

We will recommence at 14:40pm SAST
Tea / Comfort Break



Agenda – Session 2

#	Item	Time	Presenter
1.	What does audit look like in 5 years?	14:40 – 15:05	Nevellan Moodley
2	What AI can do for You Today - Exploring AI Solutions	15:05 – 15:30	Eric Cohen
3	What Should we be Considering – When our AI blinkers come off ?	15:30 – 15:55	Howard Snoyman
4	Use of Technology – In the audit	15:55 – 16:20	Jeremy Justin

Webinar Conclusion (5min)



Nevellan Moodley

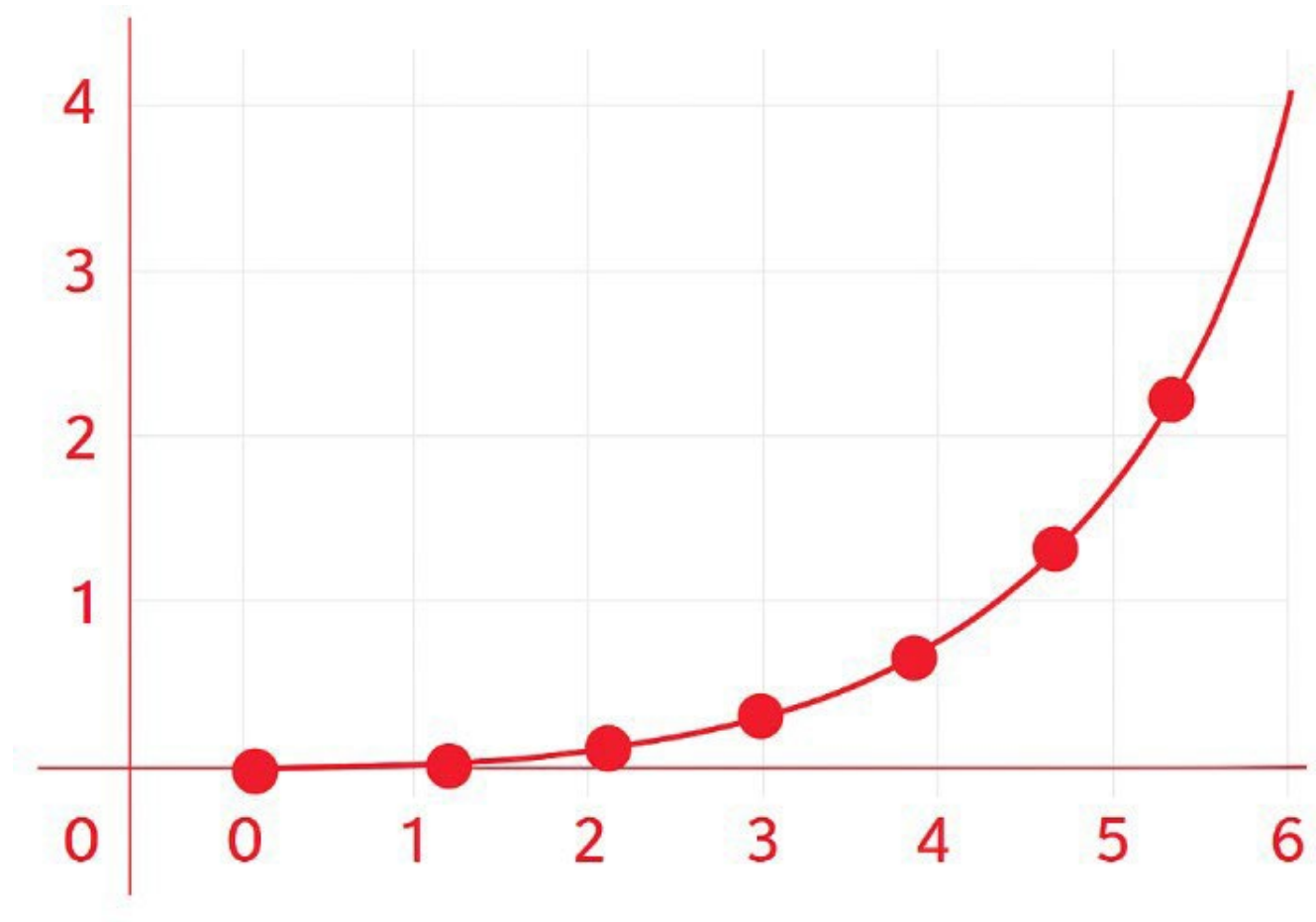
Partner
BDO

Nevellan Moodley is a Partner at BDO and serves as the Head of Financial Services Advisory and Digital Assets Lead for Africa and the Middle East. He is passionate about integrating emerging technologies into audits and has led audit innovation initiatives at several financial services clients across the country.

WHAT DOES AUDIT LOOK LIKE IN 5 YEARS?

NEVELLAN MOODLEY

EXPONENTIAL TECHNOLOGY



DISRUPTION: A WISH LIST FOR CAPITAL MARKETS

- Closer to Real-Time Assurance
- Assurance on Forward-Looking Data
- Assurance over Inputs to Non-Financial Information
- AI Assurance
- Real-Time ESG Insights
- Future-Focused ESG Perspectives
- Algorithmic Model Validation
- AI-Driven Triple Bottom Line Reporting
- Predictive Insights

AI Speaks:

"I don't just want you to audit the past – I want you to audit the future. I want confidence in systems, algorithms, and decisions made by AI. I want trust in real time. If you don't give me that – someone else will. The clock is ticking."

I NEED A CHIEF TRUST OFFICER.



CHIEF TRUST OFFICER



MAXIMUM ASSURANCE

This will be a non negotiable into the future and the cost will need to significantly reduce for core assurance.

