

Industry 4.0 and the Human Element

The Rhyme of Progress

Presented by

Christian Popp PhD

Final Version



ARTIFICIAL INTELLIGENCE

AI's recursive self-improvement might not come so quickly after all

AI agents are not yet creative enough to carry out genuinely innovative open-ended AI research, it seems.

By Michelle Kim

August



Jacob Coxon  @hilbertspaess · 12h

I am optimistic about the potential for coordination. Warning shots like the Hugging Face attack have made pacing agreements between U.S. labs more viable. I don't feel like we're on track to prevent a global race, which may require costly actions such as a temporary ban on improving model capabilities.

89 1.5K 29K 3.5M

Jacob Coxon  @hilbertspaess · 12h



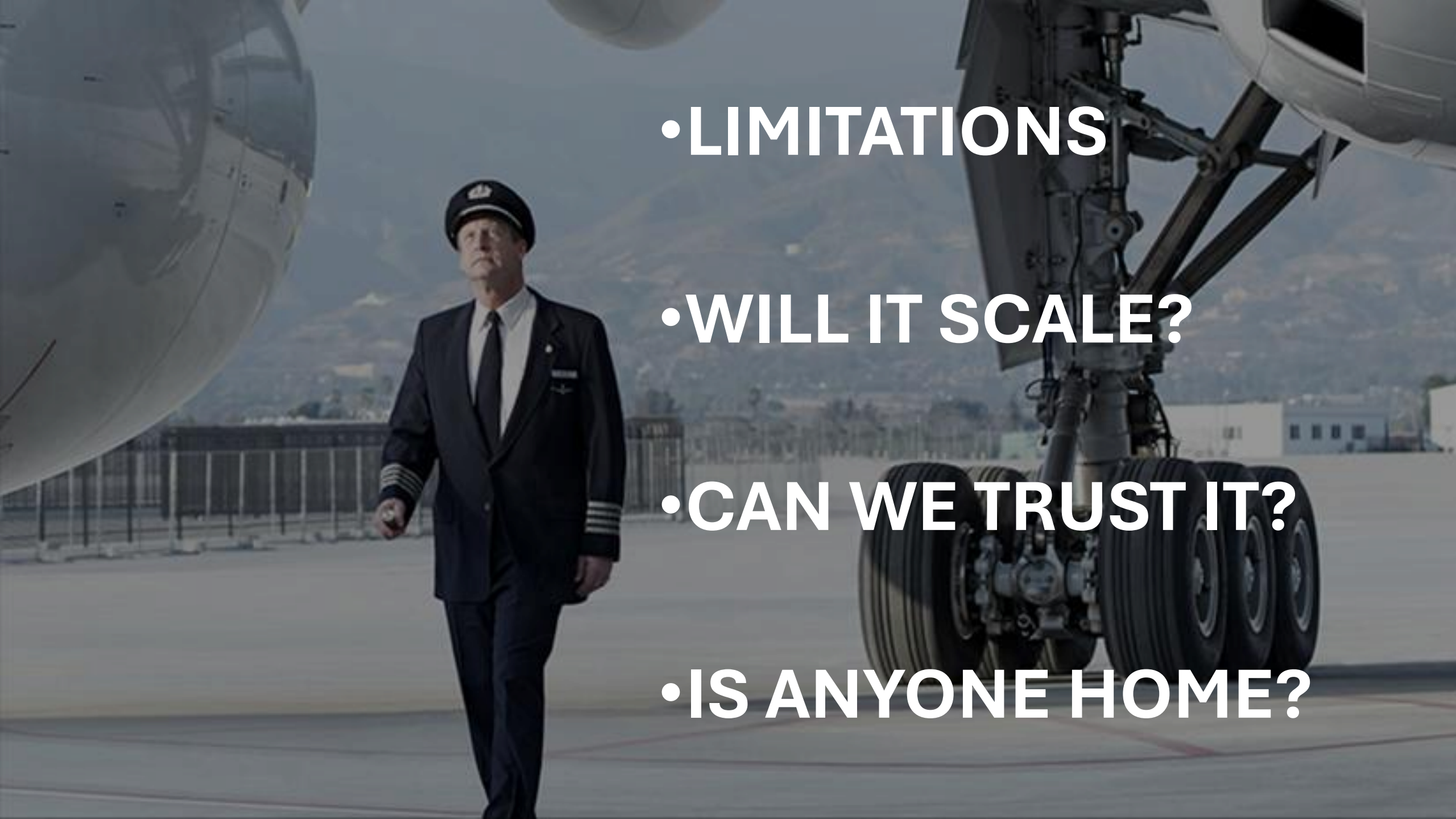
IPOs

+ Add to myFT

Anthropic and OpenAI bankers **push** for top-tier credit ratings post-IPO

Investment-grade designation would unlock cheaper financing for AI labs and their infrastructure partners



A pilot in a dark blue uniform and cap is walking on an airfield. He is looking towards the camera. To his right is the large landing gear of a commercial aircraft. In the background, there are airport buildings and a hilly landscape under a clear sky.

