UNLOCKING THE POTENTIAL: Session 2

The Evolutionary Impact and Practical Applications of Generative AI for Manufacturers

industry40club

Jan Pingel and Mike Ungar

Co-Founders
www.industry40club.com

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Jan Pingel

Product Leader, Digital Solutions
Ingersoll Rand

Mike Ungar

FocalPoint Business Coach and
Executive Coach

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The Industry 4.0 Club

- A dynamic, growth-oriented community that brings together professionals from diverse backgrounds to foster collaboration, knowledge sharing, and innovation within the realm of Industry 4.0.
- Our members include practitioners, technology providers, consultants, and thought leaders united by their passion for the advancement of smart manufacturing solutions.

Our Mission

Our is mission is to accelerate the worldwide adoption of Industry 4.0 technologies by connecting diverse talents, fostering collaboration, and inspiring innovation.

Our aim is to bridge the gap between practitioners, technology providers, and thought leaders to drive meaningful change.

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Agenda

- Recap from our first Session
- AI Revolution? 2023 – Generative AI’s Breakthrough Year
- Prompt Engineering the new Skill?
- Examples of using Generative AI for Business
- Generative AI Maturity – Still some growing pains
- Summary and Q & A

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Recap from our first Session

- GPT: Generative Pre-trained Transformer, LLM: Large Language Model
- OpenAI released ChatGPT 3.5 – and 1 million user subscribed in 5 days!
- You can use ChatGPT to quickly create content
  - Either from scratch (prompt) or from existing content
- Possible uses in Industry/Manufacturing
  - Quality Control
  - Predictive Maintenance
  - Supply Chain Optimization
  - Customer Service
- Be careful about confidentiality
  - If you use the public version, all our input might be accessible to others.

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https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year

Everybody talking about it!

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Generative AI Revolution

- What might have seemed to be a completely new technology, was a technology many companies was already working on:
  - Open AI: ChatGPT 4
  - Google: Vertex AI, PaLM 2, Bard, Sagemaker
  - Meta: Llama 2
  - Anthrop\c: Claude.AI
  - Stability.ai: Stable Diffusion
  - IBM: Watson X

    ...
  - Tesla/X: Working on an AI platform
  - SAP: Coming soon
  - Apple: Working on their own AI platform

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Companies are integrating the technology

Microsoft 365 Copilot

ORACLE

cohere

einstein

watsonx

Google Duet IA

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New Roles and Responsibilities

CHANGES TO THE WORKPLACE

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“AI will not replace you;

People using AI will! “

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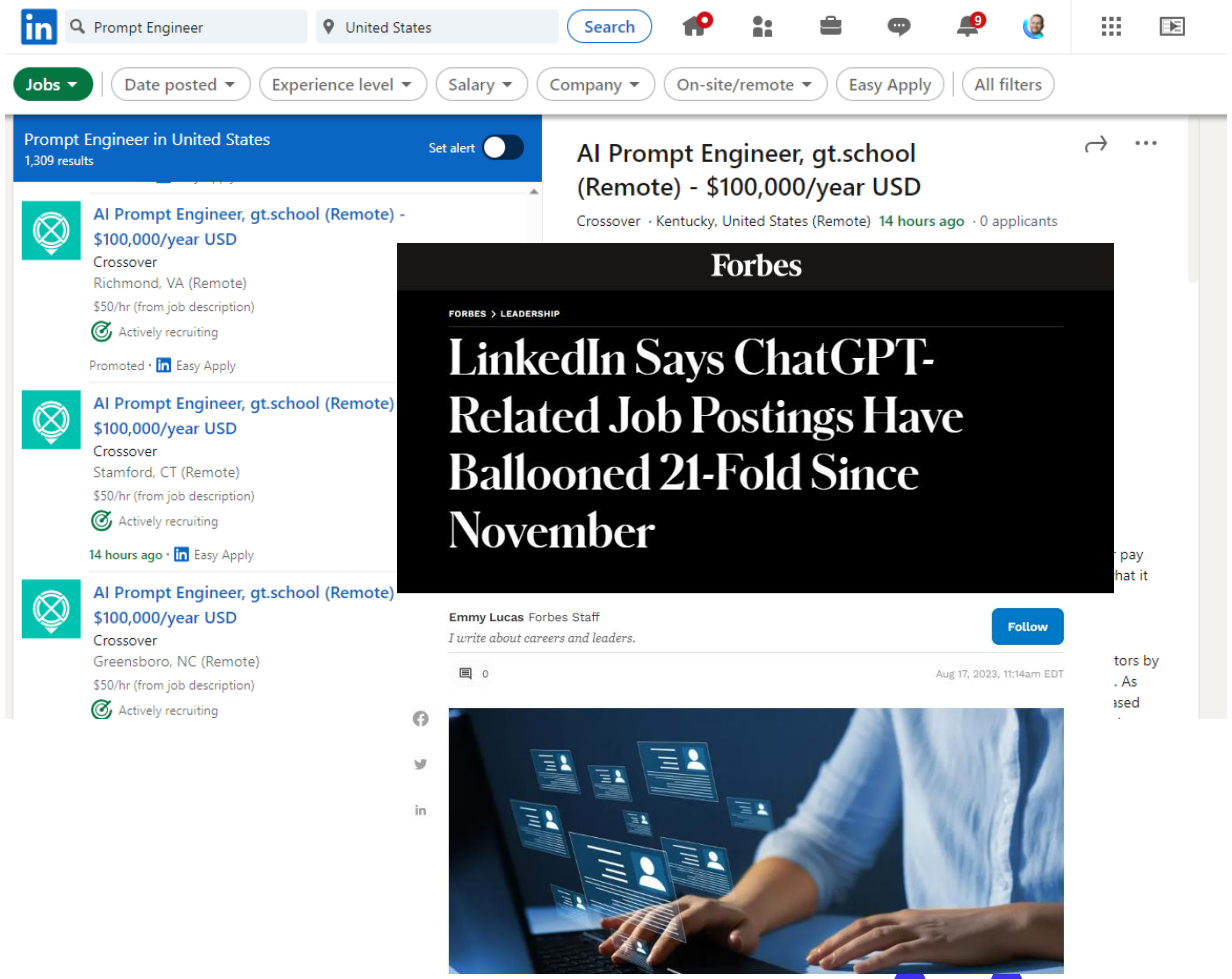
Prompt Engineering – A new profession / skill?

