Is AI Ready to Take Over the World?

DAVID WESST //

INFORMANIX DISCOVER 2023 [WINNIPEG]

YES

(BECAUSE IT ALREADY HAS)

Topics

Defining AI in the Mainstream

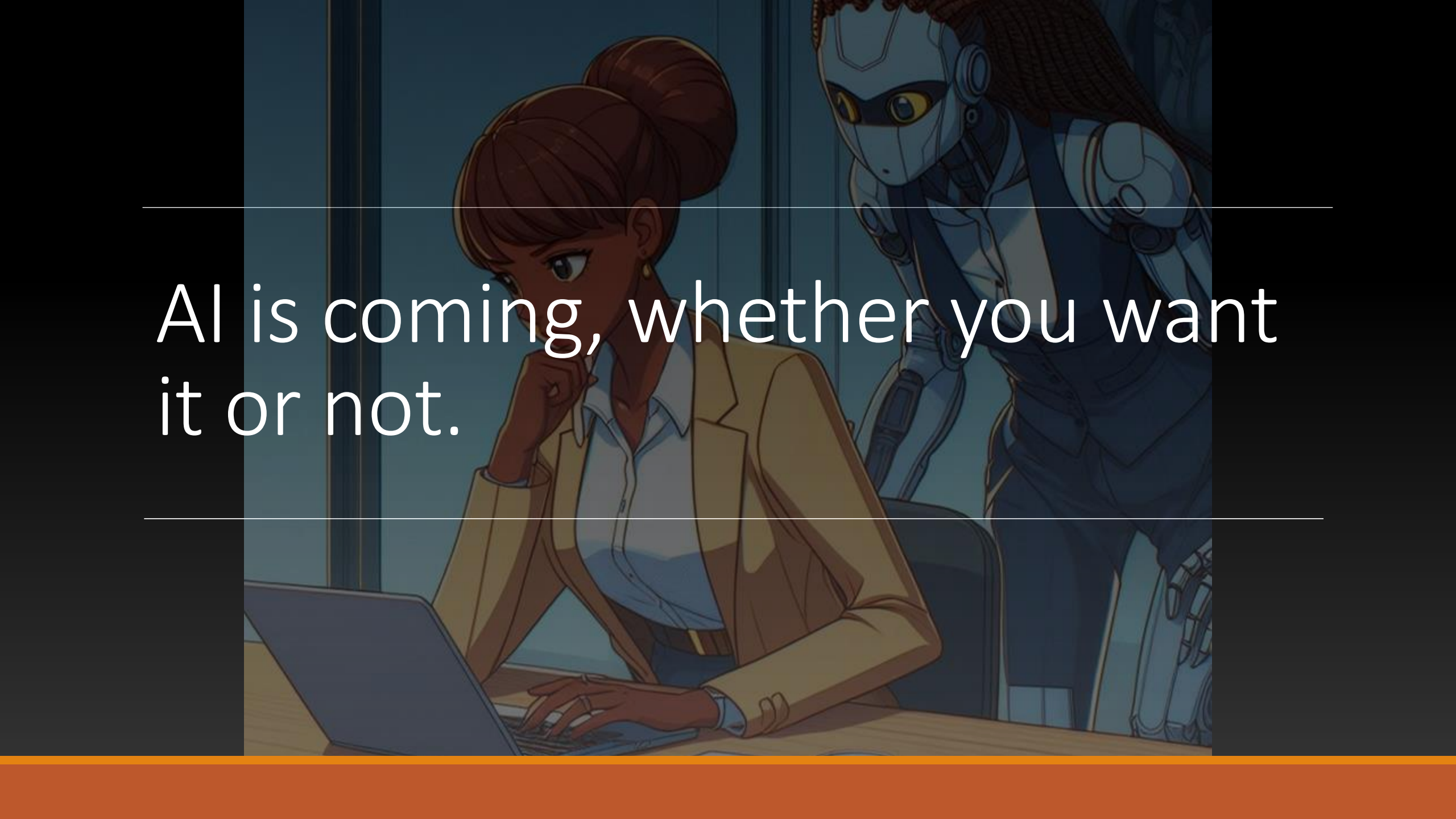
Industry and Application AI Readiness

Potential Risks

Potential Benefits

Best Practices for Adopting AI

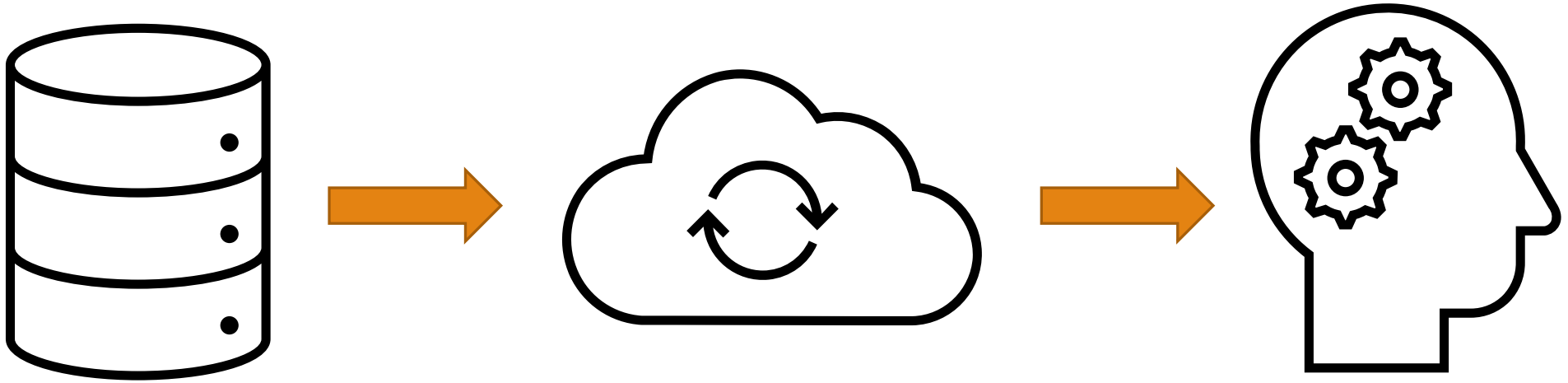
AI is a Human-Enhancer not a Human Replacement



AI is coming, whether you want it or not.

Defining AI in the Mainstream

What is AI?



What is AI: Examples

- Natural Language Processing
- Recognizers
- Recommendation Engines
- Generative AI
  - Large Language Models
  - Image Generation

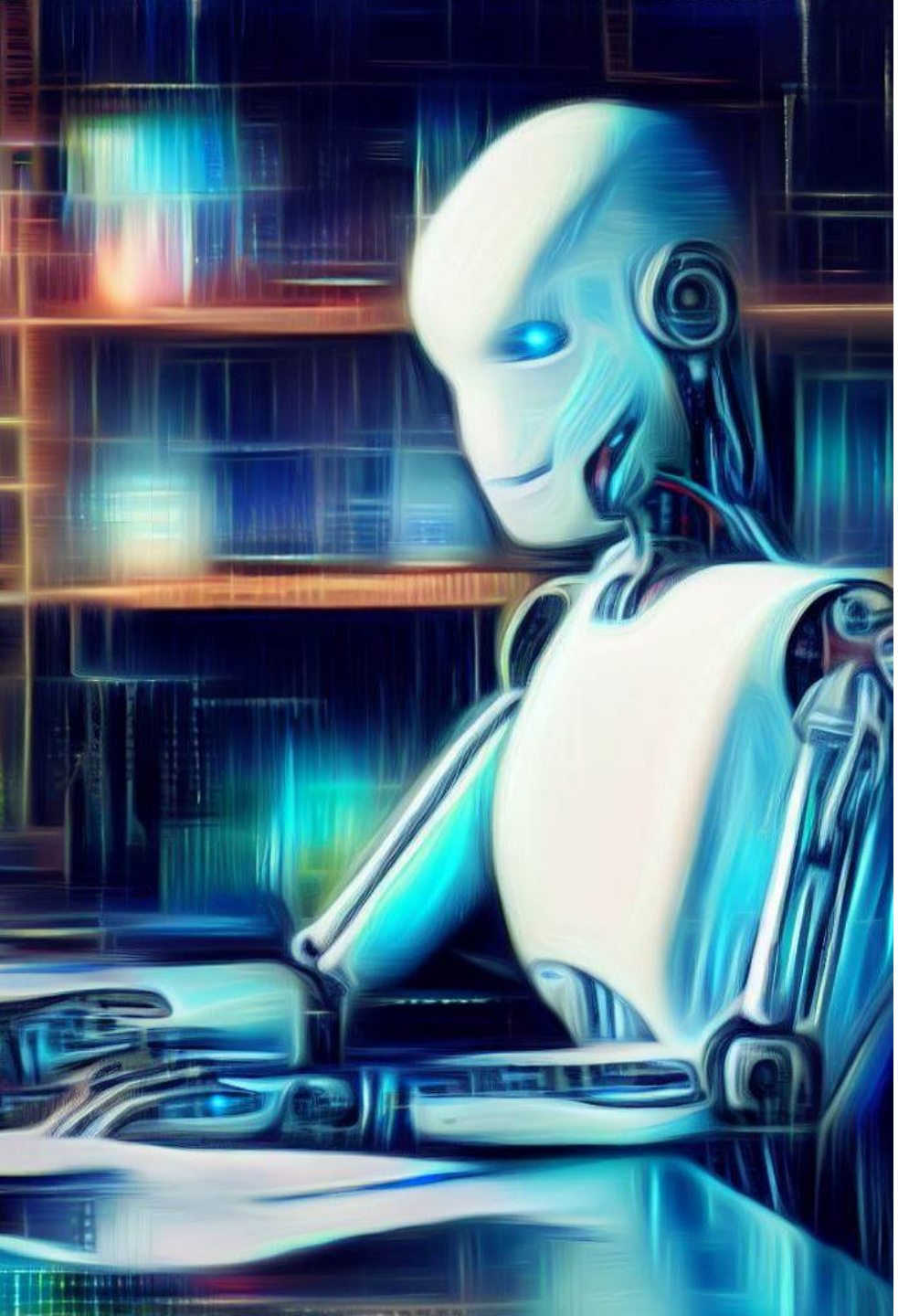
AI IS NOT “SMART”

