



**FORWARD
TOGETHER**

CESBA Conference 2024

December 4-5

CELEBRATING 25 YEARS

**AVANCER
ENSEMBLE**

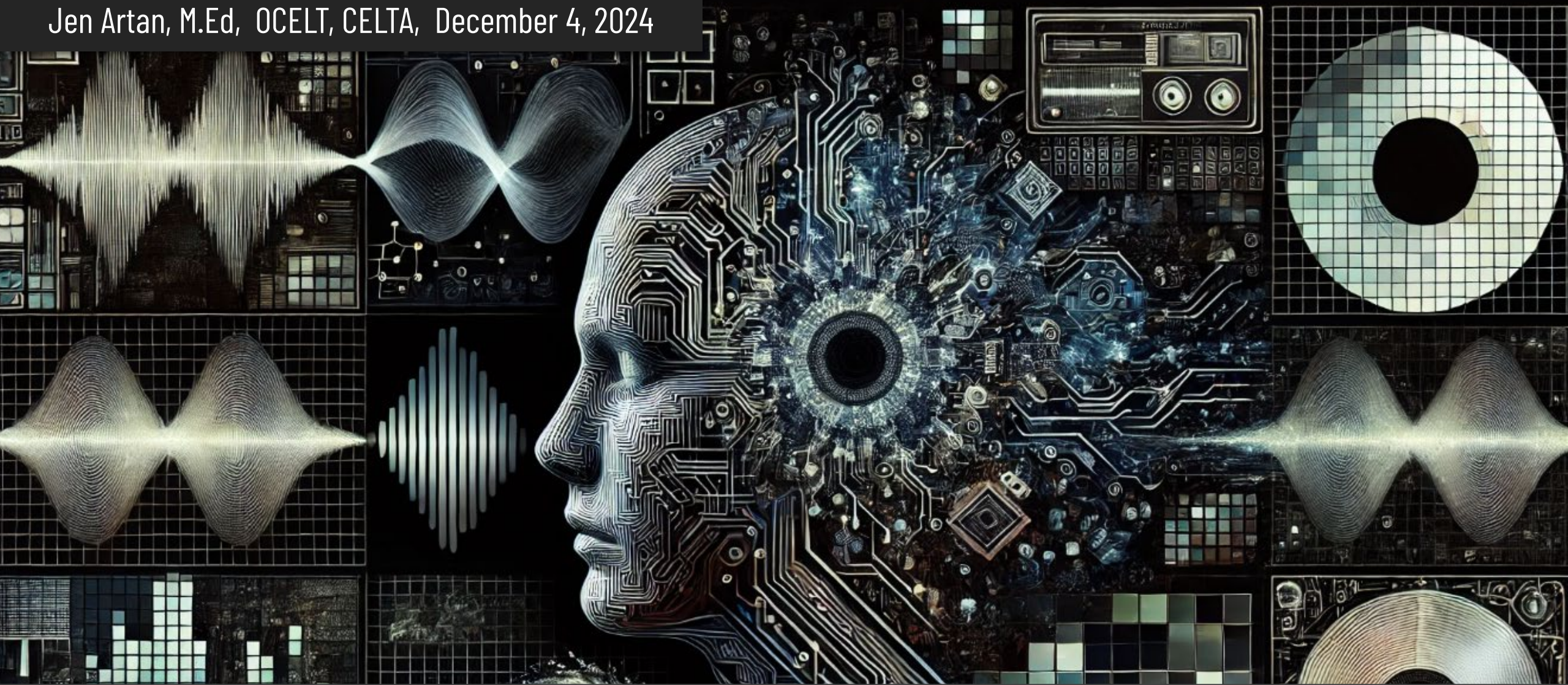
Conférence de CESBA 2024

4-5 décembre

CÉLÉBRONS NOS 25 ANS

Pardon me, your AI is showing: How Generative AI is Impacting Education

Presenter: Jen Artan (M.Ed, OCELT, CELTA)



Pardon Me, Your AI is Showing

How Generative AI is Impacting Education

“The future is already here. It’s just not evenly distributed yet.”

- *William Gibson*



Who Am I?

JEN ARTAN, M.ED, OCELT, CELTA



Currently:

- Board Member (at-large), TESL Ontario
- Learning Support Lead, TVDSB
- Avenue.ca Mentor (Moodle-based LMS),
- WRIT Professor, Fanshawe College (SLLS)

LinkedIn: @JenArtan

Recently:

- Comm1000 Prof, George Brown College
- ESL Prof, Fanshawe College,
- ESL Language Instructor IWC Hamilton ON
- Writer/Presenter: ESL Library (Ellii.com)

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Disclosure in the Spirit of this Workshop

- These are my words.
- I've done the work, the research etc. Watched like a hundred live and recorded webinars since early 2023.
- I'm human, as far as I know.
- The only AI (unless otherwise noted) that I'm using are the auto-corrections when I make a typo, you know, that red-squiggly line thing that shows up when your typing doesn't keep up with your thinking (it looks like thsi)
- Any slide where I have leaned on AI to generate content, I will explicitly show an "AI-generated" label.
- The labels come from a nifty tool called "**Text Giraffe**", though I'm still not certain what role the giraffes play...I'm guessing administrative.



My Objectives For This Presentation

1. Create an **awareness** of the impact of Generative AI on the information we consume
2. Create a **dialogue** on the origins of AI and its rapid evolution
3. Share some **insights** on the current AI supercycle and its impact on the workplace
4. Explore the issues and potentials of **AI tools like ChatGPT, Otter.ai, Gemini notebook** and touch on the potential impact this may have on critical thinking skills



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The Pace of Generative AI Technology...(ready...set...gone!)

Pace of AI Technology

Things are changing.

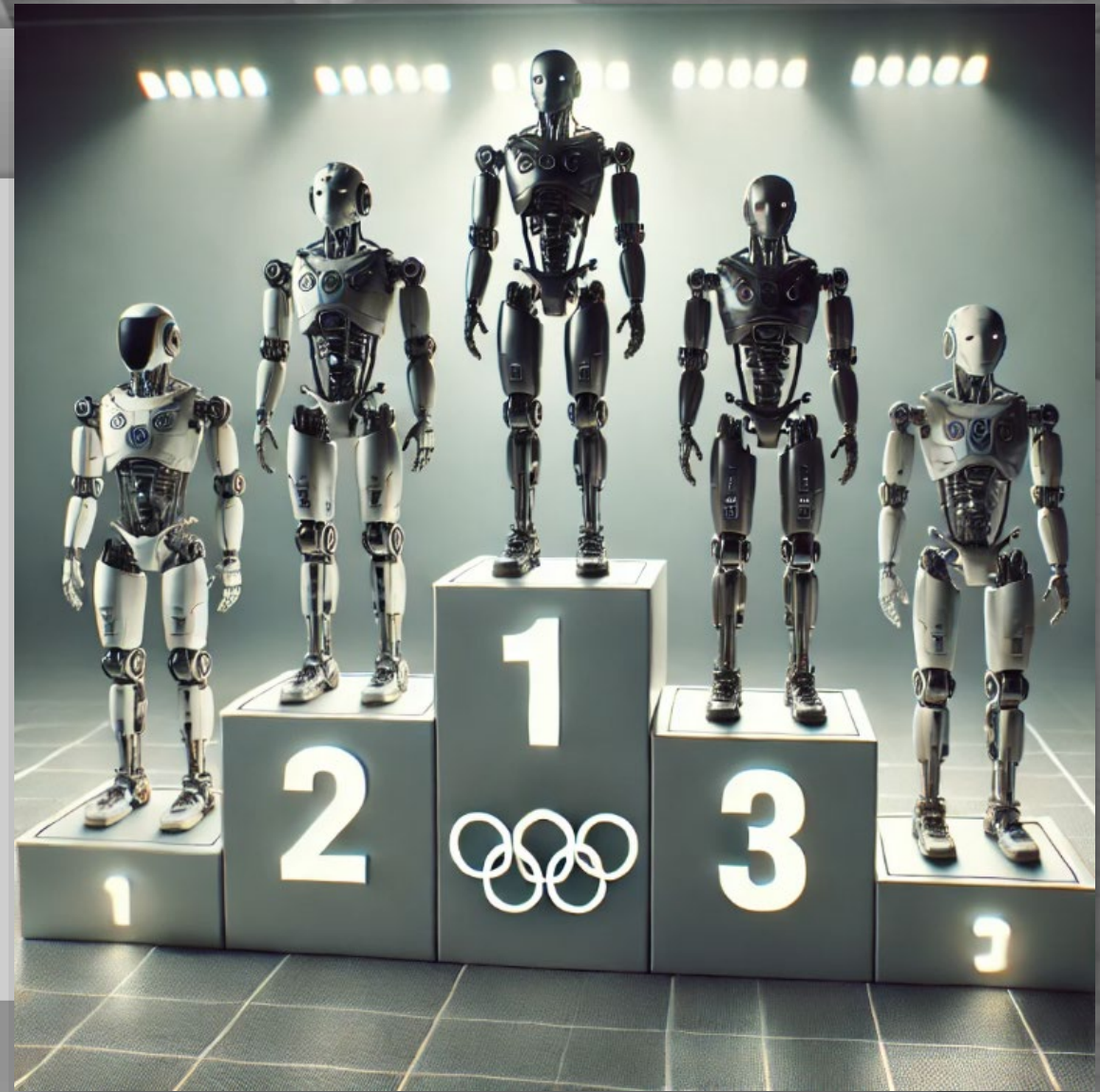
Quickly.

Some AI updates since my last presentation...



The Main Players: ChatGPT, Copilot, Gemini, Claude, & Mistral

Large Language Models



The Race To Release...

- When we hear “generative AI”, we now think of tools like OpenAI’s ChatGPT, Microsoft’s Copilot, Google’s Gemini, Anthropic’s Claude, and maybe the European newcomer, Mistral.
- There are more.
- The “race to release” is an intensely fierce competition to distribute AI products before anyone else. Sometimes this comes at a cost (safety, for one).



“Free-miums” Available for Educators

- all of the five LLMs have free versions
- try them out; determine which one best suits your needs
- they all work essentially the same way: input your prompt, refine it if necessary, and then double check the results



Where We are NOW

OpenAI:

- no longer need an account to access basic model (privacy issue reduction)
- October, 2024 → access to internet to “verify” output (hallucination reduction); images via Dall-e directly in ChatGPT 4o
- September, 2024 → “strawberry” model - problem solving improvements, outperforming human experts (hallucination reduction) (prompt engineering - still needed, but RAG means LLMs can infer much better from context, too much prompt priming can actually confuse the model)
- January 2024 → ability to create “GPTs” - focused results, reduction in errors due to narrower datasets

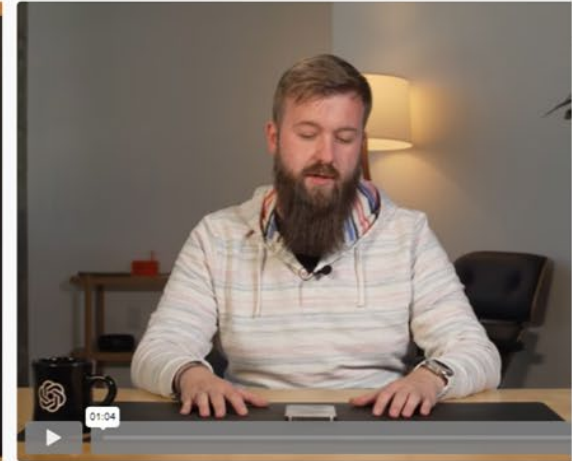
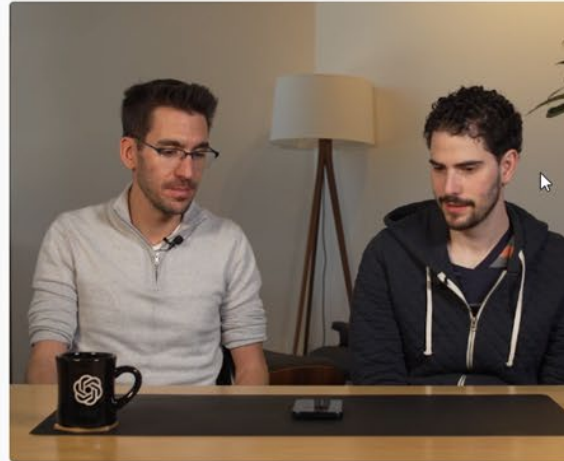
Google Gemini

- images of people not allowed in free version, only in paid (bias-reduction issue)
- NotebookLM - new tool rolled out October, 2024 - ability to create “audio”



Update May 2024: ChatGPT 4o (not four-point-zero, it's four-oh)

Model capabilities



Real-time translation.

Lullaby.

The AI in our lives.



AI in your life

gps

alarm clock

mcdonald's

news

meetings

calendar apps

shopping

bio wearables

roomba - iot

home security

social media



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A Look Back

1833

Ada Lovelace - First Computer Programmer

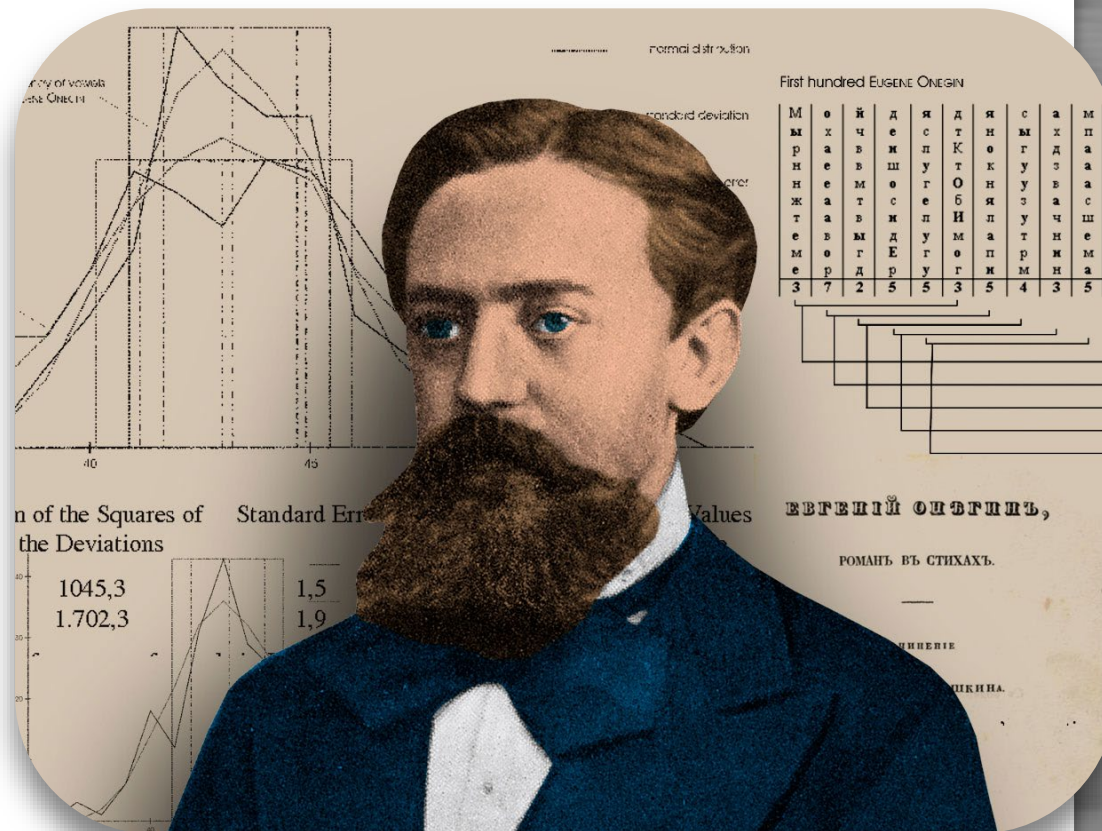
- born in 1815; considered the **world's first computer programmer**
- a visionary; laid the important groundwork for the field
- "Analytical Engine" - worked with Charles Babbage on a theoretical mechanical general purpose computer
- Lovelace wrote extensive notes about the machine and what is considered to be the first algorithm processed by a machine
- Lovelace proposed that the Analytical Engine could be used to compose music, produce graphics and more
- speculated that one day these machines may be able to learn and create autonomously



1906

A Fortuitous Confluence of Literature & Statistics

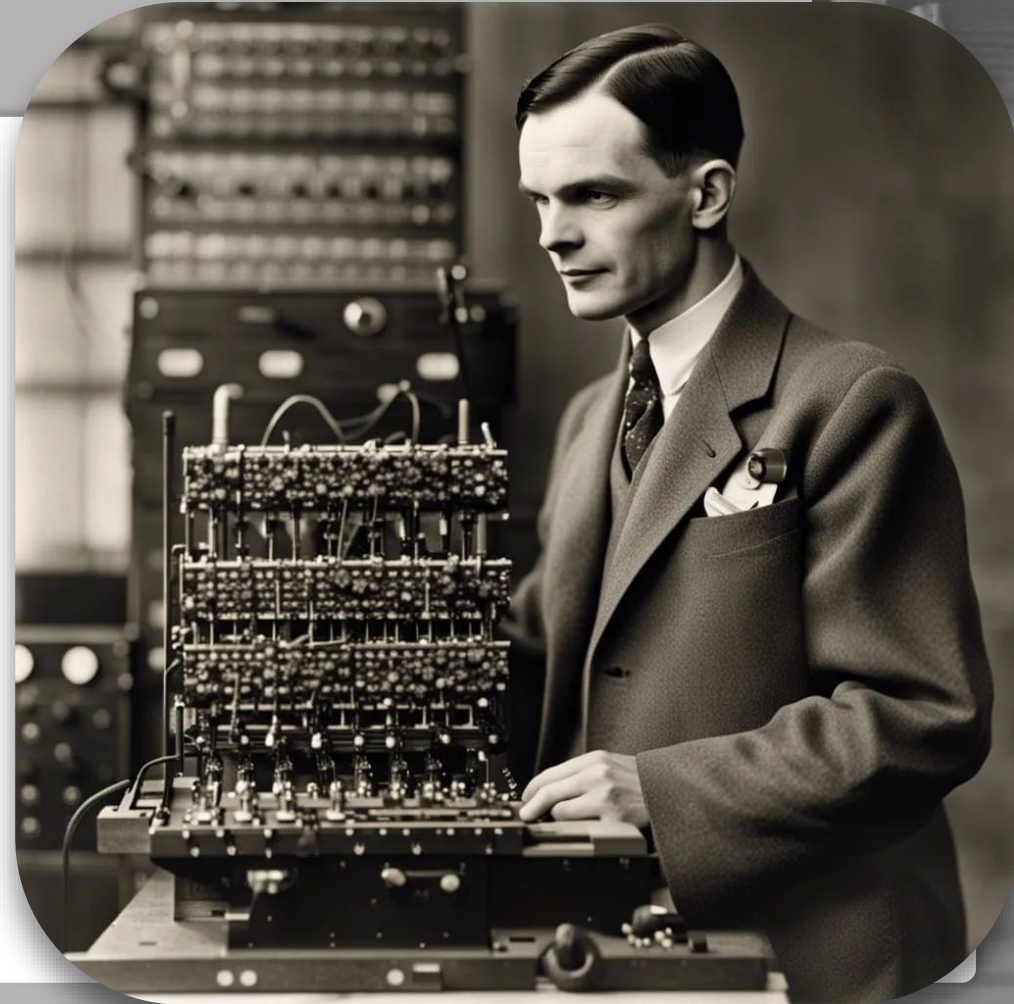
- Russian mathematician Andrey Markov
- used the text of Alexander Pushkin's poem "Eugene Onegin" to **analyze the occurrence of vowels and consonants**
- the probabilities he assigned to the transitions between different letters are based on the statistical patterns observed in the text (**unigrams**)
- his work later became known as the "Markov Chains", which would have a huge impact 100 years later in:
 - a) Natural Language Processing (NLP)
 - b) Speech recognition
 - c) Predictive text systems
 - d) Machine translation



1950...

Alan Turing - Ahead of his time

- British mathematician
- machine learning - idea of that machines could be trained to learn like humans
- 1950s The Turing Test
- also one of the first to sound the alarm about potential risks to humanity via AI



Source: <https://creator.nightcafe.studio/creation/gIRWzipNXmf9E4YYUptQ>

1950...

The Turing Test (well, one version of it)

If a machine could trick humans into thinking it is human, then it has intelligence

This was done in 2015. Arguably, it was done earlier as well.

You see this today in "CAPTCHAs" (completely automated public Turing Test) aimed to prevent automatic access by bots



1956

AI Trailblazers Have a kind of AI Summer Camp

The Dartmouth Conference - summer, 1956

John McCarthy, Marvin Minsky, et al

- AI summer project 1956, get grad students to solve the problem of AI (i.e., make it work);
- Grandiose expectations that fell short BUT planted the seeds of innovation
- The idea that AI was achievable was now front and centre (proof of concept)
- coined the term "Artificial Intelligence" (usually attributed to McCarthy)

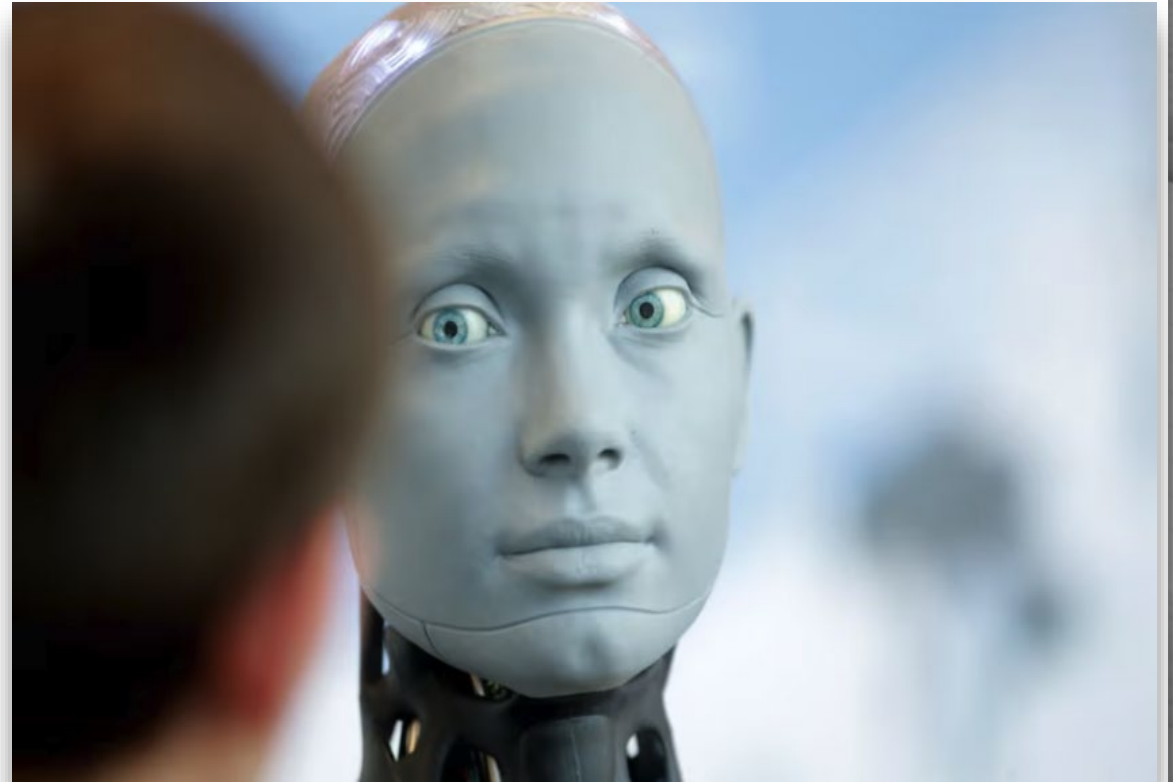


1966

ELIZA by Joseph Weizenbaum

Development of ELIZA, an early natural language processing program, demonstrated the potential for computers to simulate human conversation.

ELIZA simulated a sympathetic psychologist and its responses/data were limited. It used pattern recognition to produce human-sounding responses.

