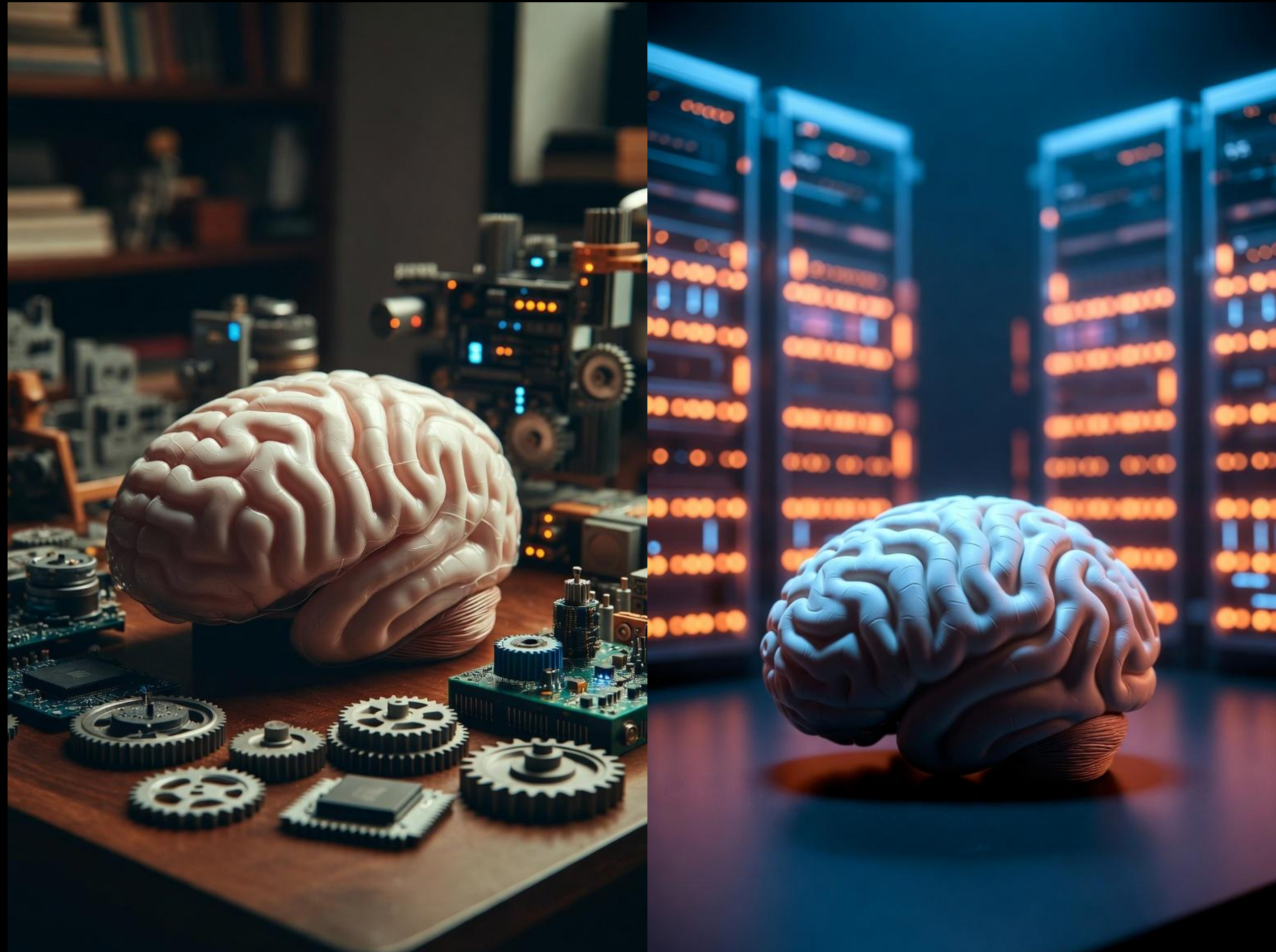


AI - between Perks and Perils

Arend Hintze

neuroevolution

how the brain evolved, so we can recreate that phenomenon in the computer

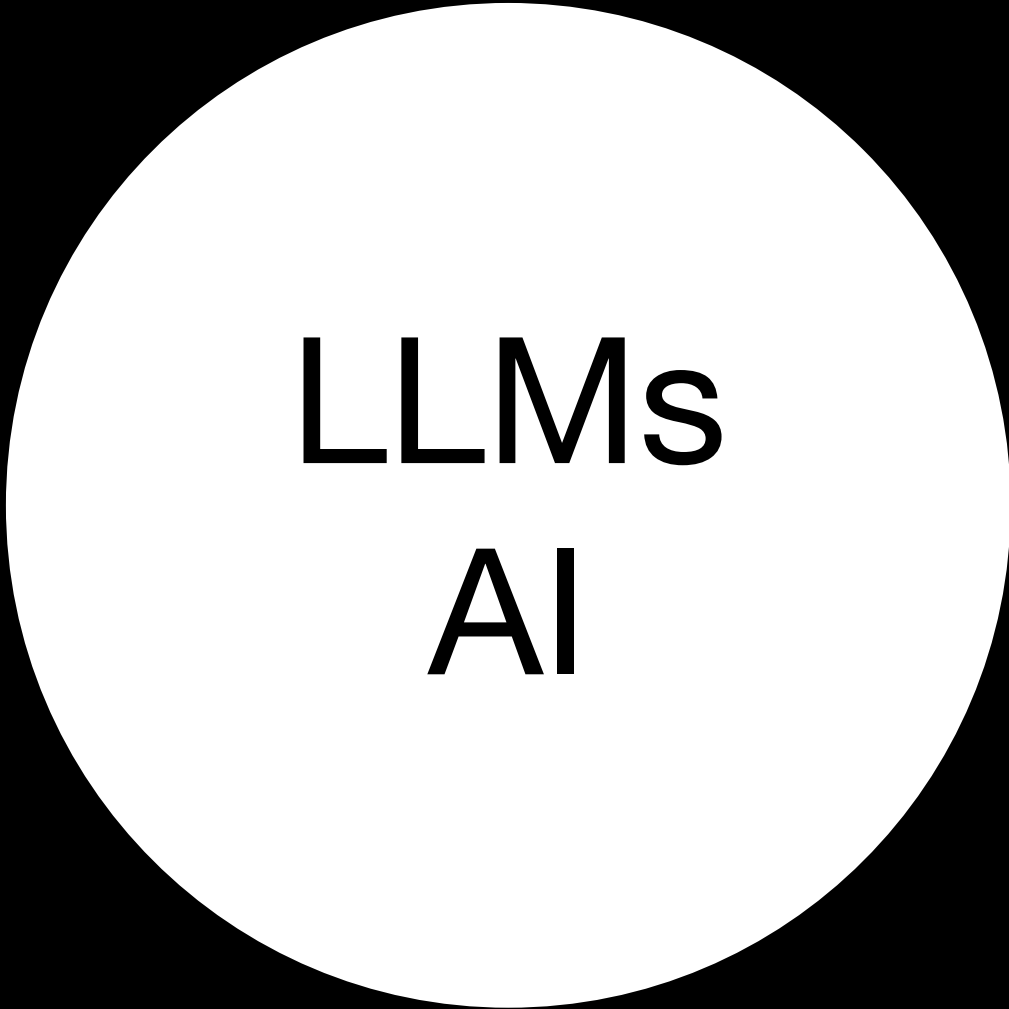


Neuro Evolution died 2022

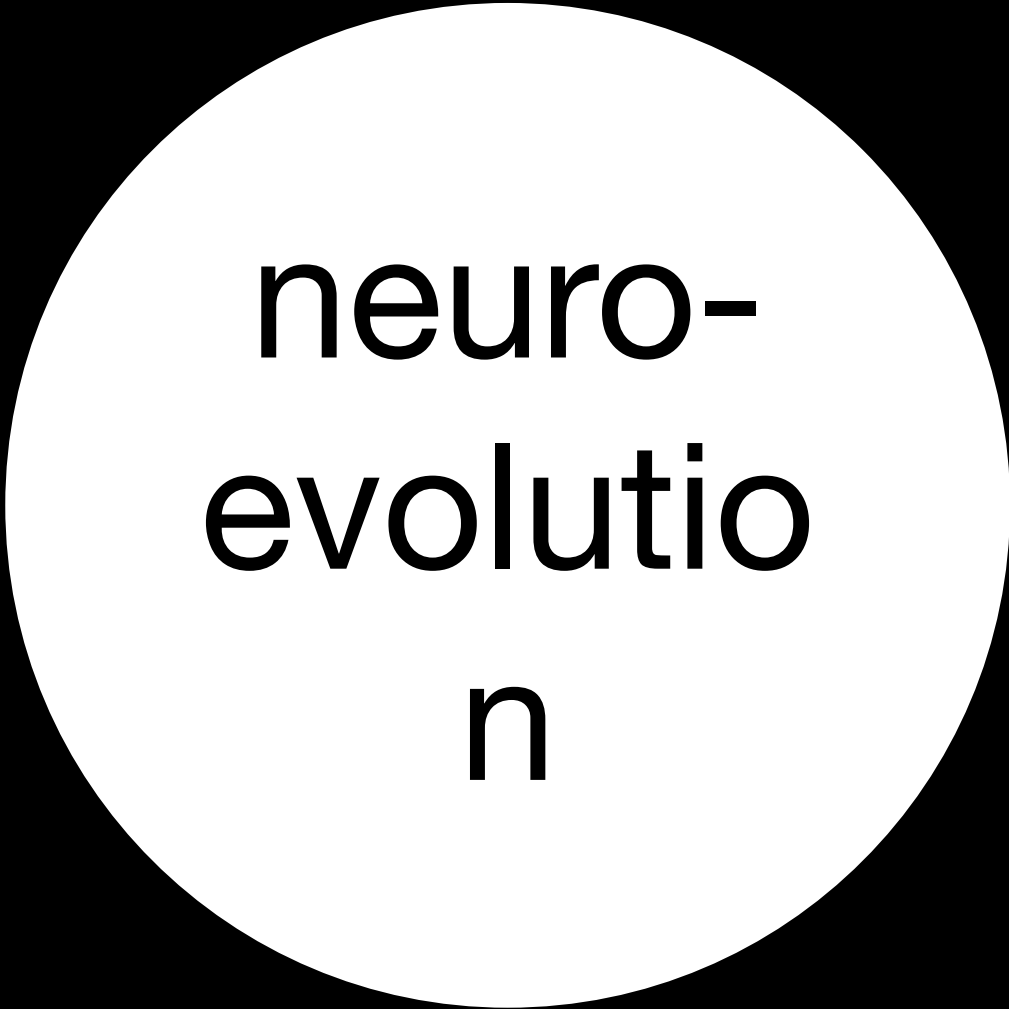
AI (LLM) killed it



What to do?



LLMs
AI



neuro-
evolutio
n







AI - between Perks and Perils

Is Arend just having a midlife crisis?

The “new” thing

“Generative AI”

- Voice to Text, Text to Voice
- Text to Image, Image to Text
- Continue my sentence

Happy Birthday to

you!

Happy Birthday to

you!

Happy Birthday dear

?????

