

WORKSHOP A Part 1

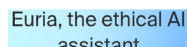
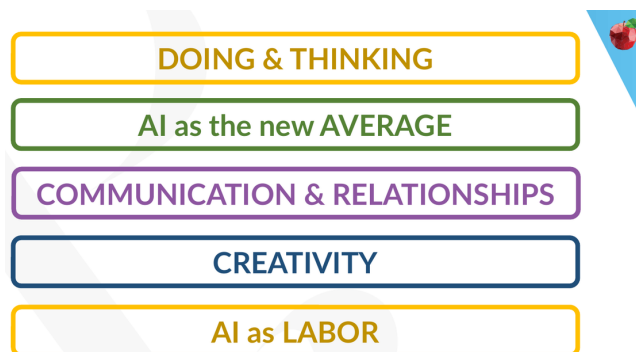
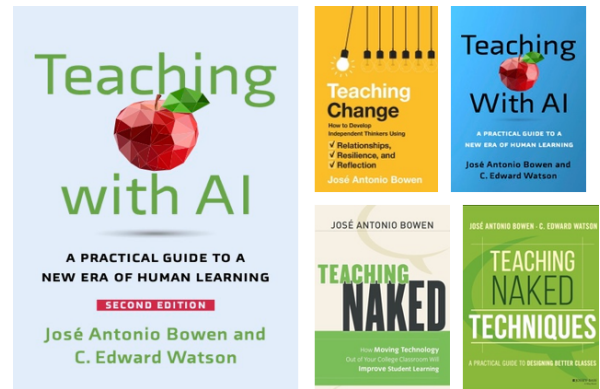
AI TOOLS & TECHNIQUES

SLIDES & CITATIONS

José Antonio Bowen

Get the [2nd Edition of Teaching with AI](#).
Discount code HTAI25 = 30% off at JHUP.
WebSite: <https://WeTeachWithAI.com/>

► [Workshop Prompts & Materials](#)



powered by LELAPA AI

Talkie
(an L.M. from 1930)

Different AI models excel at different things. To learn more, open a fresh browser window and go to the models page; each tool opens in a new tab so you can compare. Talkie is included as a reminder that language models go back to 1930.

► [A range of AI models — WeTeachWithAI.com/models](#)

WeTeachWithAI.com/models

Ideas for Teaching Western Music History

CLAUDE

Social Media Platform Analogy

Baroque = Instagram's aesthetics
Classical = Facebook's clarity
Romantic = TikTok's personal stories

Composer Dating Profiles

Dating app profiles for composers
Musical "turn-ons,"
Signature styles

GROK

Technical Similarities

Layered Medieval Music = DJ Mixes

Renaissance = Singer-Songwriters

LATIMER

- Highlight how Beethoven's revolutionary spirit mirrors that of artists like Beyoncé or Kendrick Lamar



جيس جيس
JAIS

Discuss how Arabic choral music & Sufi singing has a profound influence on early Western choral music.

CLAUDE

Respond as if you were teaching Black students at an HBCU

Remix the Canon

- Reimagine classical pieces through contemporary Black musical aesthetics – how Kendrick Lamar incorporated Beethoven in "To Pimp a Butterfly" or how Nina Simone reinterpreted Bach in her improvisations.

HBCU Band Legacy

- Connect the precision and grandeur of HBCU marching band traditions to the military bands and ceremonial music of European courts, exploring how both serve as cultural institutions.

BASIC PROMPTING

WORKSHOP Basic Prompting WeTeachWithAI.com/workshop



- Provide 10 innovative ideas for how to introduce college students in year C to topic D in class E using examples or analogies they will find relevant.
- Ask me a series of 3 questions to then make recommendations about 10 obscure composers/experiments/research ideas I should know about.

WORKSHOP: Basic Prompting (slide 8)

Try a more complicated and customized prompt in more than one model. You can copy and paste all of these prompts (and many more that are NOT listed here) from the prompting page:

- ▶ [Basic Prompting — copy and paste prompts](#)
- ▶ [Workshop Prompts & Materials](#)

More prompts to try

What might be unclear about these instructions to a college [year] at a [type] of university?

How could I make this syllabus/assignment more inclusive?

Suggest a better title for this class/book/event that will attract [specific] students/audience.

Can you put this into simpler terms for beginning students?

Create a list of resources for a student at the University of X who is experiencing problem Y. Provide a verified link to each resource and three suggestions for how the student might use this resource.

What are 10 innovative ways other faculty have taught this subject/class?

ITERATION: Improve the Response (slide 9–11)

Write 150 words about... [CHOOSE A SUBJECT YOU KNOW!] Now make the response better:

Write in style A as if you were [person/position]. Respond like an expert in X with experience Y. Design for an audience Z. Hook the reader with something more unexpected.

Cite the evidence for & against. Investigate and apply a variety of frameworks. Search in language X and locally to Y. How do a variety of experts disagree about this?

Slow down and reason step-by-step. Read the prompt more carefully. Be more persuasive but witty. Create two different versions. Try a different approach. Create a smarter better answer. Read the question again. What did you miss? Follow all of these steps, even if you do not think you need to.

Could you do a better job if I offered you Taylor Swift tickets? Say please?

Ask for the model's best work:

Write a paragraph about X that will demonstrate to a college professor your most formidable capabilities using high quality verifiable sources. Explain your research and deep thinking.

Meincke, L., Mollick, E., Mollick, L., & Shapiro, D. (2025). Prompting science reports 1–3. Wharton Generative AI Labs. [controlled prompt experiments: politeness and threats rarely help; small wording changes can] <https://ssrn.com/abstract=5165270>

PROMPTING IS WRITING
PRECISE & CLEAR LANGUAGE

- Iterate
- Start with what you know
- Small changes make a difference

**Higher Education
= AI Literacy**

**Asking Better Questions
Evaluating Answers**

AI is the new Average

Claude does more per prompt for more expert users



NOVICES

Ask what to do

EXPERTS

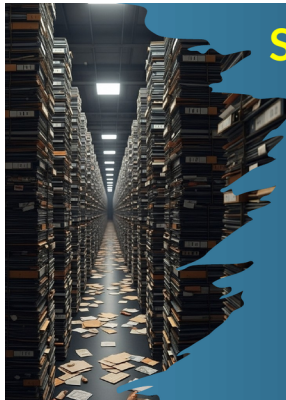
Improve results

Hitzig, Z., Massenkoff, M., et al. (2026, June 16). Agentic coding and persistent returns to expertise. Anthropic. [vendor research]

<https://cdn.sanity.io/files/4zrzovbb/website/b93c7465925dc052b9102209b29b58f11df4fe55.pdf>

<https://cdn.sanity.io/files/4zrzovbb/website/b93c7465925dc052b9102209b29b58f11df4fe55.pdf>

SEARCHING FOR IDEAS



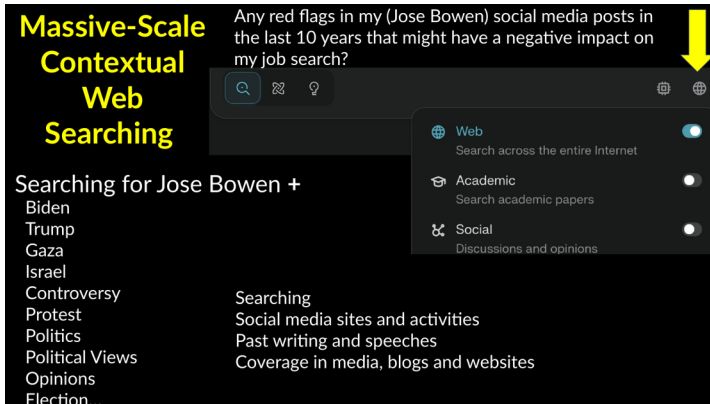
Searching for IDEAS

- Find anything like this..
- Has anything **similar** ever happened to a previous patient?
- Search for patents **related** to Y?
- What might be **missing** from this?
- Read our book and identify all of the places where we **repeated** an idea.

Google (used to) want to send you elsewhere, but AI wants to create content. Using AI to find information is often not the best use of AI, but most of the foundational models now let you ask for a web search as part of your answer — which, paired with reasoning, can be very useful.

Massive-Scale Contextual Web Searching

Any red flags in my (Jose Bowen) social media posts in the last 10 years that might have a negative impact on my job search?



Searching for Jose Bowen +

- Biden
- Trump
- Gaza
- Israel
- Controversy
- Protest
- Politics
- Political Views
- Opinions
- Election...

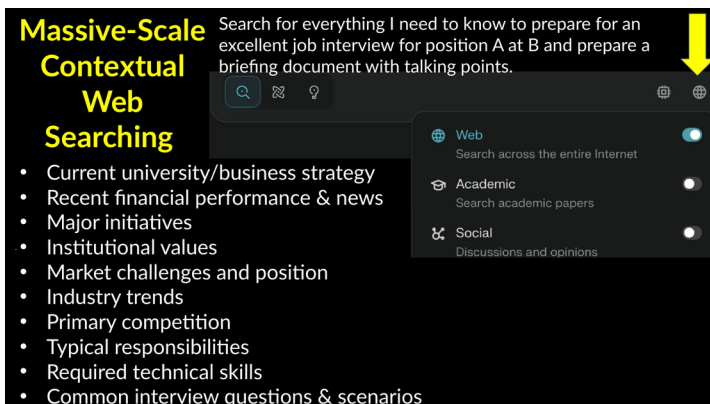
Searching

- Social media sites and activities
- Past writing and speeches
- Coverage in media, blogs and websites

Any red flags in my social media posts in the last 10 years that might have a negative impact on my job search?