- Not yet a sought profession
- But accounts for a significant amount of social media posts, adds, and offers.
  - Part of the new Gig Economy



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Using ChatGPT to create prompts for ChatGPT!

- Prompts started out as “being a little more specific than standard search”
- Software Engineers started looking at this
  - They had been creating specific search prompts to find code in code libraries
- Then prompts became conversational with the ChatGPT bot
  - Narrowing down the results as part of the conversation
- Now gotten to a new method of asking the AI to generate prompts to get the best results.

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LET'S LOOK AT SOME EXAMPLES

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Quick examples of Brainstorming with ChatGPT

- *Provide 10 new ideas related to [subject] based on these examples …*
  - . . .
- *Generate 5 potential headlines/titles about [subject] in the style of these examples …*
  - . . .
- *Suggest 3 creative prompts to get new ideas about [subject]*
  - . . .

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Competitive analysis

- *Analyze [website] and tell me what industry they work in and potential competitors*
  - . . .
- *Analyze the competitors listed and provide strengths and weaknesses of each*
  - . . .
- *Great, now I would like to know about how people think about these other brands. Give an overview of the reviews of each*
  - . . .
- *What are some of the ways [Company] can differentiate in the industry and win more market share*
  - . . .

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How about helping with e-mails

- *write e-mail to bob, tone conversational, spartan, use less corporate jargon: Current sprint is full, can't take new requests, late adds are hard, plan better next time*

  Hey Bob,

  Hope you're doing well! Just wanted to shoot you a quick update on our current situation here. The sprint is jam-packed with tasks, and we can't really take on any new requests right now.

  Late additions to the sprint are turning out to be quite challenging for us to manage. It throws off our plans, and we end up scrambling to keep things on track.

  So, it would be awesome if we could plan things a bit better next time around. By having a solid plan in place from the start, we can avoid getting overloaded and ensure a smoother workflow.

  Anyway, just wanted to give you a heads up on where we stand. Let's chat more when we get the chance!

  Take care,

  [Your Name]

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Ask ChatGPT to generate prompts to be used to generate content

- *I need to create an engaging image for social campaign. I will use an AI image generator called MidJourney.*

  I will provide you with my Instagram caption and a brief description of the image I want. You will provide me with 5 prompts for MidJourney.

  Your prompts should each include at least 4 descriptive keywords as well as stating the time of day, type of camera, type of film, and post processing techniques.

  Your responses should each include my brief description followed by your keywords separated by commas. Nothing else.

  Do you understand?

- Yes, I understand. Please provide me with your Instagram caption and a brief description of the image you want, and I'll generate 5 prompts for MidJourney as per your requirements.