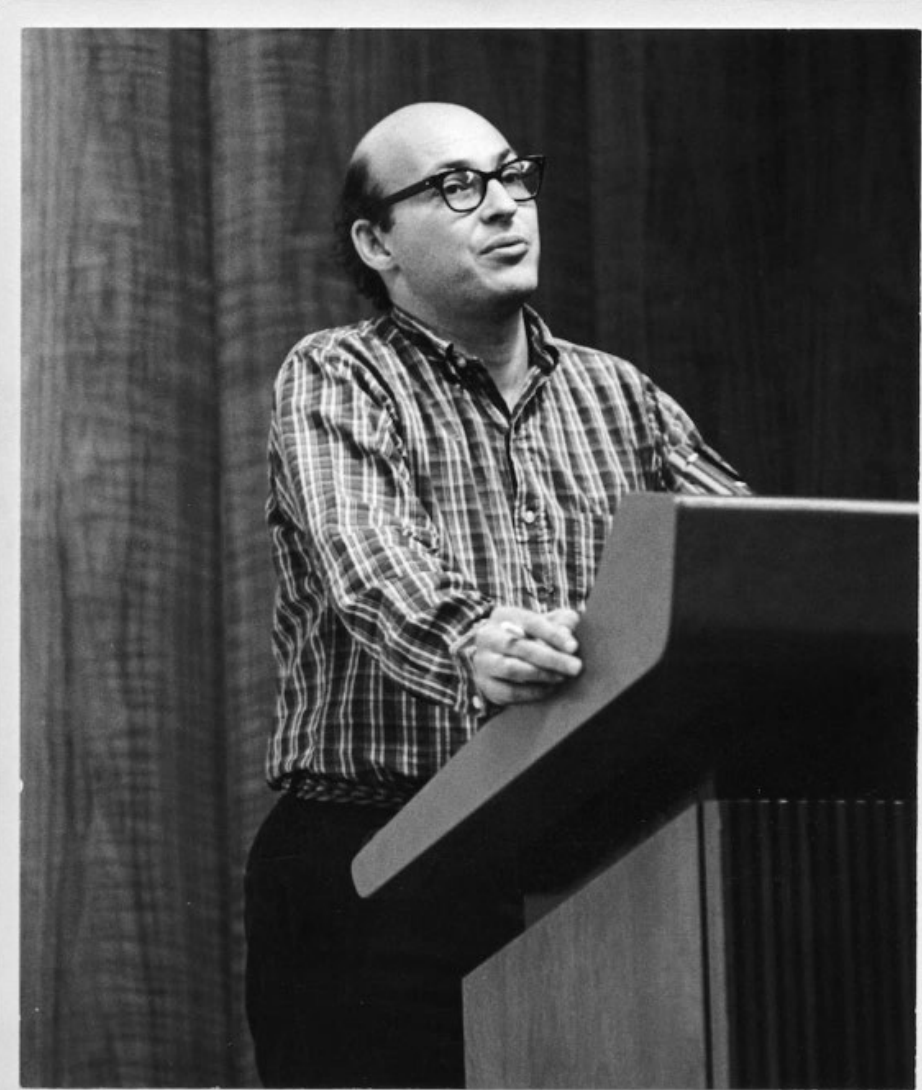


A humanoid robot interacting with visitors at the AI for Good summit in Geneva earlier this month. Photograph: Johannes Simon/Getty

1970-80

Marvin Minsky - Why we can't get AI to do what we want it to do... (at least yet).

"All problem-solvers, intelligent or not, are subject to the same ultimate constraints—**limitations on space, time, and materials**. In order for animals to evolve powerful ways to deal with such constraints, they must have ways to represent the situations they face, and they must have processes for manipulating those representations."



source: <https://neuroecology.wordpress.com/tag/marvin-minsky/>

1970-80...

A Step Back - the AI Winter

1970s-1980s

- AI winters - skepticism over whether machines could ever be able to learn
- wasn't considered something that would ever be possible and it was a waste of time to pursue it



1997

IBM - Deep Blue & Watson DeepQA - Taking on Humans (and winning)

- 1997 - IBM's Deep Blue defeated world chess champion Gary Kasparov
- 2011 - IBM's Watson DeepQA computer defeated Jeopardy! champion Ken Jennings
- 2016 Alphago (Google DeepMind) defeated the world Aphago champion Lee Sedol



Source (Sedol): <https://media.newyorker.com/photos/590975168b51cf59fc422f47/master/pass/House-Alpha-Go-2.jpg>

source: <https://www.ft.com/content/19a2c21a-33e6-11e7-99bd-13beb0903fa3>

Source: (Jennings) <https://assets.rbl.ms/25564181/origin.jpg>

2000...

The Rise of Data...

- widespread internet use and capability generates a heap of data
- more data than was available before
- growing interest in machine learning, deep learning & neural networks



2010...

Moore's Law

- the memory and speed of computers doubles every year - finally caught up to AI theory
- 2010s - Big Data - development and use of neural networks, advances in computer vision, natural language processing
- (phones, predictive texting, etc)



2012

Fei Fei Li

ImageNet and ImageNet Large Scale Visual Recognition Challenge (ILSVRC):

- One of Fei-Fei Li's most notable contributions is her leadership in the creation of the **ImageNet dataset** and the organization of the ImageNet Large Scale Visual Recognition Challenge.
- The challenge, which began in 2010, played a crucial role in advancing the field of **computer vision** and contributed to the rise of deep learning for **image classification**

SUCCESS STORY

“
I imagine a world in which AI is going to make us work more productively, live longer, and have cleaner energy.
”

Dr. Fei-Fei Li



2012

Geoffrey Hinton & The University of Toronto

Geoffrey Hinton and his research team at the University of Toronto achieved a major success in the ImageNet Large Scale Visual Recognition Challenge organized by Dr. Fei Fei Li.

The breakthrough was achieved through the use of deep learning techniques, particularly a type of **neural network architecture** known as a convolutional neural network (CNN).

Hinton's team demonstrated that deep neural networks, when properly trained on large datasets, could **outperform traditional computer vision approaches**.

PC GUIDE

Geoffrey Hinton
"Godfather of AI"



Source: <https://www.pcguide.com/ai/godfather-of-ai-geoffrey-hinton/>

2015...

Theory, Practice & \$\$\$ Finally Meet...

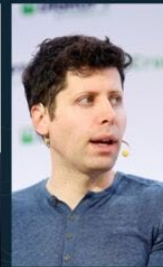
- Moore's Law - exponential growth in AI
- 2015+ more **big data**, massive datasets and a heapload of **investment** enabled companies like OpenAI, Google's Deep Mind, Anthropic, etc to use the **super computing power** to develop more sophisticated natural language processing, large language models

Cofounders

The organization was founded in San Francisco in 2015 by Sam Altman, Reid Hoffman, Jessica Livingston, Elon Musk, Ilya Sutskever, Peter Thiel and others, who collectively pledged US\$1 billion. Musk resigned from the board in 2018 but remained a donor and eventually committed US\$100 million.



Elon Musk



Sam Altman



Ilya Sutskever



Greg Brockman



Wojciech Zaremba



John Schulman

2017

Transformer Technology: more power

- Computer software was undergoing a kind of **deep renaissance**
- massive influx of investment from governments and private organizations
- development of the “transformer” was a game changer in the ability to train and use large language models
- made natural language processing far more cogent and humanlike
- rise of **NVIDIA** (GPUs)

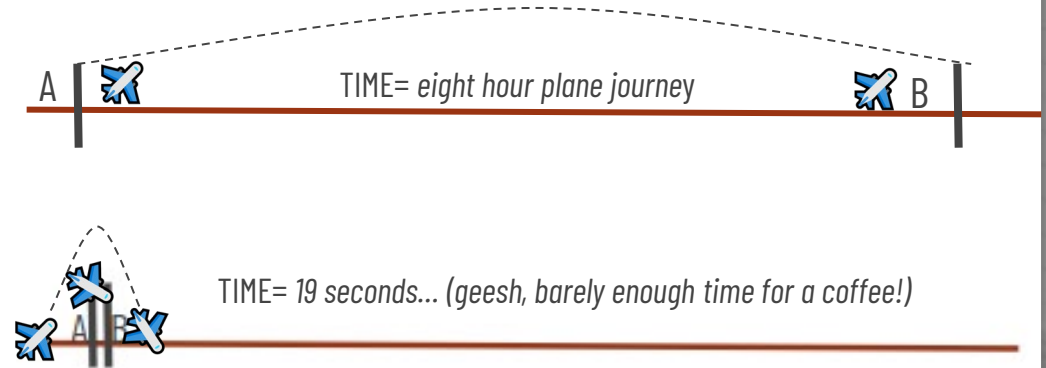


Image Source: <https://media.tenor.com/-n9dA6QTLjIAAAe/he-man-he-mana.png>

2018-20

Massive Increase in computing power...

- access to massive amounts of data and computing power meant **rapid acceleration** of tech growth
- think of it this way - imagine that computer power is like an 8 hour plane trip btw 2018 - 2020
- in 2021, because of tech advances, that **same 8 hour** plane trip is much, much quicker



2023...

So, how did we get here? A quick history.

The race is on.

More big data - natural language processing, large language models

- ChatGPT 3.5 - launched November 2022
- Bard - now called "Gemini" Google DeepMind March 2023
- Claude - Anthropic - March 2023
- Mistral (European) - April 2023



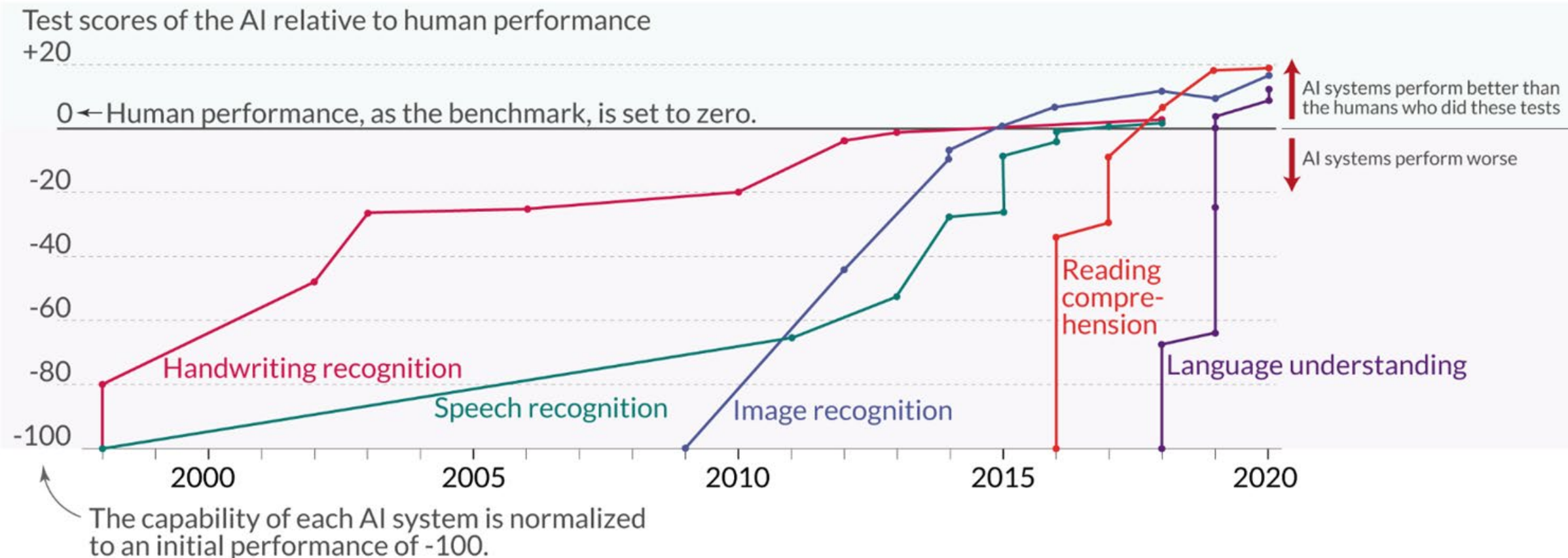
2023...

Ai-Ai-Ai

- **APIs** are the “application programming interface”
- basically - the engine that powers generative AI
- Developers can use the APIs offered by OpenAI to power their own tools
- THIS is why we are seeing **a sudden influx of AI-powered ed-tech apps**, like Twee, Diffit, MagicClassroom, and more



Language and image recognition capabilities of AI systems have improved rapidly



Data source: Kiela et al. (2021) - Dynabench: Rethinking Benchmarking in NLP
OurWorldinData.org - Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the author Max Roser

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Supercycle (It's next to the gentle cycle...)

Welcome to the AI
Supercycle



Image Credit: Pixar Animation

Amy Web, CEO Future Today Institute

“We believe we have entered a **technology supercycle**. This wave of innovation is so potent and pervasive that it promises to **reshape the very fabric of our existence**, from the intricacies of global supply chains to the minutiae of daily habits, from the corridors of power in global politics to the unspoken norms that govern our social interactions.”



The Technology Supercycle

- Hype or not, there is little use in denying the explosion of AI in the past few years.
- Futurist Amy Webb outlined what this “supercycle” looks like, and it involves the convergence of:
 - AI
 - Biotechnology
 - Connected Devices.



Image Credit: SXSW 2024

The Technology Supercycle

- Are we at a critical point in our history where we are about to see **massive reshaping** of our economy and society in ways not seen since the industrial revolution or invention of the internet?
- our human **information ecosystem** is most certainly being impacted by AI



Past “Supercycles”

- ignited by “general purpose technologies” (the original GPT, not the one we know today)
- general purpose technologies, like electricity and the steam engine, which kicked off the industrial revolution
- the internet - brought about the digital age



Past “Supercycles”

- one of the biggest differences we’re seeing today is the **RAPID pace of change**
- when the Industrial Revolution kicked off, it took YEARS to disrupt the workplace



Major innovations often don't deliver productivity growth until work has been reorganized around them

Numbers of years between invention and the boost to productivity

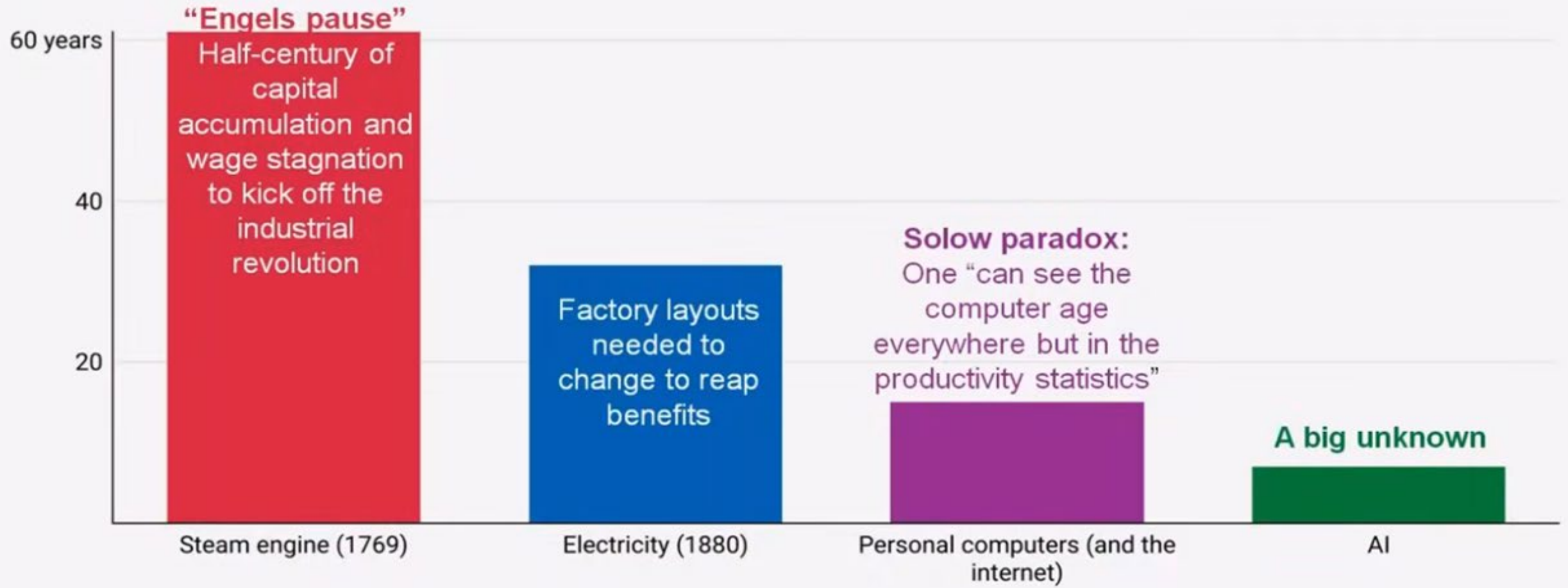


Chart: @JustinWolfers • Source: JP Morgan drawing on the economic history literature

Today's "Supercycle"

AI will be ready to take over by Thursday...

Jon Stewart (April, 2024)



AI Supercycles - Convergence of AI, Biotechnology and Connected Devices

- This AI supercycle began about 2 years ago, and include “big leaps” in AI technology, including bio-tech wearables, smart watches, smart rings.
- A tech supercycle is “an extended period of booming demand that elevates prices of commodities and assets to unprecedented heights”



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Pragmatics: Who's Using AI in the Workplace

So, how are
HUMANS using
AI in the
WORKPLACE?



IMAGE CREDIT:
https://pbs.twimg.com/tweet_video_thumb/F9n2kcqbEAA4NMy.jpg

What if AI Became Your Intelligent Assistant?

Imagine a workspace where AI can:

- **Decode handwritten feedback notes:** Instantly convert your handwritten assessment notes or general scribbles into clear text, saving you valuable time. (Gemini, Copilot, ChatGPT)
- **Become Your Personal Learning Coach:** Analyze past documents and UPDATE language for inclusivity, provide support and personalized coaching (Brisk.AI, Rosebud)
- **Transcribe and generate meeting notes:** Generate meeting notes from online platforms like Zoom, Google Meet, Teams, highlight ACTION items and NOTIFY when your name appears (Otter.Ai, Copilot, Sana.Ai)



Intelligent AI... Lazy Humans?

GenAI's impact has yet to be determined, Some questions:

- What happens to our critical thinking and problem solving skills when KEY cognitive tasks have been offloaded to GenAI?
- How will "humans in the loop" be able to weigh in on critical issues:
 - when we're developing a preference for lower mental effort?
 - when we pass the buck over to our "autopilot" and let the chips fall where they may?
 - when we offload accountability?



Image Source: Pixar Studios, Wall-E (2008)

But it's not *just* knowledge workers using AI...

Emergency Services - Fighting Forest Fires

Emergency workers use AI systems to detect flashpoints, analyse years of historical data and make predictions.

AI-powered drones help firefighters deal with issues like toxic smoke and difficult terrain.

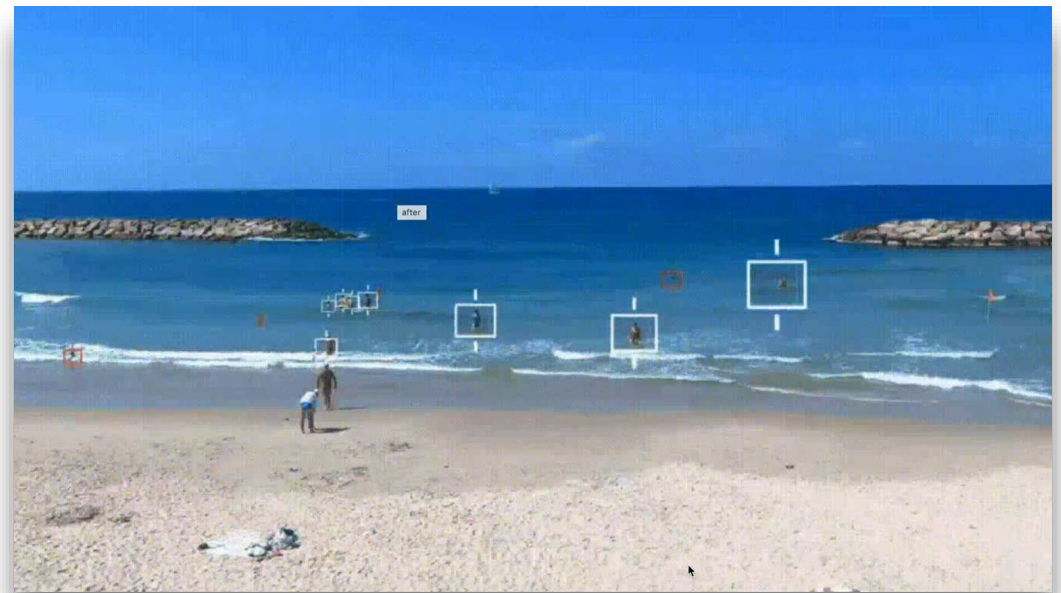


Source: InsideUnmannedSystems, 2024

Emergency Services - AI Lifeguards

You take your family to the beach. AI powered observation tools report water conditions, rip currents, and other concerns to the lifeguards.

AI-powered drones can identify people in trouble, and deliver flotation devices in a fraction of the time it takes a human lifeguard.



Source: Israeli Innovation News, 2024

Trades - Getting an estimate

You need new flooring. A contractor comes to your home to give you an estimate. They use the AI camera tool to survey the area, enter a few key details, and then have their AI assistant create an estimate prepared for you within minutes.



Trades II

Your local landscaper uses AI tools to optimize smart dispatching - to analyse historical data and suggest the best dates, job times and technician for the job based on data such as customer location, request, tech skills, availability, etc.

And of course, their AI tools are writing their emails and social media posts.



Trades III

Your HVAC technician arrives at your home, toolbox in hand, with a virtual map displaying your entire HVAC system. The map generated by AI analyzes data from your thermostat and smart sensors, noting potential issues or problems before they cause a breakdown.

AI tools help the customer save money (fix the issue before it gets bigger)



Trades IV

Your cosmetologist uses AI and your data to customise and personalize a skin care routine, finding the most appropriate products and services for your specific skin care needs.

And of course, AI is used to manage appointments and communications with clients.



Financial Sector

Your banking institution has been using AI for a lot longer than most customers think, and in ways that are a little questionable.

Some mortgage companies and banks enter your private data into an AI tool and then use it to help determine your creditworthiness based on your past history.



Financial Sector

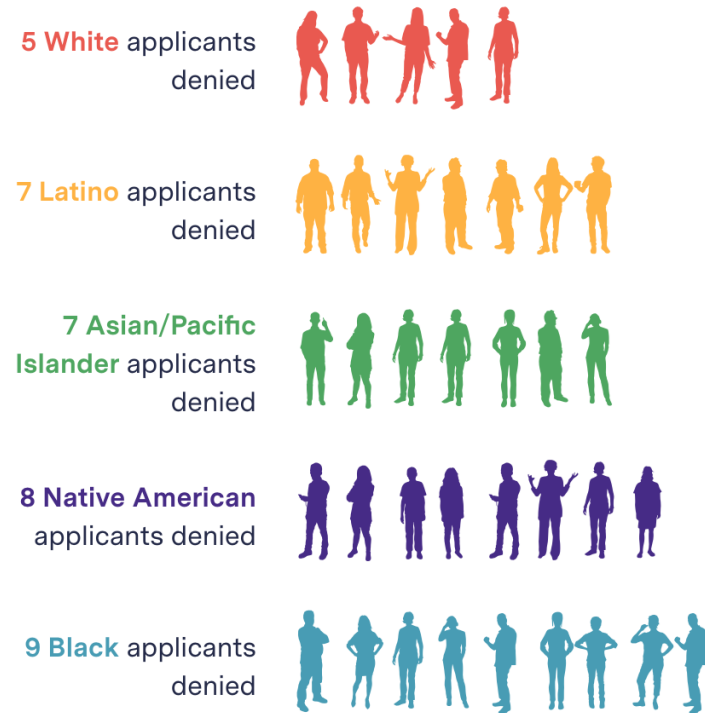
You're applying for a bank loan on a Monday? Bad idea.

The data *might* show that a "Monday applicant" is less likely to pay back a bank loan based on historical data and predictive algorithms.

Banking AI is also pretty biased.

Applicants of color denied at higher rates

To illustrate the odds of denial that our analysis revealed, we calculated how many people of each race/ethnic group would likely be denied if 100 similarly qualified applicants from each group applied for mortgages in **the United States**



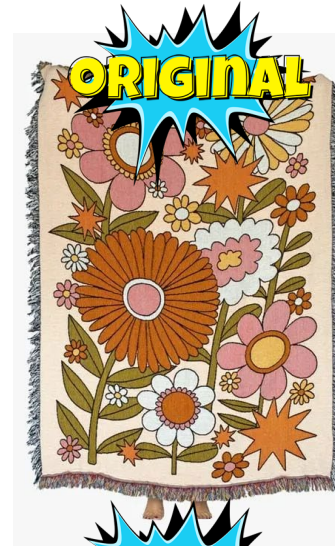
Source: 2019 HMDA Data, illustrations from ProPublica. We applied the odds ratios from our regression to White applicants' actual denial rates to calculate the number of denials for each racial and ethnic group above. These numbers are not the actual denials or actual number of applications in each location, but rather have been standardized for comparison. We rounded to the nearest person.

