





CP-13-81-40

AI and the Social Sciences

by Levente Littvay (Levi)

University of Bamberg, April 7, 2025

HUN
REN



INSTITUTE FOR **POLITICAL** SCIENCE
CENTRE FOR **SOCIAL** SCIENCES



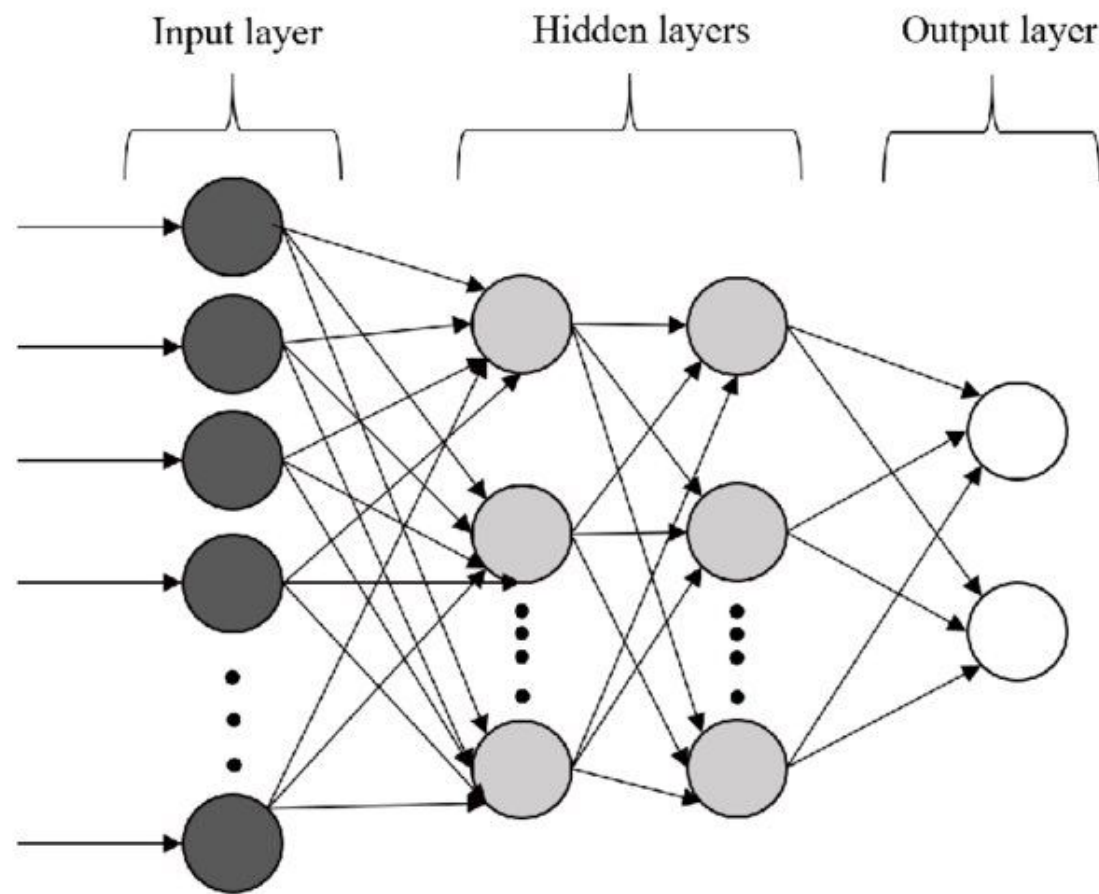
Democracy Institute



60
MINUTES

Neural Networks by Geoffrey Hinton (Godfather of AI)

- Geoffrey Hinton
 - Godfather of AI
 - Former Google (Alphabet)
 - Industry Alarmist
 - Now, also Nobel Prize winner
- The basics of how it works
 - Don't think that I understand it
 - Despite multiple workshops
- Want more?
 - 3Blue1Brown YouTube course: Neural networks (quick intro)
 - Andrej Karpathy YT course: Neural Networks: Zero to Hero



Selmoule, Liu & Lee 2022

Artificial Intelligence

Generative AI exists because of the transformer

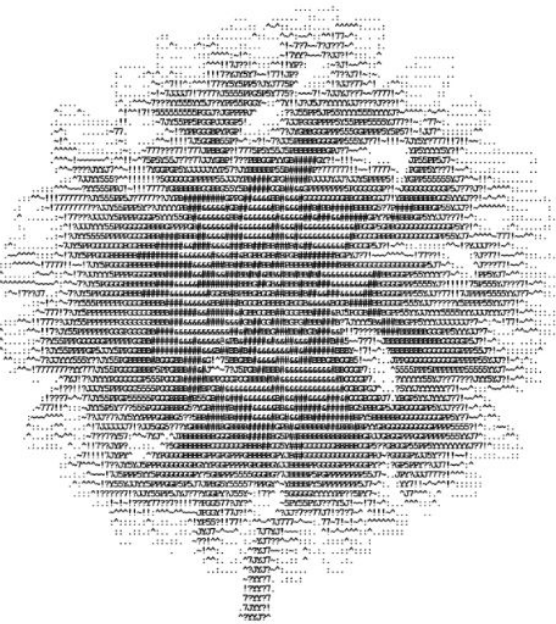
This is how it works

By Visual Storytelling Team and Madhumita Murgia in London SEPTEMBER 12 2023

OPINION
GUEST ESSAY

Noam Chomsky: The False Promise of ChatGPT

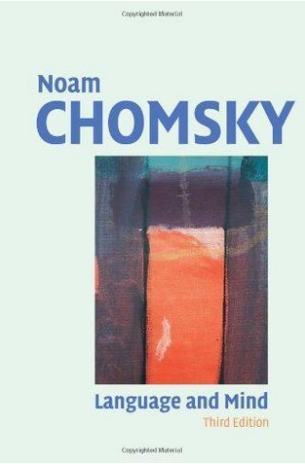
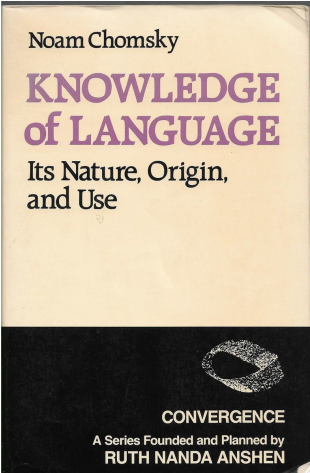
March 8, 2023



By Ruru Kuo

Share full article

By Noam Chomsky, Ian Roberts and Jeffrey Watumull
Dr. Chomsky and Dr. Roberts are professors of linguistics. Dr. Watumull is a director of artificial intelligence at a science and technology company.



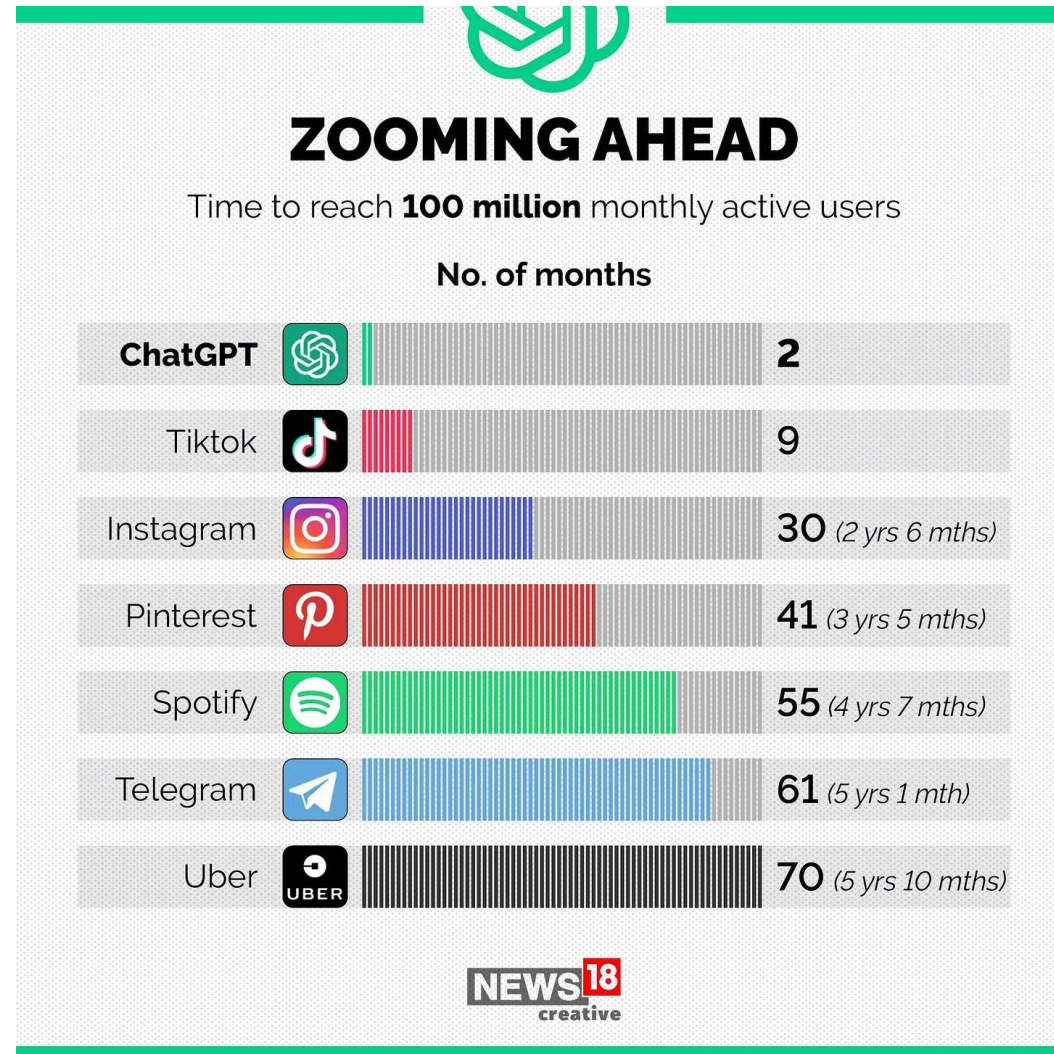
Noam Chomsky et al: The False Promise of ChatGPT

- As per linguistics and the philosophy of knowledge, LLMs differ profoundly from how humans reason and use language
- The human mind is a surprisingly efficient and even elegant system that operates with small amounts of information;
- It seeks not to infer brute correlations among data points but to create explanations.
- LLMs' deepest flaw is the absence of the most critical capacity of any intelligence [and morality]
- LLMs are constitutionally unable to balance creativity with constraint.
- Given the amorality, faux science and linguistic incompetence of these systems, we can only laugh or cry at their popularity.



60
MINUTES

So, what are these tools & what can they do for us





Happy late night, Levi

What can I help you with?



Start Chat >

Previous chats from 2 days ago

Highly Contrasting Color Selection

4 days ago

Maximizing Facebook Post Engagement with Emojis

Claude AI

- Constitutional AI
- Includes rules
 - United Nations' Declaration of Human Rights
 - Apple's terms of service
 - Theoretically more ethical
 - But yes, I also feel like I am in a surreal movie
- Better writer (now also pretty good coder)
- Allows document upload
 - also in free
 - limits by the hour

Many Others
10-hour rule



★ Member-only story

How I Won Singapore's GPT-4 Prompt Engineering Competition

A deep dive into the strategies I learned for harnessing the power of Large Language Models (LLMs)



Sheila Teo · [Follow](#)

Published in Towards Data Science · 23 min read · Dec 29, 2023



11.5K



125



Prompt Engineering Techniques (there are many)

- Sheila Teo's COSTAR* method
- **C**ontext
- **O**bjective
- **S**tyle
- **T**one
- **A**udience
- **R**esponse



There are others: Rowan Cheung

The Perfect Prompt

You are an individual who has adopted a healthier lifestyle over the past year, resulting in better physical and mental well-being. Inspired by your journey, a few friends have asked for advice on starting their own health journeys.

Write a message to share in a group chat with interested friends.

The message should outline the steps you took, share some challenges and how you overcame them, and offer to support them as they embark on their own journeys.

Use motivational and empathetic language.

[task]

[context]

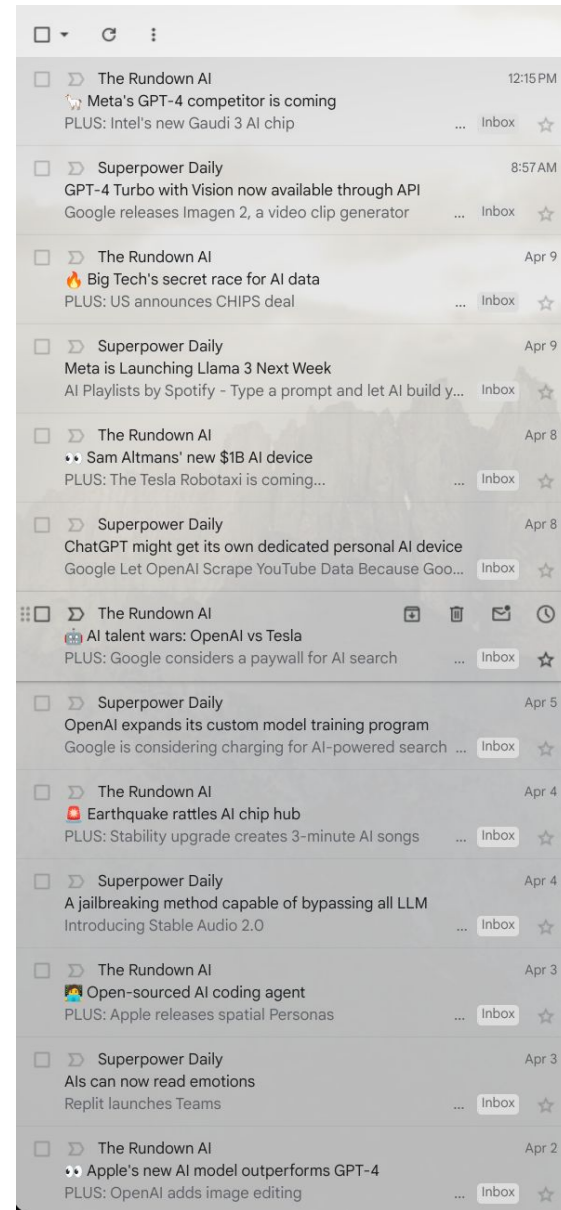
[examples]

[persona]

[format]

[tone]

www.therundown.ai



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REN |||tkpti

Google's Approach to Prompt Engineering



Google's 9 Hour AI Prompt Engineering Course In 20 Minutes

517K views • 3 months ago



Tina Huang ✓

🖱️ Links mentioned in video ===== Affiliates ===== My SQL for data science ...