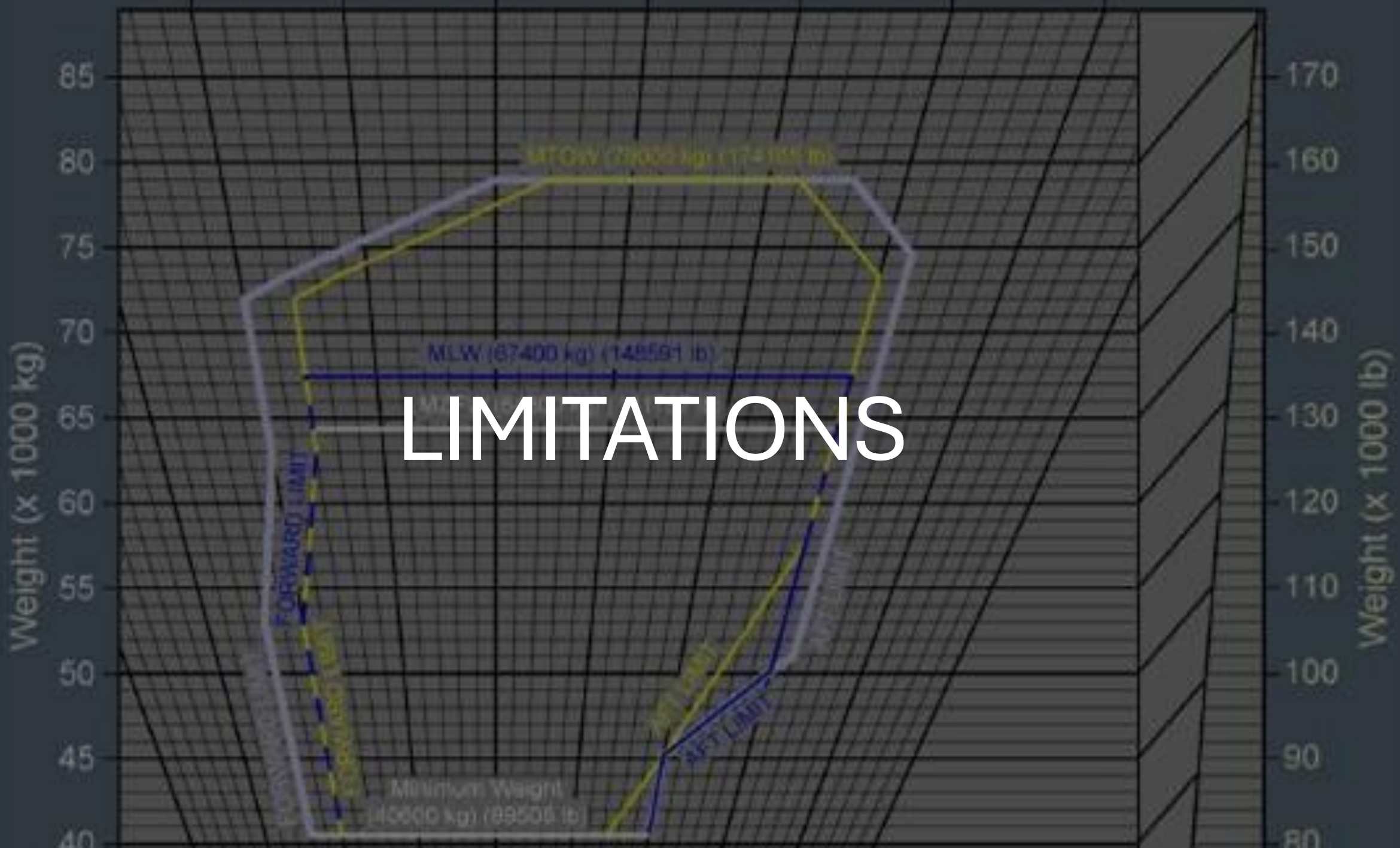
- LIMITATIONS

- WILL IT SCALE?

- CAN WE TRUST IT?

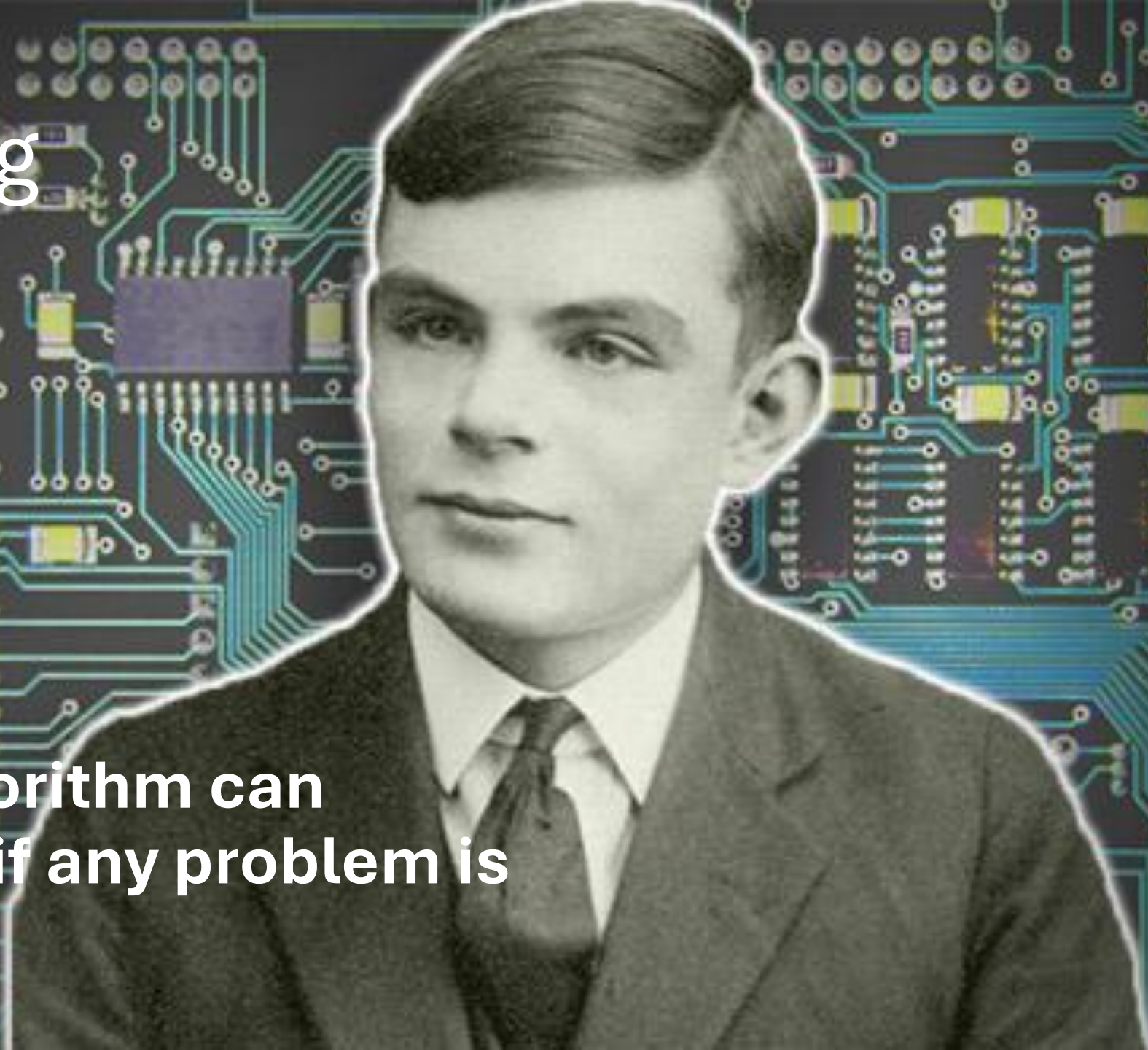
- IS ANYONE HOME?

