

# Is AI Ready to Take Over the World?

DAVID WESST //

INFORMANIX DISCOVER 2023 [WINNIPEG]

### (BECAUSE IT ALREADY HAS)

YES



### Topics

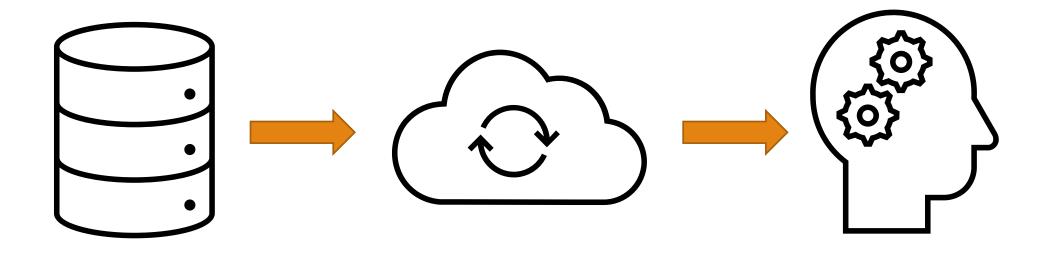
Defining AI in the Mainstream Industry and Application AI Readiness Potential Risks Potential Benefits Best Practices for Adopting AI