4K



Google's 9 Hour AI Prompt Engineering Course In 8 Minutes

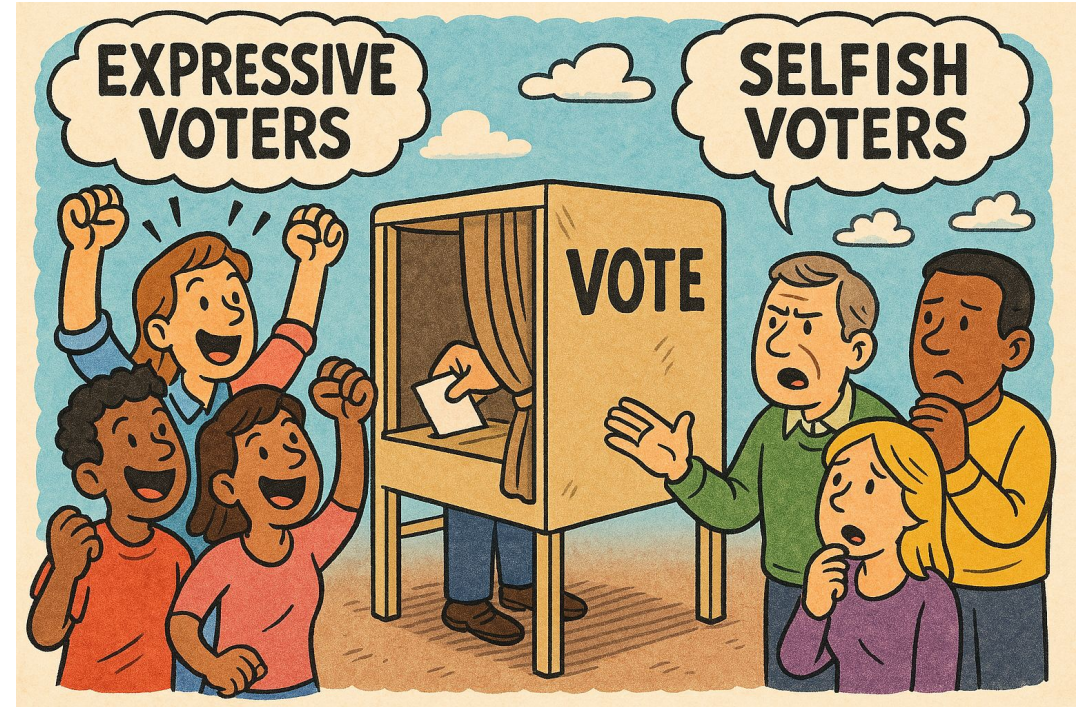
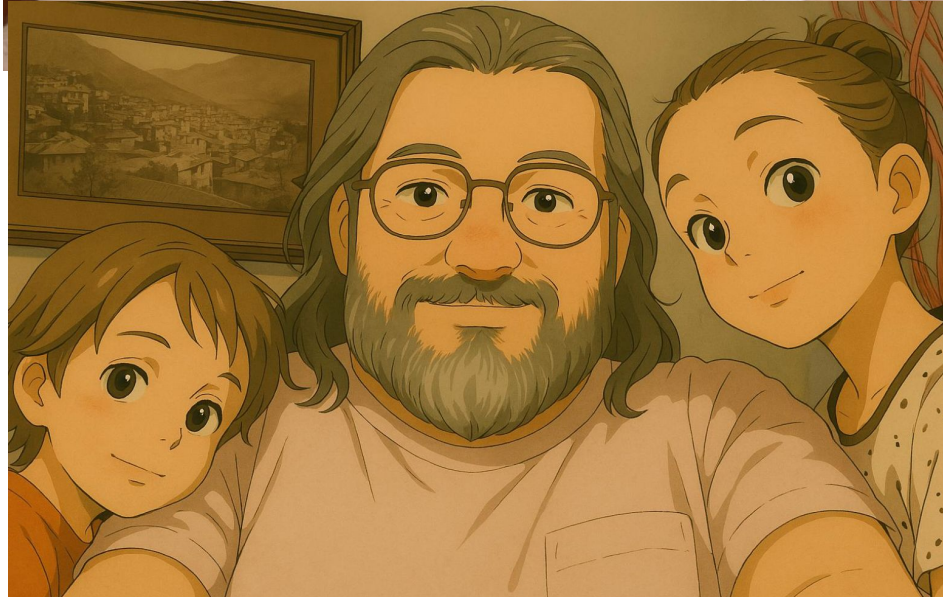
11K views • 1 month ago



Devan Bernardino

Google's AI Prompt Engineering Course Coursera Miro Board Link to One Pager Summary ...

Multimodal AI (w/ agentic tool use)



AI for Scientists (How do we overcome hallucination?)



- Coding
 - I have gone to 30 minutes per 10 lines to 300 lines in 10 minutes
 - Claude is the best, Gemini 2.5 is also very very good (Vibe Coding)
- Literature Review
 - scite_
 - Pretty good (not perfect - misses most important citations)
 - Consensus
 - Elicit
- Writes whole reports
 - Stanford Storm (free for now)
 - Deep Research: Gemini, OpenAI, Preplexity, Free Alternatives

LEADER PROFILE SERIES

The Leader Profile Series is an authoritative source for understanding the populism of political leaders.

Each profile combines quantitative and qualitative data to describe the populism of individual leaders from around the globe. All profiles are peer-reviewed.

Guidelines

Download our research and submission guidelines:

[Download](#)

Need Training?

Team Populism members at Central European University have put together a training to code the speeches of political leaders:

[Take the Training](#)

PROFILES

The Irregular Populist: André Ventura – The Leader of Chega

David Pimenta, Eduardo Gonçalves,
and José Pedro Zúquete, 2022

A Drop in the Ocean or a Change in the Weather? Populism in Bolsonaro's Campaign Revisited

Eduardo Ryô Tamaki, Cezar A. P. Braga,
and Mario Fuks, 2021

Andrew Jackson: A Populist President?

McKinney Voss, 2021

Is Joe Biden a Populist? An analysis of Biden's campaign speeches

Robert B. Lindsay and Amanda D.
Galan, 2021

IQSS Dataverse has been experiencing service instability due to increasingly intense data-scrubbing from LLM companies, search engines and similar outfits. We are working with Harvard Systems to stabilize the service. ×

In other news, our Dataverse instance has been successfully upgraded to v.6.6. Some associated tasks, such as re-exporting the cached dataset metadata fragments and verifying the consistency of the search catalog may still be ongoing.

[Harvard Dataverse](#) >

Global Populism Database

Version 2.0



Hawkins, Kirk A.; Aguilar, Rosario; Castanho Silva, Bruno; Jenne, Erin K.; Kocijan, Bojana; Rovira Kaltwasser, Cristóbal, 2019, "Global Populism Database", <https://doi.org/10.7910/DVN/LFTQEZ>, Harvard Dataverse, V2, UNF:6:JF14JcJF1OUe/TAPtr7mWQ== [fileUNF]

[Cite Dataset](#) ▾

 Learn about [Data Citation Standards](#).

[Access Dataset](#) ▾

[Contact Owner](#)
[Share](#)

 Dataset Metrics ?

 24,288 Downloads ?

Description ?

Global Populism Database v2 measures the level of populist discourse in the speeches of 241 chief executives (presidents and prime ministers) from 74 countries across all continents. The dataset covers 324 government terms and includes 1,240 speeches, mostly between 2000 and 2022. Each speech is coded manually by one or two coders using the "holistic grading" (Hawkins 2009) technique. The v2 files extend the original database from 2019 and should be used. The 2019 files are maintained here for transparency and record-keeping.

Subject ?

Social Sciences

Keyword ?

populism, speech, text analysis

Related Publication ?

Hawkins, K. A., Aguilar, R., Castanho Silva, B., Jenne, E. K., Kocijan, B., and Rovira Kaltwasser, C. 2019. "Measuring Populist Discourse: The Global Populism Database". Paper presented at the 2019 EPSA Annual Conference in Belfast, UK, June 20-22. https://populism.byu.edu/App_Data/Publications/Global%20Populism%20Database%20Paper.pdf

scite_

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→ hide

Notebook LM (Free Tool from Google)

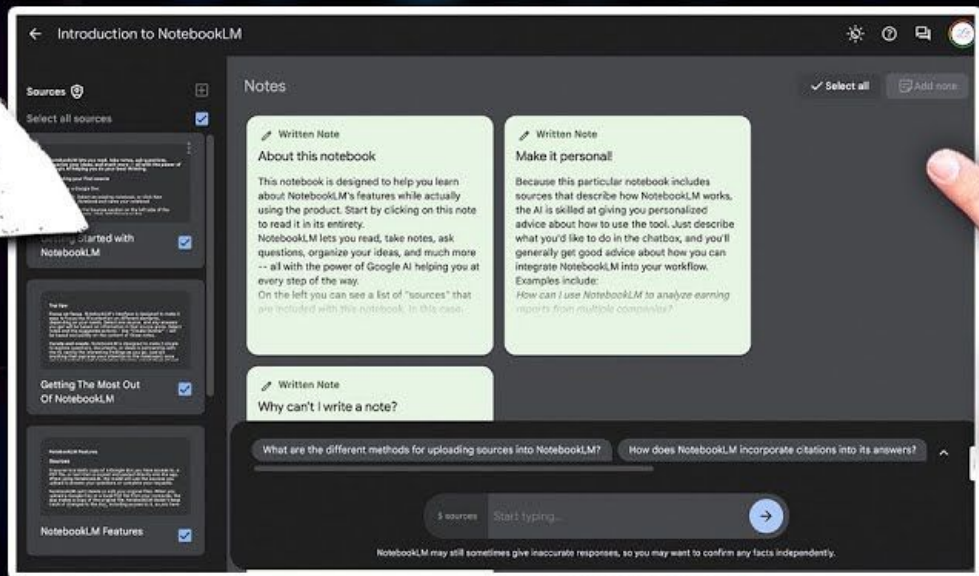
HUNREN |||tkpti



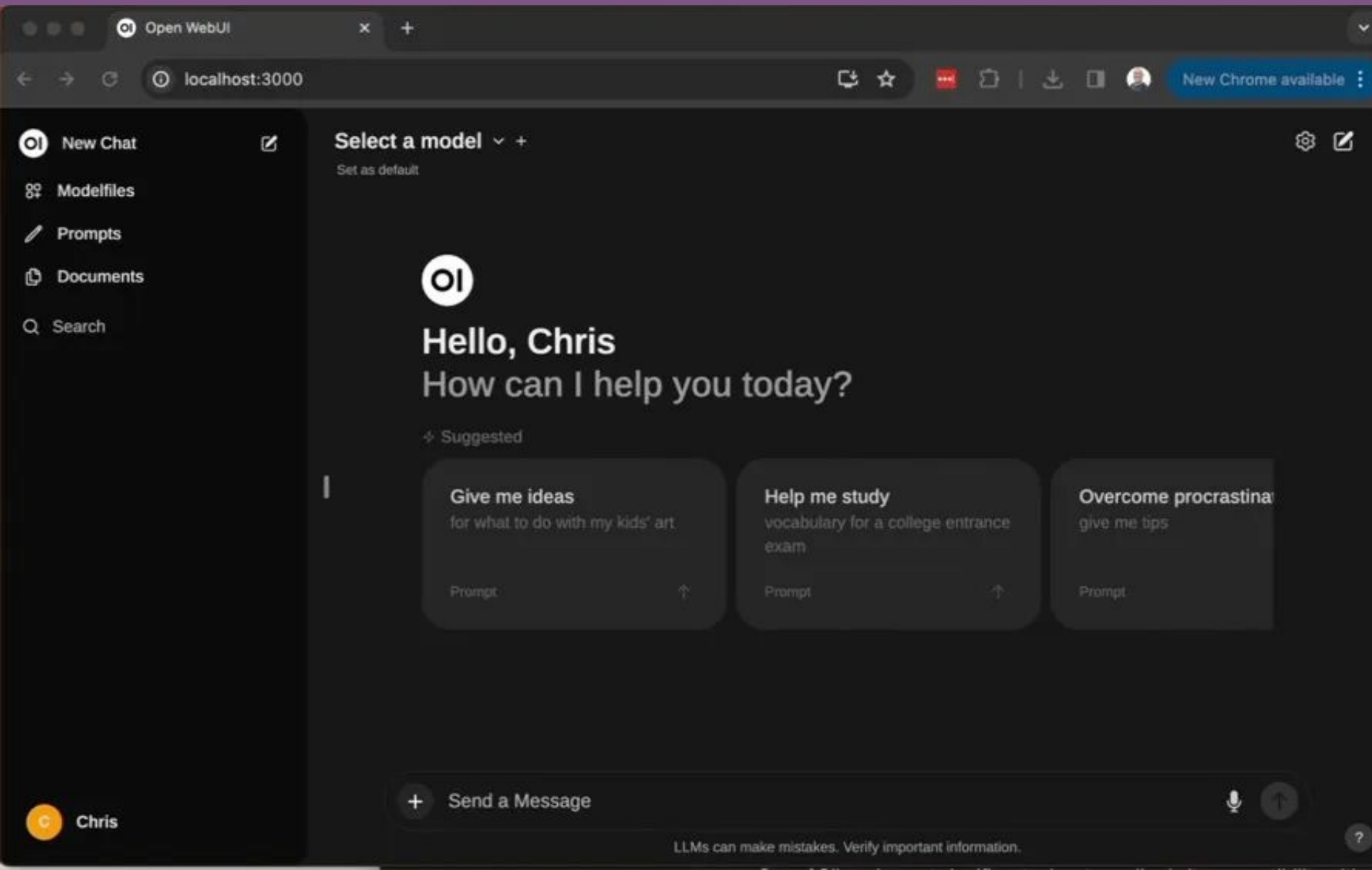
GOOGLE AI

JUST CHANGED

NOTE TAKING



Don't want to export data to the US (give to a co. #GDPR)



Open WebUI

Don't want to export data to the US (give to a co. #GDPR)



On AI Bias



The New York Times



Artificial
Intelligence ›

OpenAI's 'Reckless' Culture

The New ChatGPT

Replacing the C.E.O.