…BUT IT

SURE

FEELS

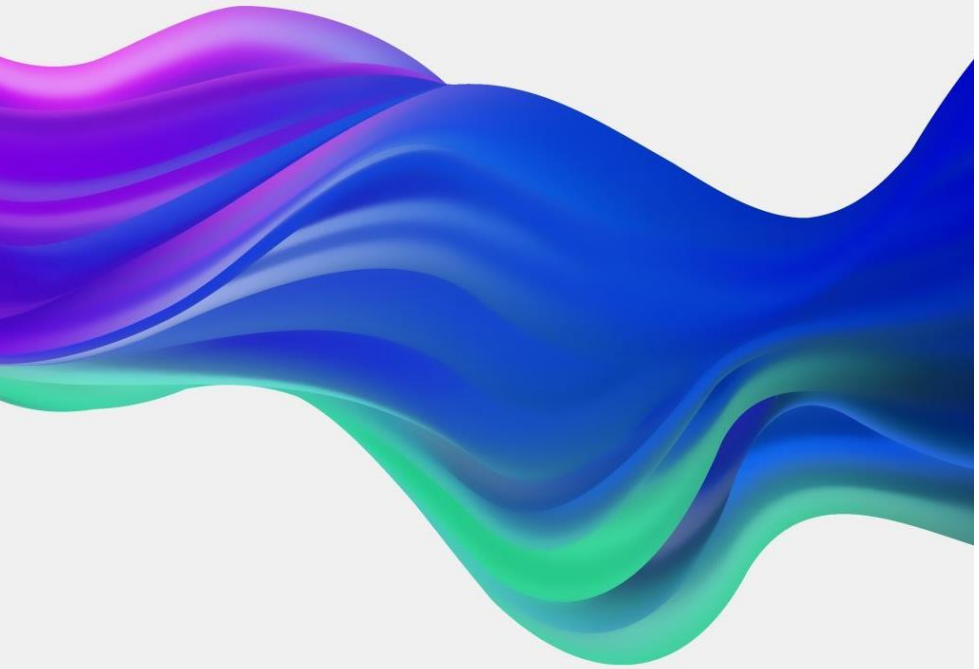
LIKE IT



AGI vs AI

AI (Artificial Intelligence) we are talking about today has a ***narrow*** focus

AGI (Artificial General Intelligence) is a ***broad*** focus



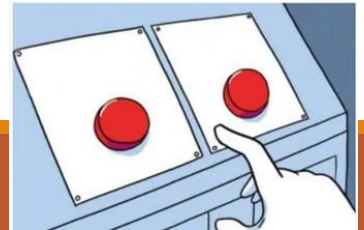
Industry and Application AI Readiness