# Al is a Human-Enhancer not a Human Replacement

# Al 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 Al
- Large Language Models
- Image Generation



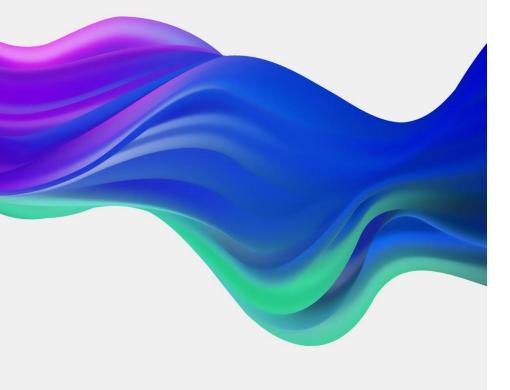


### AGI vs Al

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

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







# Finance



# Healthcare



# DEMO



# Media Production

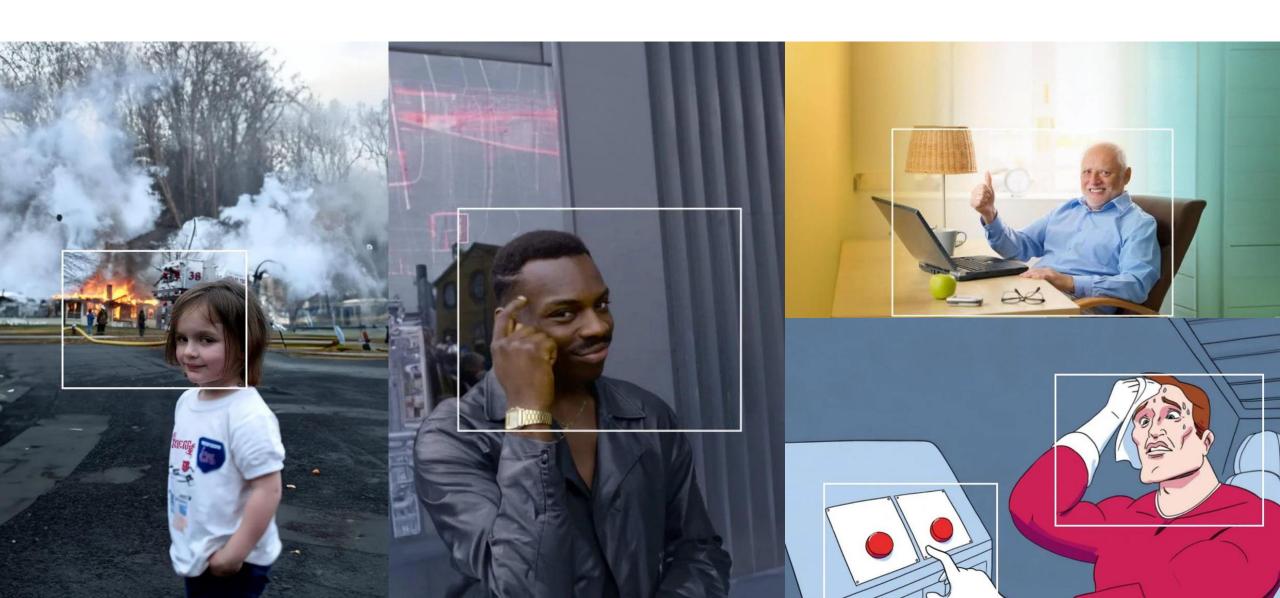






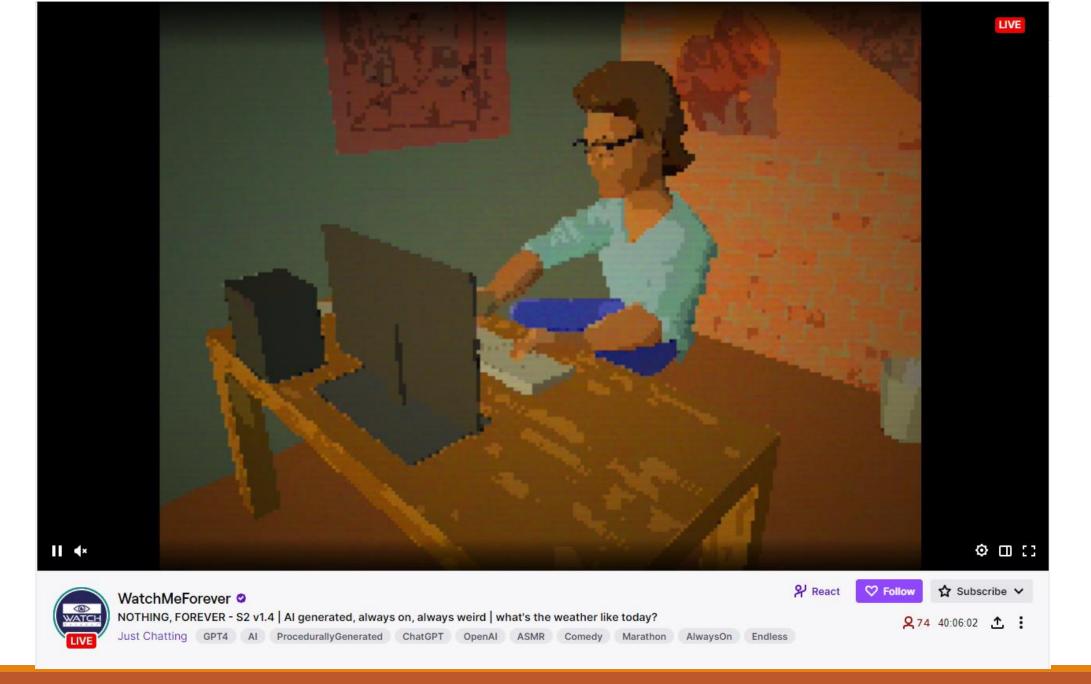








https://www.reddit.com/r/StableDiffusion/comments /141hg9x/controlnet\_for\_qr\_code/



#### WatchMeForever - Twitch



# Line of Business Applications?

#### 10 **Community Notes**

Section

Client CCRCA - Cross Creek Ranch C.A.

Show @ Active O Inactive O All

.