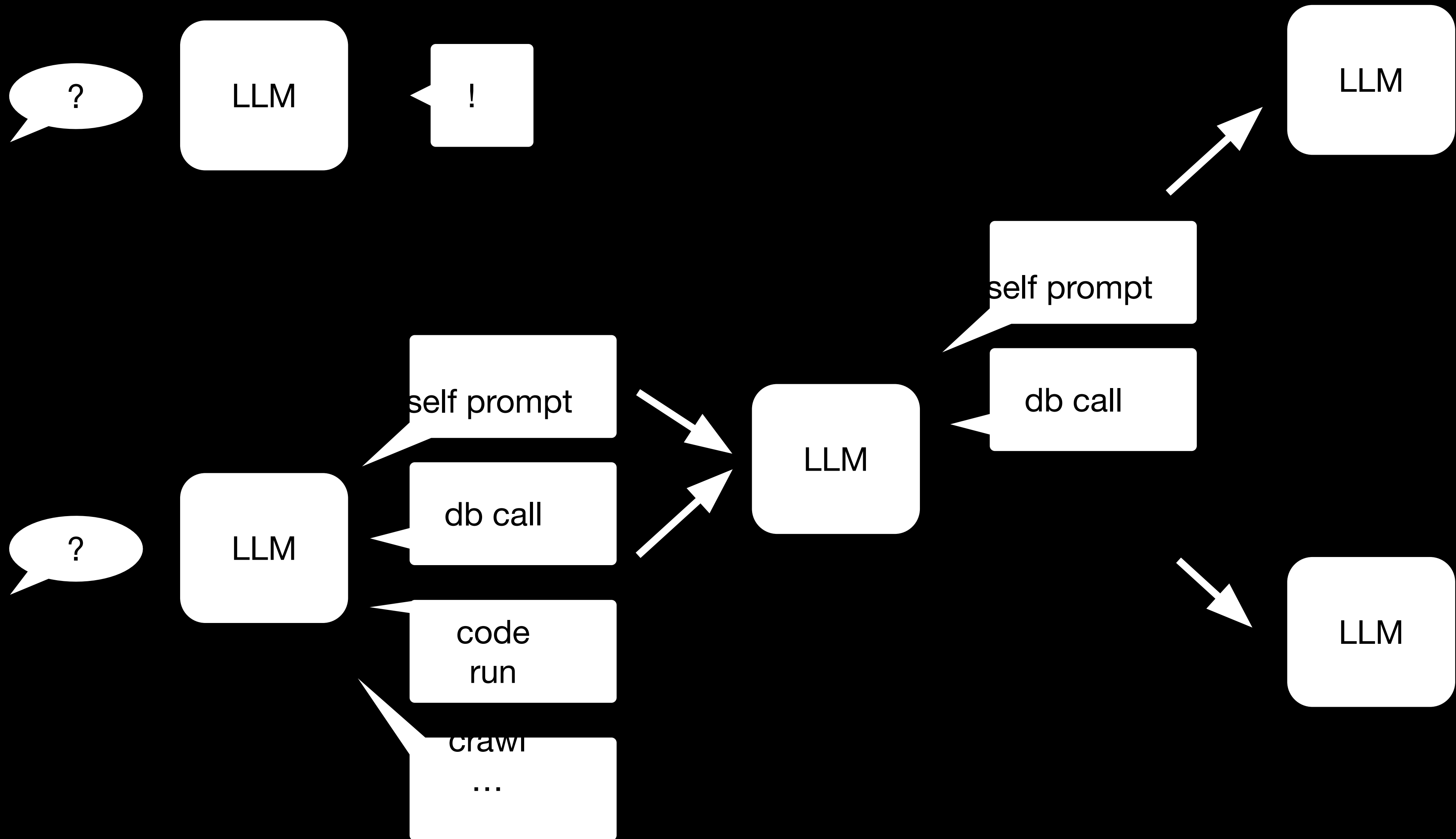
```
FOR i in RANGE(100)
```

```
:
```

The “new” thing

“Generative AI”

- Voice to Text, Text to Voice
- Text to Image, Image to Text
- Continue my sentence
- Turns “context” and “prompt” into “text I want” or “code I need”
- and then there are “agents”

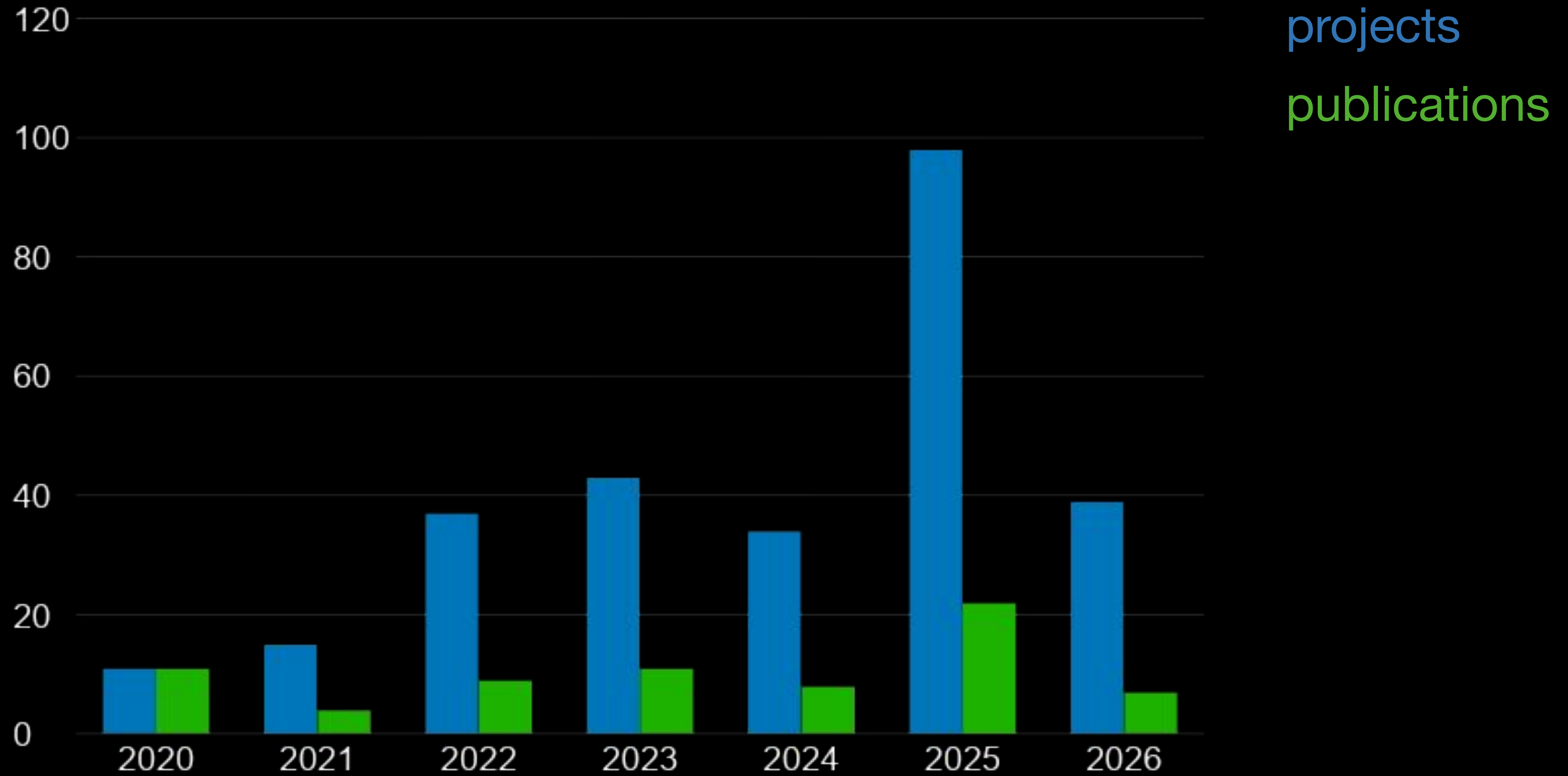


2025 - the year of the agent! Did you know?

Agents ... will solve everything!



perks and perils



perks and perils

QUANTITATIVE NATURAL SCIENCES

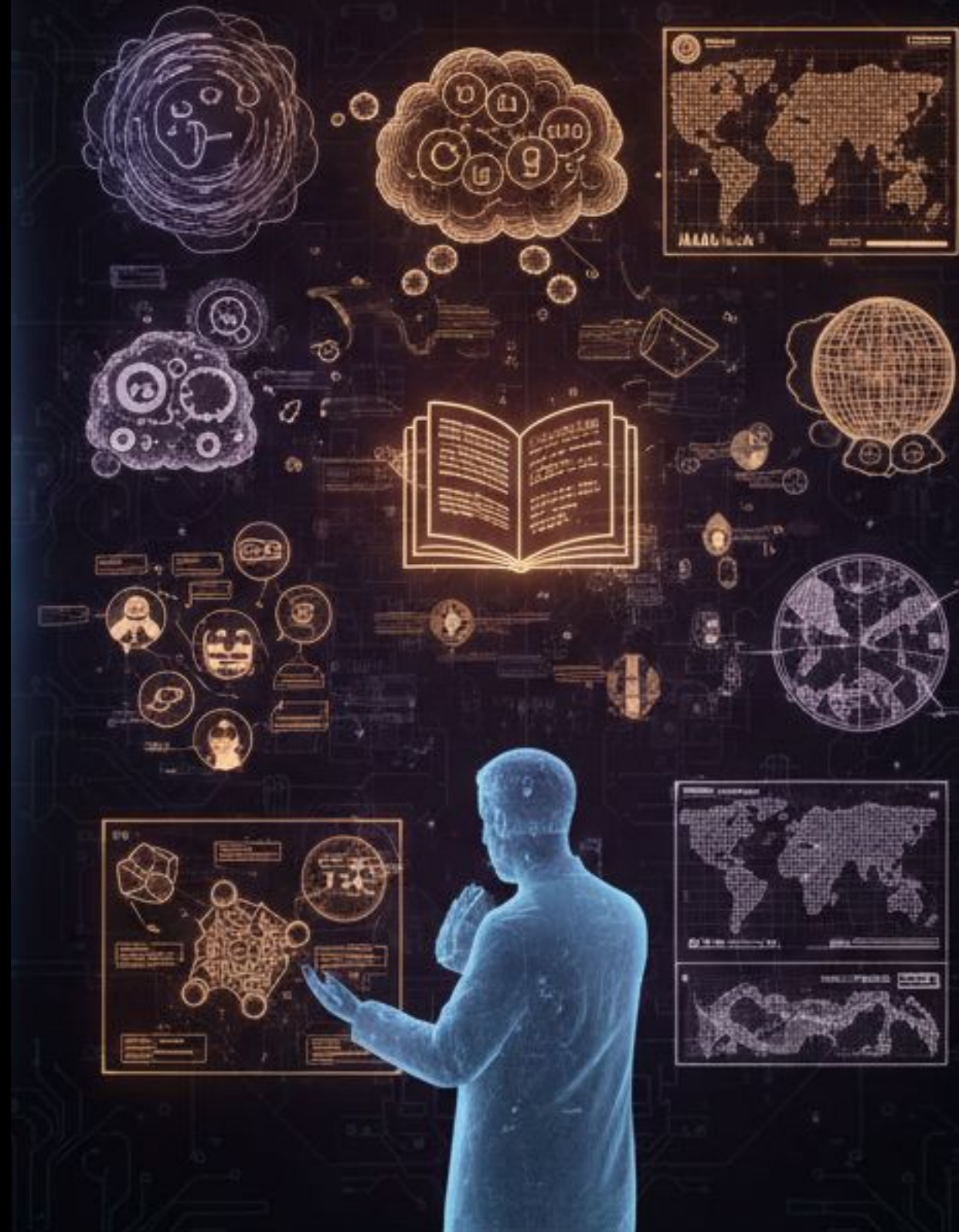


A machine that read “every book, your online profile (all our profiles), and every paper available

You need to be a literary scholar trained by reading and writing a lot, who developed a personal writing style, can now synthesize the literature and the corpus of the author, into an answer...