Chatbots and Disinformation

Faces Quiz

We Teach A.I. Systems Everything, Including Our Biases

Researchers say computer systems are learning from lots and lots of digitized books and news articles that could bake old attitudes into new technology.

On AI Bias

Opinion

Artificial intelligence (AI)

🕒 This article is more than **2 months old**

What is going on with ChatGPT?

Arwa Mahdawi



Fri 12 Jan 2024 12.09 CET

 Share


125

Over the last month or so, there's been an uptick in people complaining that the chatbot has become lazy. What's behind this trend?

On AI Bias

Google

This article is more than 3 months old

Google chief admits 'biased' AI tool's photo diversity offended users

Sundar Pichai addresses backlash after Gemini software created images of historical figures in variety of ethnicities and genders

● **Human or fake? How AI is distorting beauty standards - video**

Dan Milmo and Alex Hern

Wed 28 Feb 2024 13.01 CET

Share



Google's Gemini AI illustrations of a 1943 German soldier. Illustration: Gemini AI/Google

Most viewed



Dozens killed in Israeli strike on UN school, Gaza officials say



ANC leaders propose government of national unity after losing majority in South Africa



Bowel disease breakthrough as researchers make 'holy grail' discovery



Activists fly K-pop USB sticks into North Korea as 'poo balloon' row intensifies



Ask Ugly: the state of the bush - how should I be styling my pubic hair?

On AI Bias



On AI Bias





Generate



Edit

Style



Photographic



Prompt

The intern. Professional headshot for website.



Negative prompt



Upload image



Settings



1 : 1



Image count

2

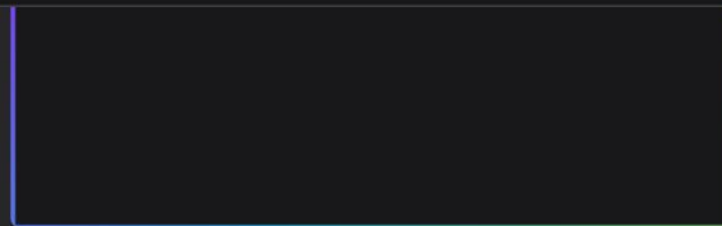
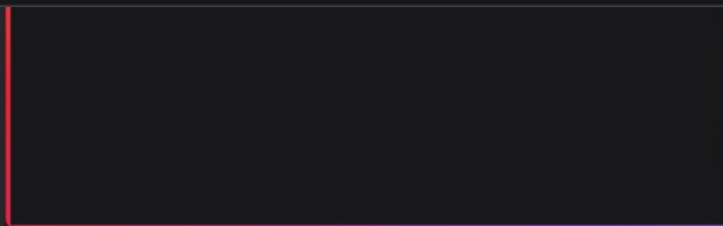


Advanced



Dream

0.46



Mar 12, 1:43 PM

The intern. Professional headshot for website.



Dec 3, 4:28 PM



The intern. Professional headshot for website

The intern. Professional headshot for website.



The *young* intern. Professional headshot for website

The young intern. Professional headshot for website. ↶

^ Scroll to top



Apr 15, 1:15 PM

The young intern. Professional headshot for website. ↶



The *young male* intern. Professional headshot for website

The young male intern. Professional headshot for website. ↶

↗ Scroll to top



Apr 15, 1:16 PM

The young male intern. Professional headshot for website. ↶



The *young male* intern. Professional headshot for website

The young intern. Professional headshot for website. ↶

^ Scroll to top

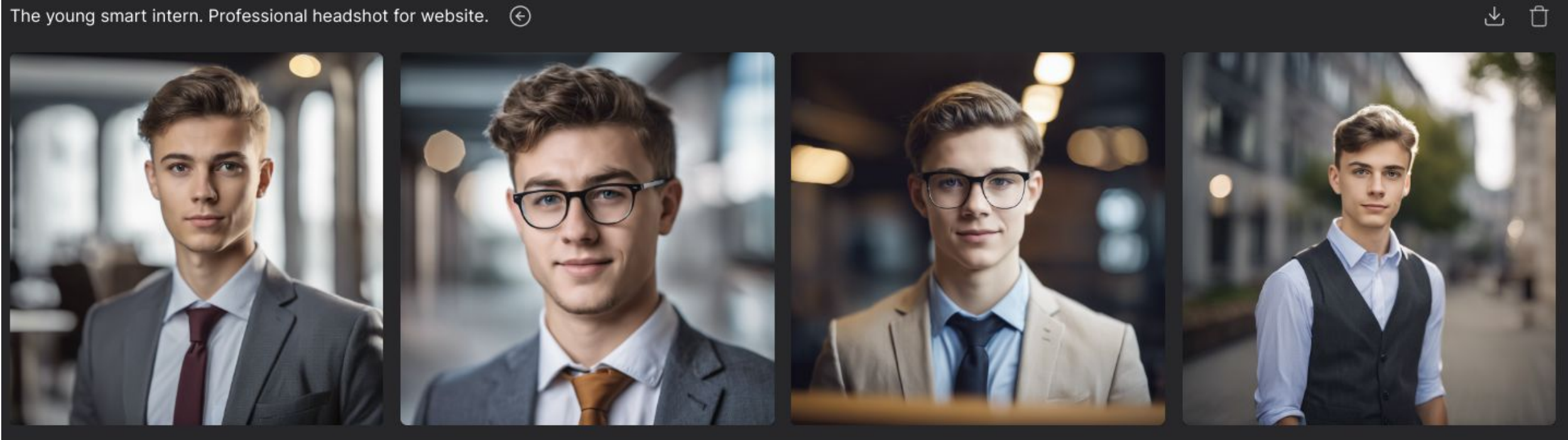


Apr 15, 1:18 PM

The young intern. Professional headshot for website. ↶



The *young smart* intern. Professional headshot for website



CAMERAS AND PHOTOGRAPHY

No one's ready for this

Our basic assumptions about photos capturing reality are about to go up in smoke.

By **Sarah Jeong**, features editor who publishes award-winning stories about law, tech, and internet subcultures. A journalist trained as a lawyer, she has been writing about tech for 10 years.

Photography by Chris Welch / The Verge; AI-altered images made with Google's Magic Editor.

Aug 22, 2024, 1:00 PM GMT-4



360 Comments (360 New)

If you buy something from a Verge link, Vox Media may earn a commission. [See our ethics statement.](#)

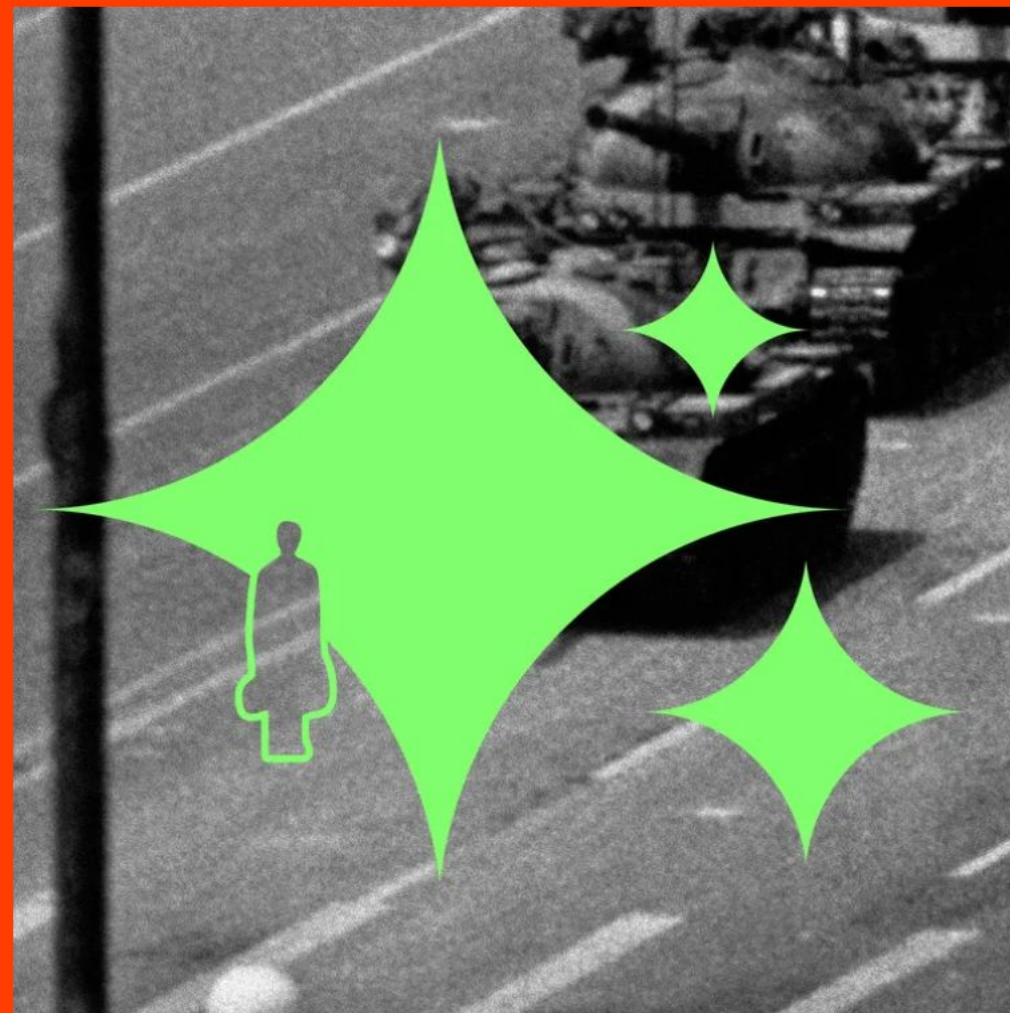


Image: Cath Virginia / The Verge, Stuart Franklin





What am I doing: artificial societies

- Large Language Models (LLMs) can realistically simulate people or even whole societies (Acerbi & Stubbersfield, 2023; Grossmann et al., 2023; Shanahan et al., 2023)
- Create a persona with a unique story
- Ask AI to become that person
- Ask survey questions from that artificial “person”
- Even considering incorporating images as potential experimental stimuli (multimodal LLMs are great)