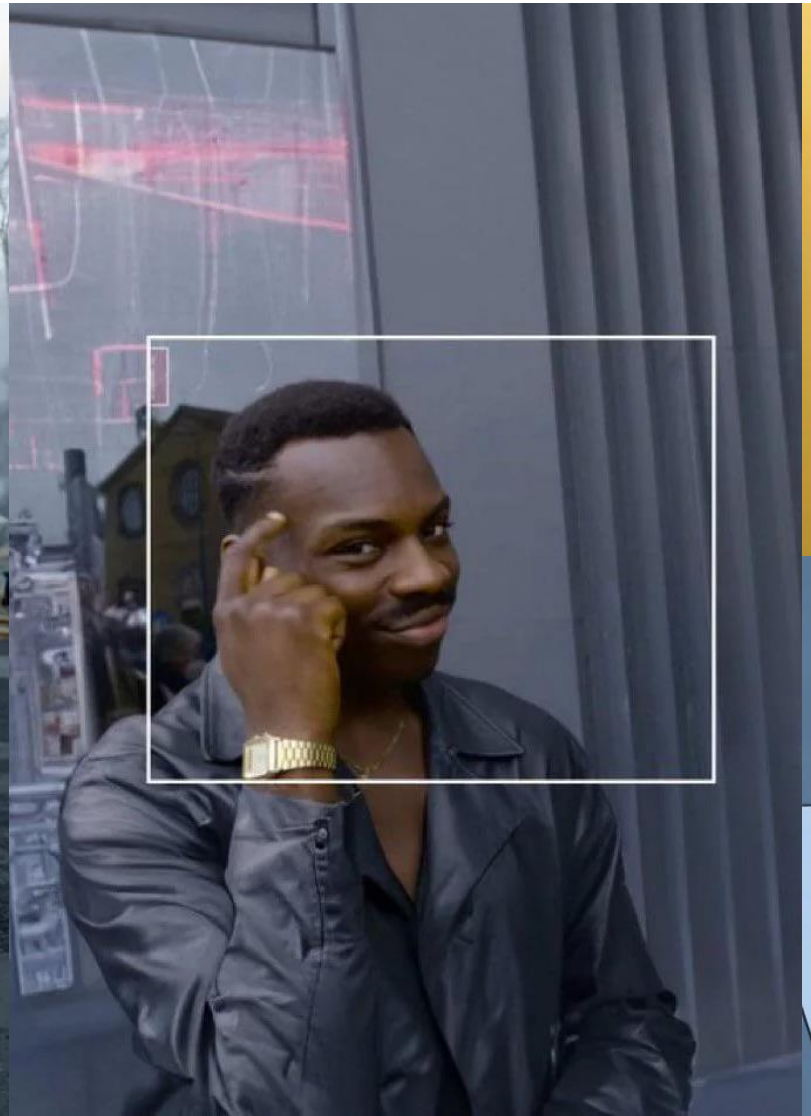
Finance

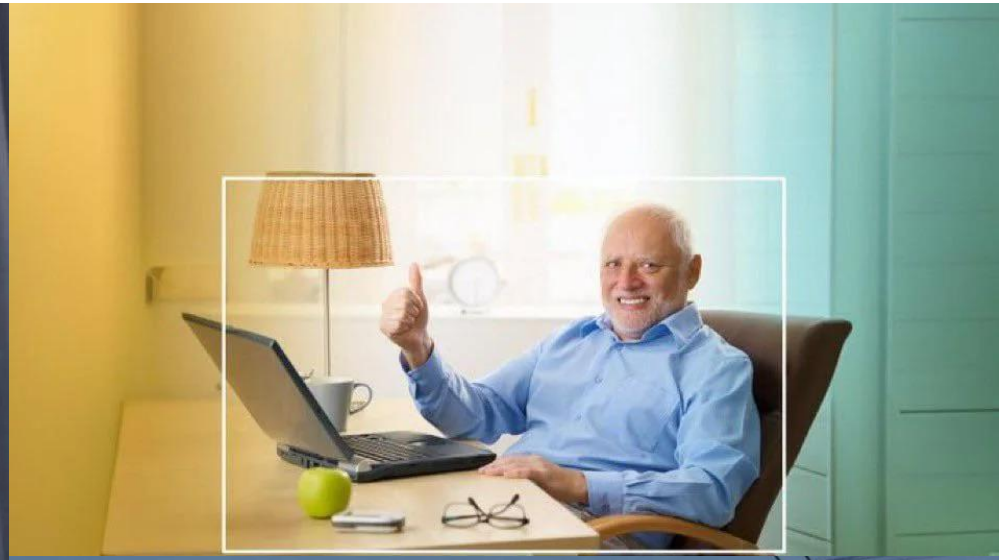
Healthcare

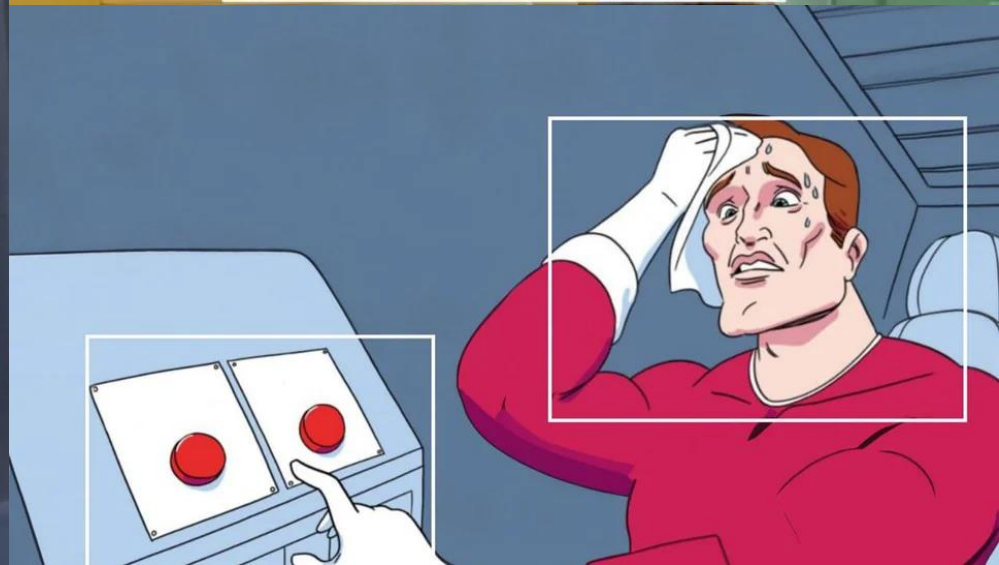
DEMO

Media Production

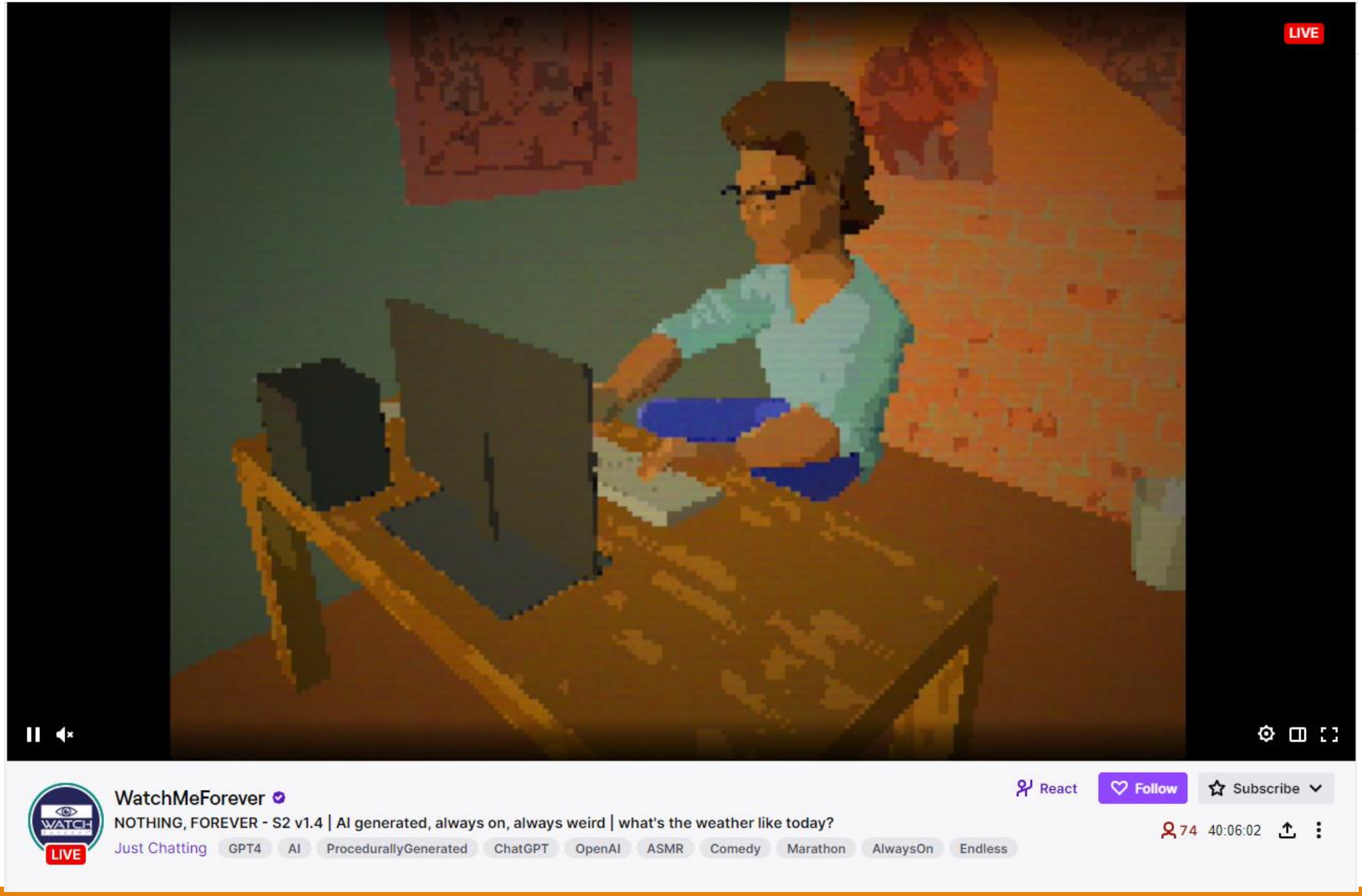






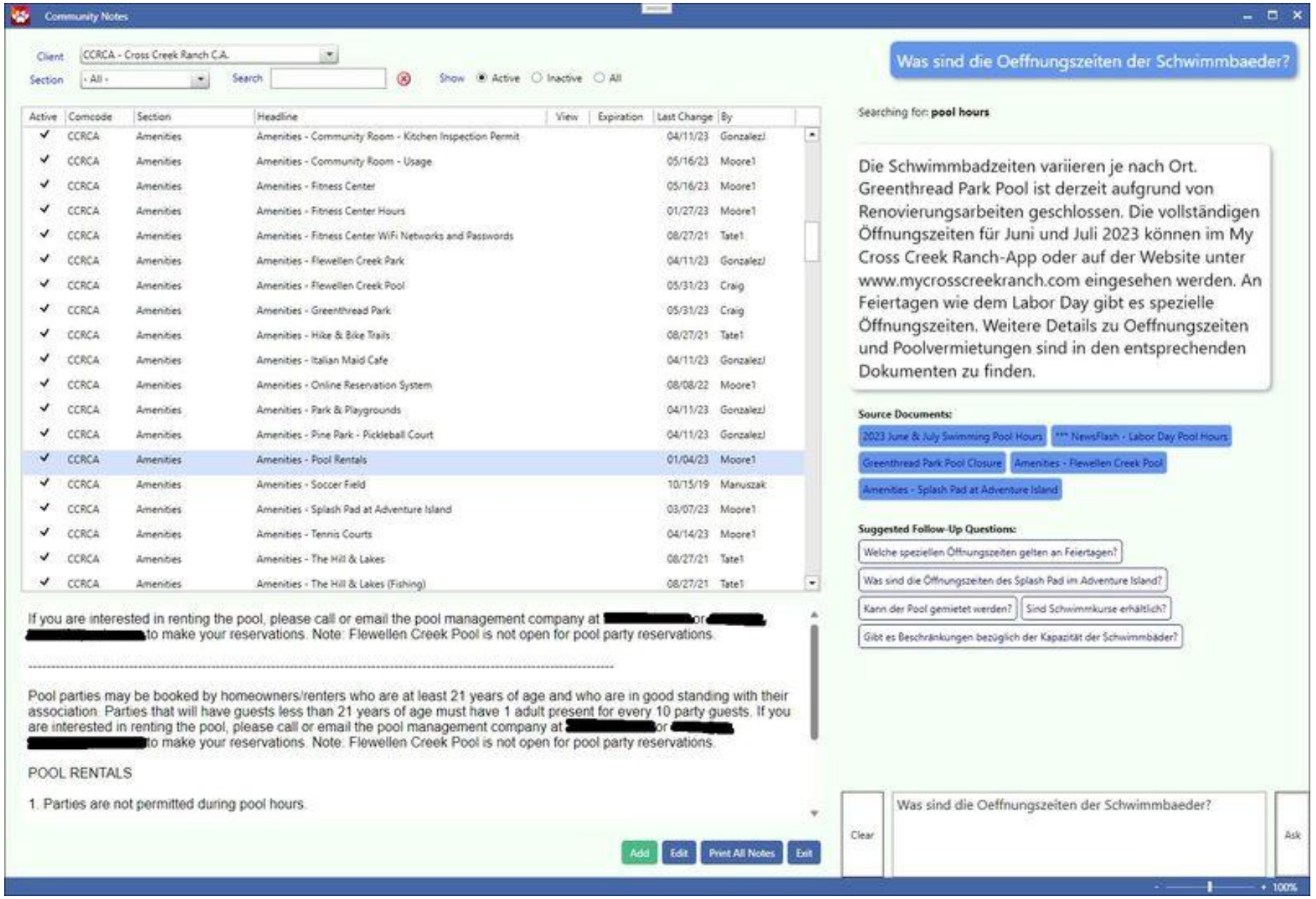


https://www.reddit.com/r/StableDiffusion/comments/141hg9x/controlnet_for_qr_code/