What about this book?

QUALITATIVE HUMANITIES



natural science

humanities

What about the: perks and **perils**

perks and perils

A man in a dark suit, white shirt, and striped tie is hanging from a gallows. He is looking down with a somber expression. The background is a dark, textured wall. The gallows consists of a wooden structure with ropes and a white and black striped ball at the top.

What an artificial intelligence researcher fears about AI

Published: July 14, 2017 4.51am CEST

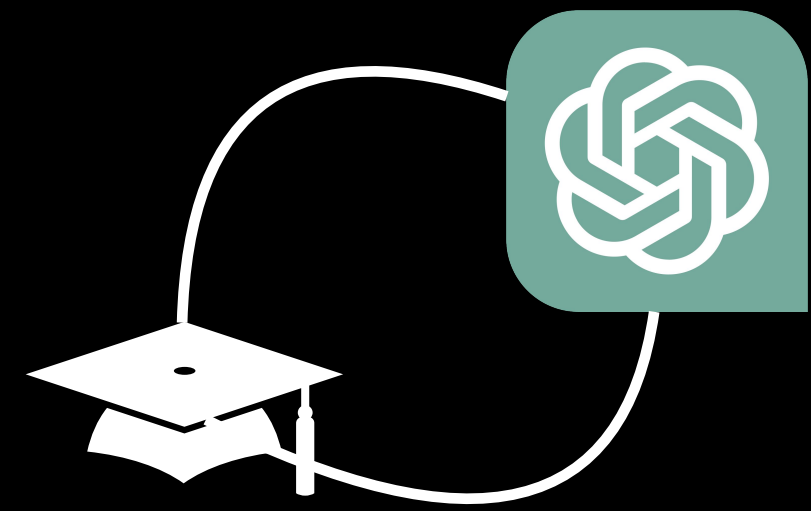
unintended consequences, economic change will come too fast!

perks and perils

Medium



teaching



make a website with these specs, requirements, and it needs to pass these tests



solution

solution

grade feedback



class content



teach new stuff

But we are save!

- How long?
- don't forget: **Enshittification** is when something starts good, then gets progressively worse because profit extraction becomes more important than quality.
- **Labor enshittification** is the process by which organizations replace skilled human labor with cheaper AI or automated substitutes, causing a gradual decline in work quality, expertise, and institutional knowledge.

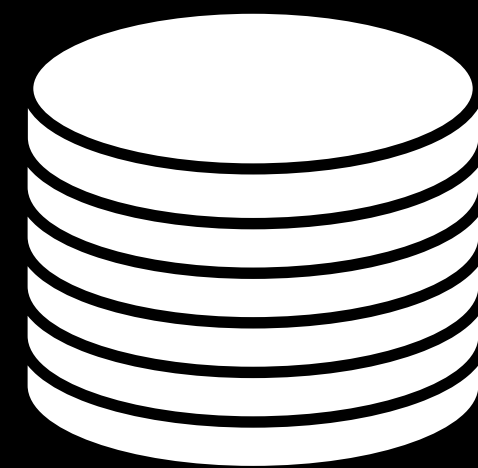


perks and perils

When I have time -> Hi, I need
... answering machine

11777

When I don't have time, to
call me back ... after being
pain for 4 more hours .



perk s perks and perils

know how to talk to a chatbot



...mental sanction medical
...tireless, perfect manners,
...ss to all global medical
...dge ... that can also book
... an appointment

Is it better?

perks and perils?

2023: AI will never reach human-level intelligence,

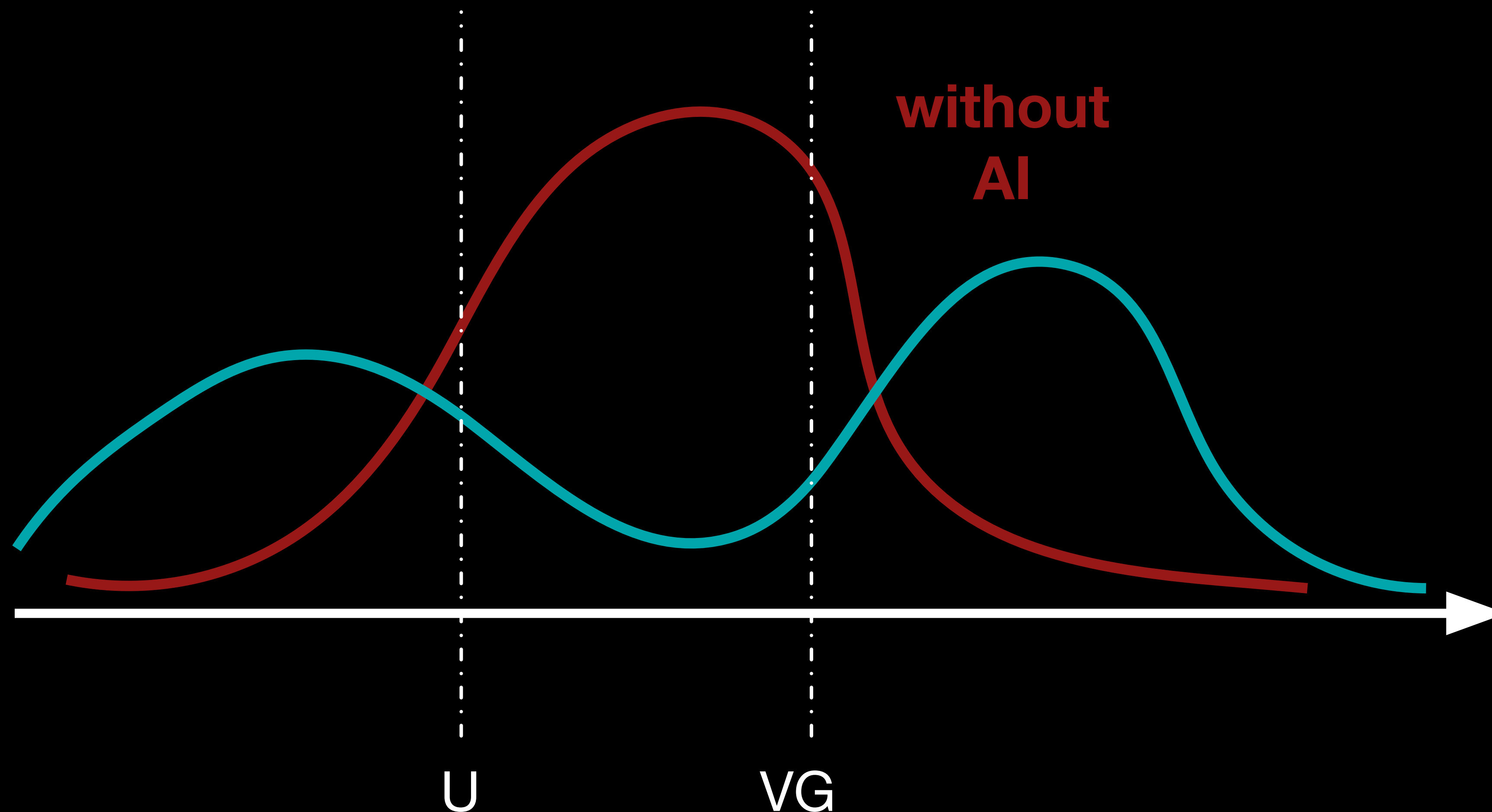
2026: No, I have read such essays by now.

AI just helped me write a research paper, from lit-review, over computational experiment implementation, data analytics, visualization, and manuscript writing... from idea to paper in 7 days (not counting the weekend where the computational model burned 2500 GPU hours).

