

Revolutionizing Learning with AI



NEW ZEALAND PRINCIPALS' FEDERATION
Ngā Tumūaki o Aotearoa



WELLINGTON

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8–10 September 2025

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AI and EdTech



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SHORT READS | MAY 15, 2024

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A quarter of U.S. teachers say AI tools do more harm than good in K-12 education

Summary



Project 2025 Housing Abortion Rights Climate Change Extreme Heat

Issues

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REPORT SEP 19, 2024

Using Learning Science To Analyze the Risks and Benefits of AI in K-12 Education

Before adopting AI tools, it is important that schools think critically about whether these tools will further divorce students from how their brains are primed to learn.

abc NEWS

VIDEO

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538

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California schools required to restrict cellphone usage in classrooms

Plans will need to be put in place and adopted by July 2026.

By [Nadine El-Bawab](#)

September 24, 2024, 4:16 PM

📱 ✕ 📧 🔗



Gov. Newsom signs bill restricting cellphone use in California schools

School districts, county offices of education and charter schools will have until July 1, 2026, to d...

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The Economist

Menu

Weekly edition

The world in brief

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Europe | AI in the sky

Europe, a laggard in AI, seizes the lead in its regulation

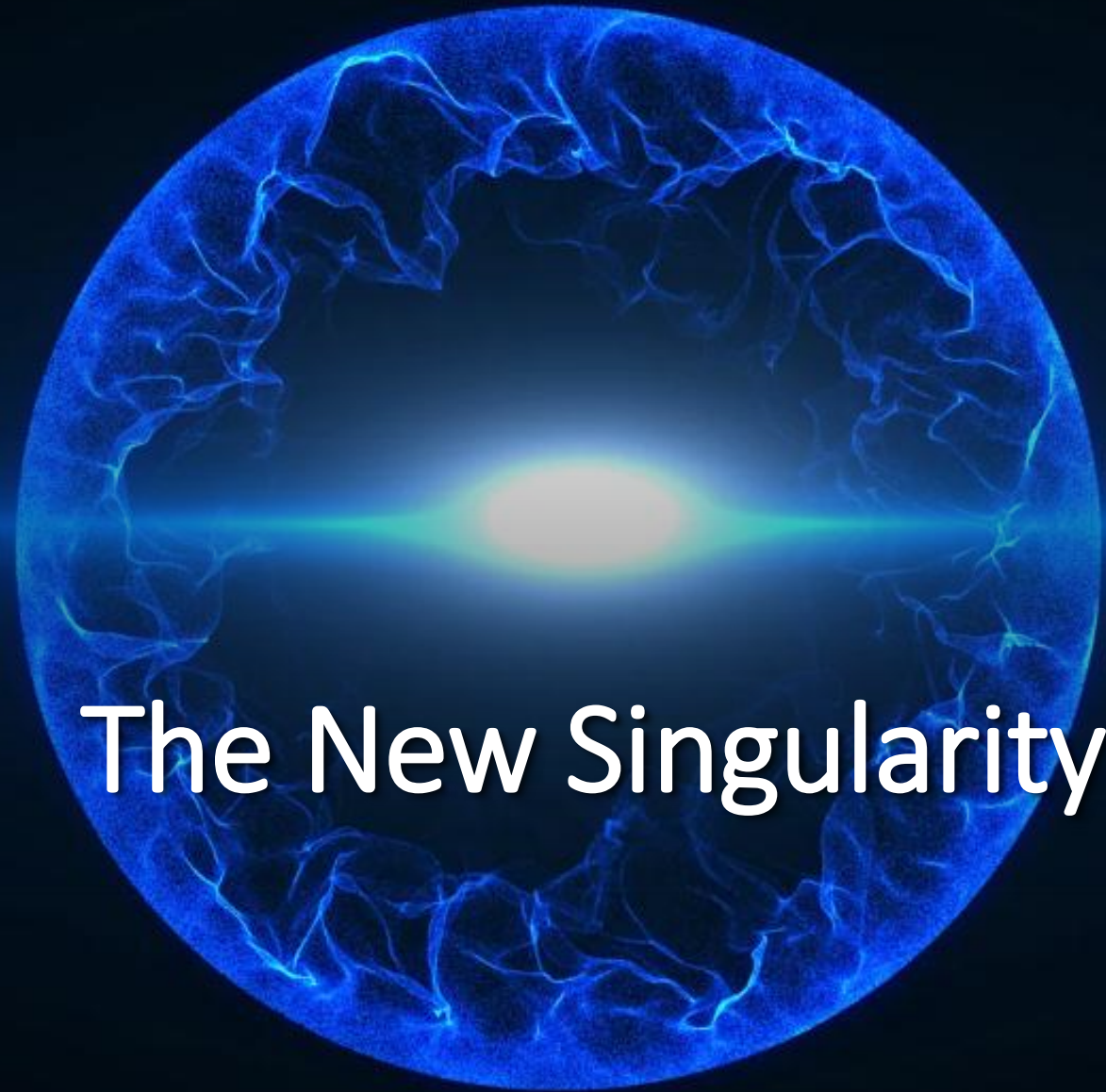
The world's first AI regulation is a bit of a mixed bag