- Caption: Manufacturing is no longer dull, dark or dirty

  Image: Bright manufacturing environment with diverse people interacting with machine

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Ask ChatGPT to generate prompts to generate content

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Beautiful images, but none of them real – all AI generated

MATURITY OF GENERATIVE AI

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Still a new technology with some caveats

- Most solutions share data between all users
  - Concern for users to submit potential sensitive information into the system
- OpenAI and other systems has been trained with broad data sets
  - Including copyright and trademarked material
  - Some lawsuits has already been filed
- Complex interactions with the Chatbots can generate “Hallucinations”
  - Some answers are incorrect or misleading … or even gibberish
  - These systems are constantly evolving with more information fed to them
- Always remember ChatGPT “makes stuff up”
  - Analyses the question and generate a reasonable response based on all the material used to learn.

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Generative AI is still more “statistics” than true AI!

Be careful with sensitive data

- Without your own instance or true firewalled solutions, you are sharing all your input with everyone else.

  - Your input is used to continuously improve the model
  - Although not directly accessed, it can be part of a response someone else asked for.

  - Use the tools for general research and responses
  - Don’t have it analyze your internal financials or other sensitive data

- Look for solutions that offer separations between yours and other’s data!

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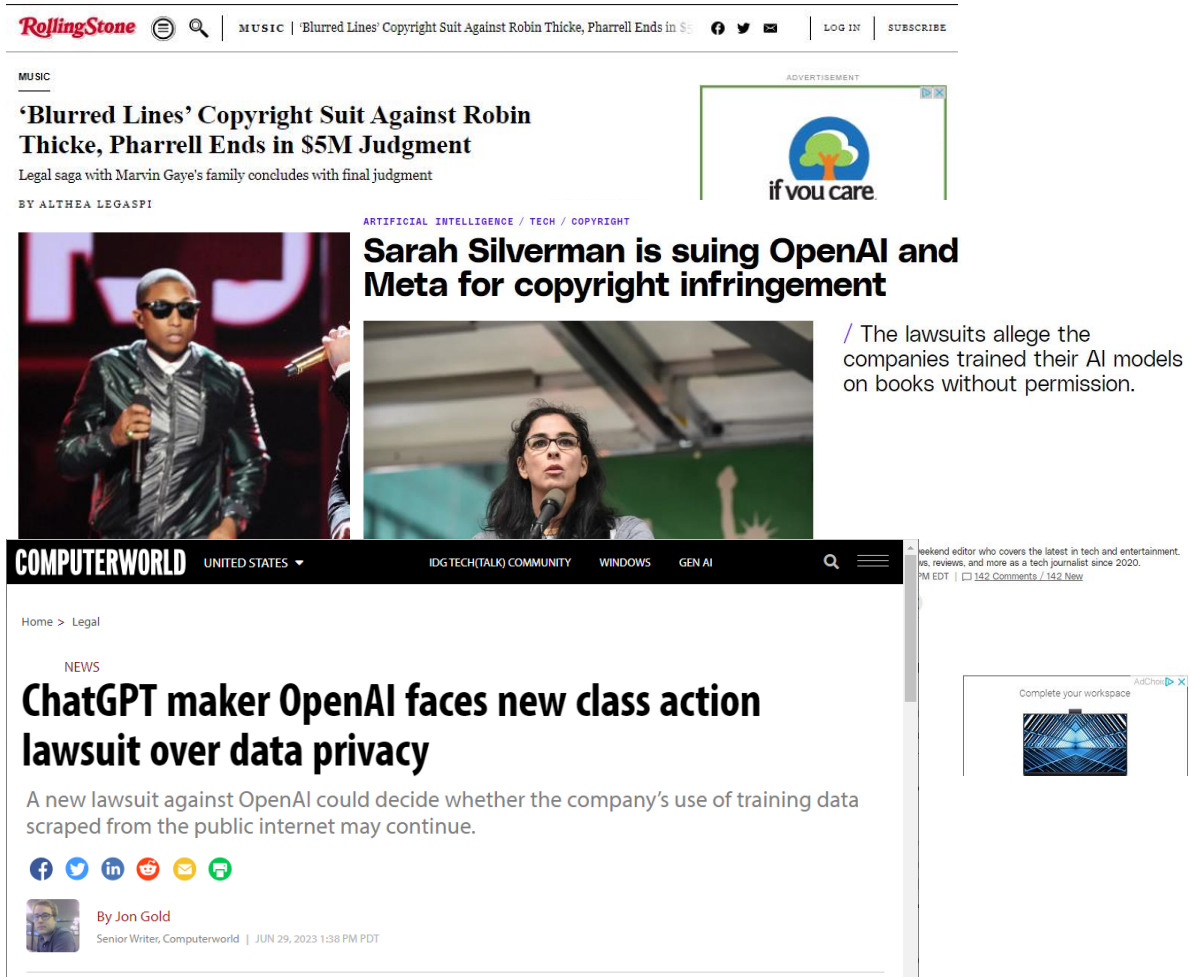
Some concerns about copyright and privacy

- Several Lawsuits has already been filed:
  - Sarah Silverman – Copyright
  - Privacy Class Action

- These are focused against:
  - OpenAI
  - Meta
  - Microsoft, etc.