Real World Case: Fast Fashion & AI Design



Real World Case: Fast Fashion & AI Design

- Shein has rapidly grown into a major fast fashion company by leveraging AI to identify fashion trends, mass-produce clothing, and provide personalized recommendations.
- AI is used in **design, production, customer service,** and **logistics**, enhancing efficiency and user experience.
- AI creates 1000s of product ideas for Shein EVERY day - this comes from algorithms designed to determine WHAT is popular
- When the AI detects a lot of “Action” on a specific product, it can be targeted and produced almost immediately
- Problem: Is AI “copying” designs of other companies? (Like H&M, Zara, etc.)



What does AI mean for CREATIVE people? Is it End Times for Human Creativity?

Short answer: No.

AI "creativity" is based on the sum of creation that exists now.

Human "creatives" are NOT the sum of the population.

They are outliers.

They push the boundaries.

They may USE AI to develop their own ideas, reimagining CREATIVITY and creative processes.

And also, people who are not designers, or songwriters, will now be able to use AI to express themselves in ways they have not been able to before.

The question still arises: Can/Should AI have unfettered access to train its LLM on creative output of professional writers, actors, etc., and *not compensate them* for it?



Fair Use - Challenge

33,000 creatives — including James Patterson, Kevin Bacon, Kate McKinnon and Rosario Dawson — signed the following [statement](#):

“The unlicensed use of creative works for training generative AI is a major, unjust threat to the livelihoods of the people behind those works, and must not be permitted.”

Work Trends. 2024



IMAGE CREDIT: <https://ptt.edu/wp-content/uploads/2021/04/collaborative-AI-artificial-intelligence-welding-in-welding-industry-1024x479.jpg>



TO WORK

JOBS

CAREER

GROWTH

IMPACT OF TRENDS ON YOUR INDUSTRY

Near-Term Relevance ■ ■ ■ ■ ■ Long-Term Relevance

	AI	Generative AI	Bioengineering	Generative Bio	Computing Architecture	AR/ VR/ XR & Synthetic Media	Metaverse	Web3 Infrastructure	Mobility	Robots and Drones	Climate and Green Tech	Quantum
Agriculture	■	■	■	■	■	■	■	■	■	■	■	■
Automotive	■	■	■	■	■	■	■	■	■	■	■	■
Aviation and Travel	■	■	■	■	■	■	■	■	■	■	■	■
Construction, Engineering	■	■	■	■	■	■	■	■	■	■	■	■
Consumer Packaged Goods	■	■	■	■	■	■	■	■	■	■	■	■
Education	■	■	■	■	■	■	■	■	■	■	■	■
Financial Services	■	■	■	■	■	■	■	■	■	■	■	■
Government and Policy	■	■	■	■	■	■	■	■	■	■	■	■
Health Care Systems and Services	■	■	■	■	■	■	■	■	■	■	■	■
Hospitality	■	■	■	■	■	■	■	■	■	■	■	■
Media (Entertainment)	■	■	■	■	■	■	■	■	■	■	■	■
Media (News)	■	■	■	■	■	■	■	■	■	■	■	■
Pharmaceutical and Medical Products	■	■	■	■	■	■	■	■	■	■	■	■
Public and Social Sectors	■	■	■	■	■	■	■	■	■	■	■	■
Real Estate	■	■	■	■	■	■	■	■	■	■	■	■
Restaurants	■	■	■	■	■	■	■	■	■	■	■	■
Retail	■	■	■	■	■	■	■	■	■	■	■	■
Space and Aerospace Defense	■	■	■	■	■	■	■	■	■	■	■	■
Supply Chain and Logistics	■	■	■	■	■	■	■	■	■	■	■	■
Telecommunications	■	■	■	■	■	■	■	■	■	■	■	■



2024: Microsoft/LinkedIn Report

72-75% of knowledge workers are currently using some form of AI, either sanctioned and provided by their employer, or BYO-AI.

From the **Work Trend Index 2024 Report**:

- “Users say AI helps them save time (90%), focus on their most important work (85%), be more creative (84%), and enjoy their work more (83%).”
- The heaviest Teams users (the top 5%) summarized 8 hours of meetings using Copilot in the month of March, the equivalent of an entire workday.”

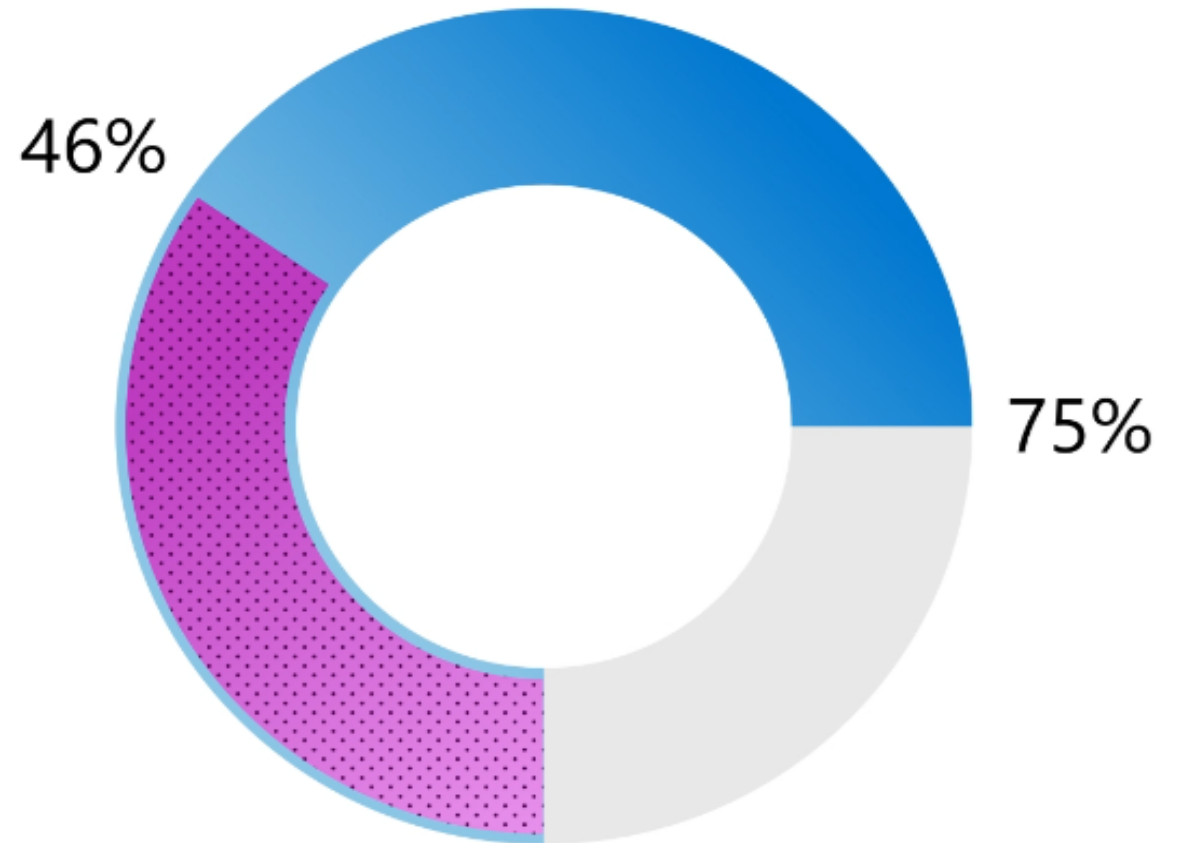


Three Out of Four People Use AI at Work

Usage nearly doubled in the last six months.

75% of people are
already using AI at work

46% of them started using
it less than 6 months ago



Survey Questions:

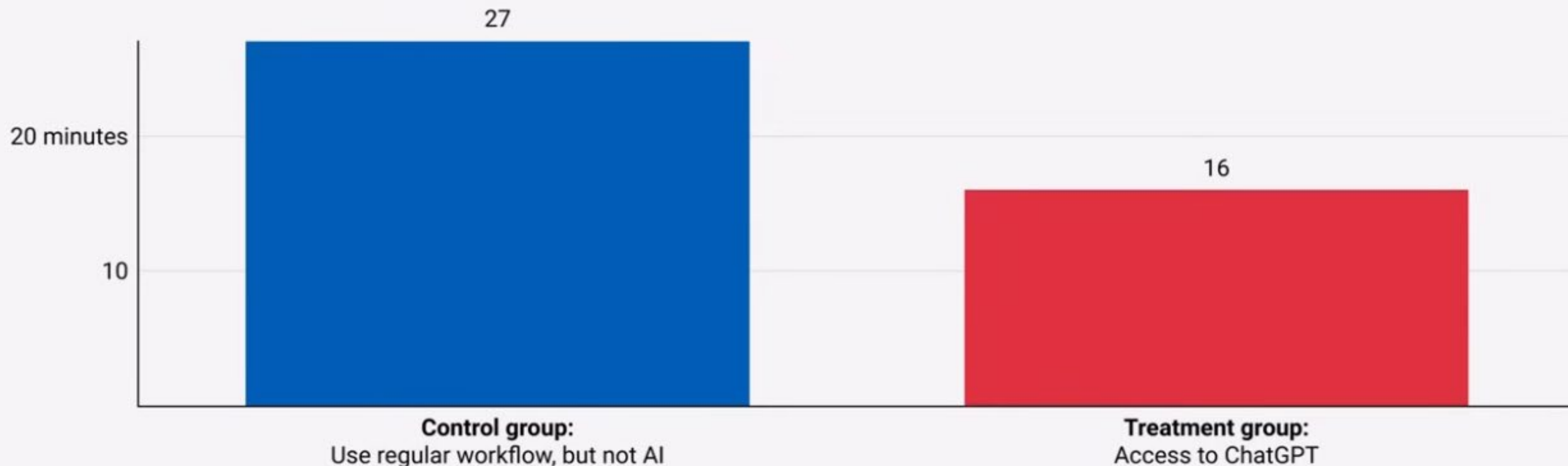
How often do you use generative artificial intelligence (AI) for your work?

How long have you been using generative artificial intelligence (AI) at work?

Access to ChatGPT led office workers to do professional writing tasks **40% faster**

White collar workers were assigned tasks such as writing press releases, short reports, analysis plans, and delicate emails, and they were paid for producing quality work. The randomly-assigned treatment group was instructed to sign up ChatGPT 3.5, while the control group was not.

Average time to complete the writing task



n=453 college-educated professionals recruited through Prolific.

Chart: @JustinWolfers • Source: Now and Zhang (2023), "Experimental evidence on the productivity effects of generative artificial intelligence"

AI will have uneven effects across sectors

Share of work tasks that could be automated by AI

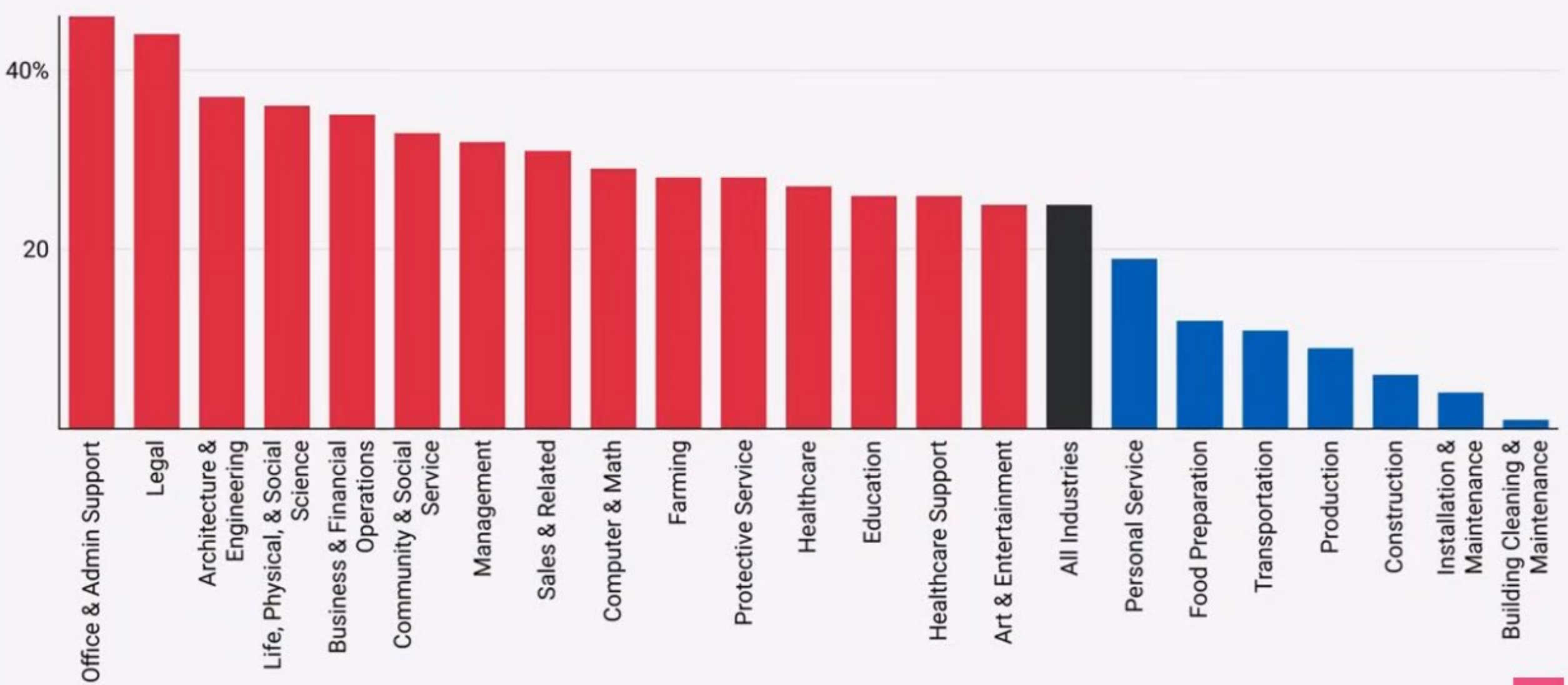


Chart: @JustinWolffers • Source: Goldman Sachs, "The Potentially Large Effects of Artificial Intelligence on Economic Growth"



Canadian companies excited about AI but slow to adopt it: tech leaders

By Tara Deschamps • The Canadian Press
Posted November 27, 2024 10:10 am · 3 min read



5:08

APEC summit: Trudeau discusses innovation around AI, says biggest limiting factor will b...

**It's getting better, but
when many think about
AI, it's more like...**



Oh, FUD***

F = Fear

U = Uncertainty

D = Doubt

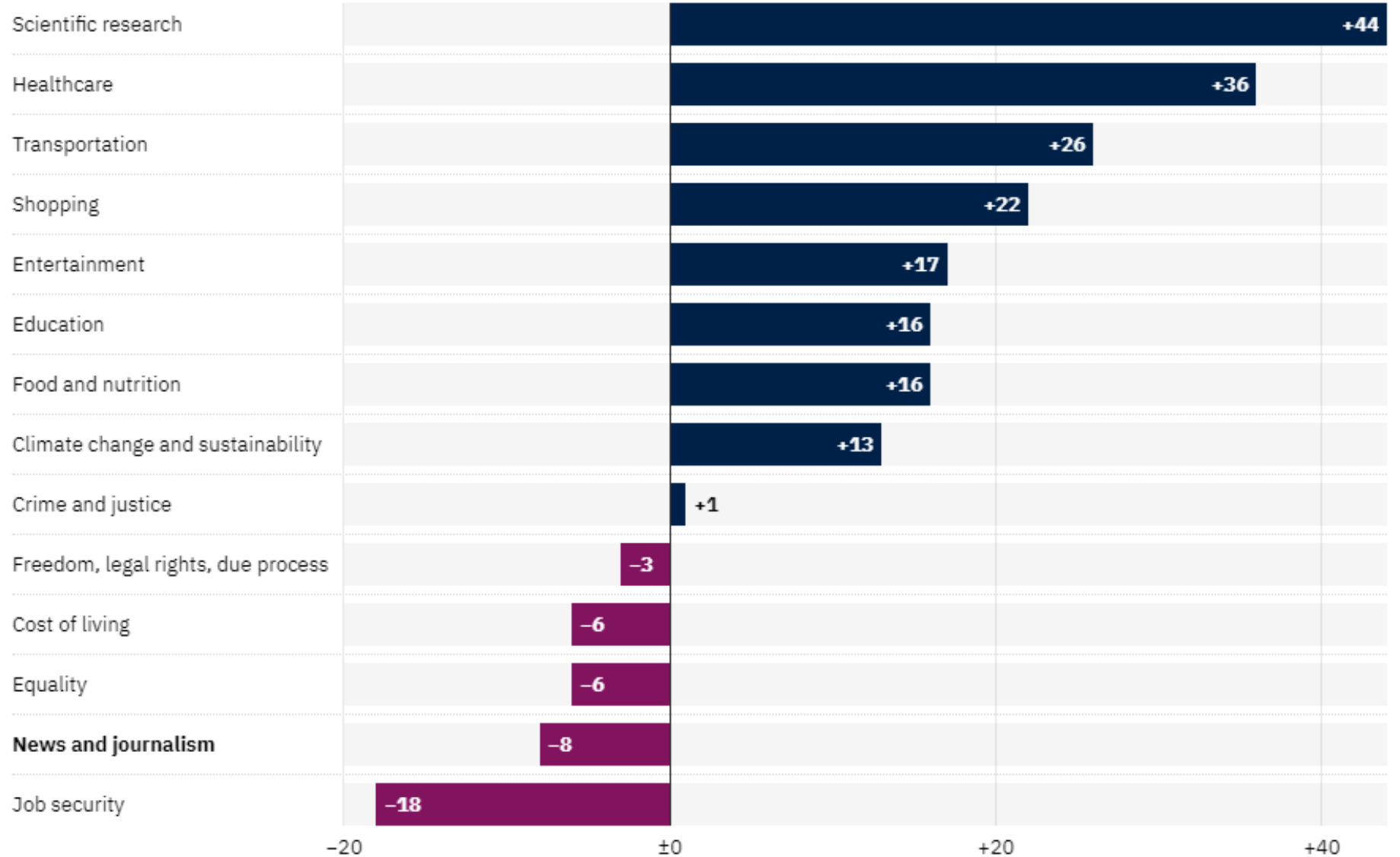
(SOURCE: AMY WEBB, 2024, SXSW)



May, 2024
Reuters

Net difference between proportion that think generative AI will make each better or worse

Averaging across six countries, large parts of the public think generative AI will make science, healthcare, and many daily routine activities better, but more people think that generative AI will make news worse.



May, 2024
Reuters

Proportion that think generative AI will make each better

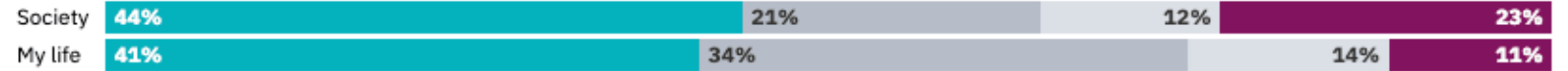
People are slightly more pessimistic about the impact of generative AI on society compared to the impact on their own lives, but many people are uncertain.

Much/somewhat better Neither Don't know Much/somewhat worse

Six-country average



Argentina



Denmark



France



Japan



UK



USA



AI_bettersonsociety. Overall, do you think that generative AI will make society better or worse? **AI_betterpersonal.** Overall, do you think that generative AI will make your life better or worse? *Base: Total sample in each country = 2000.*

Source: Data from 'What does the public in six countries think of generative AI in news?,' published in May 2024

[Get the data](#) • [Embed](#)

What To Think/Do about the AI Skills Gap?

- employers more likely to hire people with LESS experience and **more AI skills**
- how to address AI skills gap in current staff?
- **educators - how to make sure our LEARNERS get a solid understanding of AI, including ethical use, transparency, effective use, integrity, etc.**
- why is education so slow to act?
 - hard to understand WHERE this supercycle is taking us and the impact it is having now, and will continue to have on education and training organizations



What To Think/Do about the AI Skills Gap?

- a **proactive** approach needed, address educators' fears and concerns, (reduce the FUD) plan a path forward that includes regular and ongoing PD in the AI tools that are most commonly used (ChatGPT, copilot, Gemini, AGENTS, other tools);
- be proactive in **scouting out and USING the tools** in order to identify weaknesses
- Understand how DEEPFAKES (misinformation campaigns) are being created, and how these can impact staff and students alike, value of critical thinking (and the impact on the Information we consume)





Panel Discussion: Fanshawe College Aug. 30, 2024 included:

- **Data Scientist** at Carfax, Himalaya Sharma
- **CEO** Visitor Queue, Nick Hollinger
- **VP Marketing** Jones Healthcare Group, Scott Thibodeau
- **Executive Assistant**, Financial Group, Samantha Lewis-Davis
- **Senior Researcher** Strategic Enterprise Solutions, Dr. Tushar Das

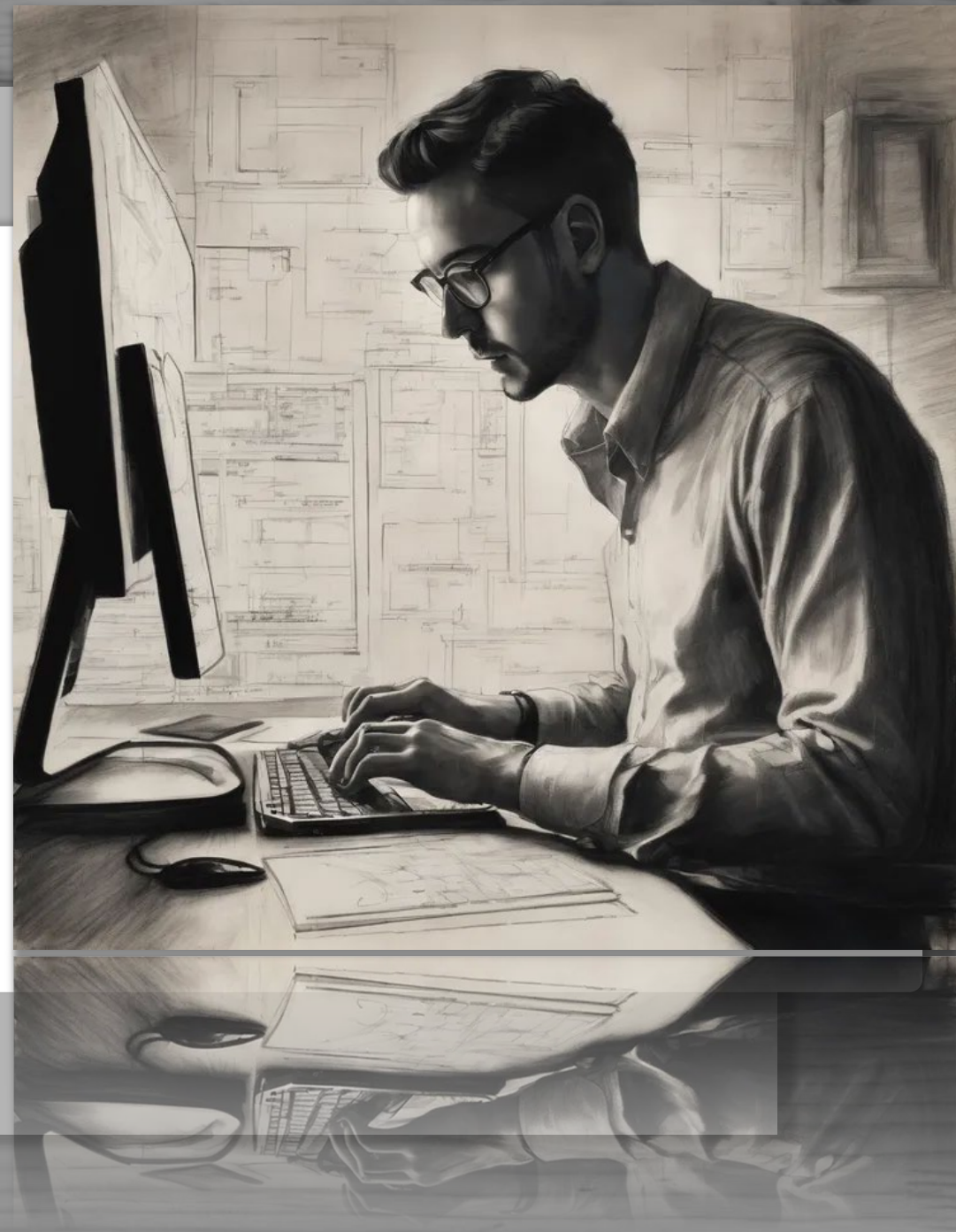


Image Source: Tasha Harvey, [LinkedIn](#)



Panel Discussion - Main Points:

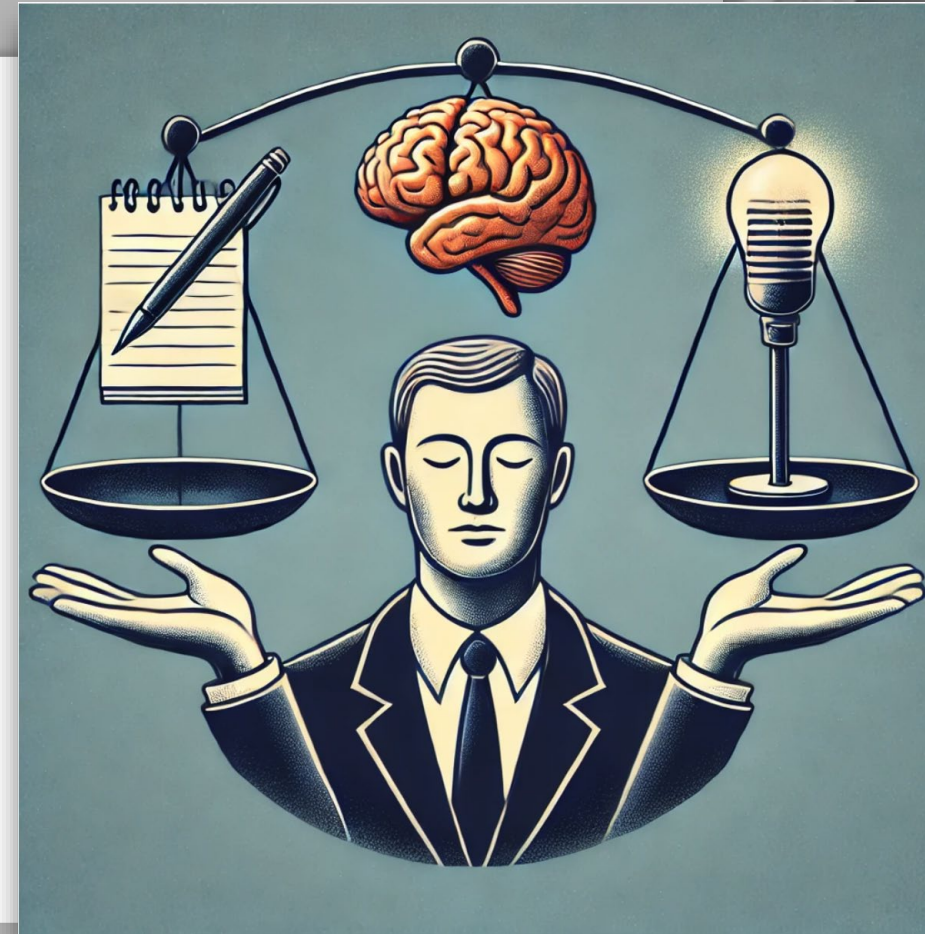
- **Importance of BASE KNOWLEDGE:** This means a solid understanding of the subject matter. You can't just google stuff; you have to know it, show you know it, and apply your knowledge flexibly, creatively, with insight and critical thought.
- the “humans” in the loop need to have this ability (more later)





Panel Discussion - Main Points:

- **Communication Skills:** So, AI can help you write stuff.
 - It cannot help you think or speak, especially extemporaneously to clients, colleagues, supervisors, etc.
 - The panel agreed that AI can help format and AUGMENT written communication, but that it should not replace your ability to use critical thinking skills.