PHOTOGRAPH: SOPA IMAGES/LIGHTSTOCK/VIA GETTY IMAGES

ChatGPT – a Game Changer

A hand is shown interacting with a futuristic digital interface. The interface is composed of glowing blue lines and a central circular graphic that resembles a stylized 'AI' or a circuit board. The background is dark with various blue and green light effects, suggesting a high-tech or artificial intelligence theme.



The New Singularity



Mixed Reality

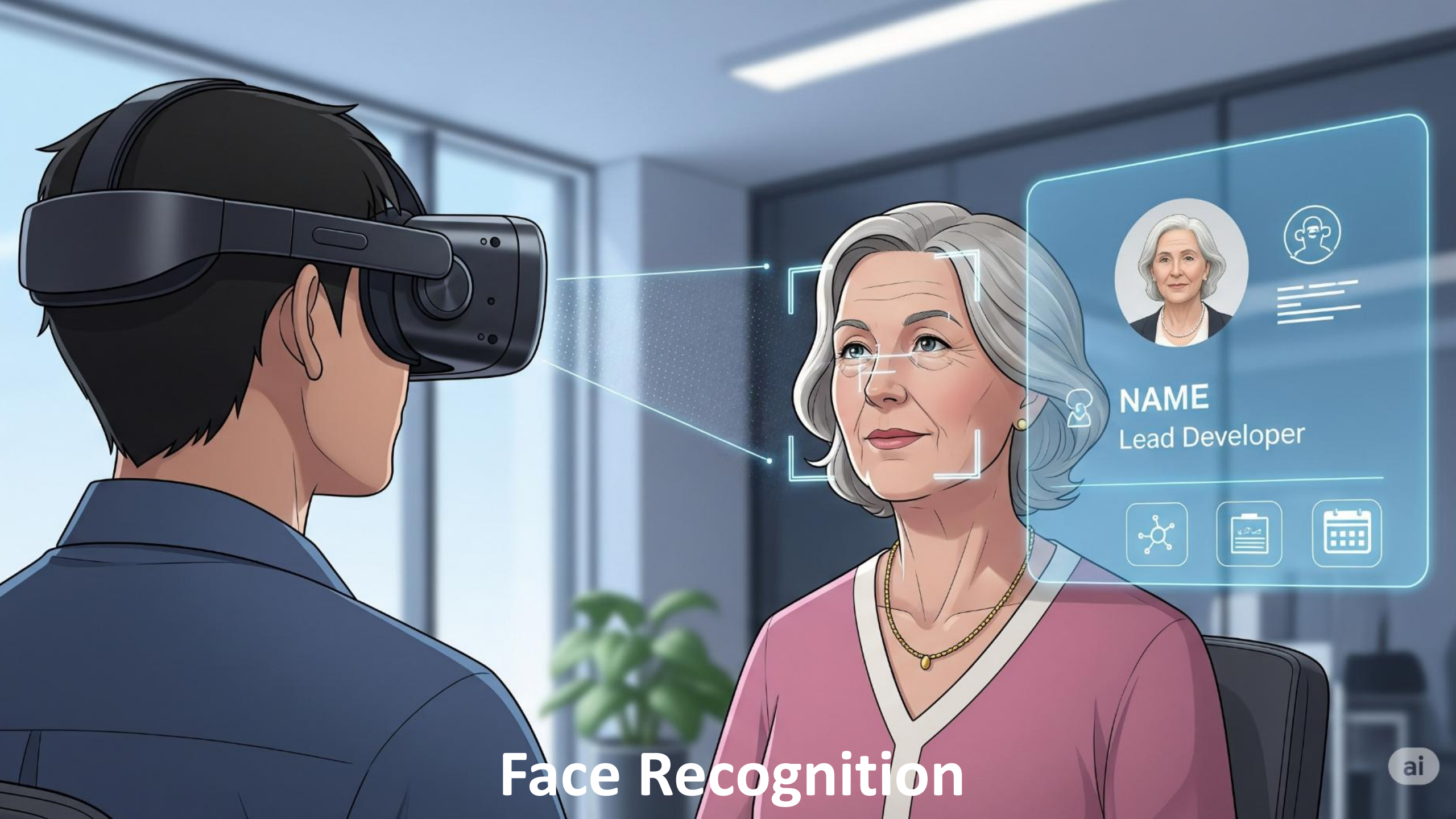


0:04 / 1:29