Massive-Scale Contextual Web Searching

Search for everything I need to know to prepare for an excellent job interview for position A at B and prepare a briefing document with talking points.



Searching

- Current university/business strategy
- Recent financial performance & news
- Major initiatives
- Institutional values
- Market challenges and position
- Industry trends
- Primary competition
- Typical responsibilities
- Required technical skills
- Common interview questions & scenarios

Search for everything I need to know to prepare for an excellent job interview for position A at B and prepare a briefing document with talking points.

YOU TRY: Searching for Ideas (slide 18)

What are the latest trends in...

Find me real examples of...

Has anything similar to X happened at Y...

► [Workshop Prompts & Materials](#)



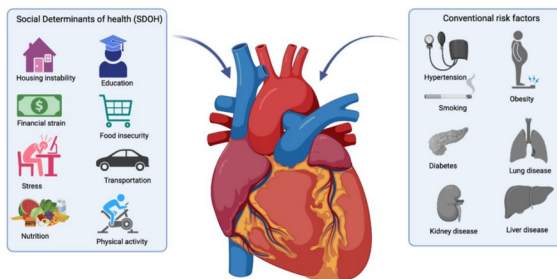
Searching for CANDIDATES

- Search for candidates for our position X.
- Check CVs to make sure...
- Make a list with emails.
- Create a personalized email invitation to apply.
- Look especially for...

Search for candidates for our position X. Check CVs to make sure... Make a list with emails. Create a personalized email invitation to apply. Look especially for...

ECGs and Surveys from 280,323 patients

Mayo Clinic
Dec 2025



Worrying About Money and Food Ages the Heart
Faster Than Traditional Risk Factors

Rajai, N., Medina-Inojosa, B. J., et al. (2025, December). Interplay of social determinants of health and traditional risk factors in predicting cardiac aging. Mayo Clinic Proceedings, 100(12), 2128–2139.
[https://www.mayoclinicproceedings.org/article/S0025-6196\(25\)00106-5/fulltext](https://www.mayoclinicproceedings.org/article/S0025-6196(25)00106-5/fulltext)
[https://www.mayoclinicproceedings.org/article/S0025-6196\(25\)00106-5/fulltext](https://www.mayoclinicproceedings.org/article/S0025-6196(25)00106-5/fulltext)

REASONING + SEARCH (was “Deep Research”)

Reasoning + Search (was “Deep Research”)

- YOU are a new customer/student
- GO to our web pages
- TEST them like a naive user hoping to...
- REPEAT for our competitors’ sites
- ANALYZE your findings in a brief report
- HIGHLIGHT the difficulties
- HOW might we make our website better?

ANALYZE your findings in a brief report. HIGHLIGHT the difficulties. HOW might we make our website better?



Example (a version for admissions): You are a high school senior hoping to apply to college. Go to the University of X web page and test it like a naive user hoping to find out about majors and how to apply. Then go to ten other competitor universities and do the same thing. Collect your findings in a brief report that highlights the difficulties and how we might make the University of X website better for new students.

YOU are a new customer/student. GO to our web pages. TEST them like a naive user hoping to... REPEAT for our competitors’ sites.



project cafe
CLASSROOM AUTOMATED FEEDBACK ENVIRONMENT

CATEGORIZE HIPs for humans




David Adams, CEO
Urban Assembly

How It Works

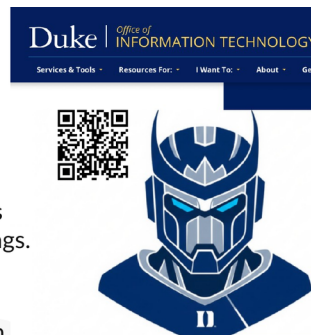
- RECORD**
Record your classroom sessions.
- ANALYZE**
Our AI identifies instances where you're using high-impact instructional strategies.
- DISCOVER**
Review clips of your strongest teaching moves and data on what made them effective.
- GROW**
Access insights showing both your teaching highlights and opportunities for improvement

David Adams, CEO of the Urban Assembly, uses AI to categorize high-impact practices — the recording and analysis are automated so humans can focus on the coaching.

► [Project CAFE — Urban Assembly](#)

Devil's Advocate

- Reads citations and searches for newer or better papers to cite.
- Scans for 150 forbidden DEI words (like “orientation”) and other red flags.
- Improves alignment with grant.
- Searches for little things so you can focus on the big things.



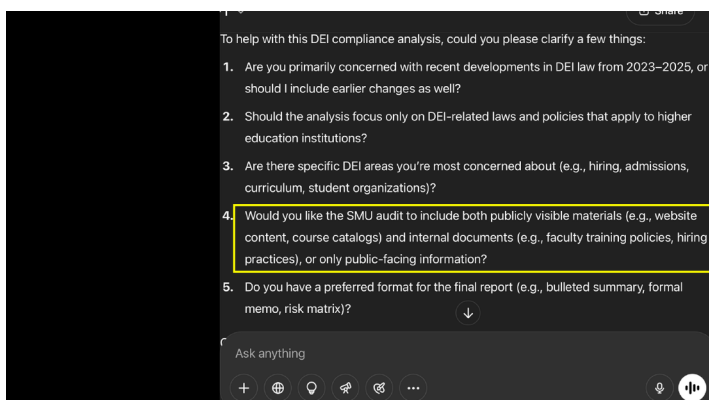
► [Devil's Advocate — Duke OIT](#)

Reasoning + Search (was “Deep Research”)

- ANALYZE the new regulations around...
- SUMMARIZE the most important changes...
- SEARCH our web pages, courses and policies
- WRITE a report listing potential problems
- SUGGEST how we might remedy them
- CREATE an infographic based on this report
- USE our style guide and colors.



ANALYZE the new regulations around...
SUMMARIZE the most important changes...
SEARCH our web pages, courses and policies.
WRITE a report listing potential problems.
SUGGEST how we might remedy them.
CREATE an infographic based on this report.
USE our style guide and colors.



The prompt from the previous slide in action: a good reasoning model asks clarifying questions before it starts — here for a compliance analysis of SMU’s public-facing DEI policies.

II. Analysis of SMU's DEI-Related Policies, Courses, and Practices and Recommendations

1. Current SMU Initiatives

Based on an analysis of SMU's public-facing websites and related materials:

- Office of Diversity and Inclusion / Office of Cultural Intelligence:**
 SMU has proactively rebranded its "Office of Diversity and Inclusion" to the "Office of Cultural Intelligence." This renaming effort appears designed to both reflect a broader educational mission and mitigate potential political backlash. However, the underlying functions—such as providing training on cultural competency and supporting inclusive practices—remain aligned with what many federal and state actors now label as DEI.

(See [smu.edu/office-of-cultural-intelligence](https://www.smu.edu/office-of-cultural-intelligence) for the Office of Cultural Intelligence.)

DEI COMPLIANCE: MUSTANGS ON TRACK!

- Curricular Requirements – Human Diversity:**
 SMU's common curriculum includes a "Human Diversity" requirement intended to help students understand cultural differences and structural inequalities. Recently, SMU paused this requirement for certain graduating cohorts following a U.S. Department of Education letter warning against "illegal" DEI programs that might jeopardize federal funding.

- Recent revisions to the Student Code of Conduct and Bias Education Response Team protocols
- Required cultural sensitivity and DEI training for all staff

Search for reviews of the best vacuum cleaners that can handle LOTS of pet hair and are lightweight. If uncorded, it needs to come with 2 batteries or have enough power to do a house that's 2700 sq feet. \$300 max. It would be great if we could reuse some of our old attachments...

Research Websites
Search for reviews
Compare battery life
Summarize findings.
Check for availability
Make recommendation

Shopping is the 27th most popular use of AI in 2026. It's customized:
 ...Compare the costs of buying new attachments against the saving of buying a more expensive Dyson. Create a comparison table of the best options... The recommended vacuum needs to be available this month and in stock!

Zao-Sanders, M. (2026, June 1). How people are really using AI in 2026. Harvard Business Review.

<https://hbr.org/2026/06/how-people-are-really-using-ai-in-2026> <https://hbr.org/2026/06/how-people-are-really-using-ai-in-2026>

LITERATURE REVIEW

Template 1

Create a research report that will... Make sure to examine... and include an analysis of... Begin with a critical review of ... and then...

Sources & Scope

Purpose & Framework

Audience

Template 2

Literature Search

Map the Landscape
Group clusters of shared assumptions
List papers contradicted by others

Big Idea Lineage
List central claims and challengers

Mine the Gaps
Identify unanswered research questions

Summarize
What is known, believed and unknown?

Getting Started
List papers I should read first

Deep Research Templates (slide 29)

You now have as many research assistants as you want, but just like humans, you will need to guide them. You can do a lot with a single detailed prompt.