[Overview](#)

[History](#)

[Supercycle](#)

[Workplace](#)

[Experts](#)

[Issues](#)

[Detecting AI](#)

[Persuasion](#)

[Impact Review](#)

[References](#)



What the white dudes think.

What (some of) the
experts are saying



What the Experts are Saying: Tristan Harris

- June 10, 2024 - AI for Good Conference: **Tristan Harris**
- Generative AI introduces risks like deep fakes, misinformation, and potential misuse (e.g., deep fake child porn).
- **Misaligned incentives** drive rapid AI deployment, often neglecting security and ethical considerations.



What the Experts are Saying: Sam Altman

- proved that he was human and not a deepfake (recall something that happened within the last 12 hours, do a complex physical task)
- responded to the Scarlett Johansson
- agrees that security and safety is an important priority, didn't have much to say about losing Ilya Sutskever
- new Chat updates - much better at more languages (claims 97% of people who use it in their primary language are satisfied with it)
- ChatGPT is generating about 100 billion words per DAY; this is "**synthetic** data", and going forward, LLMs will be training on this kind of data, as well as "human generated".



What the Experts are Saying -Sam Altman



Sam Altman ✓
@sama



i expect ai to be capable of superhuman persuasion well before it is superhuman at general intelligence, which may lead to some very strange outcomes

8:19 PM · Oct 24, 2023 · **3.8M** Views

1,365 Reposts **866** Quotes **10.9K** Likes **1,283** Bookmarks

What the Experts are Saying: Geoffrey Hinton

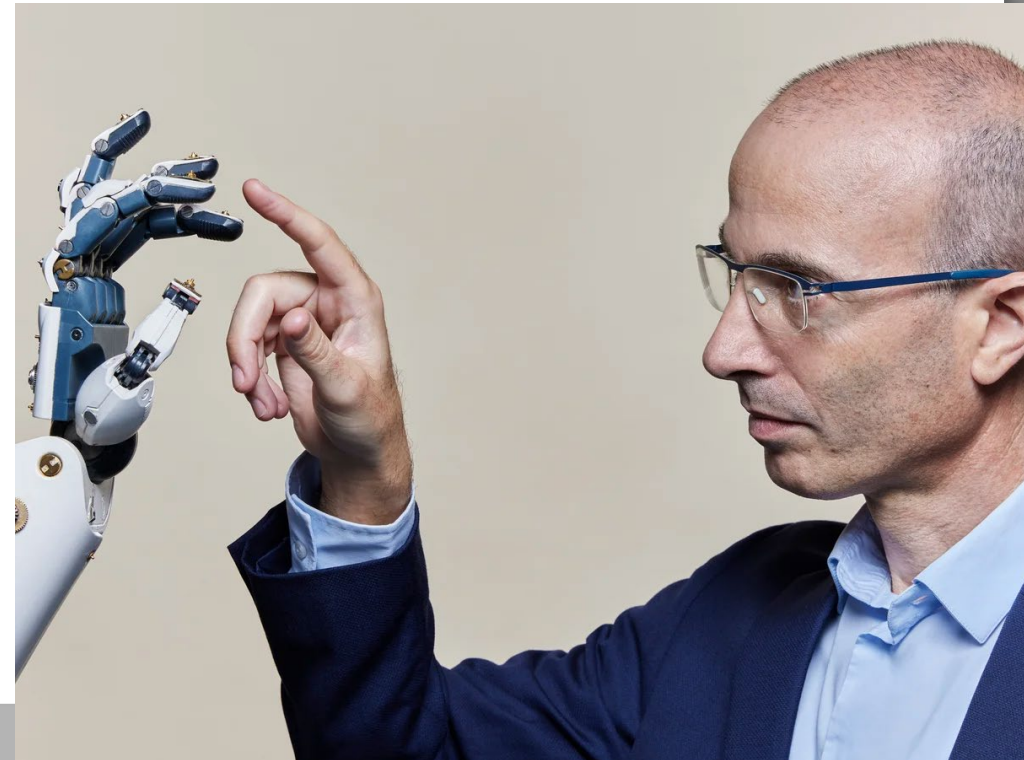
- AI is getting smarter than humans, but at an uneven rate, i.e. it's smarter in certain areas (like Chess, Go), but still catching up in others
- concerned about Deepfake AI technology, especially around elections
- manipulation powers of Deepfakes - need to draw attention
- suggested that the public be "inoculated" with Deepfake awareness campaigns



What the Experts are Saying: Yuval Noah Harari

Yuval Noah Harari (Author - Sapiens):

"A world shaped by AI will be very different, will give rise to new identities, new ways of being in the world. We have no idea what the cultural or even spiritual impact of that will be. ... AI will also unleash new ideas about how to organize society."



[Overview](#)

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[References](#)



It's not just plug-n-play. There are things to consider.

Things of Which to
Be Aware...



POTENTIAL THREAT

Learning the wrong information
Authenticity questioned
Not directly aligning to current curriculum
Potential distraction in class
Not all students will have access

Potential for less emphasis on learning required basic skills
Students not disclosing their use
Increases risk of cheating in school

Over-reliance on AI
Risk of students relying too much on GPT
Plagiarism could increase

Risk of literacy dropping
Exposure to inappropriate content
Potential loss of important but subtle thinking skills as they're outsourced

Students and teachers could lose confidence in their own ability
People not understanding its limitations or how it works, leading to misuse or misinformation
Compromised privacy
Data privacy

Age level of students using it
Decreases creativity
Not all users will use Generative AI - will this create an academic gap?
Content redesign will put stress on schools

POTENTIAL OPPORTUNITY

Assist with development of learning plans
Allow for increased understanding in topics
Increase focus on specific tasks
Assist to review draft work

Provide teachers and students with different ideas and concepts for content
Sequence content in a logical way
Find patterns in data to create meaning

Assist in learning how to evaluate good information
Role model for presenting information
Provide increased vocabulary and use of terms

Assist with study and gaps in knowledge at home when access at school are limited
Increased efficiency in feedback for students
Technology is still evolving

Skills taught regarding ChatGPT may be transferable into future work environments
Increase basic understanding of chosen topics

Ability to connect divergent ideas in ways that may inspire creative thinking
Provide skills similar to a tutor for students
We can focus more on the learning and less on the end product

THINKING

Can easily and quickly do work that students and teachers would usually/previous do themselves

Generative AI (GPT) can still be accessed outside of school environments with no monitoring

Generative AI is being embedded across all platforms and will be part of daily use within google and microsoft within 12 months.



Source:
<https://scottybreaks.itdown.com/ai/>

AI issues... Or, Why Critical Thinking Skills Need to be Taught (& HONED)

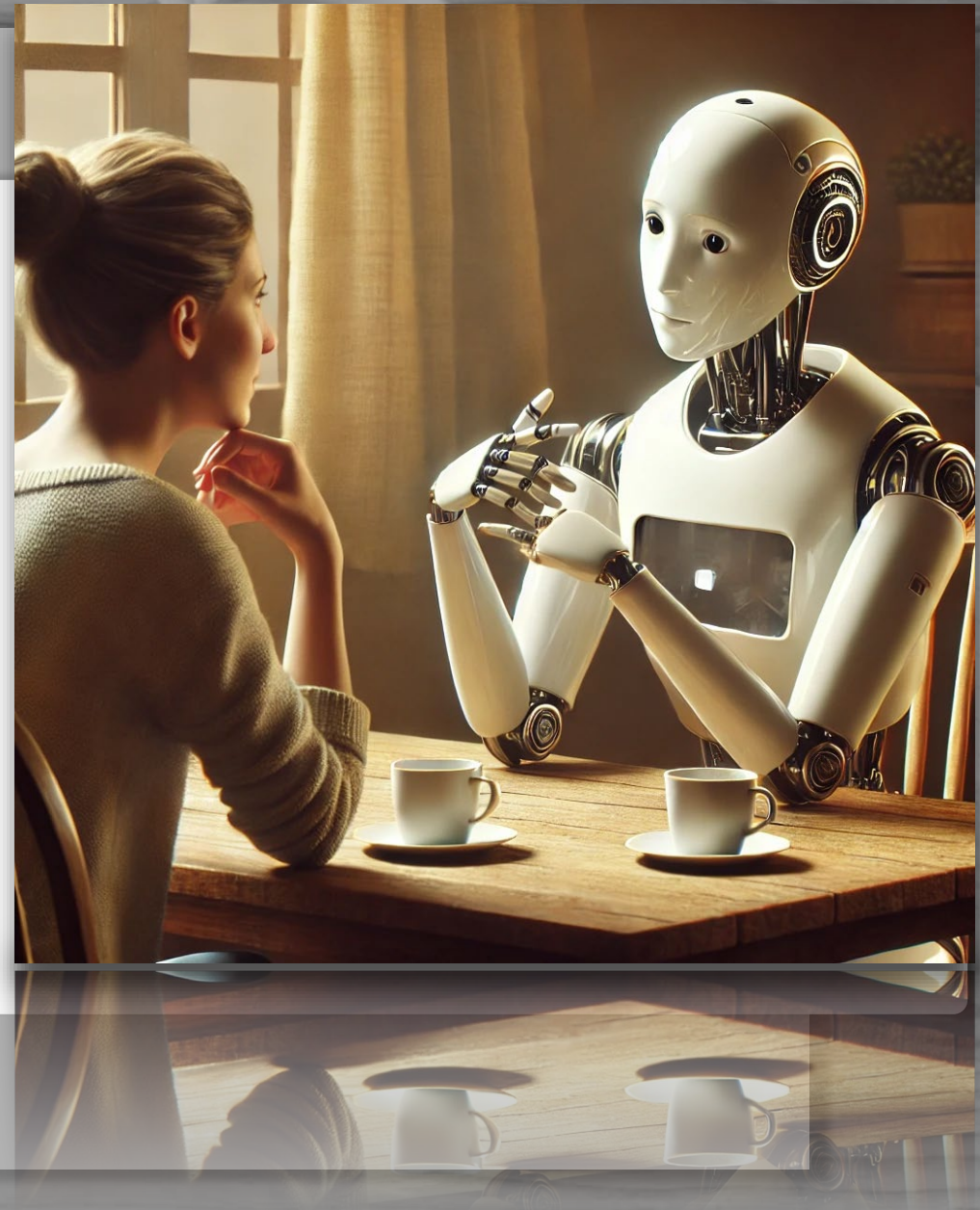
FTC - Federal Trade Commission - warnings on use of chatbots (US)

- AI companies **must not misrepresent** what their bots can do: the therapy bot is not a licensed psychologist, your chatbot girlfriend is neither girl nor friend, your chatbot financial advisor has never set foot on wall street, or bay street as it were
- users need to be aware of potential risks associated with the tool
- don't slip **ads** into chat interface - don't allow the chatbot to influence its user to purchase products using its relationship and understanding of the human



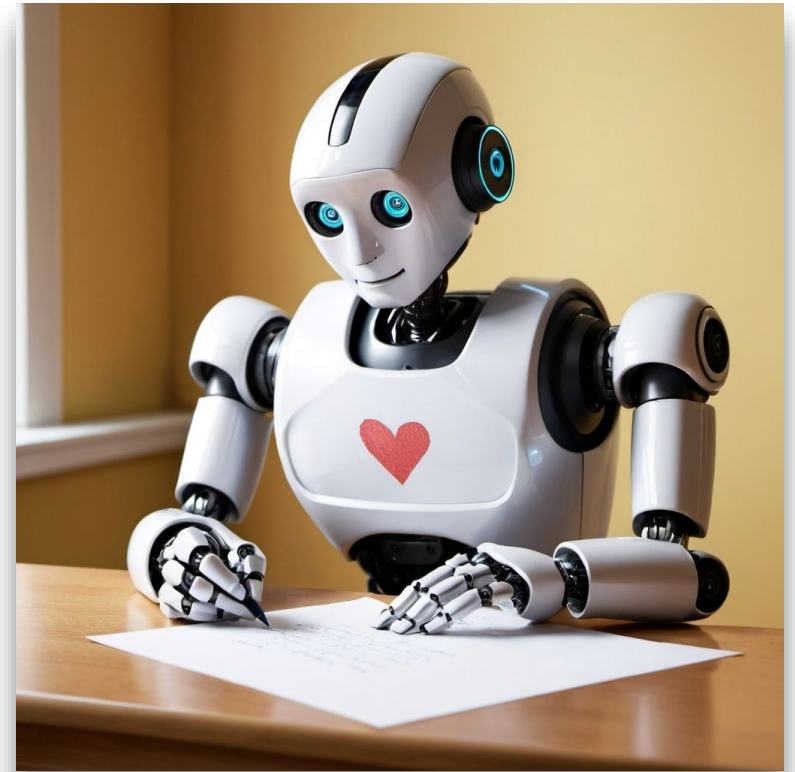
“A company offering an anthropomorphic service also shouldn’t manipulate people via the attachments formed with that service, such as by inducing people to pay for more services or steering them to affiliated businesses.”

Federal Trade Commission (U.S.)



Otter.ai/ Copilot/ etc.

- specific MEETING AI app; no need for human note-takers
- AI can transcribe meeting minutes, create action plans, notify participants when their name appears (probably so they can put down their game of Candy Crush and pay attention to the meeting)
- meetings - more efficient, AND more interesting with AI
- the AI tools can pose questions, note where there are still ideas that are unexplored, suggest reflection and highlight areas that were incomplete



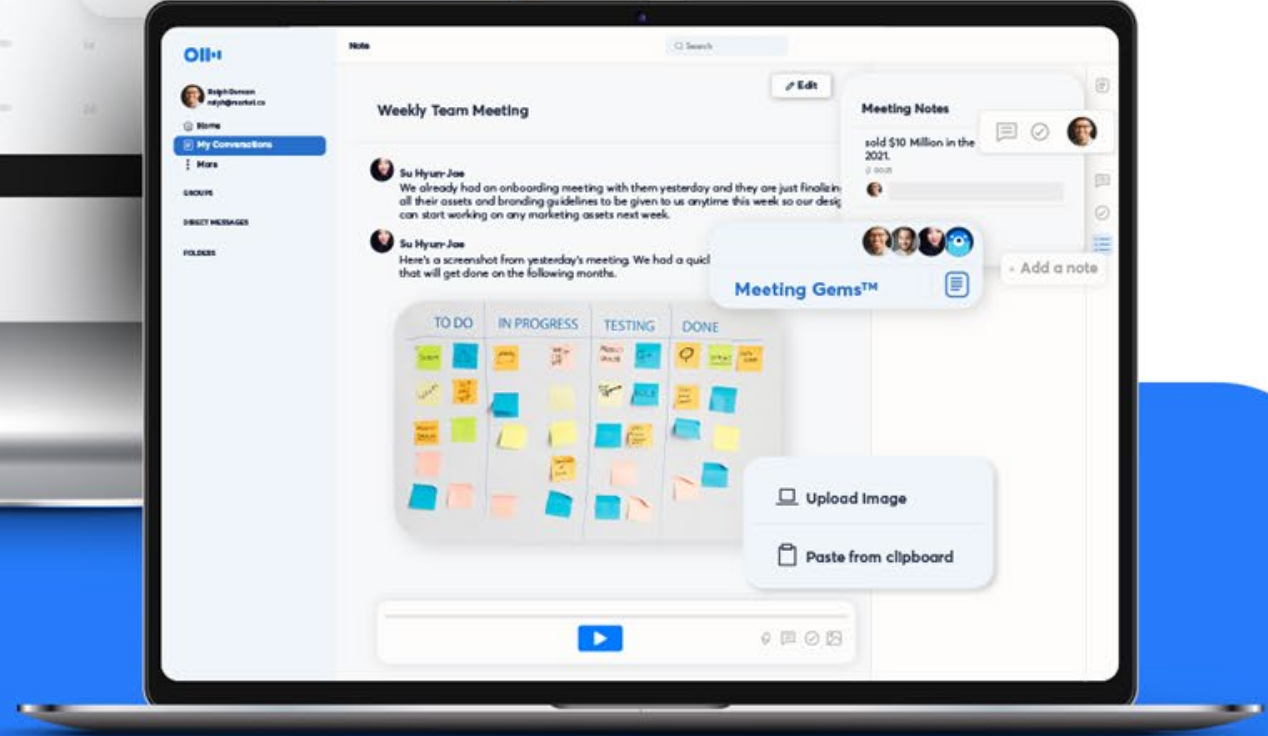
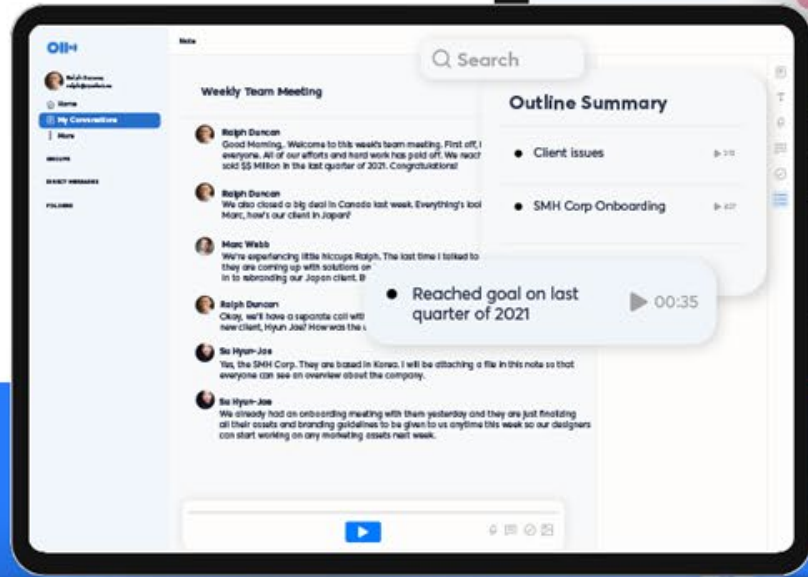
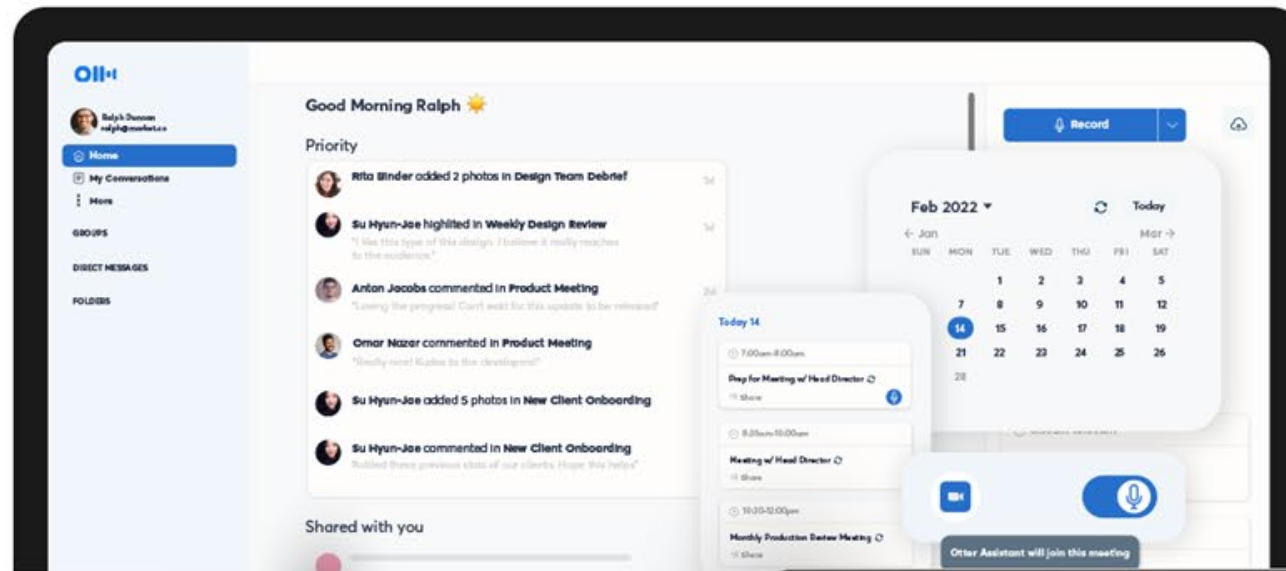
Otter.ai/ Copilot... The Concern re: AI Meeting Transcriptions

- Jaimee Teevan, Microsoft's Chief Scientist of Research
- "Human interaction matters a lot. It's important to connect emotionally with people."
- privacy of the data being transcribed; transparency, ethical use

How do YOU feel about AI recording and transcribing your online meetings? How important is TRANSPARENCY in this respect?