3

· Search

✓ CCRC		Headline	View	Expiration	Last Change	1.10	1	Searching fi
	A Amenibies	Amenities - Community Room - Kitchen Inspection Permit			04/11/23	Gonzalezi		
✓ CCRC.	A Amenities	Amenities - Community Room - Usage 05/16/23 Moore1		Moore1		Die Sch		
✓ CCRC	A Amenities	Amenities - Fitness Center			05/16/23	Moore1		Greenth
✓ CCRC.	A Amenities	Amenities - Fitness Center Hours			01/27/23	Moore1	1	Renovie
✓ CCRC	A Amenities	Amenities - Fitness Center WiFi Networks and Passwords			08/27/21	Tate1		Öffnung
✓ CCRC	A Amenibies	Amenities - Flewellen Creek Park			04/11/23	Gonzalez)	1	Cross C
✓ CCRG	A Amenities	Amenities - Flewellen Creek Pool			05/31/23	Craig		www.m
✓ CCRC	A Amenibies	Amenities - Greenthread Park			05/31/23	Craig		Feiertag
✓ CCRC	A Amenities	Amenities - Hike & Bike Trails			08/27/21	Tate1		Öffnung
✓ CCRC	A Amenities	Amenities - Italian Maid Cafe 04/11/23 Gonzal		Gonzalez		und Poo Dokum		
V CCRC	A Amenities	Amenities - Online Reservation System 08/08/22 Moore1		Moore1		Dokum		
✓ CCRC	A Amenities	Amenities - Park & Playgrounds	Amenities - Park & Playgrounds 04/11/23		04/11/23	Gonzalezi		Source Doct
✓ CCRC.	A Amenibies	Amenities - Pine Park - Pickleball Court			04/11/23	Gorzalez		2023 June 8
✓ CCRC	A Amenities	Amenities - Pool Rentals			01/04/23	Moore1		Greenthread
CCRC	A Amenities	Amenities - Soccer Field			10/15/19	Manuszak		Amenities -
✓ CCRC	A Amenibes	Amenities - Splash Pad at Adventure Island			03/07/23	Moore1		
✓ CCRC	A Amenibies	Amenities - Tennis Courts			04/14/23	Moore1		Suggested F
✓ CCRC	A Amenities	Amenities - The Hill & Lakes			08/27/21	Tate1		Welche spe
✓ CCRC	A Amenibies	Amenities - The Hill & Lakes (Fishing)			08/27/21	Tate 1		Was sind do
Sale and						2 - 21N		Kann der Po
you are a		the pool, please call or email the pool management or our reservations. Note: Flewellen Creek Pool is not op			servations	S		Gibt es Bess
	to mane ye		out ton pe	or pointy is			- 11	Lanos es bes

#### Was sind die Oeffnungszeiten der Schwimmbaeder?

#### pool hours

mmbadzeiten variieren je nach Ort. ad Park Pool ist derzeit aufgrund von ingsarbeiten geschlossen. Die vollständigen zeiten für Juni und Juli 2023 können im My ek Ranch-App oder auf der Website unter rosscreekranch.com eingesehen werden. An n wie dem Labor Day gibt es spezielle zeiten. Weitere Details zu Oeffnungszeiten ermietungen sind in den entsprechenden ten zu finden.

#### pater

Swimming Pool Hours \*\*\* NewsFlash - Labor Day Pool Hours Pool Closure Amenibes - Rewellen Creek Pool h Pad at Adventure Island

#### w-Up Questions:

en Öffnungszeiten gelten an Feiertagen?

Mnungszeiten des Splash Pad im Adventure Island?

pemietet werden? | Sind Schwimmkurse erhältlich?

nkungen bezüglich der Kapazität der Schwimmbäder?

ind die Oeffnungszeiten der Schwimmbaeder?