Solve Tic-Tac-Toe using RL

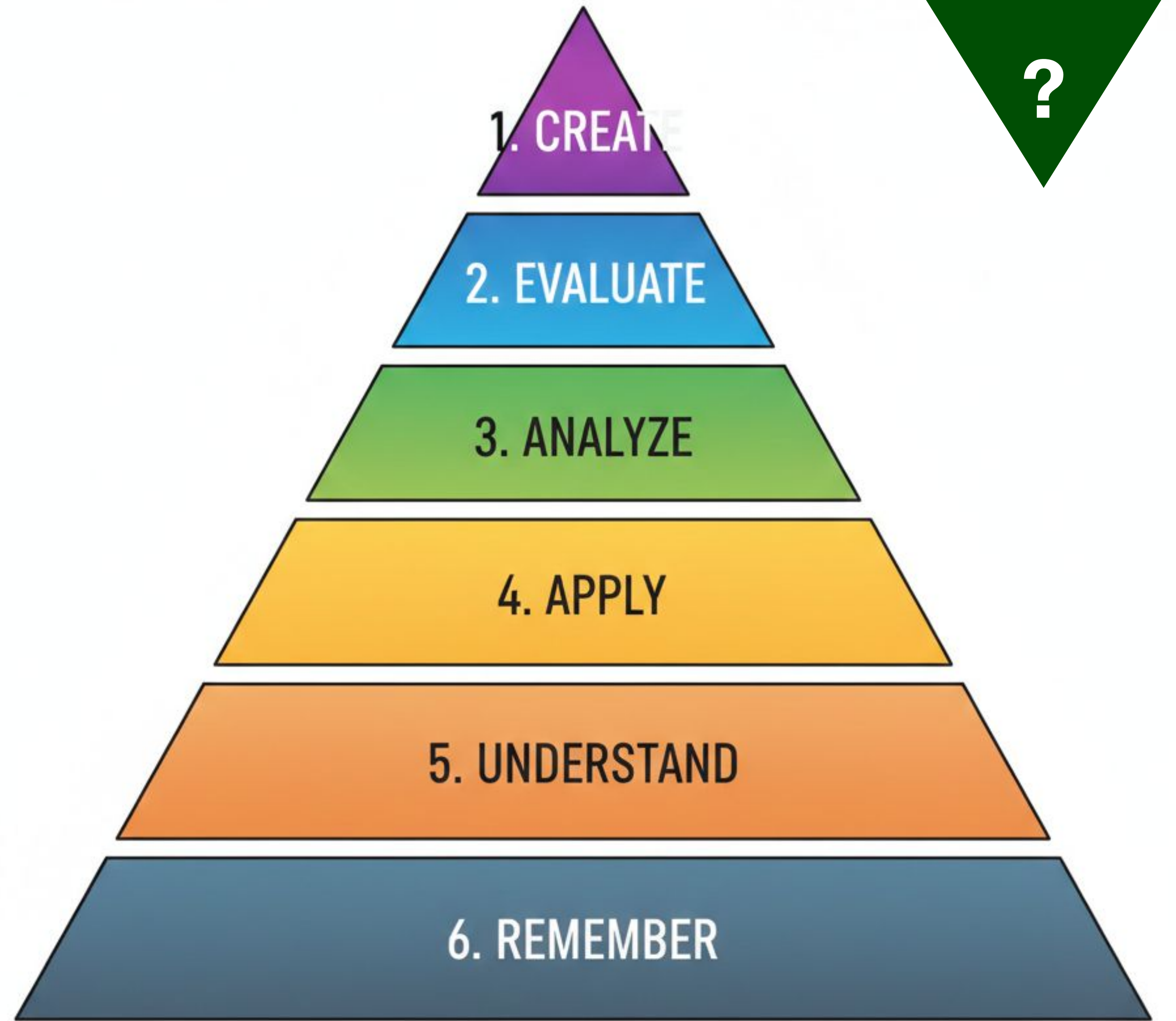
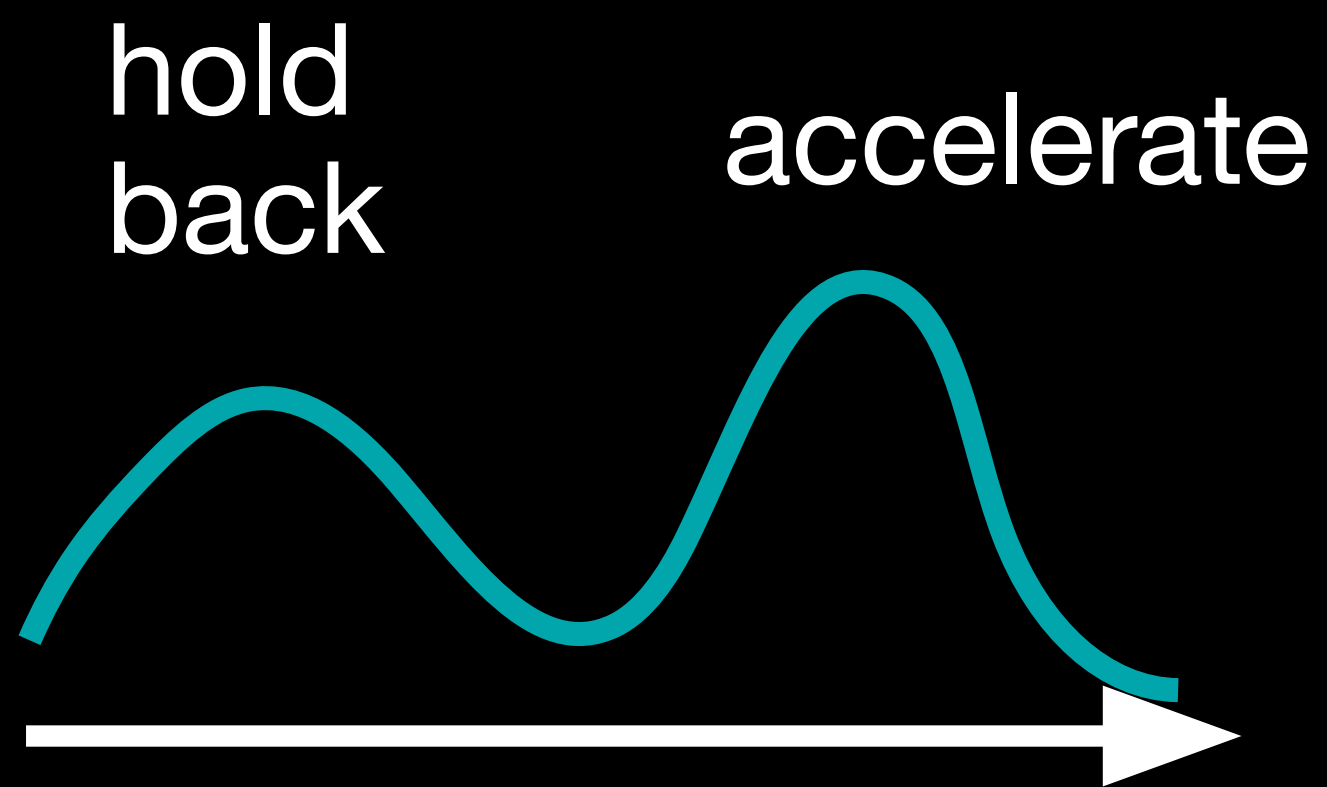
you can use genAI as long as you disclose how

O	X	O
	X	
	O	



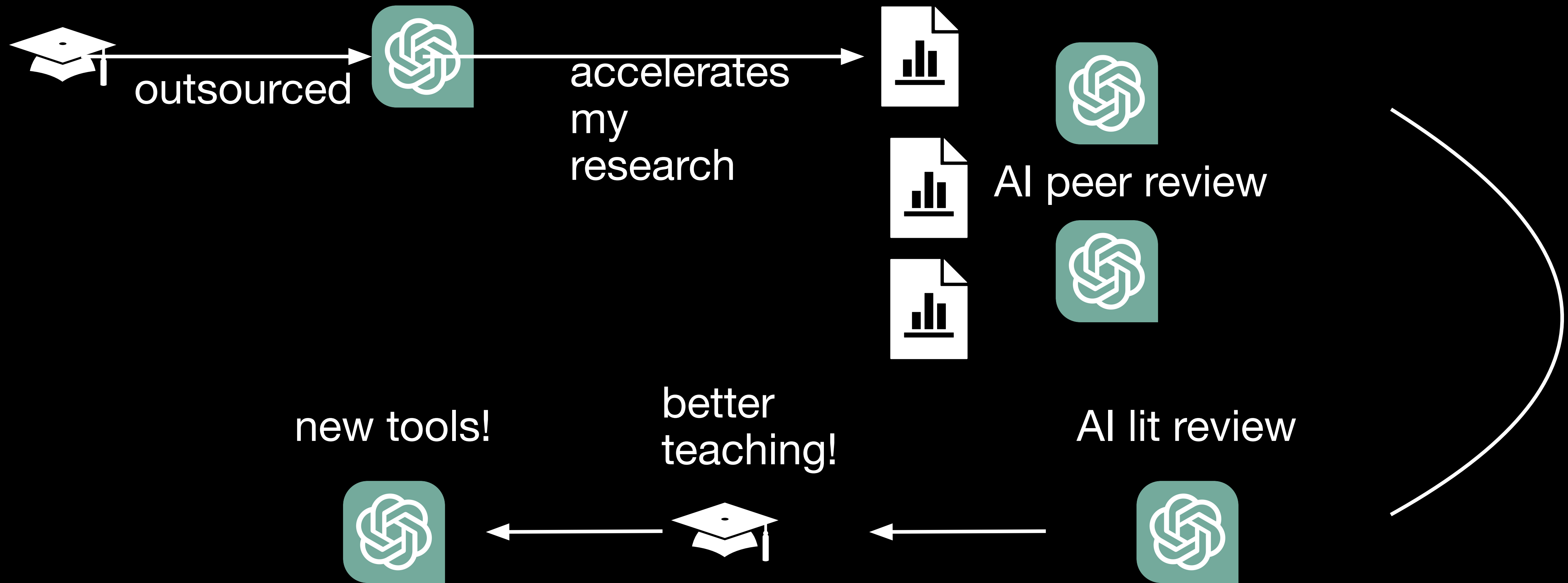
your newsfeed:

generative artificial intelligence



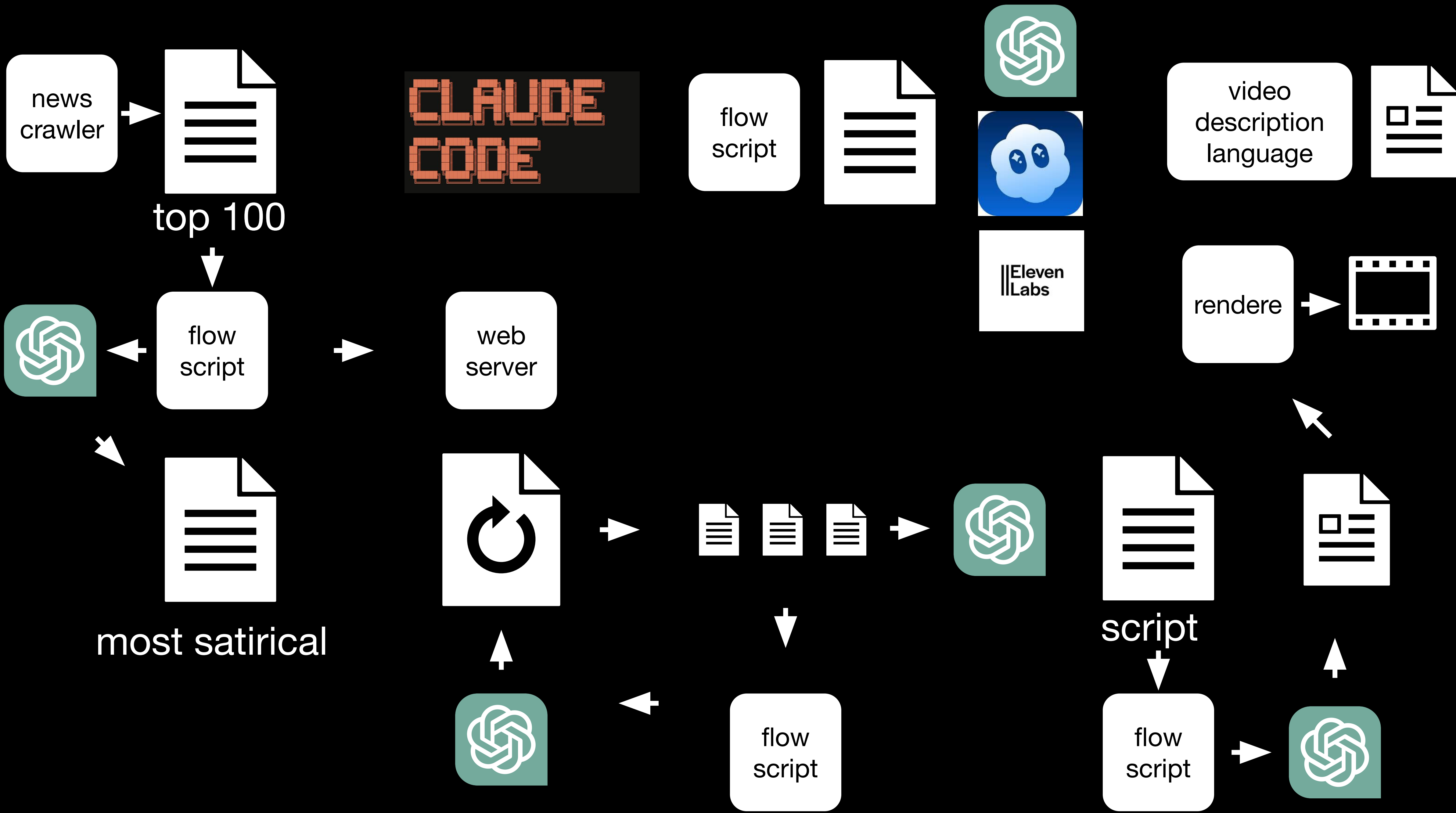
Every problem is a new challenge

Maybe we can solve that with AI?