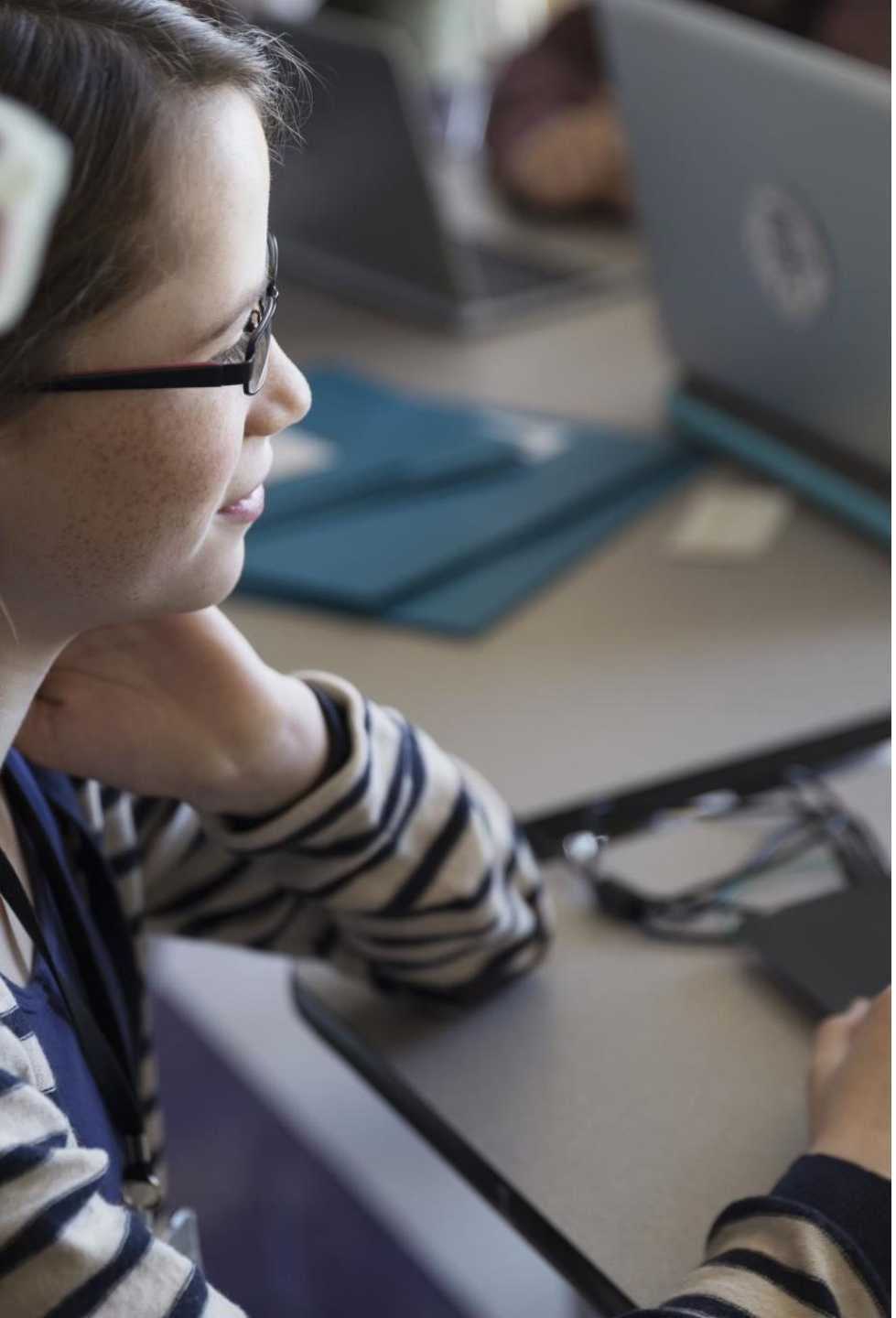


WatchMeForever - Twitch

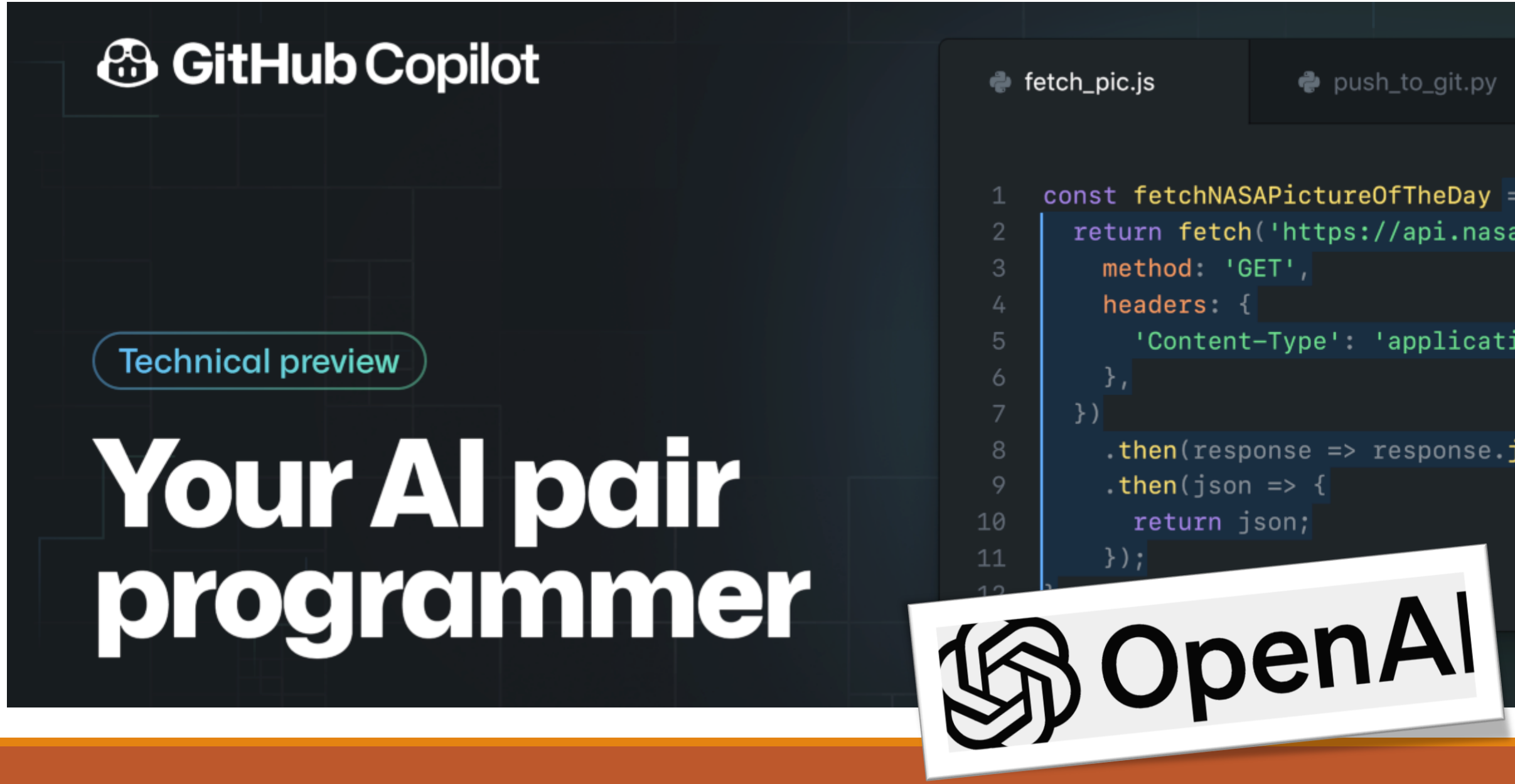
Line of Business Applications?



https://www.linkedin.com/posts/markusegger_man-do-i-love-this-generative-ai-stuff-activity-7115399916503396352-DYPe?utm_source=share&utm_medium=member_desktop



Software Development


GitHub Copilot
Technical preview
Your AI pair programmer
fetch_pic.js
push_to_git.py
1 const fetchNASAPictureOfTheDay =
2 return fetch('https://api.nasa
3 method: 'GET',
4 headers: {
5 'Content-Type': 'applicati
6 },
7 })
8 .then(response => response.j
9 .then(json => {
10 return json;
11 });
OpenAI

Example Changes in Software Development

AI-Assisted Testing

Synthetic Data Generation

Code Explanations & Commenting

Code Generation

…

DEMO

Microsoft 365 Chat (preview)

Combine the power of AI with your work data and apps to help you unleash creativity, unlock productivity, and uplevel skills.

Learn more about Microsoft 365 Chat >

Copilot in Teams

Have more effective meetings, catch up on chats, and bring everything together in Teams.

Learn more about Copilot in Teams >

Copilot in Outlook

Start emails quickly, generate a summary, and catch up on long emails easily.

Learn more about Copilot in Outlook >

Copilot in Word

Start a draft, add to an existing document, rewrite text, generate a summary, or chat with Copilot.

Learn more about Copilot in Word >

Copilot in PowerPoint

Create a new presentation, organize and summarize presentations, and more.

Learn more about Copilot in PowerPoint >

Copilot in Excel

Go deeper with data, identify insights, generate formulas, and more.

Learn more about Copilot in Excel >

Copilot in OneNote

Summarize your notes, create a to-do list, design a plan, and chat with Copilot.

Learn more about Copilot in OneNote >

Copilot in Loop

Plan, brainstorm, create, and collaborate easier to stay in sync.