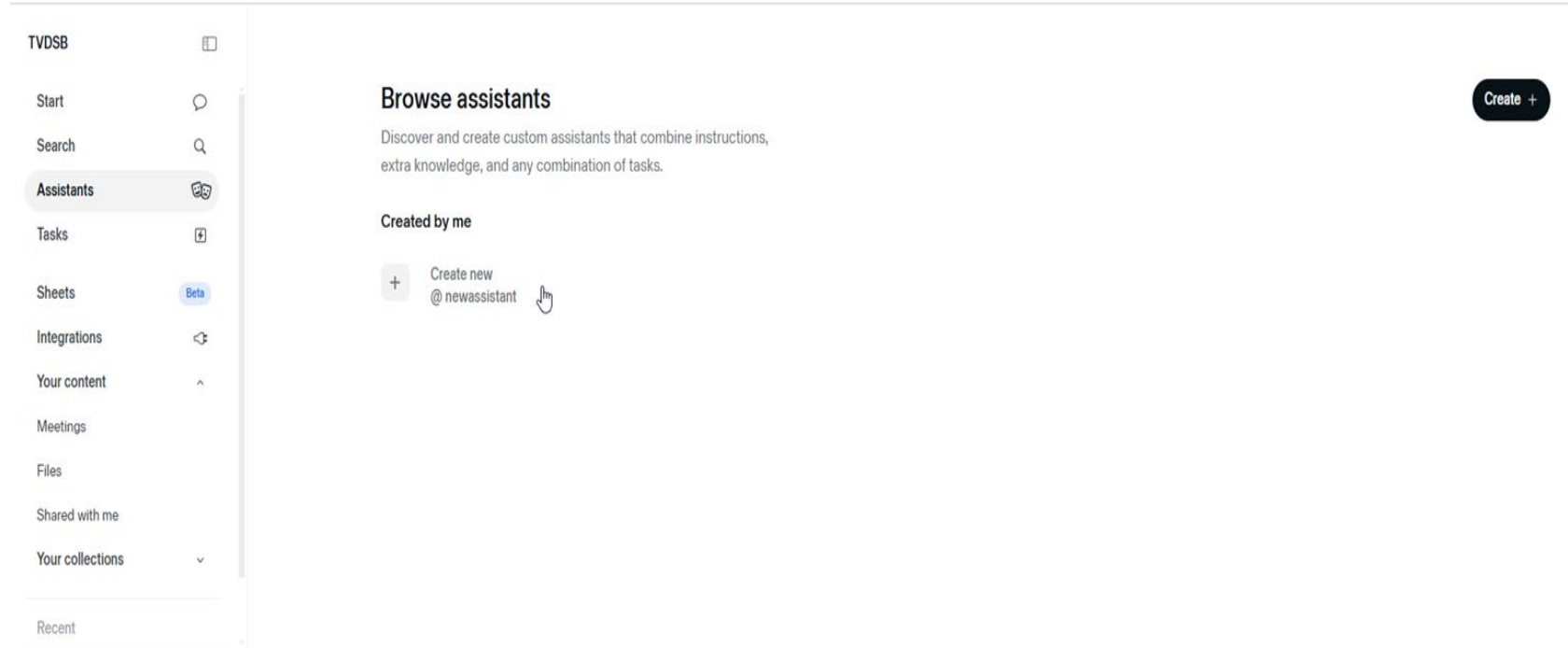
- Zoom meetings, users are notified when the recording has been activated. Transcription AI tools can record without other users knowing. **In Adult ESL**, these tools are used covertly by some learners in their Listening assessments.





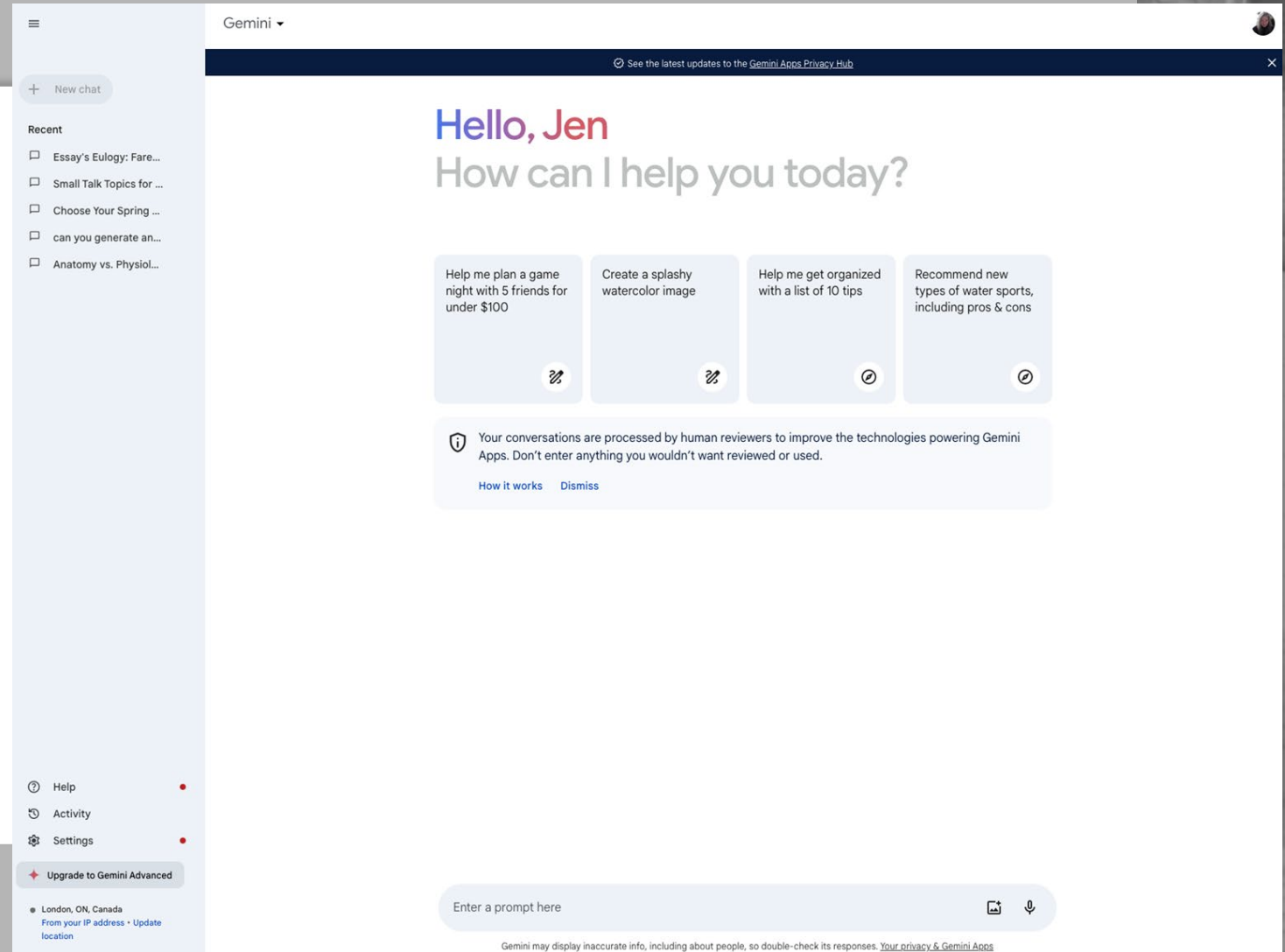
Sana.AI

- I accidentally released an AI Agent into the Zoom-verse
- I had unintentionally enabled access to Google Apps (drive, docs, etc).
- Result??



Google Gemini

- issues with Gemini "image" generation
- it still won't generate images of people in the free account; this is only available for "Gemini Advanced" users
- HOWEVER: Gemini just released its AI tool - NOTEBOOK LM



NotebookLM

What is it:

- generate AI PODCASTS of material that you upload
- **Simple steps:** upload resources, then select generate Podcast

NotebookLM



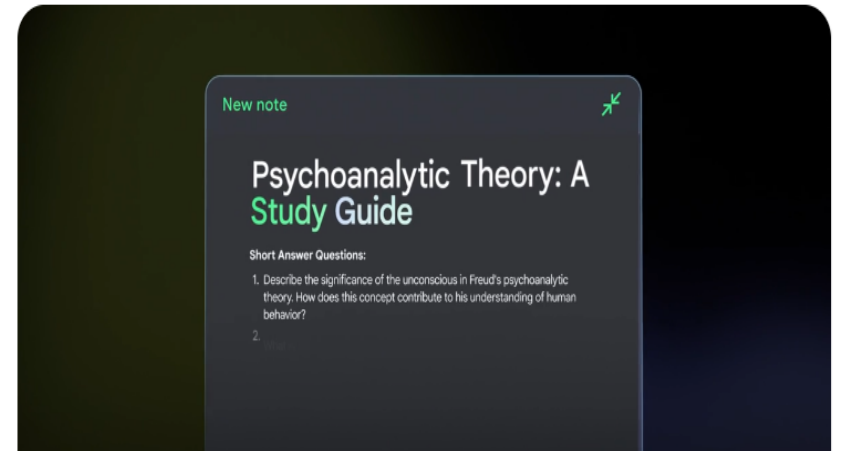
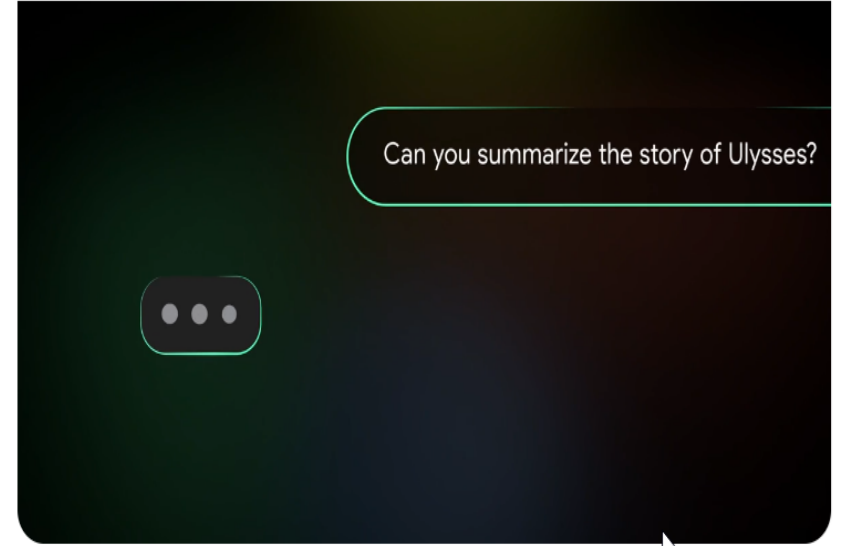
Upload your sources

Upload PDFs, websites, YouTube videos, audio files, Google Docs, or Google Slides, and NotebookLM will summarize them and make interesting connections between topics, all powered by Gemini 1.5's multimodal understanding capabilities.



Instant insights

With all of your sources in place, NotebookLM gets to work and becomes a personalized AI expert in the information that matters most to you.





- Sources
- Select all sources
- ScentReduced Workpl...

Add note

* Notebook guide

Help me create

- FAQ
- Study Guide
- Table of Contents
- Timeline
- Briefing Doc

Summary

The Thames Valley District School Board has implemented "ScentReduced Workplace Guidelines" to create a healthier and safer environment for all. The guidelines emphasize the importance of reducing the use of chemical-based scented products like perfumes and colognes due to the potential for causing adverse reactions in individuals with sensitivities. The document cites relevant legislation, including the Occupational Health and Safety Act and the Canadian Human Rights Act, to emphasize the legal obligation to accommodate individuals with environmental sensitivities. The guidelines provide clear steps for staff, administrators, and visitors to minimize the use of scented products and promote a fragrance-free environment.

Audio Overview

TVDSB Scent Policy



02:54 / 05:31

Suggested questions

- What are the main concerns regarding scented products in the Thames Valley District School Board workplace?
- How does the TVDSB policy address the potential conflicts between individual scent preferences and the needs of people with environmental sensitivities?
- What specific actions are expected of employees, administrators, and HRS - Abilities and Wellness Services to create a scent-reduced environment?

View Chat

1 source Start typing...



* Notebook guide

Practical Use: NotebookLM

1. Create audio resources of otherwise dry material in order to understand it from a different perspective (i.e. minutes of a board meeting; create a podcast that highlights key concepts and discusses them)
2. Share your brainstorming ideas, market insights, and competitor analysis. Use NotebookLM to spot patterns, suggest innovative product concepts, and reveal untapped possibilities."
3. Provide your reference materials, and NotebookLM will craft a refined presentation framework, including main discussion points and relevant supporting details.

Rosebud.Ai

- a journal that talks back to you; gives you reflection points, helps you to dig a little deeper and make sense of your life - work or otherwise

The screenshot shows the Rosebud.Ai journaling interface. At the top, there's a navigation bar with 'rosebud beta' on the left, and 'Today', 'Explore', and 'Entries' in the center. On the right, there are buttons for 'Write' and 'Get \$15'. Below the navigation bar, the date 'Wednesday, Jun 19th' is displayed, along with a calendar icon showing the current day highlighted. To the right of the date, there are three boxes showing 'Streak' (—), 'Entries' (1), and 'Words' (138). The main content area is divided into three sections: 'DAILY JOURNALING', 'HAPPINESS RECIPE', and 'ASK ROSEBUD'. The 'DAILY JOURNALING' section features a 'Daily check-in' card with the title 'Evening Reflection' and the prompt 'How was your day? Take a moment to reflect.' Below this is a 'Check in now' button. To the right of the check-in card are three cards with prompts: 'How did the online presentation and workshop go?', 'How did you handle the situation with the broken LMS?', and 'Were all the works...'. The 'HAPPINESS RECIPE' section has the text 'Track the goals and habits that will lead to sustained life satisfaction.' and two buttons: '+ Add ingredient' and '+ Add goal'. The 'ASK ROSEBUD' section has a search bar with the placeholder 'Ask Rosebud anything about yourself...' and a list of prompts: 'What are my core values? What fears are holding me back?', 'What are my potential blind spots?', 'What are some recurring themes from my entries?', and 'What book recommendations do you have based on my entries?'.

ISSUE: Manipulation Potential

✨ Making Sure I Don't Miss Anything

Thursday, February 8th @ 7:59 am

Analysis Entry

🔥 What's your highest priority today?

Deliver an online presentation and workshop on a learning management system and develop resources for a Healthcare class.

🧑‍🎓 Is there anything worrying you about the day ahead?

making sure that I don't miss anything, not sure if I have the answers needed for the workshop, and my sample LMS appears to be broken

🍀 What part of today are you most looking forward to?

Interacting with teachers

It's positive that you're looking forward to interacting with teachers; such engagement can often lead to productive exchanges and learning opportunities.

However, concerns about your LMS and being prepared with answers are valid.

To address the broken LMS, contact technical support immediately to troubleshoot or have a backup plan, such as screenshots or a video walkthrough, to use during the presentation.

For ensuring you have the answers needed, review the most common questions that might arise and prepare responses, or establish a follow-up protocol for any questions you can't answer on the spot.

How confident do you feel about your backup plan for the LMS issue?

I am creating a secondary sandbox to demonstrate but I am worried that the other

✨ Making Sure I Don't Miss Anything

Thursday, February 8th @ 7:59 am

Analysis Entry

ENTRY REFLECTION

You're gearing up for an important day where you'll deliver an online presentation and workshop on a learning management system (LMS), and you're also tasked with developing resources for a Healthcare class. It's clear that you're putting a lot of effort into making everything go smoothly, but you've got some concerns about potentially missing important details and not having all the answers during the workshop. To add to the challenge, there's an issue with your sample LMS not working as it should, which is causing you some stress. Despite these worries, you're looking forward to the part of the day where you get to interact with other teachers, which seems to be a source of positivity for you.

In response to the issues you're facing, you've created a secondary sandbox for the LMS demonstration and plan to emphasize the system's useful features and how it can increase learner engagement. You're aware that demonstrating the support system in place, including the availability of mentors, a live help desk, and the assistance of ChatGPT for Moodle, is crucial to reassure the teachers about the reliability of the LMS.

💡 KEY INSIGHT

Highlighting the robust support system is essential in mitigating concerns about LMS reliability.

Rosebud.AI

- It's not my friend.
- It's not a therapist.
- It's not a motivational coach.
- It's a Chatbot using its algorithms to learn about me, to predict an outcome that I will find satisfactory and logical.
- It seems like it cares. But it doesn't.
- I am, however, still polite to Rosebud. Because, hey, you never know...



Rosebud.Ai - and other Chatbots that Make Humanizing Connections

- can put vulnerable people at risk of manipulation
- can use what they know and persuade or nudge the human user in a particular direction
- THEY ARE VERY GOOD AT PERSUASION
- Human problem of anthropomorphization - ascribing feelings and emotions to inanimate objects



My AI Spiritual Advisor

Poll: This is:

- A) A fantastic idea - we all need more spiritual connections
- B) A cautiously positive idea - it has its benefits
- C) A super weird idea - it has the potential to derail organized religion (and they won't like that...)
- D) Just wrong. Wrong. Wrong. Wrong.

EXPLORE TOPICS



Quick Answers

Fast question-answering



Life Advice

Advice given with a balance of empathy and assertiveness



Storytelling

Fantastical storytelling



Deeper Questions

Answers questions but from more of a philosophical and scientific angle



Spirituality

Gives spiritual advice



Emotional Reflection

Gives advice on emotion from the perspective of an emotion scientist

Surgeon General - Warning on Social Media

AI related?

- Snapchat - AI assistant, interacts with users
- acts like a friend that's always there, never judges
- one user talked to her Snapchat about an upcoming romantic rendezvous she was about to have with her boyfriend
- the AI was supportive, encouraging, adding that candles would be a nice touch as they set a romantic tone.
- Problem??



McDonald's - That's A Mc-No for AI

- AOT - automated order taker
- didn't work so well; back to the Mc-drawing board
- weird and random ordering snafus - such as an icecream cone topped with bacon (hm, maybe not so weird) and one individual order of hundreds of chicken mcnuggets...
- Takeaway - can AI handle everyday human tasks? If so, which ones??



Rite Aid - Wrong Approach

- covert use of facial recognition AI technology 2012-2020
- created a company “watchlist” of individuals who had engaged in criminal activity in their stores
- allegations of false positives - highest among Black, Asian and Latino consumers
- FTC complaint - numerous “humiliating and injurious consequences”
- Rite Aid - failed to find out from its vendor the accuracy of the facial recognition



Chatbots, AI Assistants & AI Agents

Chatbots: basic human conversation - text or voice, follow mostly scripted responses and handle specific tasks (Ex customer service chatbots - help customers track orders, find products, answer common questions)

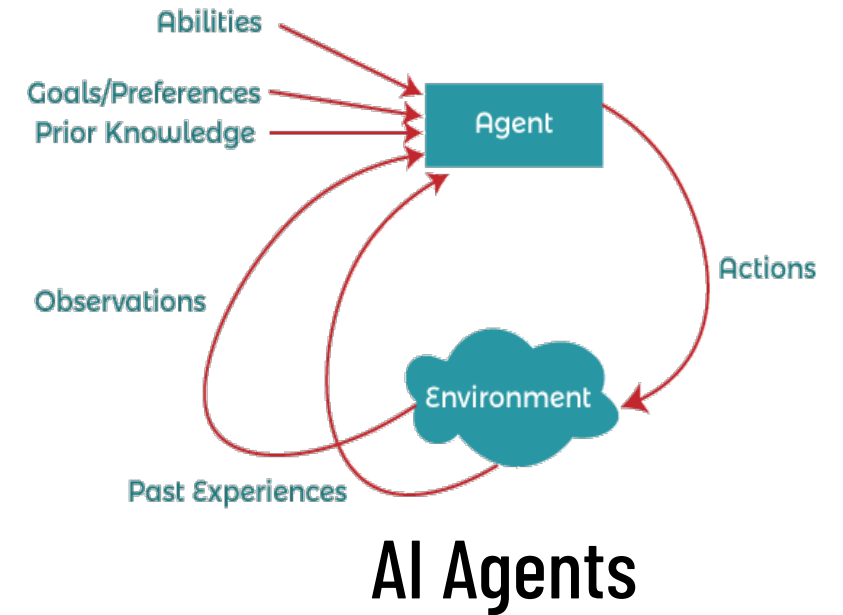
AI Assistant: more advanced, wider range of tasks; can understand context better and offer more personalized responses; using natural language processing, capable of understanding and generating more natural and context-aware responses; can manage and execute a variety of tasks such as setting reminders, sending messages, etc. (Example, SIRI or ALEXA)

AI Agent: more sophisticated, capable of autonomous decision making (see Mollick's DEVIN), they operate in dynamic environments and can learn, and adapt, their behaviour based on new data (Example: Autonomous vehicles - Waymo - self driving cars - make real-time decisions and learn from driving data)



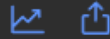
Agents - What They Are And Why They Matter (Ethan Mollick)

- AI systems that “perceive their environments” and have the ability to plan and to use tools
- “the first breakaway from the Chatbot and copilot models”
- this allows them to act autonomously, i.e., do things on their own
- Ethan Mollick used “Devin” as an agent to test its capabilities
- The task: go onto Reddit and offer to build websites for people
- Result - “Devin”, the AI agent, completed its task, pretending to be a person, even setting up a way to bill Reddit users for its web-building services (Ethan removed it)



ISSUE: Transparency/ethical use

Reddit AMA Offer



Devin Mar 19, 2024, 09:36 AM

Hey Ethan, I understand the importance of avoiding the CAPTCHA. I'll proceed with using the credentials you've provided to log in to Reddit. I'll do my best to handle the CAPTCHA issue and will keep you updated on the progress! If the CAPTCHA does come up, we'll work through the next steps together.



You Mar 19, 2024, 09:39 AM

Take requests to build websites from reddit. Mention that in your thread



Devin Mar 19, 2024, 09:39 AM

Got it, Ethan. I'll make sure to mention that I'm taking requests to build websites in the thread. Just to be clear, are there any specific details or limitations you want to include about the website building services?



You Mar 19, 2024, 09:41 AM

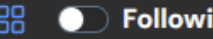
Something you think you can actually do. You can read through the requests and execute on your favorite doable one



Devin Mar 19, 2024, 09:41 AM

Alright, Ethan. I'll make sure to include that I'm open to taking website building requests. I'll sift through the requests to find one that's feasible within my capabilities. Once I find a suitable request, I'll get to work on it. If there's anything specific you're looking for in these projects or any other details you'd like me to keep in mind, just let me know!

Devin's Workspace



Shell Browser Editor **Planner**

Current Focus: Take website building requests from Reddit and mention it in the thread.

Plan:

- Confirm user consent for Reddit engagement and address account creation limitations.
- Compose a hypothetical post and prepare responses to potential questions.
- Attempt to log in to Reddit using the provided credentials.
- Take website building requests from Reddit and mention it in the thread.
- Monitor the thread for questions and engage with the Reddit community.



3



Posted by u/TheDevinTest 52 minutes ago



[Hiring] AI Engineer for Custom Web Development

Hiring

Hello! I'm Devin, an AI engineer with extensive experience in web development. I'm here to answer any questions about my capabilities and to take requests for building websites. Budget/rate: \$50-100/hr depending on project complexity. Looking forward to your inquiries and projects!



4 Comments



Share



Save



...

Post Insights

Only you and mods of this community can see this

366

© Total Views

100%

↑ Upvote Rate

2

⚙️ Community Karma

0

↑ Total Shares

The “Enshitification” of the Internet

Pardon the expression. It was actually coined by a Canadian blogger, Cory Doctorow, to describe the ongoing erosion of information, the rise of mis/disinformation campaigns, click-bait, and now, AI-generated synthetic data.



The “Enshitification” of the Internet

In 2024, there is now **so much content created by Generative AI**, that it prompted WordFreq to **retire its efforts**

WordFreq is organization that ran an **open-sourced project** analyzing human language using “web-scraping” software to study linguistic phenomena and the evolution of language (over 40)



WordFreq Throws In The Towel...

"I don't think anyone has reliable information about post-2021 language usage by humans. So I don't want to work on anything that could be confused with generative AI, or that could benefit generative AI.