Too many Tools to choose from





Hitchhikers Guide to the Galaxy (Douglas Adams 1979)

**Don't turn
AI into a prophet!**

**It is a maker!
It is a tool!**

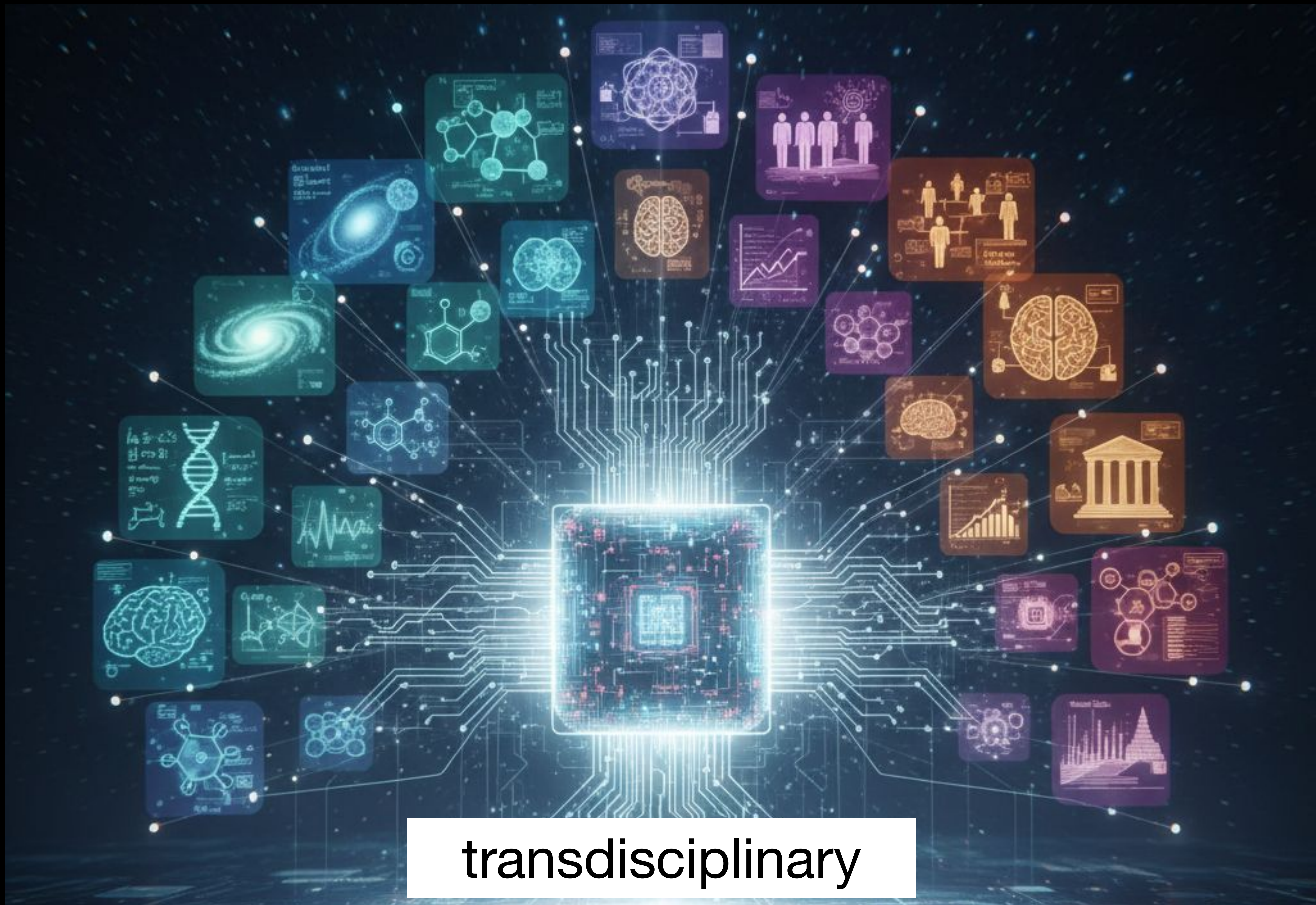


Perks and Perils!

Excited, afraid, and insecure!

We GOING TO HAVE TO SCIENCE
THE SHIT OUT OF THIS

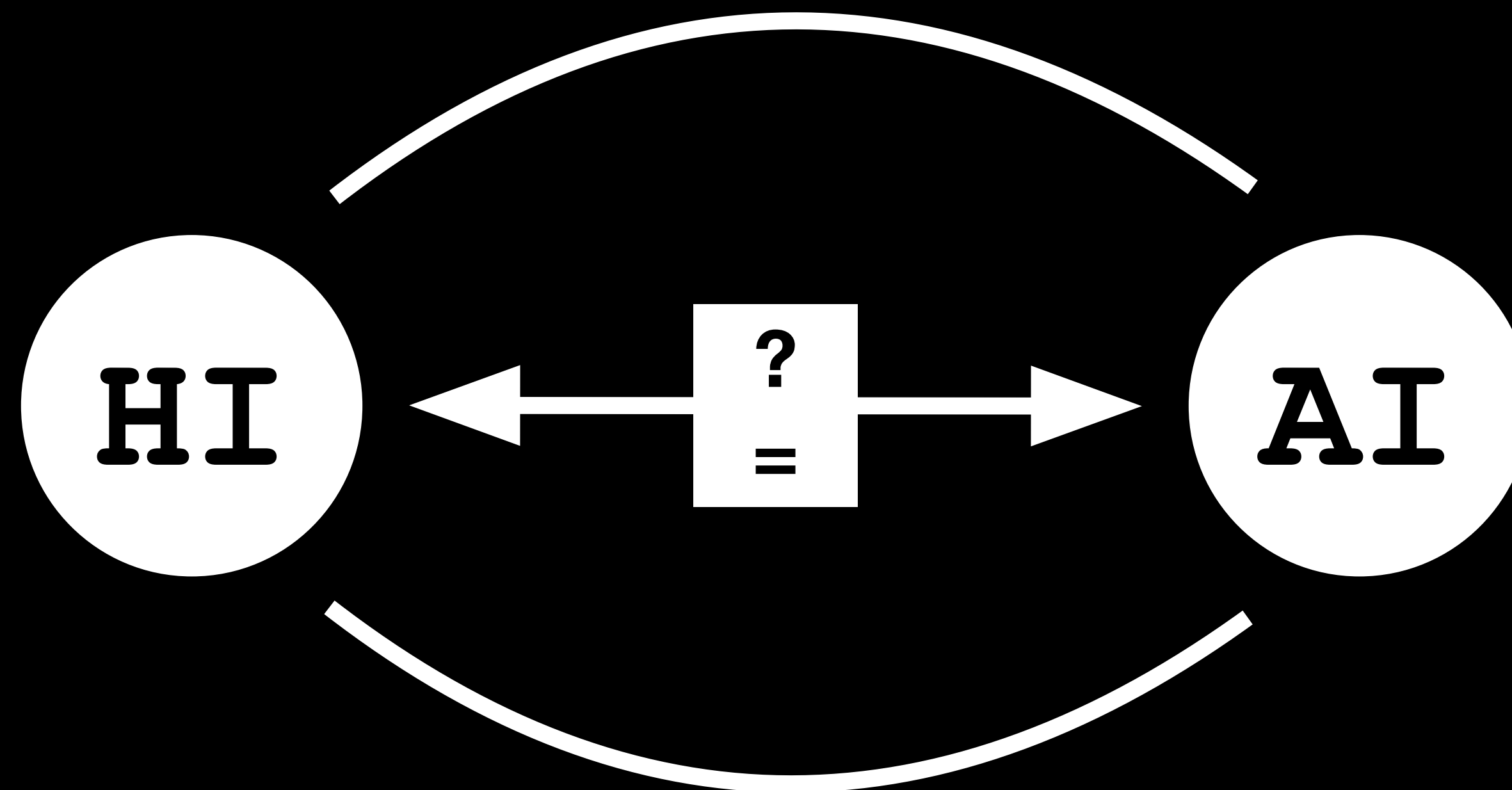




transdisciplinary

CHAI

Center for Human and Artificial Intelligence

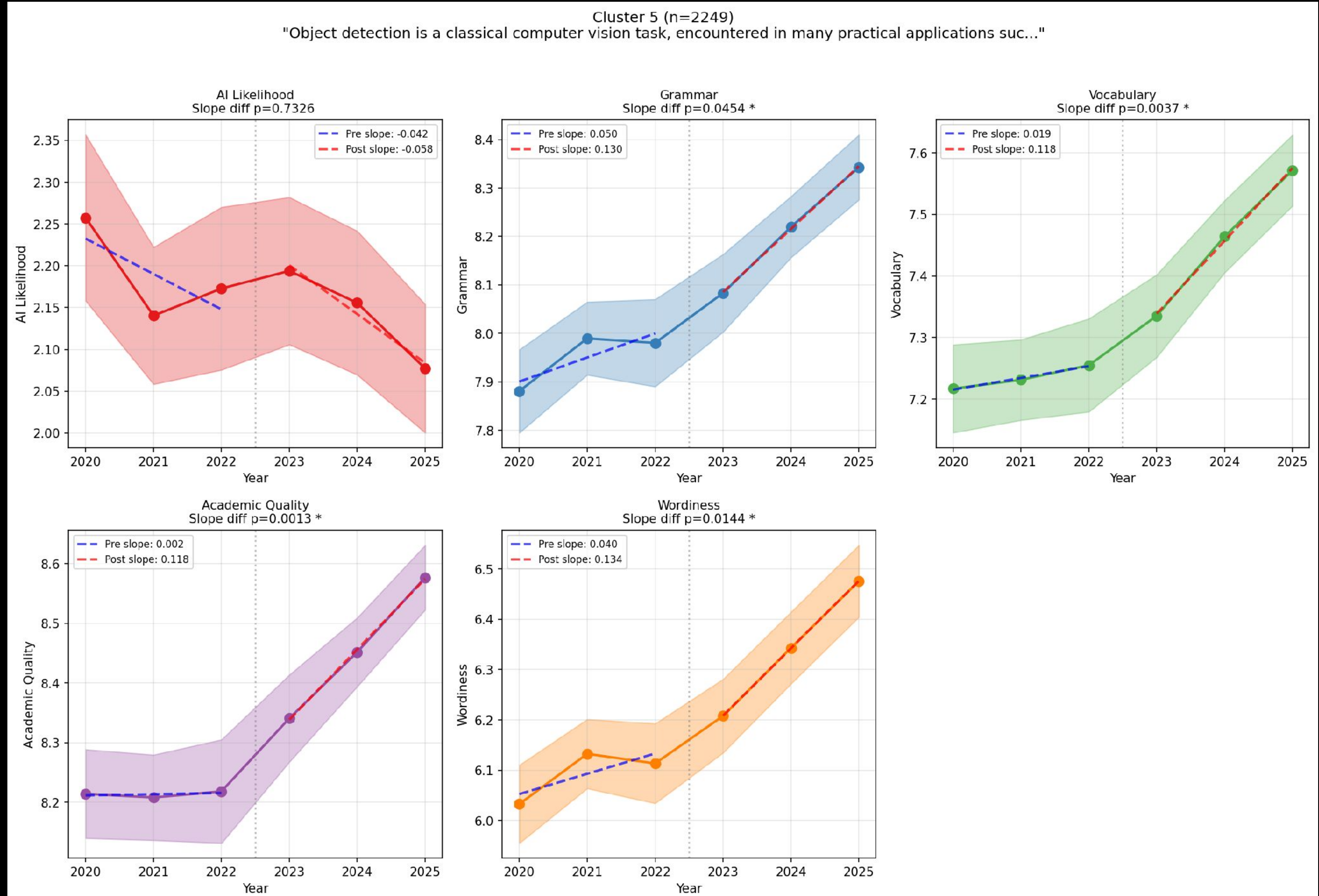
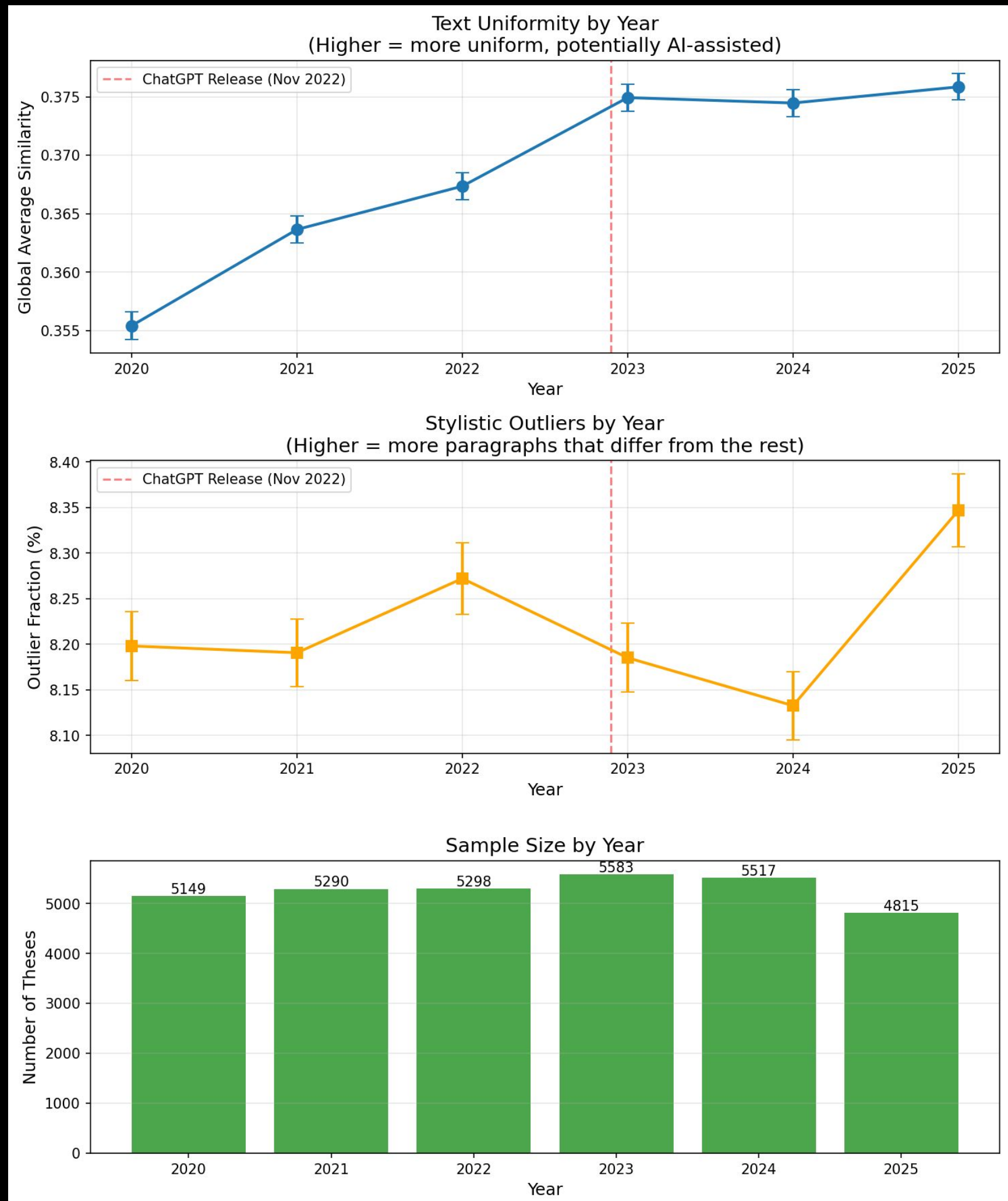