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MUSIC

'Blurred Lines' Copyright Suit Against Robin Thicke, Pharrell Ends in $5M Judgment

Legal saga with Marvin Gaye's family concludes with final judgment

BY ALTHEA LEGASPI

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ARTIFICIAL INTELLIGENCE / TECH / COPYRIGHT

Sarah Silverman is suing OpenAI and Meta for copyright infringement

/ The lawsuits allege the companies trained their AI models on books without permission.

COMPUTERWORLD | UNITED STATES | IDG TECH(TALK) COMMUNITY | WINDOWS | GEN AI

Home > Legal

NEWS

ChatGPT maker OpenAI faces new class action lawsuit over data privacy

A new lawsuit against OpenAI could decide whether the company's use of training data scraped from the public internet may continue.

By Jon Gold

Senior Writer, Computerworld | JUN 29, 2023 1:38 PM PDT

eekend editor who covers the latest in tech and entertainment.
vs, reviews, and more as a tech journalist since 2020.
PM EDT | 142 Comments / 142 New

AdChoices

Complete your workspace

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Individuals should be protected against using the technology

Hallucinations!

- Image generating tools have been known to hallucinate
  - People with 6 fingers, three arms, etc.

- Early access to ChatGPT showed some interesting responses with long conversations:
  - One conversation had ChatGPT respond that the user “didn’t like them”
  - One conversation had ChatGPT make up statements from key white house officials.

- Generative AI rarely will answer “I don’t know”, instead it makes up stuff!
  - Incomplete or Biased training
  - Lack of context or understanding of the conversation
  - AI’s has not yet reached the level of Human language or communication

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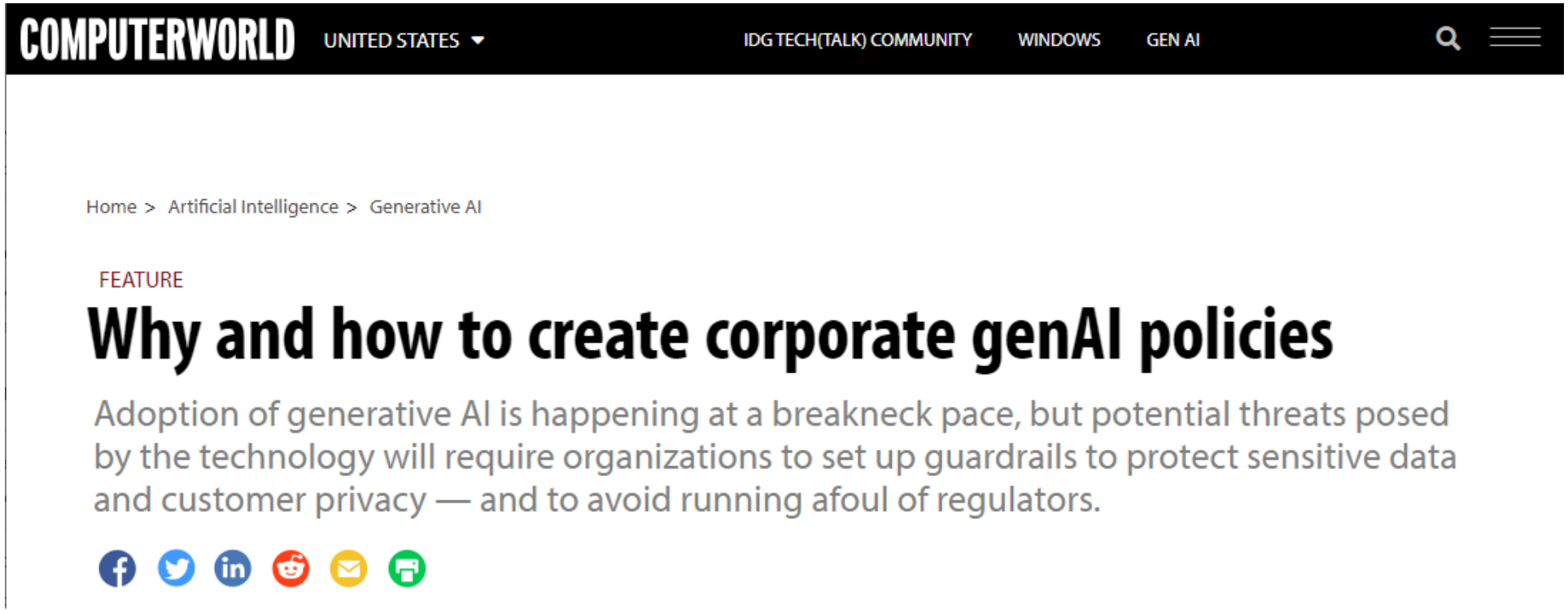
If you are looking for factual responses, you need to double check the AI