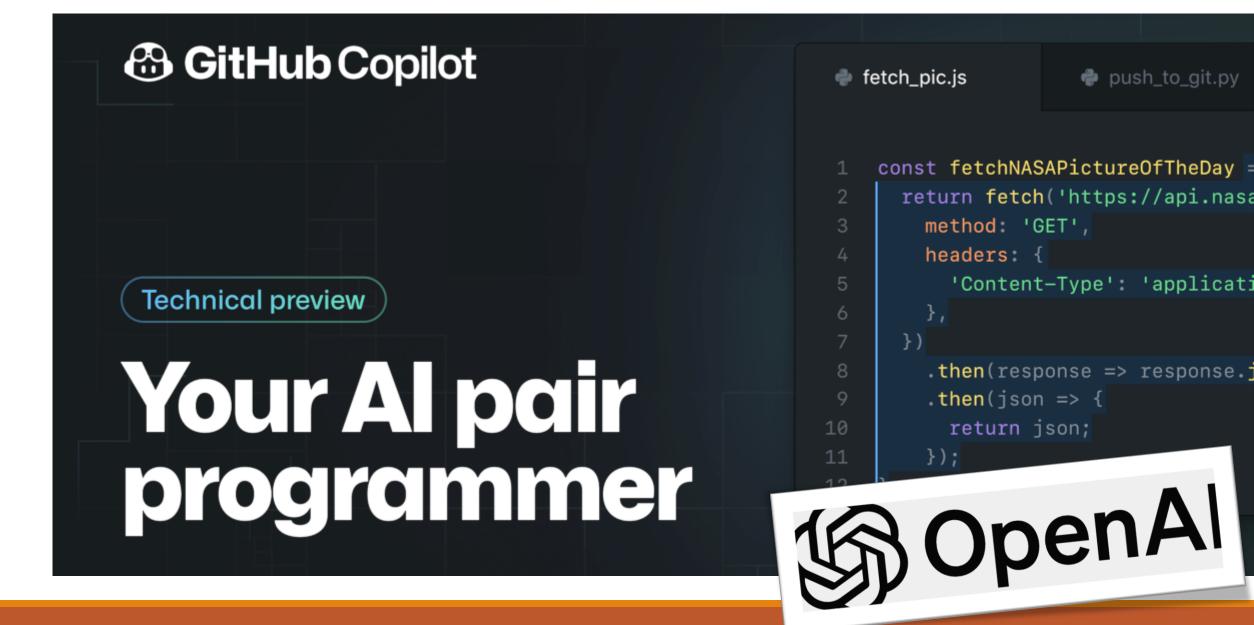
Ask

+ 100%

https://www.linkedin.com/posts/markusegger\_man-do-i-love-this-generative-ai-stuff-activity-7115399916503396352-DYPe?utm\_source=share&utm\_medium=member\_desktop

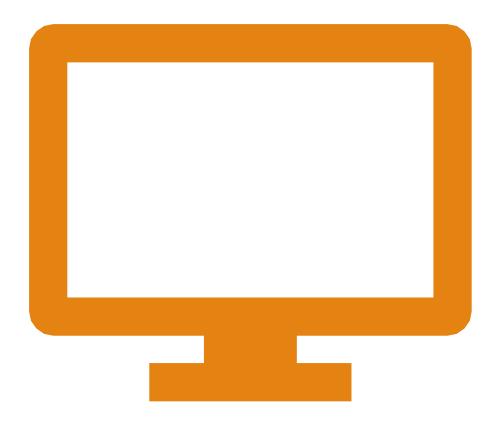


# Software Development

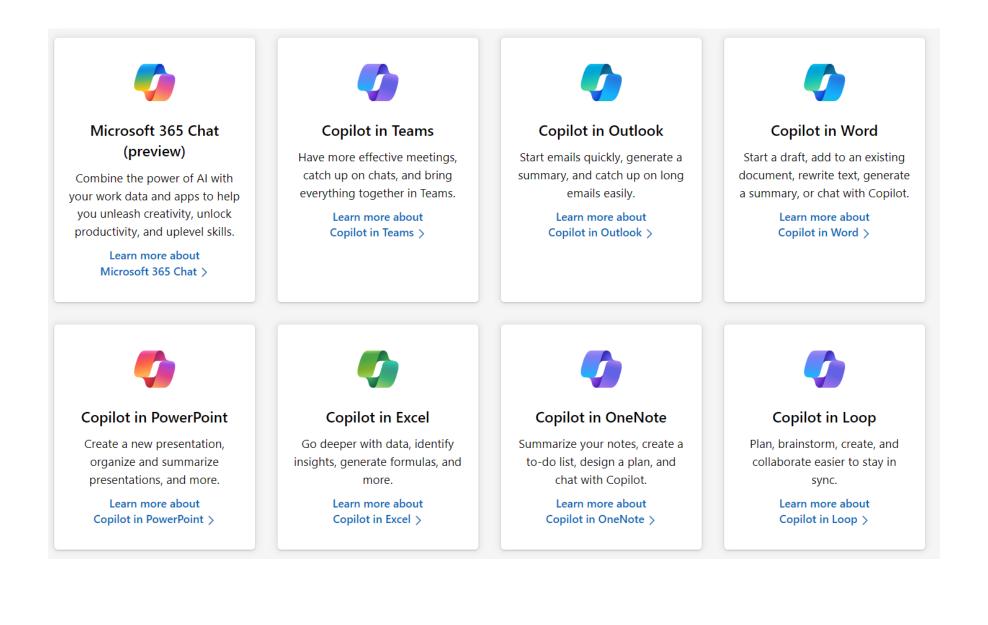


## Example Changes in Software Development

Al-Assisted Testing Synthetic Data Generation Code Explanations & Commenting Code Generation