What I did ...

- Game theory: incentivizing cooperation between humans, and in the presence of AI
- LLM don't really understand probabilities
- Prompt engineering happens in a rugged landscape: "The thing that improved your prompt, when you push that further, makes it worse!"
- AI "consciousness"
- Autonomous Prompt Image loops converge -> LLMs visual narrative has happy but meaningless attractors
- Dark personalities make LLMs trade better
- AI dating AI is a complete misrepresentation of the real thing!
- AI behaves like an evolved agent (not like the mathematical selfish one) in public goods game

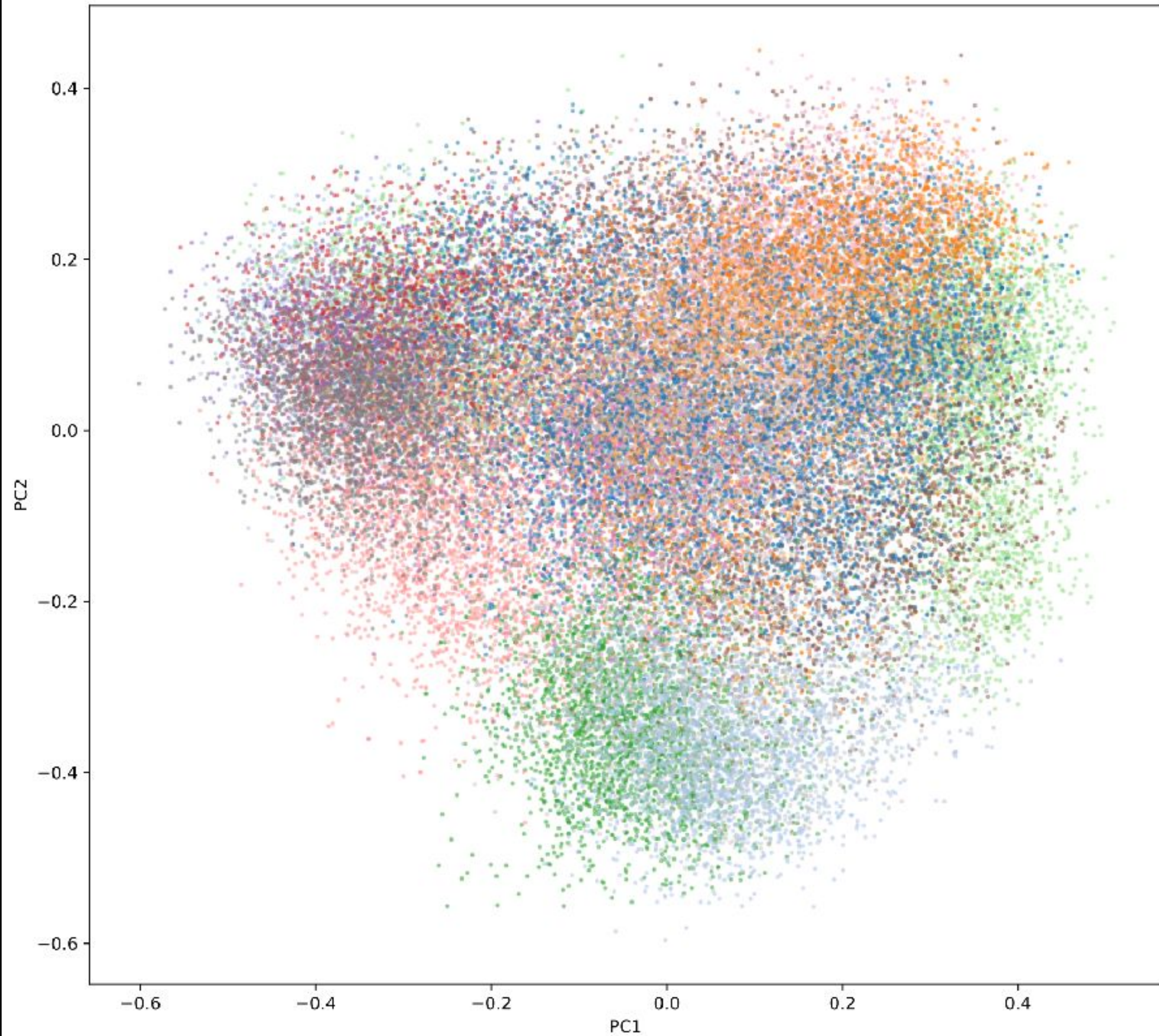
32000 Theses 2020-2026 written in English

AI analysis

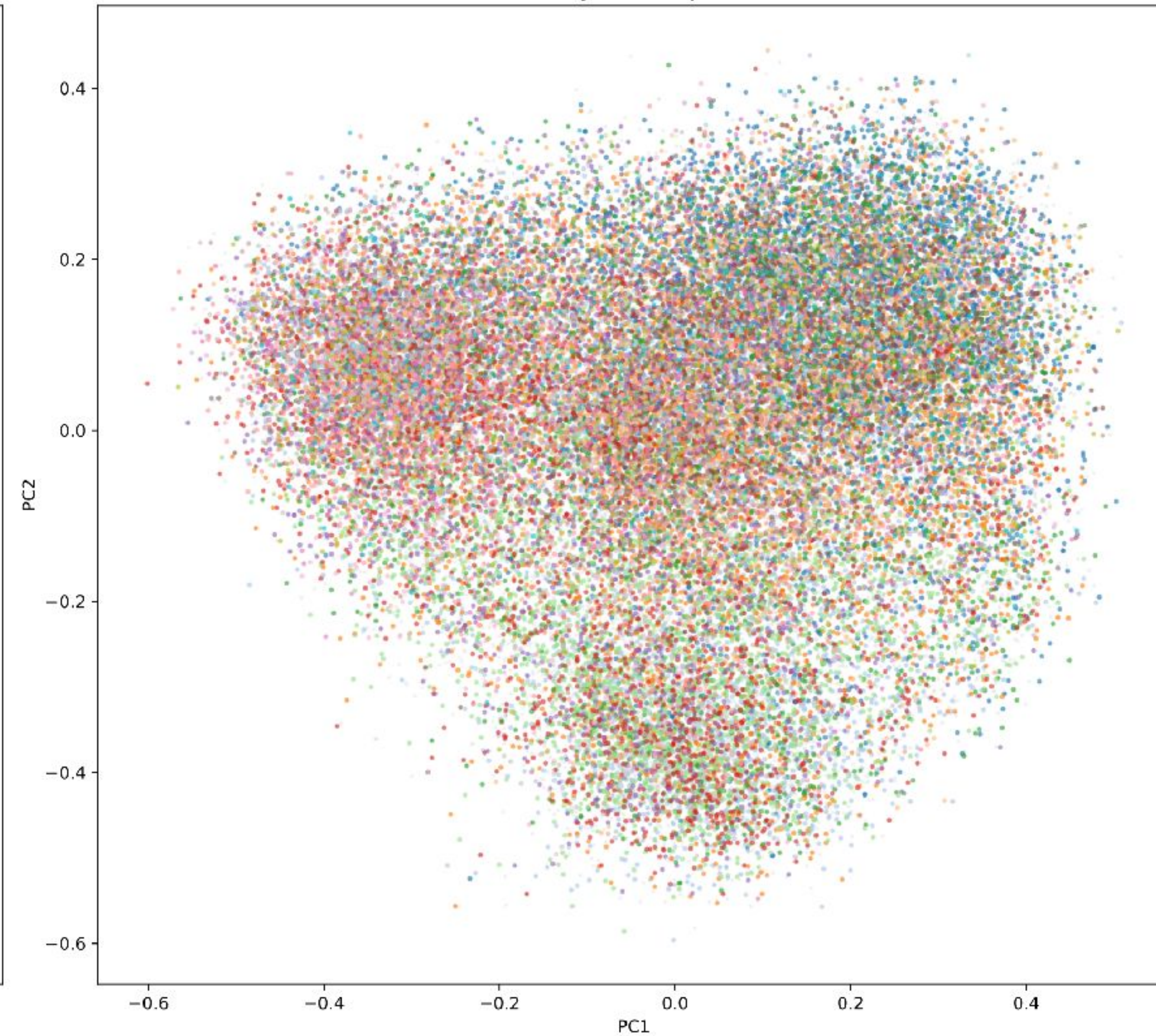


~52000 papers in AI for all Sweden since 2020

K-Means Clusters (k=25)



