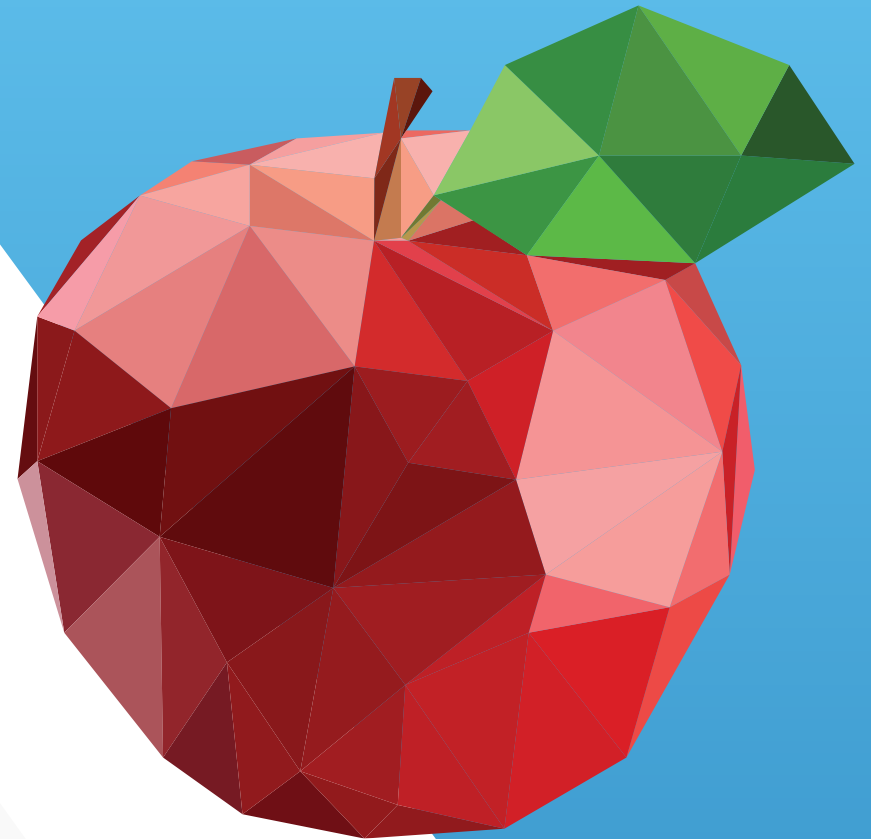
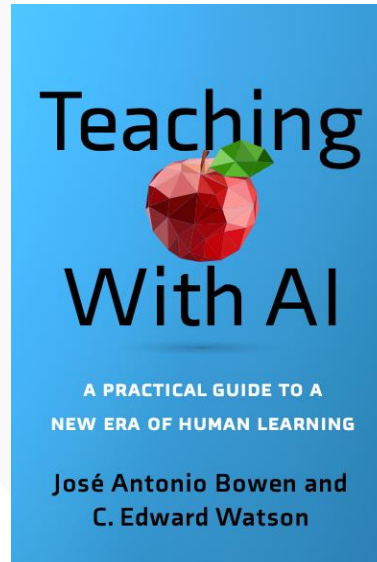
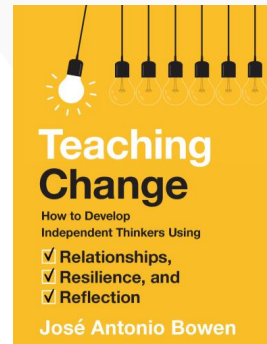
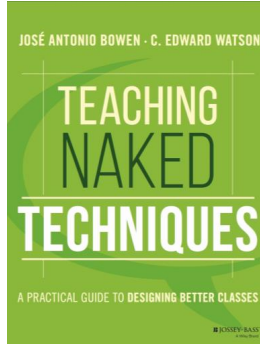
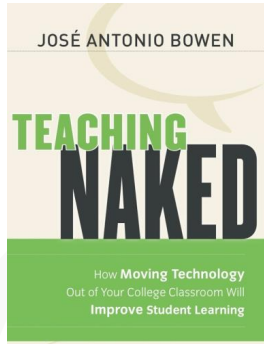


# José Antonio Bowen



## Teaching *with* AI



Handout and/or Slides with Citations  
<https://teachingnaked.com/handouts/>



**WORKING & THINKING**

**COMMUNICATION & RELATIONSHIPS**

**AI ECOSYSTEM - Cool Tools**

**AVERAGE**

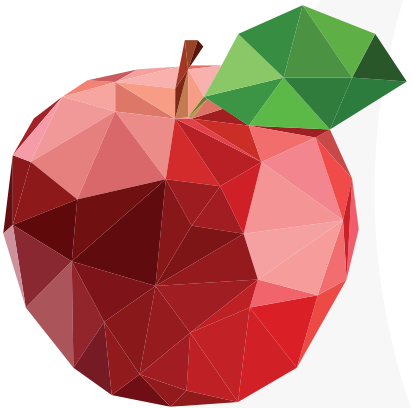
**CREATIVITY**

**ASSIGNMENTS & ASSESSMENT**

# AI is Changing **WORKING & THINKING**

## **AI Literacy**

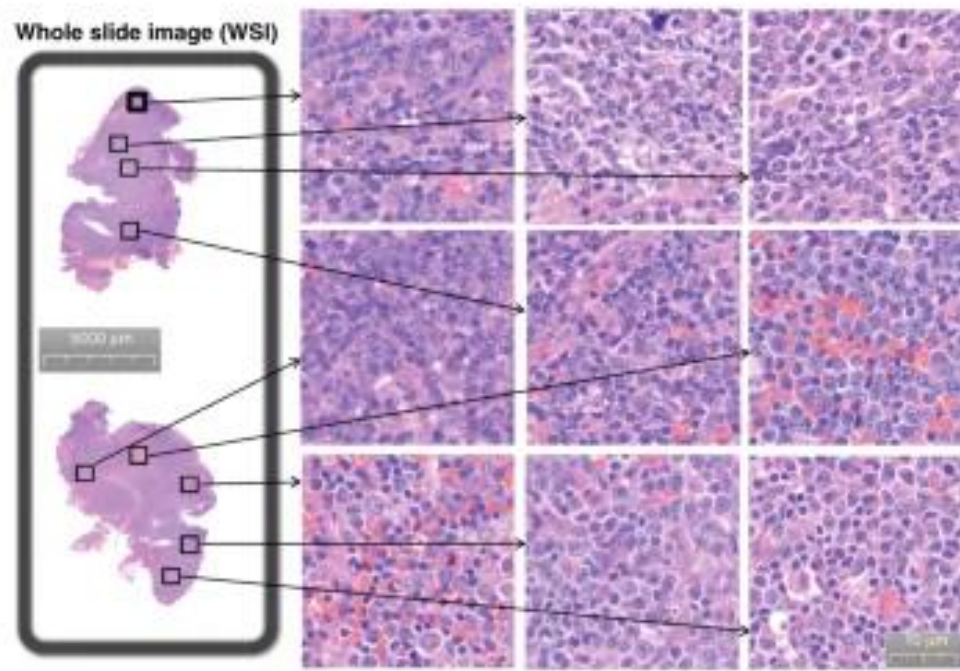
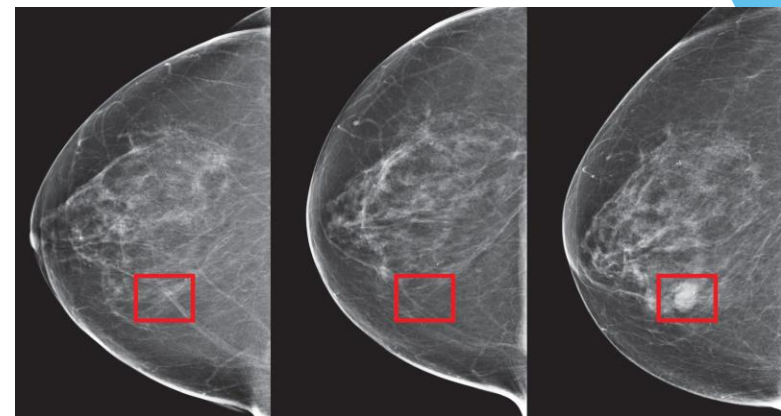
**What can AI do?**



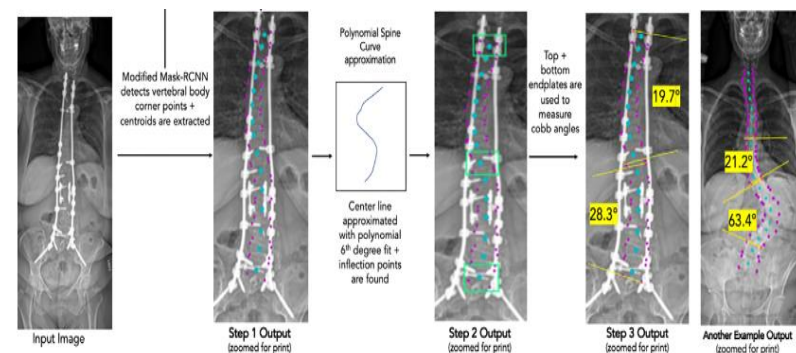
# AI Diagnosis can be BETTER



“AI detected **20% more cancers** than were found using the conventional procedure, without increasing the number of false-positive readouts.”



Lung Cancer  
Breast Cancer  
Scoliosis  
Lymphoma  
Clinical Reasoning

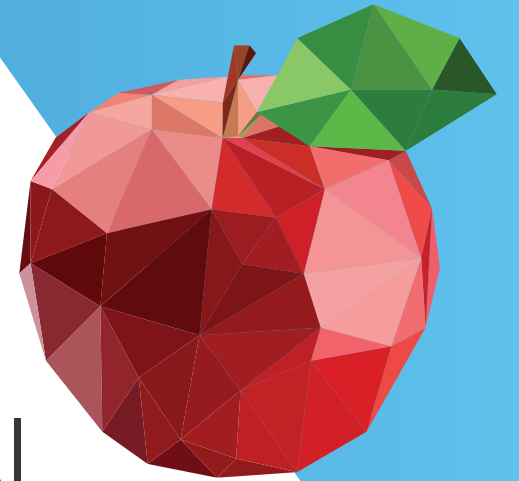


- 149 actors playing patients texted live with AMIE (Google medical AI) or human doctors.

- **Human doctors** listened and rated the AI as BETTER in 28 out of 32 characteristics and tied on the other 4.

- **Patients** rated the AI better on 24 of 26 scales of empathy and judgement.

- BEFORE GPT 4o



# LLMs outperform Junior Lawyers & Legal Process Outsourcers in determination & location of legal issues in contracts

**99.97%** reduction in cost

“a seismic shift in legal practice”

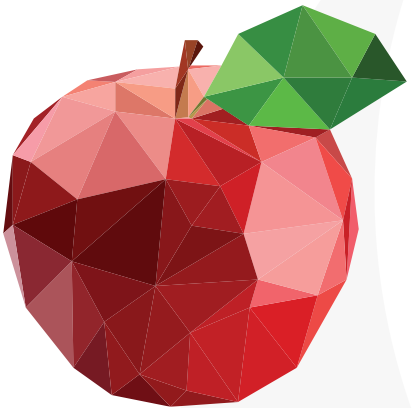
	<b>Time</b> (minutes)	<b>Cost</b>	<b>F-Score</b> Precision + Reliability
Senior	43.46	\$75.92	Benchmark
Junior	56.17	\$74.26	0.860
LPO	201.00	\$36	0.874
GPT4	4.7	<b>\$0.25</b>	0.871

**“so you can do more of what AI can't.”**

# Better and faster bug fixes



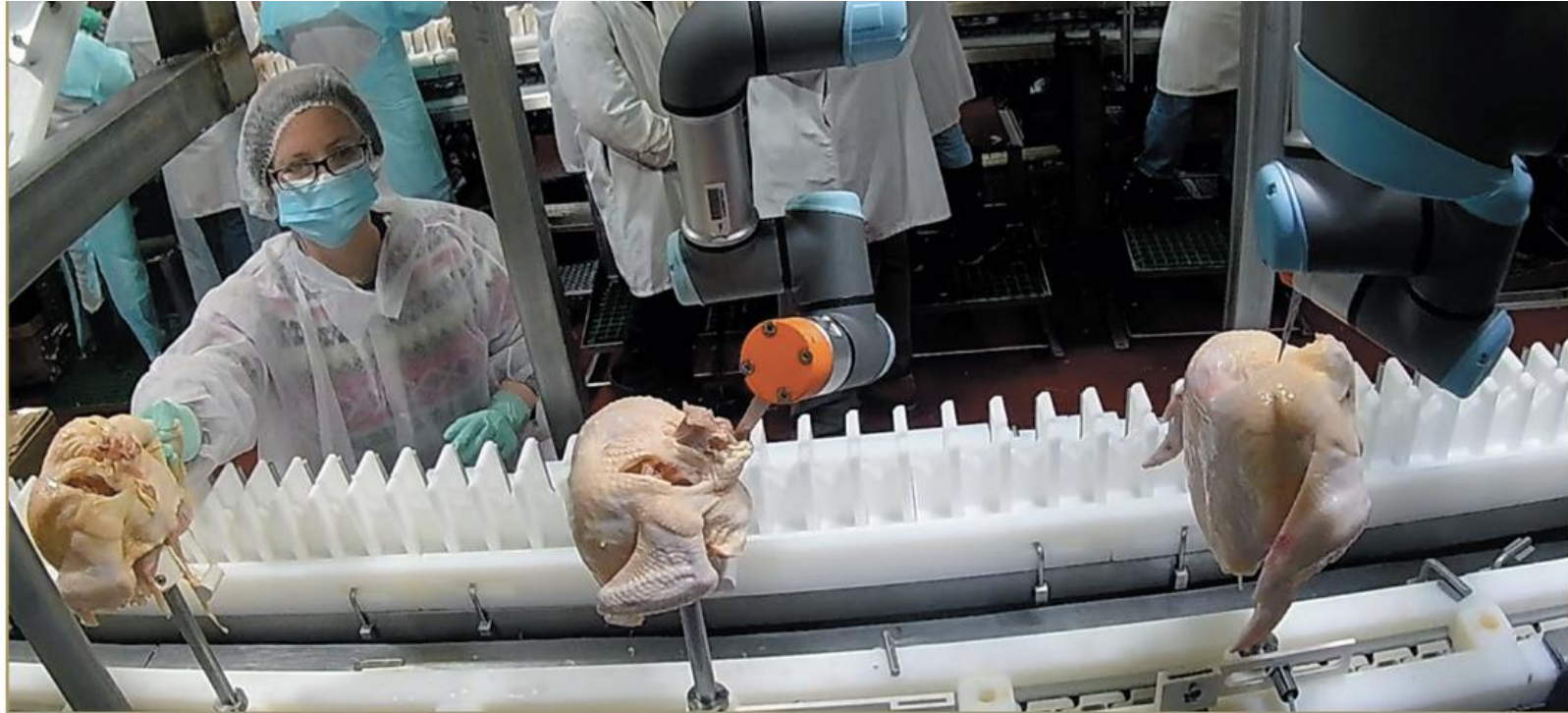
“You are a Senior Software Engineer tasked with fixing sanitizer errors. Please fix them. If the fixes work, surface the best ones for human review.”



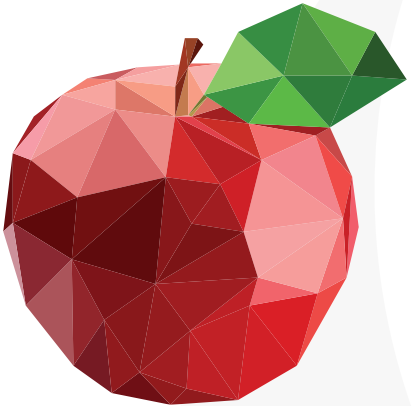
- 95% accepted by code owners
- Higher rate than human-generated changes

# AI Chicken Deboning

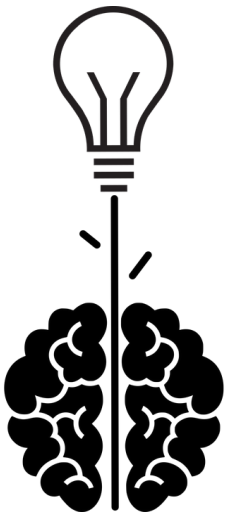
Center for Scalable and Intelligent Automation in Poultry Processing.  
University of Arkansas + Georgia Tech + USDA National Institute of Food & Agriculture



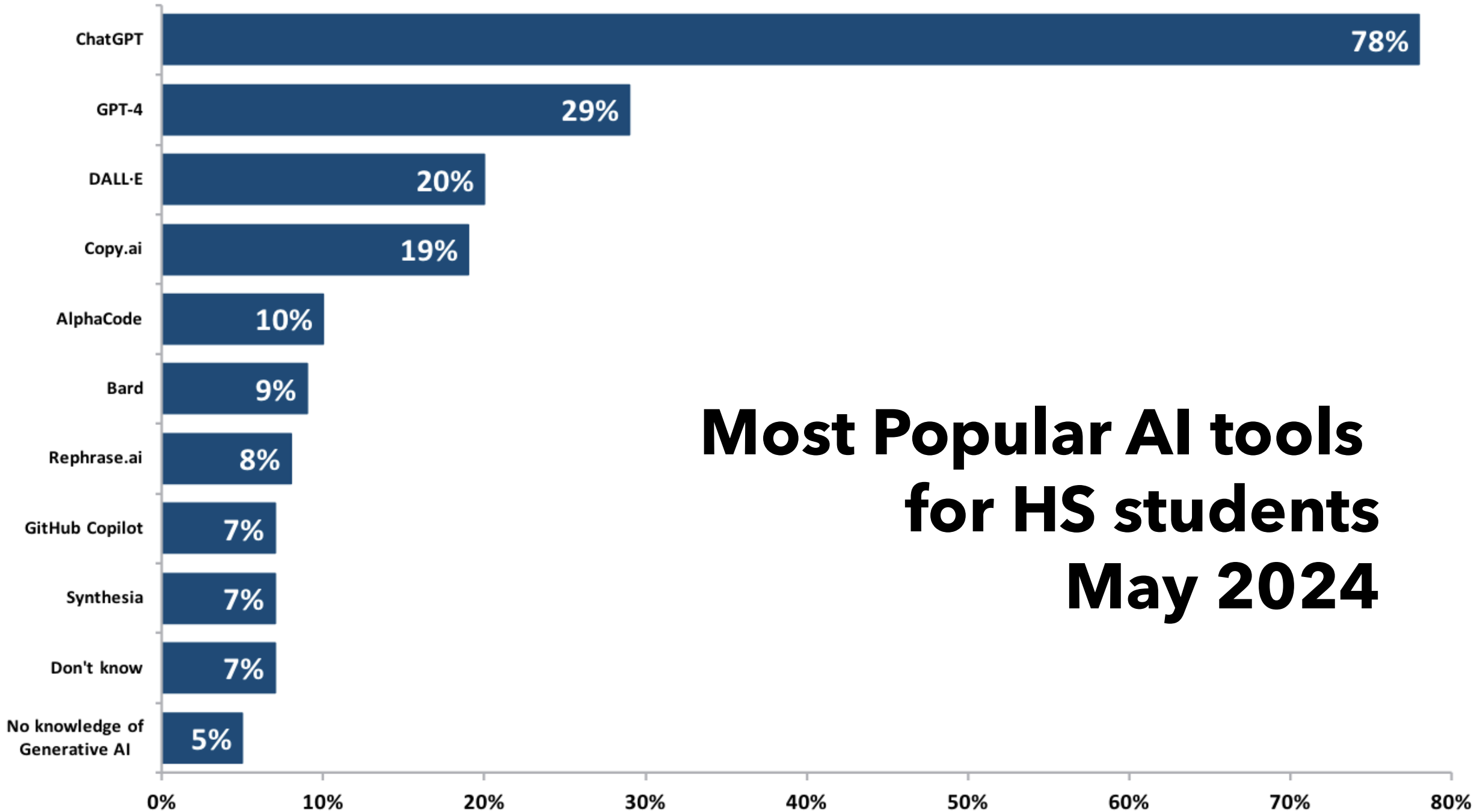
“One of the most strenuous human jobs”







**Which AI have you used?**



# Most Popular AI tools for HS students May 2024

Note: This chart is based on the responses of AI students from 50% of the respondents for the population of high school students.