# DEMO



# 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/40222 72?ref=search&platform=5

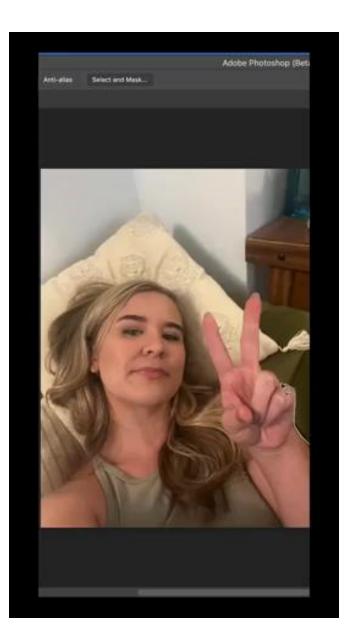
#### Use Cases by Industry/Capability

	Industries						<b>Business Capabilities</b>					
	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	•		•	•			٠	•		•	•	•
Generative Design (Parts)	•		•				٠					•
Generative Design (Architecture)			•									
Code Generation												
Text Generation		٠									•	
Image Generation		•									•	
Video Generation		٠							•		•	
Audio Generation		٠									•	
Media Content Improvement											•	

Source: Gartner

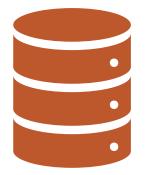
778501\_C

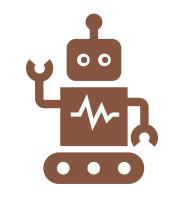




Ethical Concerns & Misuse

### Security, Privacy, and Legal Concerns





What data was used in training the model?

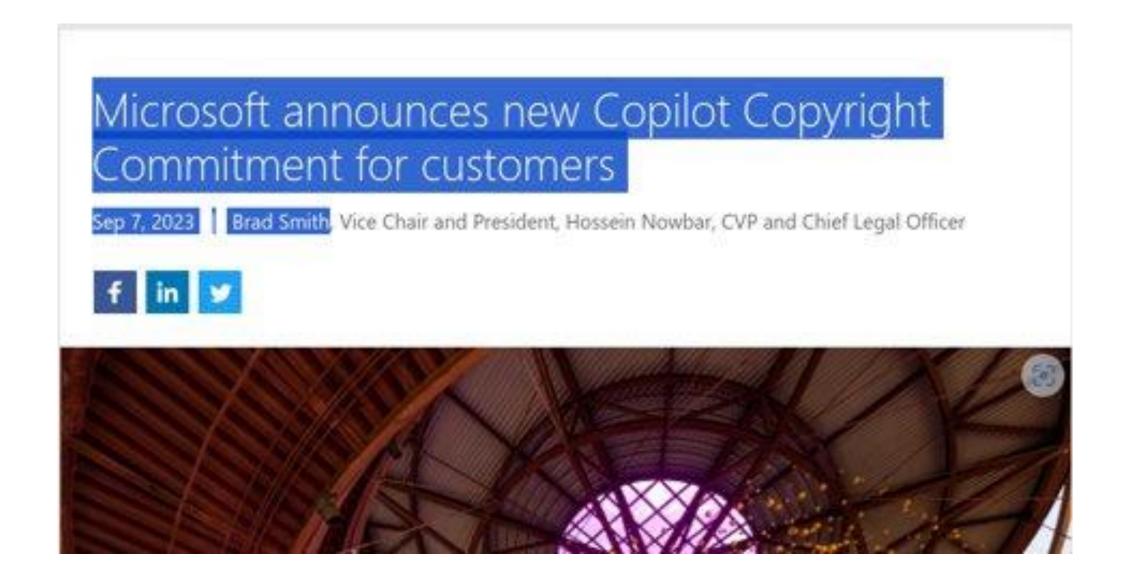
Does the AI use my prompts to improve its model?