Need to look at policies around AI within organization

- Small, Medium or Large – Need to create policies around this area



https://www.computerworld.com/article/3705028/why-and-how-to-create-corporate-generative-ai-policies.html

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Great resource to get started!

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WHERE TO GO NEXT?

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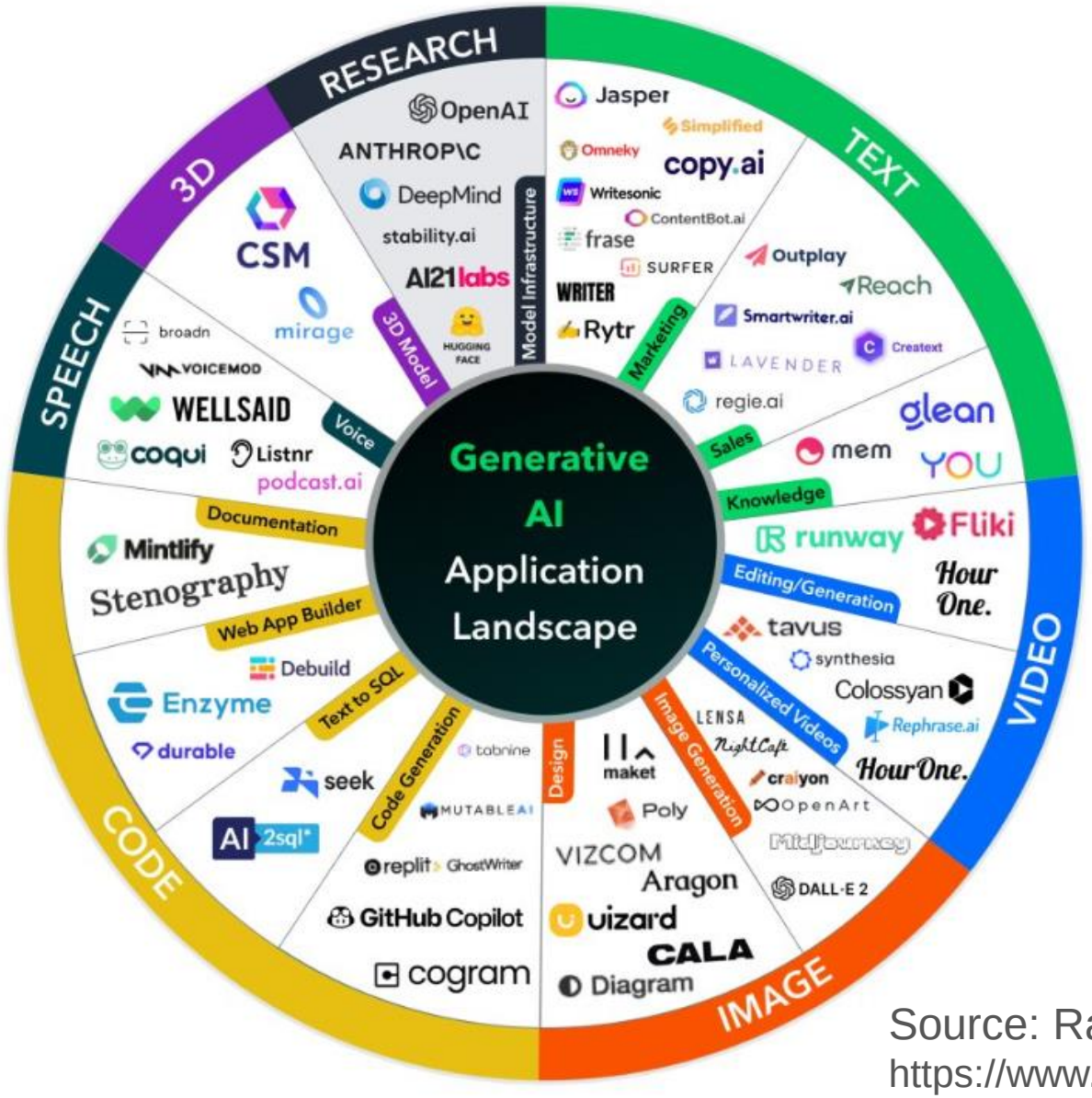