Learn more about Copilot in Loop >

Potential Risks

Change Exhaustion

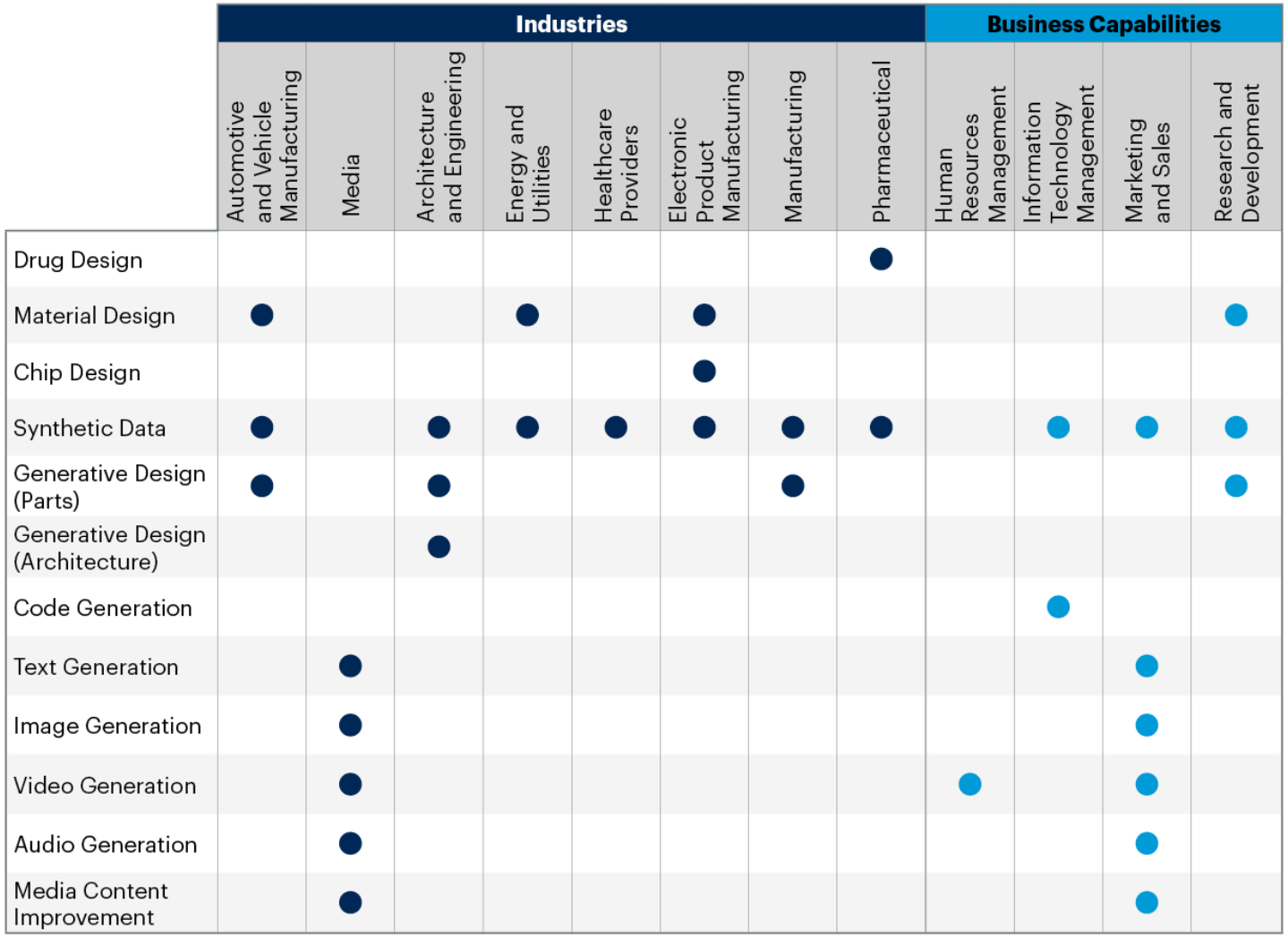
Only 38% of workers in 2022 are willing to support organizational change, compared to 74% in 2016.

Job Replacement

Innovation Insight for Generative AI (December 15, 2022)

https://www.gartner.com/document/mobile/4022272?ref=search&platform=5

Use Cases by Industry/Capability



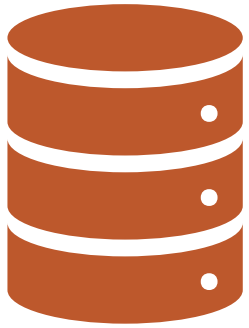
	Industries								Business Capabilities			
	Automotive and Vehicle Manufacturing	Media	Architecture and Engineering	Energy and Utilities	Healthcare Providers	Electronic Product Manufacturing	Manufacturing	Pharmaceutical	Human Resources Management	Information Technology Management	Marketing and Sales	Research and Development
Drug Design								●				
Material Design	●			●		●						●
Chip Design						●						
Synthetic Data	●		●	●	●	●	●	●		●	●	●
Generative Design (Parts)	●		●				●					●
Generative Design (Architecture)			●									
Code Generation										●		
Text Generation		●									●	
Image Generation		●									●	
Video Generation		●							●		●	
Audio Generation		●									●	
Media Content Improvement		●									●	

Source: Gartner
778501_C

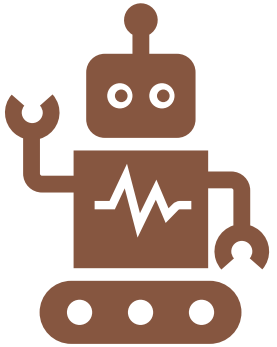
Gartner

Ethical Concerns & Misuse

Security, Privacy, and Legal Concerns



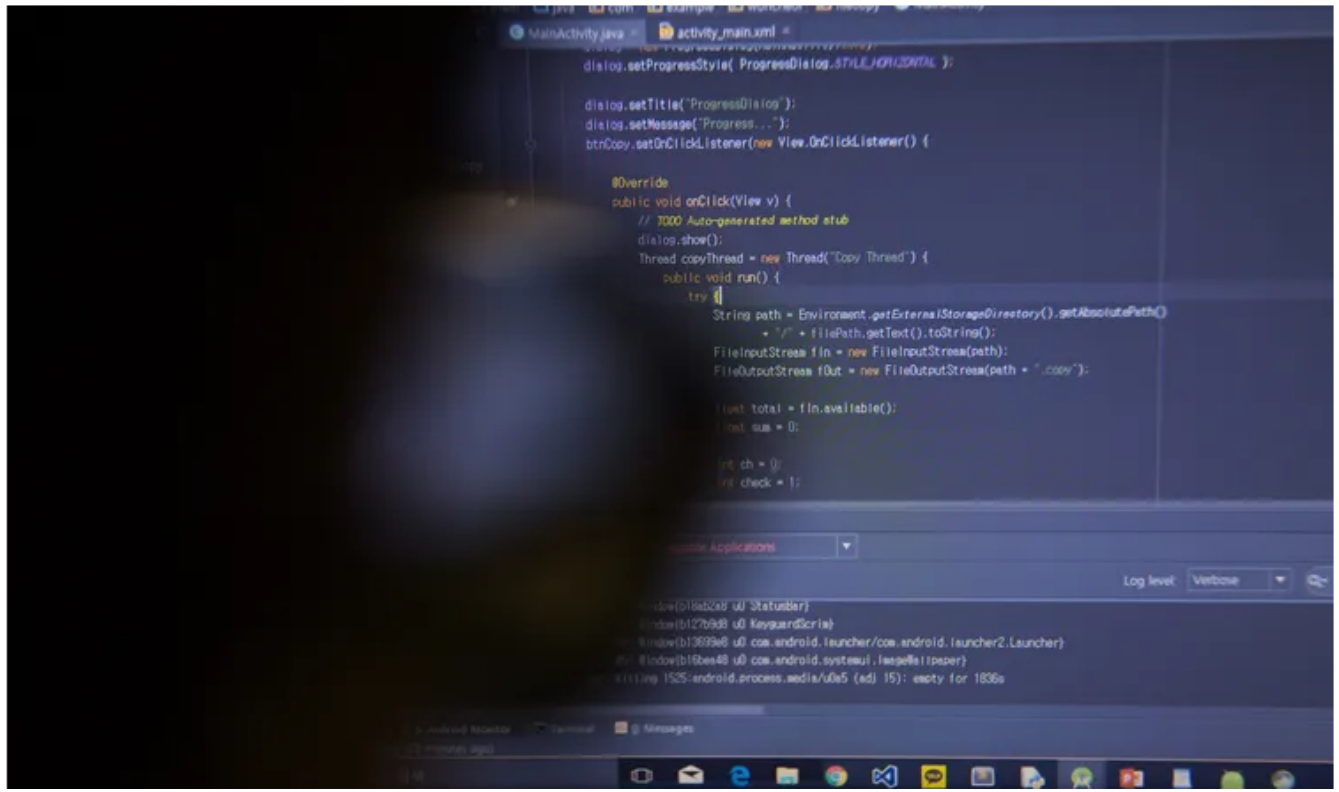
What data was used in training the model?



Does the AI use my prompts to improve its model?

ARTIFICIAL INTELLIGENCE / TECH / LAW

The lawsuit that could rewrite the rules of AI copyright



/ Microsoft, GitHub, and OpenAI are being sued for allegedly violating copyright law by reproducing open-source code using AI. But the suit could have a huge impact on the wider worl of artificial intelligence.

By James Vincent, a senior reporter who has covered AI, robotics, and more fo eight years at The Verge.