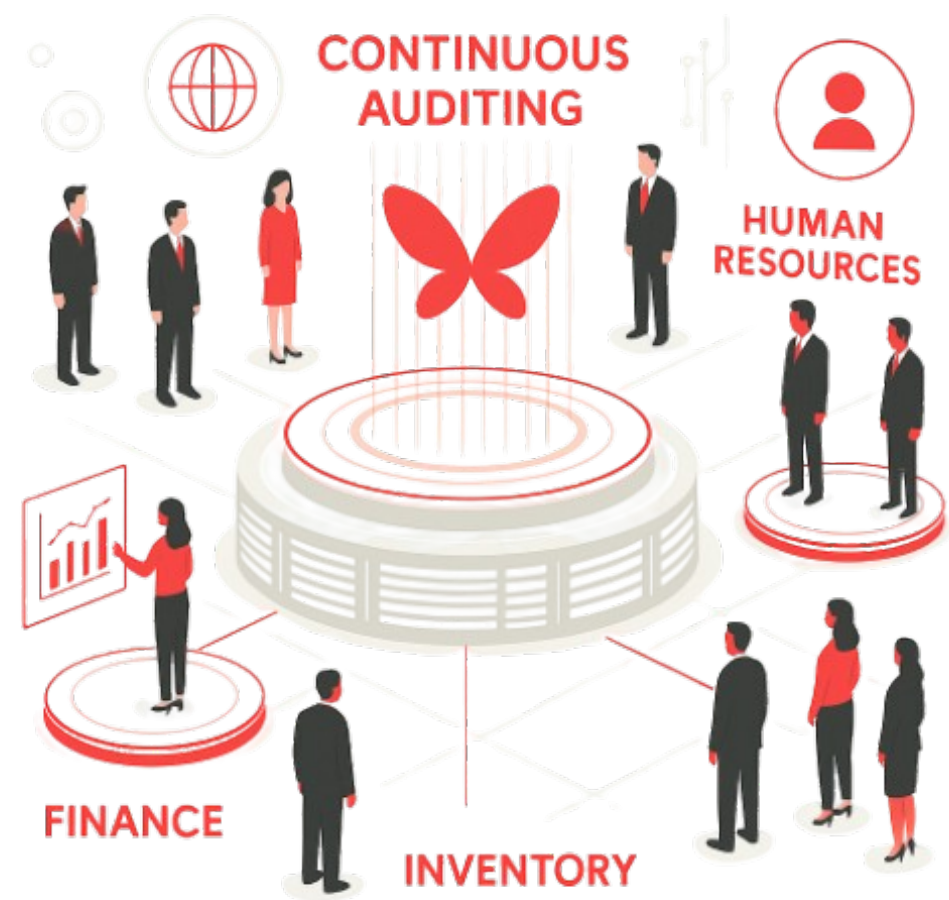
SAMPLES → 100%

CAPABILITY INTO THE FUTURE

- Audit teams will be defined by the strength, capacity, and credibility of the AI agents supporting them.
- The 24-hour auditor—never sick and always available—is here.
- These agents are embedded in the client environment and the audit files, working 24/7/365.



CAPABILITY INTO THE FUTURE



AUDITING STANDARD	AI SUPPORT
ISA 315	AI enables real-time assessment of public and ERP data using anomaly detection.
ISA 330	AI dynamically adjusts audit procedures based on evolving risk profiles.
ISA 500	AI collects and analyses complete data populations and conducts reviews using standardised templates
ISA 240	AI identifies potential fraud through outlier analysis.