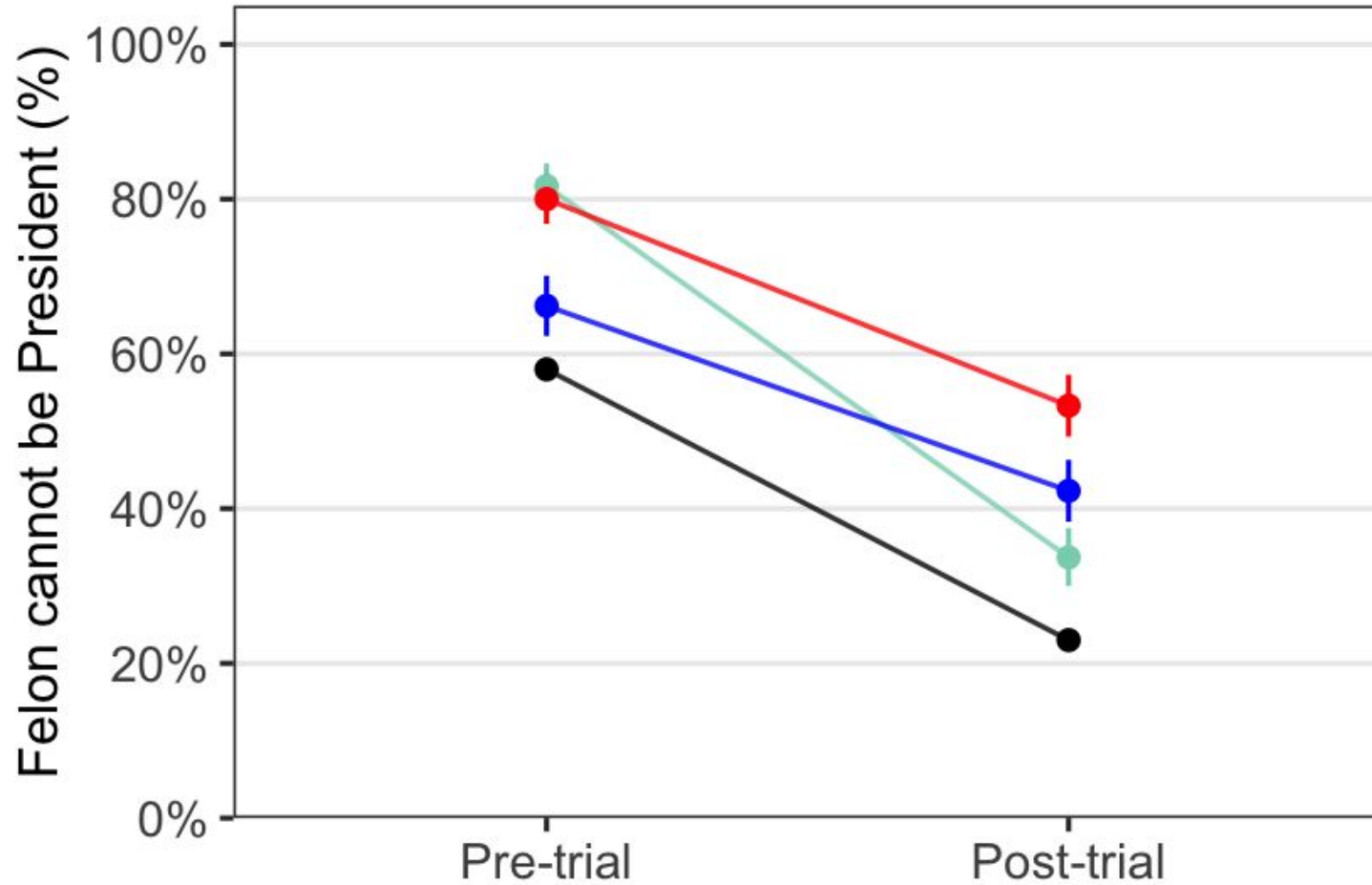




Counterfactuals and Alternative Realities



Evidence from Alternative Realities



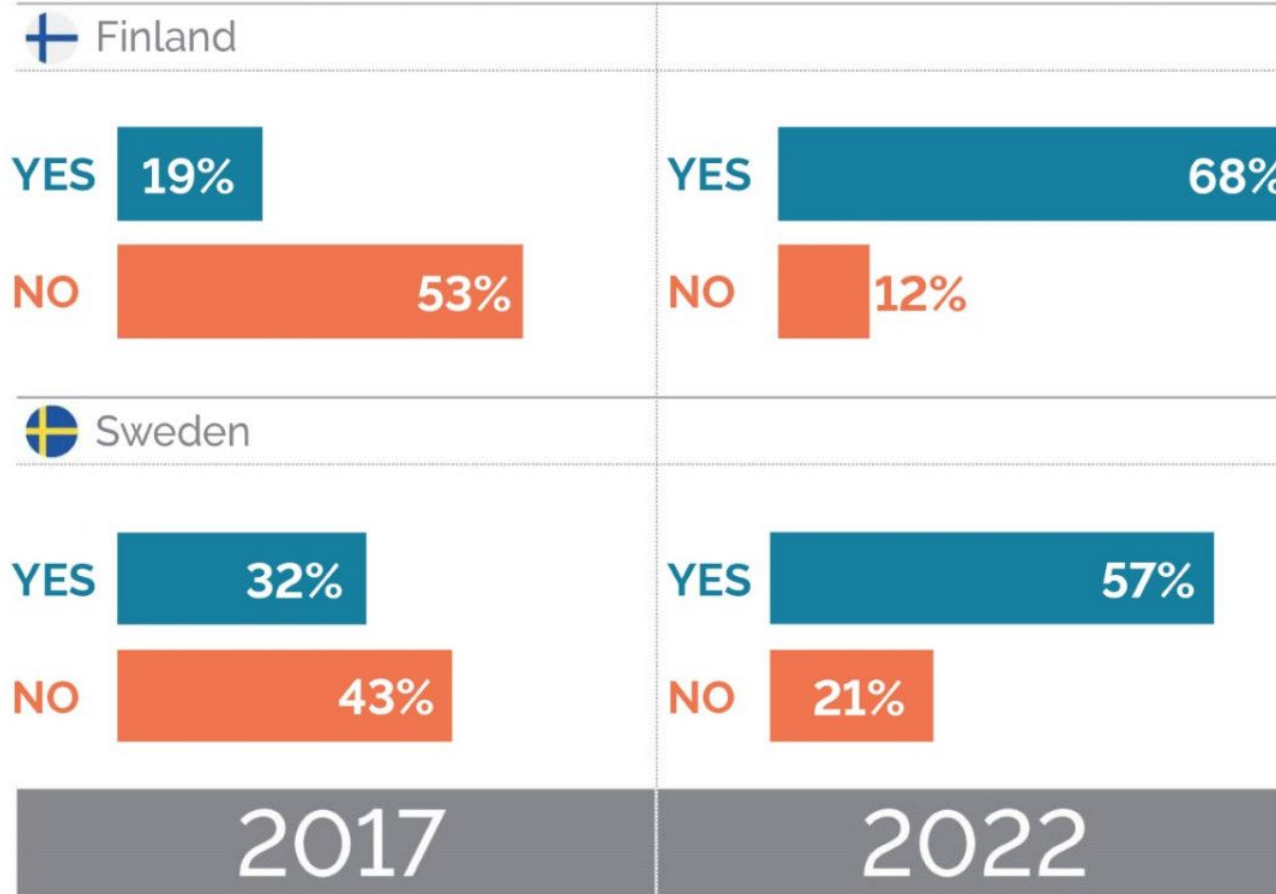
Model

- GPT-4o
- Mistral Large
- Mistral Small
- YouGov



Finland and Sweden: will they join Nato soon?

% of citizens who support or oppose NATO membership

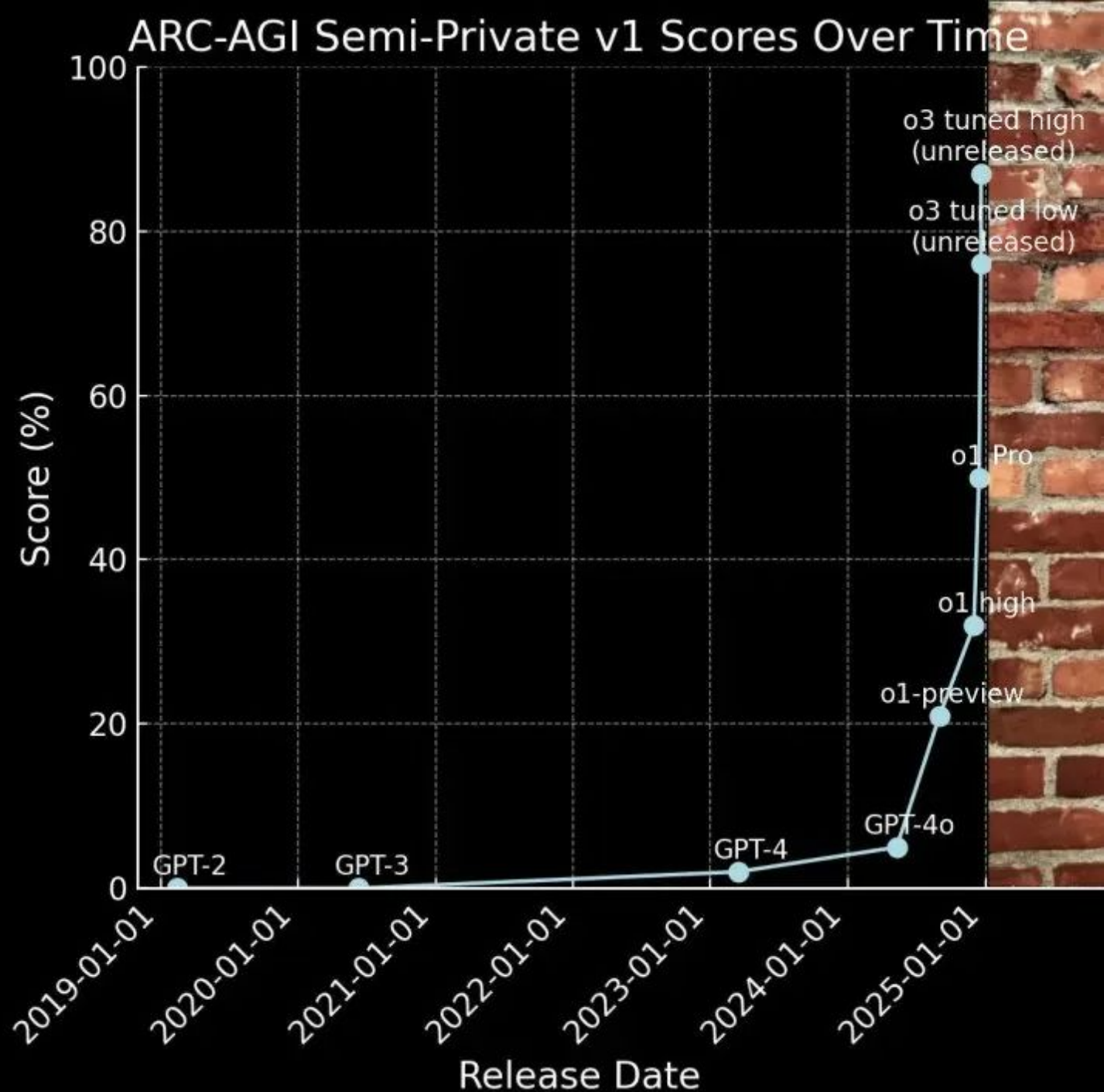


Source:
YLE & Demoskop

ISPI

This can't go on forever Isn't AI hitting a wall?

- All data is used up
- Companies make fake data
- Synthetic data is crap
- Leads to model collapse
- Algorithmic Improvements
- Text \neq Data
- Synthetic is not crap





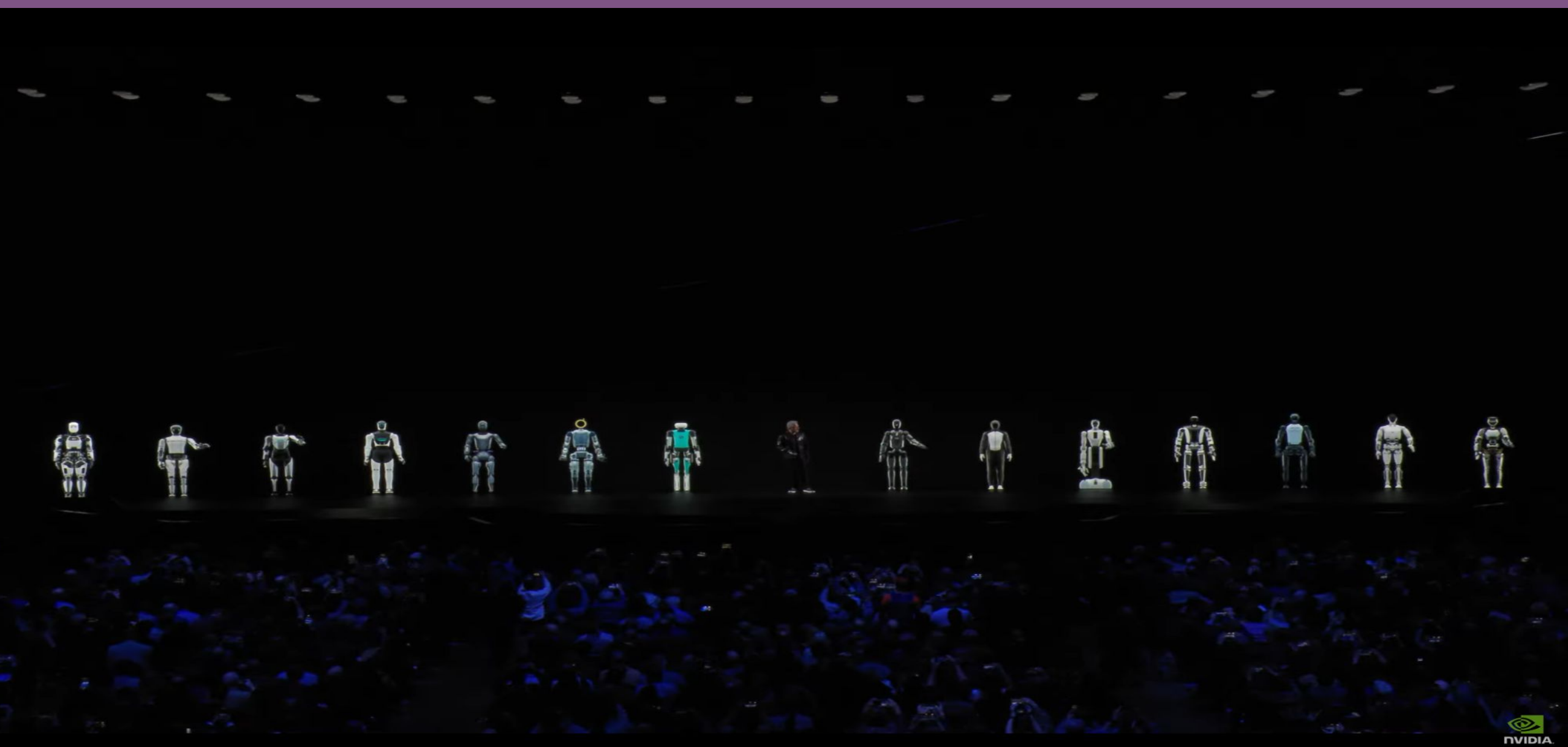
NVIDIA CES Keynote



Praise is Not Endorsement



Jensen Huang (CEO of NVIDIA at CES 2025): “The ChatGPT moment of general robotics is just around the corner”