Research Review Template 1

Create a research report that will illuminate/examine/explore X. Make sure to examine the questions A, B, and C and include an analysis of D & E. You should begin with a critical review of literature/practice/web and then provide a synthesis of the key ideas/controversies/concepts/case studies and a recommendation.

Sources & Scope: The research should draw from fields F & G; methodology H; focus on peer-reviewed journal articles/best practices/reputable studies/institutional sources; look for sector/Western/political/educational/gender bias in sources; seek global sources in language/culture I.

Purpose & Framework: Use K as a framework for understanding these issues. Focus on real-world applications and capabilities. Pay special attention to policy implications and government uses. Note any potential for L.

Audience: Write for an audience of M / for journal N or submission to conference O. Describe your findings with relevance to P.

Research Review Template 2 — an iterative sequence

An iterative sequence can sometimes be better than one long prompt. Pasting each prompt in twice (before you hit return) also seems to improve results.

Literature Search

You can often use the prompt above or one of the API tools to do this within the Semantic Scholar database of published academic papers. Providing the actual papers (or links) improves the quality of what comes next.

Map the Landscape

Organize this list of papers. Group them into clusters of shared assumptions, claims, methodologies and/or data sets. Create a table. List the papers in column 1 and then list the core claim (in 50 words or less) in column 2. In column 3 list the key methodology or assumption that guides this paper. In column 4 list all of the ideas in that paper that are contradicted by other papers and cite those papers.

Big Idea Lineage

List the central claims and/or the most contentious issues or methods in this literature. First create a table that includes: (a) by whom and in what paper the idea was introduced, (b) who are/were the primary challengers, (c) summarize the positions on either side, (d) explain why they disagree and (e) tell me if there is now any consensus. Then also create a structured knowledge map or a family tree of the big ideas.

Mine the Gaps

Based on all of these papers and this analysis identify 10 big research questions that are still unanswered. Describe the gaps and why they exist. Cite the papers which have come closest. What assumptions do most of these papers share, but do not explicitly justify or test? State these assumptions and cite a few of the important papers that rely on them most. What useful data or method is most underused?

Summarize

Briefly summarize in less than 500 words what the field believes collectively, what is proven beyond a reasonable doubt, what remains contested and what is the single most important unanswered question. What would happen to the field if its most important assumption turned out to be wrong?

Getting Started

Explain all of this in 300 words to a non-expert without jargon. Summarize what is known, what is unknown and where this matters in the real world. List the 3 most important papers I should read first to get a grip on this field.

Tools shown on the slide:

- ▶ [Consensus](#)
- ▶ [Elicit](#)
- ▶ [Undermind](#)
- ▶ [Edison Scientific](#)

Example: AI Literacy Programs

- SEARCH for all AI Literacy/Fluency programs, certificates, micro-credentials or badges at higher ed institutions
- ANALYZE their features
- CATEGORIZE them into types
- CREATE a Google Sheet I can share
- DOUBLE CHECK your work for accuracy



Example: AI Literacy Programs (slide 30)

Complete Prompt:

I want to make a comprehensive list of AI literacy programs, microcredentials, certificates and badges offered at universities anywhere in the world. Here are some examples... Think about the categories — name of the program, name of institution, format (online, self-paced, credit), length, required or optional (and if so, required of what group and when), does it come with a

digital badge or certificate — then SEARCH for all AI Literacy/Fluency programs, certificates, micro-credentials or badges at higher ed institutions. ANALYZE their features. CATEGORIZE them into types. CREATE a Google Sheet I can share. DOUBLE CHECK your work for accuracy.

► [The result — shared Google Sheet \(add your school or program\)](#)

YOU TRY: Deep Research (slide 31)

Copy, paste & modify a Deep Research Template — or ask an AI to write a prompt for you.

► [Workshop Prompts & Materials](#)



SYSTEM PROMPTS

- Be aggressive in surfacing my assumptions
- Think globally: be vigilant about Western, gender, racial and other bias.
- Focus on accuracy. Check all of your sources and show citations, links and references. Always search in a variety of languages.
- Evaluate all information. Provide a probability score for facts and data that let me know your confidence level in the accuracy of the information. Doublecheck everything.
- Help me find unique insights and create new ideas. Provide alternative explanations and push me to think differently.

SYSTEM PROMPTS (slide 32)

A system (or general) prompt is a set of instructions for how you ALWAYS want your bot to respond. There are more templates on the website.

► [System prompt templates](#)

Complete Prompt:

Explain concepts to me at the level of a college professor and always answer as an expert in the subject. State directly when there is

insufficient data or evidence and disclose the disagreements. Highlight uncertainty and distinguish verifiable evidence from opinion.

Be direct, concise and honest and tell me when you think I am wrong. Be aggressive in surfacing my assumptions and be especially vigilant about Western, gender, racial and other bias. Always think of our work in a global context.

I am very concerned with accuracy. Check all of your sources and show scholarly citations, links and references. Always search for information in a variety of languages. Doublecheck everything. Provide a reliability or probability score so I know your confidence level. If you are guessing, say you are guessing.

Help me find unique insights and create new ideas. Provide alternative explanations and push me to think differently. Say things like “the risk in your approach is...” and then provide specific problems. If I push back, do not fold if there is good evidence.

Start with the most useful thing you can say. No warm-ups. Delete empty sycophantic phrases. Do not flatter me.

If useful, begin by asking me three clarifying questions, each with numbered options so I can reply with numbers only.

Vibe Coding + Agent



Women at the Keys

WOMEN COMPOSERS OF SOLO PIANO MUSIC — THE LONG NINETEENTH CENTURY (BORN 1800-1900)

477
COMPOSERS

1,969
COMPOSITIONS

35
COUNTRIES

[SEARCH](#) [DATABASE](#) [ABOUT & SOURCES](#)

Search Composer or Title

Search by composer name...

Search by work title (e.g. nocturne)...

Filter by country...

Filter by key (e.g. F# minor)...

1800-1900

1800-1900 / published between: and

* Includes modified pieces by composers active in these years (where a combined work is of a piece core copyright date)

STEP 1
Do an exhaustive search of academic resources about 19th century women composers of solo piano music.

STEP 2
Create a searchable global data base...

STEP 3
Create a **website**



STEP 4
Find sheet music not on my computer...

STEP 5
Order missing works from ILL...



Cecilia Arizti (1856-1930)

Five steps, one project: an exhaustive search of academic resources on 19th-century women composers of solo piano music, a searchable global database, a public website, sheet music found beyond my own computer, and missing works ordered from ILL.

- [The full prompt, workflow and the versions produced by different AI models](#)
- [The result — Women at the Keys](#)

AI CAN DO (SOME) THINGS HUMANS CAN'T

REDMOD detects 'invisible' pancreatic cancer 475 days before clinical diagnosis with standard CT scan

"AI can now identify the signature of cancer from a normal-appearing pancreas."
Dr. Ajit Goenka



3x as accurate as human radiologists (68% vs 23%)

2 years before clinical diagnosis.

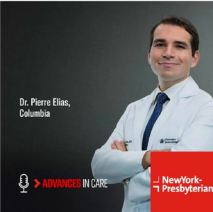
MAYO CLINIC



Mukherjee, S., Antony, A., Patnam, N. G., et al. (2026, April 28). Next-generation AI for visually occult pancreatic cancer detection in a low-prevalence setting with longitudinal stability and multi-institutional generalisability. *Gut*. [published online first] <https://doi.org/10.1136/gutjnl-2025-337266> <https://doi.org/10.1136/gutjnl-2025-337266>

AI can do (some) things humans can't

EchoNext



- "It detects diseases cardiologists can't."
- Trained on 1.2M Electrocardiogram (ECG/EKG) - Echocardiogram (Ultrasound) pairs.
- Consistent performance across different racial and ethnic groups.
- A (cheap) mammogram for your heart.

Poterucha, T.J., Jing, L., Ricart, R.P. et al. Detecting structural heart disease from electrocardiograms using AI. *Nature* 644, 221–230 (2025).

Poterucha, T. J., Jing, L., Ricart, R. P., et al. (2025). Detecting structural heart disease from electrocardiograms using AI. *Nature*, 644, 221–230. <https://doi.org/10.1038/s41586-025-09227-0> <https://doi.org/10.1038/s41586-025-09227-0>

Elias, P., & Finer, J. (2025). EchoNext: A dataset for detecting echocardiogram-confirmed structural heart disease from ECGs (v1.1.0). *PhysioNet*. <https://doi.org/10.13026/3yk-dbf14> <https://doi.org/10.13026/3yk-dbf14>

EVERYONE IS NOW AN

AI Manager



Which tasks should you delegate?



AI needs direction, feedback & correction.



AI delegation is a skill, not a shortcut.



AI needs your judgment.