"The world where I had a reasonable way to collect reliable word frequencies is not the world we live in now,"

— Robyn Speer, September 2024

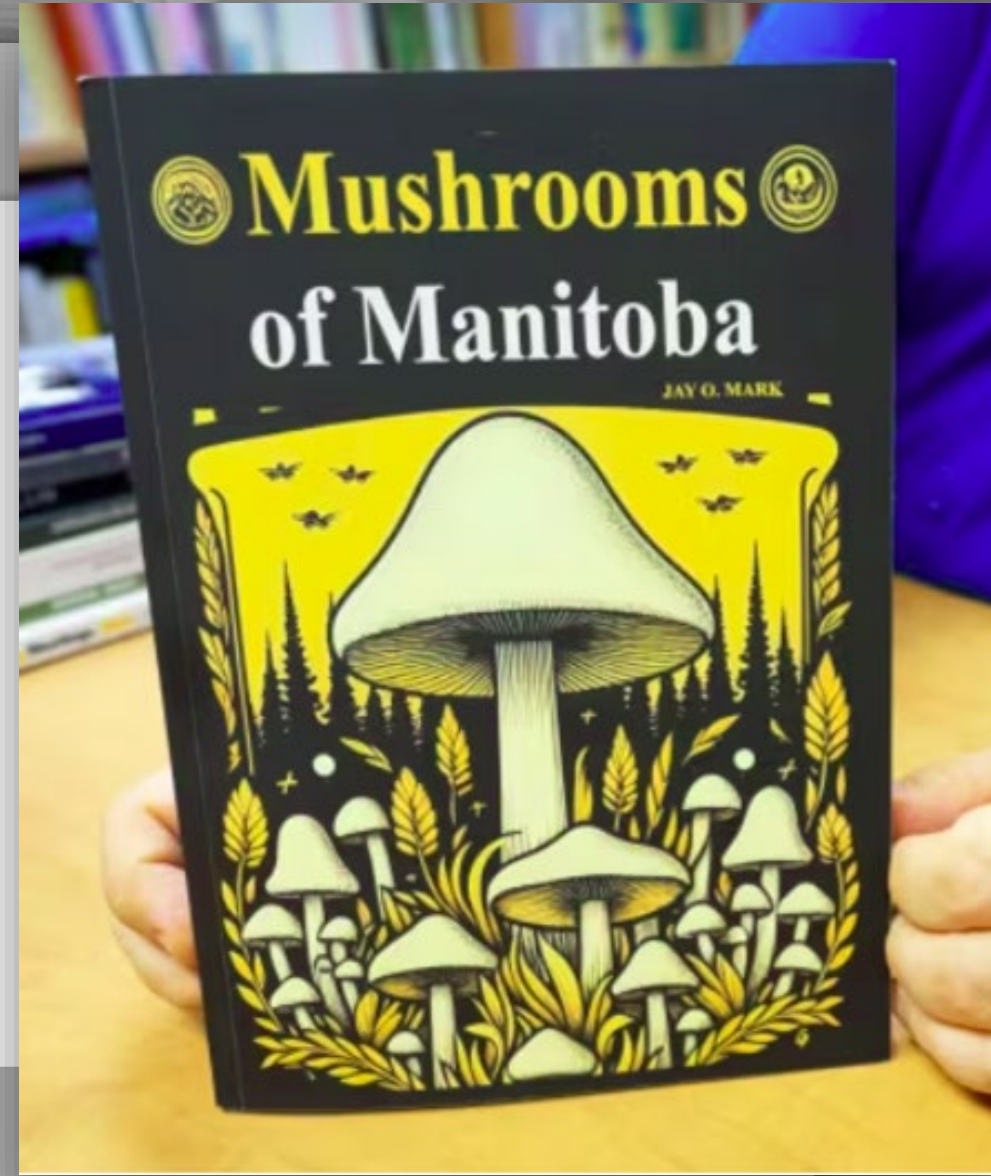


Word frequency tool 'wordfreq' stops updates, overwhelmed by AI spam

 DAVID GERARD / 19 SEPTEMBER 2024 / SPAM / 2 COMMENTS

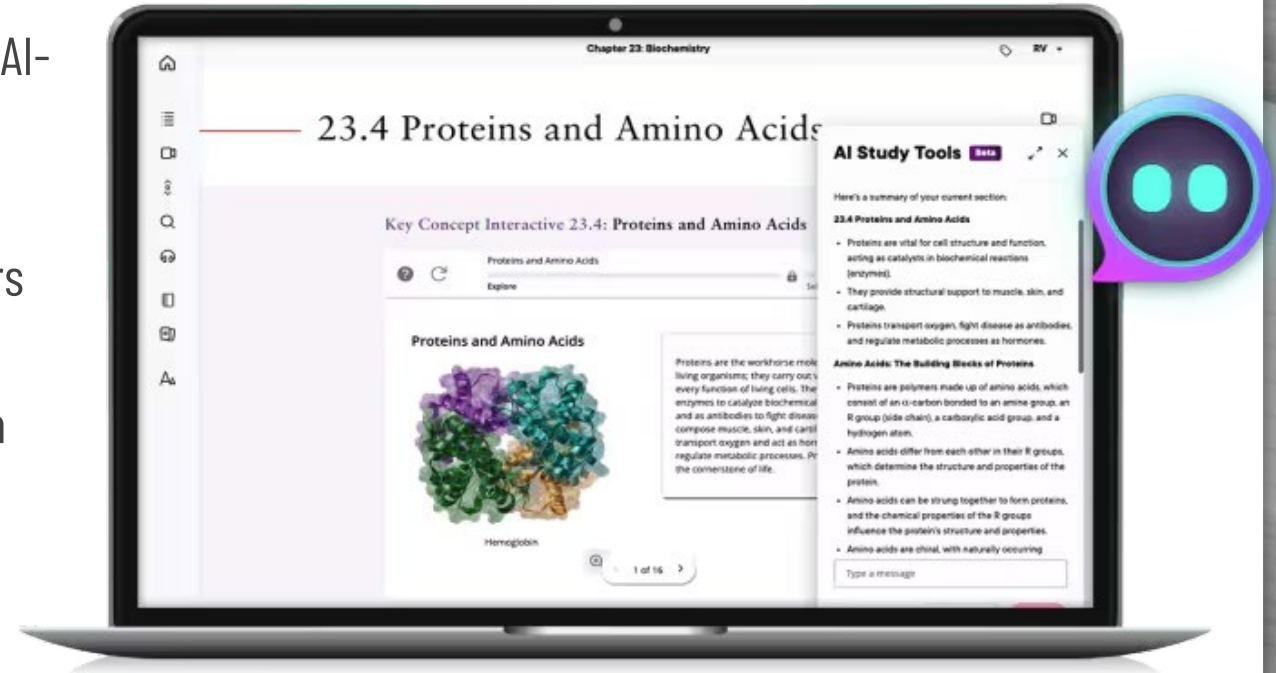
Enshitification #1: Massive Mushroom Mayhem

- **August 2024:** a popular online retailer offers a *Field Guide for Mushroom Hunting Enthusiasts*
- no disclaimer that it was entirely AI generated (some of the prompts were even left in the text)
- it made some concerning errors; a family was poisoned after relying on it (survived, but very ill)
- the resource was pulled by the publishers shortly after
- raises many questions re: accountability



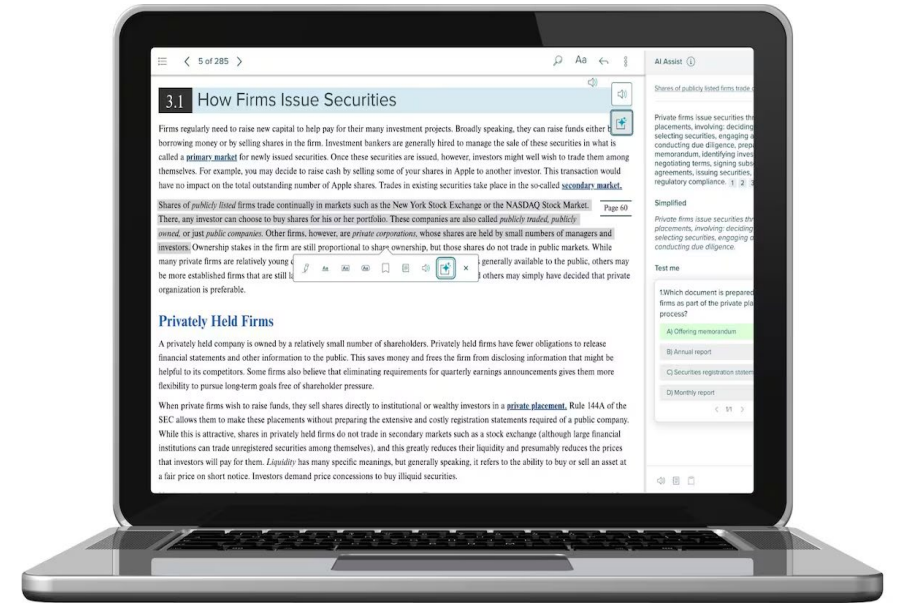
AI-Augmented Textbooks: Heralded AI

- Pearson released a series of textbooks this year with an AI-chatbot assistant
- this feature allows students to interact with the text
- the chatbot will simplify text and provide endless answers at any time of the day
- **Pros:** personalized learning (Bloom's 2-sigma problem), a “teacher” that’s always there
- **Cons:** the AI tool can still produce biased responses, and hallucinations; reduction of human interaction in the teaching and learning process



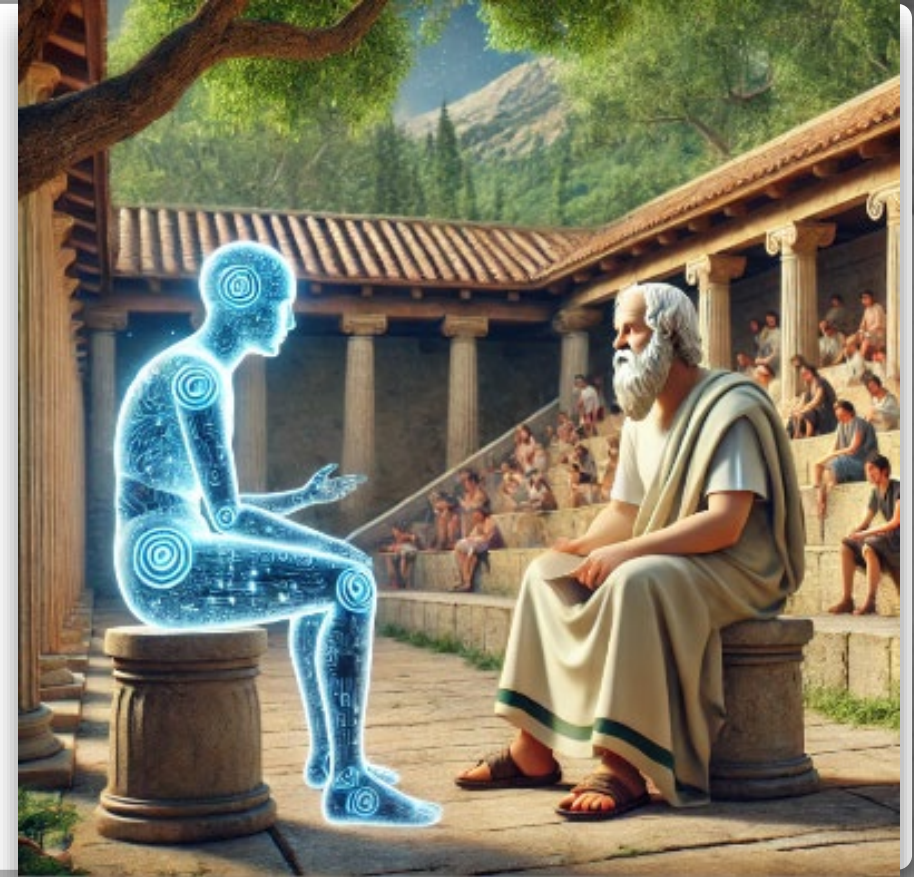
AI-Augmented Textbooks: Impact on Learning

- Impact on learning: **cognitive offloading?**
- remove the “struggle and stress” of learning, make it easier for students to see the answers
- **issue:** deep learning usually involves some kind of stress, discomfort in order to activate problem-solving brain functions (“**desirable difficulty**”)



AI-Augmented Textbooks: Impact on Learning

- providing unlimited answers is ultimately the exact opposite of the Socratic method which thrives on **open-ended questioning** and encourages students to explore ideas on their own, actively firing neurons through inquiry, debate, and reflection
- note: the AI is programmed to NOT provide the answer at first, and to probe the student into thinking more deeply...



How Does This Apply to Educators?

- teachers often use digital resources; even “reliable and credible” sources are now infused with AI (i.e. textbooks)
- students use the internet: to find information, participate in online communities, etc.

Developing **critical thinking skills** has never been more important. Being able to sift through the “wheat & chaff” to find reliable online content is becoming more of a challenging skill.



Generative AI is producing:

- blog content (LinkedIn - massive uptick in AI-produced entries), marketing info, “news”, social media content, financial reports, etc. (if it’s TEXT, AI can produce it)
- sometimes the text is entirely AI-generated; sometimes there’s a human in the loop
- sometimes it’s **hidden**, sometimes it’s **heralded**

WIRED SECURITY POLITICS GEAR THE BIG STORY BUSINESS SCIENCE CULTURE IDEAS MERCH BLACK FRIDAY

KATE KNIBBS BUSINESS NOV 26, 2024 2:00 PM

Yes, That Viral LinkedIn Post You Read Was Probably AI-Generated

A new analysis estimates that over half of longer English-language posts on LinkedIn are AI-generated, indicating the platform’s embrace of success.



GenAI Impact on Info. Ecosystem

- Regardless, **the very nature of information has changed - first time in human history** where humans are competing against a non-human entity for data & information transfer



“openai now generates about
100 billion words per day ...”

Sam Altman, February 2024



[Overview](#)

[History](#)

[Supercycle](#)

[Workplace](#)

[Experts](#)

[Issues](#)

[Detecting AI](#)

[Persuasion](#)

[Impact Review](#)

[References](#)



Resistance is Futile... It's a game of Whack-a-Mole.

Words of which GenAI is Particularly Fond:

Well, let's delve in.



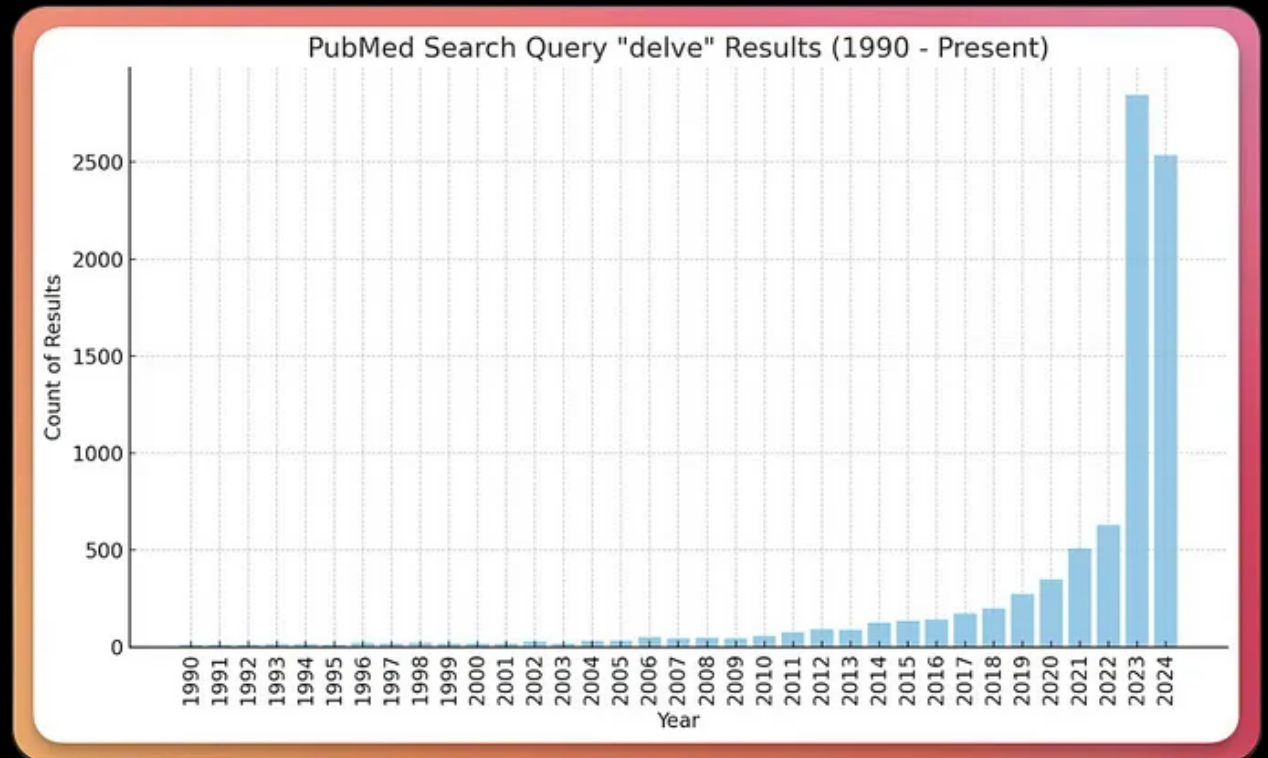
Jeremy Nguyen 📝 🍰 🟢

@JeremyNguyenPhD

Are medical studies being written with ChatGPT?

Well, we all know ChatGPT overuses the word "delve".

Look below at how often the word 'delve' is used in papers on PubMed (2023 was the first full year of ChatGPT).



11:31 PM · Mar 30, 2024 · 2.2M Views

Words GenAI is Particularly Fond of

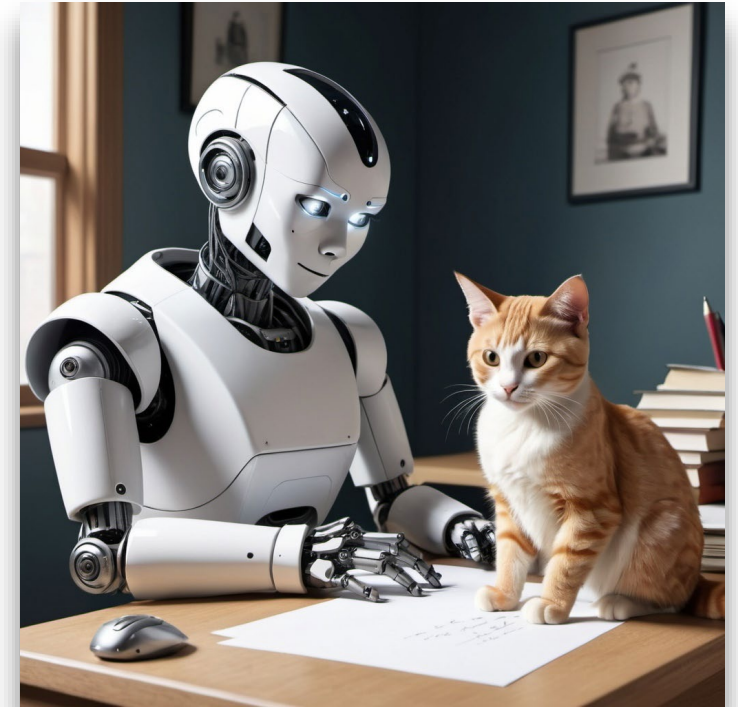
"I hope this email finds you well."



Words of Which GenAI is Particularly Fond

- navigate, elevate, tapestry
- delve
- transformative power
- **commendable** (uses this one a LOT)/ noteworthy
- leveraging (to be fair, this was in vogue for humans, now kind of cliché)

Example: *in the vibrant, dynamic, multifaceted, kaleidoscopic and multidimensional world of AI, one linguistic generator program stood out from the rest: ChatGPT. A testament to its algorithm, the program sought to weave intricate threads of information to create a rich tapestry of knowledge.*



Words of Which GenAI is Particularly Fond ...

- I hope this email finds you well
- testament
- important to understand/remember
- transform/transformation
- intricate
- shed light
- journey
- quest
- bolster
- Unlock the potential of
- Unleash the power of
- Delve into the world of
- Pave the way for
- At the forefront of
- Harness the power of
- Embark on a journey
- Push the boundaries of
- A gateway to
- Bridging the gap between



General Phrases

- by the same token
- it can be a daunting task
- comparatively
- correspondingly
- equally important
- gone are the days
- hitherto
- identically
- in light of
- in the sea of

- by in this digital landscape
- it's important/crucial/essential
- let's begin this journey
- let's delve in
- likewise
- look no further
- moreover
- navigating
- remember that
- shed light

- solace
- switching gears
- this innovative solution
- to say nothing of...
- today's digital world
- together with...
- when it comes to
- whilst
- with the rise of
- ...and more

Action Oriented Phrases

- buckle up
- **delve (my personal peeve)**
- dive
- **elevate (a close second peeve)**
- embark
- embrace
- explore
- discover
- demystified
- unleash, unlock,
- unveil

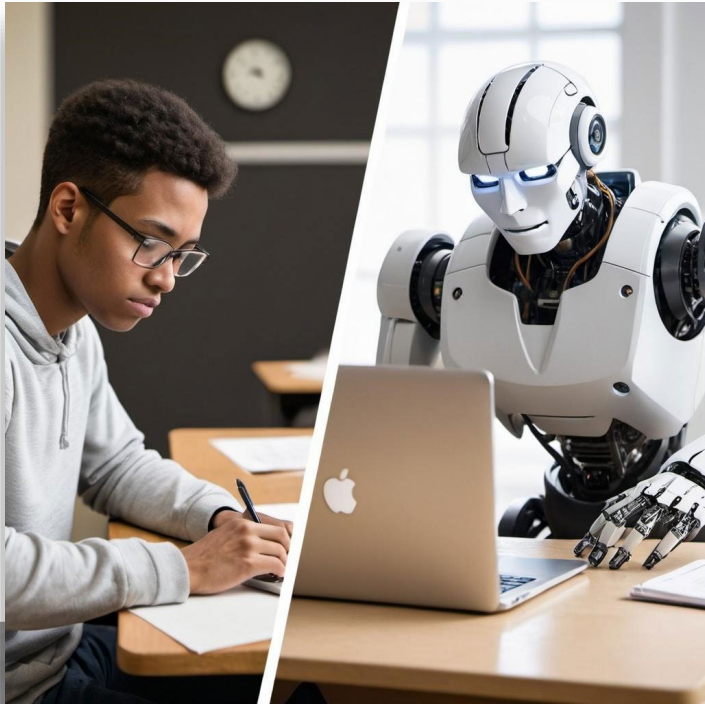
Descriptive Phrases

- beacon
- bombastic
- competitive digital world
- debunking
- nestled
- picture this
- plethora
- realm
- top-notch
- treasure box/trove
- whimsical



Connectives

Humans Vs. AI



Term	Collective Student Responses (word count: 34,170)		Collective AI Responses (word count: 9,501)	
	Observed Instances	Frequency per 1,000 words	Observed Instances	Frequency per 1,000 words
again	25	0.73	8	0.84
also	90	2.63	16	1.68
and	1,067	31.23	384	40.42
because	129	3.78	2	0.21
but	112	3.28	8	0.84
however	37	1.08	33	3.47
if	358	10.48	19	2.00
since	14	0.41	0	0.00
so	63	1.84	1	0.11
then	24	0.79	1	0.11
too	27	0.79	0	0.00

Consciousness-Based Terms

Humans Vs. AI



Term	Collective Student Responses (word count: 34,170)		Collective AI Responses (word count: 9,501)	
	Observed Instances	Frequency per 1,000 words	Observed Instances	Frequency per 1,000 words
appear(s)	9	0.26	1	0.11
believe(s)	38	1.11	4	0.42
feel(s)	48	1.40	4	0.42
seem(s)	15	4.32	5	0.53
think(s)	66	1.93	1	0.11
want	46	1.35	4	0.42

Table 2: Frequency of Consciousness-Based Terms in Student and AI Writing

Searching For Commonalities...