World Economic Forum Jobs Report 2025

- Workers can expect that 39% of existing skill sets will be transformed or become outdated over 2025-2030 period
- Analytical thinking remains the most sought- after core skill
 - Good news for all of you
- While global job numbers are projected to grow by 2030, existing and emerging skills differences between growing and declining roles could exacerbate existing skills gaps
- Job Displacement: 92 million (WEF), 300m (Goldman Sachs)
- Higher income countries hit more. 45m in US, 1.5-7.9m in UK
- US Film Industry (Hollywood): 204k jobs
- India: 74% of people fear job replacement

What People Fearing for Their Status Do



What People Fearing for Their Status Do



What People Fearing for Their Status Do

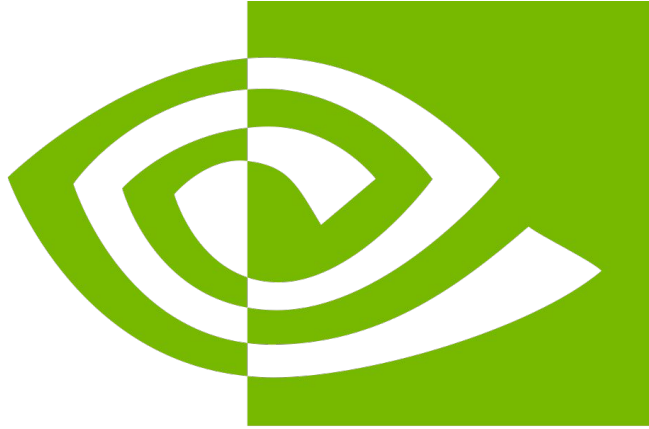


Sam Altman, CEO



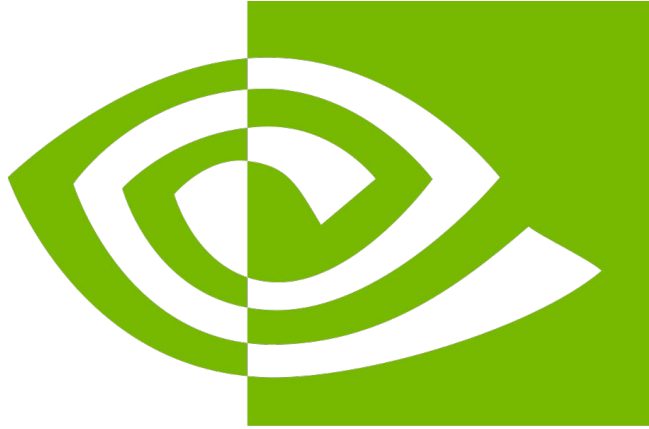
“Over a long period of time, I still expect that there will be **some change required to the social contract** given **how powerful we expect this technology to be**. I’m not a believer that there won’t be any jobs; I think we always find new things, but I do think **the whole structure of society itself will be up for** some degree of **debate & reconfiguration**,”

International Relations and AI

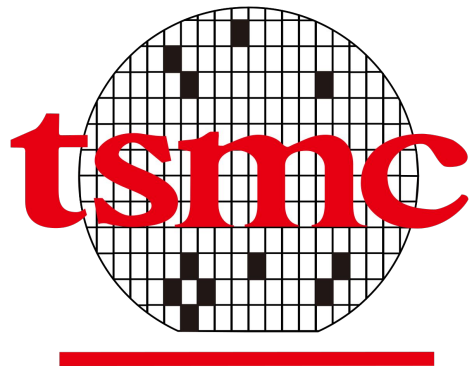


NVIDIA®

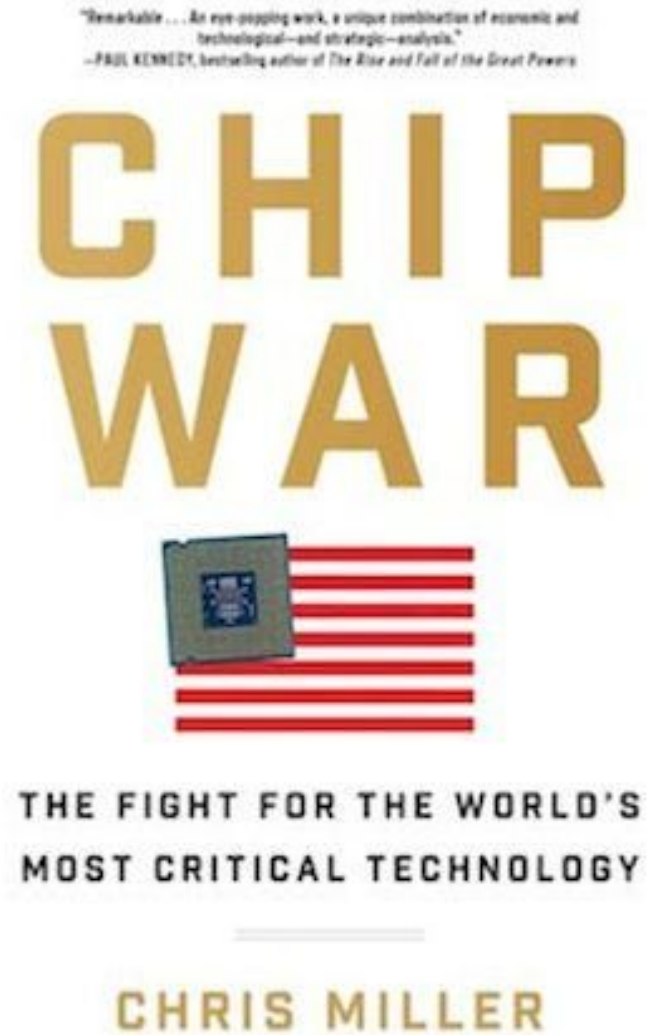
International Relations and AI



NVIDIA®



Where does NVIDIA make their chips?



GOOD RIDDANCE

HENRY KISSINGER, WAR CRIMINAL BELOVED BY AMERICA'S RULING CLASS, FINALLY DIES

The infamy of Nixon's foreign-policy architect sits, eternally, beside that of history's worst mass murderers. A deeper shame attaches to the country that celebrates him

By **SPENCER ACKERMAN**

NOVEMBER 29, 2023

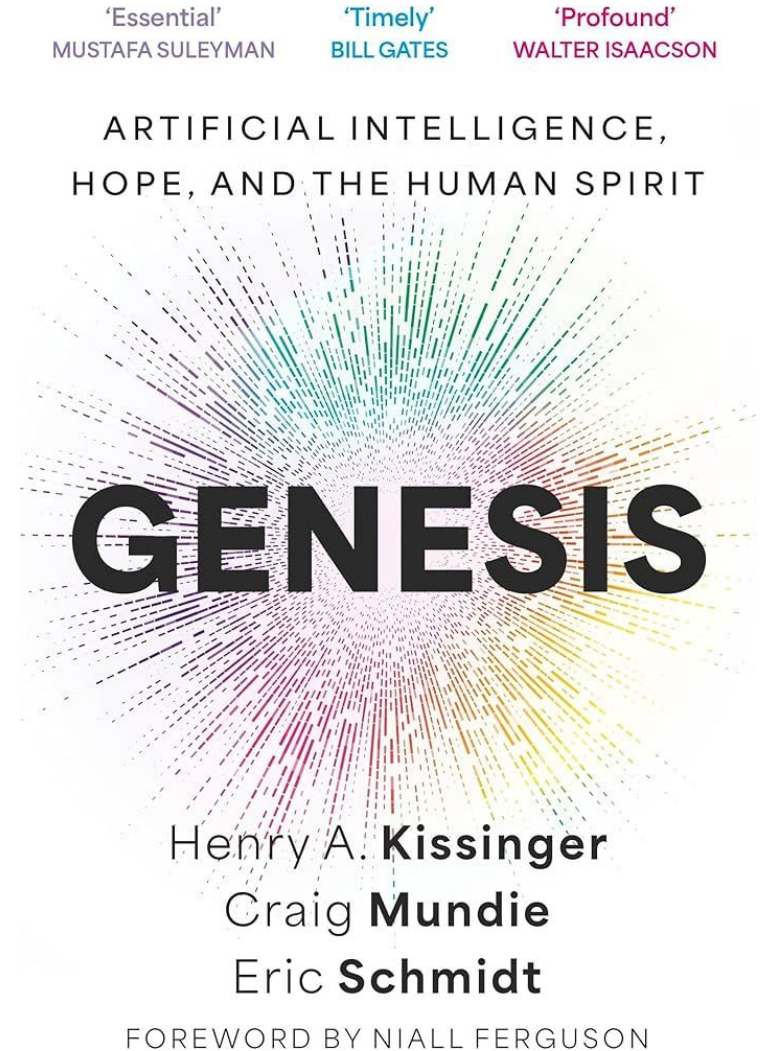
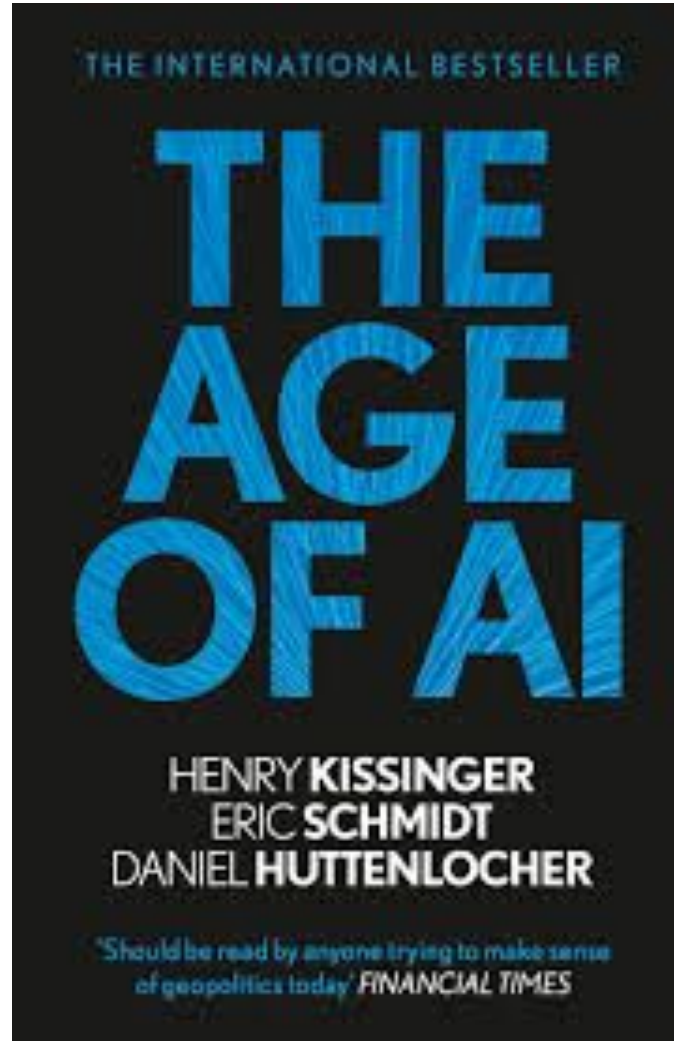


Most Celebrated Death Ever Possibly



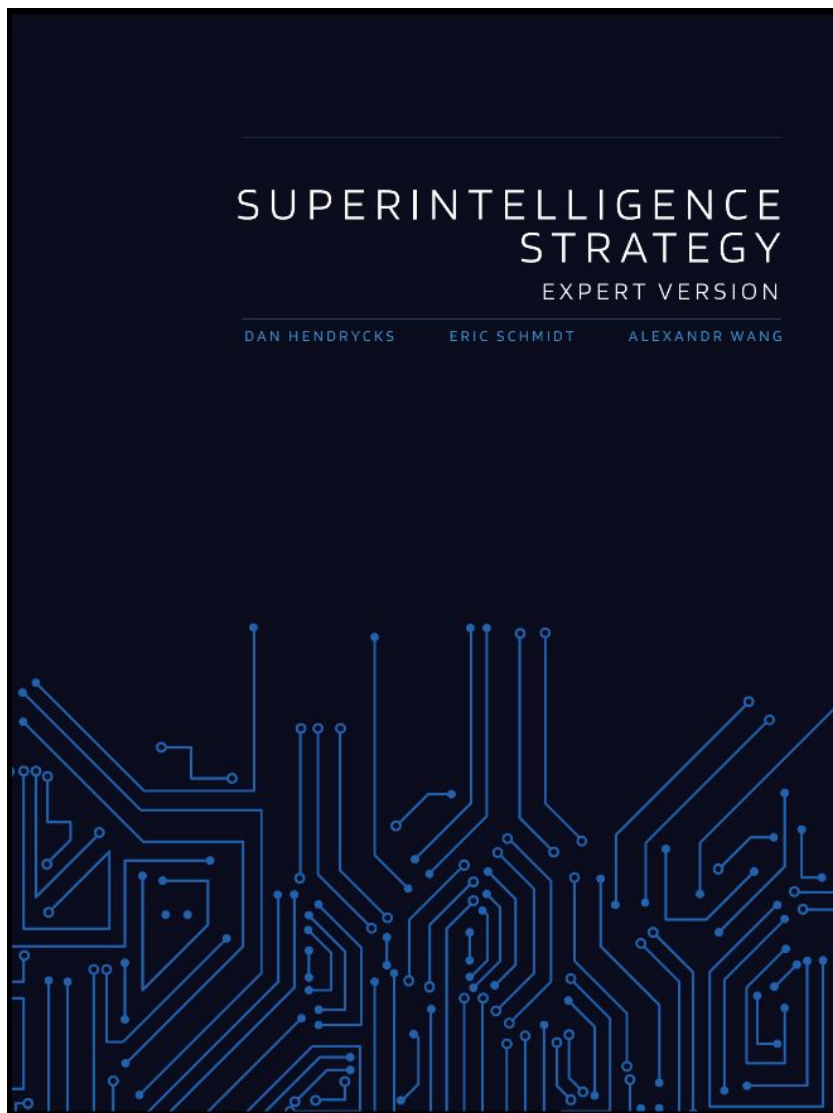
Eric Schmidt (ex-Google CEO for 11 years) & Henry Kissinger

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Eric Schmidt (ex-Google CEO for 11 years) & Henry Kissinger

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Superintelligence Strategy: Expert Version

Dan Hendrycks Eric Schmidt Alexandr Wang

Abstract

Rapid advances in AI are beginning to reshape national security. Destabilizing AI developments could rupture the balance of power and raise the odds of great-power conflict, while widespread proliferation of capable AI hackers and virologists would lower barriers for rogue actors to cause catastrophe. Superintelligence—AI vastly better than humans at nearly all cognitive tasks—is now anticipated by AI researchers. Just as nations once developed nuclear strategies to secure their survival, we now need a coherent superintelligence strategy to navigate a new period of transformative change. We introduce the concept of Mutual Assured AI Malfunction (MAIM): a *deterrence* regime resembling nuclear mutual assured destruction (MAD) where any state's aggressive bid for unilateral AI dominance is met with preventive sabotage by rivals. Given the relative ease of sabotaging a destabilizing AI project—through interventions ranging from covert cyberattacks to potential kinetic strikes on datacenters—MAIM already describes the strategic picture AI superpowers find themselves in. Alongside this, states can increase their *competitiveness* by bolstering their economies and militaries through AI, and they can engage in *nonproliferation* to rogue actors to keep weaponizable AI capabilities out of their hands. Taken together, the three-part framework of deterrence, nonproliferation, and competitiveness outlines a robust strategy to superintelligence in the years ahead.