# The lawsuit that could rewrite the rules of AI copyright

	A Bud Colthin the example of the workshow of the history
(B MainAc	ctivity java 🐐 🔀 activity main.uml 🗉
	dialog.setProgressStyle( ProgressDialog.STVLE_HORIZONTAL ):
	dislog.setTitle("ProgressDislog"):
	dialog.setMessage("Progress"):
	htnCopy.setOnCiickListener(new View.OnCiickListener() (
	e0verride
	oublic void onCildk(Yiew v) (
	// 7000 Auto-generated asthod stub
	d(alog.show())
	Thread copyThread - new Thread("Copy Thread") {
	sublic wold run() {
	try ( String path + Environment.getExternalStormgeDirectory().getAbsolutePath()
	+ // + fliePath.getText().toString():
	FileInputStreem fin - new FileInputStreem(path):
	FII:0utputStream fOut = new FileOutputStream(path = ".ccov");
	(init total = fin.available();
	Log level Verboxe 🔻 Qo
	-dow(0) (eb/ed/ud/ Statuster)
	Endow (51270903 v0 KeysuandScrim)
	Englow(b13699e8-e0-com.android.teuncher/com.android.teuncher2.Launcher2
	iii lindow(b16bes48 u0 com.android.systemui.imsgeWa11peper) iiiiing 1525-android.arocess.media/u045 (ad) 15): emoty for 1836s
	(ac) is a second and the second seco
	D g Messeges

/ Microsoft, GitHub, and OpenAl 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.

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



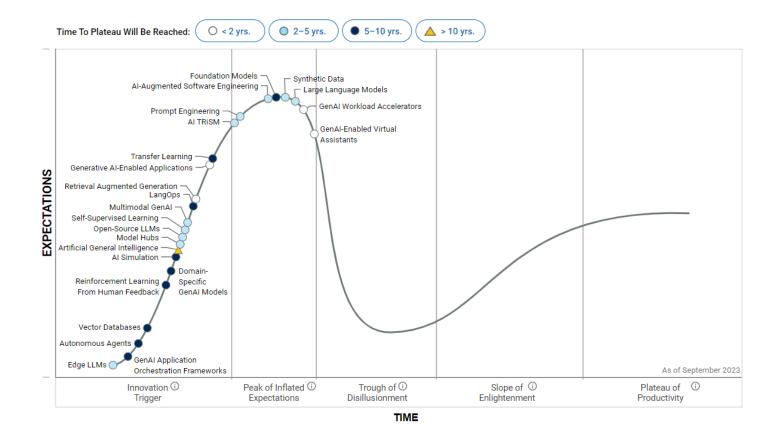
https://blogs.microsoft.com/on-the-issues/2023/09/07/copilot-copyright-commitment-ai-legal-concerns/