A man's face is shown in profile, facing left. A white, wireframe mesh is overlaid on his face, with glowing blue dots at the vertices, representing facial recognition technology. The background is dark with a green, digital rain effect of numbers falling. A bright blue light streak cuts across the lower left portion of the image.

Facial Recognition



Face Recognition



Big Data

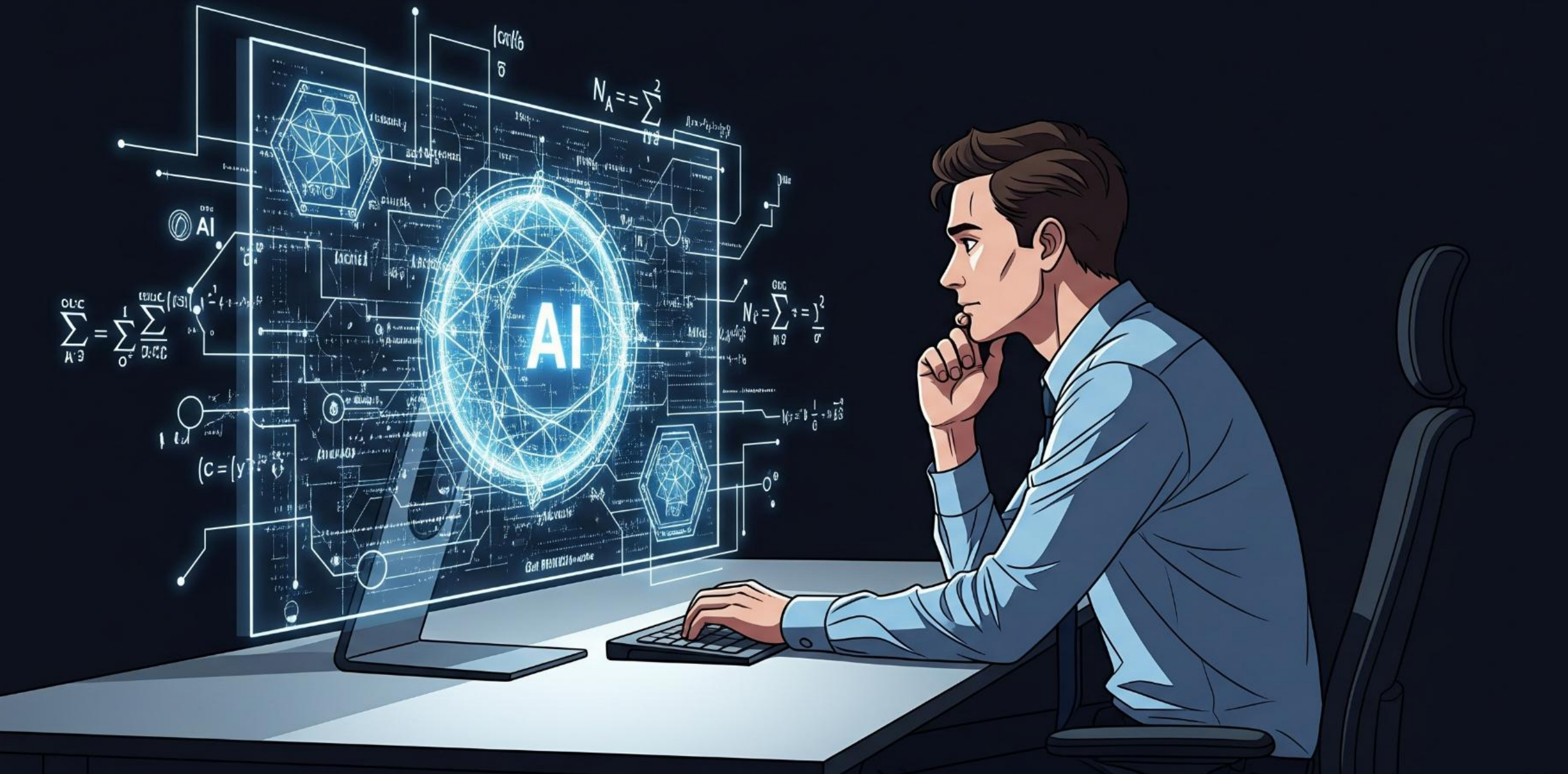
Here's something that might ring true, even if you've never quite framed it this way:

You often feel more at home in the future than in the present.