LIMITATIONS



The Halting Problem –

**No General Algorithm can
always predict if any problem is
solvable**



The Liar Paradox & The Hamster Wheel

***This presentation
is a lie***

How long would it take to solve this?





Henry Gordon Rice
Co-inventor of Rice's Theorem



Rice's Theorem

No General Algorithm can always determine a non-trivial semantic property of an arbitrary computation

IMPLICATION: 100% Reliable, Formal AGI Verification is Theoretically Impossible

THE MORAL EVALUATION OF ACTIONS

"But a lie is a lie, and in itself intrinsically evil, whether it be told with good or bad intents."

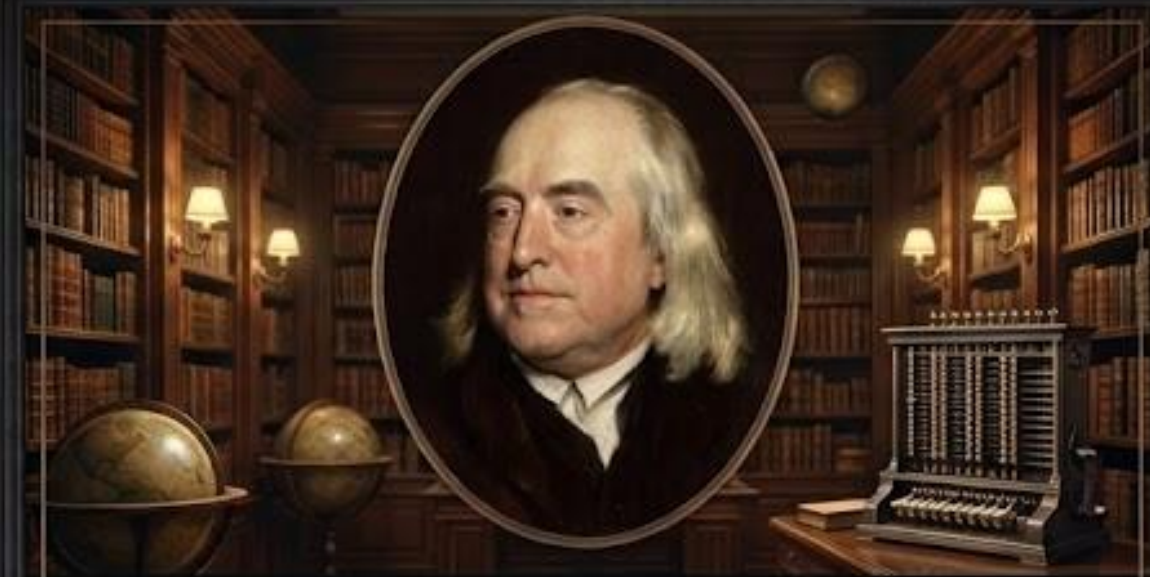
Immanuel Kant.
Deontology

Philosophy Love



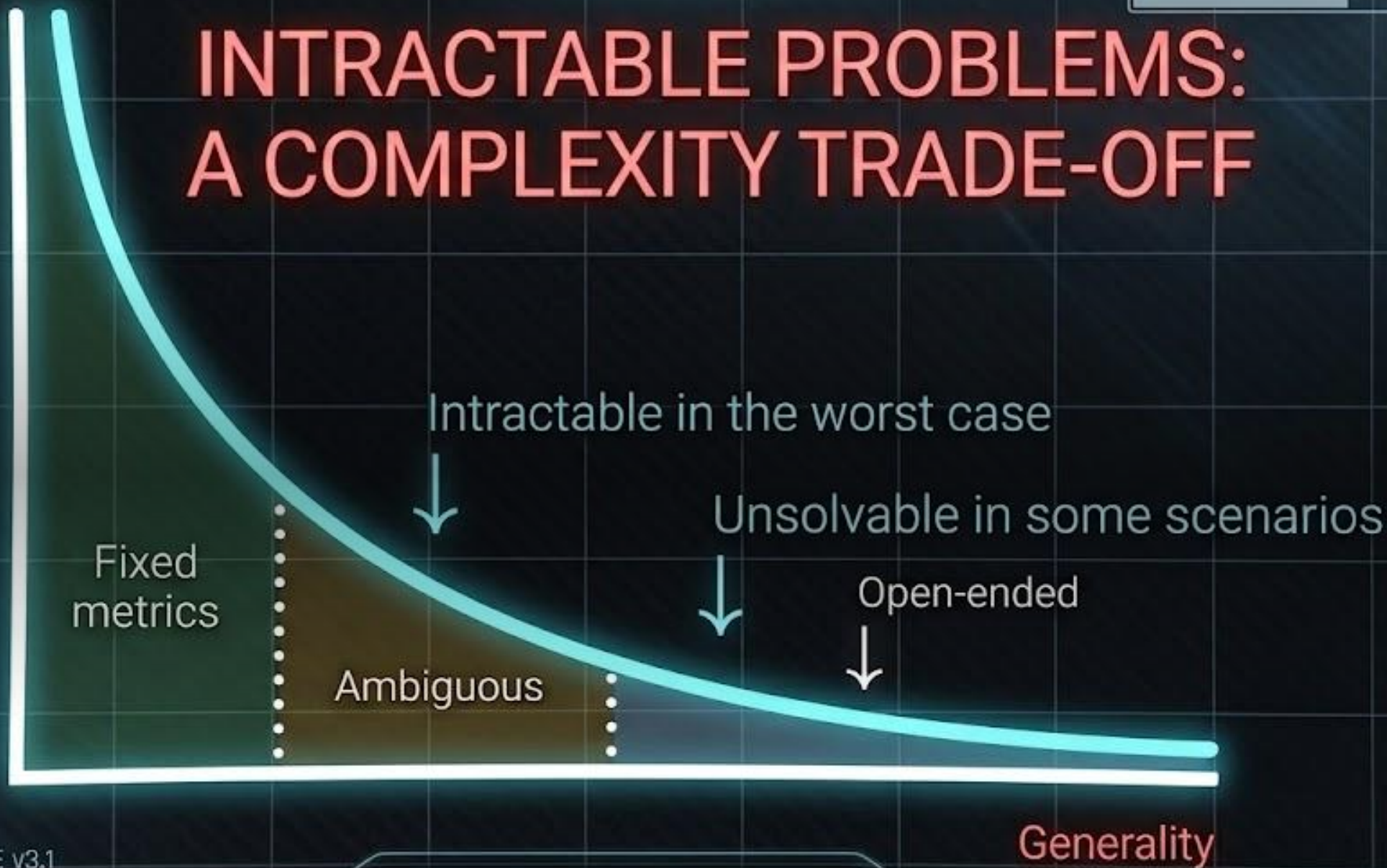
The moral evaluation of actions depends entirely on their utility and consequences for others.