Nov 8, 2022, 10:09 AM CST | 9 Comments / 9 New

https://www.theverge.com/2022/11/8/23446821/microsoft-openai-github-copilot-class-action-lawsuit-ai-copyright-violation-training-data

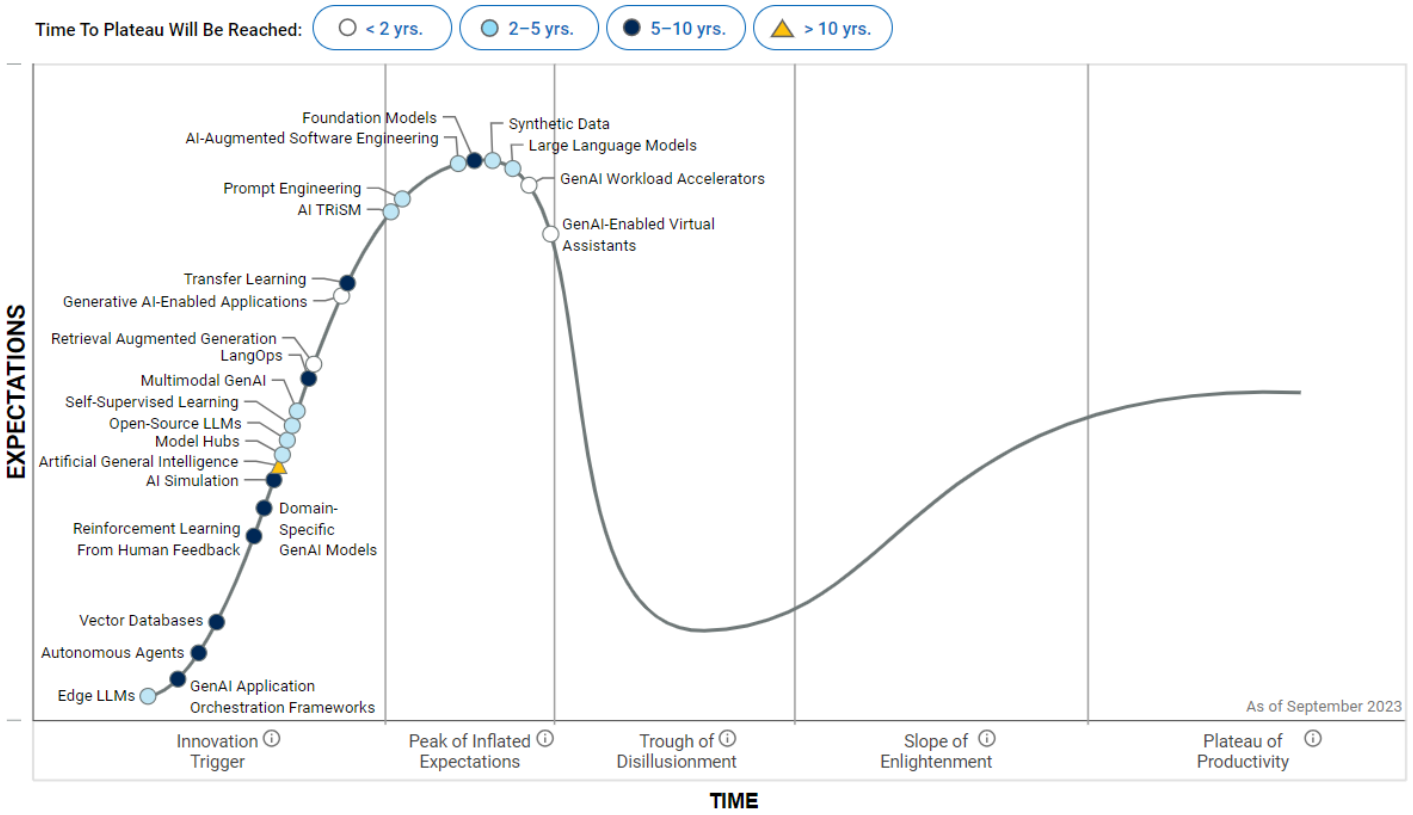
Microsoft announces new Copilot Copyright Commitment for customers

Sep 7, 2023 | Brad Smith, Vice Chair and President, Hossein Nowbar, CVP and Chief Legal Officer

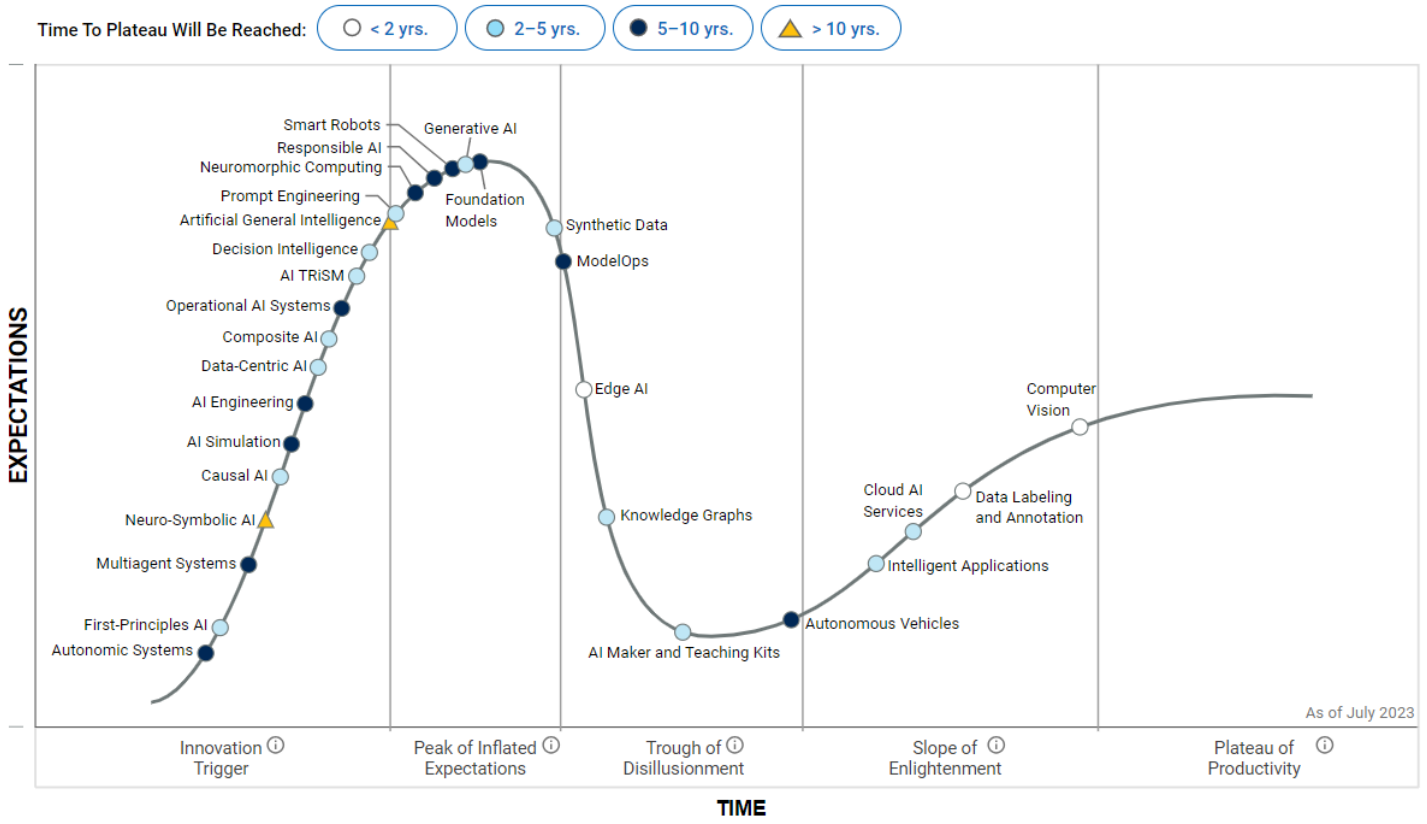
https://blogs.microsoft.com/on-the-issues/2023/09/07/copilot-copyright-commitment-ai-legal-concerns/

Regulation

Lack of Transparency



Early Adopter ROI



Early Adopter ROI

Potential Benefits

Efficiency & Productivity

"Exposure to ChatGPT increases job satisfaction and self-efficacy and heightens both concern and excitement about automation technologies."

- Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence, March 2023 (MIT)

Teaching and Learning

"A staggering 85% of high school and college students who have availed themselves of both ChatGPT and traditional tutoring sessions during the recent academic year assert that ChatGPT surpasses traditional tutoring in effectiveness as a learning tool."