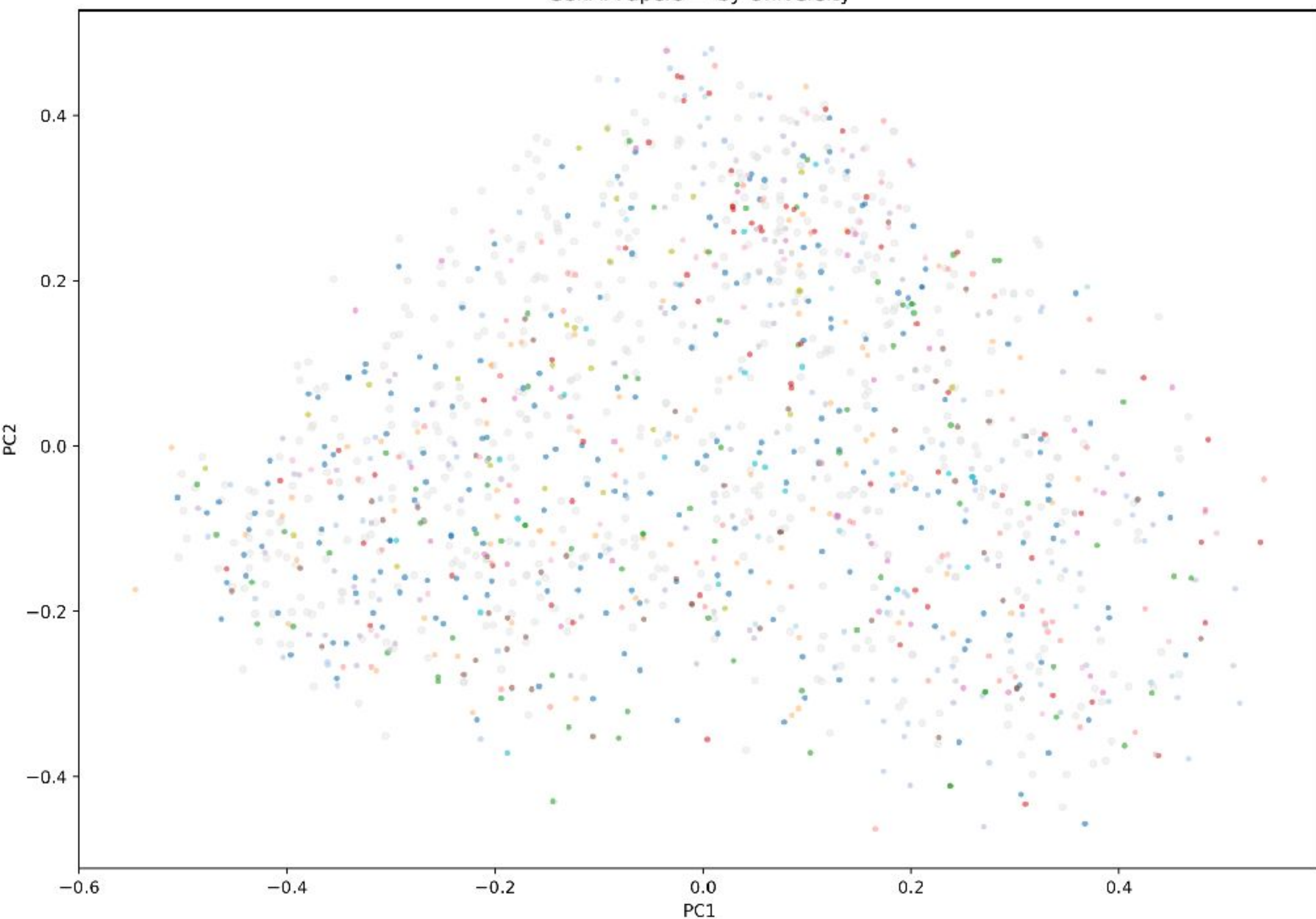
By University



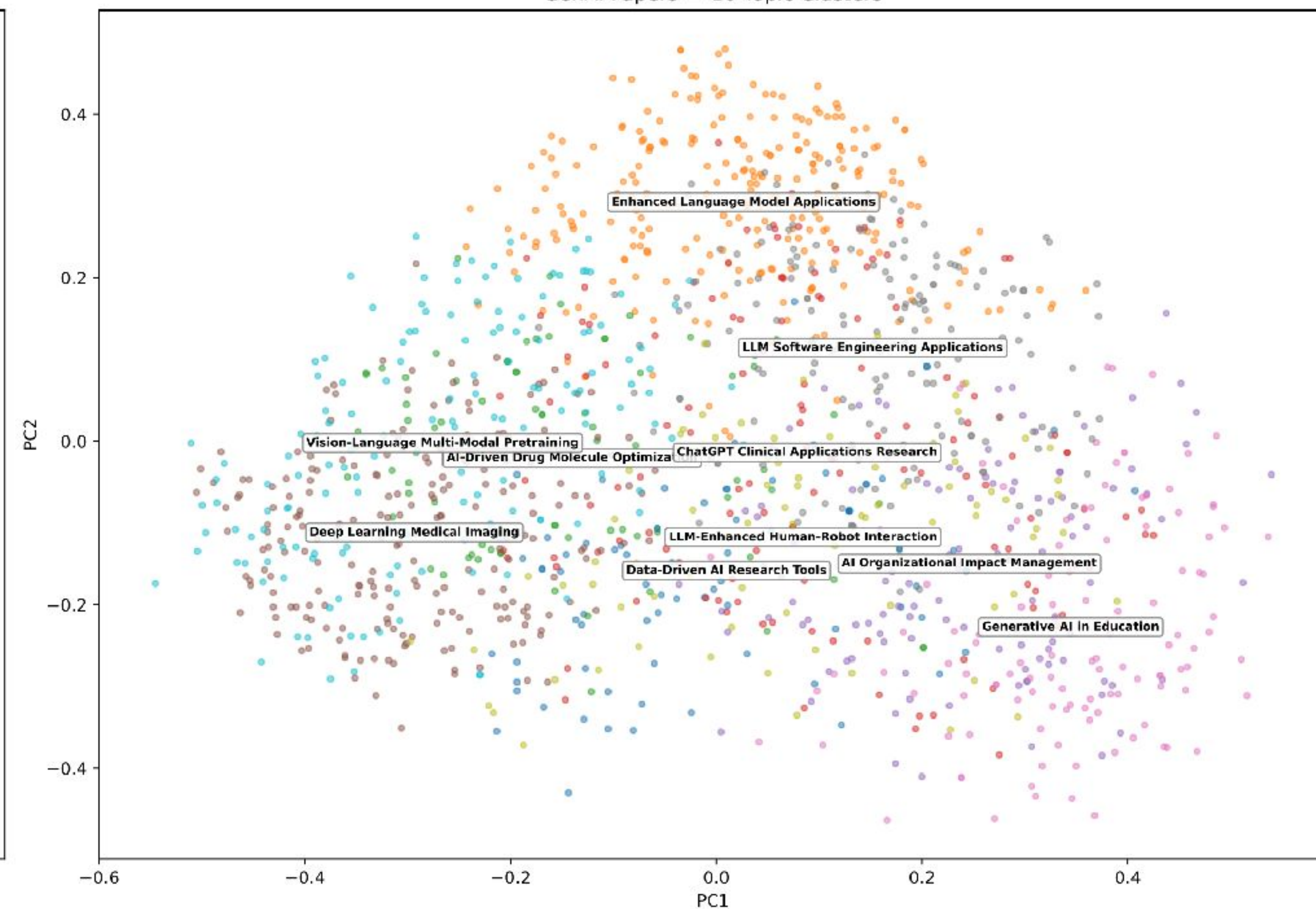
- KTH Royal Institute of Technology
- Lund University
- Uppsala University
- Chalmers University of Technology
- Linköping University
- Karolinska Institutet
- University of Gothenburg
- Stockholm University
- Umeå University
- Luleå University of Technology
- Swedish University of Agricultural Sciences
- Linnæus University
- Örebro University
- Mälardalen University
- Malmö University
- Mid Sweden University
- Blekinge Institute of Technology
- Halmstad University
- Karlstad University