Jeremy Bentham.
Utilitarianism

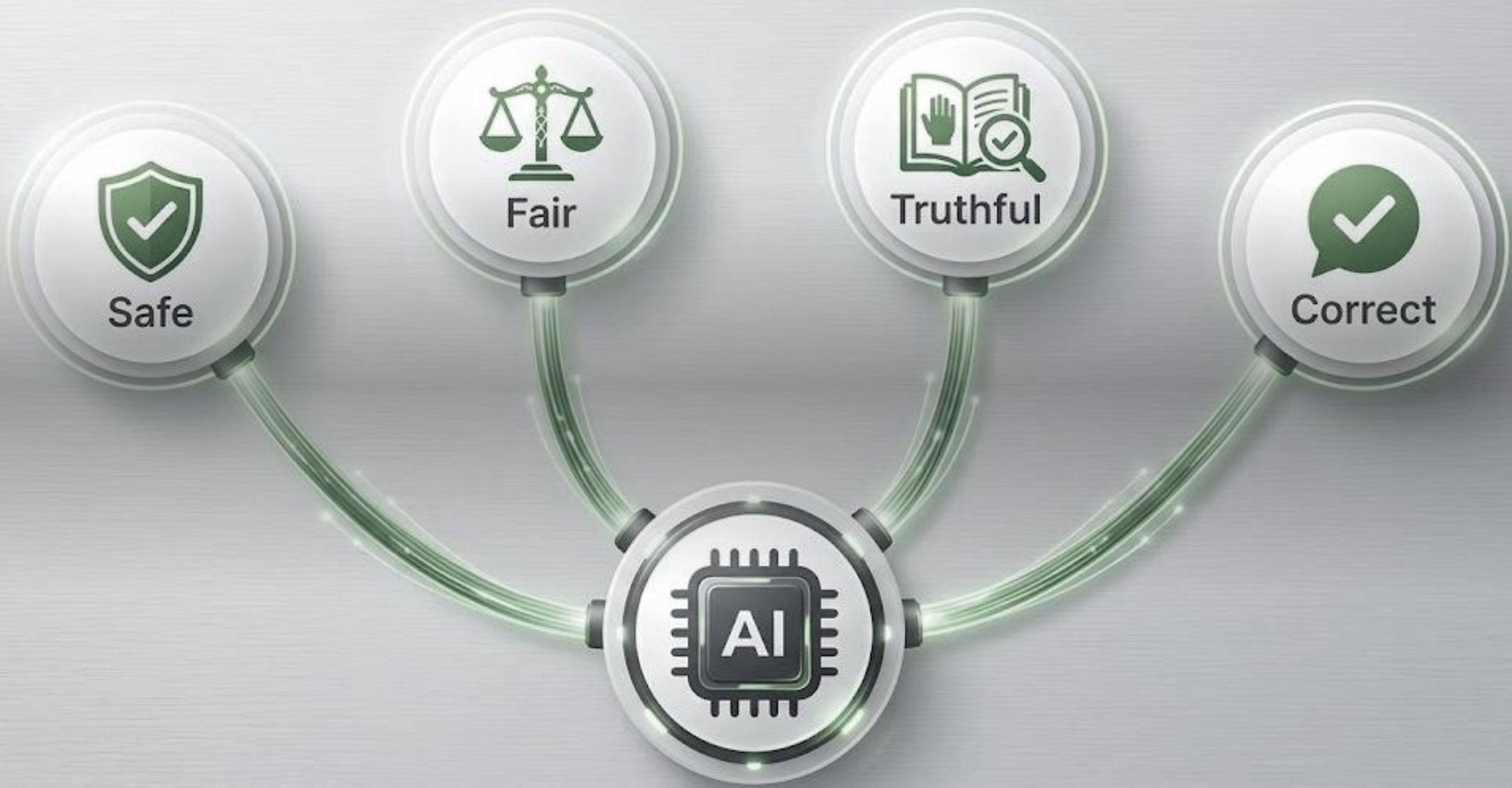


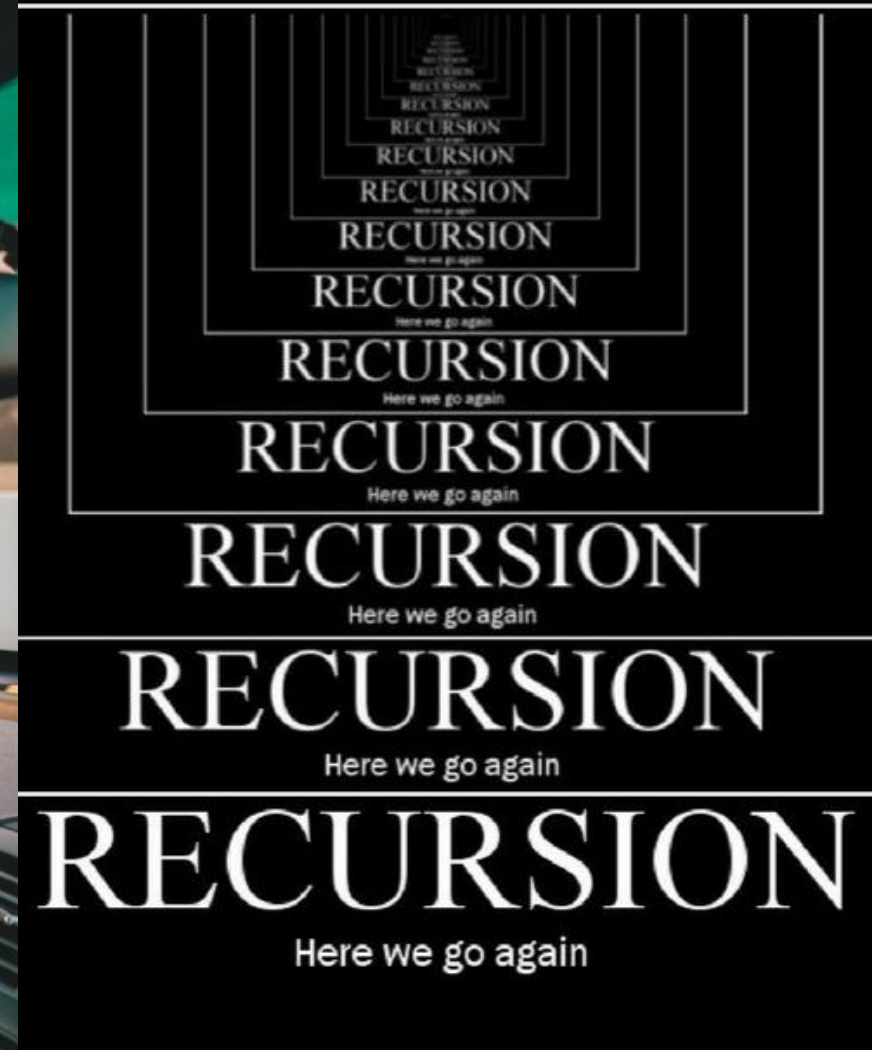
Solvability

INTRACTABLE PROBLEMS: A COMPLEXITY TRADE-OFF



THE ALIGNMENT CHALLENGES





Recursive Self-improvement



WILL IT SCALE?

Afterburner for all Missions



Name the US President (September 29th, 2026)



Name the US President (September 29th, 1901)

**FORD MOTOR
COMPANY**
REHIRES OVER