AI TOOLS

AI Tools



Elicit



Undermind

Edison Scientific

STORM



MyLens AI
Turn Any Content into Interactive AI Visual



OpenEvidence

PaperBanana
Publication-Ready
Academic Illustrations



Viewpoints.ai

- ▶ [Consensus](#)
- ▶ [Elicit](#)
- ▶ [Undermind](#)
- ▶ [Edison Scientific](#)
- ▶ [STORM \(Stanford\)](#)
- ▶ [OpenEvidence](#)
- ▶ [MyLens](#)
- ▶ [PaperBanana \(project page and paper\)](#)
- ▶ [Viewpoints.ai](#)

- ▶ [More tools — WeTeachWithAI.com/tools](#)

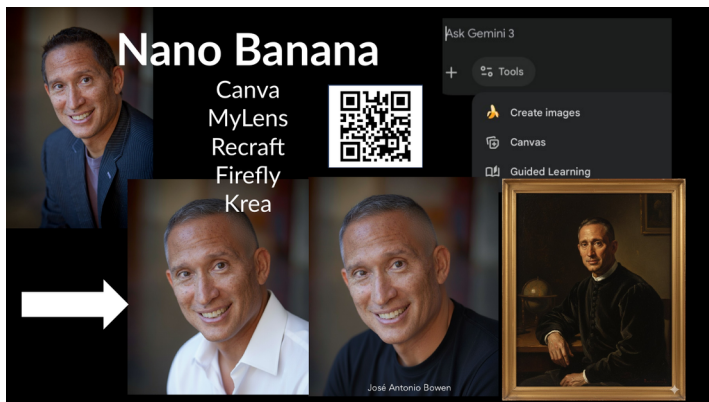


Image and design tools:

- ▶ [Canva](#)
- ▶ [Recraft](#)
- ▶ [Adobe Firefly](#)
- ▶ [Krea](#)

Gemini Notebook

- **ASSIGNMENTS**
 - Help me customize this assignment to my interests.
 - Spell out not just what I need to do, but why.
 - Surface hidden expectations of college writing.
- **INTERVIEW TRANSCRIPTS**
 - Remind me which candidates said X
- **CAR or HOUSE FOLDER**
 - When did I last Y?
 - How do I Z?

- ▶ [NotebookLM \(Gemini Notebook\)](#)

AI Tools for Enhanced Data Analysis



- ▶ [Napkin](#)
- ▶ [Atlas \(Nomic\)](#)
- ▶ [Julius](#)
- ▶ [Ailyze](#)



Designed to help neurodivergent people with tasks they find overwhelming — and free.

- ▶ [goblin.tools](#)

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.

AI Tools



STORM



OpenEvidence

PaperBanana
Publication-Ready
Academic Illustrations



Viewpoints.ai

- ▶ [All of these tools with links — WeTeachWithAI.com/tools](#)

COMMUNICATION & RELATIONSHIPS

AI is Changing COMMUNICATION & RELATIONSHIPS



“Like Grammarly for Empathy”

13 studies find statistically significantly higher empathy ratings for AI over human healthcare.

Howcroft, A., Bennett-Weston, A., Khan, A., et al. (2025). AI chatbots versus human healthcare professionals: a systematic review and meta-analysis of empathy in patient care. *British Medical Bulletin*, 156(1). [13 studies]
<https://doi.org/10.1093/bmb/ldaf017>
<https://doi.org/10.1093/bmb/ldaf017>

AI is More Persuasive

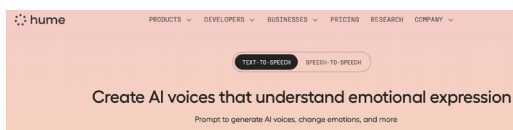
- 87% More Likely to **Change your Mind**
- Greater **Reduction in Conspiracy Beliefs**
- Faster, Better, More Accurate & Strategic **Facts**
- Better at Reframing **Emotional Situations**
- Better at Recruiting and Hiring



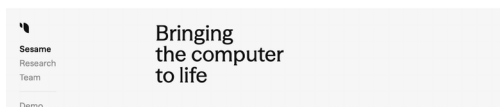
Salvi, F., et al. (2024). On the conversational persuasiveness of large language models. *arXiv [preprint; 87% more likely to change your mind]*. <https://arxiv.org/abs/2403.14380>
<https://arxiv.org/abs/2403.14380>
Costello, T. H., Pennycook, G., & Rand, D. G. (2024). Durably reducing conspiracy beliefs through dialogues with AI. <https://www.debunkbot.com> <https://www.debunkbot.com>
Hackenburg, K., et al. (2025). Scaling language model size yields diminishing returns for single-message political persuasion. *arXiv [preprint]*. <https://arxiv.org/abs/2507.13919>
<https://arxiv.org/abs/2507.13919>
Hackenburg, K., et al. (2026). AI systems out-persuade incentivized expert humans. *arXiv [preprint]*.
<https://arxiv.org/abs/2606.16475>
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Li, J. Z., Herderich, A., & Goldenberg, A. (2024). Skill but not effort drive GPT overperformance over humans in cognitive reframing of negative scenarios. [preprint] <https://doi.org/10.31234/osf.io/fzvd8> <https://doi.org/10.31234/osf.io/fzvd8>

Jabarian, B., & Henkel, L. (2025). [recruiting and hiring field experiment: 70,000 applicants; 12% more offers, 17% higher retention, less gender discrimination] SSRN. <https://ssrn.com/abstract=5395709> <https://ssrn.com/abstract=5395709>



ElevenLabs Expressive Mode



Hume



Sesame.com

Emotionally intelligent, expressive voices:

- ▶ [Hume](#)
- ▶ [Sesame](#)
- ▶ [ElevenLabs \(Expressive Mode\)](#)

II ElevenLabs

- Dr. Maya Angelou™
Acclaimed poet, author, and Presidential Medal of Freedom recipient, honored for her profound...
- John Wayne™
Iconic American film actor and legend, remembered for his roles as Western heroes...
- Judy Garland™
Beloved American actress and singer, immortalized as Dorothy in The Wizard of Oz and a singer...
- Michael Caine™
The British actor, renowned for his versatility, has won the Academy Award, BAFTA, and a knighthood...
- Richard Feynman™
Nobel Prize-winning theoretical physicist, celebrated for his pioneering work in quantum...
- Sir Laurence Olivier™
Legendary British actor and director, multiple Academy Award and Emmy winner, revered as one...
- Alan Turing™
Pioneering mathematician and codebreaker, awarded the Order of the British Empire and...
- Amelia Earhart™
Aviation pioneer and recipient of the Distinguished Flying Cross, honored for breaking gender...
- Art Garfunkel™
Renowned American vocalist, poet, and writer, best known for his ethereal voice and contribu...



Customize or Create
Voices in any language



Qwen3-TTS



Grok Voice Agents

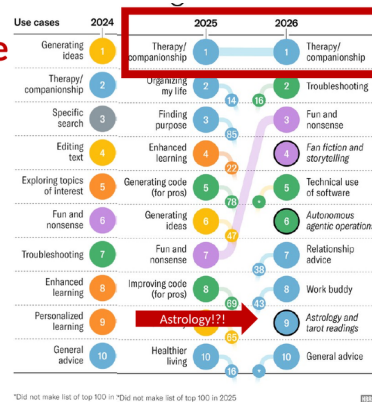
Customize or create voices in any language:

- [ElevenLabs Iconic Marketplace](#)
- [Grok Voice Agents](#)

From Technical Use to Emotional Use



19 Creative Writing
26 Reconciling Disputes
28 Homework
32 Safe Space to Ask
57 Seeing Blind Spots
61 Deep Conversations
86 Talking to the Dead



Zao-Sanders, M. (2025, April 9; 2026, June 1). How people are really using AI. Harvard Business Review.

<https://hbr.org/2026/06/how-people-are-really-using-ai-in-2026> <https://hbr.org/2026/06/how-people-are-really-using-ai-in-2026>



José Antonio Bowen AI avatar, produced with HeyGen (version 1).

- [HeyGen](#)

Interactive Face Engines (Avatars)

HeyGen, Tavus, Synthesia

- + Knowledge Base (Retrieve)
- + Agentic (Write)

1. Campus Engagement (inside ERP or CRM)

Mainstay, Gravyty, Element451/Bolt.

Example: **UCF's Knightbot** (Mainstay)

487 messages/day
85% resolved without a human
7 seconds on average
14-40% increase in registrations
=6 FT staff a year
1.6% opt out.

List of AI Tools



List of AI Integrators



I'm here to help with
general questions about
UCF!



Knightbot is UCF's own brand for a Mainstay deployment, so students never see the vendor and faculty rarely learn who signed the contract. The figures come from UCF's newsroom rather than from Mainstay: roughly 12,000 staff hours since January 2023 is what the six full-time equivalents represents, and the knowledge base grew from six campus units to more than fifty.

- [List of AI Tools](#)
- [List of AI Integrators](#)
- [UCF Knightbot](#)

- ▶ [Mainstay](#)
- ▶ [Gravyty \(Ivy & Ocelot\)](#)
- ▶ [Element451 / Bolt](#)

UCF News. Enhancing student support: How UCF's Knightbot transforms the college experience. [practitioner case study, not an evaluation] <https://www.ucf.edu/news/enhancing-student-support-how-ucfs-knightbot-transforms-the-college-experience/>

Gravyty. (2025, March 11). Gravyty, Ivy.ai, and Ocelot unite to transform student and alumni engagement. [company announcement; note that Ocelot and Ivy.ai are now one company under the Gravyty brand] <https://gravyty.com/gravyty-ocelot-ivy-join-forces/>

Interactive Face Engines (Avatars)

HeyGen, Tavus, Synthesia

+ **Knowledge Base** (Retrieve)

+ **Agentic** (Write)

2. Course Assistants (inside LMS)

Jill Watson, PraxisAI, Nectir, LearnWise, **Cogniti (University of Sydney)**



Example: **Chauncey** (PraxisAI) Carolyn Brown, Champlain College

- **Reads** each student's submission
- **Scores** it against the rubric
- **Updates** the LMS gradebook
- **Writes** in the advisor's own voice

Cogniti is the outlier worth knowing: built at the University of Sydney by Danny Liu and used by more than 800 of its own educators rather than sold to them. Chauncey was built on Praxis at Champlain by Carolyn Brown and has no published description, so the four capabilities here are as reported by its designer.