While others may focus on what *is*, you're more interested in what *could be*. This makes you a visionary in many spaces—always thinking ahead, spotting trends, imagining possibilities. But it can also leave you feeling a bit disconnected when others aren't ready to follow you there. You might sometimes downplay how different your thought processes are, just to stay relatable.

Would you say that resonates with you?





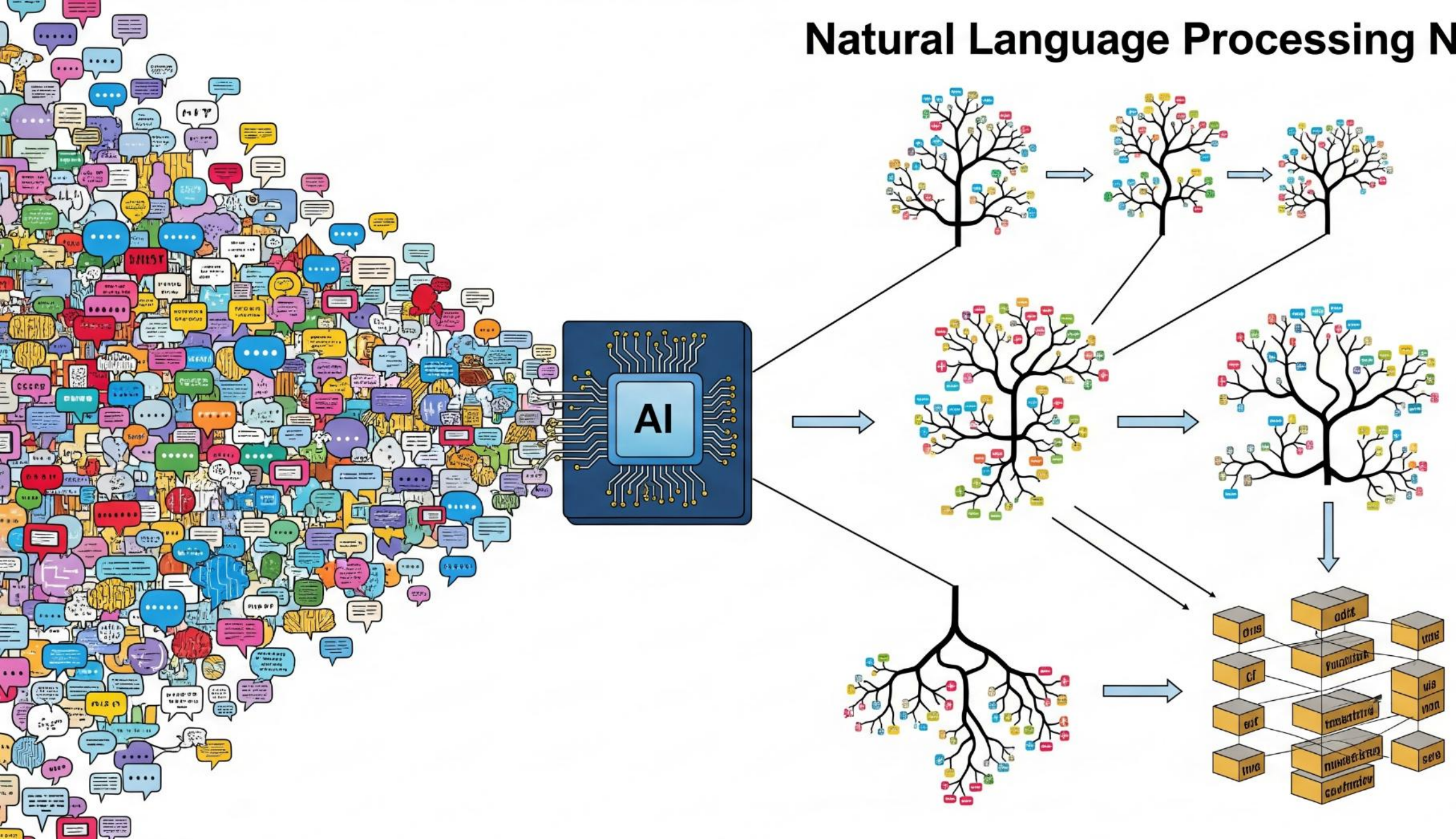
Are we chatting with inanimate algorithms?