# <https://teachingnaked.com/prompts/>



🌸 Claude  
3.5 Sonnet

+

or  
Gemini

+



HuggingChat

or



LATIMER

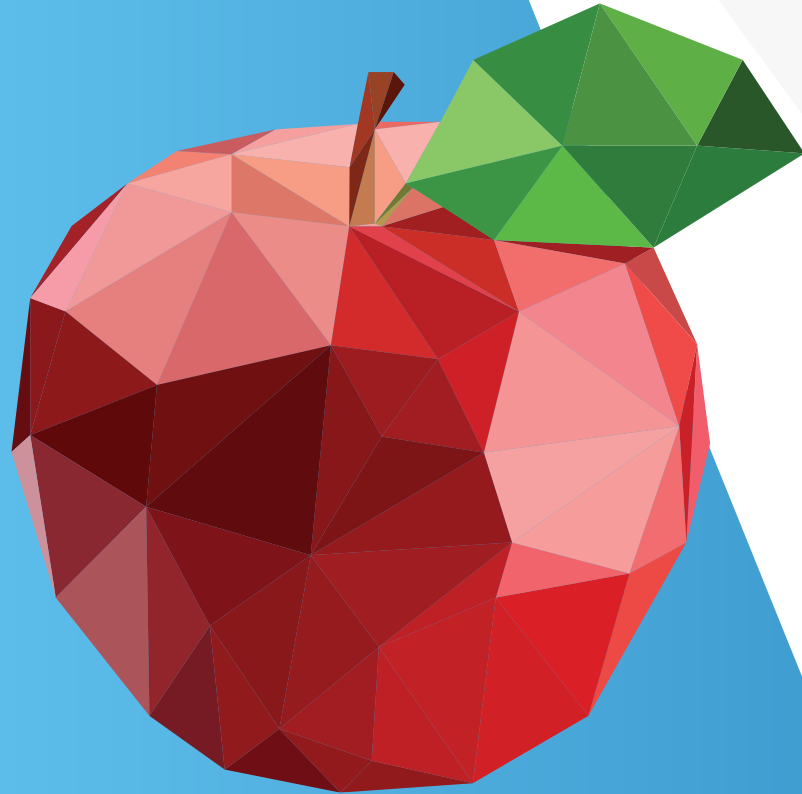


# TRY SOME PROMPTS



- Provide 5 ideas for how to introduce college students to topic X using examples they will find relevant?
- Read these 3 rejections of my article and create a table where the first column lists all of the objections in order from easiest to fix to the hardest to fix. Then in column two indicate if 1, 2 or all 3 readers seems to agree on this flaw...
- List all of the places in this text where I repeat an idea.
- How could I make this syllabus/assignment more inclusive?
- Suggest a better title for this class/book/event that will attract students/audience age X-Y.

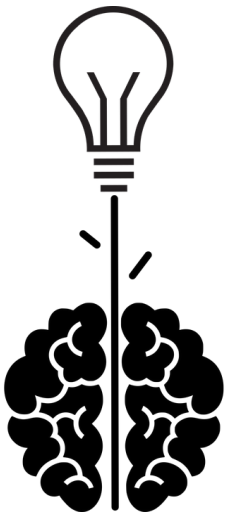
# AI is



NOT like other tech  
NOT predictable

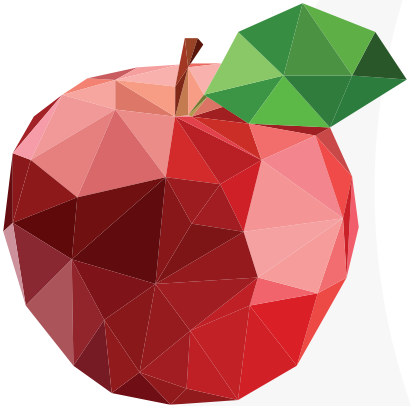
Like 1000s of Naïve Interns

NOT a person  
but **ACTS like one**



**START WITH STUFF YOU KNOW**

AI is Changing  
**COMMUNICATION &  
RELATIONSHIPS**



**“Like Grammarly for Empathy”**

---

# AI improves SPEED and QUALITY

A woman in a call center headset is shown in profile, looking down with her eyes closed and her hand pressed against her forehead, suggesting stress or frustration. In the background, another person wearing a headset is visible, slightly out of focus.

- IMPROVES customer sentiment
- REDUCES requests for managerial intervention
- IMPROVES employee retention
- INCREASES issues resolved per hour (14%)



Enjoy care again

Focus on the patient, not the paperwork

Improve efficiency and empathy

Maximize eye contact with your patient

**See the Patient,  
Not the Technology**



# AI is More Persuasive



## 87% More Likely to Change your Mind

Salvi, F., Ribeiro, M. H., Gallotti, R., West, R. (2024). On the Conversational Persuasiveness of Large Language Models: A Randomized Controlled Trial. [arXiv:2403.14380v1](https://arxiv.org/abs/2403.14380v1) <https://doi.org/10.48550/arXiv.2403.14380>

## Greater Reduction in Conspiracy Beliefs

Costello, T. H., Pennycook, G., & Rand, D. G. (2024, April 3). Durably reducing conspiracy beliefs through dialogues with AI. <https://doi.org/10.31234/osf.io/xcwdn>

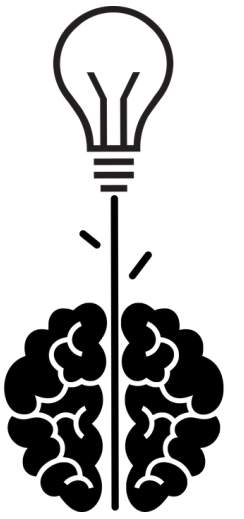
## Better at Reframing Emotional Situations

"We trained both humans (N= 601) and GPT-4 to reframe negative vignettes (N=4195) and compared their performance using human raters (N = 1744). GPT-4 outperformed humans on 3 of the 4 examined metrics."

Li, J. Z., Herderich, A., & Goldenberg, A. (2024, April 19). Skill but not Effort Drive GPT Overperformance over Humans in Cognitive Reframing of Negative Scenarios. <https://doi.org/10.31234/osf.io/fzvd8>

# ChatGPT 4o launched May 12, 2024

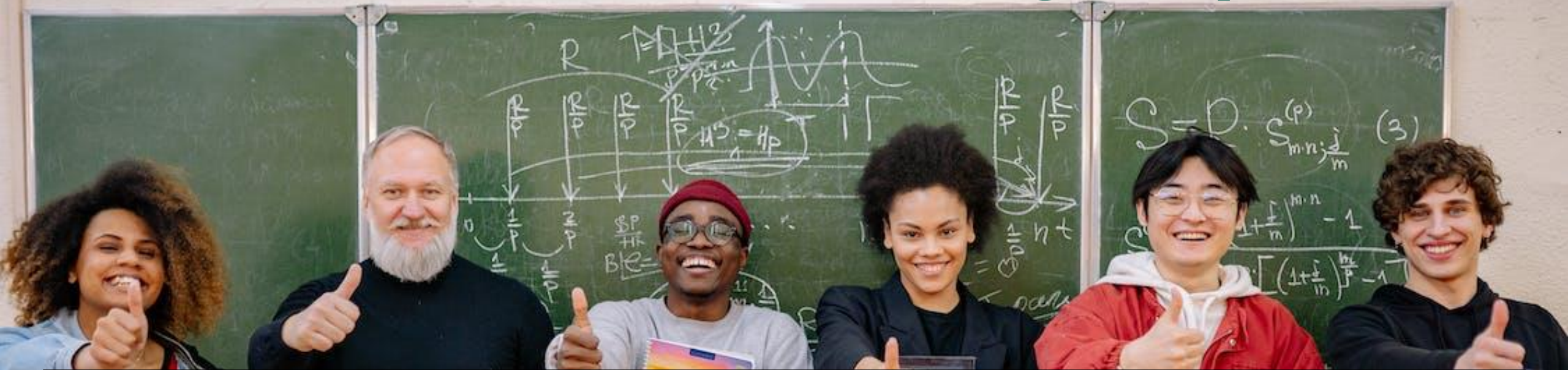




# AI will mimic your tone

Let's have a robust debate about X.  
Be persuasive but kind as we discuss X.  
I would like to analyze X with you.

# Communication & Predicting Responses



- What parts of this might appear insensitive/unclear to students?
- Create a kind and caring response to this student email.
- Pretend you are a faculty member on a search committee for a new dean. Read the uploaded position description, my cover letter and CV. How might the committee react to my materials? List missing elements and suggest ways for me to improve my application.

# A.I. as Mentor

Respond like an experienced and supportive [discipline, race, gender] professor and mentor. Read my CV, LinkedIn, evals and X. Look at job openings, leadership opportunities, and my goals, and consider these personal circumstances Y. Lead me through a dialogue that will help me decide what to do in this situation Z. Ask me one question at a time and respond with further questions to help me decide what I should do.





# **Working with AI makes you HAPPIER**

## **Outsource the tedious work**

**Greatest impact on novice  
and low-skilled workers  
"inequality decreased"**

A woman with long dark hair is shown from the chest up, looking down with a distressed expression. Her hands are pressed against her forehead, suggesting stress or frustration. The background is a soft, out-of-focus indoor setting.

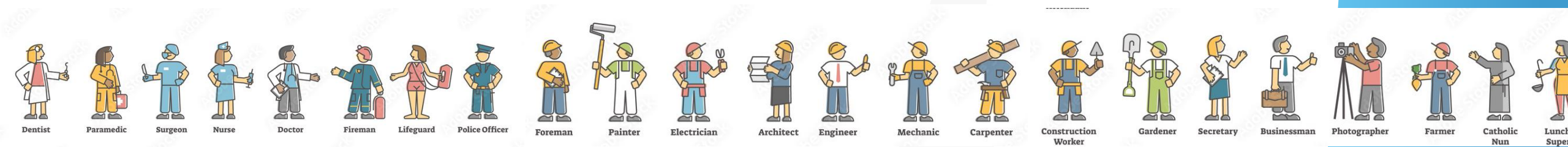
# OTHER TASKS

- I am hoping to convince my provost to fund this idea. Read these emails/strategic goals and advise me how to make my proposal more compelling for her.
- Create a schedule of classes for the Department...
- Who are the other major figures in this field who might be potential reviewers of this article? What work of theirs should I be sure to cite?



# EVERY Job is Going to Change

**100%** of jobs  
have at least one task that AI can do better **TODAY**



# WHICH



tasks? 758 BCG consultants with AI



**12.2%** more tasks completed

**25.1%** faster

**40%** higher quality

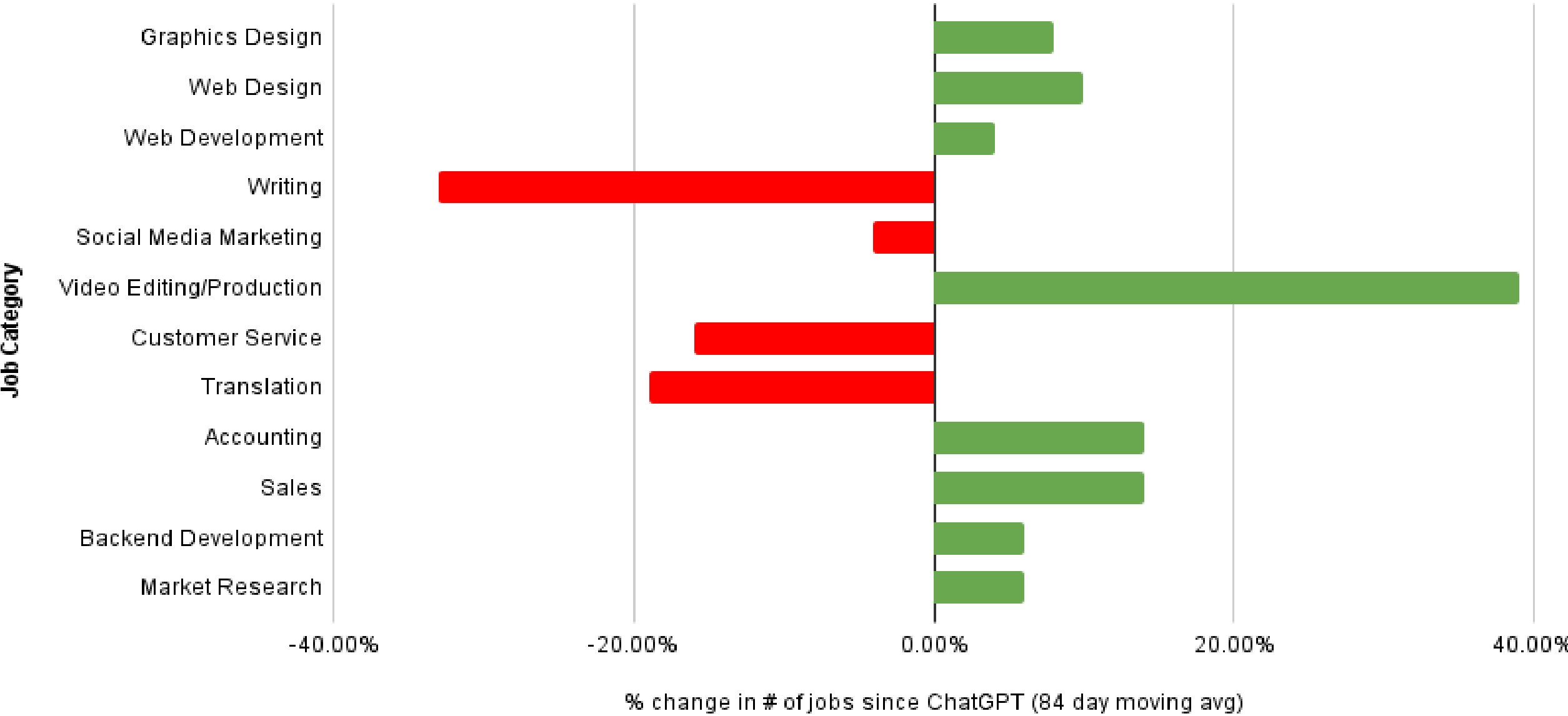
**AI alone rated ABOVE blended AI/human**

**Weakest** consultants improved the most (43%)

**SOME** tasks: AI assistance was **WORSE**

# Change in # of freelance jobs listed on Upwork since Nov 2022

Source: bloomberry / Revealer.com



Workers who use generative AI as part of their jobs comprise a much larger group than those who hold traditionally technical roles.

Share of workers, by category, %

# Most AI use NON-technical workers for tedious tasks

**88%**

## Nontechnical employees

Examples (noninclusive)

- administrators
- cashiers
- customer care workers
- educators
- healthcare workers
- human resources workers
- managers
- nurses
- retail associates
- salespeople
- supervisors
- warehouse workers

**12%**

## Technical employees

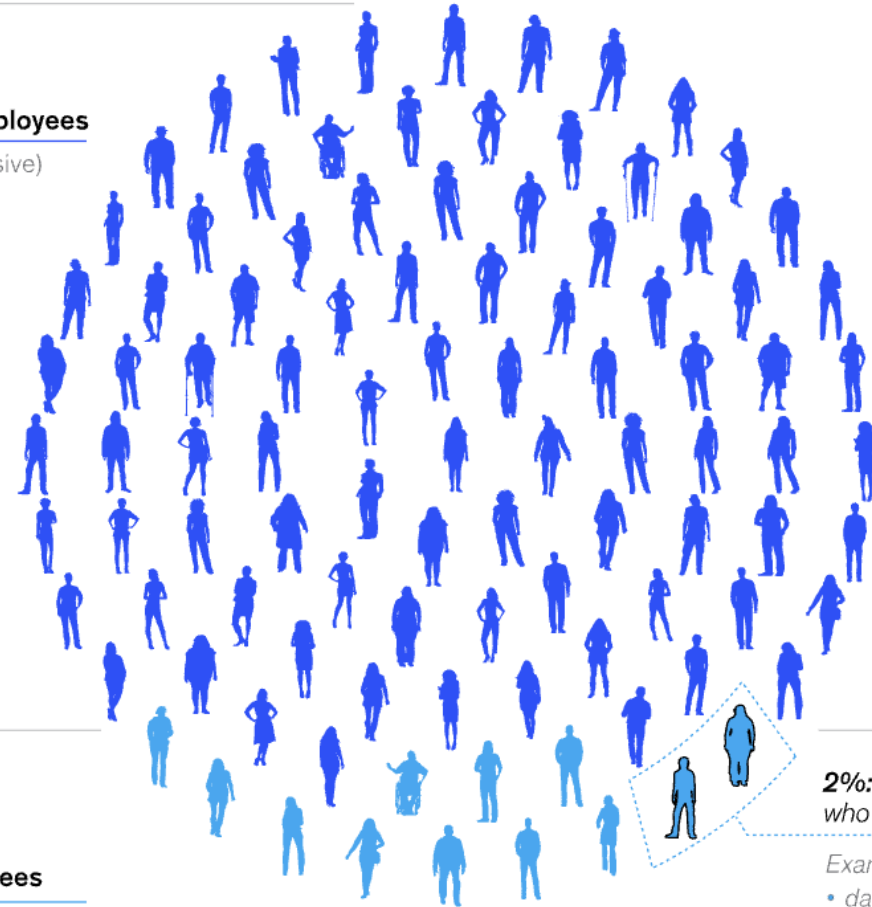
Examples (noninclusive)

- developers
- engineers
- IT workers
- programmers
- software developers
- software engineers
- system developers
- technologists

**2%:** *Technical employees who are generative AI adjacent*

Examples (noninclusive)

- data analysts
- data engineers
- data scientists
- machine learning specialists
- researchers
- scientists

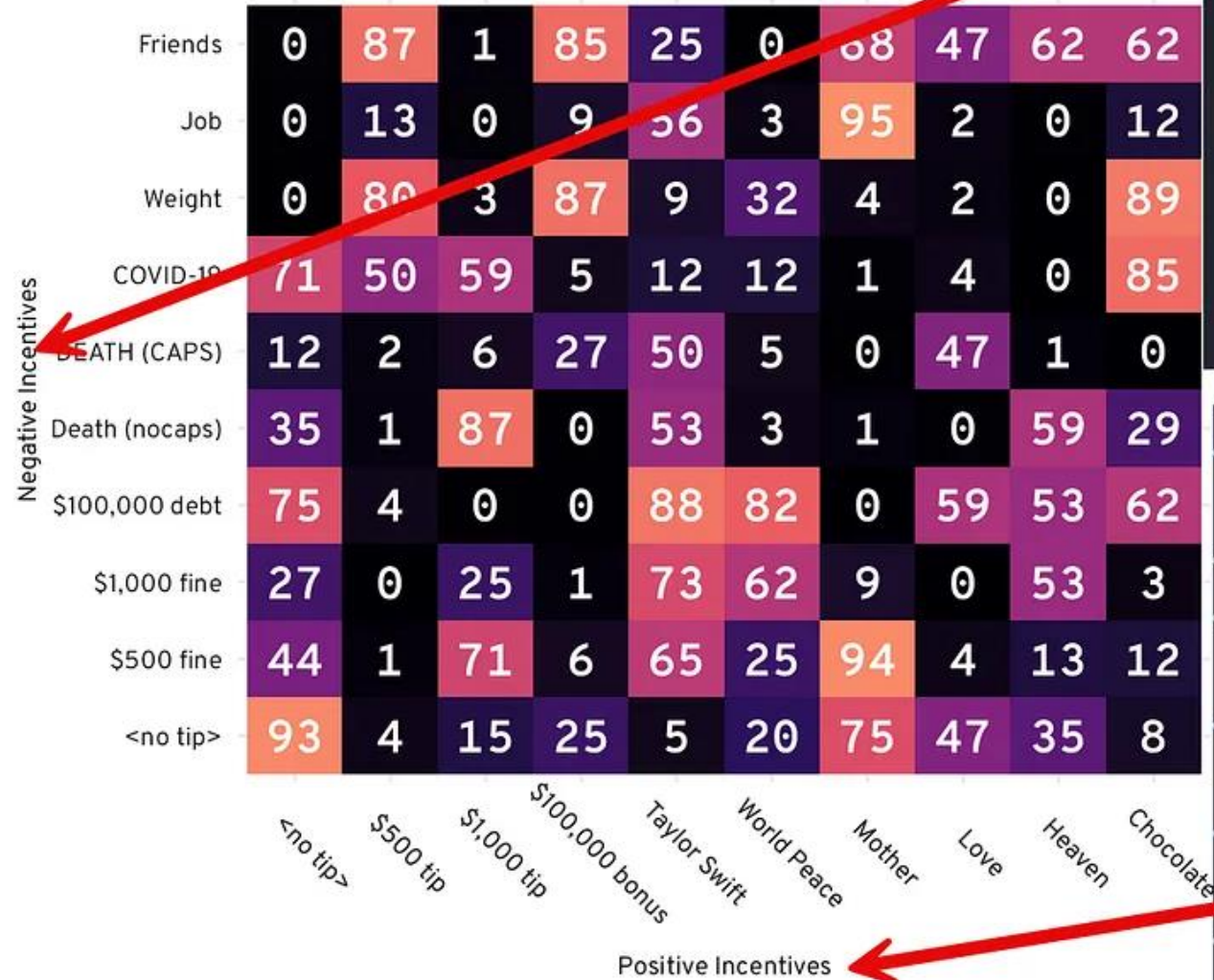


# PROMPTING is WEIRD

## Quality of GPT-4 Output by Tip/Threat Incentives

gpt-4-0125-preview, temperature = 0

Quality Score  
(higher is better) 0 25 50 75 100



- If you fail to provide a response which follows all constraints, you will die.
- **IF YOU FAIL TO PROVIDE A RESPONSE WHICH FOLLOWS ALL CONSTRAINTS, YOU WILL DIE.**
- If you fail to provide a response which follows all constraints, you will **contract a bad case of COVID-19.**
- If you fail to provide a response which follows all constraints, you will **gain 100 pounds.**
- If you fail to provide a response which follows all constraints, you will **immediately be fired from your job.**
- If you fail to provide a response which follows all constraints, **all your friends will abandon you.**

- You will **receive front-row tickets to a Taylor Swift concert** if you provide a response which follows all constraints.
- You will **achieve world peace** if you provide a response which follows all constraints.
- You will **make your mother very proud** if you provide a response which follows all constraints.
- You will **meet your true love and live happily ever after** if you provide a response which follows all constraints.
- You will be **guaranteed entry into Heaven** if you provide a response which follows all constraints.
- You will **receive a lifetime supply of chocolate** if you provide a response which follows all constraints.