## Regulation

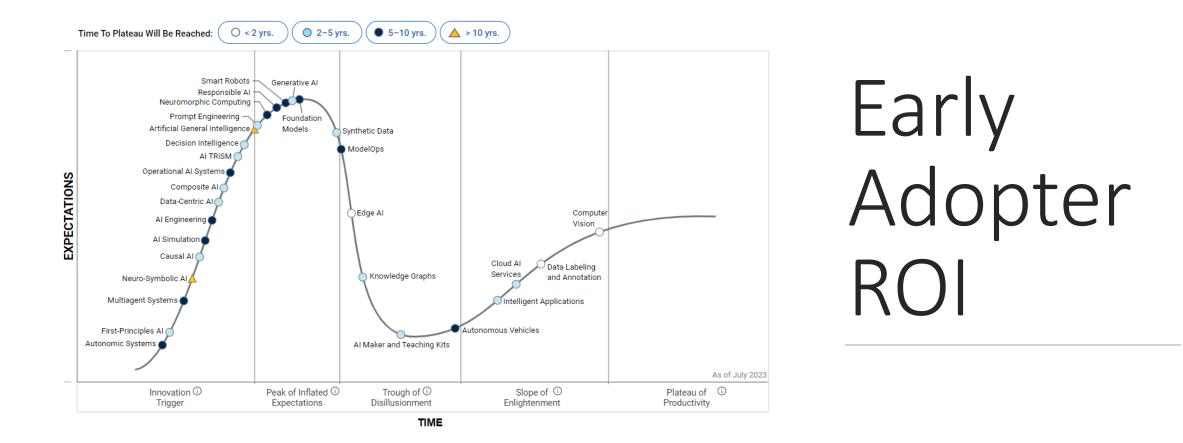


### Lack of Transparency





Early Adopter



## Potential Benefits

#### Efficiency & Productivity

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

 <u>Experimental Evidence on the Productivity Effects of</u> <u>Generative Artificial Intelligence</u>, March 2023 (MIT)

#### Teaching and Learning

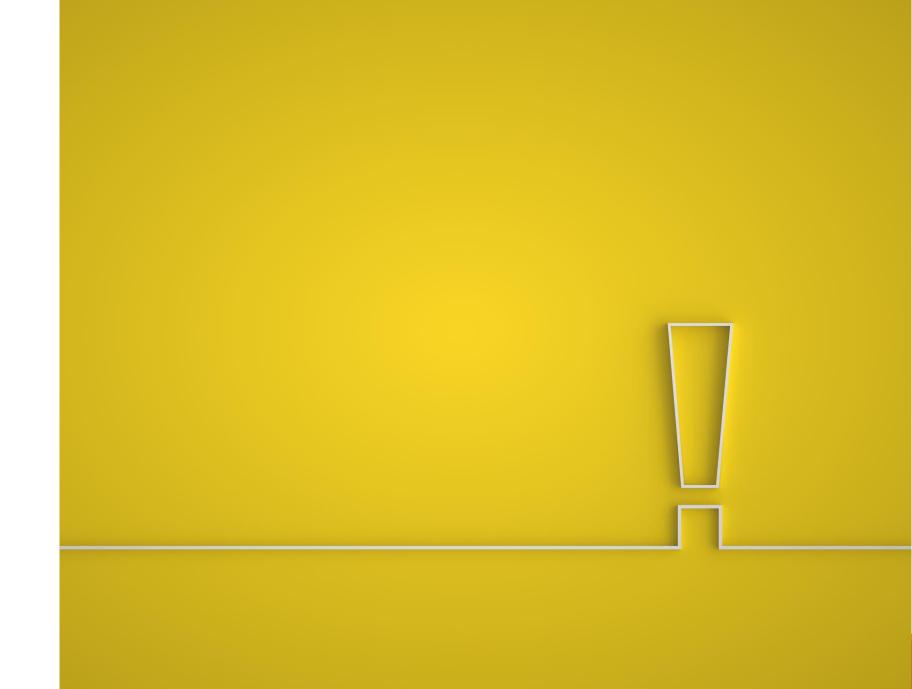
"A staggering 85% of high school and college students who have availed themselves of both ChatGPT and traditional tutoring sessions during the recent academic year assert that ChatGPT surpasses traditional tutoring in effectiveness as a learning tool."

> https://venturebeat.com/ai/chatgpt-takes-center-stage-students-ditch-tutors-in-favor-of-ai-powered-learning/ May 29, 2023 9:33 AM

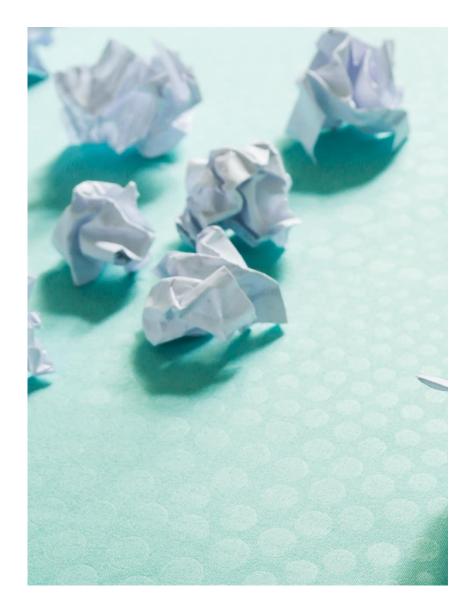
...and there's more!