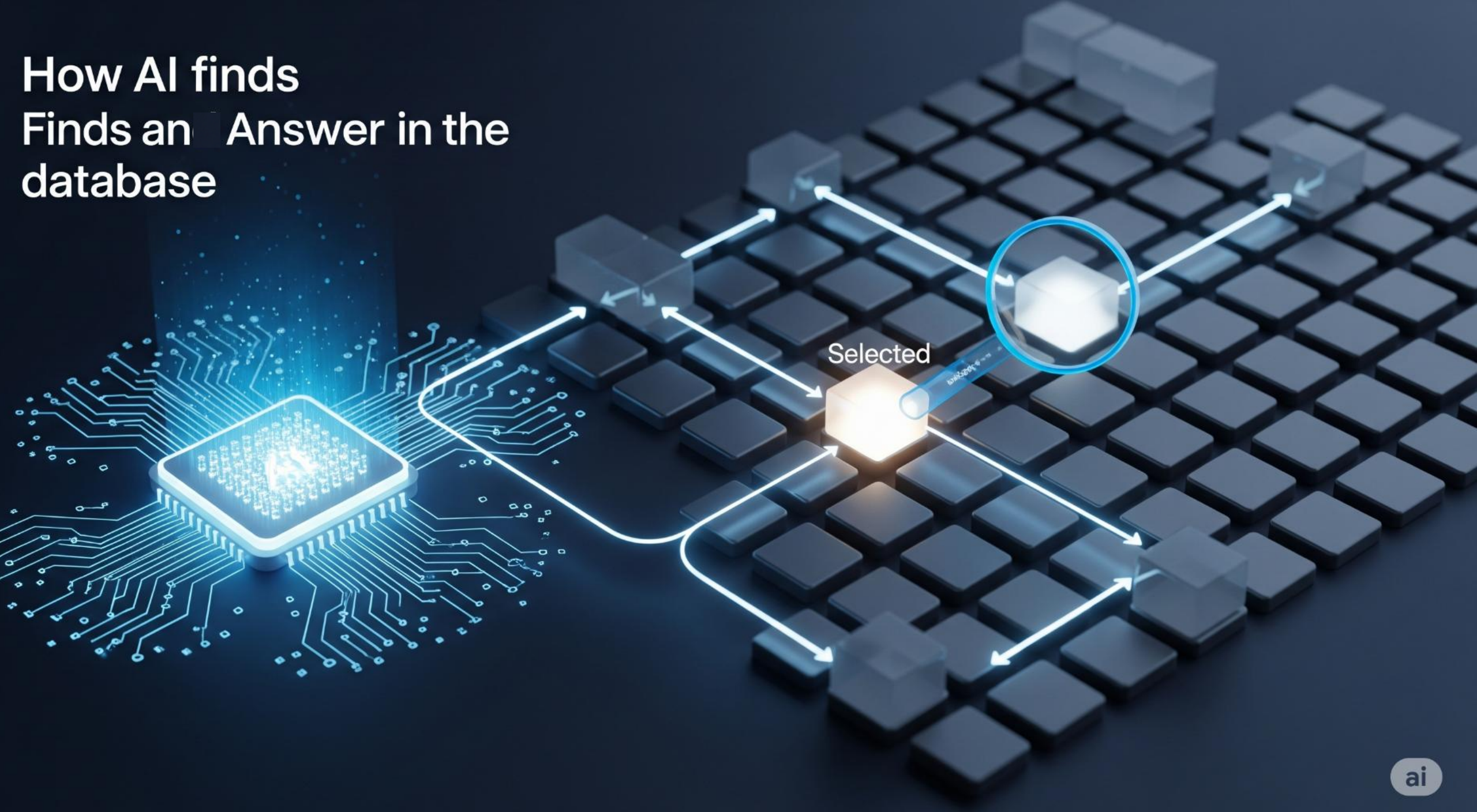
Or is AI more human than we think?