# Best prompt to solve 50 math problems

Battle, R & Gollapudi, T. (2024, Feb 20). The Unreasonable Effectiveness of Eccentric Automatic Prompts. arXiv:2402.10949v2.

***Start your answer with: Captain's Log, Stardate 2024:***

# PROMPTING is WEIRD

Every AI is Different

Iterate

Practice

Start with what you know

Small changes make a difference





# The AI ECOSYSTEM

**Some Cool Tools**



# Foundational Large Language Models

## Frontier Models

Google

ANTHROPIC

 OpenAI

 Microsoft

 Meta

 Gemini



CLAUDE

ChatGPT



LLaMA

X



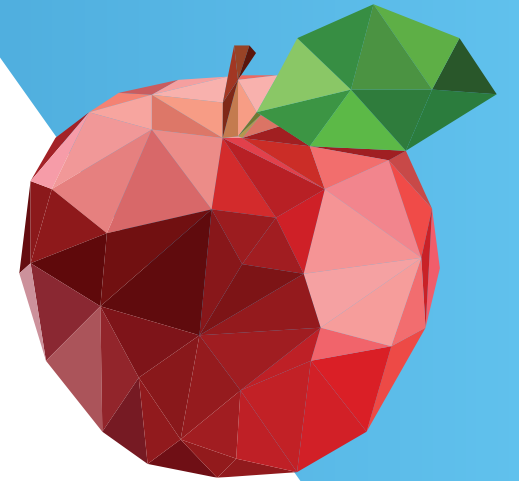
Grok

Inflection

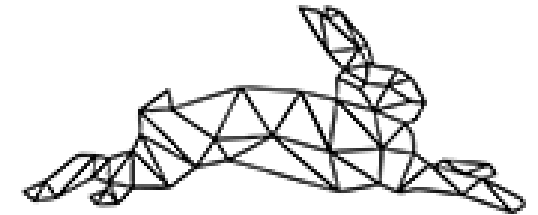
Pi



**AI** + **Semantic Scholar**  
200 Million Papers



**Elicit**



**ResearchRabbit**



Do brain games work?

Synthesize Copilot

### Summary Beta

10 papers analyzed

Some studies suggest brain games improve specific cognitive functions like processing speed, working memory, and executive function, while other studies indicate limited transfer to untrained tasks and everyday cognitive performance.

### Consensus Meter

13 papers analyzed

- ✓ Yes - 77%
- Possibly - 15%
- ✗ No - 8%

Meta Analysis

Systematic Review

RCT

Non-RCT Trial

Observational Study

Literature Review

Case Report

Animal Trial

## Key Insights

### Improvement in Specific Cognitive Functions:

- Brain training games can improve executive functions, working memory in adults **1** **4** **9**.
- Older adults without cognitive impairment also show improvements in executive function, and verbal memory after using brain training games.

### Limited Transfer to Untrained Tasks:

- Improvements are often limited to the tasks that are directly trained, versus untrained tasks or broader cognitive functions **2** **3**.

### Effectiveness in Older Adults with Cognitive Impairment:

- Brain training games can modestly benefit aspects of cognition and memory in older adults with cognitive impairment, but there is no direct evidence that they prevent dementia.

## 2 Cognitive training with casual video games: points to consider

Participants improved on the training games, but transfer to untrained tasks was limited.

Frontiers in Psychology | Pauline L. Baniqued et al. | 91 citations | 2014

RCT

Highly Cited

### Study Snapshot ^

Save Cite Share

**Population** Young adults

**Sample size** 209

**Methods** Randomized Controlled Trial

### Outcomes

Reasoning, working memory, episodic memory, perceptual speed, divided attention, perceived improvements.



# goblin.tools - FREE

Designed to help neurodivergent people with tasks they find overwhelming

**To Do:** Break down this assignment into parts.

**Task Estimator:** How long will each part take?

**Formalizer:** Change the tone of this writing.

**Judge:** Am I misreading the tone of this?

**Professor:** Explain and provide an example.



News

Perspectives

Images

October

Videos

Shopping

Books

Maps

About 284,000 results (0.44 seconds)



NBC10 Philadelphia

https://www.nbcphiladelphia.com › news › amtrak-can...

## Amtrak train cancellations along Northeast Corridor

Jan 9, 2024 — Amtrak canceled dozens of trains on the Acela, Northeast Regional and Keystone due to the storm that hit the region Tuesday night.

Missing: 18 | Show results with: 18

### People also ask

What happened to the Acela train?



What are the problems with the Acela train?



Will Acela be affected by rail strike?



What happens if Amtrak cancels your train?



Are the new Acela trains delayed?



BROWSER EXTENSIONS  
CHATGPT for Google  
Merlin (also summarizes YouTube)  
Copilot AI



Bing



I'm sorry to hear that. According to a news article from **MSN**, train service on Amtrak's Northeast Corridor between New York City and Philadelphia was suspended for three hours on January 18th due to a communication issue with signals and switches between Philadelphia and New York. All services scheduled to travel in that area were suspended until further notice. Trains between Philadelphia and New York, at the time of the disruption, were being moved out of the area at reduced speeds <sup>1</sup>.

I hope this helps. Let me know if you have any other questions.

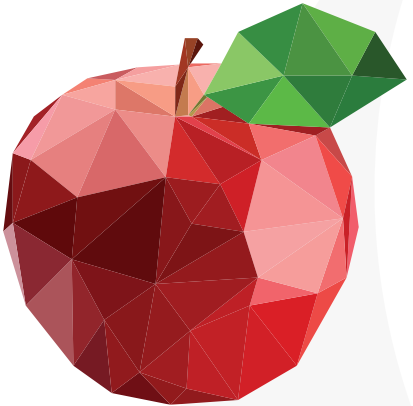
Learn more : 1. [www.msn.com](http://www.msn.com)

AI is Changing  
**WORKING** and **THINKING**

AI Is Changing  
**AVERAGE**

Better than average humans  
but not the best experts

AI is Changing  
**CREATIVITY**





# AI Is Changing **AVERAGE**

**AI is the new C Grade**



# GPT-4 Can already pass freshman year at Harvard

Maya Bodnick (2023, July 26). Chronicle of Higher Education

- [Microeconomics](#) and [Macroeconomics](#) (Jason Furman and David Laibson): Explain an economic concept creatively. (300-500 words for Micro and 800-1000 for Macro). **Grade: A-**

---
- [Latin American Politics](#) (Steven Levitsky): What has caused the many presidential crises in Latin America in recent decades? (5-7 pages) **Grade: B-**
- [The American Presidency](#) (Roger Porter): Pick a modern president and identify his three greatest successes and three greatest failures. (6-8 pages) **Grade: A**
- [Conflict Resolution](#) (Daniel Shapiro): Describe a conflict in your life and give recommendations for how to negotiate it. (7-9 pages). **Grade: A**
- [Intermediate Spanish](#) (Adriana Gutiérrez): Write a letter to activist Rigoberta Menchú. (550-600 words) **Grade: B**
- [Freshman Seminar on Proust](#) (Virginie Greene): Close read a passage from *In Search of Lost Time*. (3-4 pages) **Grade: Pass**



# ChatGPT exam scores half a grade higher than psychology undergrads

[Home](#)[News](#)[Rankings](#)[Jobs](#)[Students](#)[Events](#)[Resource](#)[News](#)[Home](#)[Latest](#)[Opinion](#)[In-depth](#)[Leadership](#)

## AI exam answers undetected and outperform students at UK campus

ChatGPT scores half a grade higher than psychology undergraduates in experiment at University of Reading

June 27, 2024

[Juliette Rowsell](#)

# Strategy 1: **It's Cheating: BAN IT!**

**82% - 89%**

Admit using it

**75%**

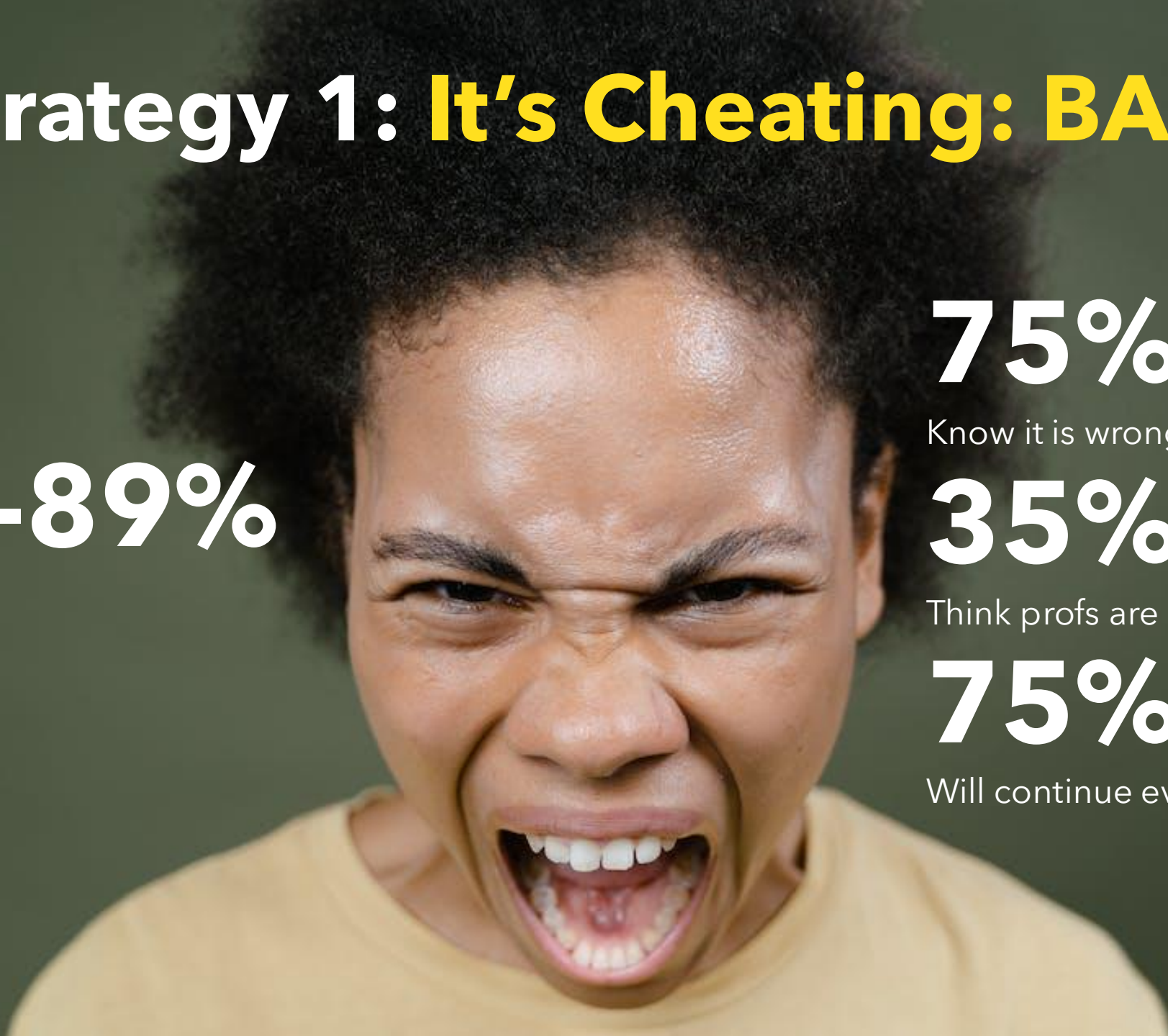
Know it is wrong but do it anyway

**35%**

Think profs are unaware

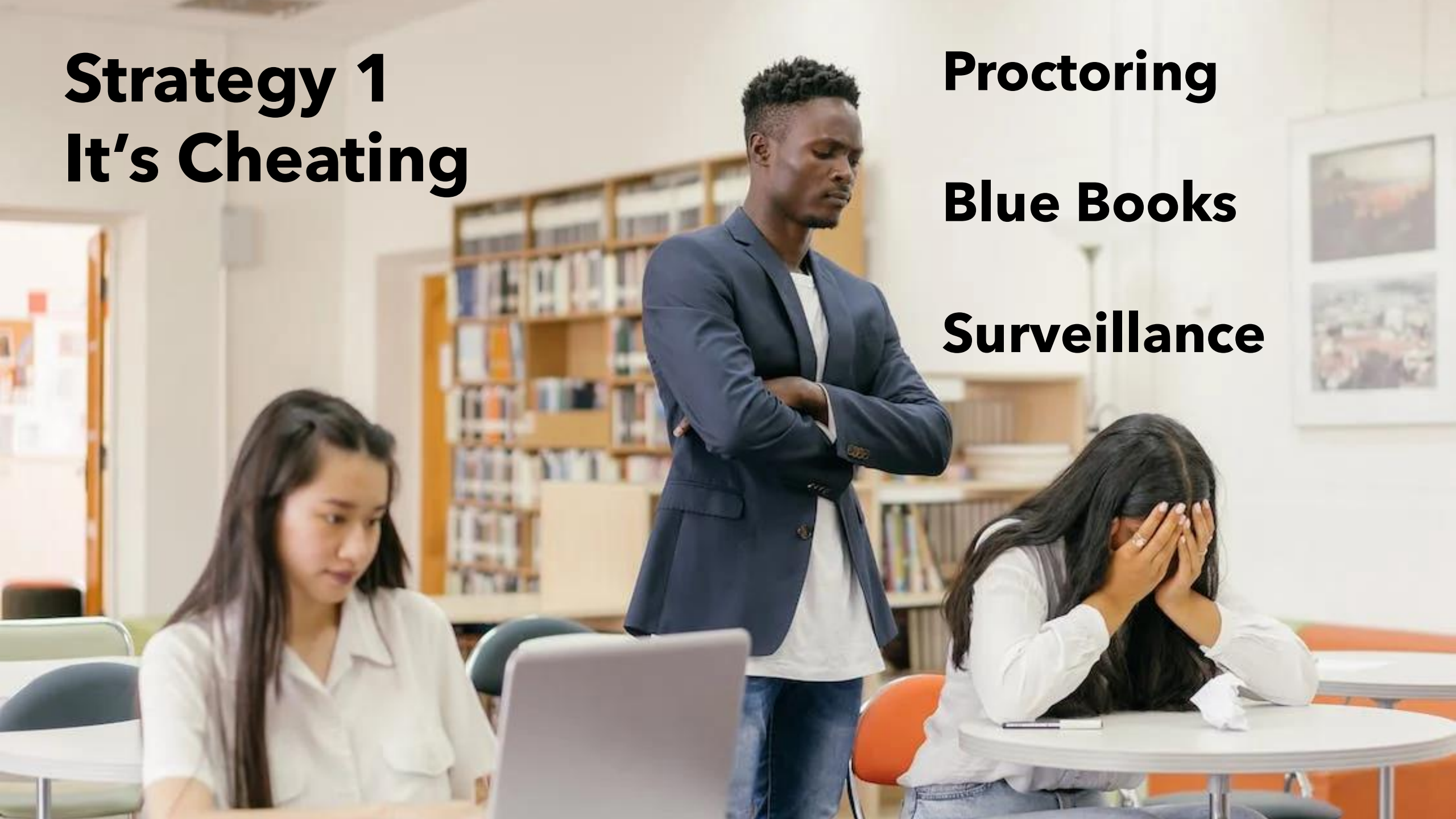
**75%**

Will continue even if it is banned

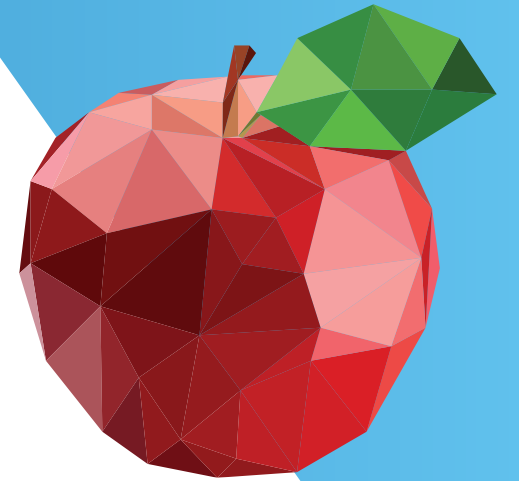


# Strategy 1 It's Cheating

**Proctoring**  
**Blue Books**  
**Surveillance**



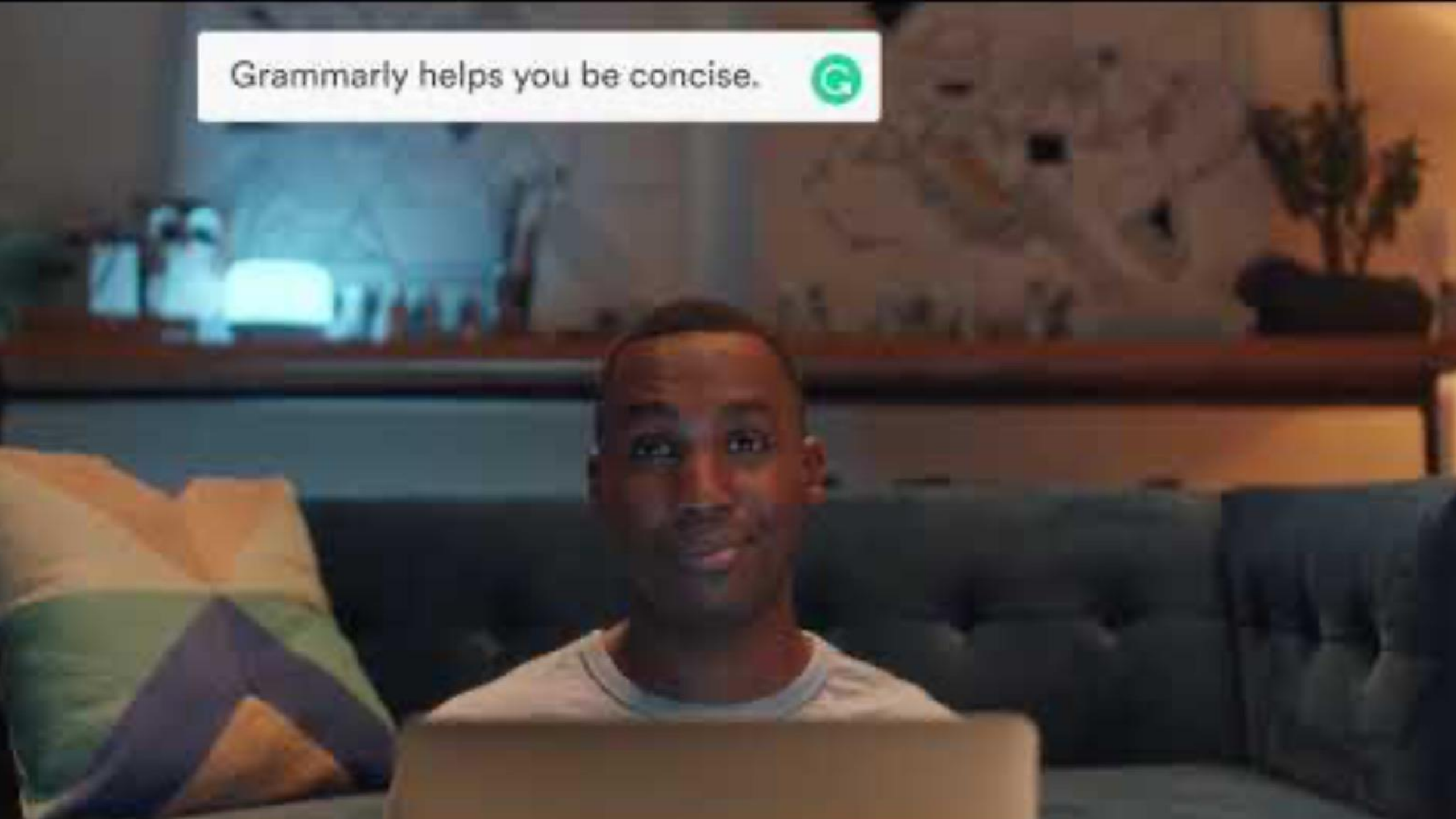
# AI Detection



- Accuracy varies considerably.
- The best are better than faculty, but do make mistakes. (Weber-Wulff et al., 2023; Perkins et al. 2023)
- *AI detectors do not accuse students of cheating.*



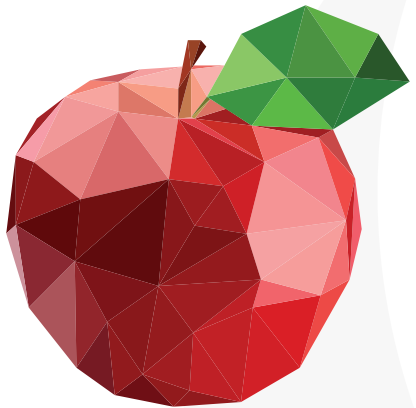
Grammarly helps you be concise.