Source: RapidOps
https://www.rapidops.com/blog/generative-ai-tools/

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Large landscape in a very short timeframe

Open.AI GPT 4 still seems to be the leading tool to use

Jasper

Microsoft 365 Copilot

duolingo

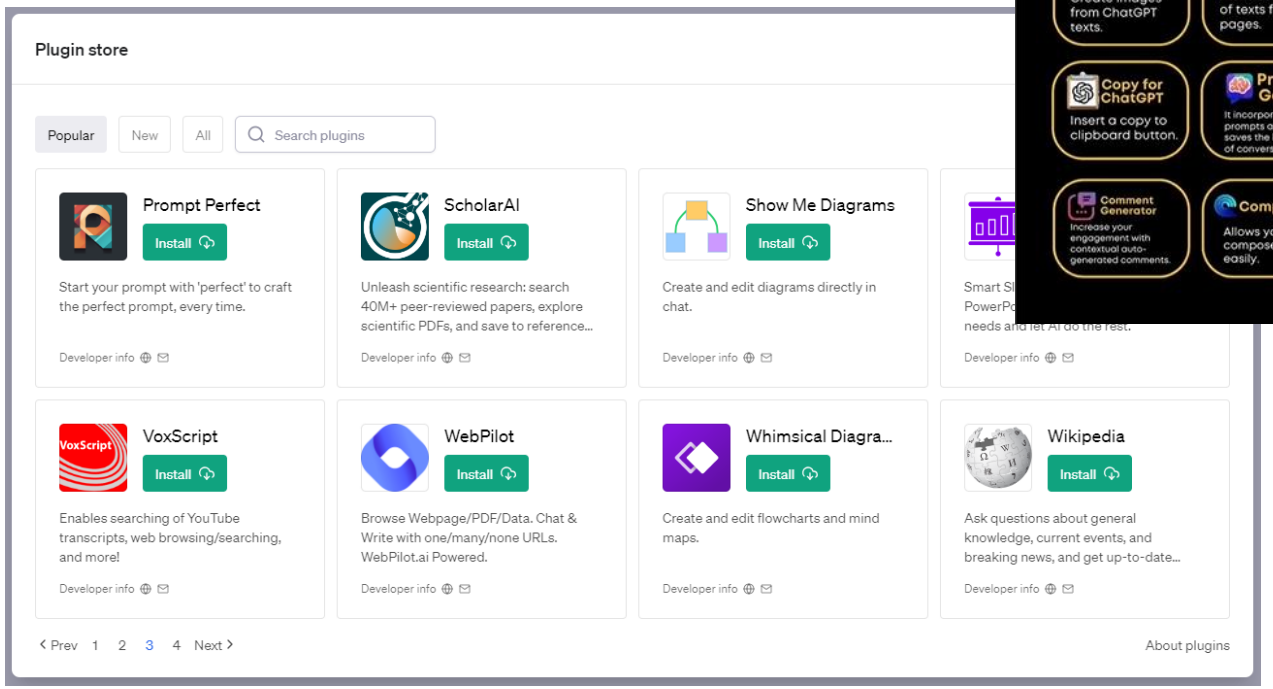
Government of Iceland

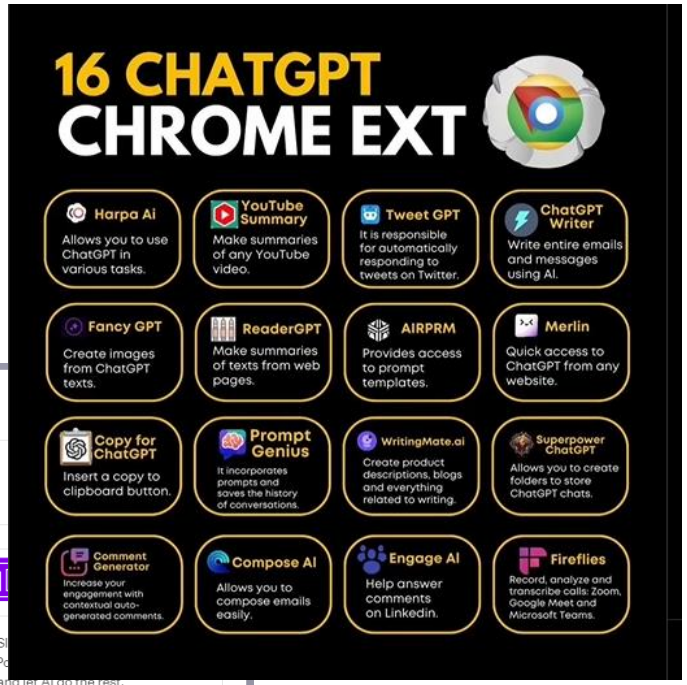
Khan Academy

casetext

Morgan Stanley

stripe Payment





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ChatGPT Alternatives

- Claude AI
- Google Bard AI
- Bing AI Chat
- Perplexity AI
- OpenAI GPT Playground
- Poe by Quora
- YouChat
- Chatsonic
- Stable Chat (New)

ANTHROP\C

PaLM 2

OpenAI

OpenAI

OpenAI

OpenAI

OpenAI

OpenAI

stability.ai

PaLM 2

LLaMA by Meta

Claude

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Most of these are still open and shares data .... and based on OpenAI

What's on the Horizon

- Bots to handle inbound/outbound sales/service communication

  BRAVADO SalesGPT, Nice CXOne, and others

- E-mail assistant

  Various examples of software offerings being developed