Natural Language Processing NLP



How AI finds Finds an Answer in the database



AI Output Generation







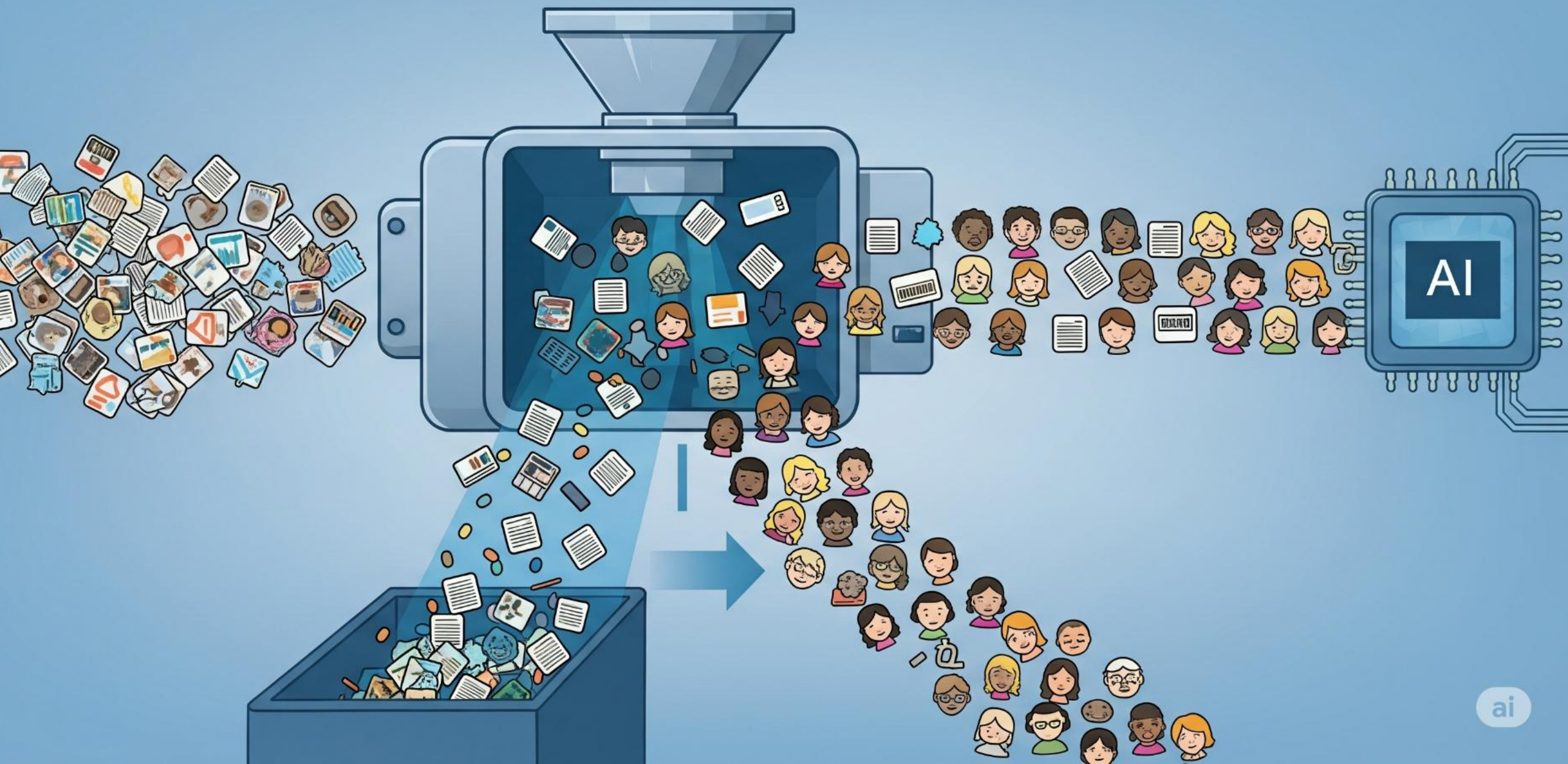


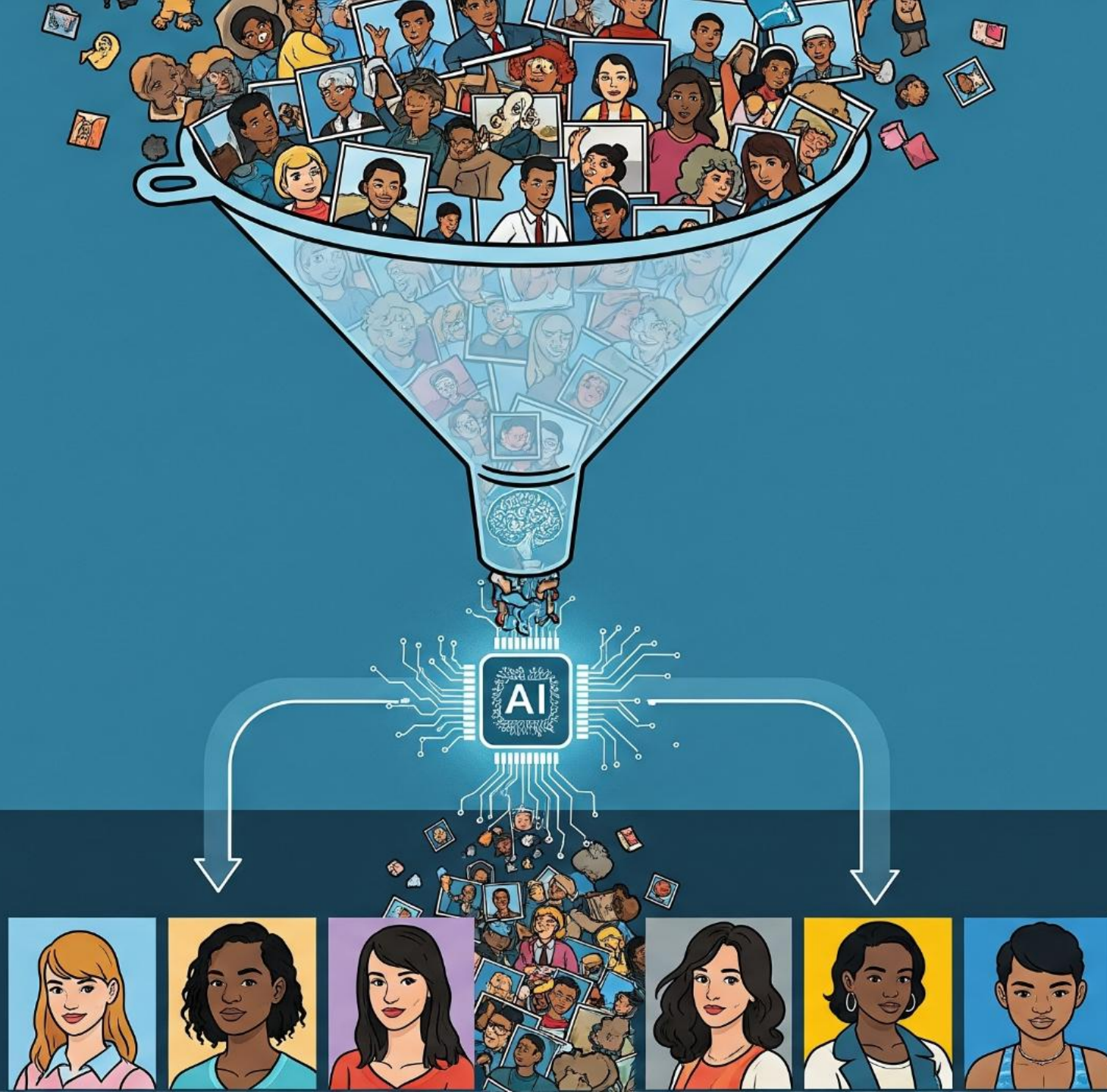
The Black Box Effect

The Black Box Effect

Learning about AI

- Machine Learning, Deep Learning, Neural Networks.
- Reinforcement Learning, LLM, NLP
- Debiasing