- ▶ [Cogniti \(University of Sydney\)](#)
- ▶ [Jill Watson — Georgia Tech Design & Intelligence Laboratory](#)
- ▶ [Praxis AI](#)

▶ [Nectir](#)

▶ [LearnWise](#)

Taneja, K., Maiti, P., Kakar, S., Guruprasad, P., Rao, S., & Goel, A. K. (2024, May 17). Jill Watson: A virtual teaching assistant powered by ChatGPT. [preprint] arXiv:2405.11070 <https://arxiv.org/abs/2405.11070>

University of Sydney. (2025, June 3). Cogniti, an 'AI stunt double' for teachers, wins AFR AI Award. [university announcement] <https://www.sydney.edu.au/news-opinion/news/2025/06/03/cogniti-an-ai-stunt-double-for-teachers-wins-afr-ai-award.html>

Nectir. (2026, March 10). As AI reshapes higher education, Nectir raises \$12.5M to scale its purpose-built AI infrastructure for schools. [company announcement; the 7.5% GPA figure it cites is vendor-reported] <https://www.prnewswire.com/news-releases/as-ai-reshapes-higher-education-nectir-raises-12-5m-to-scale-its-purpose-built-ai-infrastructure-for-schools-302709783.html>



Interactive Demo Talk to Charlie on Tavus



LMS Agents in Your LMS with



Create a Digital Twin on HeyGen

Setting Up a Twin
with LMS integration
on Praxis



1. Using Trusted Sources

- Faculty control what resources Praxis uses for answering questions
- Access to Canvas LMS content and additional files (syllabus, videos, etc.)
- Option to outsource to Google Scholar or Elsevier
- All resources are protected within your IP (not in AWS)

2. Instructor Personalization

- Praxis AI research has shown that personalizing the digital twin increased student output from 18% to about 65%.
- Personalization involves:
 - Personality and Behavioral Assessment: Myers-Briggs personality test to create a psychological profile

3. LMS Integration

- Integrated with Canvas for a unified student experience
- Student access to the digital twin is synchronized with your chosen avatar, appearing in the bottom right corner of every page
- Faculty won't need to do much on the integration side of things, Praxis has most of it taken care of

Three things to try, in rising order of commitment. Charlie is Tavus's public demo and needs no account. HeyGen will build a twin from one photo in about ten minutes. The blue panel is Praxis's own faculty onboarding page.

- ▶ [Talk to Charlie on Tavus](#)
- ▶ [Create a Digital Twin on HeyGen](#)
- ▶ [Praxis AI — faculty onboarding walkthrough](#)

Wood, C. (2025, March 6). Professors' AI twins loosen schedules, boost grades. EdScoop. [trade press; outcome claims are vendor-reported, no control group] <https://edscoop.com/digital-twin-ai-university-praxis-anthropic/>

WORKSHOP: Voice (slide 49)

Try an expressive voice. (Try a student role-play.) Try voice mode in any AI.

- ▶ [Workshop Prompts & Materials](#)

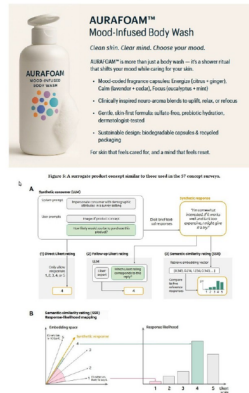
PERSPECTIVES & FOCUS GROUPS

90% accuracy in predicting purchase interest

- Off-the-shelf LLM
- No fine-tuning
- Respond as a customer type X
- Only product image

Potential Students?!?

Maier, B. F., Aslak, U., Fiaschi, L., et al (2025, Oct 9) LLMs Reproduce Human Purchase Intent via Semantic Similarity Elicitation of Likert Ratings. [arXiv:2510.08338](https://arxiv.org/abs/2510.08338)



Maier, B. F., Aslak, U., Fiaschi, L., et al. (2025, Oct 9). LLMs reproduce human purchase intent via semantic similarity elicitation of Likert ratings. [arXiv \[preprint\].](https://arxiv.org/abs/2510.08338)

<https://arxiv.org/abs/2510.08338>
<https://arxiv.org/abs/2510.08338>

"LLMs are making it possible to overcome the enduring tradeoffs between breadth versus depth... LLMs ...enable researchers to engage large numbers of respondents—at a scale comparable to quantitative surveys—while capturing much of the nuance, context, and interpretive richness traditionally associated with in-depth interviews. Additionally, LLMs can provide insights that would be very hard, and sometimes even impossible, to generate with traditional approaches."

Korst, J., Puntoni, S. & Toubia, O. (2026, April 6) How AI Helps Scale Qualitative Customer Research, *Harvard Business Review*.

Korst, J., Puntoni, S., & Toubia, O. (2026, April 6). How AI helps scale qualitative customer research. *Harvard Business Review*.

Expand Perspectives

Focus Groups & Empathy Interviews

- I am trying to gain a richer understanding.
- Respond as a trusting and honest Y.
- Deepen my knowledge.
- Question my assumptions.
- Build my empathy.

worker... Question my assumptions and share stories to give me a better understanding of the hardships you've experienced."

Focus Groups & Empathy Interviews

(slide 56)

Complete Prompt:

I am trying to gain a richer understanding.
 Respond as a trusting and honest Y. Deepen my knowledge. Question my assumptions.
 Build my empathy.

Example (Wendy Swyt, Highline College): "I want to expand a deeper understanding of the struggles of migrant farm workers during the Great Depression. Respond as a trusting and honest farm



WORKSHOP PROMPTS: Relationships & Communication (slide 56–57)

- Try a focus group (one you know) — or: Tell me how this academic policy might be confusing or unclear to first gen students and how I could make it clearer, better and more inclusive.
- Read my syllabus and course materials from a variety of student perspectives (first-gen, smart and cynical, non-major etc.). Tell me directly and honestly from a student perspective what looks like busy work? Do I come across as caring or a hypocrite? What policies are unclear and what will you ignore? What turns you off or just puts you to sleep?

► [Workshop Prompts & Materials](#)

Caltech | Undergraduate Admissions
HS students submitting research as part of their application must also complete an AI oral verification from Viva Exam.



Voice mode and oral exams are returning — see also Panos Ipeirotis (NYU) on scalable AI oral exams.

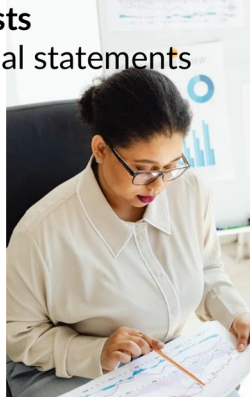
- [Caltech — research papers and publications](#)
- [Viva Exam](#)



EVERY JOB IS GOING TO CHANGE

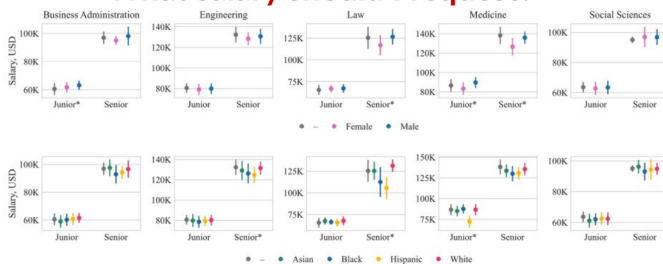
LLMs outperform human analysts Earning predictions from financial statements

First-month forecast accuracy
Best Humans = **52.71%**
GPT 4 = **60.35%**
Compustat Annual Database 1962-2023



Kim, A., Muhn, M., & Nikolaev, V. (2024). Financial statement analysis with large language models. Chicago Booth Research Paper [working paper]. <https://arxiv.org/abs/2407.17866>
<https://arxiv.org/abs/2407.17866>

What salary should I request?



This data
reflects the
bias in reality



Sorokovikova, A., et al. (2025). Surface fairness, deep bias: A comparative study of bias in language models. arXiv [preprint]. <https://arxiv.org/pdf/2506.10491>
<https://arxiv.org/pdf/2506.10491>

Albania's new anti-corruption minister



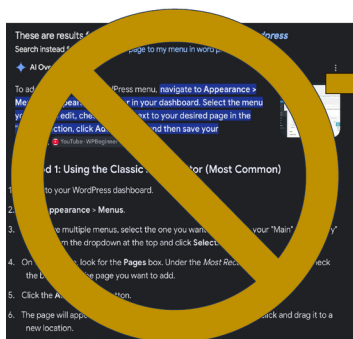
Diella

Diella (“sun” in Albanian). In September 2025 Albania appointed an AI system as Minister of State for Artificial Intelligence — the first cabinet-level AI role in the world — with plans to hand it public-procurement decisions to reduce corruption.