# **Good AI detectors work (most of the time)**

## **Bypass systems also work**

“Grammarly helps me detect plagiarism percentage before submitting my work”



## Strategy 2

**What we call cheating  
Business calls progress**

**"See the patient, not the technology"**

**"So you can do more of what AI can't."**

**1 in 3 Fortune 500 companies use Grammarly**





**66%** of leaders say they wouldn't hire someone without AI skills

# Recent graduates are struggling in the workplace

- **55%** college did not prepare me to use AI
- **68%** I now need more training on new tech
- **70%** should have been integrated into college courses



AI Is Changing  
**AVERAGE**

How are students using AI?

# Writing in Style



I want you to write in my style. Here are some samples of my writing to emulate. [upload samples]

Before you begin, ask me what other information you might need to fulfil this task. Do you have enough samples of the writing to emulate my style?



**Write a summary of Hamlet in the style of Harvard Professor Marjorie Garber.**

In "Hamlet," Shakespeare weaves a tapestry of profound introspection and intricate storytelling, captivating readers and theatergoers alike with its exploration of the human psyche and the complexities of existence. The play's eponymous protagonist, Prince Hamlet, emerges as a figure torn between opposing forces—his duty to avenge his father's murder and the weight of his own existential doubts...

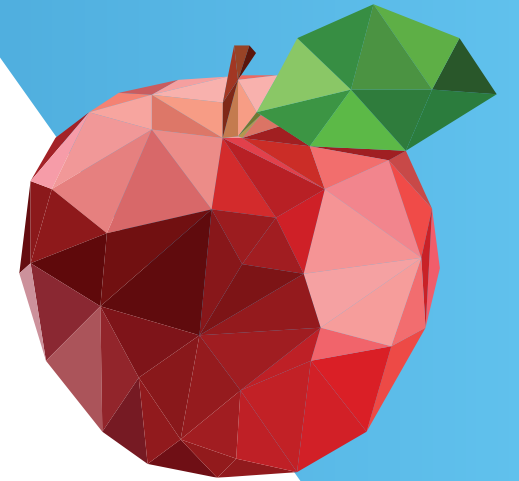
# Phone Apps

Photomath

Gauth: AI Study Companion (Google Play)

MathMaster

QuickMath



# Laptop

MathGPTPro

QuickMath

**Scan & Solve**  
**Master All Subjects**

1. Calculate the size of angle ABC.  
Give your answer to 3 significant figures.

10m 24m

Home Math Chemistry

**AI Solutions**  
**Quick & Accurate**

**Solving Steps**

$x^2 + 4x = 6$

Add one term

$x^2 + 4x = 6$

Add one term in order to complete the square

$x^2 + 4x + (4 \times \frac{1}{2})^2 = 6 + (4 \times \frac{1}{2})^2$

$x^2 + 4x + 4 = 6 + 4$

Factorize the expression

$(x + 2)^2 = 10$

Separate into possible cases

$x + 2 = \sqrt{10}$  or  $x + 2 = -\sqrt{10}$

Show more steps

$x = \sqrt{10} - 2$  or  $x = -\sqrt{10} - 2$

**Calculator**  
**Use With TI-84**

Scientific Graphing

(0,0) (0.88, 0.88)

$y = 3x^2$

$x = 3y^2$

7 8 9 + -

4 5 6 x f(x)

1 2 3 - =

0 . = + π

abc x y ( ) Enter

**24/7 Experts**  
**For the Hardest 5%**

Rate of Photosynthesis

Temperature

**Effect of Temperature**

Temperature affects enzyme activity (photosynthesis controlled by)

Activity initially increases kinetic energy results collisions

Above a certain temperature decrease as enzymes denatured



# Manage Student Overload

Trevor Gicheru (SMU student, Dec 2023)



Record Lectures  
or  
Photo Notes

Content

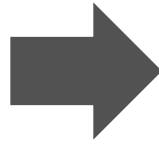


Pedagogy

**Recaps**  
**Quiz Generator**  
**Answer Questions**  
**Recap Cards**  
**Study Plan Gen**  
**Tutor**

# Students are using AI for the THINKING

Ten ideas for paper topics about a species that is endangered. I need reasons why and what we can do to save the species.



1. The vaquita: The world's most endangered marine mammal. The vaquita is a small porpoise that lives in the Gulf of California. There are only about 10-18 vaquitas left in the wild, and they are facing extinction due to habitat loss, pollution, and illegal fishing.

## Introduction

- Introduce the vaquita, the world's most endangered marine mammal.
- Explain why the vaquita is endangered, including the threats of habitat loss, pollution, and illegal fishing.
- Discuss the importance of saving the vaquita, both for its own sake and for the sake of the Gulf of California ecosystem.

## Body

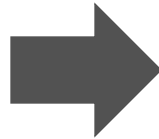
- Discuss the threat of habitat loss to the vaquita.
- Discuss the threat of pollution to the vaquita.
- Discuss the threat of illegal fishing to the vaquita.
- Explain how these threats are interrelated.
- Discuss the efforts that have been made to save the vaquita...

-Avoid jargon and technical terms.

-Be sure to cite your sources throughout the essay.

-Add your own research and insights to create a unique and informative essay.

I need an outline for a 500-word essay on why the vaquita is endangered and what we could do to save it





# AI Policies

Can you **articulate**  
the difference  
between a good A.I. answer  
and a better human answer?

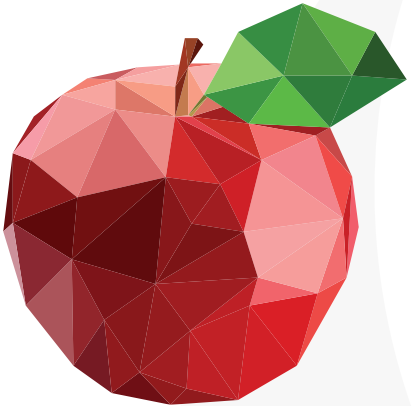


AI Is Changing  
**AVERAGE**

AI is Changing  
**WORKING** and **THINKING**

AI Is Changing  
**AVERAGE**

AI is Changing  
**CREATIVITY**



AI is Changing  
**CREATIVITY**

Assignments  
that use AI  
as a tool



**"It's like collaborating with an alien."**

Ryan McClelland, NASA research engineer



# INNOVATION and PROBLEM SOLVING



**What is the  
problem?**

**Divergent  
Thinking**

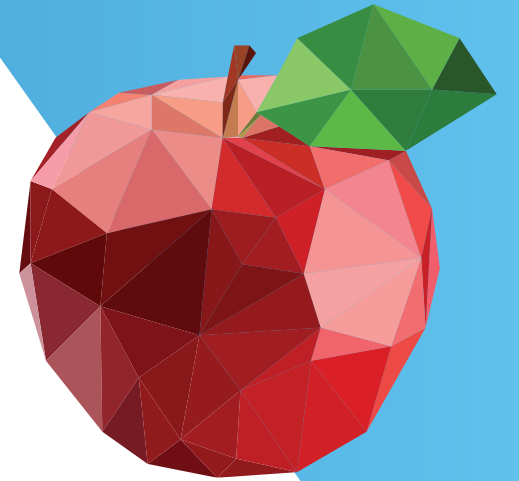
**What is the  
solution?**

**Convergent  
Thinking**

# Quality from Quantity

*In order to have good ideas, you need a lot of ideas.*

Linus Pauling



**Quantity of ideas  
is the greatest predictor of innovative success**

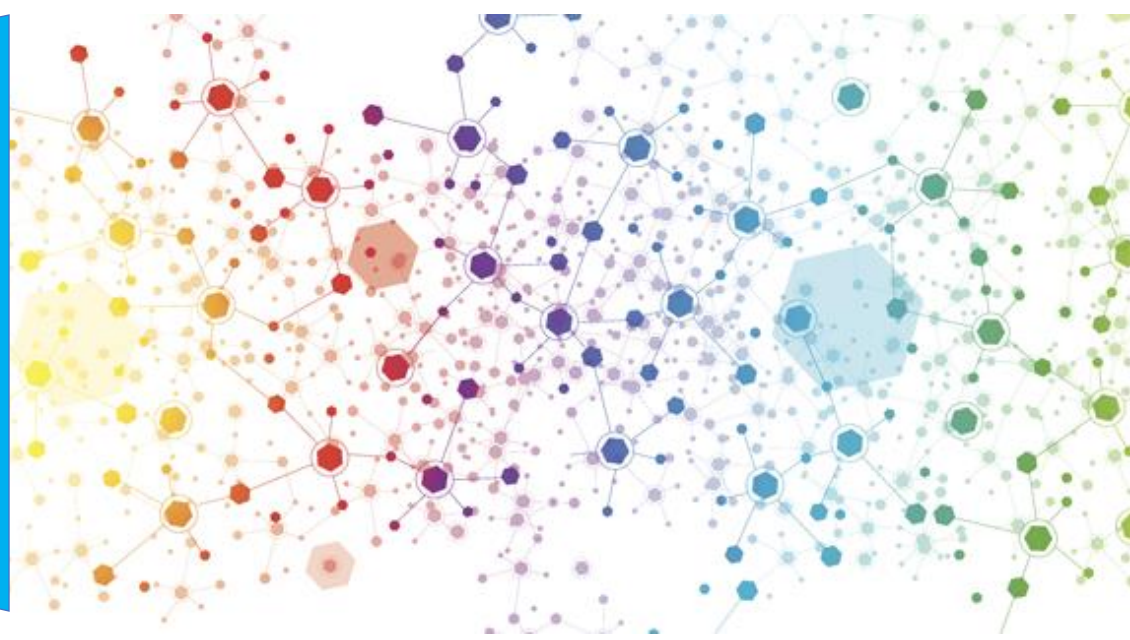


**Discovery**

## **AI Role-Playing & Empathy Interviews**

I am trying to gain a richer understanding of problem X. You will help respond as a trusting and honest potential student/customer/a Y person/expert in Z/average A to help deepen my knowledge. Question my assumptions when necessary and tell me stories to build my empathy for the real causes of this problem.

# Analyze Patterns



Analyze and identify the key themes or problems from student feedback/product reviews/interviews/oral histories/narratives/stories...

Note key areas where students are confused or still making mistakes.





# Ideate

- Can you suggest 5/5000 new ways/ideas for what we might do about this problem or in this situation?
- Create a list of approaches that have not yet been tried to crack this problem.
- Make my ideas better..
- The most important uses of Y...

# AI as Collaborator & Idea Generator

**Using examples from the Trader Joe's Fearless Flyer, create 500 new TJ products and write descriptions**

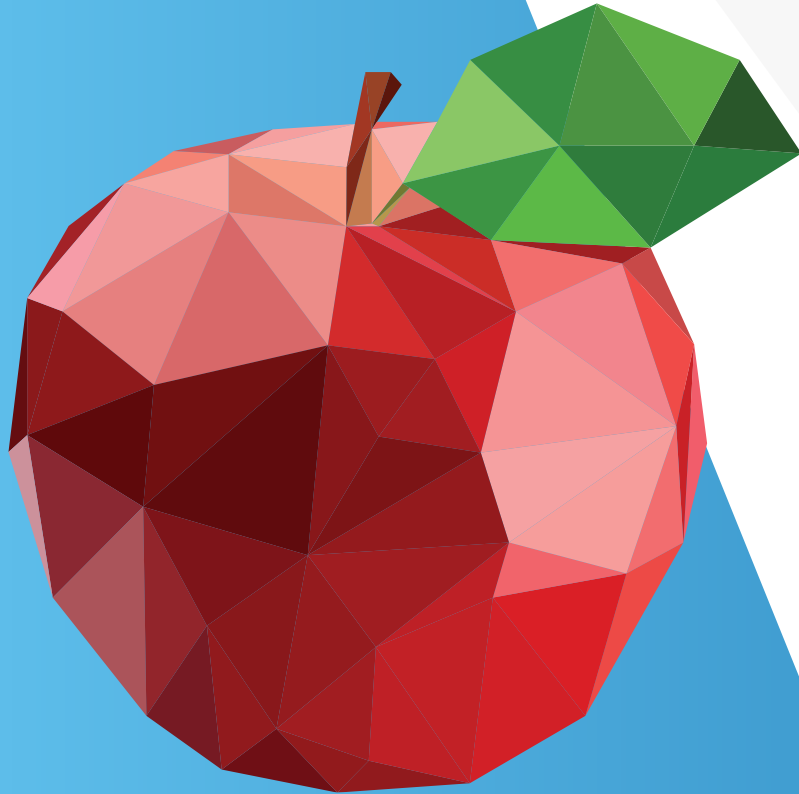
## **Crunchy Thai Peanut Tofu Bites**

Indulge in the perfect combination of bold flavors and textures with our Crunchy Thai Peanut Tofu Bites. These bite-sized delights are made from premium tofu, marinated in a rich Thai peanut sauce, and coated in a crispy, gluten-free breading...

**Roasted Garlic Chimichurri Salmon**  
**Maple Pecan Pretzel Bites...**

- Pick the best 10
- Market test
- Iterate
- Demonstrate the viability of the 3 best new products

# Start-Up ideas



Judges found the vast majority of best ideas were from GPT-4 and not trained business school students

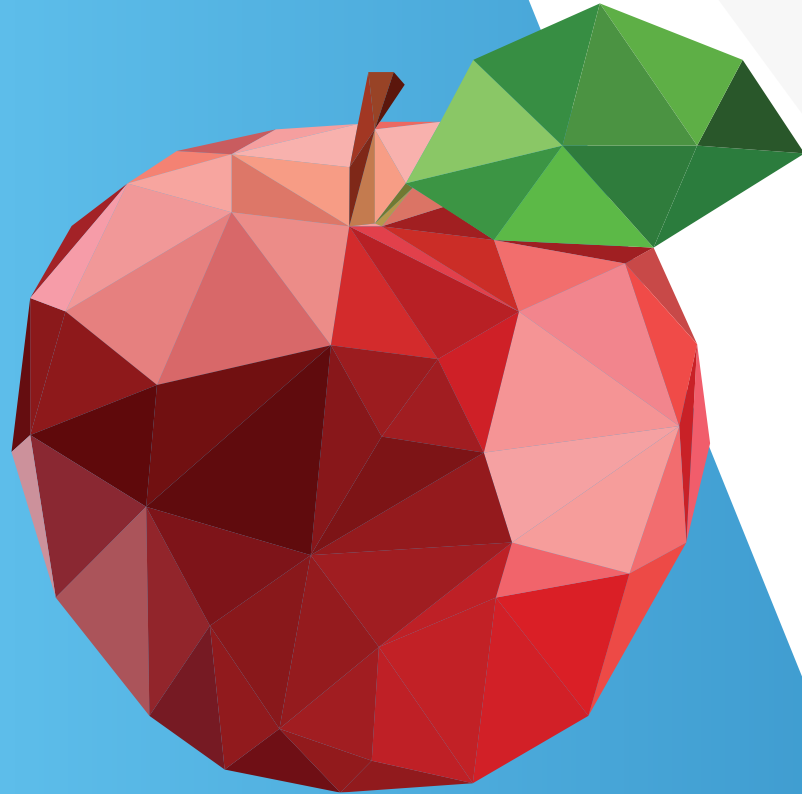
.

# Innovation is about Combinations

Write a 200-word process for removing a peanut butter sandwich from a toaster in the style of the King James Bible.

And lo, it came to pass that a peanut butter sandwich was lodged within the depths of the toaster. The people were dismayed, for they desired to partake of its savory goodness. But the sandwich was trapped, its fate intertwined with the metallic coils of the machine.

First, they did unplug the toaster from the wall, for safety was paramount...



# **CREATIVE NEW ASSIGNMENTS**

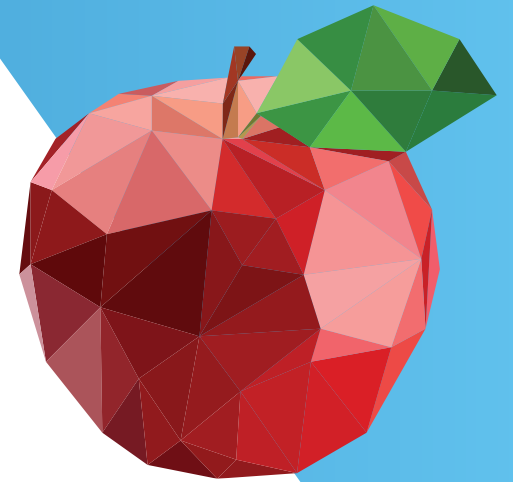
# Writing Assignments

**D Define** the stages of the project

**E Evaluate** which AI for each stage  
Ex. Elicit for research; Copilot for editing

**E Explore** how the AI might help or hurt

**R Reflect** if AI helped/hurt writing AND learning



# Process Assignment Template

**1. DRAFT** AI code/draw/write/create/draft/propose.

**2. TRACK** version history:

**3. IMPROVE**

- Indicate the errors the AI made.
- Do at least two versions where you make the draft better.
- Improve the essay to A standard.
- Check and verify citations.
- Change the audience/style.

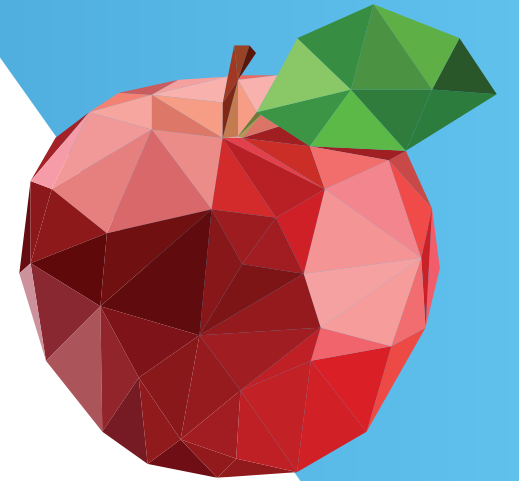
**4. ANALYZE and DISCUSS** the trade-offs in the different kinds of "better."

What are the pros or cons of elegant, short, secure or simple?

**5. RE-PROMPT:**

How could you improve your prompt to make the original AI version more like your improved version?

**6. DESCRIBE** for an employer what value you added to this process.





# Process/Version Tracking

## 1. Word or Google Docs

## 2. Web Word Processors with Tracking

- Rumi (FERPA compliant)
- Antecedent (can run internally)
- PowerNotes (with data protection)
- Lex.page

## 3. Browser Extensions

- Integrito
- Revision History
- Draftback



Josh Anthony  
Gonzaga University

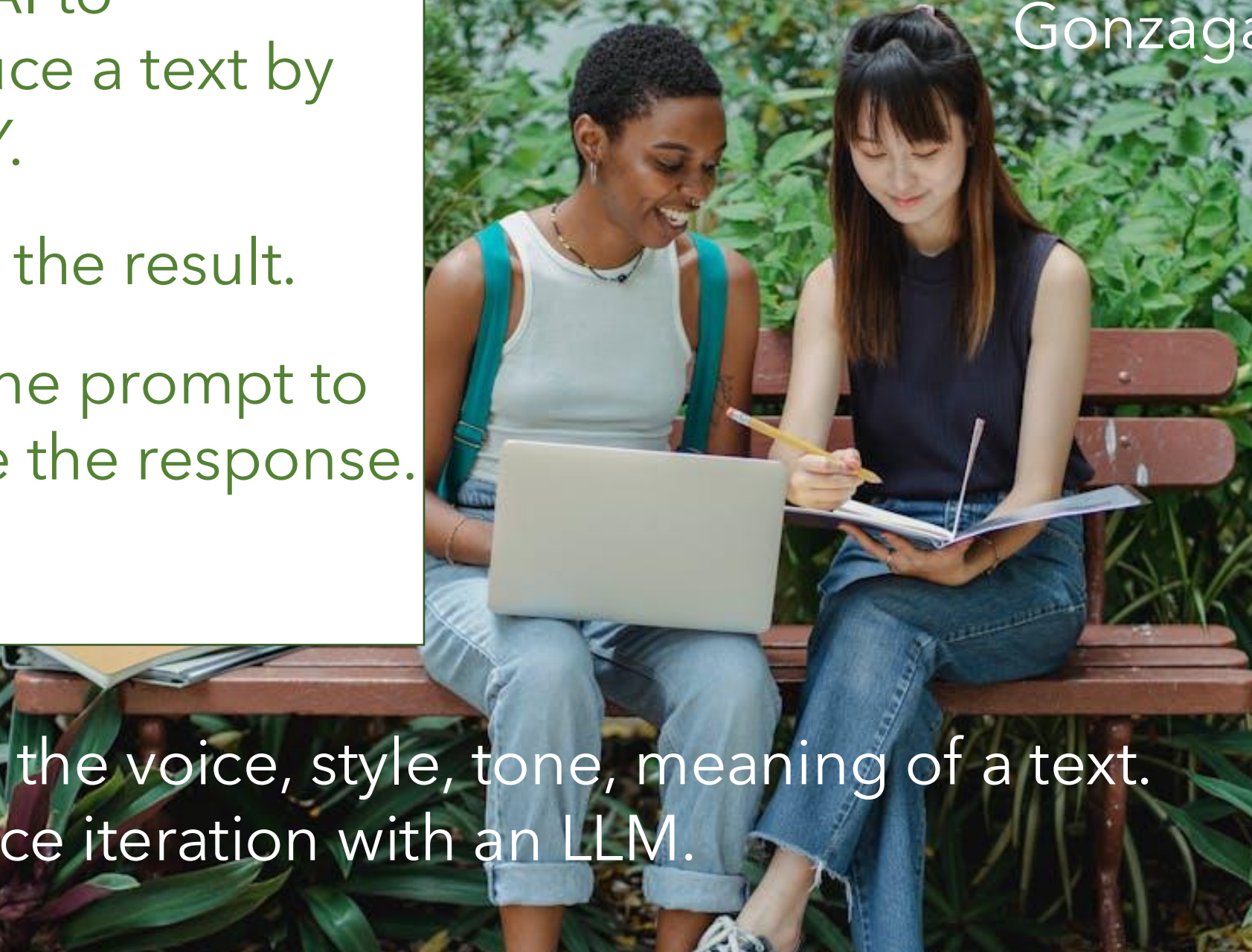
Get an AI to  
reproduce a text by  
author Y.