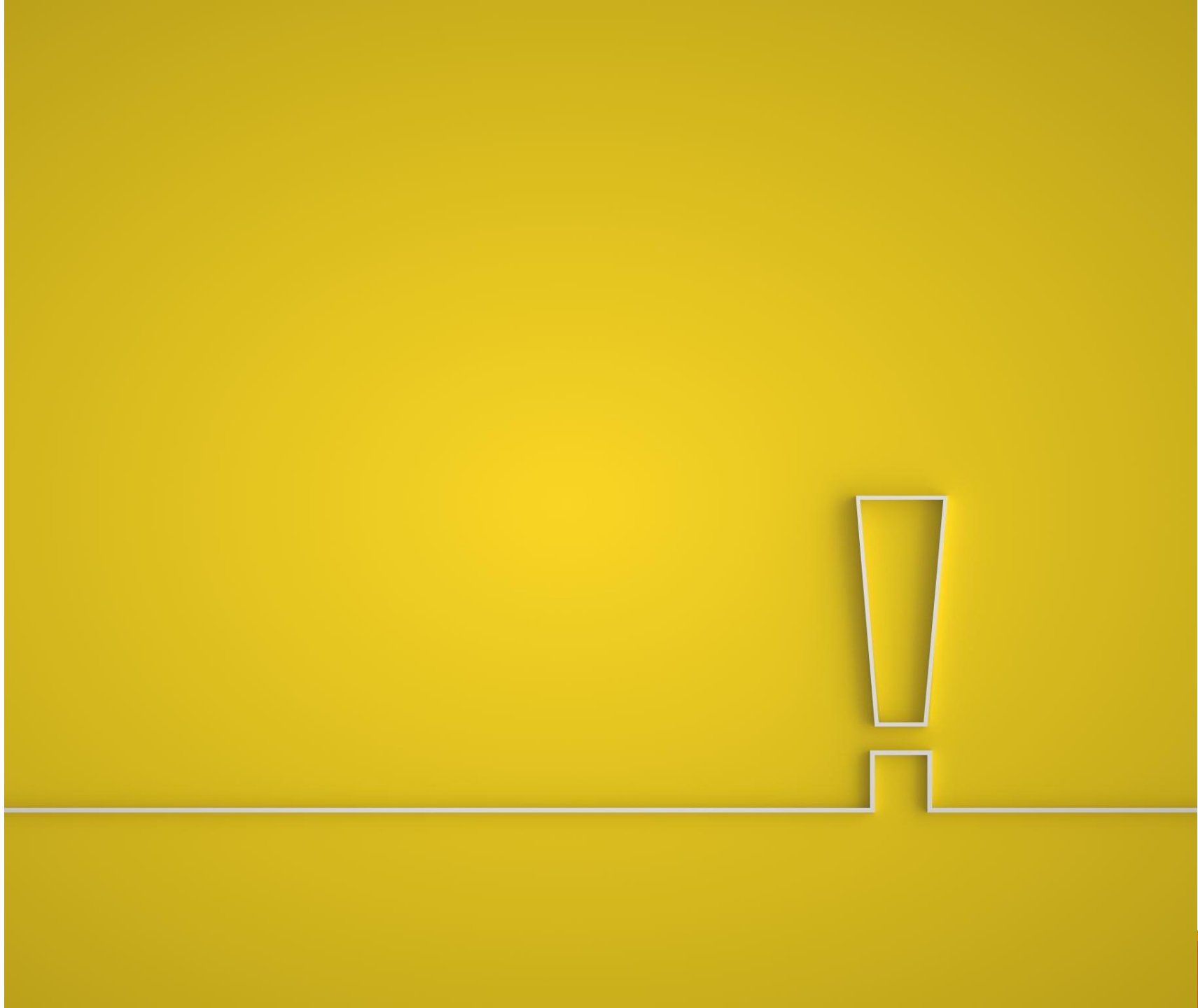
https://venturebeat.com/ai/chatgpt-takes-center-stage-students-ditch-tutors-in-favor-of-ai-powered-learning/

May 29, 2023 9:33 AM

…and there's more!

Data Analysis & Predictive Capabilities

Safety & 24/7 Operation



Best Practices for Adopting AI

Best Practices For adopting AI

Having clear goals

Invest in training

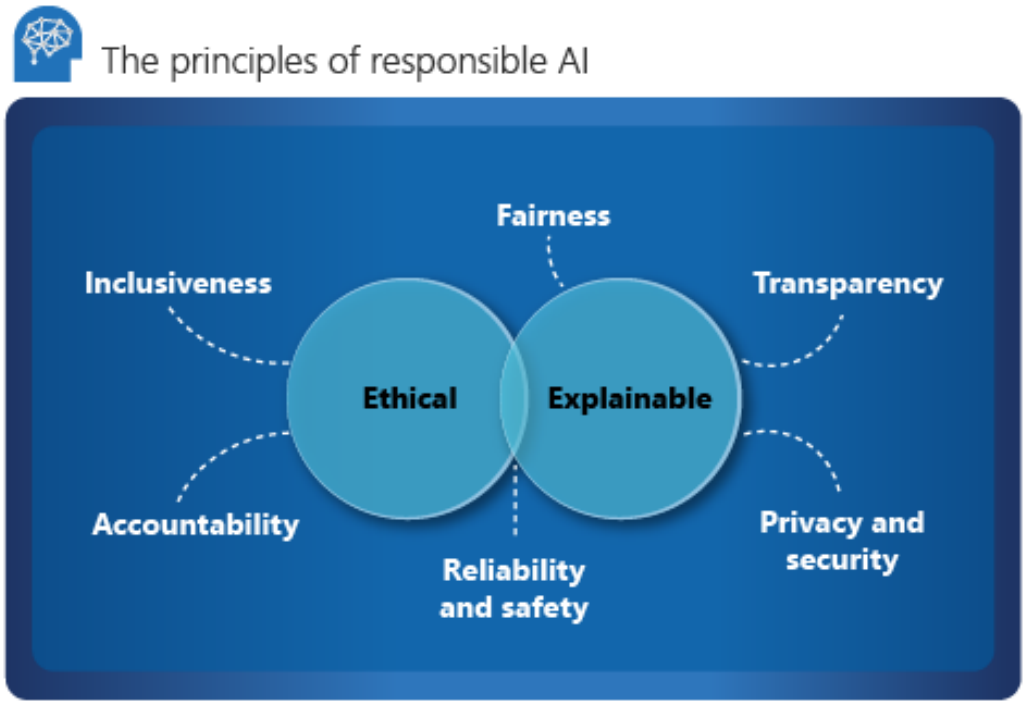
Data management

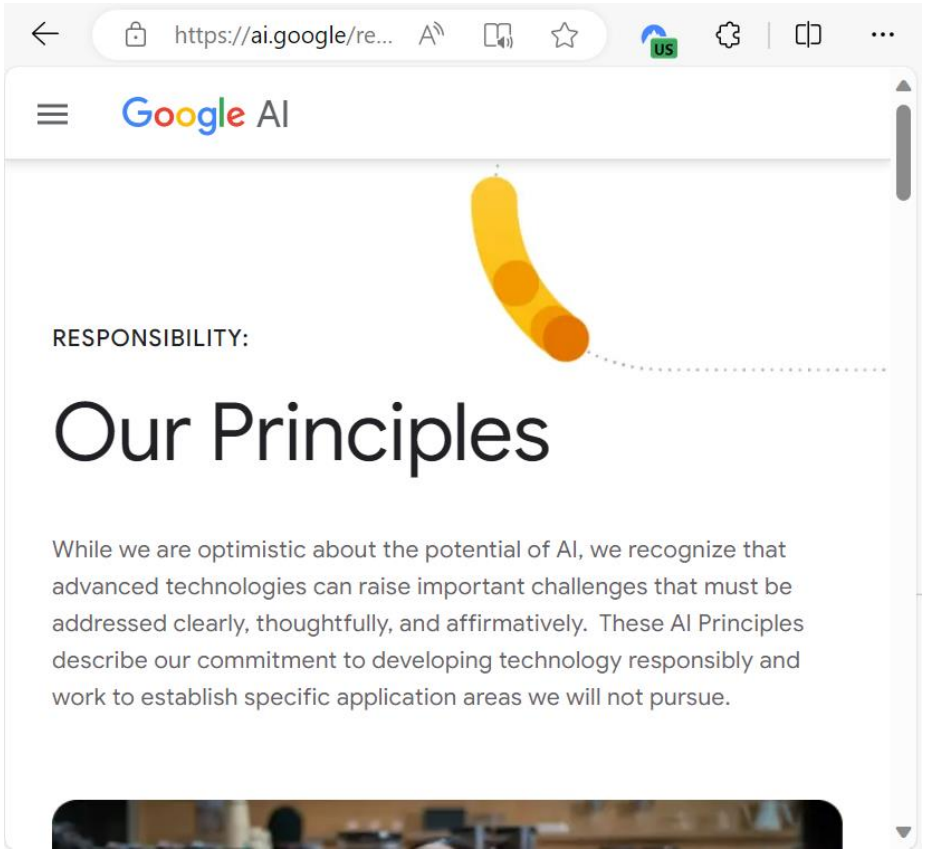
Start Small (and Learn)