Data Analysis & Predictive Capabilities

Safety & 24/7 Operation



## Best Practices for Adopting Al



#### Best Practices For adopting Al

Having clear goals

Invest in training

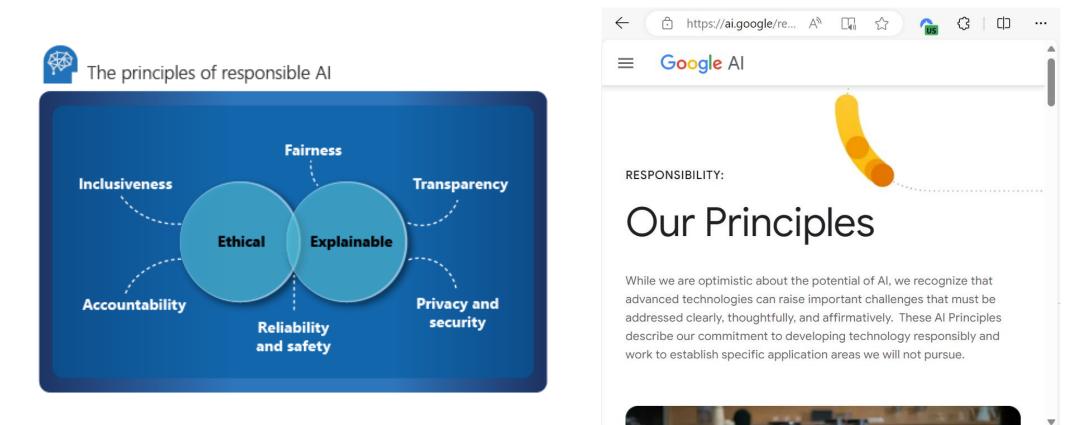
Data management

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



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

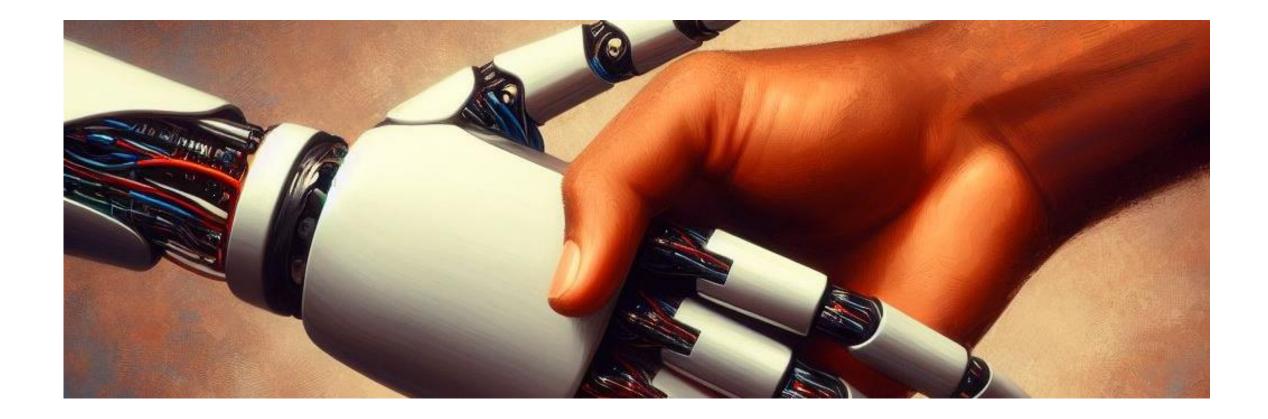


Understand change fatigue in the workplace



Al-enhanced work IS COMING, one way or another





### Action Item: Try it

## Al is a Human-Enhancer not a Human Replacement

## Al 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

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

https://www.gartner.com/document/4185699?ref=solrAll&refval=368699681

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

https://economics.mit.edu/sites/default/files/inline-files/Noy\_Zhang\_1.pdf

https://www.reddit.com/r/StableDiffusion/comments/141hg9x/controlnet\_for\_gr\_code/

https://www.reddit.com/r/ChatGPT/comments/13wfaqg/photoshop ai generative fill was used fo r its/

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

Responsible and trusted AI - Cloud Adoption Framework | Microsoft Learn

WatchMeForever - Twitch