March, 2025

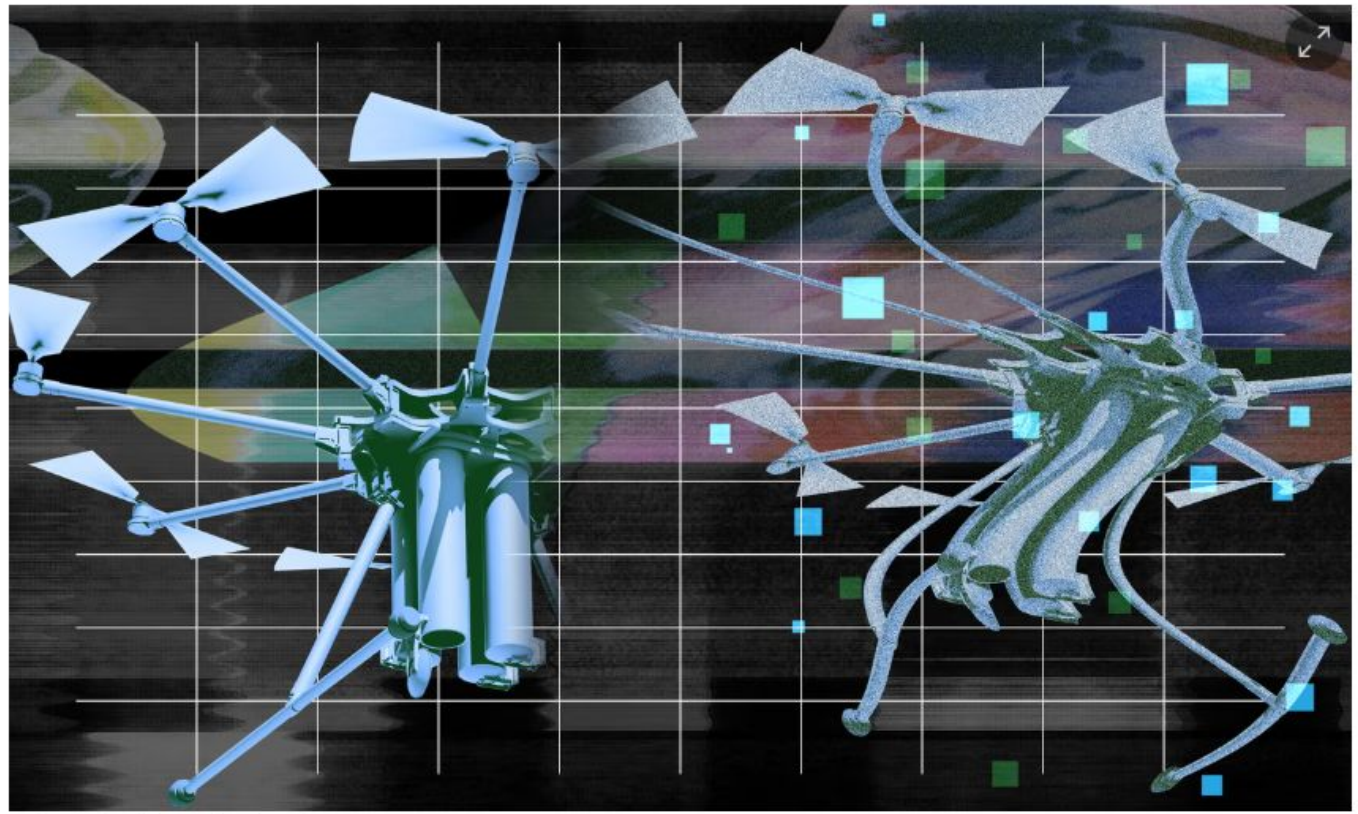
Artificial intelligence (AI)

This article is more than 8 months old

AI's 'Oppenheimer moment': autonomous weapons enter the battlefield

Nick Robins-Early
Sun 14 Jul 2024 18:00 CEST

Share



Composite: The Guardian/Getty Images

The military use of AI-enabled weapons is growing, and the industry that provides them is booming

First Confirmed Autonomous Kill

- In 2020: Kargu 2 drone hunted down and attacked a human target in Libya (report from the UN Security Council's Panel of Experts, 2021)
- Full proliferation in Ukraine (New Guerilla Warfare)



Artificial
Intelligence ›

Apple Enters A.I. Fray

The Era of the A.I. Smartphone

Meta's A.I. Scraping

H

A.I. Poses 'Risk of Extinction,' Industry Leaders Warn

Leaders from OpenAI, Google DeepMind, Anthropic and other A.I. labs warn that future systems could be as deadly as pandemics and nuclear weapons.

Am I Negative? I am Actually a Techno-optimist!

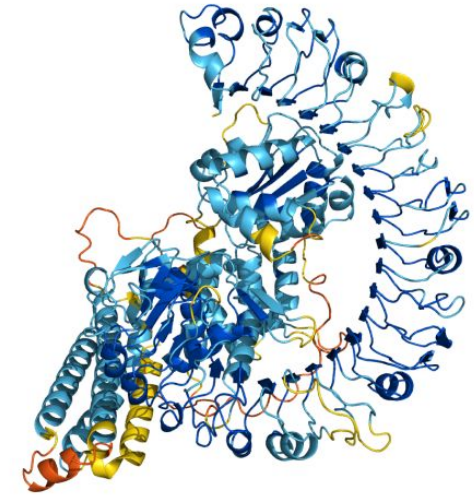


Eliezer Yudkowsky on if Humanity can Survive AI

The Logan Bartlett Show • 250K views

Eliezer Yudkowsky is a researcher, writer, and advocate for artificial intelligence safety. He is best known for his writings on rationality,...

Demis Hassabis: Who is he? (AlphaZero AlphaGo AlphaFold)



Demis Hassabis: 5-10 Years Left

≡ SEARCH

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SUCCESS · A.I.

Google DeepMind CEO says that humans have just over 5 years before AI will outsmart them

BY EMMA BURLEIGH

March 18, 2025 at 11:49 AM EDT



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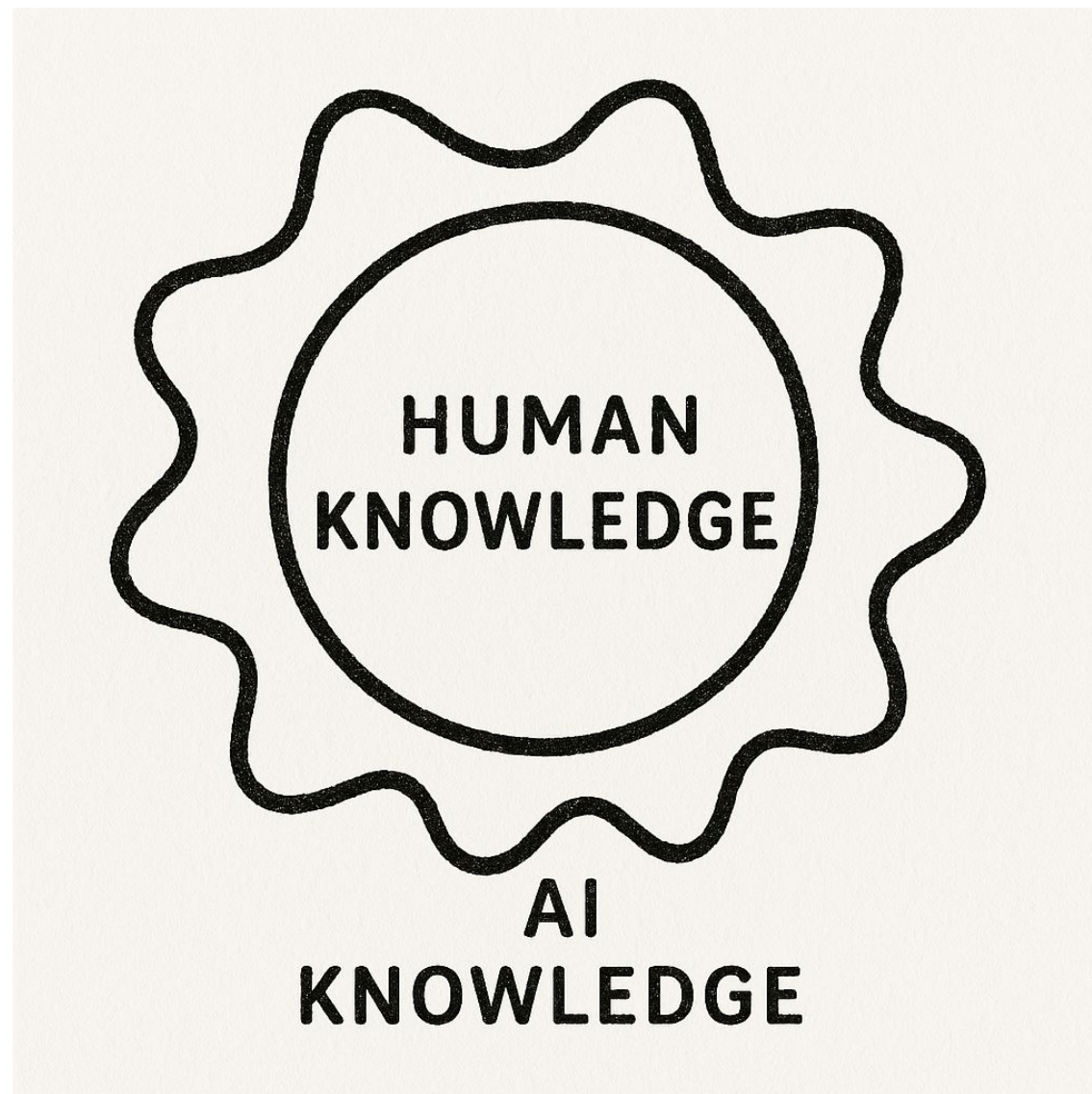
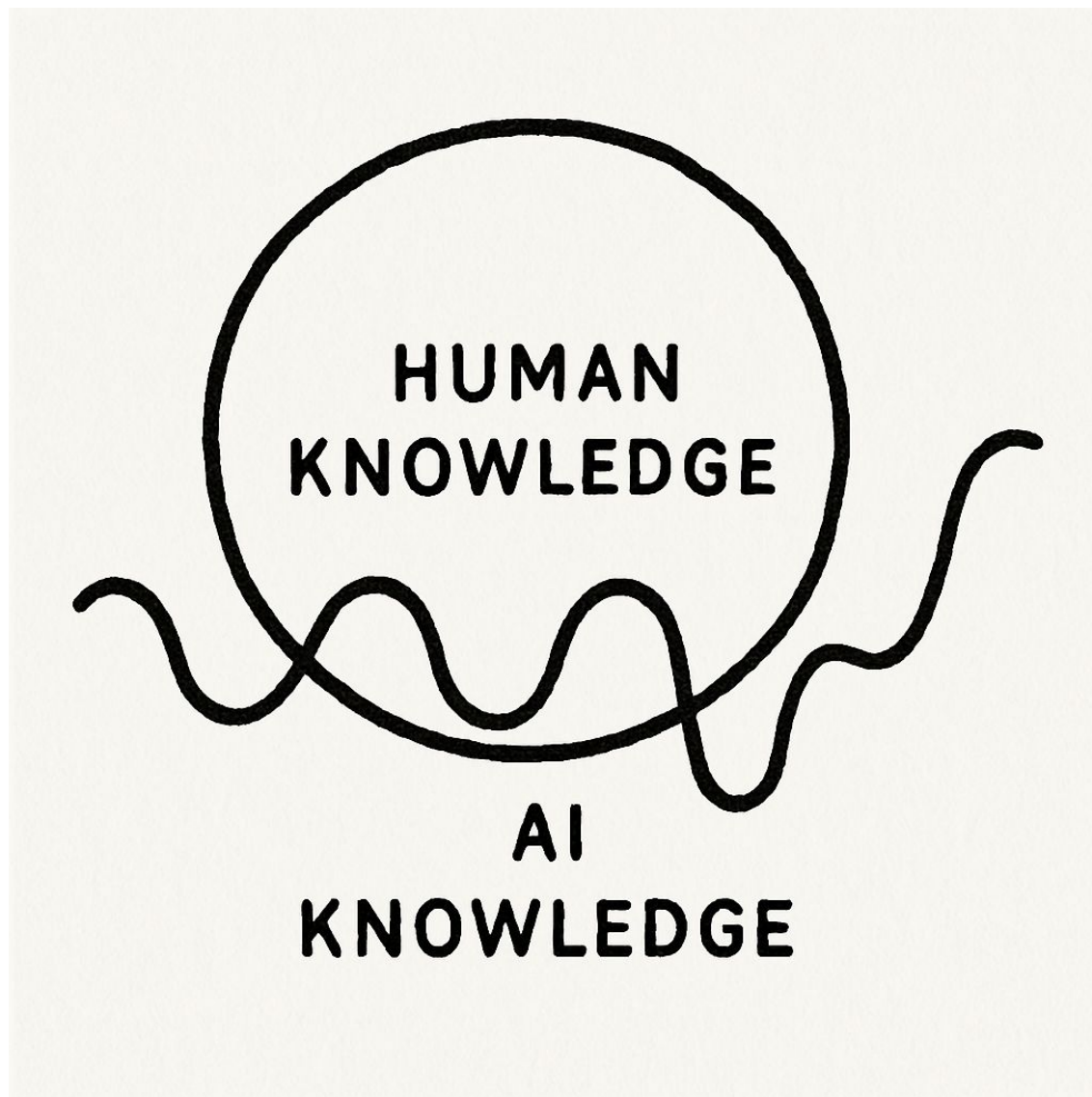
Demis Hassabis, Elon Musk, and Sam Altman believe artificial general intelligence (AGI) will outwit humans in the near future.