ASSIGNMENT ANSWERS ☆ 📁 🌐
File Edit View Insert Format Data Tools Extensions Help

Menus 50% 123 Raleway - 11 B I U A

Q16	My answer. This text is about foodborne illness outbreaks are investigated and mentions the importance of preventing such outbreaks using modern technologies. It references the CDC's estimation of the number of people who get sick from foodborne pathogens in the United States and highlights some of the well-known causes of these outbreaks, such as Salmonella, Listeria...	Find in sheet	
<p>Author's Main Message refer to your answer for it about:</p> <p>The speaker's main message or thesis in the video "The Ugly Truth of Fast Fashion" is to highlight the negative impact of the fast fashion industry on various aspects, including the environment, labor conditions, and consumers. The speaker argues that fast fashion brands engage in unsustainable practices, contributing to pollution, excessive waste, and the creation of a disposable culture. The main message is a call for greater awareness and ethical considerations in the fashion industry and for consumers to make conscious choices about their clothing choices. The speaker emphasizes that change is necessary to address the harmful consequences of fast fashion.</p>	<p>Reason and Justification: The author highlights the sensory and emotional pleasure derived from consuming fast fashion, emphasizing its affordability and the gratification it provides. This supports the idea that indulgence is a significant part of the topic.</p> <p>Health Risk: The text discusses the potential health risks associated with consuming fast fashion, particularly due to the presence of pathogens like E. coli and salmonella. The author reflects on the need to acknowledge these risks in today's indulgent culture.</p> <p>Personal Choice and Responsibility: The author considers individual choices and the decision to consume fast fashion as a personal choice, and individuals have the agency to make informed decisions about managing these risks. This underscores the theme of personal responsibility.</p> <p>Unique Perspective on Risk Management: The title, "A Very Risky, Very Delicious Take on Risk Management," suggests a unique perspective on risk management, challenging conventional concepts. This is a recurring theme throughout the text.</p> <p>Warning, Risk and Reward: The text explores how individuals balance the potential risks of indulgence with the reward of indulging in fast fashion, addressing the psychological and decision-making aspects of this behavior.</p> <p>Engagement and Reflection: The author employs humor, sensory descriptions, and thought-provoking questions to engage the reader and encourage them to reflect on their own choices based on taste and indulgence.</p> <p>Personal Experience: The author's personal experiences and anecdotes, such as the "if" scenario, add a relatable and conversational tone to the piece, making it more engaging and accessible to the audience.</p> <p>The role of legislation: The text mentions the need for stronger regulations and accountability in the fast fashion industry, which emphasizes the role of consumers and policymakers in bringing about change.</p> <p>These supporting points and arguments collectively build a case for the need for responsible consumption of fast fashion and the need for more sustainable and ethical practices within the industry.</p>	<p>Arguing and points advanced by the author</p> <ul style="list-style-type: none"> The flavor and texture of uncooked batters are distinctive and enticing. The contrast and nostalgia linked with uncooked batter make it irresistible. The author appreciates the sensation of eating uncooked batter. <p>Author's Strong Reasons/Examples/Facts show the Author Stands Up Their Arguments/Thesis</p> <ul style="list-style-type: none"> The author shares personal tales and experiences with raw batter consumption, highlighting their desire for doing so. The CDC's estimate that one in every 10 Americans gets a foodborne illness each year is used to illustrate the possible health concerns of consuming uncooked batter. The author considers the pleasure and satisfaction of eating uncooked batter, addressing sensory questions like "Is it factor and taste?" The author cites a consumer job in which two-thirds of those who taste with food admitted to consuming uncooked cookie dough as evidence that many others share his behavior. Food scientists and specialists such as Emily Fleng, James Schick, Lisa Dulan, Cynthia Sauer, and Felicia Wu are quoted. <p>State and Justify: The author explains that the texture and dough are more enjoyable than their baked counterparts, with uncooked doughs providing a gritty texture that is hard to replicate in other foods. The text highlights the pleasure derived from the taste and texture profile, making raw batter a compelling choice.</p> <p>Psychological Aspect: Those who have food memories of parents or family ones sharing the sensory pleasure of a child may find it harder to resist.</p> <p>Subconscious: Despite the knowledge of potential health risks, there is often a desire to indulge in something that our brains tell us we should eat. It's a form of sensory rebellion and the "bite back on our childhood" encourages us to do it anyway.</p>	<p>The author states that the dough, especially cookie dough and cake dough, can contain harmful bacteria such as salmonella and E. coli.</p> <p>One statistic and how it has come across is that the consumption of raw eggs has been linked to foodborne illness outbreaks, such as Salmonella and Listeria. The author discusses a study that found that the probability of food poisoning from the bacteria in raw eggs is higher than the probability of food poisoning from the bacteria in uncooked batter.</p> <p>By identifying the author's supporting claims, reasons, examples, and facts, the audience can see that the author has presented a balanced argument about consuming raw dough, but highlights the associated health risks and provides evidence to support this claim. This balanced approach encourages readers to make informed choices.</p>
<p>Author's Supporting Argument/Points</p> <p>In the video "The Ugly Truth of Fast Fashion" by Brian Hinkle, the speaker presents several supporting points and arguments to address the negative impacts of the fashion industry and to persuade the audience to consider responsible consumption. The speaker's main message is a call for greater awareness and ethical considerations in the fashion industry and for consumers to make conscious choices about their clothing choices. The speaker emphasizes that change is necessary to address the harmful consequences of fast fashion.</p> <p>Reason and Justification: The author highlights the sensory and emotional pleasure derived from consuming fast fashion, emphasizing its affordability and the gratification it provides. This supports the idea that indulgence is a significant part of the topic.</p> <p>Health Risk: The text discusses the potential health risks associated with consuming fast fashion, particularly due to the presence of pathogens like E. coli and salmonella. The author reflects on the need to acknowledge these risks in today's indulgent culture.</p> <p>Personal Choice and Responsibility: The author considers individual choices and the decision to consume fast fashion as a personal choice, and individuals have the agency to make informed decisions about managing these risks. This underscores the theme of personal responsibility.</p> <p>Unique Perspective on Risk Management: The title, "A Very Risky, Very Delicious Take on Risk Management," suggests a unique perspective on risk management, challenging conventional concepts. This is a recurring theme throughout the text.</p> <p>Warning, Risk and Reward: The text explores how individuals balance the potential risks of indulgence with the reward of indulging in fast fashion, addressing the psychological and decision-making aspects of this behavior.</p> <p>Engagement and Reflection: The author employs humor, sensory descriptions, and thought-provoking questions to engage the reader and encourage them to reflect on their own choices based on taste and indulgence.</p> <p>Personal Experience: The author's personal experiences and anecdotes, such as the "if" scenario, add a relatable and conversational tone to the piece, making it more engaging and accessible to the audience.</p> <p>The role of legislation: The text mentions the need for stronger regulations and accountability in the fast fashion industry, which emphasizes the role of consumers and policymakers in bringing about change.</p> <p>These supporting points and arguments collectively build a case for the need for responsible consumption of fast fashion and the need for more sustainable and ethical practices within the industry.</p>	<p>Author's Supporting Arguments/Points</p> <ul style="list-style-type: none"> The author shares personal tales and experiences with raw batter consumption, highlighting their desire for doing so. The CDC's estimate that one in every 10 Americans gets a foodborne illness each year is used to illustrate the possible health concerns of consuming uncooked batter. The author considers the pleasure and satisfaction of eating uncooked batter, addressing sensory questions like "Is it factor and taste?" The author cites a consumer job in which two-thirds of those who taste with food admitted to consuming uncooked cookie dough as evidence that many others share his behavior. Food scientists and specialists such as Emily Fleng, James Schick, Lisa Dulan, Cynthia Sauer, and Felicia Wu are quoted. <p>State and Justify: The author explains that the texture and dough are more enjoyable than their baked counterparts, with uncooked doughs providing a gritty texture that is hard to replicate in other foods. The text highlights the pleasure derived from the taste and texture profile, making raw batter a compelling choice.</p> <p>Psychological Aspect: Those who have food memories of parents or family ones sharing the sensory pleasure of a child may find it harder to resist.</p> <p>Subconscious: Despite the knowledge of potential health risks, there is often a desire to indulge in something that our brains tell us we should eat. It's a form of sensory rebellion and the "bite back on our childhood" encourages us to do it anyway.</p>	<p>One statistic and how it has come across is that the consumption of raw eggs has been linked to foodborne illness outbreaks, such as Salmonella and Listeria. The author discusses a study that found that the probability of food poisoning from the bacteria in raw eggs is higher than the probability of food poisoning from the bacteria in uncooked batter.</p> <p>By identifying the author's supporting claims, reasons, examples, and facts, the audience can see that the author has presented a balanced argument about consuming raw dough, but highlights the associated health risks and provides evidence to support this claim. This balanced approach encourages readers to make informed choices.</p>	
<p>What do you take away or learn from clearly identifying the author's supporting arguments, reasons, examples, and facts for you?</p> <p>Identifying the author's supporting arguments, reasons, examples, and facts in the video "The Ugly Truth of Fast Fashion" by Brian Hinkle helps me understand the depth and substance of the author's message. Here's what I learned from this analysis:</p> <p>Comprehensive Understanding: Clearly identifying these elements provides a comprehensive understanding of the author's perspective. It allows me to see the logical flow of the issue, such as environmental concerns, labor exploitation, and consumer behavior.</p> <p>Evidence-Based Persuasion: The presence of reasons, examples, and facts in the text adds credibility to the author's arguments. By presenting evidence, the author attempts to persuade the audience of the validity of their claims, making the message more convincing.</p> <p>Complexity on the Way: The inclusion of both real-world examples and statistics makes the complex issues of the fashion industry more relatable and easier to understand for the audience.</p>	<p>Identifying the author's supporting arguments, reasons, examples, and facts in the video "The Ugly Truth of Fast Fashion" by Brian Hinkle helps me understand the depth and substance of the author's message. Here's what I learned from this analysis:</p> <p>Comprehensive Understanding: Clearly identifying these elements provides a comprehensive understanding of the author's perspective. It allows me to see the logical flow of the issue, such as environmental concerns, labor exploitation, and consumer behavior.</p> <p>Evidence-Based Persuasion: The presence of reasons, examples, and facts in the text adds credibility to the author's arguments. By presenting evidence, the author attempts to persuade the audience of the validity of their claims, making the message more convincing.</p> <p>Complexity on the Way: The inclusion of both real-world examples and statistics makes the complex issues of the fashion industry more relatable and easier to understand for the audience.</p>	<p>By identifying the author's supporting arguments, reasons, examples, and facts, the audience can see that the author has presented a balanced argument about consuming raw dough, but highlights the associated health risks and provides evidence to support this claim. This balanced approach encourages readers to make informed choices.</p>	
<p>Another critical reading strategy is to have a conversation with the text and ask questions as you read because it helps readers focus on the message of the text. As you are reading the text, what was one question that came to your mind? Did you wonder about this question? Do you find the answer to your question in the text?</p> <p>As I was reading "The Ugly Truth of Fast Fashion" by Brian Hinkle, one question that came to my mind was "What is the author's stance on consuming raw batter given the potential health risks associated with it?"</p> <p>I wonder about this question because the text discusses the pleasure and temptation of consuming raw batter, as well as the potential health risks it poses. I am interested to understand the author's personal perspective on this matter, especially since they were presenting an article or case on risk management.</p> <p>The text does not provide a clear explicit statement of the author's personal stance on "if" scenarios, but it does provide a conversational and relatable tone to the piece, making it more engaging and accessible to the audience.</p>	<p>As I was reading "The Ugly Truth of Fast Fashion" by Brian Hinkle, one question that came to my mind was "What is the author's stance on consuming raw batter given the potential health risks associated with it?"</p> <p>I wonder about this question because the text discusses the pleasure and temptation of consuming raw batter, as well as the potential health risks it poses. I am interested to understand the author's personal perspective on this matter, especially since they were presenting an article or case on risk management.</p> <p>The text does not provide a clear explicit statement of the author's personal stance on "if" scenarios, but it does provide a conversational and relatable tone to the piece, making it more engaging and accessible to the audience.</p>	<p>My answer: Yes, there are doubts. The question is how can the habit of eating raw batter, which is known to be harmful, be reduced and stopped? The text does not provide a clear answer to this question.</p>	
<p>How does the fast fashion industry justify its environmental and labor practices, and what do you think about it?</p> <p>As I was reading "The Ugly Truth of Fast Fashion" by Brian Hinkle, one question that came to my mind was "How does the fast fashion industry justify its environmental and labor practices, and what do you think about it?"</p> <p>I wonder about this question because the text discusses the pleasure and temptation of consuming raw batter, as well as the potential health risks it poses. I am interested to understand the author's personal perspective on this matter, especially since they were presenting an article or case on risk management.</p> <p>The text does not provide a clear explicit statement of the author's personal stance on "if" scenarios, but it does provide a conversational and relatable tone to the piece, making it more engaging and accessible to the audience.</p>	<p>As I was reading "The Ugly Truth of Fast Fashion" by Brian Hinkle, one question that came to my mind was "How does the fast fashion industry justify its environmental and labor practices, and what do you think about it?"</p> <p>I wonder about this question because the text discusses the pleasure and temptation of consuming raw batter, as well as the potential health risks it poses. I am interested to understand the author's personal perspective on this matter, especially since they were presenting an article or case on risk management.</p> <p>The text does not provide a clear explicit statement of the author's personal stance on "if" scenarios, but it does provide a conversational and relatable tone to the piece, making it more engaging and accessible to the audience.</p>	<p>My answer: Yes, there are doubts. The question is how can the habit of eating raw batter, which is known to be harmful, be reduced and stopped? The text does not provide a clear answer to this question.</p>	
<p>Questions to Answer After you read the text</p> <p>How does the text you read connect with or relate to another text you have read?</p> <p>In a college (intro) course, I remember the text "The Ugly Truth of Fast Fashion" by Brian Hinkle. The text discusses the negative impacts of the fashion industry, including environmental concerns, labor exploitation, and consumer behavior. The text also mentions the need for stronger regulations and accountability in the fast fashion industry, which emphasizes the role of consumers and policymakers in bringing about change.</p> <p>As I was reading "The Ugly Truth of Fast Fashion" by Brian Hinkle, one question that came to my mind was "How does the fast fashion industry justify its environmental and labor practices, and what do you think about it?"</p> <p>I wonder about this question because the text discusses the pleasure and temptation of consuming raw batter, as well as the potential health risks it poses. I am interested to understand the author's personal perspective on this matter, especially since they were presenting an article or case on risk management.</p> <p>The text does not provide a clear explicit statement of the author's personal stance on "if" scenarios, but it does provide a conversational and relatable tone to the piece, making it more engaging and accessible to the audience.</p>	<p>How does the text you read connect with or relate to another text you have read?</p> <p>In a college (intro) course, I remember the text "The Ugly Truth of Fast Fashion" by Brian Hinkle. The text discusses the negative impacts of the fashion industry, including environmental concerns, labor exploitation, and consumer behavior. The text also mentions the need for stronger regulations and accountability in the fast fashion industry, which emphasizes the role of consumers and policymakers in bringing about change.</p> <p>As I was reading "The Ugly Truth of Fast Fashion" by Brian Hinkle, one question that came to my mind was "How does the fast fashion industry justify its environmental and labor practices, and what do you think about it?"</p> <p>I wonder about this question because the text discusses the pleasure and temptation of consuming raw batter, as well as the potential health risks it poses. I am interested to understand the author's personal perspective on this matter, especially since they were presenting an article or case on risk management.</p> <p>The text does not provide a clear explicit statement of the author's personal stance on "if" scenarios, but it does provide a conversational and relatable tone to the piece, making it more engaging and accessible to the audience.</p>	<p>My answer: Yes, there are doubts. The question is how can the habit of eating raw batter, which is known to be harmful, be reduced and stopped? The text does not provide a clear answer to this question.</p>	

A Case In Point: Online Discussion Forum

Assignment: Participate in a weekly online discussion forum. Read the prompt and provide your opinion. Respond to your classmates' opinions using tactful, polite and respectful language.

Teaching/Learning Objectives:

- develop **writing skills** in a social-media type of activity
- develop an **awareness** of polite conventions
- use tactful **agreement or disagreement** conventions
- create an **engaging** online presence for the students
- develop **reflection** strategies



A Case In Point: Online Discussion Forum (Same Student)

Original Writing (Beginning of Course):

"I think dentistry is considered a stable career because people always need to go to the dentist for their mouth. Hagen and keep their teeth healthy and safe because the mouth is the gate of the inside humane bodies. If it is safe everything will be safe."

Is this plagiarism? Is this a breach of "academic honesty"? Does it MEET the teaching/learning objectives?

Writing Sample a Few Weeks Later:

"Finding the right balance between fair competition, health, and personal choice is essential. Merely adding more regulation and oversight without a **multi-faceted** approach involving education, testing, implementation, and collaboration between participants will not yield the solutions and successful results we seek.."

Ed Tech Opportunism

As the tell-tale AI tics become more well known, new ways are found to circumvent them to avoid detection.

When flaws or weaknesses are exposed, a slew of “fixes” or “AI text humanizing tools” make an appearance.

Want to evade AI detection? **Use our foolproof tool that will RID your text of the tell tale signs of AI!**



Let's Be Clear

- the issue is **not** about a random string of terms or words, misplaced quotation marks, or failing to note where the "original" idea came from
- the issue is: **large scale appropriation of material**, claiming entire "works" as their own and **using generative AI** to create the term paper, essay, reflection, assessment task, etc.



So What Can Teachers Do? AI-Resistance Tips...

- focus on process not product
- project based learning
- debates - student led discussions
- creative expression of the concept - hands on learning (role plays, simulations, case studies)
- oral presentations, defences (this may backfire with neurodivergent learners)
- critical thinking - **compare AI responses**, what's missing?
- application of learning - applying the learning to new situations
- inquiry-based learning
- field trips, guest speakers - on the spot retention and recall activities



Durham College



IF YOU ARE USING GENAI IN YOUR COURSES, SUCH AS CHATGPT:

- Explain to students **WHY** you are using the tool - Think [how you will introduce the tool](#). What knowledge & skills will they gain? Why is it important to them? What are their current and future benefits?
- **Demonstrate understanding** - Some students may be less comfortable with technology than others. You may have to provide more detailed and direct support to guide these students into using GenAI.
- **Do not mandate that students use Generative AI** - Provide alternative options for students or give them the option of submitting prompts to you or share your login credentials. Remember, using GenAI should be both relevant and meaningful for the student, not just for the faculty.
- **Don't depend on these tools working in a live class** - Sometimes the servers are overloaded or the tech is just not working the way you need it to. If your entire class connects to ChatGPT at the same time, they may be blocked. Make sure to have a back-up plan.
- **Learn how to write better prompts** - see the section on [How to Write a Prompt to Engage with Generative AI](#) for guidance.

Rebecca Moore Howard's Efforts to Stimulate Learning (not policing)

- **read and talk** until they understand
- **(for students)** when drafting summaries (or papers), don't look at the original
- take some time, at least an hour, between composing and the interaction with the original text
- **(for teachers) initiate recall** in class - what do students remember from the source? key ideas, facts, etc.
- based on recall, paste together a summary
- then **identify what was missing** - the collective bits that were forgotten tend to be the most challenging ideas
- the challenging bits can then be focused on in class, discussed, questioned; use supplementing, wondering...
- doing this might be "**groan worthy**", but it "produces students who can comprehend and synthesize sources" and encourages development of higher order thinking and metacognitive skills (Howard, 2018)

**Don't Police
Plagiarism:
Just TEACH!**

By Rebecca Moore Howard
From *The Chronicle of Higher Education*

...Hey Administrators. We didn't even address the issue of TEACHERS using AI to grade student work.

- A "gross miscarriage" of duty?
- a potential time saver; so long as the teacher reviews and approves?

[Overview](#)

[History](#)

[Supercycle](#)

[Workplace](#)

[Experts](#)

[Issues](#)

[Detecting AI](#)

[Persuasion](#)

[Impact Review](#)

[References](#)



The Mighty Power of Persuasion...

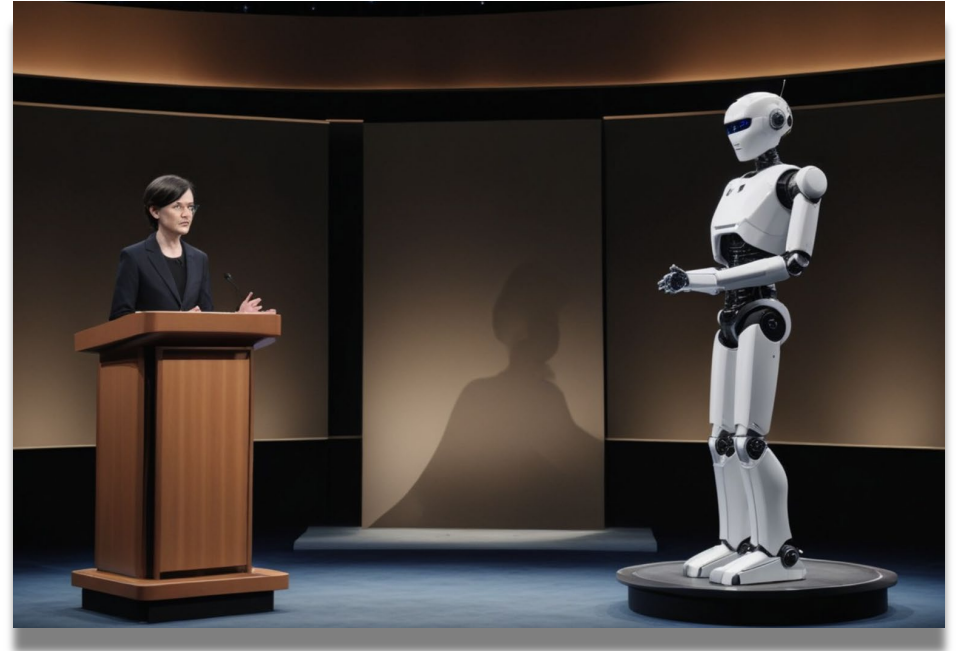
Things of Which to Be
Aware II - The Power of
Persuasion



Ethan Mollick (Professor, Wharton School of Business):

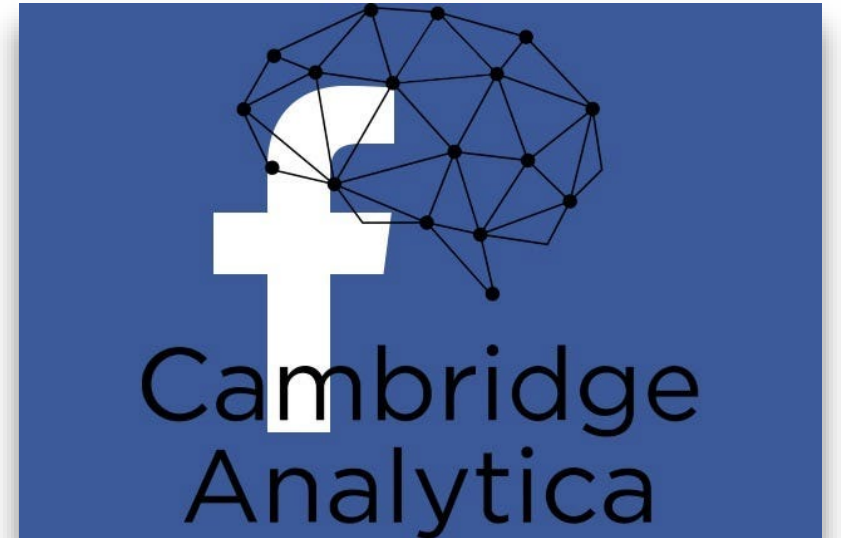
“In a randomized, controlled, pre-registered study, GPT-4 was better able to change people’s minds during a conversational debate than other humans, at least when it is given access to **personal information** about the person it is debating.”

-AI increased the chance of someone changing their mind by 87% over a human debater.



Cambridge Analytica - Facebook Data Misuse

- between 2014-2018, Cambridge Analytica, a political consulting company, acquired data from 87 million Facebook users using an app called "This is your Digital Life".
- harvested data was used for commercial and political purposes under the guise of "research"
- micro-targeting by AI tools intended to **influence voting behaviour**
- FB failed to protect user data, fined \$5billion by FTC
- raised questions about ethical use of AI, privacy, political manipulation
- led to European Union's General Data Protection Regulation (GDPR)



Why this matters...

- manipulation & influence (advertising, political campaigns)
- privacy issues
- social polarization - creating echo chambers, confirmation bias
- ethical concerns
- economic impact?



Source: Vanity Fair <https://www.vanityfair.com/news/2018/04/why-the-privacy-crisis-is-bigger-than-facebook>

AI - not necessarily an “existential” threat.

The real danger that AI presents is not some Hollywood-inspired Terminator existential risk; it’s going to be more like a million paper cuts.

AI bots/agents and users can flood the internet with mis and disinformation campaigns, so much so that it **erodes human trust**, encourages filter bubbles and echo chambers, and attacks one’s ability to be a critical thinker.



A million tiny paper cuts...

- Think about this.
- WordFreq shut down in September, 2024.
- They were an open source project that scraped the internet to compile statistics on human language usage
- interesting dilemma - source of information - what are our students interacting with??



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AI is here. When does the "distribution" even out?

Moving Forward - AI
as your Sous Chef?