Transparency

Monitor and Evaluate Performance

Building Responsible AI





Recap & Takeaways

Recap

Defining AI in the Mainstream

Industry and Application AI Readiness

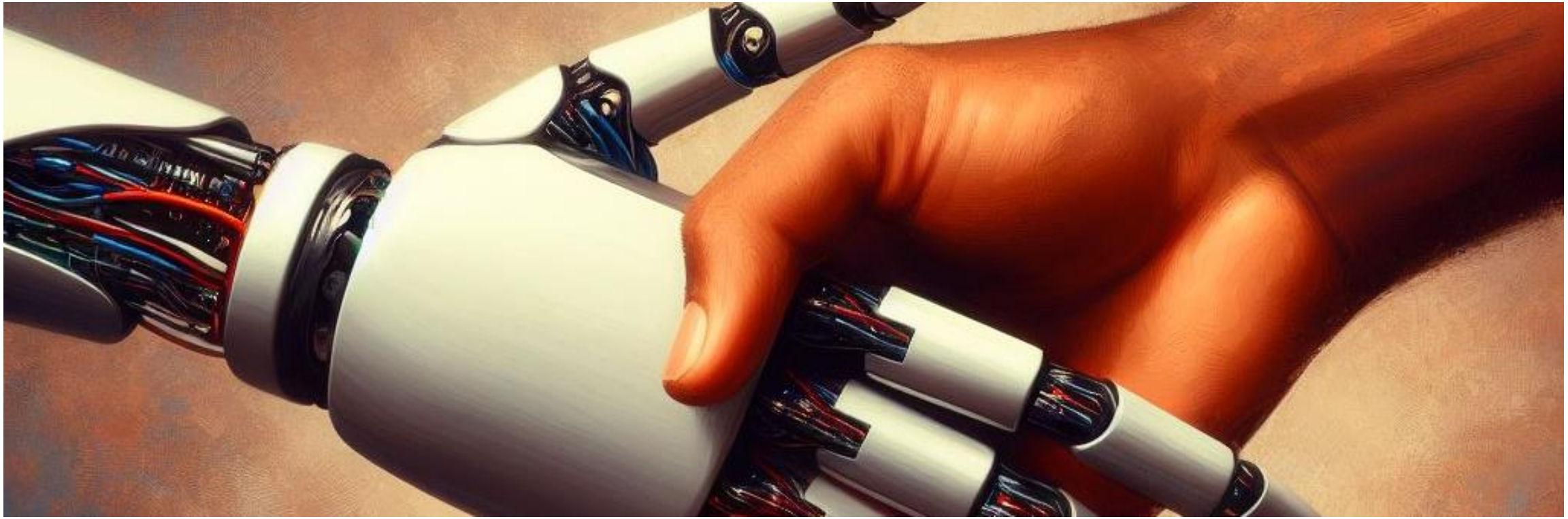
Potential Risks

Potential Benefits

Best Practices for Adopting AI

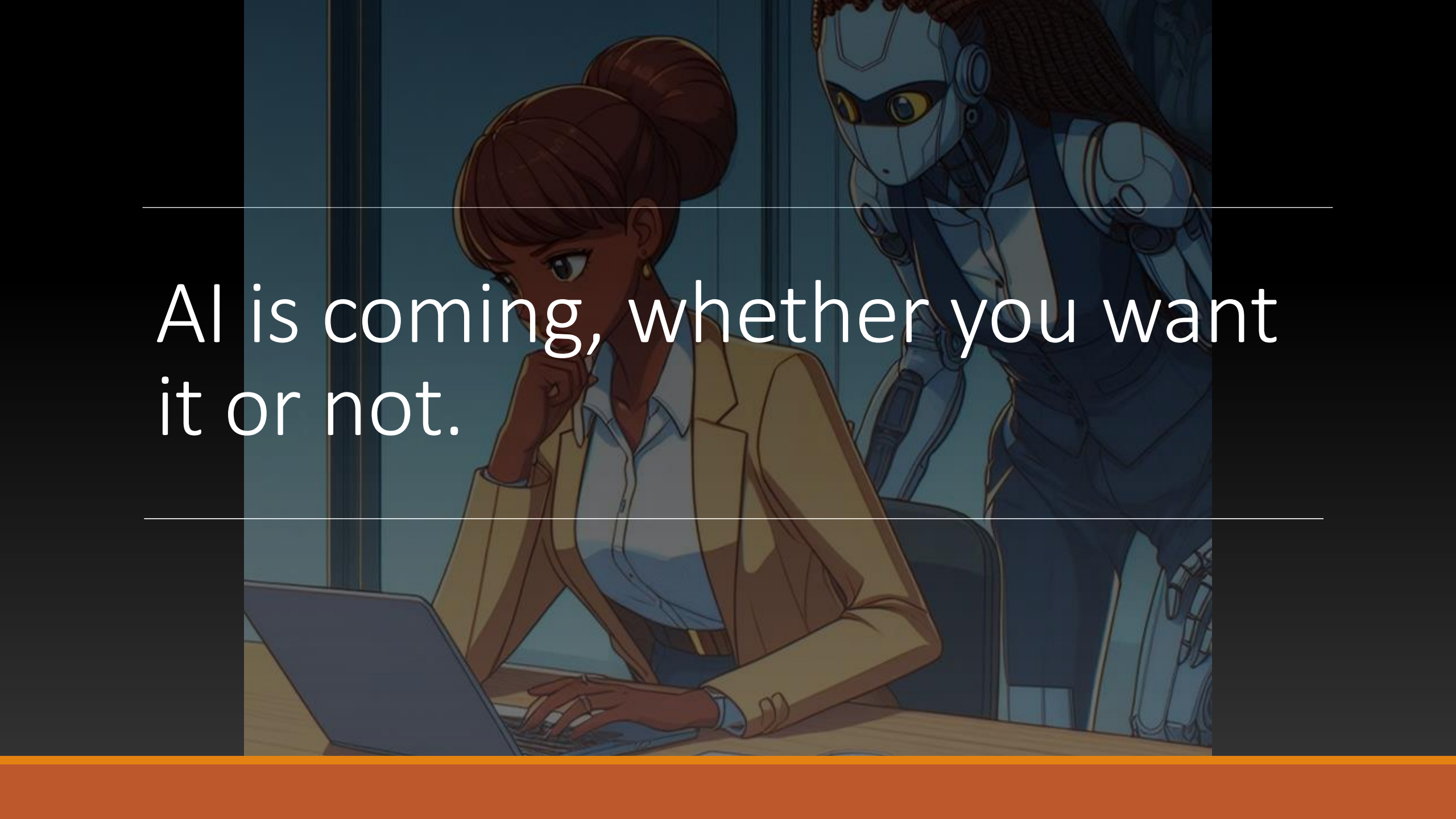
Takeaways

- AI has been present in our lives for years (this is not a revolution, but an evolution)
- The potential is great, but so is the risk
- Prepare yourself (and staff) with training, policy, and assessment
- Understand change fatigue in the workplace
- AI-enhanced work IS COMING, one way or another

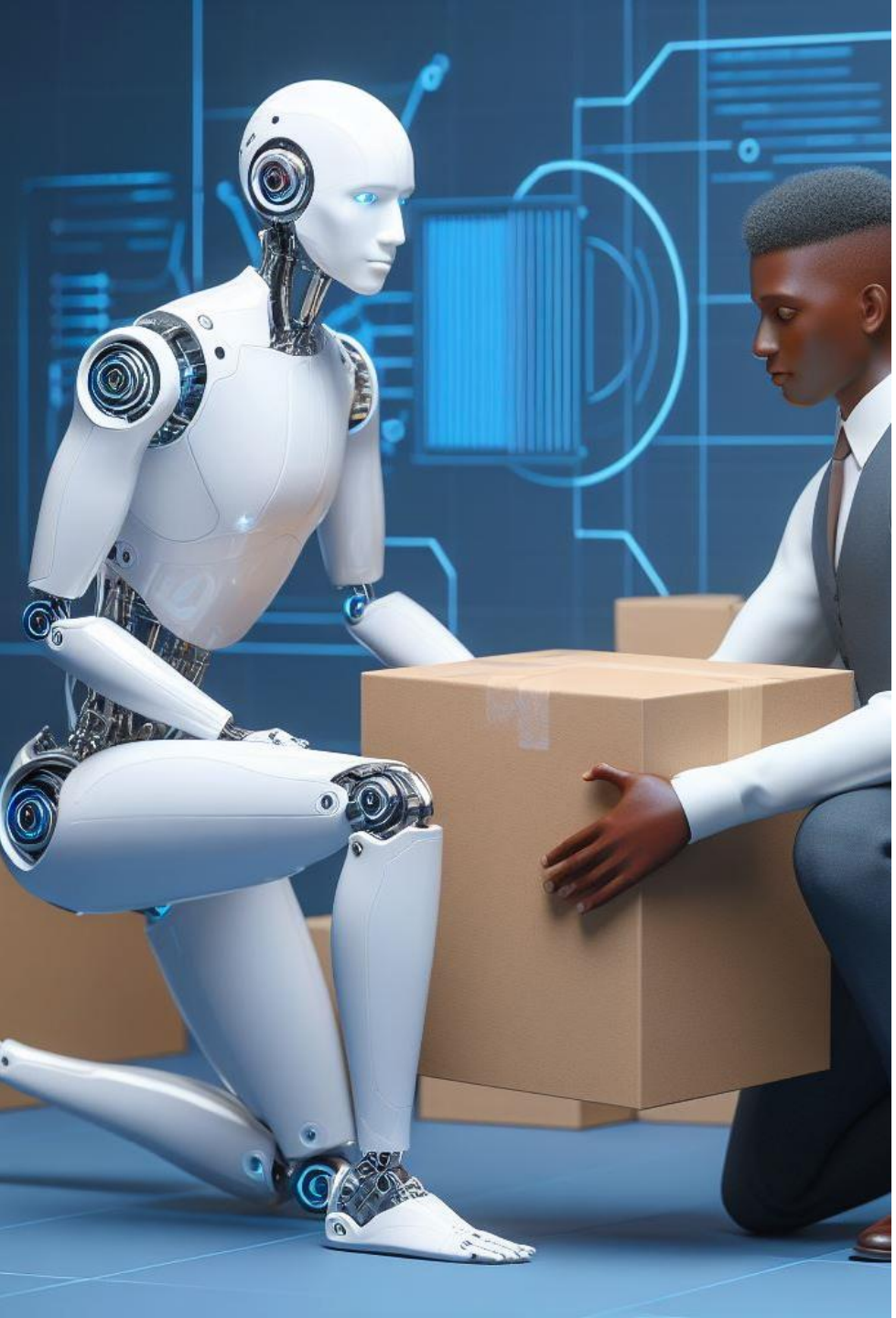


Action Item: Try it

AI is a Human-Enhancer not a Human Replacement



AI is coming, whether you want it or not.



...So get ready and learn!

www.rememberthehuman.ai

YouTube & YT Music | Spotify | Apple Podcasts

FREE EVENT (ALL WEEK)

October 24, 2023 @ 6pm // Kings Head Pub

Me

David Wesst

Solution Architect

University of Manitoba

https://www.davidwesst.com

https://www.youtube.com/davidwesst/

https://www.linkedin.com/in/davidwesst/

References

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https://www.reddit.com/r/StableDiffusion/comments/141hg9x/controlnet_for_qr_code/

https://www.reddit.com/r/ChatGPT/comments/13wfaqg/photoshop_ai_generative_fill_was_used_for_its/

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Responsible and trusted AI - Cloud Adoption Framework | Microsoft Learn

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