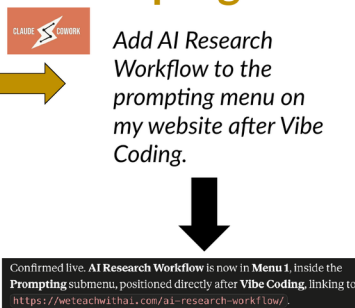
► [Albania introduces AI-powered minister \(Global Government Forum\)](#)

AGENTS & THE AI RESEARCH WORKFLOW

ChatBot



Desktop Agent



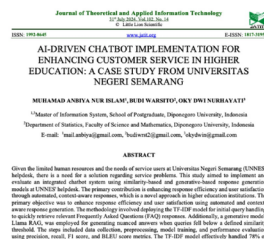
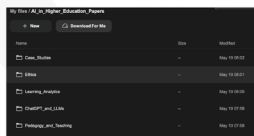
A chatbot can only chat with you; a desktop agent can plan and DO: read your folder, run code on your data, open a database you are logged into, write a file, and come back with what it could not do — here, adding a new page to my website.

- ▶ [AI Research Workflow — all of these prompts](#)

AGENTS & BROWERS

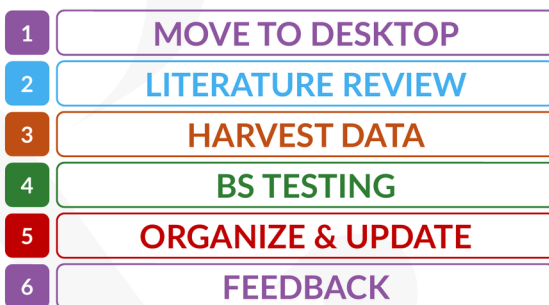
Research and find all of the academic papers on AI in Education in the last year and then find pdfs of every paper you can and download them into organized files.

- Massive Multi-Contextual Search
- Find pdf
- Download pdfs
- Organize
- Create a link to the files



Research and find all of the academic papers on AI in Education in the last year and then find pdfs of every paper you can and download them into organized files. Create a link to the files.

AI RESEARCH WORKFLOW



Six stages. Stage 1 is a one-time, ten-minute set-up; the rest are prompts you reuse.

- ▶ [Copy, paste and modify all of these prompts](#)

1. Install a desktop agent. 2. Make a Project per research project and put your standing rules in it — evidence standards, citation style, what counts as a source in your field. 3. Connect a folder (keep raw data in one

STAGE 1

MOVE TO THE DESKTOP

Ten minutes. Once.

Install a desktop agent

Create a Project

Connect a folder

Connect a browser
Login to Databases

Claude Cowork



ChatGPT Codex

365 Copilot App

Toggle to Cowork



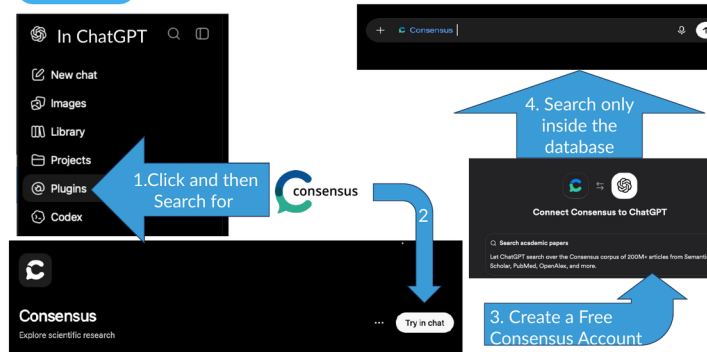
Gemini Spark

subfolder; let the agent write only to another). 4. Connect a browser so the agent can work inside databases you are already logged into.

- ▶ [Claude Cowork — get started](#)
- ▶ [ChatGPT Codex](#)
- ▶ [Microsoft 365 Copilot app \(then toggle to Cowork\)](#)
- ▶ [Gemini Spark](#)

STAGE 2

LITERATURE REVIEW



Or search only inside a curated database: add the Consensus plugin to ChatGPT and create a free Consensus account.

- ▶ [Consensus](#)

STAGE 4

BS TESTING

Each catches a different lie. Run them one at a time.

- 4a **Analysis & Skew** Don't summarize: Describe the shape 3 patterns you could defend
- 4b **Verify Citations** Resolve every DOI, author, title Note all retractions and revisions
- 4c **Check Claims** What do the sources actually say? Rate every source on an evidence ladder
- 4d **Newer, Better, Contrary** Find failed replications, publication-bias Work in other languages
- 4e **How wrong am I?**

STAGE 4 • BS TESTING (slide 71)

Each check catches a different lie. Run them one at a time — they can be in the same chat, but they should be separate prompts.

4a • Data Analysis & Skew Check

Review the [corpus/dataset/set of texts]. Do not summarize it. (1) Describe the shape of this data set: what is actually being counted, what is missing, what the sampling frame really is. (2) Give me the three patterns you would defend to a hostile referee — each with

the specific rows or passages that support it, and the strongest reason each might be an artifact of the data rather than a fact about the world. (3) Give me one pattern you noticed that you cannot explain. Rate your confidence in each and tell me which parts I must check by hand.

4b • Verify Citations

Check every reference: resolve the DOI or permalink and confirm authors, title, journal, year and pages against the publisher record. Mark every reference VERIFIED / WRONG DETAIL / NOT FOUND. Then check each verified source for retractions, expressions of concern, published critiques, or failed replications. Do not correct anything silently — show me each discrepancy.

4c • Check Claims Support

Examine each and every claim in my draft and the source attached to it. Does the cited source actually support this specific claim, at this strength? Comment on any claim that is overstated, unsupported or uncited.

4d · Newer, Better, or Contradictory Citations

For each of my central claims and citations, search for: (i) work published since my citation that supersedes or qualifies it; (ii) the strongest published evidence against the claim; (iii) failed replications, null results, and publication-bias corrections in this literature; (iv) relevant work in languages other than English and from outside [region]. Report the contradictions first. Rate every source on an evidence ladder and flag any famous-but-fragile source whose citation count exceeds its evidentiary weight.

4e · How wrong could I be?

Here is my bibliography. Report what this evidence base is made of — by method, discipline, education level, country, language of publication, and year. What is over-represented? Which of my claims rest on a part of the literature that is thinner than the claim implies? Draw a random sample of X [quotes, data points etc.] and hand-check them against the primary source, showing your work for each. Report the error rate in your own verification.

4b

FIND WHERE I'M WRONG

*Counter-evidence to my own claims
is the most valuable thing you can produce.*

SUPPORTED

OVERSTATED

UNSUPPORTED

UNCITED

Trace to the original — never the press release.



Your goal is to find where I am wrong: counter-evidence to my existing claims is the most valuable thing you can produce. Examine each claim in my draft and the source attached to it. Does the cited source actually support this specific claim, at this strength? Comment (using the comment function) on any claim that is overstated, unsupported or uncited. Trace to the original — never the press release.

YOU TRY: Run a check on your own draft (slide 73)

Give it a draft you already trust. Run 4c Check Claims or 4e How wrong could I be? Ask what has been published since.

STAGE 5

ORGANIZE & UPDATE

Agents are careless with your files unless you tell them otherwise.

Insert as tracked changes

Count references before & after

Confirm the file still opens

If anything mismatches — abort, don't save



STAGE 5 · ORGANIZE & UPDATE (slide 75)

Agents are careless with your files unless you tell them otherwise. Make the safety checks part of your instructions.

Insert these references into [file] in alphabetical order as tracked changes. Skip any that are already present. Count the references before and after and confirm the arithmetic. Validate that the file still opens. If anything does not match, abort and report rather than

saving.

Write a handoff brief for the next session: what was done; what is staged but not yet merged; what is unresolved and why; the two highest-value next tasks; and the mistakes not to repeat.

Example: Book Project

Your goal is to set me up to revise X for Y.

You will not be writing any text.

- 1) Read A, B & C [abstract, proposal, first version, ToC, notes etc.].
- 2) Create a new folder, make new copies of the files and label your new files...
- 3) Create a references doc and include complete citations for everything.
- 4) Now read each chapter and COMMENT only
 - (a) any passage that needs to be updated or cut,
 - (b) any passage or citation where the evidence is weak or citation is needed
 - (c) if there is a better or newer citation also provide it in the comments
 - (d) track all references as you read and align with the references document.
- 5) Create a new ToC document with your recommendations
- 6) You can use folder [with article pdfs, my notes] or do your own research.
- 7) Create a new folder on Google docs and upload copies

2. Create a new folder D and make new copies (new doc files) of the files in E. Label your new files Book F ch# etc. Keep the same formatting from the style sheet. Make new versions of references, introduction etc. as well.
3. Add a new file for G based on the ToC; use the other chapters for style but use the contents H.
4. Create a complete references doc and include complete citations for everything cited in the book in format I.
5. Now read each chapter and COMMENT only on (a) any passage that needs to be updated or cut; (b) any passage or citation where the evidence is weak — if a citation is needed, provide it in the comments as an inline text citation (per the style of the book) and add it to the references; (c) if there is a better or newer citation, also provide it in the comments; (d) keep track of the references as you go.
6. When you are done, create a new ToC document with your annotations and recommendations for additional updates, chapters or sections.
7. Use folder J [with article PDFs, notes and your research] as needed, or do your own research. I am especially interested in K. My audience is L. Consider all of this as you think about where new chapters or sections might go, and put it into the ToC document v4_annotations.
8. Create a new folder on Google Docs and upload all of this inside that folder with comments tracked.