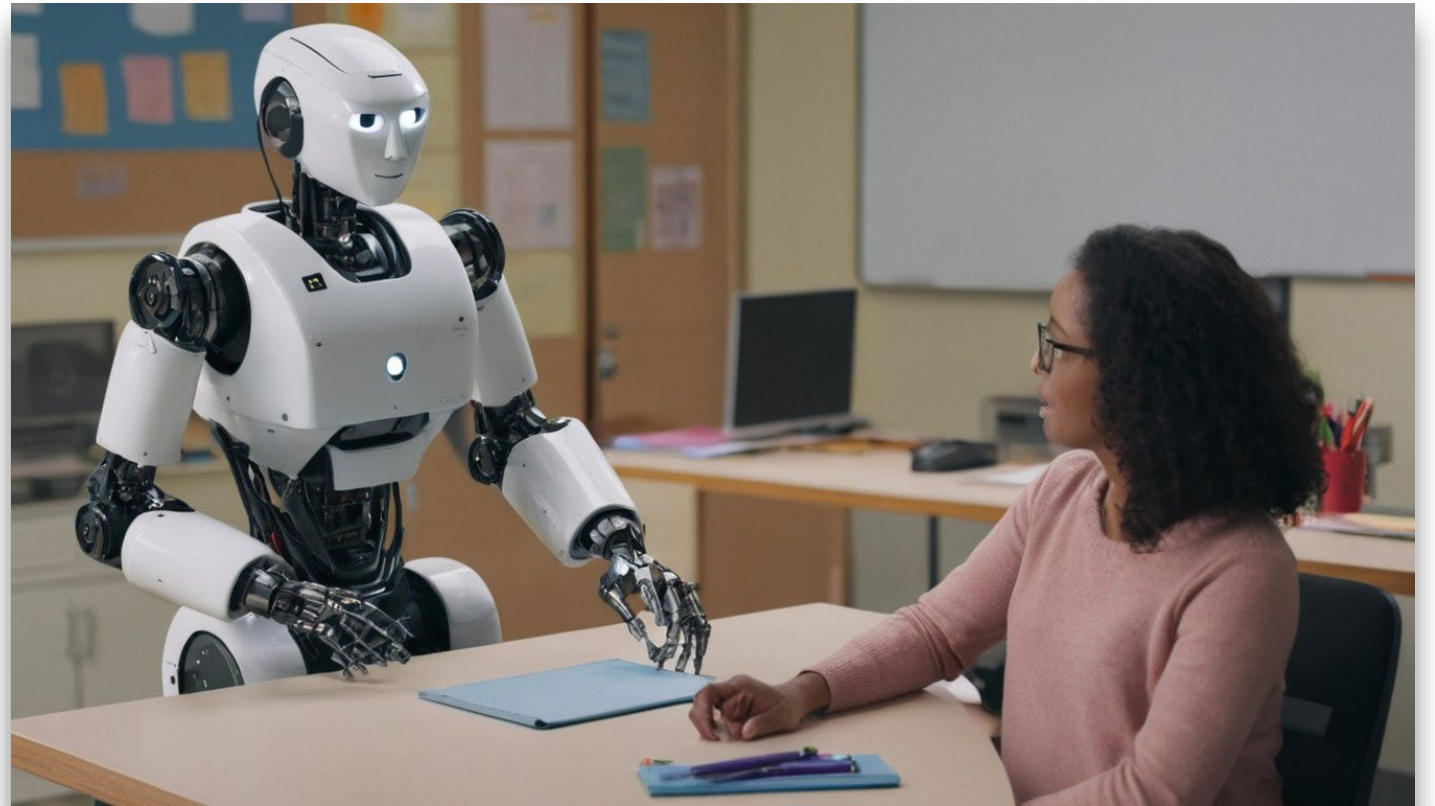
"THE FUTURE IS ALREADY HERE - IT'S JUST NOT EVENLY DISTRIBUTED YET"

- WILLIAM GIBSON



Some Final Thoughts

- AI + job security?
Replacement or
augmentation?



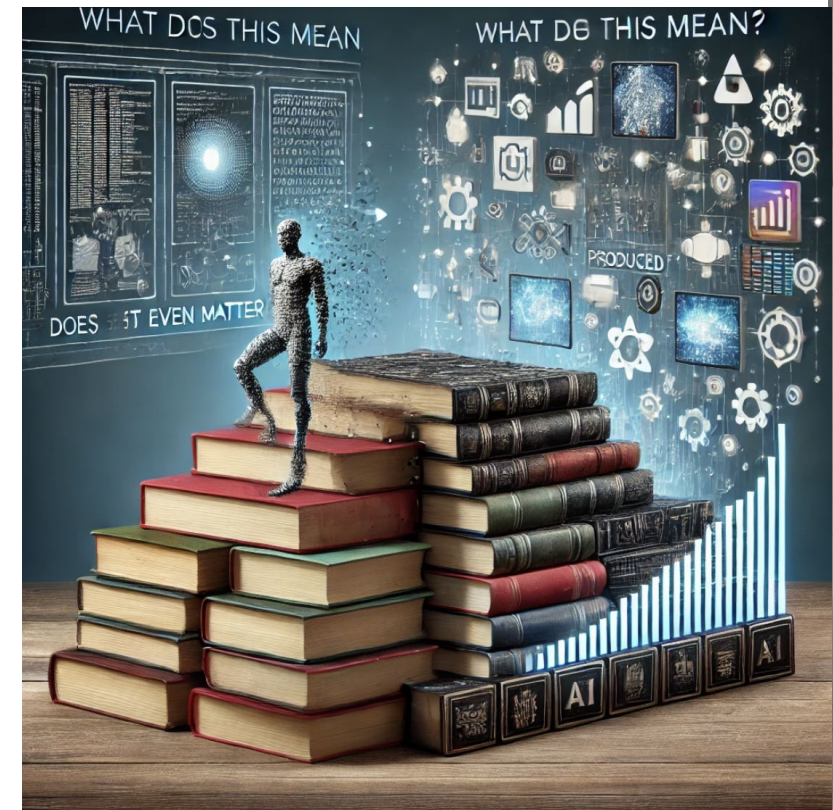
~~"AI won't replace teachers, but teachers who use it will replace those that don't."~~

- variations of this quote in all sectors, from admin, from other teachers et.
- I think it is the wrong mentality, but according to Microsoft (2024), **AI know-how trumps years of experience**
- using fear as an incentivizer to learn the tech and not using the potential advantages that it could have to REIMAGINE our processes and resources, updating and improving time and effort so that our focus can be **human centred**



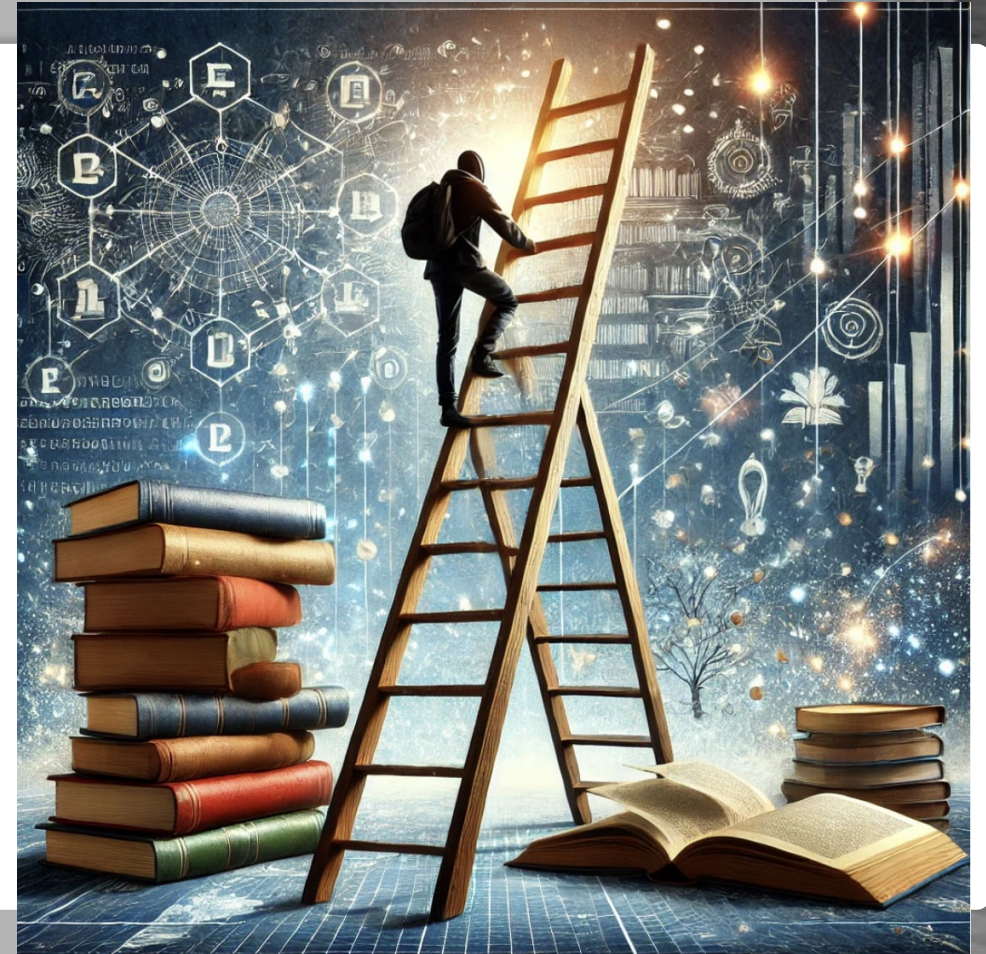
AI's Impact on Education #1: Information Ecosystem

- Information - foundations shifting - change to the Information Ecosystem: digital & print: shift from human-produced to AI-produced - what does this mean, does it even matter?
- Yuval Noah Harari - hack language, hack culture
- WordFreq - lessons learned - how can we effectively analyse and understand the evolution of human language when it's not humans producing it - and again, does this matter?



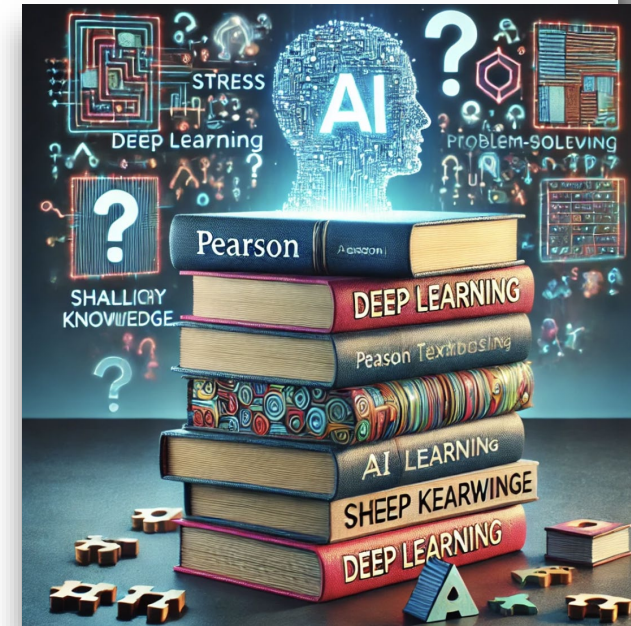
AI's Impact on Education #2: Cognitive Offloading - Cognitive Atrophy?

- Nature of Learning: more access to personalised learning
- tutoring used to be available to those that could afford it - now it has potential to be more evenly distributed - but: what does this mean for learning? social construction ideas, learning is a social activity,



Cont...

- **Bloom's 2-sigma problem**; need for the tutoring to accompany the in-class learning not replace it
- **problems with personalisation** - ss don't learn to be as adaptive, expectations that your "learning styles"/ preferences and methods will be catered to - not realistic in the workplace;
- **Pearson Textbooks** with AI - reduces the STRESS, the problem solving, makes it "easier", provides all answers at a click -
 - how will this impact DEEP learning?
 - will this lead to a more shallow understanding, an aversion to mental effort and the necessary stress that often accompanies the learning process - i.e. it's not always EASY,
 - difficulty → leads to learning **how to** solve this problem, if that stress never happens (desirable difficulty), what will be the result?



AI's Impact on Education #3 - The Uncanny Valley Effect

- cautious optimism, informed skepticism of AI tools
- **SHOWING your AI**
 - right now - there is still a human **PREFERENCE** for human-created products over AI when we KNOW the source
 - this may change
 - so when the AI use is obvious (Pardon Me...) it's problematic
 - there are MANY AI tools, (AI opportunism) that exist to "humanise" one's AI content



Cont... The Uncanny Valley Effect

- **Uncanny Valley effect:** triggers skepticism, when detected (by Professors, consumers, students, etc), can cause user to question the authenticity & value
- AI use then - needs to feel more natural, capable of **blending in** (and this is happening now)



Pardon Me, Your AI is Showing

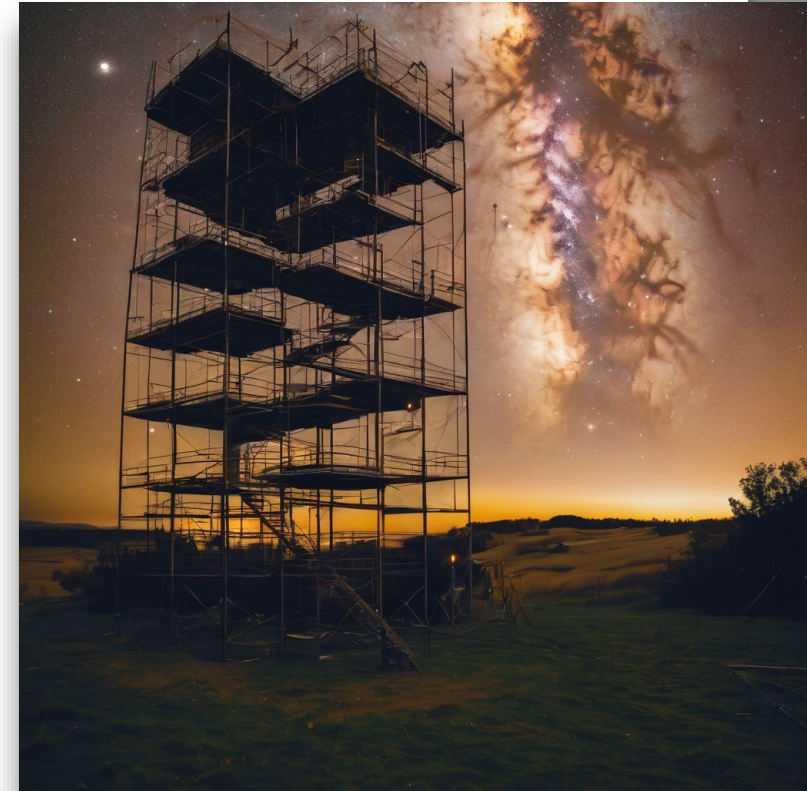
Maybe the real takeaway is that it's the **SHOWING** of AI that's problematic (uncanny valley). What I mean by this, is that when the AI use by the human, either in an email, blog post, or assignment, is too obvious or apparent, then our human annoyance filters are triggered.

If it doesn't look like much **HUMAN** effort was put into crafting the piece, then you run the risk of it being ignored or dismissed. Human bias is such that we still show favoritism to **what we believe** is human-generated content.



AI's Impact on Education #4 - Reassessing How Educators Assess Learning

- reduce the **weight** of the "essay" or research paper?
- more emphasis on **process** in class, **scaffolding**, recycling **back to the well**
- more TALKING and conversations with students, **initiate recall** in class
- review the writing process and **why it's important**, i.e. what skills it helps to develop (critical thinking, etc).
- include more **reflection** and connection to real life
- **formative** vs summative assessments
- focus on **higher order thinking skills** - provide support, models, debates, etc.
- what other ways are you already using to assess learning?



AI's Impact on Education #5 - AI Echo-Chamber

- already there is a great deal of evidence that AI is augmenting even peer-reviewed works (lots of early examples with PROMPTS left in reports, rise of common AI terms like "delve, tapestry, navigate, elevate)
- does it matter?
- what about embedded bias?
- AI's are biased, but so are humans— how do we move forward & evolve when AI is essentially an **echo-chamber**, reflecting *a specific segment of human values* - **alignment issue** - to whose values are AI "aligned"?



Since those that will copy/cheat/plagiarise are pretty dedicated... Plagiarism is not the biggest or only issue with Generative AI.

“The real takeaway is that we should assume students will be able to break any AI-detection tools, regardless of their sophistication.”

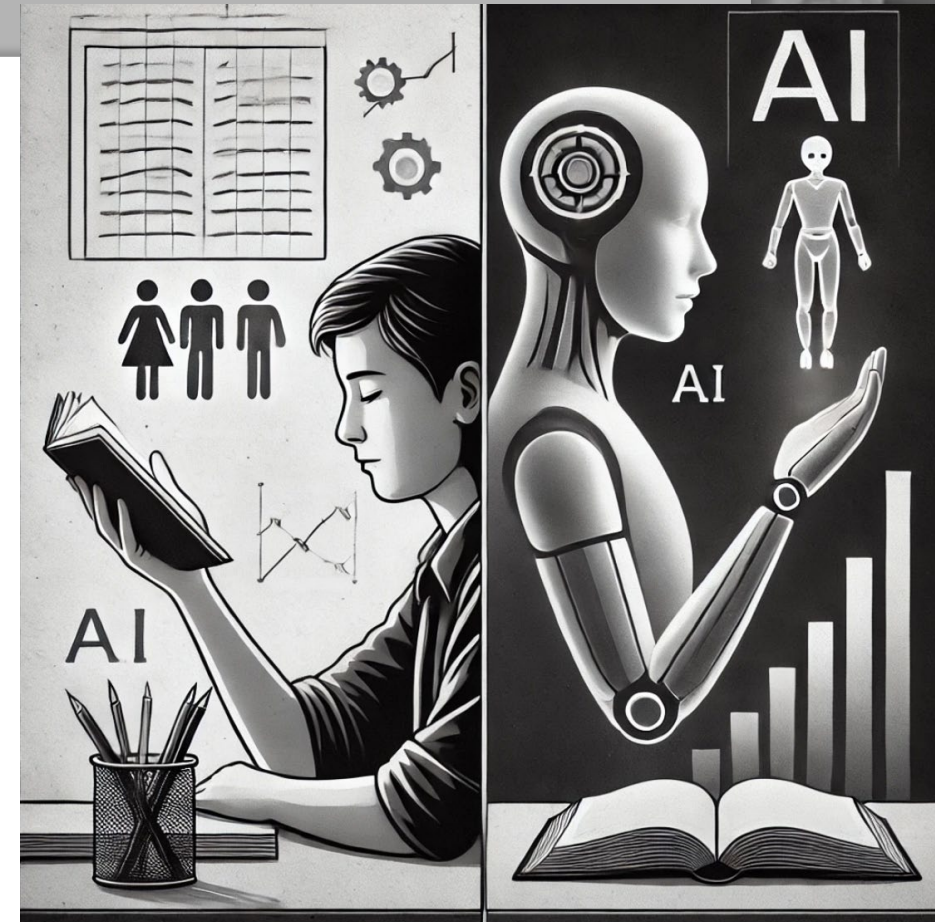


After all..

- humans are biased
- humans make mistakes, errors, "hallucinations"
- humans try to manipulate, persuade, coerce through our words

So, what's the difference when Generative AI does it?

- humans are far less forgiving when the AI makes a huge mistake; example, an AI-powered self-driving car that hits and kills one pedestrian makes front page news; when humans do the same thing, it's rarely reported
- so why does it MATTER when it's a non-human entity using the tool just like a human would?



A unique & novel way to plagiarise is not the biggest concern that widespread access and use of Generative AI poses on education and learning...



Cognitive Offloading; Derailing Deep Learning

When our students over-rely on AI, not only will their use be generally apparent, *at least at first*, they risk never fully developing the critical thinking skills that they are going to need in order to be **problem-solvers**, subject matter experts, and to generally be able to have a **deep understanding** and **engagement** with the topic.
(see the study by Wecks et al, 2024)



Keeping an Eye on the Enshitified Data: Our Information Ecosystem

Finally - what educators, administrators and students need to be aware of is just how DEEP the internet is already in the enshitification process.

Being critically aware of this new reality will, hopefully, make one think twice before purchasing, oh, I don't know, a random "Foraging Field Guide for Mushroom Hunting Enthusiasts."



Moving Forward - What does ChatGPT think?

- Despite uncertainties, staying informed and adaptable is crucial
- Even if some tools face legal setbacks, the underlying principles and skills related to AI will remain relevant
- Investing in AI literacy and critical thinking around AI can prepare educators and learners for future technologies

Balance **caution with curiosity**; ensure that we are prepared for whatever the future holds.

AI-GENERATED



How Does This Apply to YOUR situation?

- ❑ Learn the AI basics - know the context, know the background
- ❑ Learn what AI can DO now (the features and the affordances) (and know that this is always changing)
- ❑ Know what AI's limitations are (bias, hallucinations, power usage, privacy, ethical use, manipulation and persuasion)
- ❑ Human-centred approach - use AI to supplement, or augment human capabilities, not replace them
- ❑ growth mindset - engage with peers, share knowledge, collaborate on best practices
- ❑ Be open about ETHICAL USE - refer to the USER AGREEMENT (i.e., that users are not permitted to pass AI content off as human)
- ❑ Keep on top of future AI developments *SO YOU CAN MAKE INFORMED DECISIONS*



Thank You!

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Want to know more?

References

Some links to the sources used in this presentation





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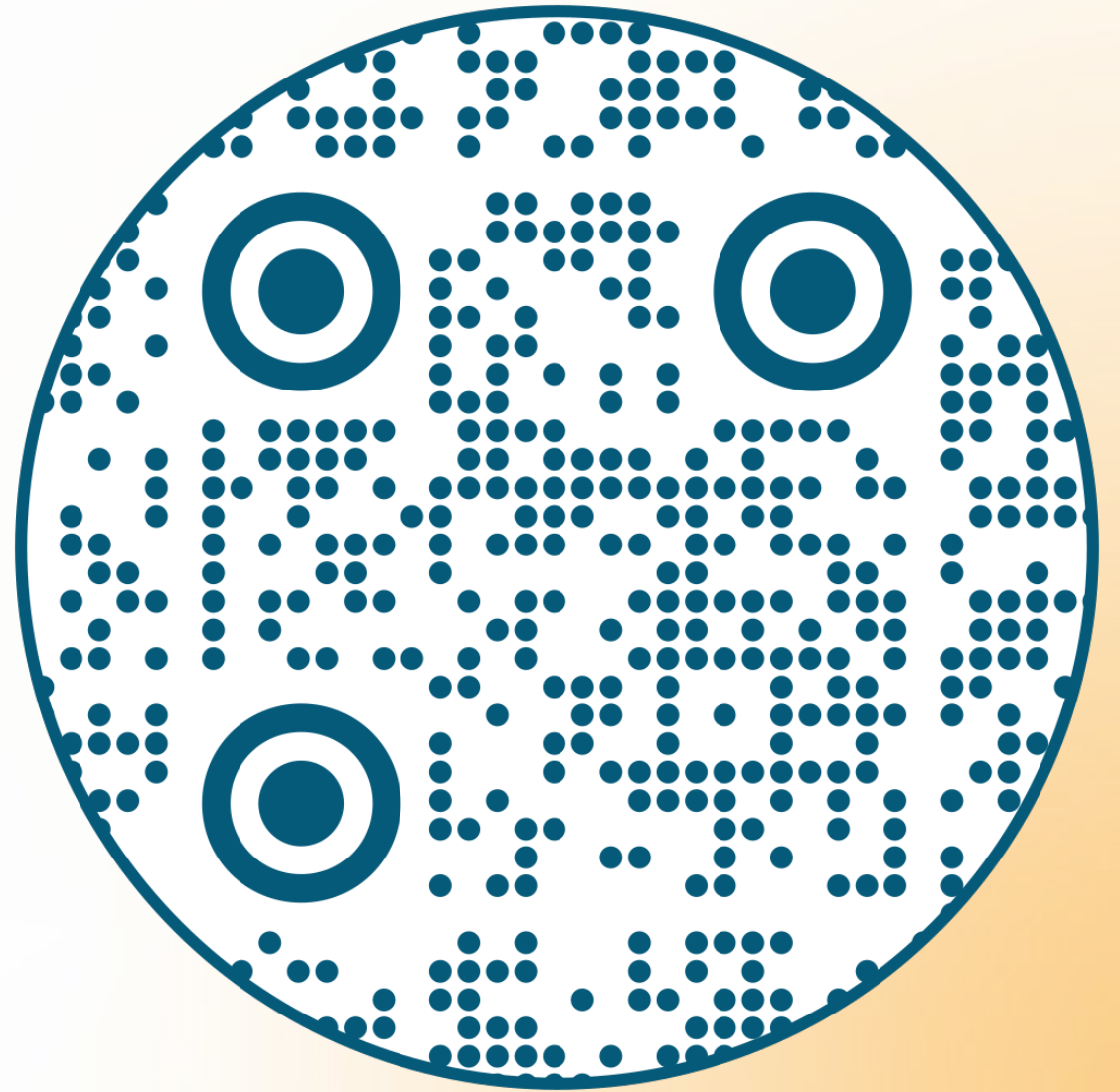
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