ISA 330/540	AI supports the validation of management estimates and models.

IQ, EQ, AND AQ

PEOPLE - ARE YOU READY?



ONE TEAM, MANY DISCIPLINES. ONE PURPOSE: TRUST

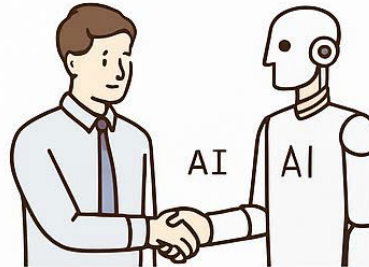


BIG DATA SCIENTIST



AI ENGINEER

Definition & Role



BEHAVIORAL

QUESTIONS?

FOR A CLEAR PERSPECTIVE, PLEASE CONTACT:

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PARTNER

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AUDIT • ADVISORY • TAX



Eric Cohen

Chief AI Officer
Cohen Computer Consulting

Eric is a renowned speaker and expert in the field of emerging technologies and artificial intelligence.

What AI Can Do For You Today: Exploring AI Solutions

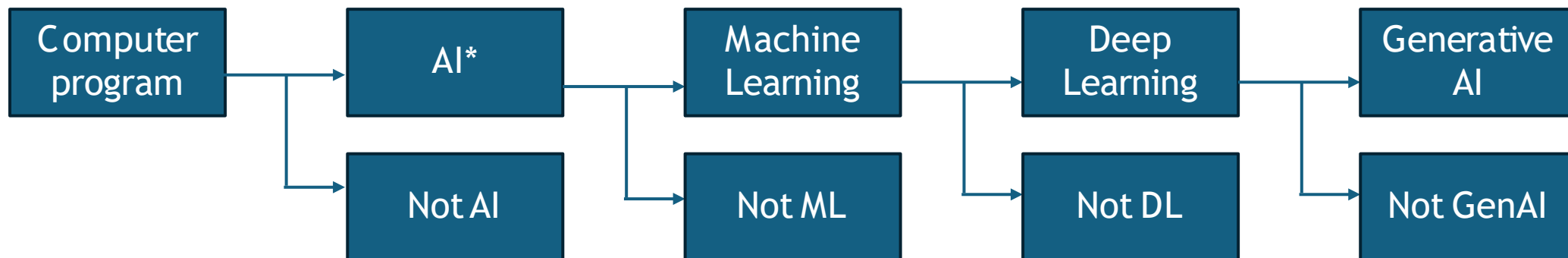
Eric E. Cohen, Cohen Computer Consulting