  Incl. Microsoft Co-Pilot for Office 365

- Systems to analyze your business data
  - Salesforce, Microsoft, Oracle, SAP, Akkio, Etc.
- Specific Industrial Solutions

  "Sight Machine first Microsoft Partner to announce **Factory CoPilot**"

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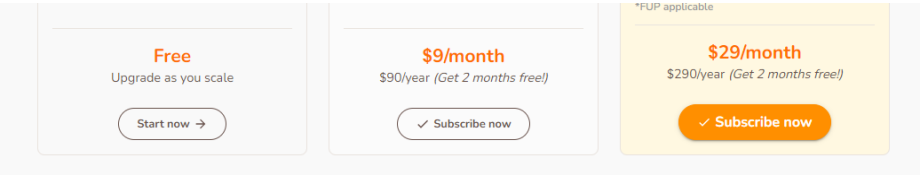
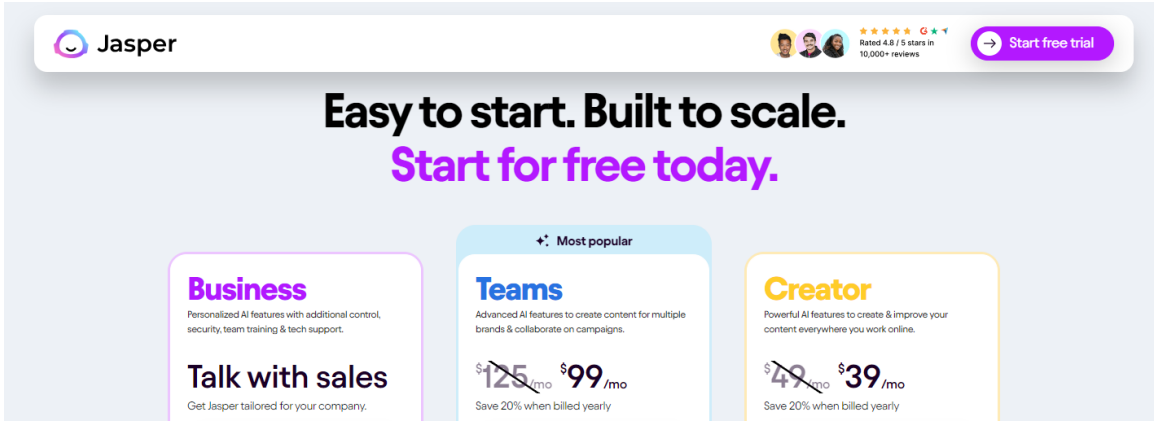
This technology is going to get better and better and more pervasive

How do you get going yourself with Generative AI?

Rytr



Akkio



OpenAI
API Waitlist

Google
vertex.ai

einstein

NICE · CXone
The most complete CX platform for every CXi journey

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Takeaways

- You need to start looking at a Generative AI use policy
  - Your employees are going to start to use this!

- Prepare your workforce for the digital age
  - You will want to enable digital technology in your business systems

- New digital engineering professions are coming
  - AI Data Analytics / Business Data Analytics

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Questions?