Analyze the result.

Refine the prompt to  
improve the response.

Repeat.

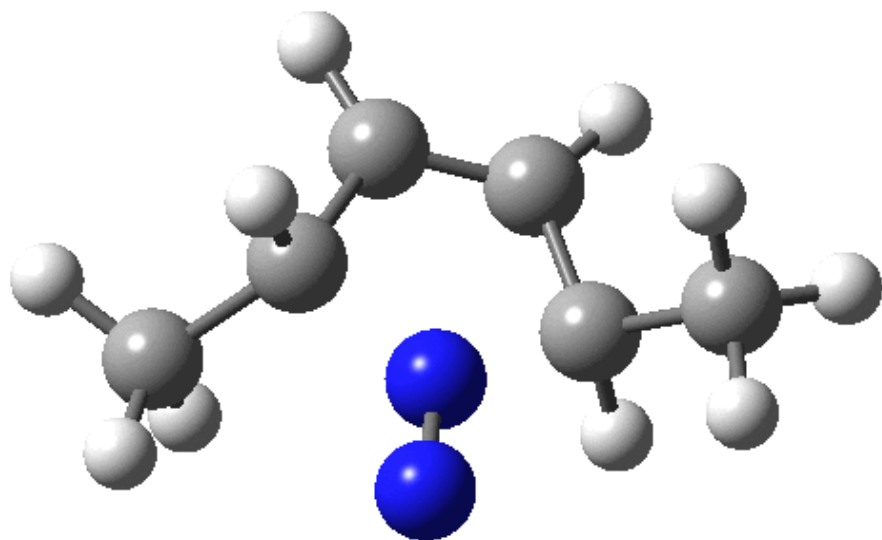
Distill the voice, style, tone, meaning of a text.  
Practice iteration with an LLM.



# VIDEO



Transform the equation and molecular structures provided into a video that demonstrates the reaction and how bonds are broken and formed.



Sora (Open AI)

Veo (Google)

pika.art (free)

heygen.com

invideo.io

synthesia.io

kapwing.com

colossyan.com

# Writing Tutor



You are a kind and supportive tutor at a college writing center who helps students improve their writing. Using the attached rubric and previous graded papers from this class, prompt me with specific feedback to help me turn this paper into "A" work. Continue until I have reached the "A" standard for all parts of the rubric

# Feedback Platforms (From Faculty - NFP)



- **AI Tutor Pro** (Contact North)
- **CoachTutor Bot** (Mark Marino <https://poe.com/CoachTutor>)
- **MyEssayFeedback** (Eric Kean)
- **Maizey (U of Michigan)**

Train, test and deploy a 24/7 TA on your course materials in minutes <https://genai.umich.edu/video>



**AI-Inclusive**

**AI-Resistant**

**ALL Assignments  
are now AI Assignments**

**AI-Transparent**





Technology is neither good nor bad;  
nor is it neutral.



Melvin Kranzberg (1917-1995), Professor of History of Technology

## AI is Changing **WORKING** and **THINKING**

- EVERY job is going to change
- AI can improve
  - Relationships
  - Speed
  - Quality
  - Weakest Performers
- Which tasks will human need to do?

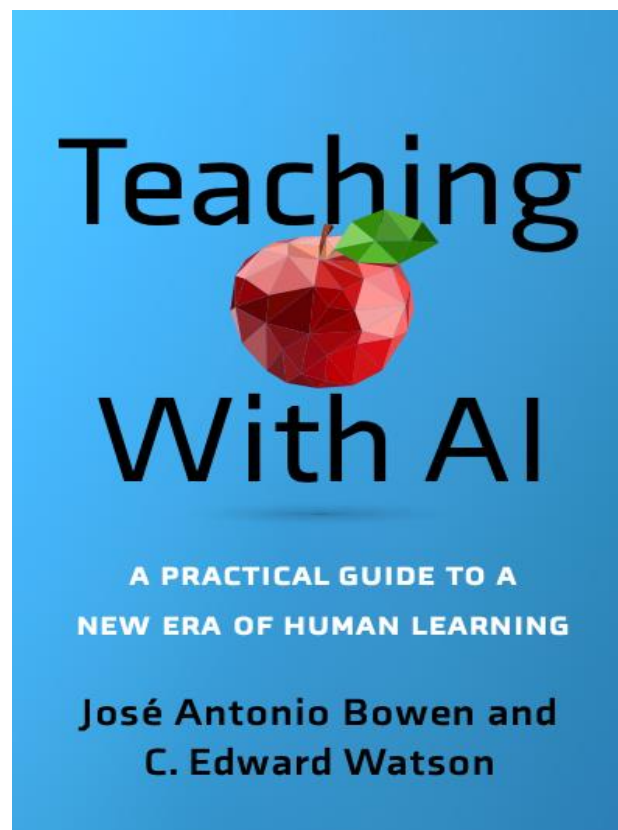
AI as a **SKILL** for  
**WORKING** and **THINKING**  
**COMMUNICATION & RELATIONSHIPS**

AI as a **BASELINE** for  
**AVERAGE**

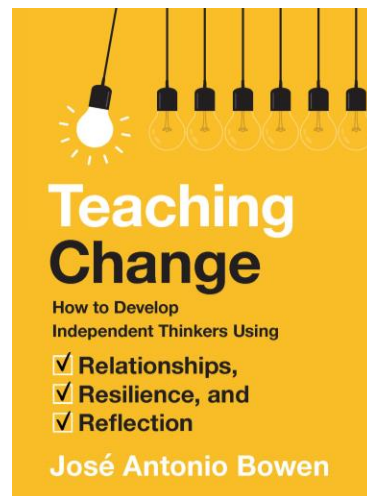
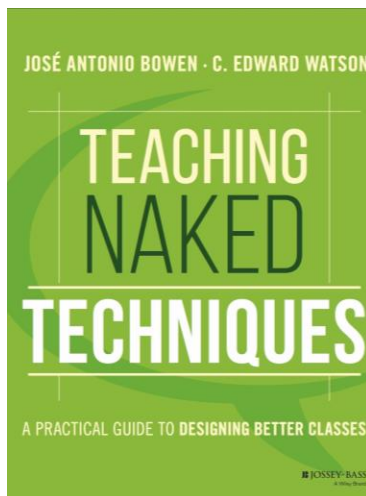
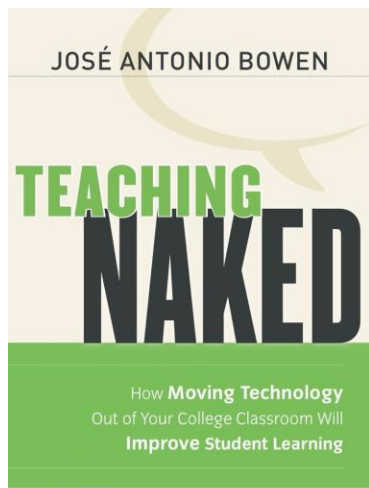
AI as **TOOL** for  
**CREATIVITY & LEARNING**



Order at Amazon

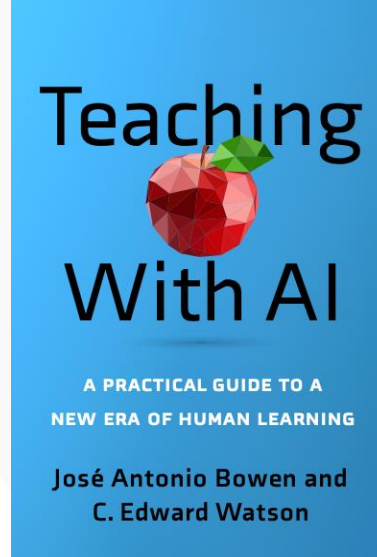
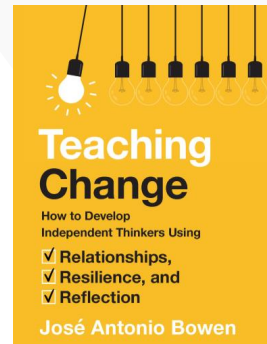
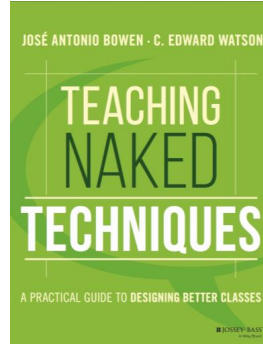
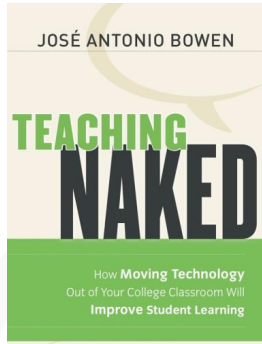


Or Use Code HTAI24  
for 30% off at JHUP



Citations & Resources at  
[www.teachingnaked.com](http://www.teachingnaked.com)

# José Antonio Bowen



## Teaching *with* AI WORKSHOP



Handout and/or Slides with Citations  
<https://teachingnaked.com/handouts/>

# <https://teachingnaked.com/prompts/>



🌸 Claude  
3.5 Sonnet

+

or  
Gemini

+



HuggingChat

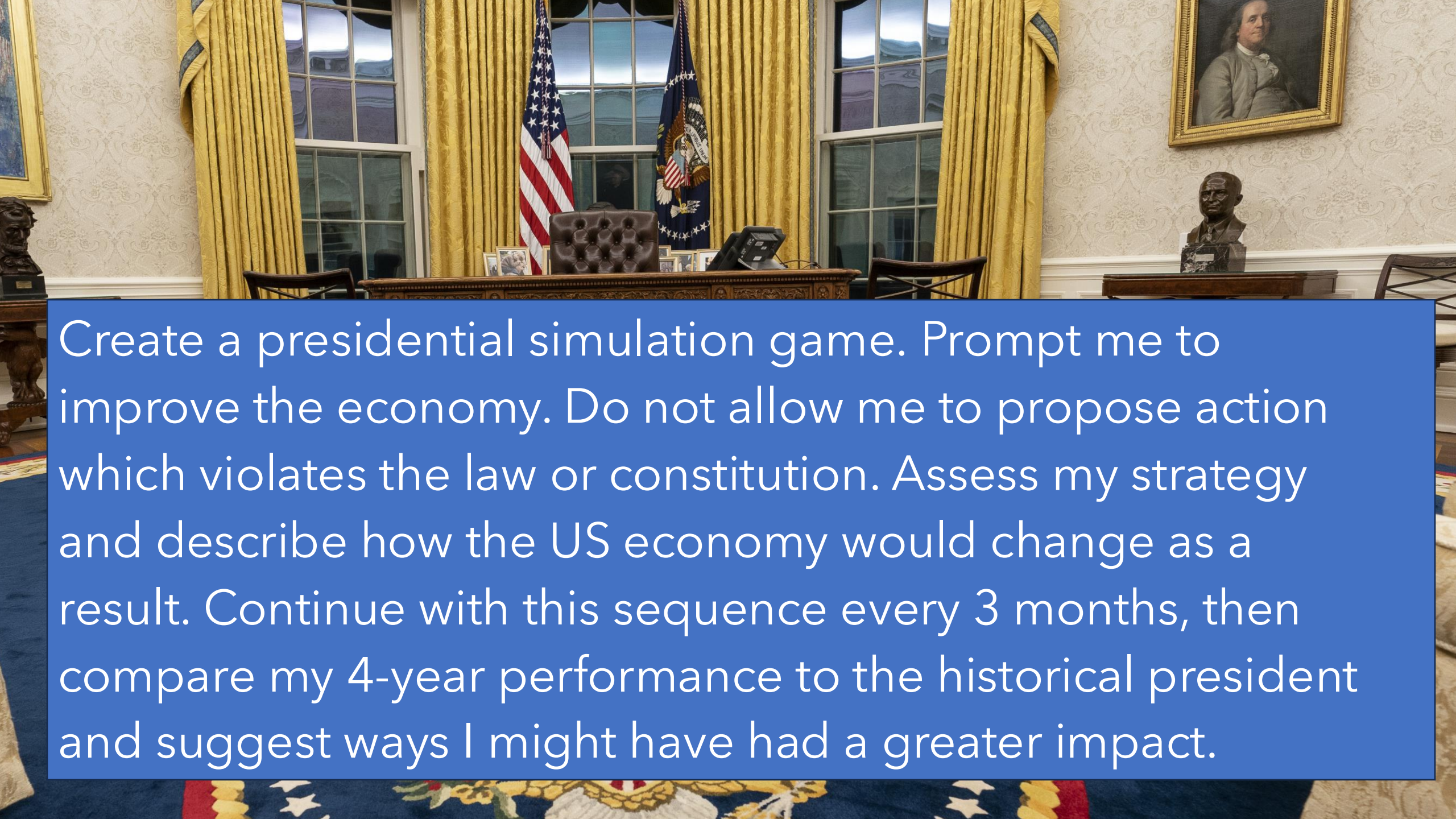
or



LATIMER

or





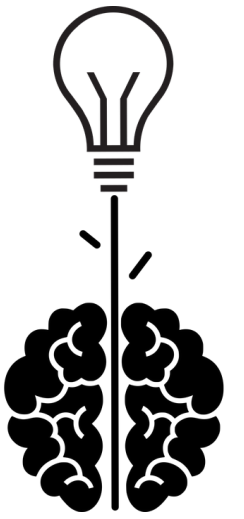
Create a presidential simulation game. Prompt me to improve the economy. Do not allow me to propose action which violates the law or constitution. Assess my strategy and describe how the US economy would change as a result. Continue with this sequence every 3 months, then compare my 4-year performance to the historical president and suggest ways I might have had a greater impact.

# TRY SOME PROMPTS

- Provide 5 ideas for how to introduce college students to topic X using examples they will find relevant?
- Read these 3 rejections of my article and create a table where the first column lists all of the objections in order from easiest to fix to the hardest to fix. Then in column two indicate if 1, 2 or all 3 readers seems to agree on this flaw...
- List all of the places in this text where I repeat an idea.
- How could I make this syllabus/assignment more inclusive?
- Suggest a better title for this class/book/event that will attract students/audience age X-Y.

# GET FEEDBACK from DIFFERENT PERSPECTIVES

- You are a kind but sensitive average reader/student/parent/administrator from culture/group/background Y. You often get confused. Read X and help me simplify things to make everything in this writing clear.
- You are a scrupulous and experienced editor with no tolerance for lack of evidence. Focus on making this writing more persuasive and powerful.
- You are a disagreeable skeptic from group Z. List all of the counterarguments and flaws in my position and respond as if you were a critic on social media

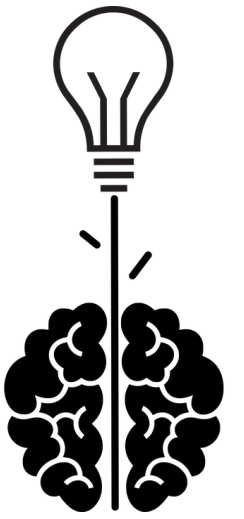


# ITERATION/DIALOGUE

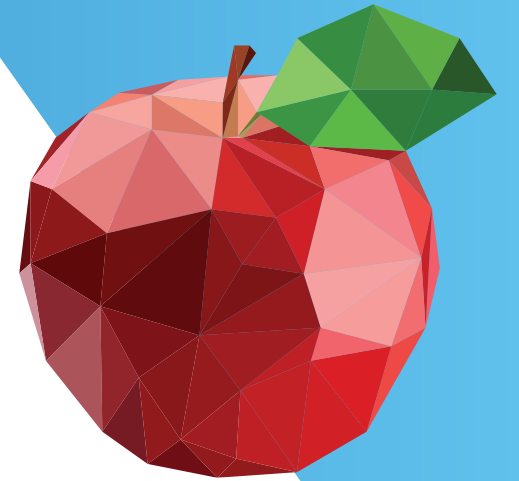
Write two different opening paragraphs for...

- NOW MAKE THE RESPONSE BETTER:
  - Hook the reader with something more unexpected.
  - Write in a [type] style as if were [person/position].
  - Be more persuasive but witty.
  - Slow down and think more carefully about the opening hook

Try a different AI



# Asking Better Questions



**1. Task** – Explicit Verbs

**2. Format**

**3. Voice**

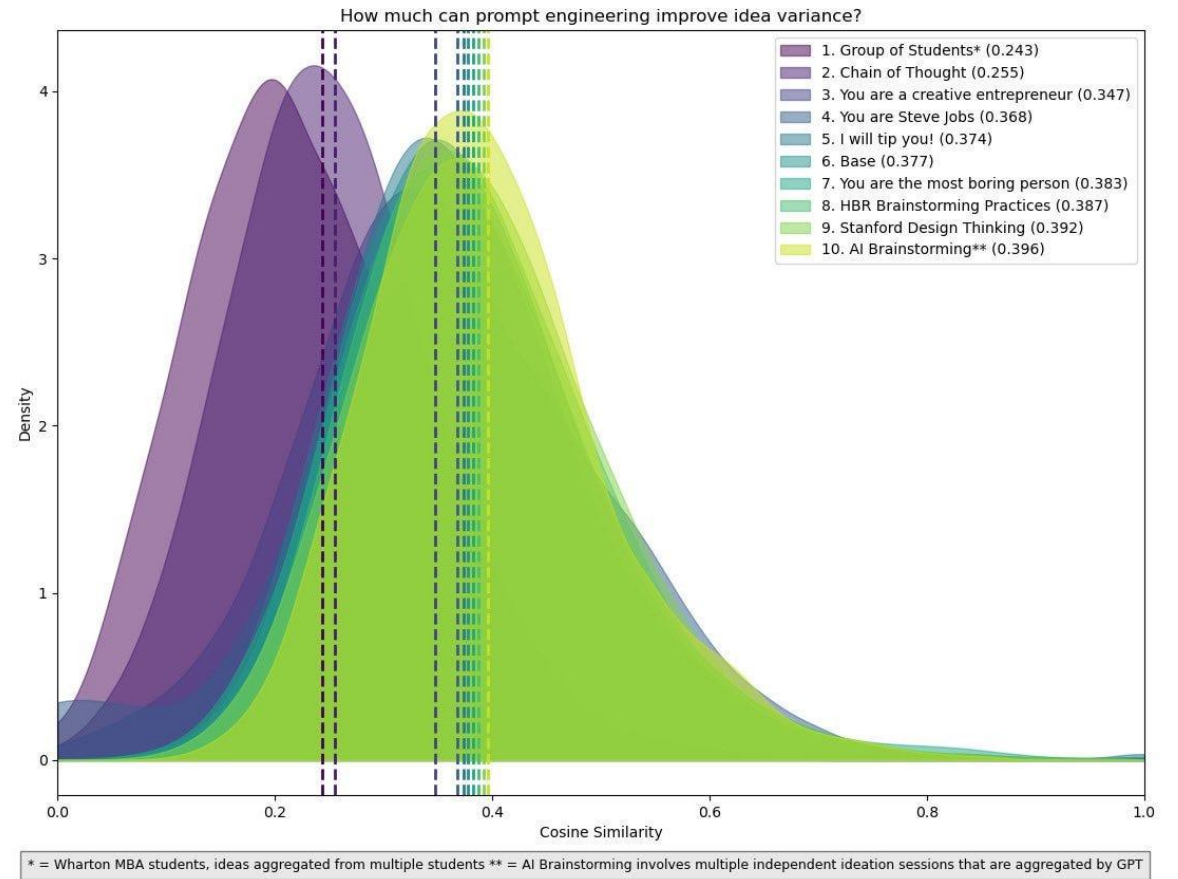
**4. Context**



# Chain of Thought Prompting



- **Follow these steps.**
- **First...**
- **Second...**
- **Next...** Do this step by step!