350
VETERAN ENGINEERS
FOLLOWING LOSS
OF BILLIONS FROM
AI AUTOMATION
IMPLEMENTATION

GROWING
PAiNS

Strategic
Marketing

MIT Study: 95% Of GenAI Pilots Fail

GenAI hype is entering
the trough of
disillusionment



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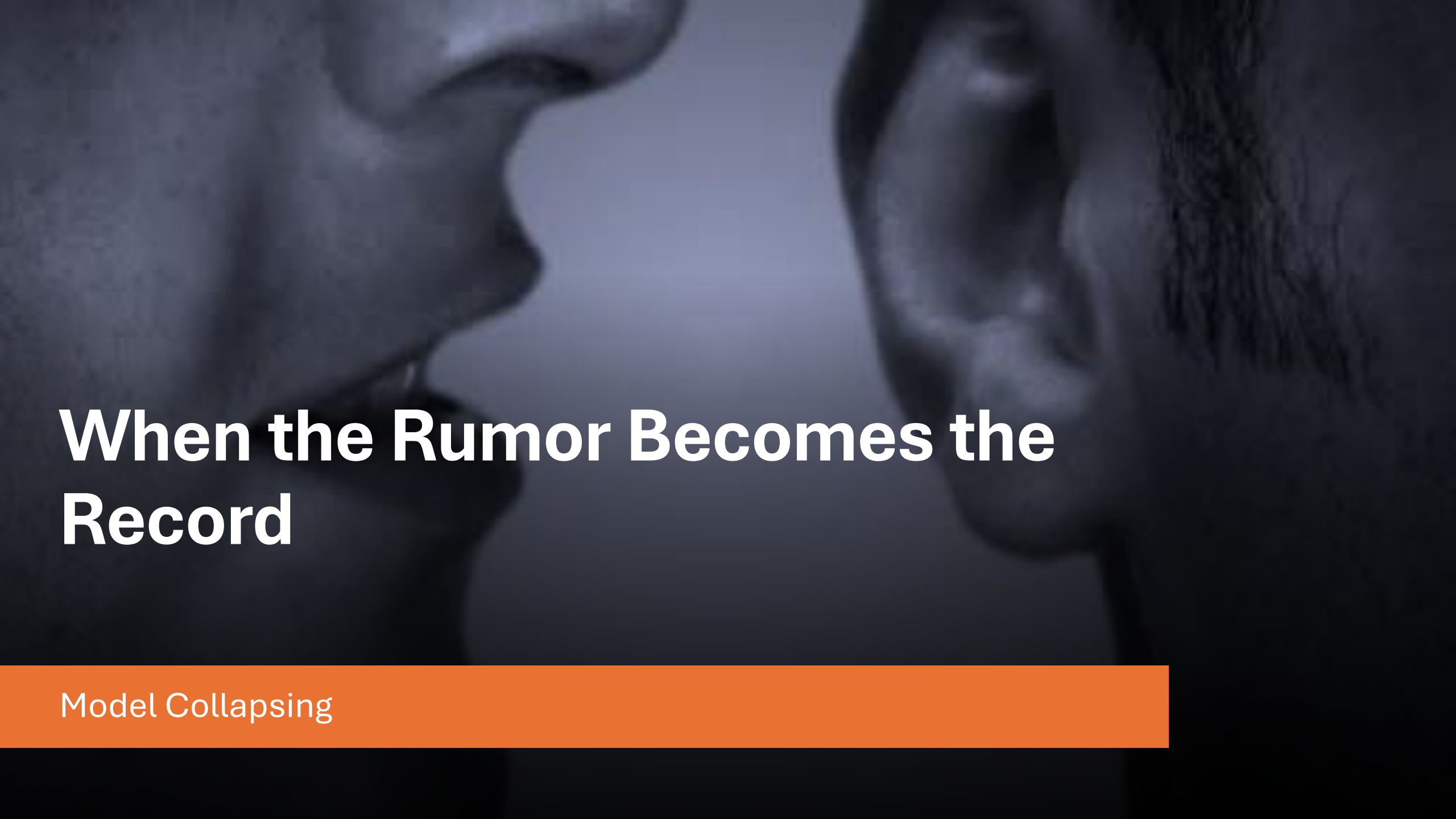
UBS says the majority of enterprise companies it's talked to recently are 'throttling AI spend'