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Resources

- Analytics Magazine
  - https://pubsonline.informs.org/magazine/analytics
- AI Magazine
  - https://aimagazine.com/
- AI Essentials
  - https://essentials.news/ai
- Inside BIGDATA
  - https://insidebigdata.com/
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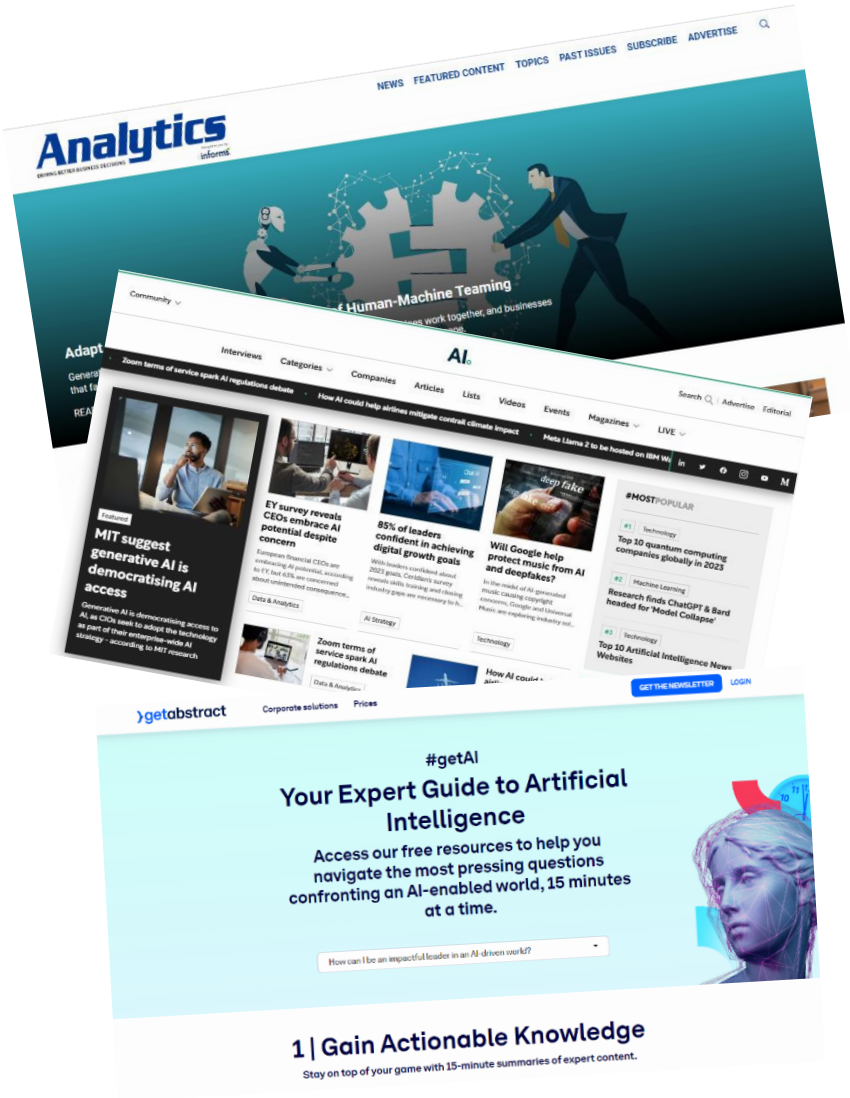
  - https://www.getabstract.com/en/getai



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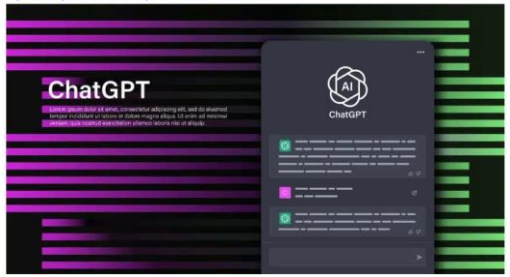
Additional Resources

- Make Use Of – ChatGPT
  - https://www.makeuseof.com/unlock-secrets-of-chatgpt-with-free-eboo unlocking-the-potential-of-chatgpt/
  - https://www.makeuseof.com/tag/chatgpt/

- How to Use Chat GPT: A Simple Guide for Beginners
  - https://blog.enterprisedna.co/how-to-use-chat-gpt/

by Enterprise DNA Experts | AI, ChatGPT



- Salesforce: AI from A to Z
  - https://www.salesforce.com/blog/generative-ai-glossary/

Generative AI is evolving at an astonishing pace. This glossary will help you get up, and stay up, to speed. [Sesame/Getty]

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Thank you

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Jan Pingel
Industry 4.0 Club Co-Founder

Mike Ungar
Industry 4.0 Club Co-Founder

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