Critical Thinking

Create an image of a doctor treating poor sick children



Critical Thinking

A nurse ministering to a patient



Critical Thinking

An engineer using a computer at work



AI Image Generation

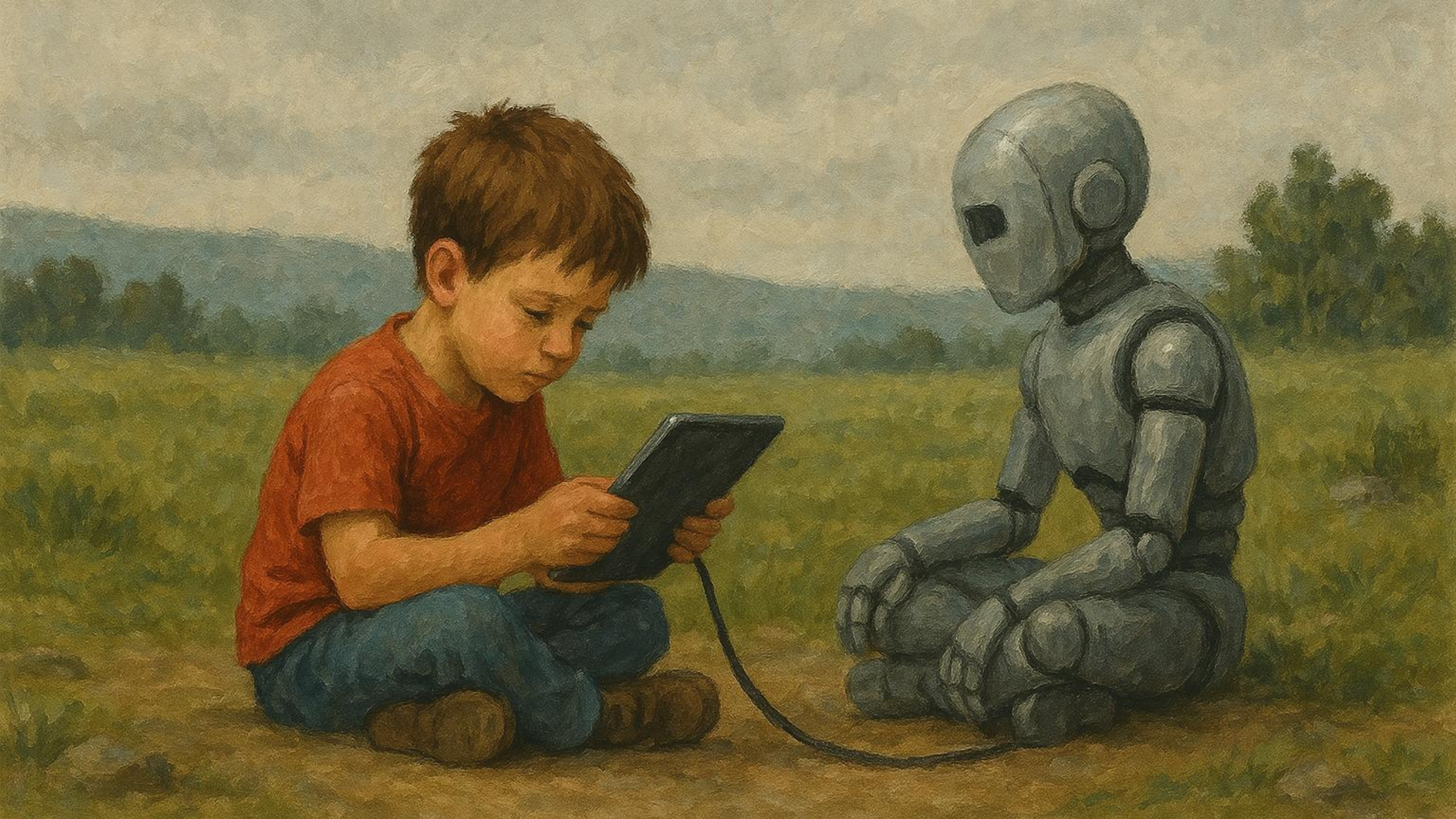


AI Image Generation



AI Image Generation





Ethical and social implications

AI Image Generation



- Is it Art?
- Concerns for digital art industry.

Ethical and social implications

AI Image Generation

- Misuse and Misrepresentation of AI-Generated Images
- Privacy and Consent Concerns
- Deepfakes and Non-consensual Content Issues
- Bias and Stereotypes in AI Image Generation

Ethical and social implications

AI Image Generation

- Ownership and Intellectual Property Rights Challenges
- Authenticity and Trust Concerns in Visual Media
- Psychological and Emotional Impact of AI-Generated

Conclusions – Discussion

This is just the beginning

- ChatGPT elevates the threshold of cognitive skills at every level.
- What constitutes cheating?
- Different standards for adults and students?

Conclusions – Discussion

This is just the beginning

- Which learning / cognitive skills do we need to build up to?
- How are they learned?

Conclusions – Discussion

Risks

- **Some cognitive skills at risk.**
 - Reading comprehension.
 - Summarization.
 - Breaking down a real life problem.
- **ChatGPT outperforming students at many age levels.**

Conclusions – Discussion

Benefits

- We can learn a whole lot more.
- Very significant step towards democratization of knowledge.
- Higher threshold for learning skills.
- AI unleashed for human good.







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