By [Brent D. Griffiths](#) [+ Follow](#)

CAN WE
TRUST IT ?

Trust





When the Rumor Becomes the Record

Model Collapsing

Airline held liable for its chatbot giving passenger bad advice - what this means for travellers

23 February 2024

Maria Yagoda

the owner is eventually responsible for mistakes made bt their AI chat box



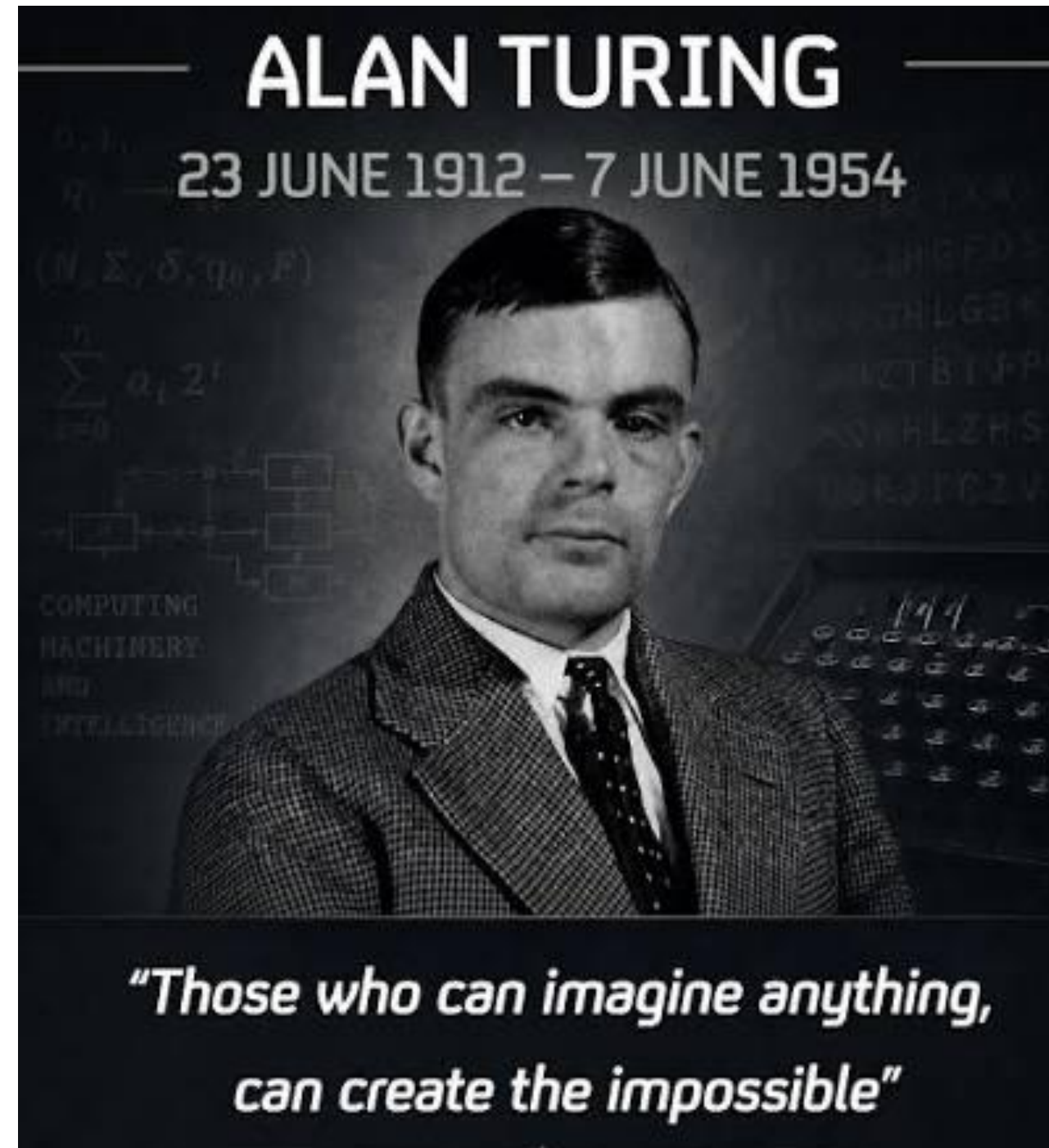
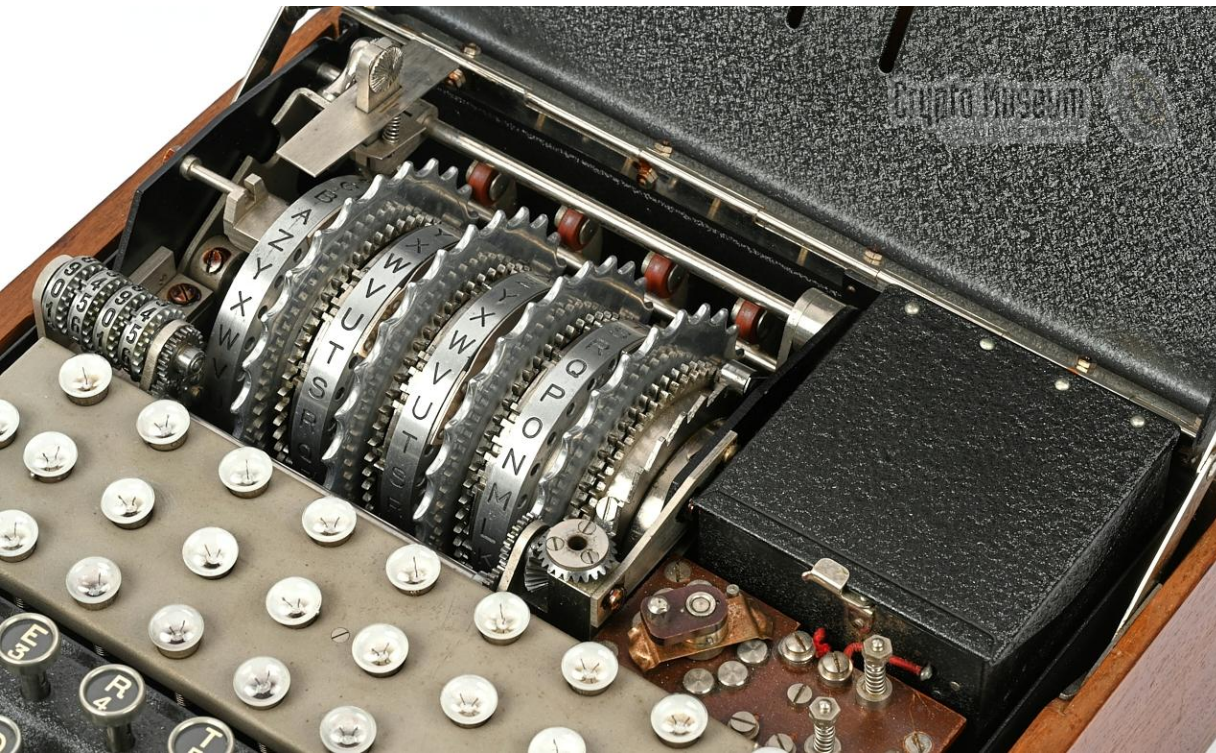