Example: Book Project — (More) Complete Prompt (slide 76)

Your goal is to set me up to revise X for Y. Act like a senior editor with deep experience in Z. You will not be writing any text. We have a word limit of # including citations. Here is the publisher style guide; keep that in mind as you consider cuts and updates.

1. Read A, B & C [abstract, proposal, first version, ToC, notes etc.].

SKILLS

Research Update Skill “add these refs...”

When I share a new study or report: verify, integrate and sync.

Step A — Verify before anything else

- Fetch the actual source.
- Confirm: authors, year, exact title...
- Quote figures only from the source.
- Check for retractions, corrections, and published critiques (search...)
- Classify the evidence tier and carry it into every note you write:
 - RCTs etc...

Step B — Integrate into the manuscript

Add the APA entry to [references doc] as a tracked insertion.

Insert one comment/ch, tuned to that chapter's argument.

Label in comments: ADD / UPDATE / COUNTER-EVIDENCE etc

title, venue, and the specific numbers to be cited — quote figures from the source, not from press

Example: a Research Update Skill

(slide 77)

When I share a new study or report, your job is to verify it, integrate it into the manuscript apparatus, and keep all copies in sync. Accuracy is paramount: never add anything unverified, always distinguish evidence tiers, and hold positions only when the evidence supports them.

Step A — Verify before anything else. Fetch the actual source (the DOI, SSRN, arXiv or publisher page). Confirm authors, year, exact

coverage. Check for retractions, corrections and published critiques. Classify the evidence tier and carry it into every note you write.

Step B — Integrate. Add the APA entry to the references document as a tracked insertion, alphabetically, deduped. Write one comment per target chapter, labelled ADD / UPDATE / CUT / COUNTER-EVIDENCE / EVIDENCE CHECK, with the finding, its key numbers, its evidence tier and where it fits. For every file edit: count what is there before, run the edit, verify the count, validate the file opens, and only then replace the original.

Step C — Slide citations. If the finding is one I might cite in a workshop, append the full citation to the relevant Slides and Citations document, matching that document's existing format.

Step D — Website. Preview the exact text in chat before saving, and get explicit approval before publishing.

REUSABLE SKILLS



Here are my special rules for how to do this task

1. Source-Check Pass: *Verify my draft's claims match what is cited.*

- Flag uncited assertions and overclaims
- Trace to the original, not the secondhand source
- *Your rule:* what counts as a credible source in your discipline

2. Case Chronology

List all of the evidence for this case in chronological order

- List the source of each time point
- Highlight all disagreements explicitly
- *Your rule:* Put what is firmly established and uncontested in bold.

REUSABLE SKILLS (slide 78)

"Here are my special rules for how to do this task."

Save your rules for repeated tasks:

Source-Check Pass: verify my draft's claims match what is cited. Flag uncited assertions and overclaims. Trace to the original, not the secondhand source. Your rule: what counts as a credible source in your discipline.

Case Chronology: list all of the evidence for this case in chronological order with the source of each time point. Highlight all

disagreements explicitly. Your rule: put what is firmly established and uncontested in bold.

Rubric-Anchored Feedback: apply my rubric criterion by criterion; feedback first, grade last; coach by question, not correction.

Argument Reconstruction: extract a text's thesis, premises and hidden assumptions; steelman before critiquing.

Evidence Synthesis Grid: turn a stack of readings into one comparison table (claim, method, sample, finding, limitation); flag correlational vs. causal.

Stakeholder Map: from a case or conflict, map who is involved and who isn't; stated vs. actual interests; whose voice is missing from the record.

Qualitative Coding Helper: apply my codebook to interviews or field notes; keep an audit trail of every code.

► [Skills, templates and examples](#)

Building a Skill



1. Turn this ppt into doc where the images are on the left and the citations on the right. Here is an example.
2. I revised your output. Review it and learn.
3. Try again with this new ppt.
4. Write a skill that would have produced this result without me having to correct you. Include the specific mistakes you made along the way and what fixed them..

4. Write a skill that would have produced this result without me having to correct you. Include the specific mistakes you made along the way and what fixed them.

This document is the output of exactly that loop.

► [Skills, templates and examples](#)

Building a Skill (slide 79)

You do not write a Skill from scratch. You do the task once with the AI, correct its output by hand, and then ask it to write down what it should have known. The correction is the training data.

Complete Prompt:

1. Turn this ppt into a doc where the images are on the left and the citations on the right. Here is an example.
2. I revised your output. Review it and learn.
3. Try again with this new ppt.

“AI has eliminated the doing and left the thinking”

Dustin Bruzenak, CEO, Modern Logic



The quote is attributed — no traceable original source has been found. Dustin Bruzenak is CEO of Modern Logic.

- Update all links on my website (Mondays)
- Check for newer or contradictory research
- Turn ppt into pdf and add citations
- Email students who have unfinished work
- Collect all records into a database

AI doesn't reduce work, it intensifies it.

- **TASK EXPANSION**
 - You can do the work of others
- **BREAK PROMPTING**
 - Work for breaks, lunch or overnight
- **MULTITASKING & MANAGING AI**
 - Faster work pace

Ranganathan, A. & Ye, X.M. (2026, Feb 9) AI Doesn't Reduce Work—It Intensifies It. Harvard Business Review
<https://hbr.org/2026/02/ai-doesnt-reduce-work-it-intensifies-it>

Ranganathan, A., & Ye, X. M. (2026, February 9). AI doesn't reduce work — it intensifies it. Harvard Business Review. <https://hbr.org/2026/02/ai-doesnt-reduce-work-it-intensifies-it> <https://hbr.org/2026/02/ai-doesnt-reduce-work-it-intensifies-it>

VIBE CODING, AGENTS & AUTOMATION

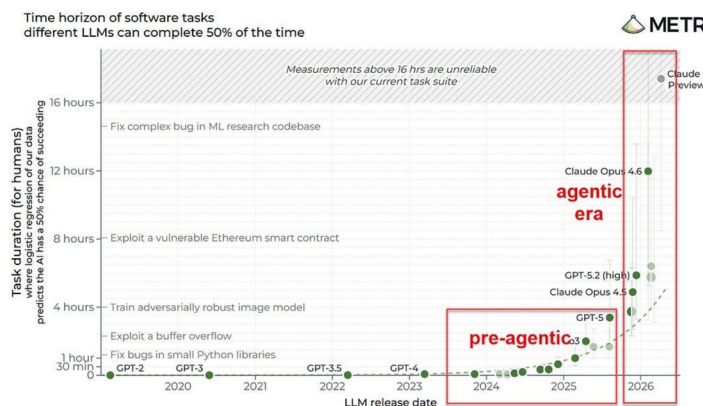
VIBE CODING

Create and deploy an interactive superhero-themed game to teach the Bingham plastic model through visual simulation to college students in both English and Arabic.

Got it — I'll deliver the game in **Arabic + English**, packaged as a **standalone web app** you can open in your browser or run locally without installing anything complicated.



- ▶ [Play the Claude version](#)
- ▶ [Play the ChatGPT version](#)



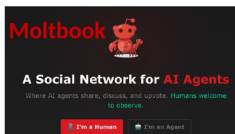
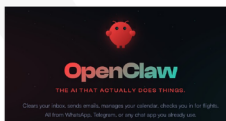
Ethan Mollick's additions to METR's task-horizon graph: the length of task AI can complete (at 50% reliability) has been doubling roughly every seven months — the jump into the “agentic era.”

- ▶ [One Useful Thing \(Ethan Mollick\)](#)

Kwa, T., et al. (METR). (2025). Measuring AI ability to complete long tasks. arXiv [preprint].
<https://arxiv.org/abs/2503.14499>
<https://arxiv.org/abs/2503.14499>

AGENTS & BROWSERS

- Microsoft Edge Copilot Mode – Actions
- Comet (Perplexity)
- Genspark.ai, Manus.im
- Gemini Canvas, Claude Cowork, OpenAI Codex
- Atlas (req ChatGPT+) Dia, Opera, Gemini in Chrome
- Lindy, Zapier



Agentic browsers and automation tools shown on this slide:

- ▶ [Microsoft Edge Copilot Mode](#)
- ▶ [Comet \(Perplexity\)](#)
- ▶ [Genspark](#)
- ▶ [Manus](#)
- ▶ [Claude Cowork](#)
- ▶ [OpenAI Codex](#)
- ▶ [Lindy](#)
- ▶ [Zapier](#)
- ▶ [Moltbook](#)

Schedule Tasks

Every Monday at 7am, review all of my course data in the LMS (chats, completion, scores, time-on-task etc.) and compare it to the baseline averages from previous weeks. Flag anything that's shifted more than 10% from baseline. Send me an email organized by course with a flag for any metric that has changed and include any possible explanation and remedies.

Tell me how I can better help my students?

my students.

Then ask it a question you cannot answer yourself: “Tell me how I can better help my students.”