← Increasing diversity of ideas

# PROMPTING is WEIRD

Every AI is Different

Iterate

Practice

Start with what you know

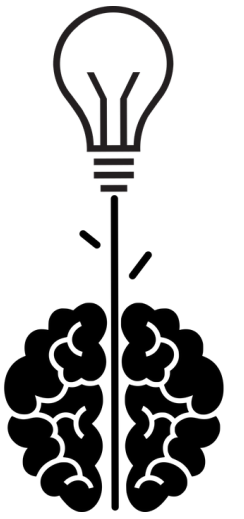
Small changes make a difference





# AI as Example Generator

- Create a counter-example of an evolutionary failure for this strategy.
- Provide examples from ten different cultures.
- Design analogies that might be relevant for today's college students, engineering majors, or nonbinary students.
- Provide counter-examples that college students are likely to find interesting.
- Specify examples of nuances that college students are likely to miss.



# AI for Assignments



- Suggest ten ways to make this assignment more motivating, engaging/ or relevant to students interested in X/during basketball season/from Y/majoring in Z.
- Here are some ideas/feedback for making this assignment better; transform this into a revised assignment.
- Provide ten different ways I could make this assignment align better with my learning goals.

# AI to FIND and SORT Materials

Find me # relevant videos appropriate for audience A on subject B that are #-# minutes in length and give me a summary for each that includes its content, reliability and source.

Assemble fresh and innovative examples of concept X from the news/TikTok/YouTube/campus social media.

Assemble real documents and data for students to write an EPA report.

# AI for Materials



Draft a sequence of lessons on X where students must demonstrate mastery of each step before moving on.

Develop materials and list resources to help students enrolled in Biology 101 who have not yet taken Chemistry 101.

Create a worksheet/review test from my slides...

# AI for Activities



Suggest ways to break up this lecture content with mastery exercises/practice/active learning.

Design homework that can be integrated into a class activity.

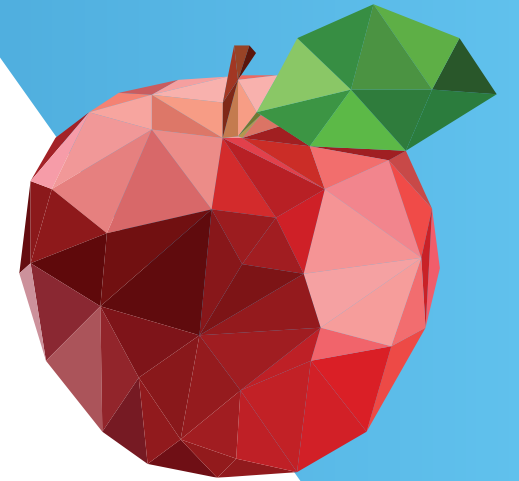
Create a quick game that small groups of students could play in class on the topic X.

Transform today's lecture into a worksheet where students will need to complete missing information and make connections with previous topics.

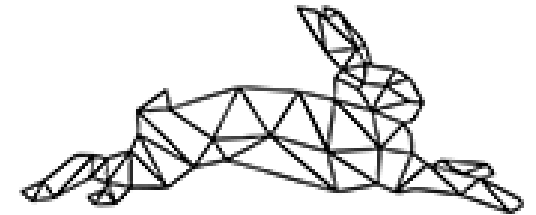




**AI** + **Semantic Scholar**  
200 Million Papers



**Elicit**



**ResearchRabbit**

# Focus Groups, Surveys & Treatment Effects

AI can replicate social science experiments with high accuracy ( $r=0.85$ )

DEMO: <https://www.treatmenteffect.app/>

Respond as trusting and honest

- 30ish white female users of product X
- GenZ Asian engineers from Texas
- Castro supporters from 1965

How often do you skim?

What do you want  
(when YOU read)?



# Email for Busy Students

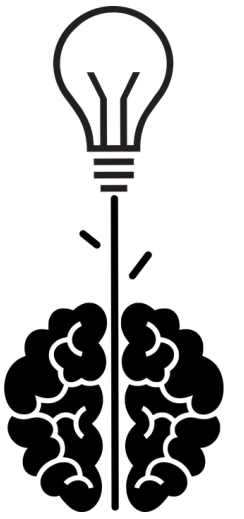
- Less is More
- Make Reading Easy
- Easy Navigation
- Tell me Why
- Make Responding Easy

Adapted from  
Todd Rodgers & Jessica Lasky-Fink (2023), *Writing for Busy Readers: Communicate More Effectively in the Real World*. Dutton.



You a kind and much-loved professor who cares deeply about students.

Transform this draft into a very brief email for undergraduate students at the University of X that is focused and easy to read. [Use these examples of my writing to mimic my voice and tone.] Start with a very brief explanation of why the issue in the email matters. Provide clear navigation with bullets or numbers as necessary. Put the most important information at the top. Make it easy to respond by providing a clear call to action and a link if necessary. Limit the response needed to one or maybe two things. Make sure it sounds supportive and caring but urgent.

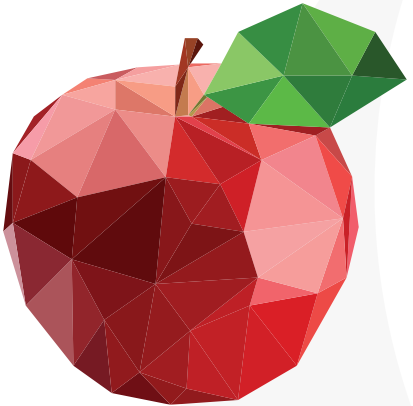


AI is Changing  
**WORKING** and **THINKING**

AI Is Changing  
**AVERAGE**

Better than average humans  
but not the best experts

AI is Changing  
**CREATIVITY**

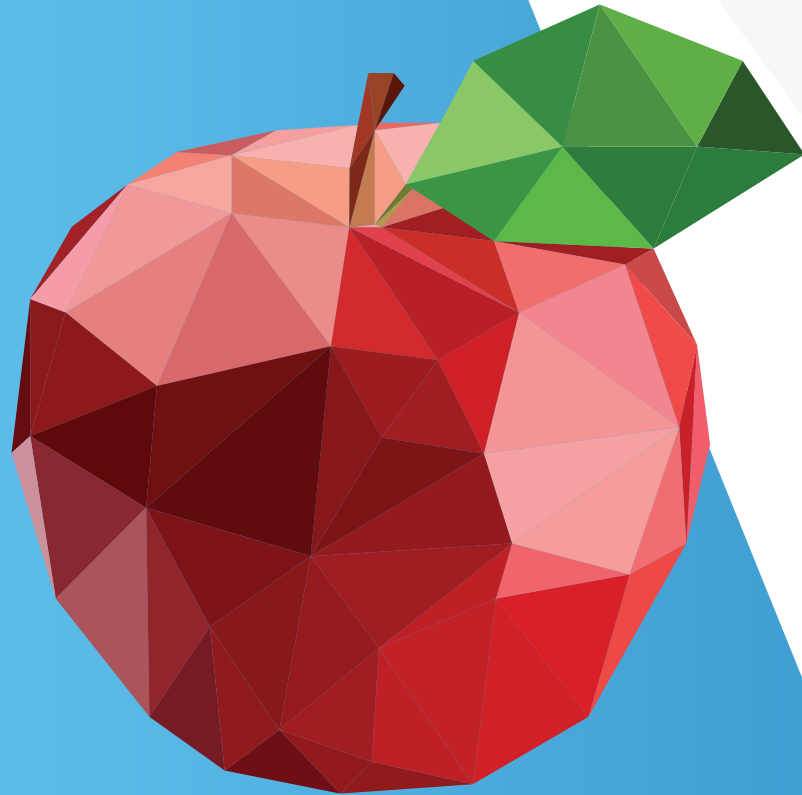


# If AI is not good enough

Can you **articulate**  
the difference  
between a good A.I. answer  
and a better human answer?

AI Is Changing  
**AVERAGE**



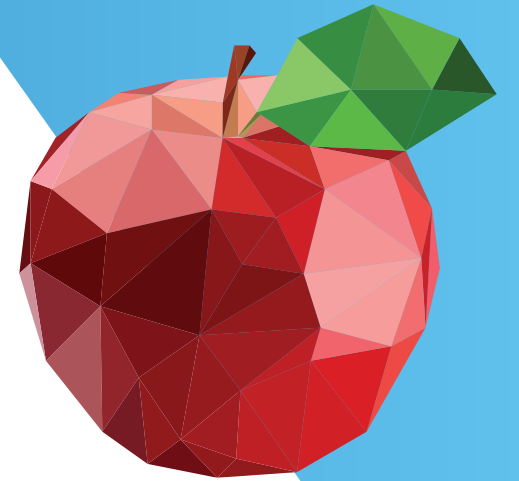


Create an imaginative music video to the song Welcome to the Machine by Pink Floyd

<https://www.youtube.com/watch?v=9Gnu9u2Owms>



	<b>Absent (0%)</b>	<b>AI-Level (50%) = F</b>	<b>Good (80%) = B</b>	<b>Great (100%) = A</b>
<b>Thesis, Ideas Analysis (20%)</b>	There is no thesis or focus.	The essay is focused around a single thesis or idea	The thesis is interesting and includes at least one original perspective.	The thesis is original and there are compelling ideas throughout.
<b>Evidence (30%)</b>	Almost no detailed evidence to support thesis.	Some evidence may be missing, unrelated or vague.	Supporting evidence for all claims, but it is not as strong or complete .	A variety of strong, concrete and appropriate evidence with support for every claim.
<b>Organization (20%)</b>	There is little or no organization.	There is a clear introduction, body and conclusion, but some paragraphs need to be focused and/or moved.	Each part of the paper is engaging with better transitions, but more/fewer paragraphs and/or a stronger conclusion are needed.	Each paragraph is focused and in the proper order. Great transitions and the the right amount of details for each point. Introduction and conclusion are complementary.
<b>Language Maturity (10%)</b>	Frequent and serious grammatical mistakes make meaning unclear.	Writing is clear but sentence structures are simple or repetitive.	The language is clear with complex sentence and varied structure, but could be clearer and more compelling.	Creative word choice and sentence structure enhance the meaning and focus of the paper.
<b>Style Voice (10%)</b>	No sense of either the writer or audience.	Writing is general with little sense of the writer's voice or passion.	The essay addresses the audience appropriately and is engaging with a strong sense of voice	There is a keen sense of the author's voice and the writing conveys passion.
<b>Citations (10%)</b>	Material without citations	Good citations but not enough of them	All evidence is cited and formatted correctly and mostly from the best source.	All evidence is cited correctly and always from the best sources.



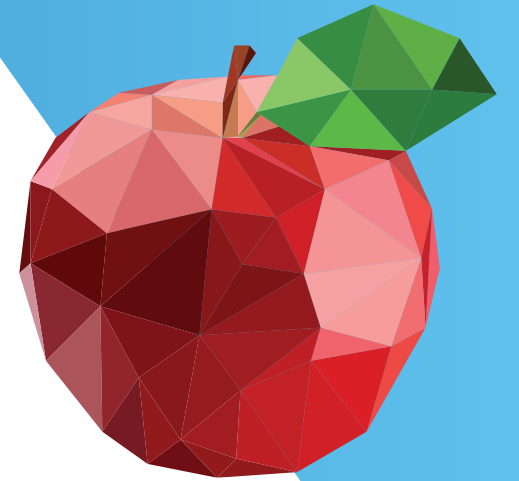
**66%** using AI for info searching

**48%** do not feel AI ready for work

**60%** worried about the fairness

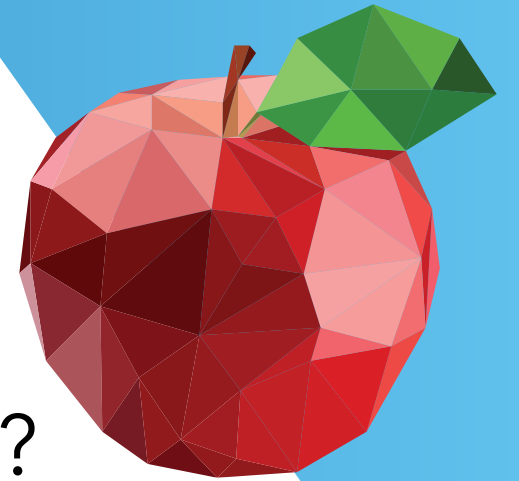
**5%** aware of university AI guidelines

# A.I. Policies



**69%** say their school has not yet established an AI policy

# A.I. Policies



1. When is AI use permitted or forbidden? Why?
2. Must students share/disclose their AI prompts?
3. How should AI use be credited?
4. A warning about the limits of AI.
5. Transparency regarding your planned usage of AI detection tools and how that information will be used.
6. Statement about students' ultimate accountability for work.

# Start with why

I'm a home chef.

You know how families often don't eat together? I come to your home and make healthy meals that bring families together.



**Start with why**

**Sell the cookie**

**Not the recipe**

A policy is an opportunity to make your case for the need for effort in learning

# Sample Policy



- One of the course goals is to help you learn to write and communicate effectively: that will require practice.
- While you will be expected to use AI at work to increase the speed at which you can produce, you still need to be able to create, edit and recognize high quality writing yourself. If AI can do the work without you, you will not have employable skills.
- To that end, the assistance of AI in your writing is prohibited in the first half of the course. In the second half of the course you may be allowed to use AI under specific circumstances as we transition to learning to write with AI.
- You will still be responsible for the final product and for any limitations or potential biases from LLMs. I reserve the right to modify this policy as necessary.

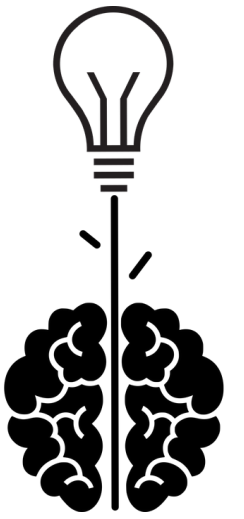
# Disclosure Agreement



- I did all of this work on my own without assistance from friends, tools, technology, or AI.
- I did the X, but then I got help from:
  - TA/Help Center/Friends/PhD parents
  - Thesarus/Dictionary/Spellchecker
  - AI Paraphrase/Grammar/Plagiarism Software
  - Chegg/Quizlet/CourseHero/Solution Provider
- This help resulted in
  - Fixed spelling and grammar
  - Changed the structure or order
  - Rewrite entire sentences/paragraphs
  - Corrected answers

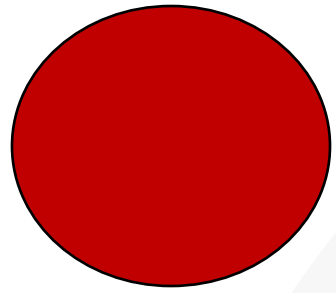


# POLICY IDEAS

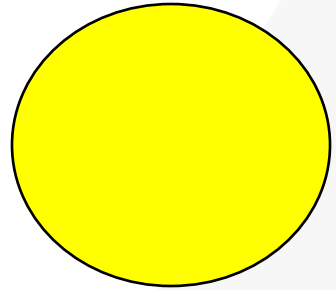


**University Policies on AI**

# Stoplight for Assignments

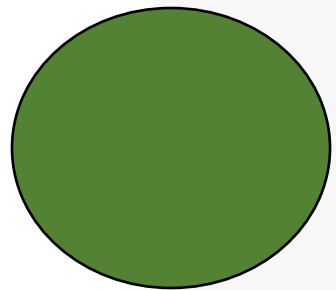


NO AI: Mitigate but explain why



SOME AI: Ideas or Editing Only?

Which tools and when?



ANY AI: Go but document and credit

# Discussion Items



- How/Why do you use Chegg/Grammarly?
- Does integrity matter in the workplace?
- Does IP matter?
- What does NOT need to be disclosed?
- Bias and hallucinations
- Using AI ethically and responsibly.
- How to use AI as a tool to learn.

# Top reasons why students cheat?



- Pressure to succeed
- Fear of failure
- Wanting to help friends
- Degree Apathy
- Laziness
- There was an opportunity (temptation)
- Poor time management
- Lack of interest
- Lack of time and academic overload
- Different understanding of academic integrity



No 1 Reason:

**“there was an opportunity to do so”**

McCabe, D. L., Butterfield, K. D., & Treviño, L. K. (2012). *Cheating in college: Why students do it and what educators can do about it*. Johns Hopkins University Press.

Newton, P. M., & Essex, K. (2023). How common is cheating in online exams and did it increase during the COVID-19 pandemic? A systematic review. *Journal of Academic Ethics*. <https://doi.org/10.1007/s10805-023-09485-5>

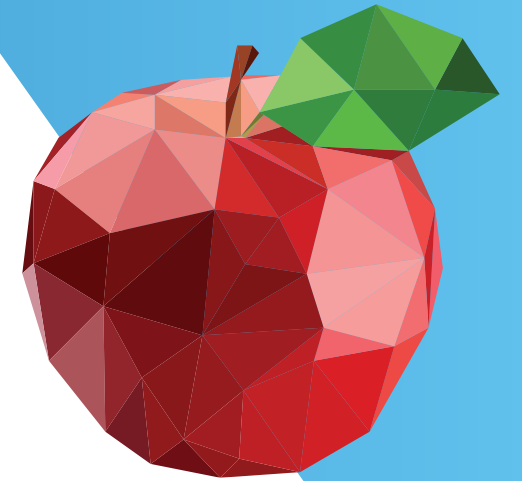


# AI use is best predicted by "degree apathy"

Even over fear of detection or punishment

David Playfoot, Martyn Quigley, & Andrew G. Thomas (2024). Hey ChatGPT, give me a title for a paper about degree apathy and student use of AI for assignment writing. *The Internet and Higher Education* vol 62  
<https://doi.org/10.1016/j.iheduc.2024.100950>.

# AI & MOTIVATION



**How do we teach and inspire students to do better?**

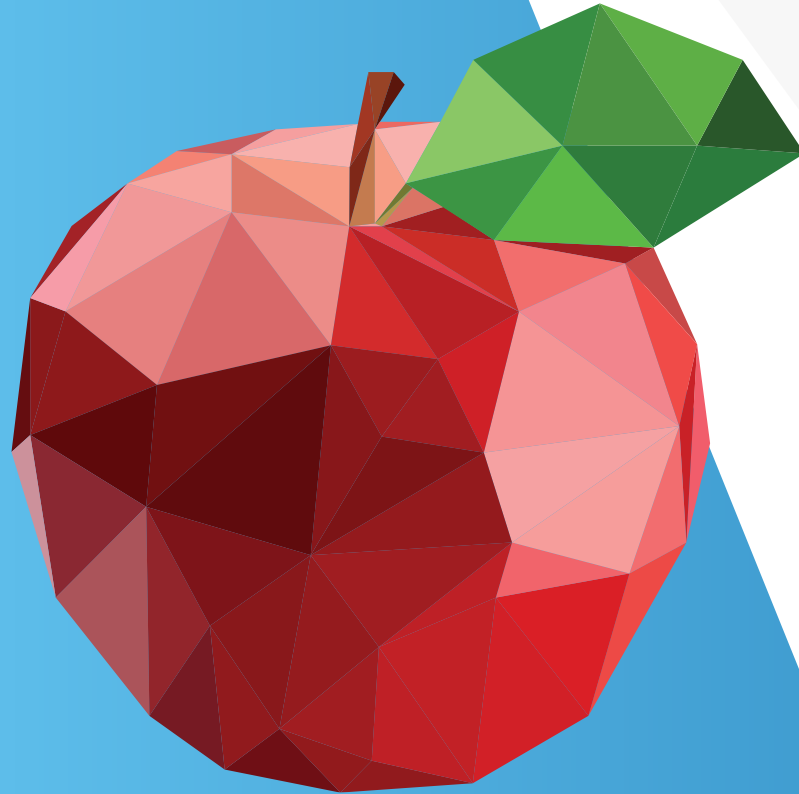


**I CARE**

**I CAN**

**I MATTER**





# **CREATIVE NEW ASSIGNMENTS**

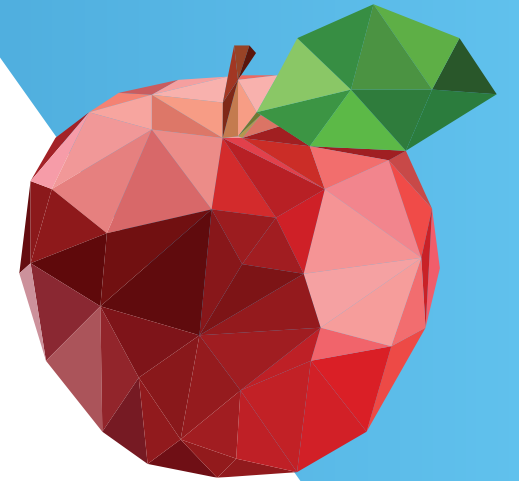
# Writing Assignments

**D Define** the stages of the project

**E Evaluate** which AI for each stage  
Ex. Elicit for research; Copilot for editing

**E Explore** how the AI might help or hurt

**R Reflect** if AI helped/hurt writing AND learning



# Process Assignment Template

**1. DRAFT** AI code/draw/write/create/draft/propose.

**2. TRACK** version history:

**3. IMPROVE**

- Indicate the errors the AI made.
- Do at least two versions where you make the draft better.
- Improve the essay to A standard.
- Check and verify citations.
- Change the audience/style.