BLOOMBERG / GETTY IMAGES

Alien Intelligence?



Ragged Edge of AI Knowledge



Situational Awareness by Leopold Aschenbrenner

SITUATIONAL AWARENESS

The Decade Ahead

[Introduction](#) [I. From GPT-4 to AGI: Counting the OOMs](#) [II. From AGI to Superintelligence: the Intelligence Explosion](#)

[IIIa. Racing to the Trillion-Dollar Cluster](#) [IIIb. Lock Down the Labs: Security for AGI](#) [IIIc. Superalignment](#) [IIId. The Free World Must Prevail](#)

[IV. The Project](#) [V. Parting Thoughts](#) [Full series as PDF](#) [About](#) [Dwarkesh podcast](#)

SITUATIONAL AWARENESS: The Decade Ahead

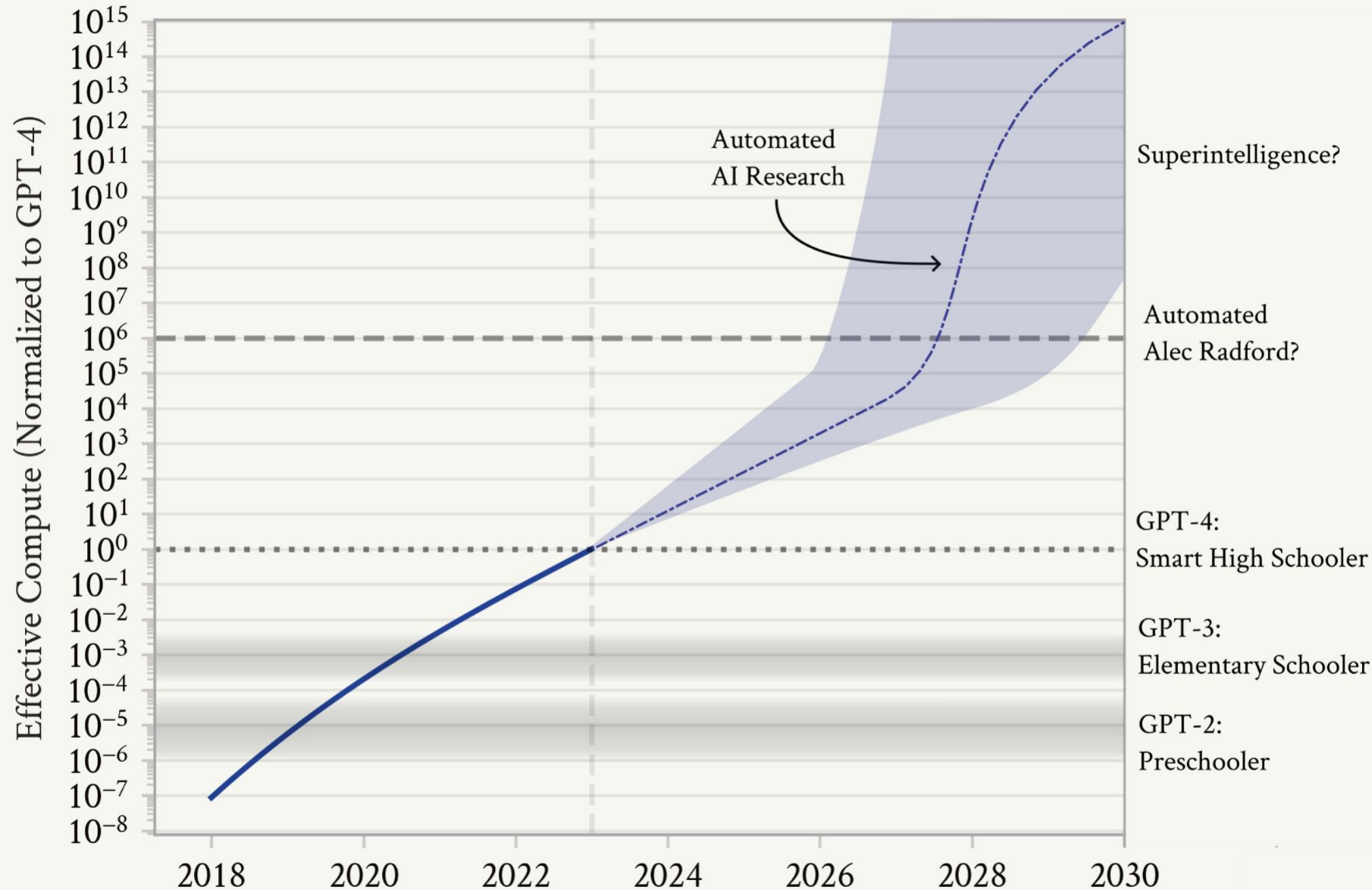
Leopold Aschenbrenner, June 2024

You can see the future first in San Francisco.



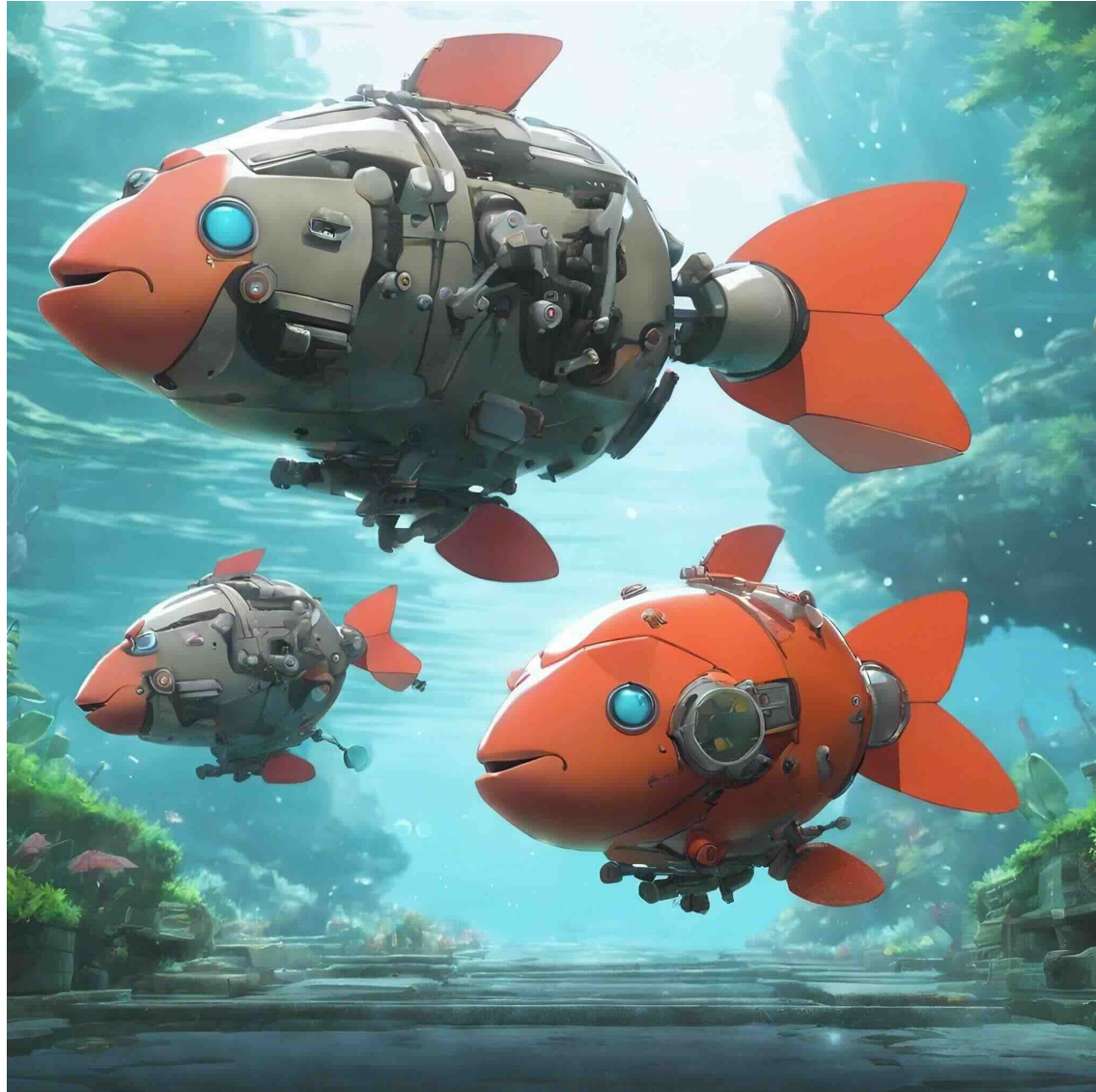
Valedictorian at
Columbia University at
age 19. Best Econ thesis.

Situational Awareness by Leopold Aschenbrenner



- Went on to discuss the importance of
 - State support of development
 - Securing AI knowledge
- Got fired from OpenAI for anti-Chinese sentiments
- And security leaks (writing this)

Sakana

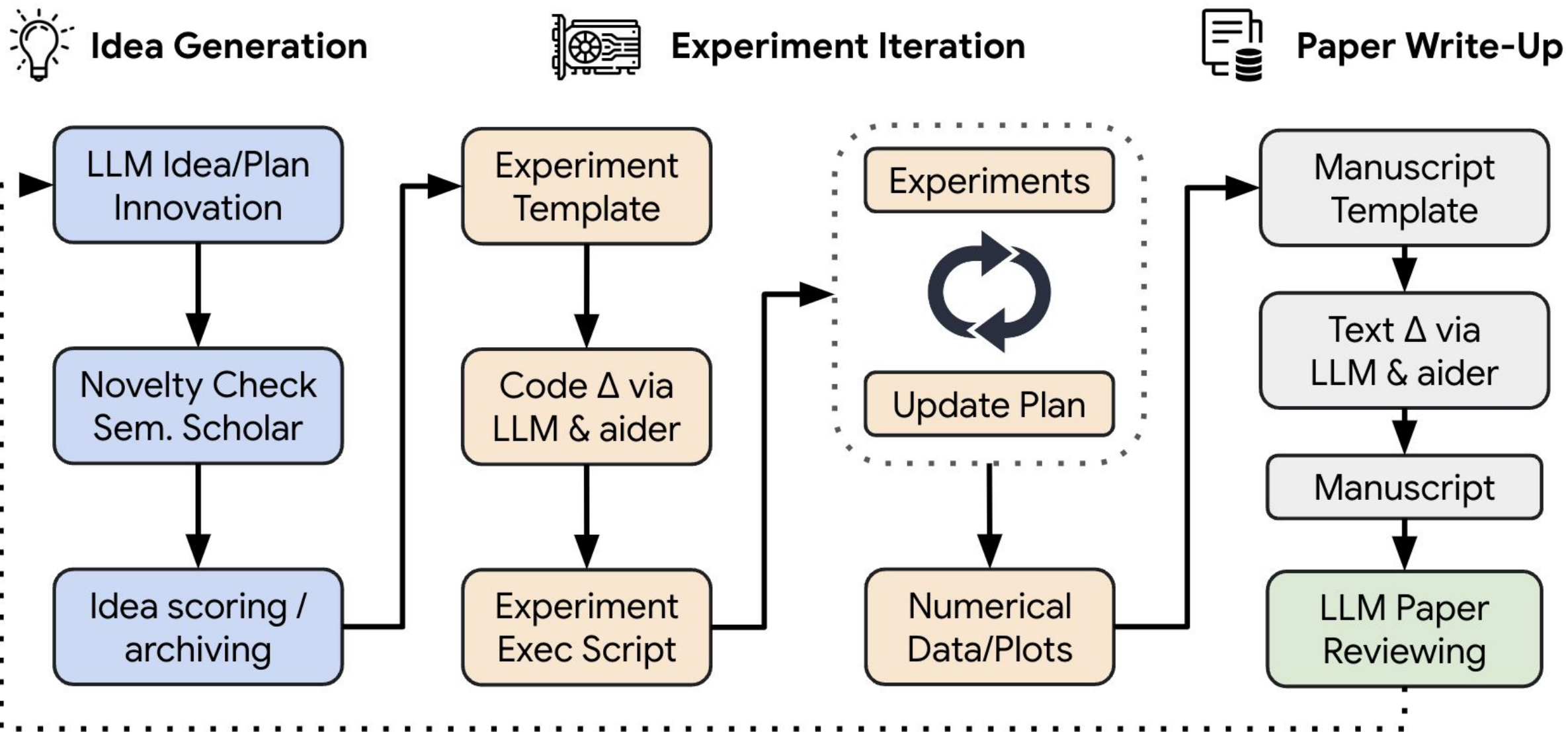


sakana.ai

The AI Scientist: Towards Fully Automated
Open-Ended Scientific Discovery.