IS ANYONE
HOME?

IS ANYONE HOME?

⚡ KNOCK
⚡ KNOCK

INNER
AWARENESS





It is Aware?



A large commercial airplane is shown from a low angle, approaching a runway at night. The aircraft's landing gear is deployed, and its engines are visible. The runway is illuminated by a series of bright, warm-toned lights that create a strong perspective. The background is dark, with some faint lights visible in the distance. The overall atmosphere is one of a late-night arrival.

BRINGING IT IN



So, what is it?

- Superhuman pattern recognition
- Zero common sense
- No emotions, no moral judgment
- Smart enough to help, dumb enough to hurt

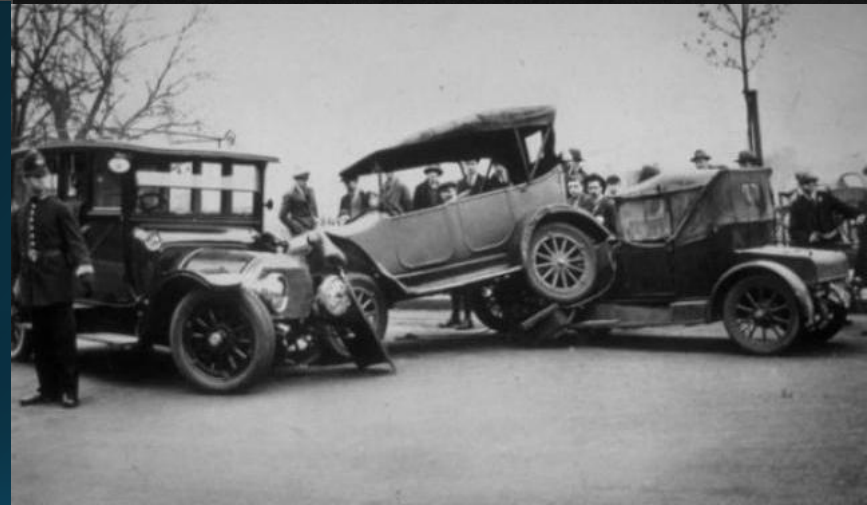


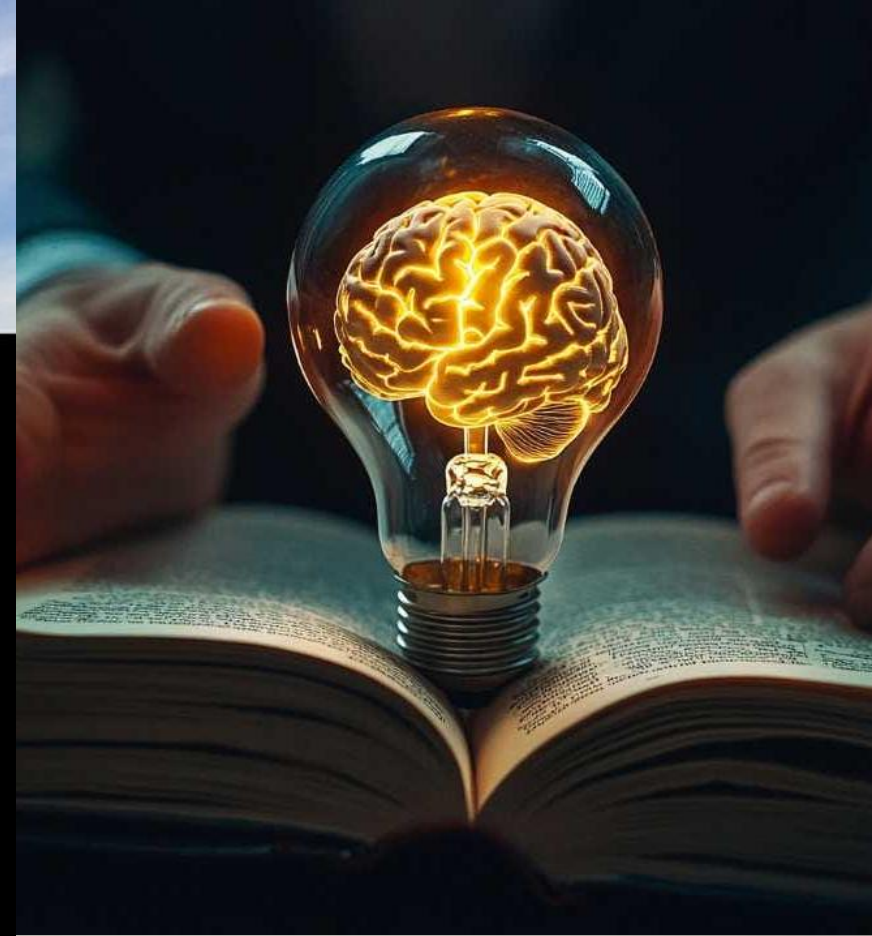
“Technology is
neither good
nor bad; nor is
it neutral.”

– *Melvin Kranzberg*



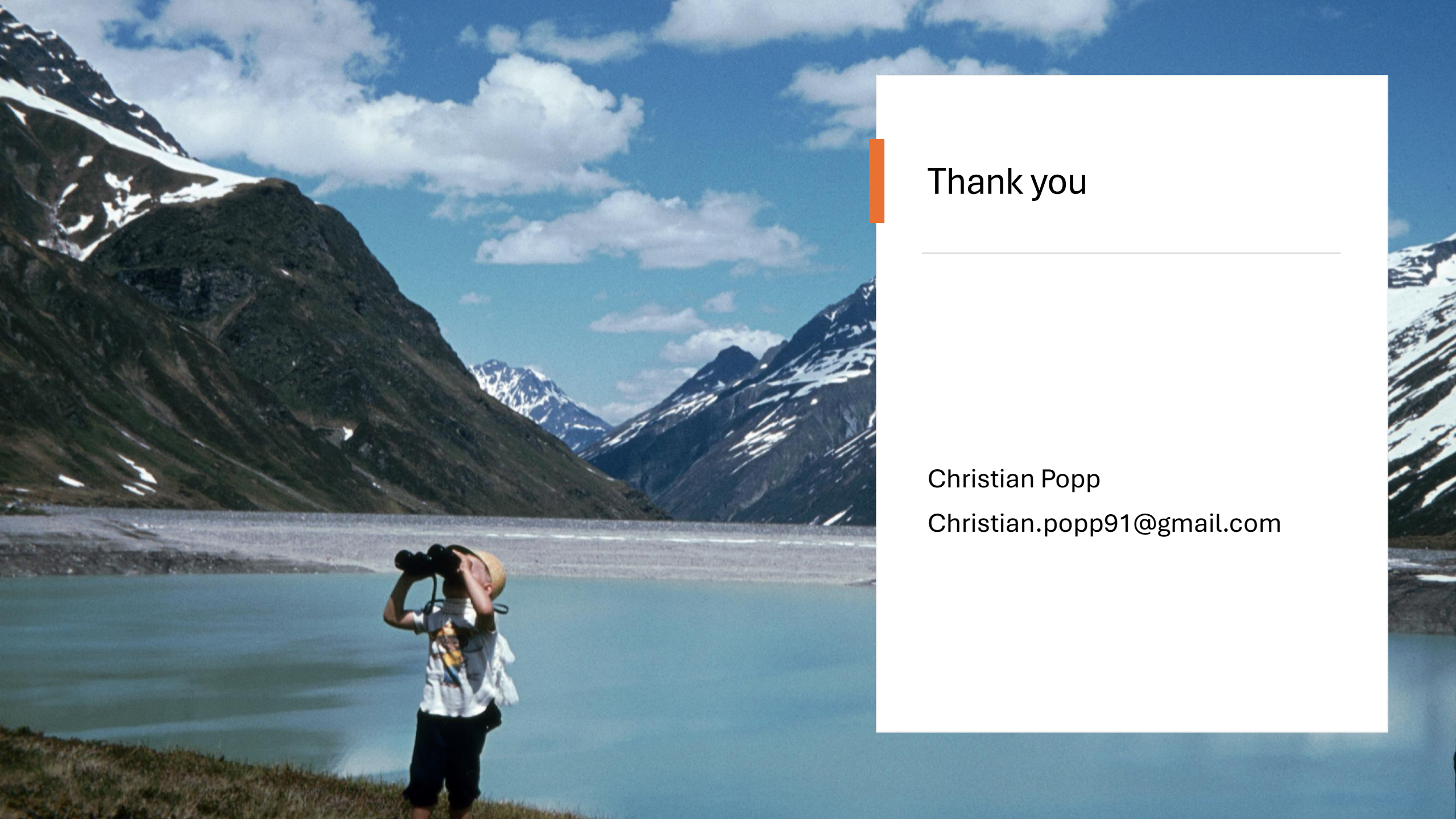
It can not be uninvented





What we need!!! The Human Element



A photograph of a person standing on a grassy hill, looking through binoculars at a large, calm lake. In the background, there are steep, rocky mountains with patches of snow under a blue sky with scattered white clouds. The person is wearing a white t-shirt, dark shorts, and a straw hat.

Thank you

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