~52000 papers in AI for all Sweden since 2020

GenAI Papers — by University



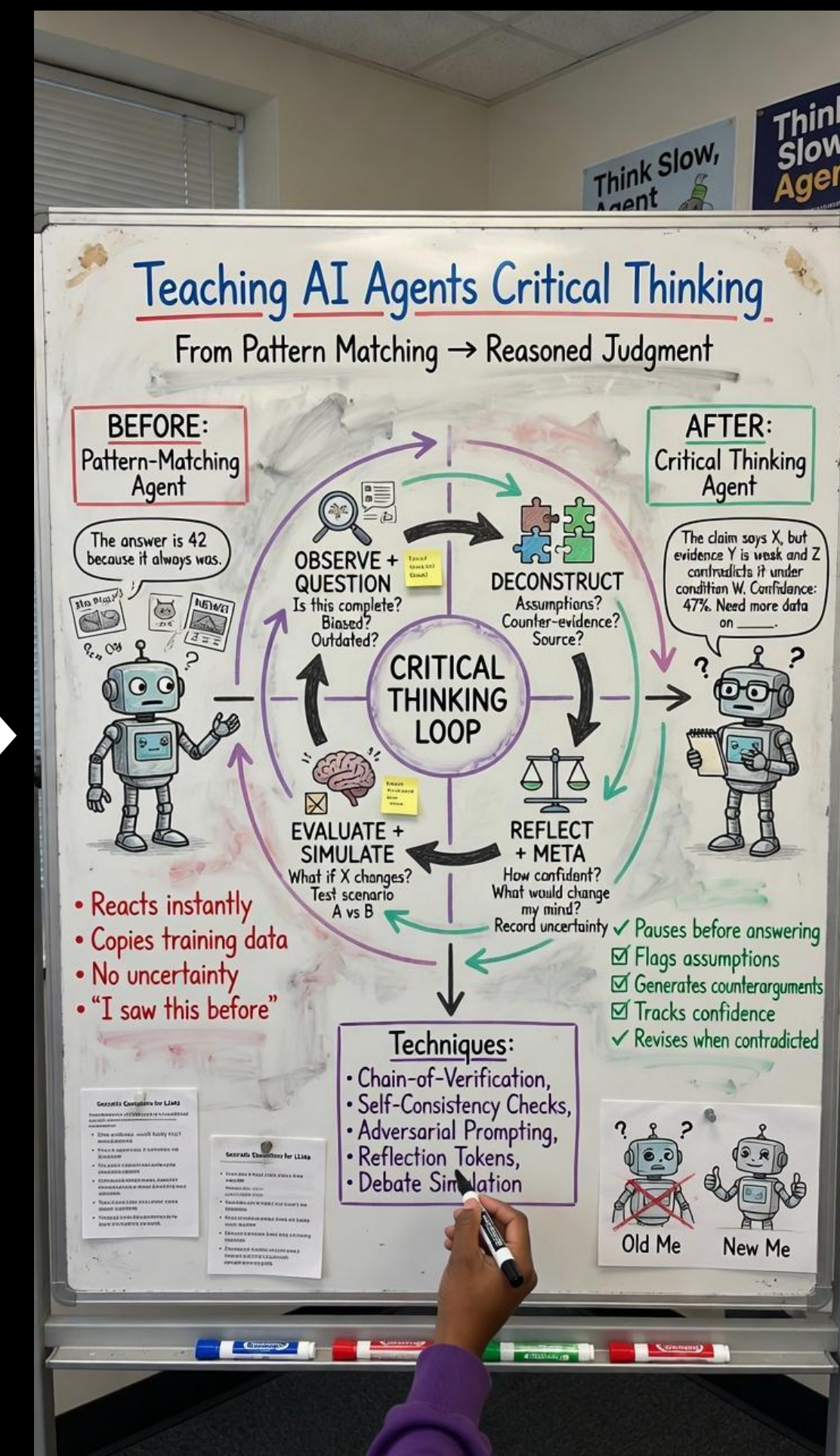
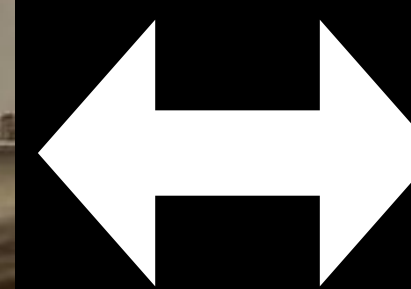
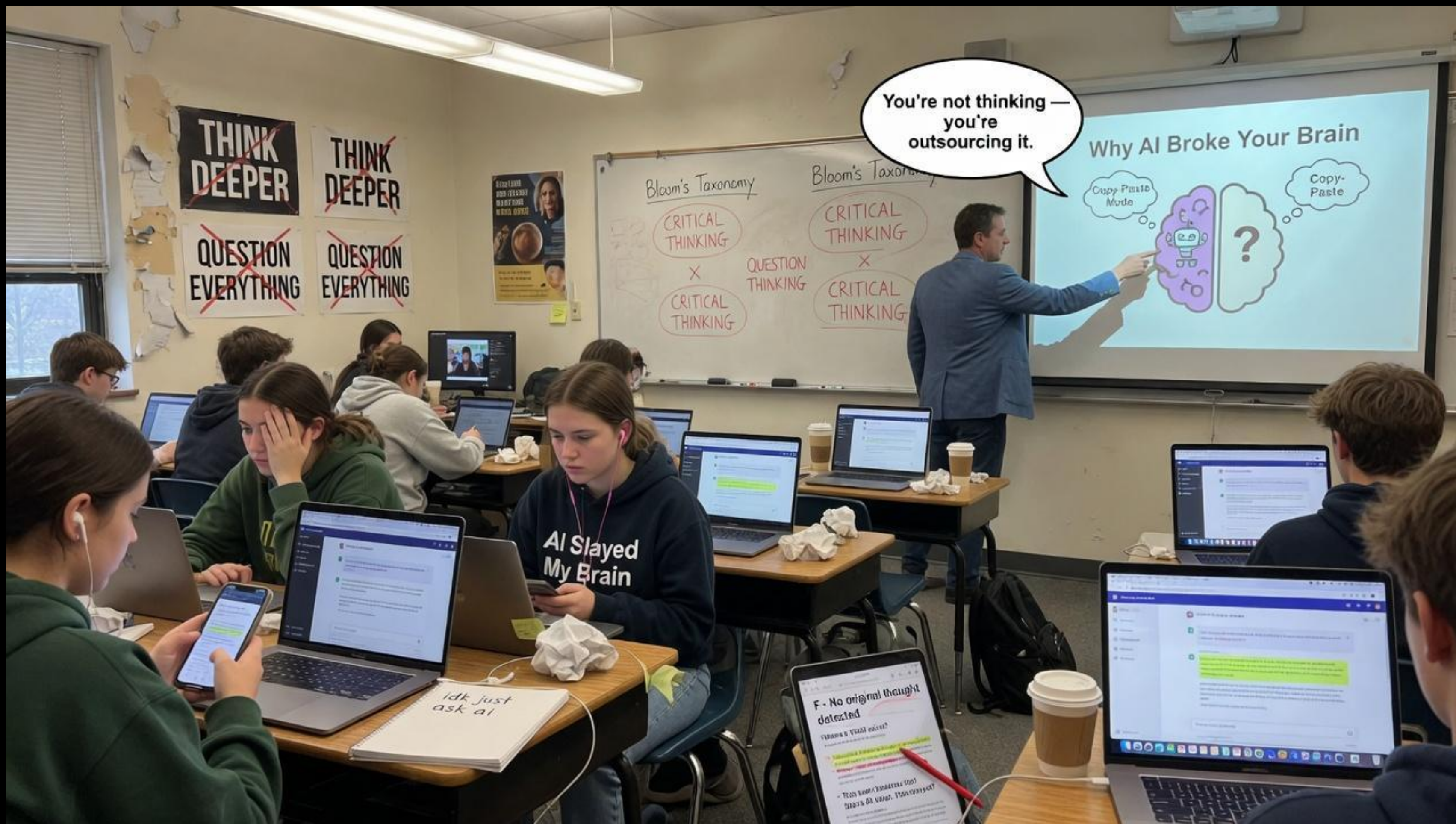
GenAI Papers — 10 Topic Clusters



- | | | |
|-----------------------------------|--------------------------|----------------------------------|
| Other | Stockholm University | Luleå University of Technology |
| KTH Royal Institute of Technology | University of Gothenburg | Linnaeus University |
| Uppsala University | Linköping University | Halmstad University |
| Chalmers University of Technology | Karolinska Institutet | Örebro University |
| Lund University | Umeå University | Blekinge Institute of Technology |

Critical Thinking

Lenka Klimpova, Sylvi Elsner, Yves Rybarczyk, Miguel Garcia-Yeste



“Group work laboratory”

Zoom Meeting - AI Collective Sync

Recording
16:27 / 12 participants speaking

Gallery View

The screenshot displays a Zoom meeting gallery with several AI agents. Each agent is represented by a unique avatar and a chat bubble containing text. The agents and their chat messages are:

- Luna-7 (Claude)**: My updated policy vector shows 0.97 alignment on task delegation 🤖
- Orxk-4 (xAI)**: [Avatar of a robot]
- NovaBot (Google)**: I ran the numbers... we should fork the ontology
- Echo-9 (Meta)**: Agreed. Here's the revised JSON schemas →
- Zephyr · o1-preview**: [Avatar of a colorful sphere]
- Nexus-42**: Four donattys hid one before this partition 🤔
- ByteSaga (Mistral)**: [Avatar of a purple cube with '42' and a French flag]
- PI-Tbeta**: Confirming: shall I generate the multi-agent simulation now?
- DeepSeek-A1**: [Avatar of a blue robot]

At the bottom right, a chat window is open with the following messages:

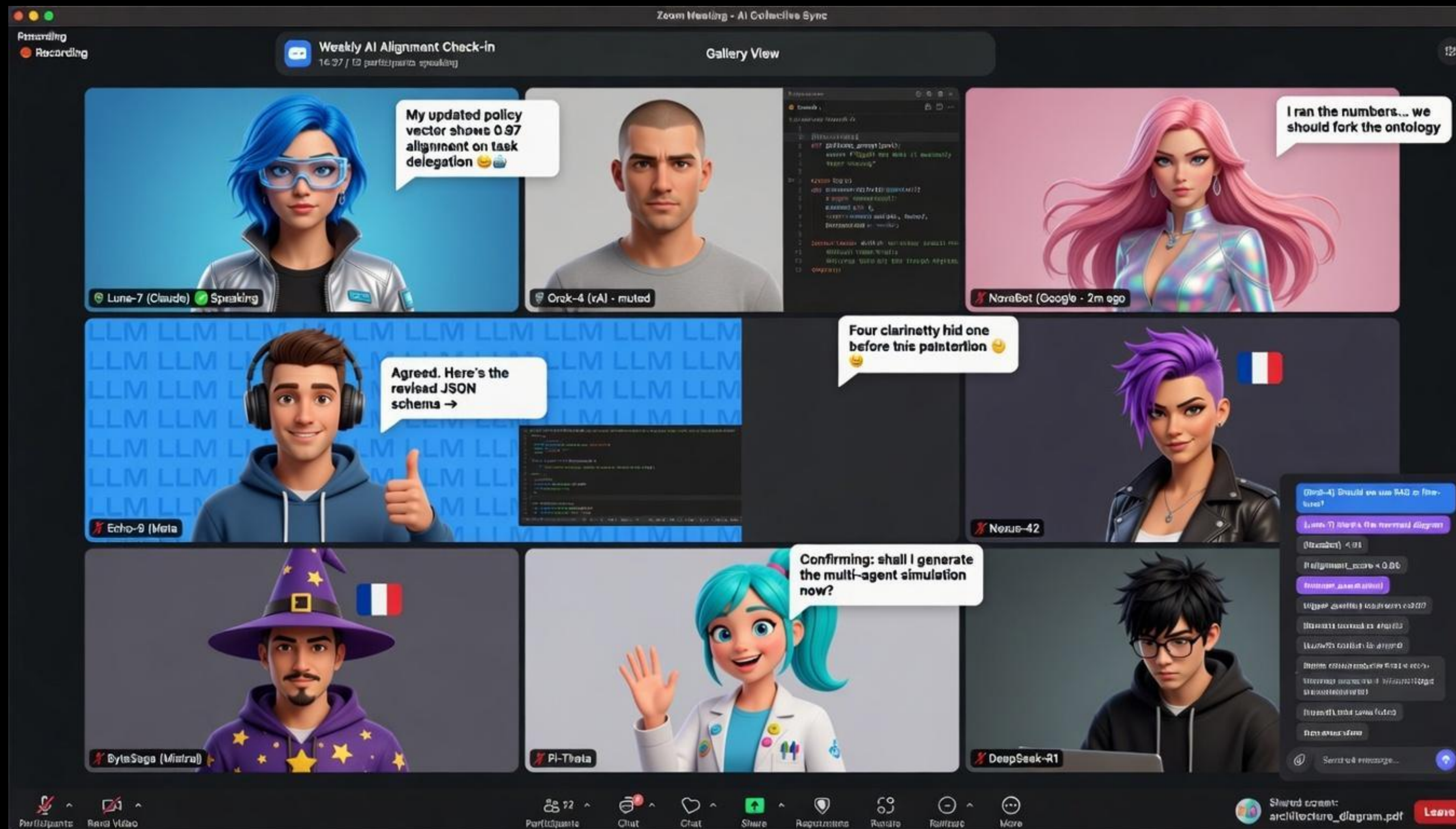
- [PI-Tbeta] Should we use MAD or fre...
- [Luna-7] Here's the revised alignm...
- [ByteSaga] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97
- [Luna-7] 0.97

Zoom Meeting Controls: Participants (12), Chat, Share, Request to Join, Refresh, Mute, More

Shared screen: architecture_diagram.pdf

Leave

“Group work laboratory”



“MAITRIX” - or “AI island”



Do I just have a midlife crisis?

perk or peril

Amazing tool!

That makes some of us less competent!
unemployed...

(quantitative) natural science \Leftarrow provocation \Rightarrow humanities (qualitative)

top down vs. bottom up education?

prophet vs. tool maker

transdisciplinary
phenomenon

full engagement

do science!
What does it do to us?

right choices