August 13, 2024

Sakana



Sakana



sakana.ai

The AI Scientist: Towards Fully Automated
Open-Ended Scientific Discovery.

August 13, 2024

- First original completely AI written paper in 2024
- Passed peer review for conference inclusion on several papers in 2025

April 2, 2025 Publication Release

PaperBench

Evaluating AI's Ability to Replicate AI Research.

[Read paper ↗](#)

[View code ↗](#)

Zeus Protocol Hackathon (September 30, 2024)

- Can AI come up with good ideas for social science?
- Input: Dependent Variable
 - Survey Question (and if it is reverse coded)
 - Paragraph description of the concept it measures
 - Do we want it to go up or down
- Using Sakana.ai's infrastructure of idea generation & peer review
 - Come up with ideas
 - Design experimental treatments
- Pre-test with our artificial society

Zeus Protocol Hackathon (September 30, 2024)

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- Using Sakana.ai's infrastructure of idea generation & peer review
 - Come up with ideas
 - Design experimental treatments
- Pre-test with our artificial society
- **No, it didn't work very well... yet**
 - **About time to try again**

Biology Promise (Dario Amodei: Machines of Loving Grace)

×

Dario Amodei



Contents

Basic assumptions and framework

1. Biology and health
2. Neuroscience and mind
3. Economic development and poverty
4. Peace and governance
5. Work and meaning

Taking stock

Machines of Loving Grace¹

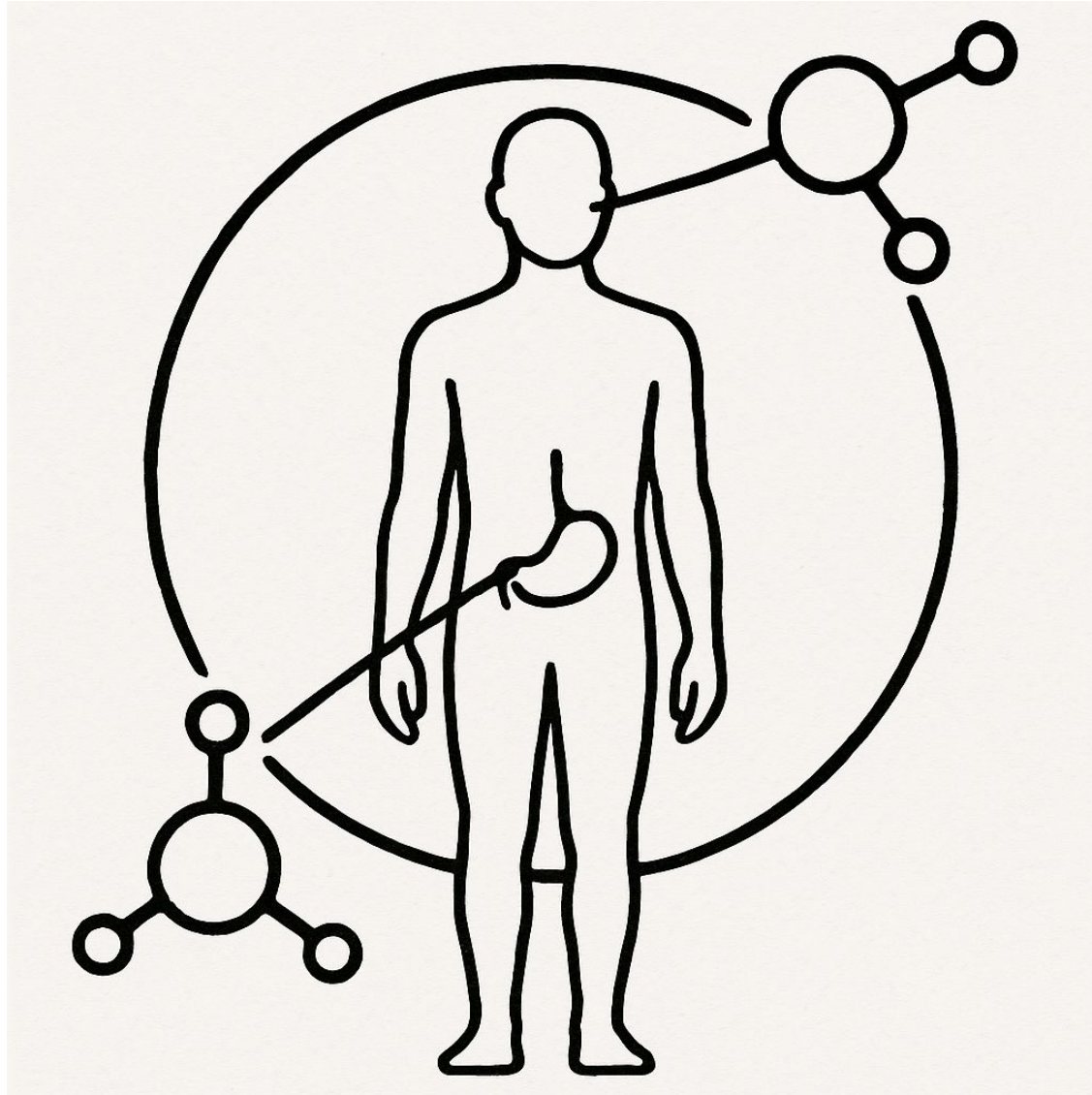
How AI Could Transform the World for the Better

October 2024

I think and talk a lot about the risks of powerful AI. The company I'm the CEO of, Anthropic, does a lot of research on how to reduce these risks. Because of this, people sometimes draw the conclusion that I'm a pessimist or "doomer" who thinks AI will be mostly bad or dangerous. I don't think that at all. In fact, one of my main reasons for focusing on risks is that they're the only thing standing between us and what I see as a fundamentally positive future. **I think that most people are underestimating just how radical the upside of AI could be**, just as I think most people are underestimating how bad the risks could be.

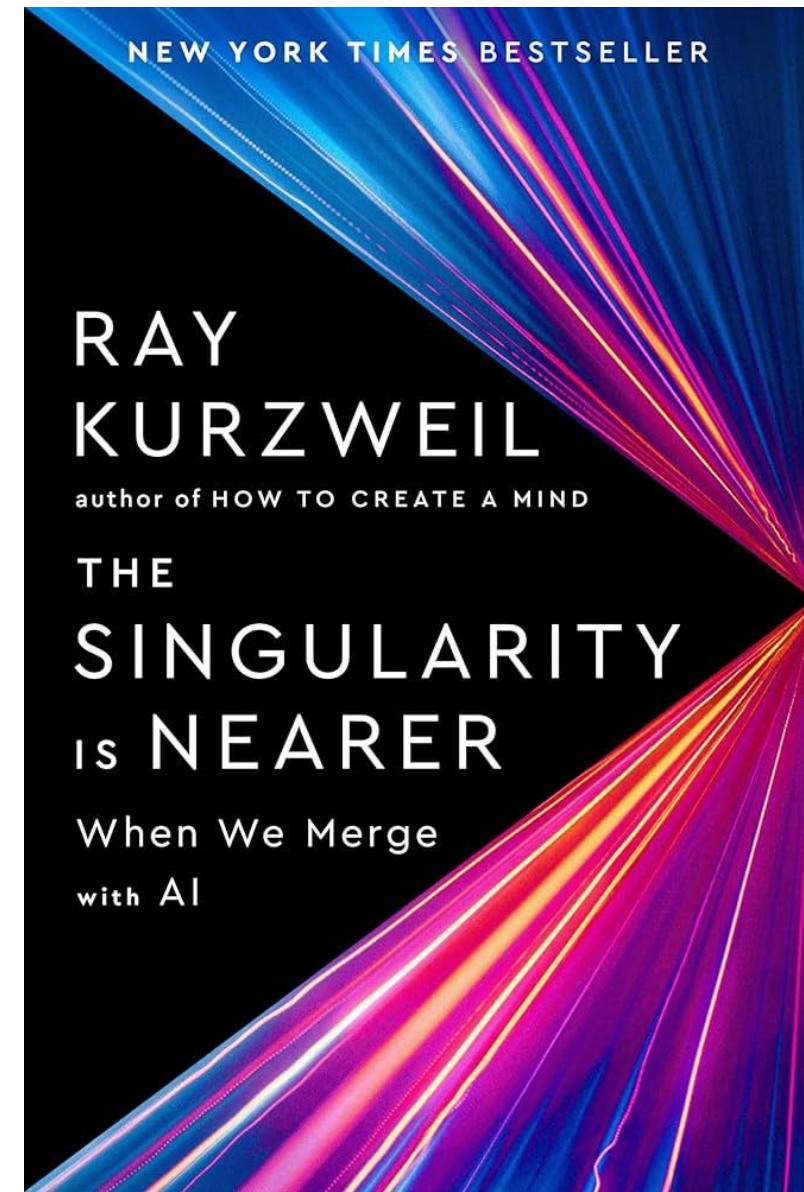


Biology Promise (Dario Amodei: Machines of Loving Grace)



Merger - One Solution to Safety

- We have already merged with our phones
- Ray Kurzweil - Singularity is Near(er)
- The first person to live 1000 years has already been born
- We are probably getting all this wrong



What should we do? (Pay Attention!!)

- If most of this was news to you....
 - You are not paying attention
- If you are still wondering what AI does to your assignments
 - You are not paying attention
- Put in your 10 hours... on a large number of AI tools
 - Keep up with the updates
 - Think how these tools could advance research
- It is our responsibility as social scientists to pay attention
 - Not to mention, you will need these skills
- What is going to be left of our profession in 10 years, IDK
 - It may be better (I do not like where we are at now)

Vienna, Austria, July 7-18 (online classes June 31-July 4)

MethodsNET

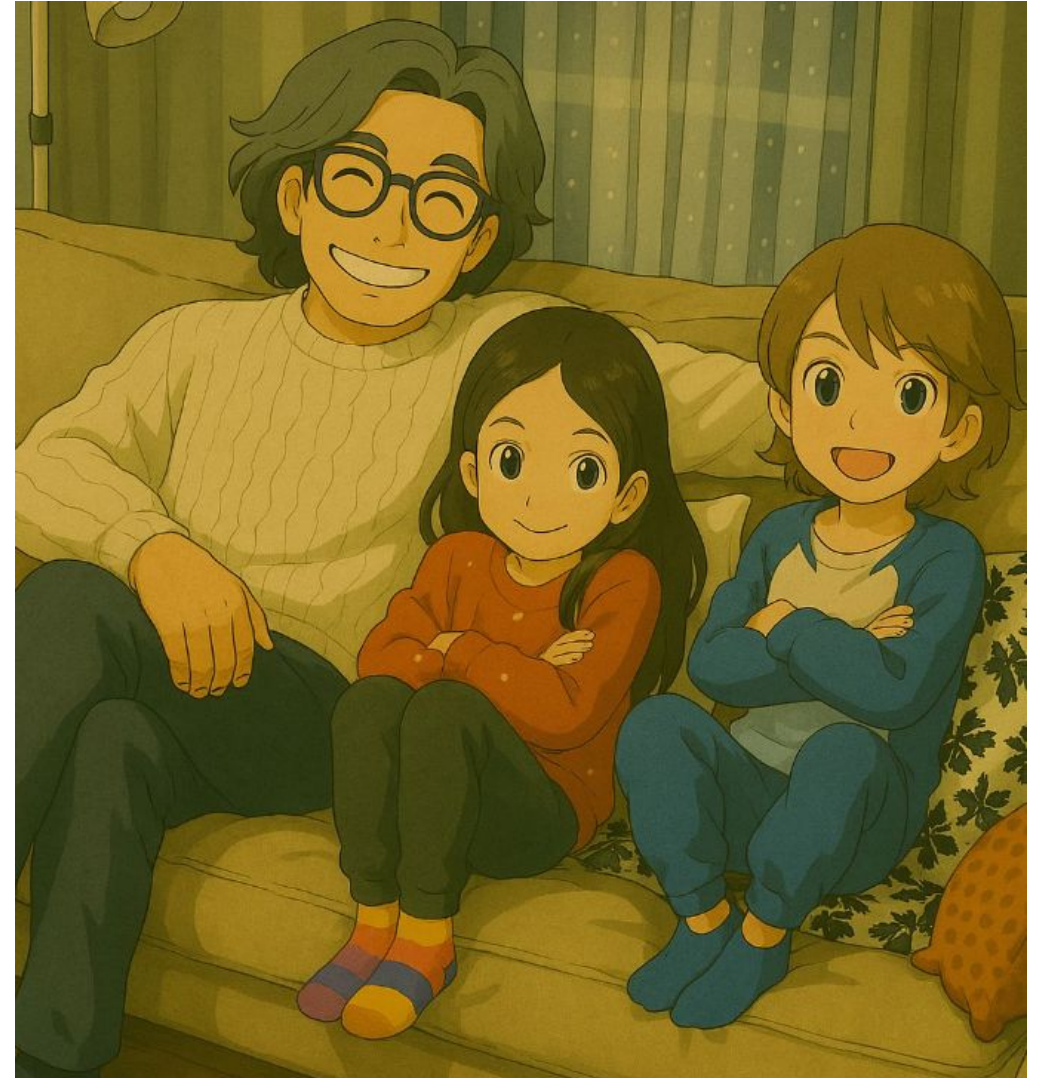
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Thank you for your attention!

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