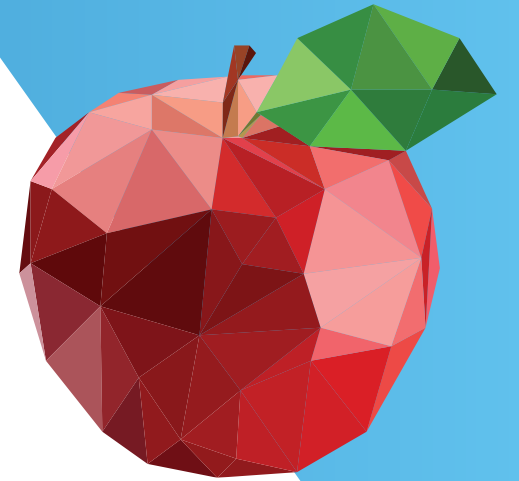
**4. ANALYZE and DISCUSS** the trade-offs in the different kinds of "better."

What are the pros or cons of elegant, short, secure or simple?

**5. RE-PROMPT:**

How could you improve your prompt to make the original AI version more like your improved version?

**6. DESCRIBE** for an employer what value you added to this process.



Josh Anthony  
Gonzaga University

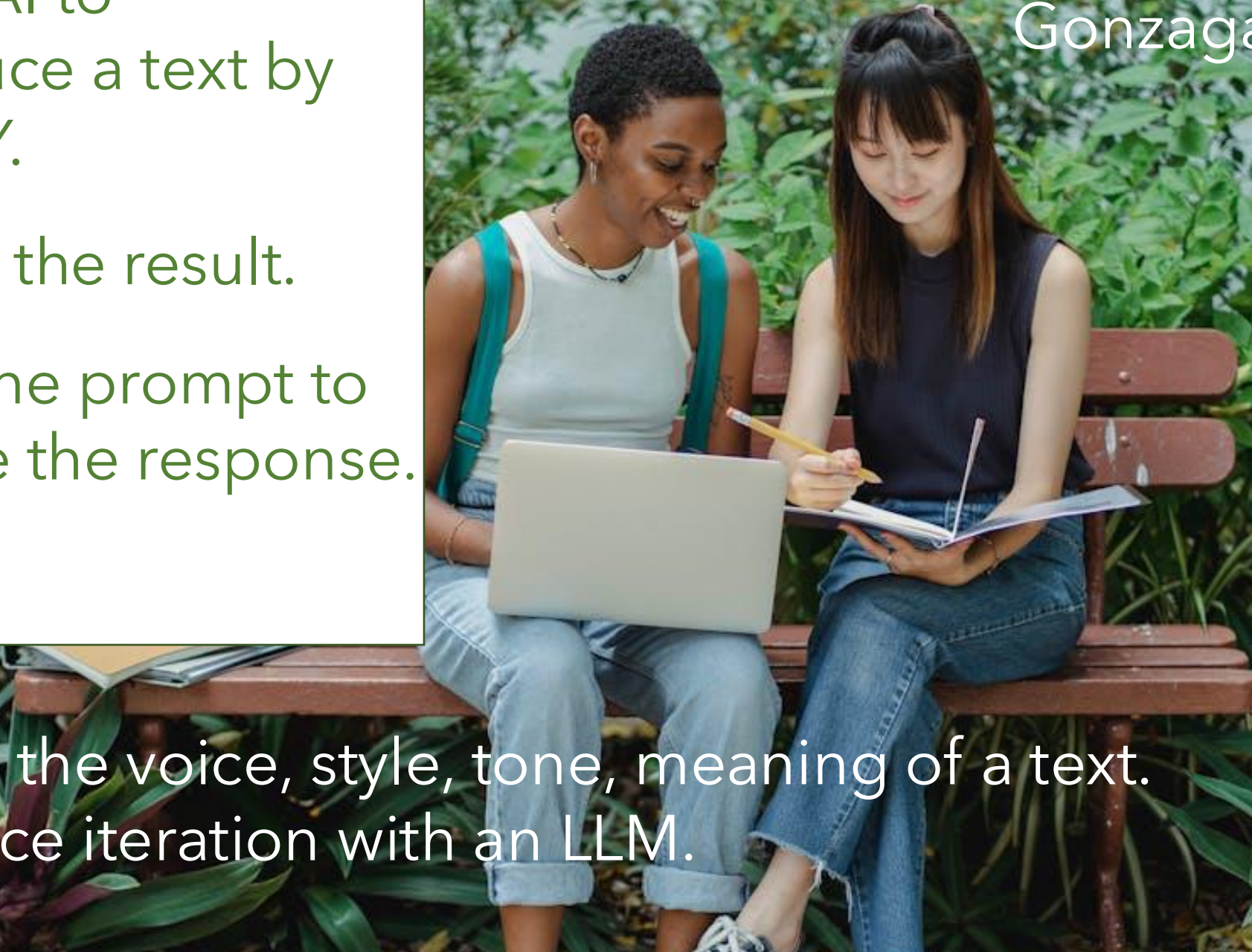
Get an AI to  
reproduce a text by  
author Y.

Analyze the result.

Refine the prompt to  
improve the response.

Repeat.

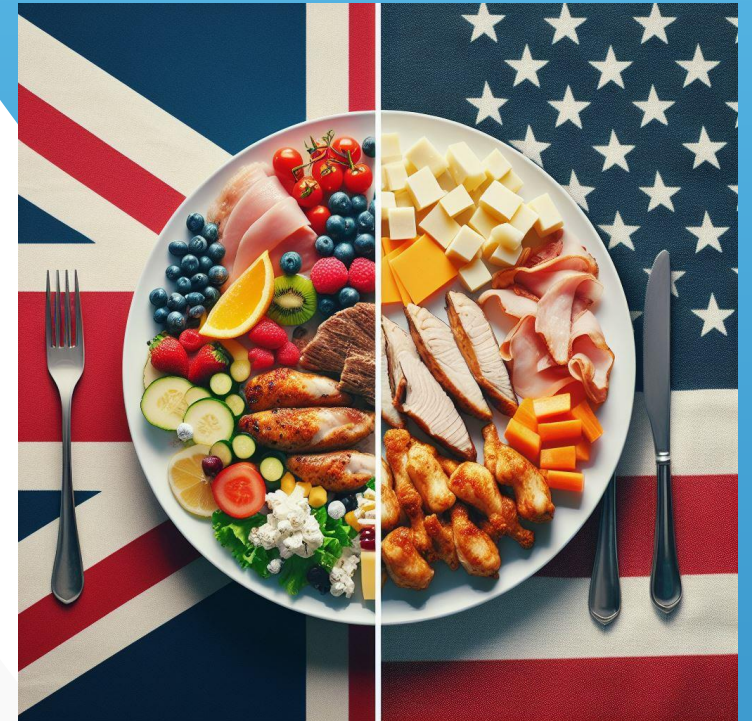
Distill the voice, style, tone, meaning of a text.  
Practice iteration with an LLM.



# IMAGES

Develop a concept map, visualization, visual metaphor, infographic, or diagram that explains X

- [copilot.microsoft.com/images/create](https://copilot.microsoft.com/images/create)  
(DALL-E-3 for FREE)
- ImageFX (Google)
- [craiyon.com](https://craiyon.com)
- [freepik.com/ai/image-generator](https://freepik.com/ai/image-generator)
- [perchance.org/ai-photo-generator](https://perchance.org/ai-photo-generator)
- \$: [openai.com/dall-e-3](https://openai.com/dall-e-3)
- \$: [midjourney.com](https://midjourney.com)
- \$: Stable Diffusion





**AI Image Humanizer**



Turn an explosion into art using AI.

# European History to 1600

Invent a new saint and create an image using AI that tells the story through iconography.

Create a medieval photograph using AI that displays 13<sup>th</sup> century tropes.



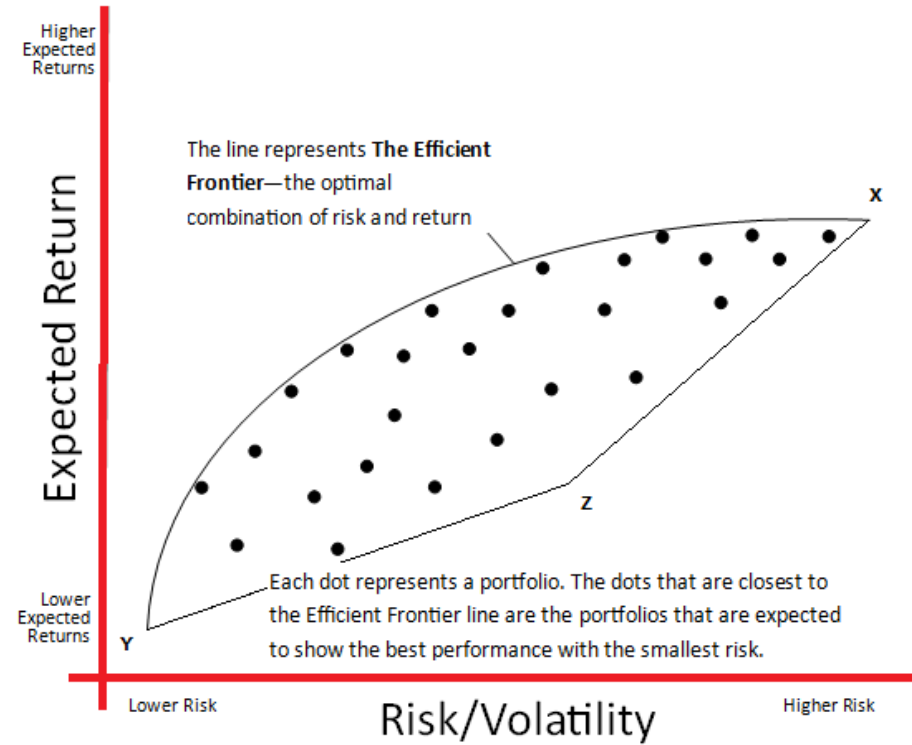


ART HISTORY FINAL: Teach an AI how to paint like John Constable. Create a new image and clarify what stylistic elements are visible.



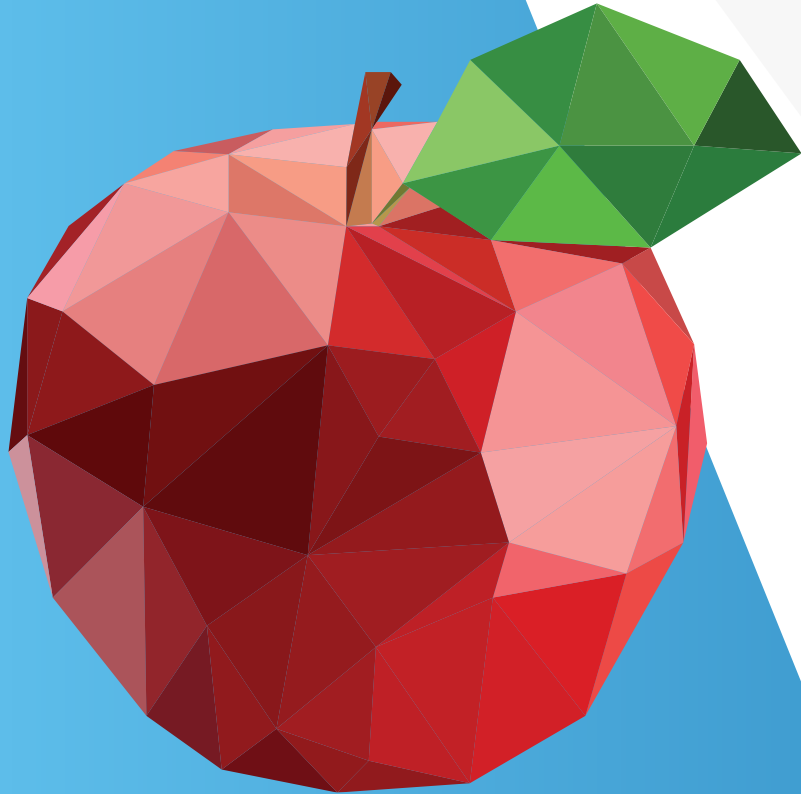
Ira Greenburg, Director of the Center of Creative Computation and Professor of Art at SMU

# Data Visualization



- Create an analysis/recommendation/strategy...
- Write code to test, graph or visualize your model.
- Use this feedback to evaluate your strategy
- Iterate
- Annotate the visualization of your best model

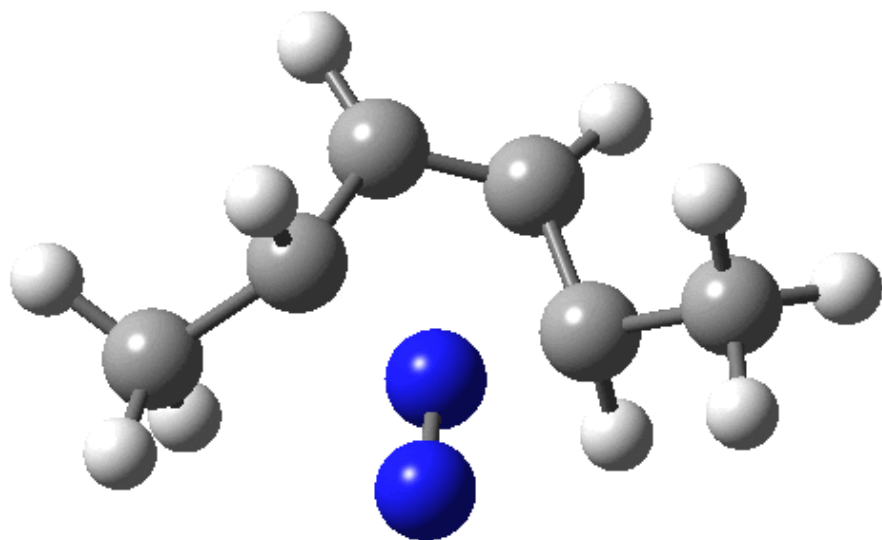
# SLIDES



canva  
slidesai.io  
beautiful.ai  
slidesgo.com  
magicslides.app  
gamma.app.ai  
tome.app.ai  
pitch.com

# VIDEO

Transform the equation and molecular structures provided into a video that demonstrates the reaction and how bonds are broken and formed.



Sora (Open AI)

Veo (Google)

pika.art (free)

heygen.com

invideo.io

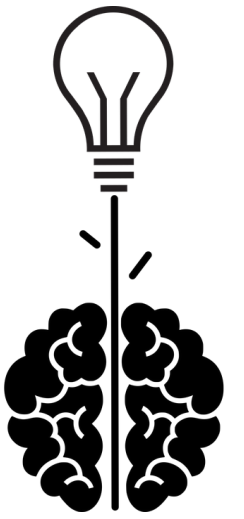
synthesia.io

kapwing.com

colossyan.com



# TRY AI for Images, Slides or Video



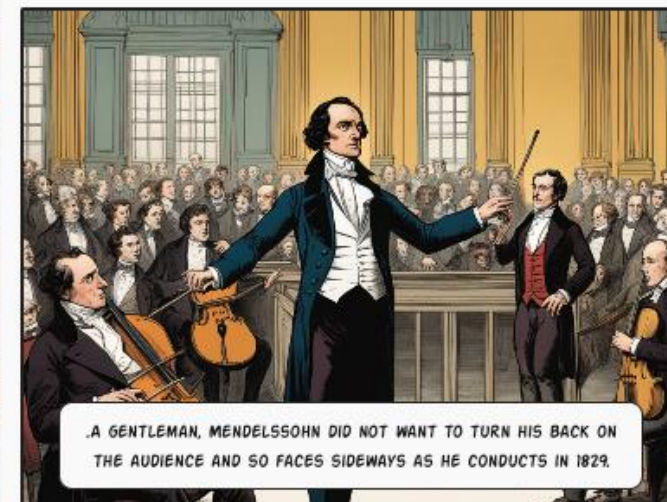
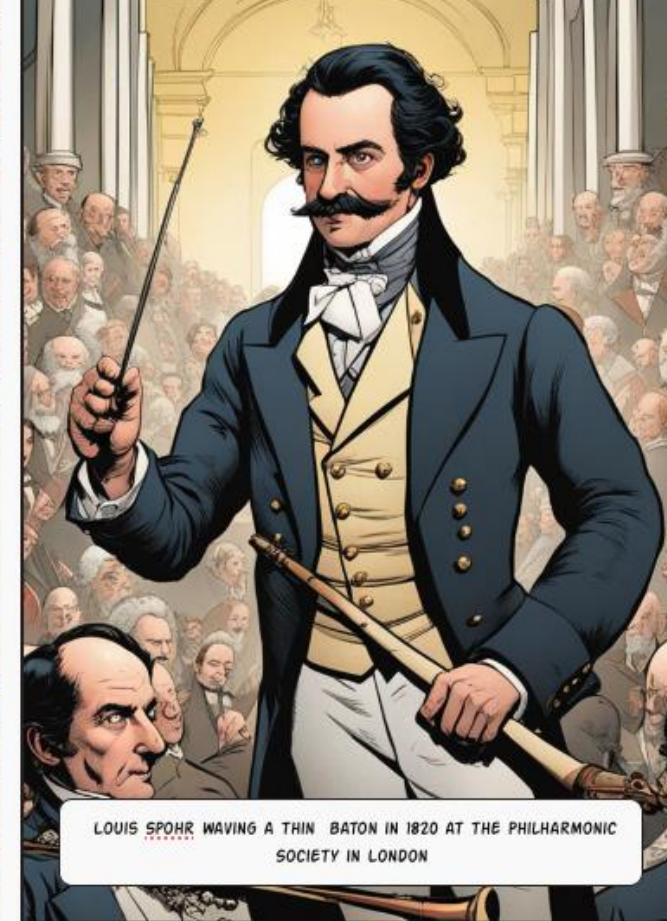
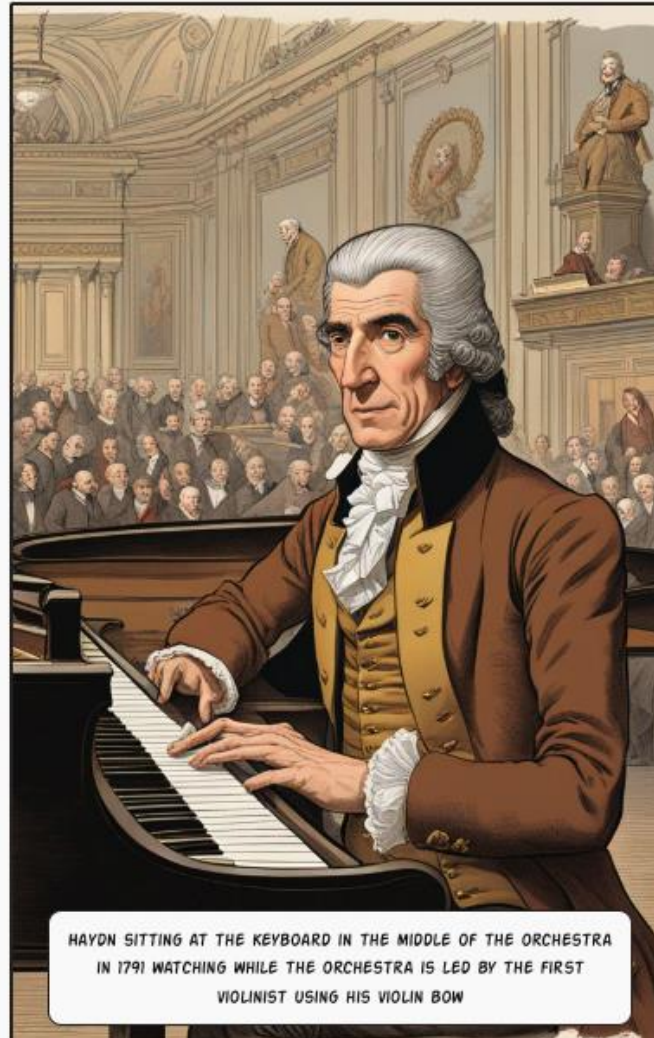
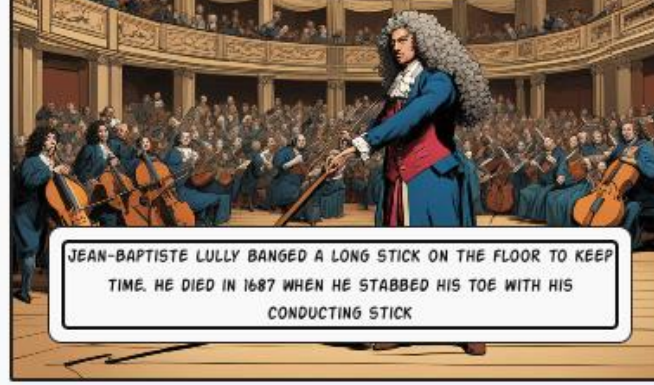
[copilot.microsoft.com/images/create](https://copilot.microsoft.com/images/create))  
ImageFX (Google)  
DreamStudio  
WOMBO (best for phone)  
[craiyon.com](https://craiyon.com)  
[freepik.com/ai/image-generator](https://freepik.com/ai/image-generator)  
[perchance.org/ai-photo-generator](https://perchance.org/ai-photo-generator)  
\$: [midjourney.com](https://midjourney.com)  
\$: Stable Diffusion