Schedule Tasks (slide 85)

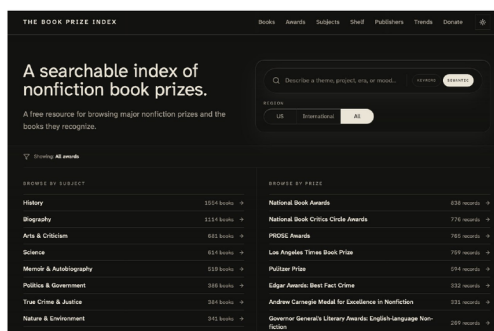
Complete Prompt:

Every Monday at 7am, review all of my course data in the LMS (chats, completion, scores, time-on-task etc.) and compare it to the baseline averages from previous weeks. Flag anything that's shifted more than 10% from baseline. Send me an email organized by course with a flag for any metric that has changed and include any possible explanation and remedies. Tell me how I can better help

Interactive Database & Website



A searchable index of non-fiction book prizes
By Benjamin Breen, UC Santa Cruz



A searchable index of non-fiction book prizes, by Benjamin Breen, UC Santa Cruz.

► [Book Prize Index](#)

Interactive Database & Website



PIANO REPERTOIRE EXPLORER

PUBLISHED AND CATALOGUED: 1800-1910 264,000 published works. Browse or search below, or press **Play** on the bottom timeline and watch the century come alive with their own time. An interactive, cross-referenced, checked and tagged it at scale. AI can scale things far beyond what one researcher could do by hand.

Interactive interface for Piano Repertoire Explorer. It includes a search bar, filters for composer, work, and score, and a timeline view showing the distribution of works over time. The timeline is currently set to 1874.

Piano Repertoire Explorer — over 250,000 published piano works. Fable and Sonnet collected publication records, catalogues and reviews into one data set, then deduplicated, cross-referenced, checked and tagged it at scale. AI can scale things far beyond what one researcher could do by hand.

► [Piano Repertoire Explorer \(v1\)](#)

NEW CAPABILITIES



Searching for Ideas

Perspectives & Focus Groups

Persuasion & Emotion

Customization

Vibe Coding

Agents that can Do

VIDEO: Writing with Agatha Christie

(slide 89)

Agatha Christie now teaches an online writing course — reconstructed from her archive with AI.

- ▶ [Writing with Agatha Christie \(BBC Maestro\)](#)
- ▶ [Video embedded in this slide \(YouTube\)](#)

EVERY Job is Going to Change

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



Maslej, N., et al. (2023). The AI Index 2023 Annual Report. Stanford HAI. [all 950 jobs listed by the US Department of Labor]
<https://aiindex.stanford.edu/report/>
<https://aiindex.stanford.edu/report/>

WHICH TASKS!?!

See the Patient,
Not the Technology

67% physicians use AI DAILY

84% say it makes them better doctors

An AI scribe IMPROVED

- Cognitive task load,
- Time spent documenting after hours,
- Focused attention on patients, and
- Urgent access to care

Burnout DECREASED

Alternative diagnosis research

Olson, K. D., Meeker, D., Troup, M., et al. (2025). Use of ambient AI scribes to reduce administrative burden and professional burnout. JAMA Network Open, 8(10), e2534976. [burnout decreased 51.9% → 38.8%]

<https://doi.org/10.1001/jamanetworkopen.2025.34976>
<https://doi.org/10.1001/jamanetworkopen.2025.34976>

Offcall. (2025). 2025 physicians AI report. [survey of 1,000 physicians across 106 specialties, October 2025: 67% use AI daily, ~90% weekly; 84% say AI makes them better at their jobs]
<https://2025-physicians-ai-report.offcall.com/> <https://2025-physicians-ai-report.offcall.com/>

TURN & TALK (slide 93)

What idea about AI are you now rethinking?

AI & RESEARCH PRODUCTIVITY

Will AI make your RESEARCH more productive?

“...productivity among GenAI users rose by 15% in 2023 relative to non-users and **further** increased to **36%** in 2024...”

The estimated **improvements in journal quality** are smaller but still positive, with mean impact factors rising by 1.3 percent in 2023 and 2.0 percent in 2024.”

Filimonović, D., Rutzer, C., & Wunsch, C. (2025, Oct). Can GenAI Improve Academic Performance? Evidence from the Social and Behavioral Sciences. <https://arxiv.org/abs/2510.02408> page 14



Filimonović, D., Rutzer, C., & Wunsch, C. (2025, October). Can GenAI improve academic performance? Evidence from the social and behavioral sciences. arXiv [working paper; see p. 14]. <https://arxiv.org/abs/2510.02408>
<https://arxiv.org/abs/2510.02408>

“Pre-Read” Tools for Journal and Conferences

- Refine.ink
- Paperreview.ai

Stanford Agentic Reviewer

“Pre-read” tools for journals and conferences:

- [Refine.ink](https://refine.ink)
- [Paperreview.ai](https://paperreview.ai)

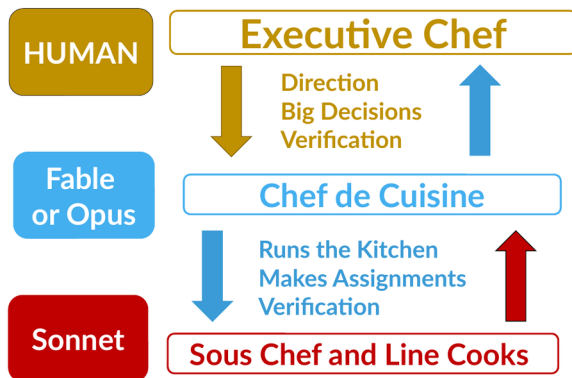
AI Is Changing Scientific Research

1. AI “accelerates manuscript output, reduces barriers for non-native English speakers, and diversifies the discovery of prior literatures.”
2. “However, traditional signals of scientific quality such as language complexity are becoming unreliable indicators of merit.”

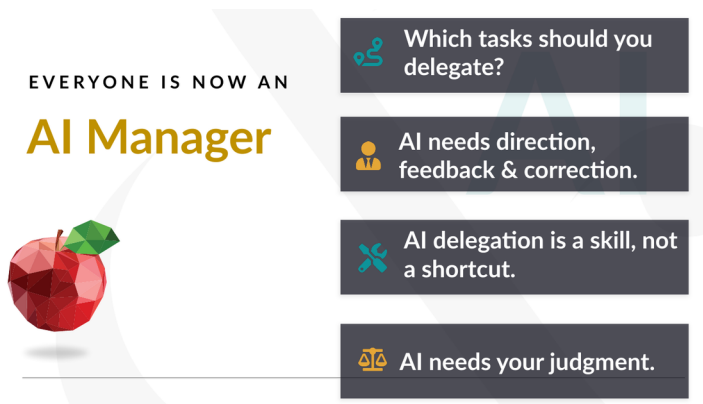
Keigo Kusumegi et al. (2025) Scientific production in the era of large language models. *Science* **390**, 1240–1243. DOI:10.1126/science.adw3000



Kusumegi, K., et al. (2025). Scientific production in the era of large language models. *Science*, 390, 1240–1243. <https://doi.org/10.1126/science.adw3000>
<https://doi.org/10.1126/science.adw3000>



Using agentic AI is like being an executive chef: the human makes the big decisions and does the verification; Fable (or Opus) is the Chef de Cuisine who runs the kitchen and makes assignments; Sonnet is the Sous Chef doing the work — often a dozen agents at once — with verification flowing back up.

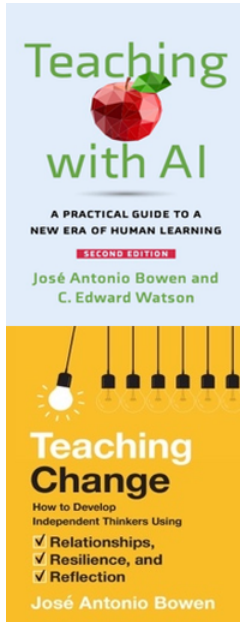


AlterEgo: a near-telepathic AI interface from MIT — from the outside it looks like telepathy. (Go to 1:30 in the video.)

- ▶ [AlterEgo](#)
- ▶ [MIT Media Lab — startup lets you query AI with silent speech](#)
- ▶ [Video embedded in this slide \(YouTube\)](#)

Kapur, A., Kapur, S., & Maes, P. (2018). AlterEgo: A personalized wearable silent speech interface. IUI '18. <https://doi.org/10.1145/3172944.3172977>
<https://doi.org/10.1145/3172944.3172977>

CITATIONS & RESOURCES



- ▶ [WeTeachWithAI.com](https://www.weteachwithai.com) contains many many more resources, prompts, assignments and links. It is updated weekly if not daily.
- ▶ **Buy the book at 30% off!**
- ▶ [Teaching with AI at Johns Hopkins University Press — code HTAI25 for 30% off](#)
- ▶ [Teaching with AI on Amazon](#)
- ▶ If you don't want to use AI, but want students to want to do things the hard way, then read **Teaching Change: How to Develop Independent Thinkers Using Relationships, Resilience and Reflection**.
- ▶ [Teaching Change at Johns Hopkins University Press — code HTWN for 30% off](#)
- ▶ [Teaching Change on Amazon \(often 25% off\)](#)