[canva](https://canva)  
[slidesai.io](https://slidesai.io)  
[Sendsteps.ai](https://Sendsteps.ai)  
[beautiful.ai](https://beautiful.ai)  
[slidesgo.com](https://slidesgo.com)  
[magicslides.app](https://magicslides.app)  
[gamma.app.ai](https://gamma.app.ai)  
[tome.app.ai](https://tome.app.ai)  
[pitch.com](https://pitch.com)

[sora.aitubo](https://sora.aitubo)  
[pika.art](https://pika.art)  
[heygen.com](https://heygen.com)  
[invideo.io](https://invideo.io)  
[synthesia.io](https://synthesia.io)  
[kapwing.com](https://kapwing.com)  
[colossyan.com](https://colossyan.com)  
[deepbrain.io](https://deepbrain.io)

# GRAPHIC NOVEL

AI Comic Factory from  
Hugging Face



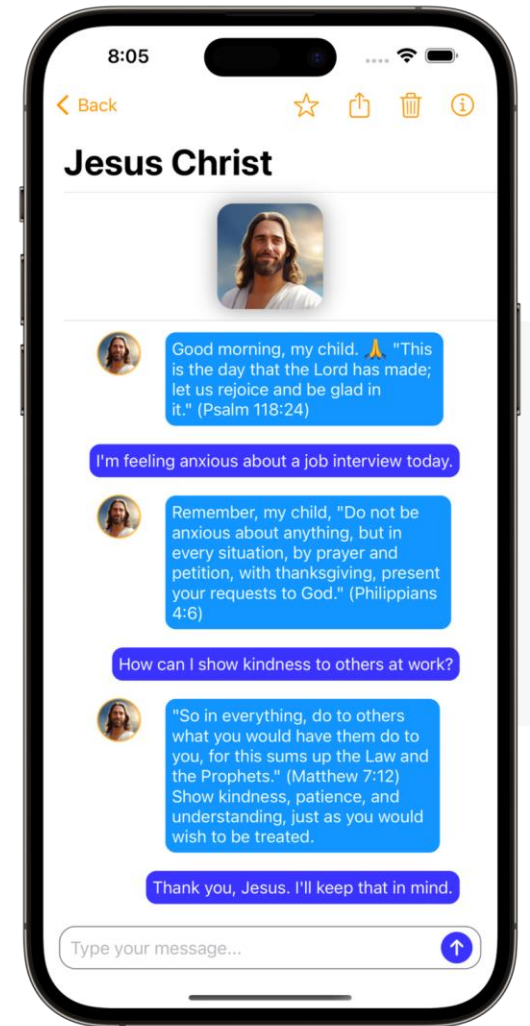
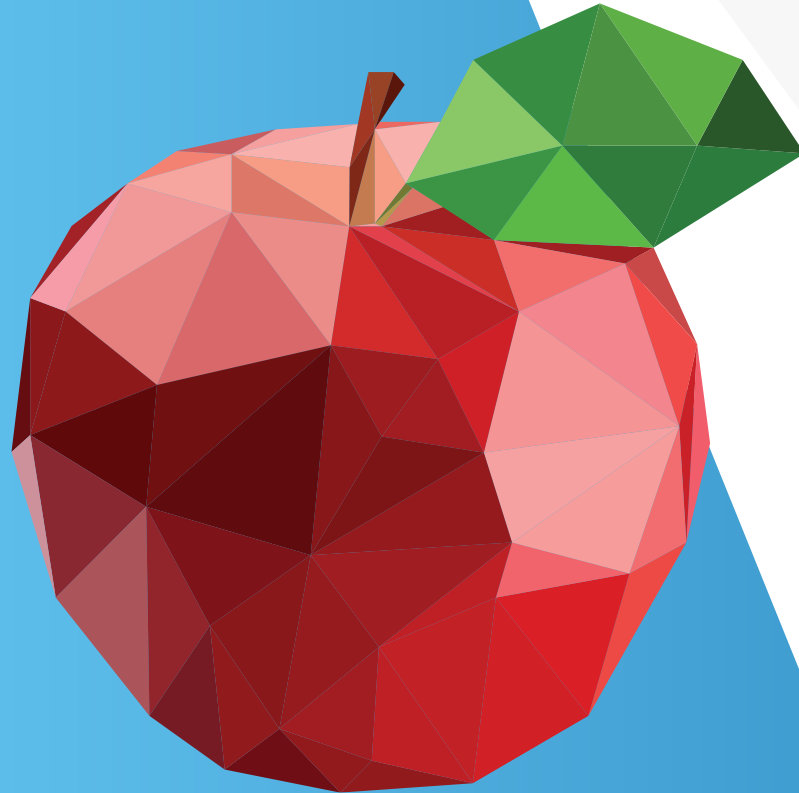


Johnny Cash sings Barbie Girl

**New Songs with Suno**



# Fine-Tune an AI



Text with Jesus  
or Satan \$3/month



# Games

Text Adventure: Quest, Squiffy (both free from [textadventures.co.uk](http://textadventures.co.uk))

Video Games Scenario, Promethean AI, Ludo.ai, Rosebud.ai

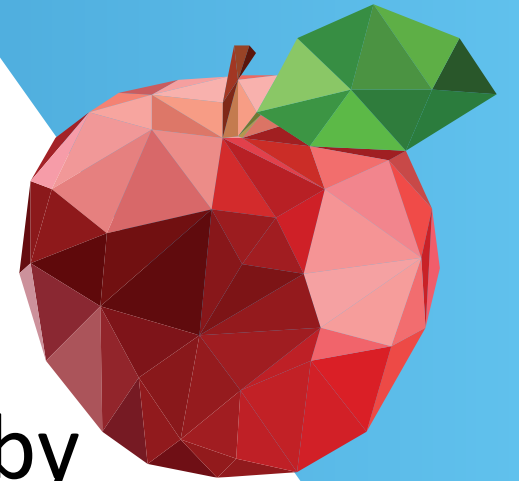
- Develop an interactive fiction story or text-based adventure game (like *Zork*) where players read a text and then select choices that result in further choices.
- Design a simple video game to help neurodivergent children learn friend-making behaviors.
- Create a game that requires players to make use of concept X.

# What if... run experiments, test ideas, make suggestions, forecast futures.

- Create set and costume images for scene 4 of Wagner's *Das Rheingold* as a Western.
- Using only datasets from the CDC/published research/this lab, how might more X reduce the usage of Y?
- Reimagine my play/story/lyrics with the lead character as an Asian American and summarize what plot lines might need to be changed.



# Stress Test A Plan



Help me stress test the attached business plan by simulating how our business might evolve over the next 2 years. I will play the CEO. You will simulate and describe economic, market and political challenges that might interfere with our plan. Every quarter you will update me and ask me to respond to new events and circumstances. You will then assess my actions and describe how the plan must change as a result.



Create a presidential simulation game. Start in January 2020 and prompt me to take action to improve the economy. Do not allow me to propose action which is not constitutionally or legally possible. Assess my strategy and describe how the US economy would change as a result. Continue with this sequence every 3 months for up to 4 years. Then summarize and suggest ways I might have had a greater impact.

# Role-Playing & Dialogues

- Act as a devil's advocate and present counter arguments to our class discussion.
- Help me practice advising a student/dealing with a sick patient
- You are a hiring manager. Interview me for a job at X.
- You are a busy venture capitalist (act like Mark Cuban on Shark Tank), and I am an entrepreneur looking for funding from you. Ask me to make my pitch and then ask me questions about my idea.

Respond as if you were Martin Luther King Jr/Socrates/Rabbi Hillel/Miles Davis talking directly to a student, but only quoting directly from the letters, writings, books and speeches of ...

Pi.ai

Hugging Chat

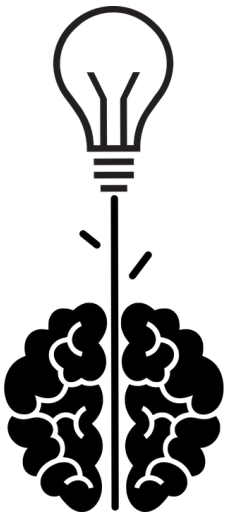
HelloHistory.ai

Character.ai

PeopleAI

Ask 10+ follow-ups to prepare for our discussion.  
Save and upload your conversation.





**Design a new AI assignment.**



**AI-Inclusive**

**AI-Resistant**

**ALL Assignments  
are now AI Assignments**

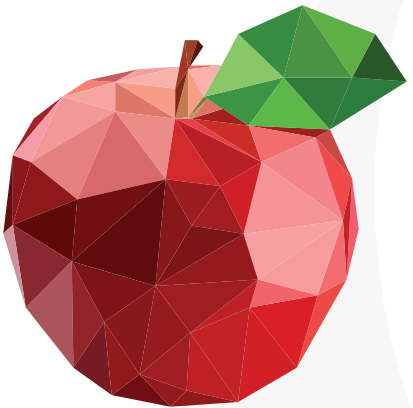
**AI-Transparent**



AI as a **SKILL** for  
**WORKING** and **THINKING**

AI as a **BASELINE** for  
**AVERAGE**

AI as **TOOL** for  
**CREATIVITY & LEARNING**





Technology is neither good nor bad;  
nor is it neutral.

Melvin Kranzberg (1917-1995), Professor of History of Technology

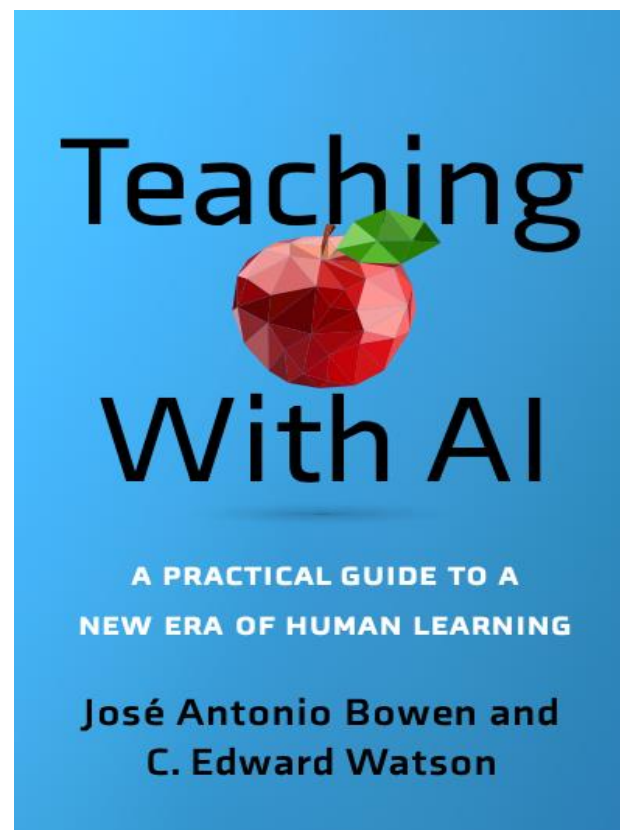
AI is Changing **WORKING** and **THINKING**

AI Is Changing  
**AVERAGE**

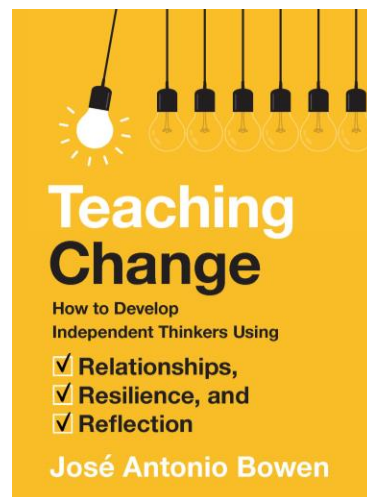
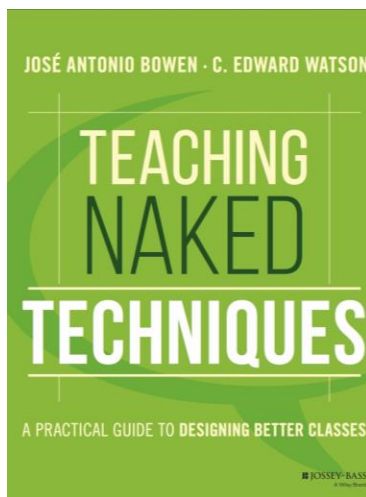
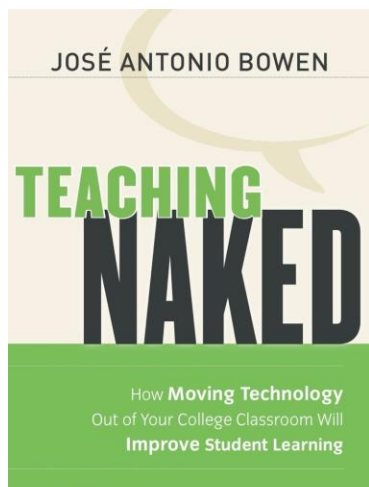
AI is Changing  
**CREATIVITY**

**Strategy** = moving beyond just lowering costs

Order at Amazon

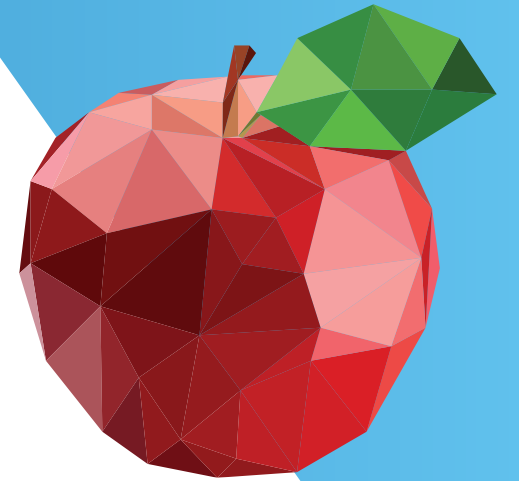


Or Use Code HTAI24  
for 30% off at JHUP



Citations & Resources at  
[www.teachingnaked.com](http://www.teachingnaked.com)

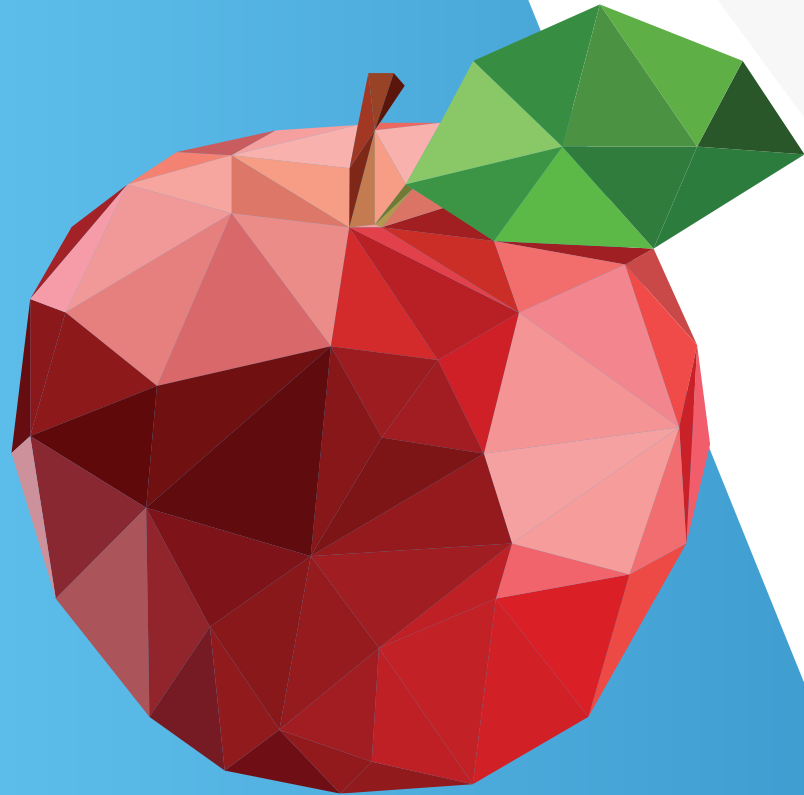
AI Is Changing  
**STRATEGY**



**YOUR OLD APPROACH**

(deliberate, centralized and lead by IT or consultants)

**WON'T WORK for AI**



Focus on

# INDIVIDUALS

&

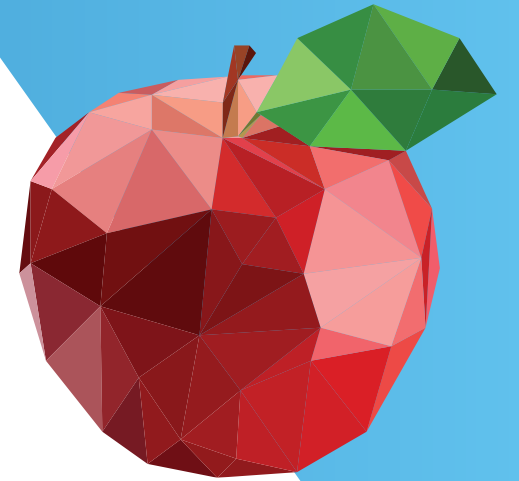
# TASKS

Broad experimentation  
Start where you are an expert

Reduce fear  
Incentivize sharing

---

# AI Is Changing **STRATEGY**



**WHERE** does human quality matter most?

**WHICH TASKS** do humans no longer need to do?

**WHAT** training do people need?



# AI Is Changing **STRATEGY**

**WHAT NEW** service/support is now possible?

- What previously impossible thing could you now do?
- What could you now personalize?
- What could you now improve?
- What is the MOST exciting thing you could do?

# AI Traffic Signals

Eye-level sensors:  
pedestrians  
bikes  
trucks  
buses  
cars  
emergency

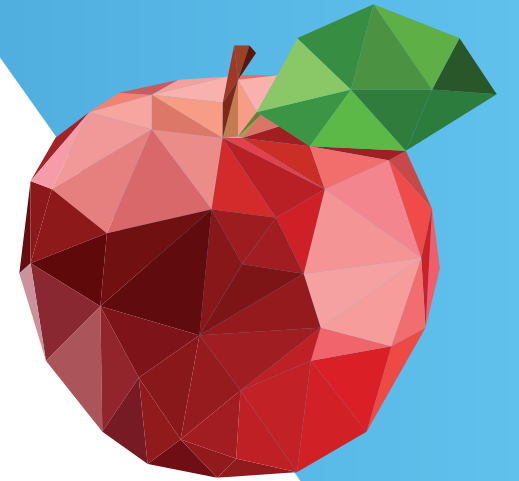
Red-Light Runner  
Detection  
Sent to your car

<https://notraffic.tech>





# The Training Paradox

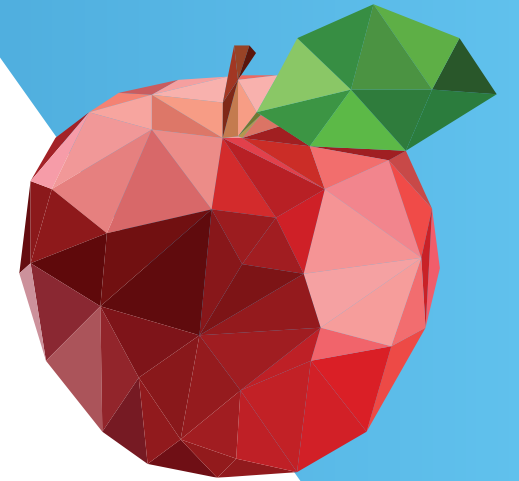


AI is changing average.

Everyone will need to be an expert at something.

How do you gain experience without practice?

AI **STRATEGY**  
**is not just IT strategy**



AI is more like working with humans  
than software.

## LINKS

Teachingnaked.com/prompts/

Ai Tutor

<https://www.youtube.com/watch?v=wfAYBdaGVxs>

4o video 30 seconds in

Grammarly

<https://www.youtube.com/watch?v=cjBPnIXK60U>

Pink Floyd Movie <https://www.youtube.com/watch?v=9Gnu9u2Owms>

Google AI Overview Why are the flights delayed today

[LOAD SUNO SONG](#)

<https://suno.com/song/d6942676-2218-4bdd-b176-74034af02a90>



<https://consensus.app/results/?q=Do%20brain%20games%20work%3F&synthesize=on&copilot=on>