IRBA Webinar: *Artificial Intelligence in Finance: Shaping the Future*

Webinar, 14 April 2025

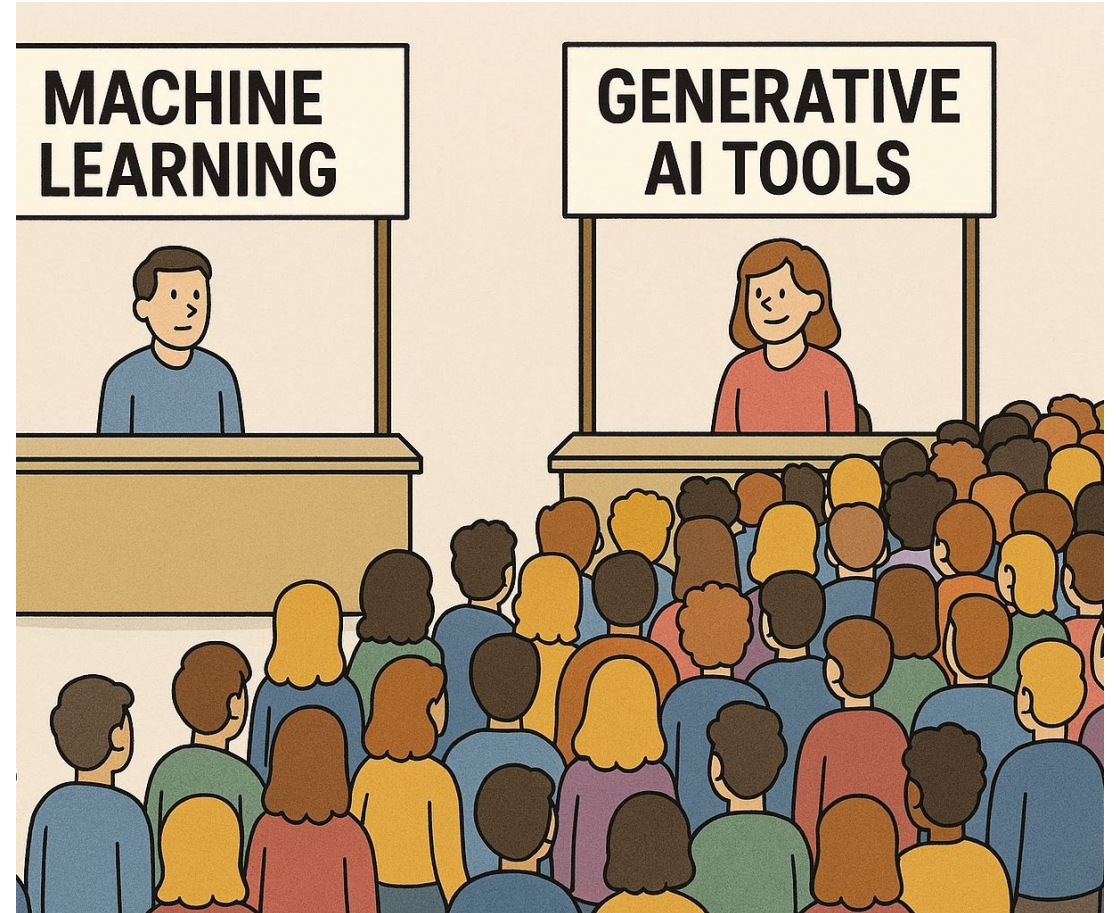
Agenda

- **Brief Introduction to AI in the PCE (Post ChatGPT Era)**
- **AI Solutions platforms**
- **Traditional Tools in Finance, Evolved**
- **Call to Action**



Brief Introduction to AI in the PCE Era

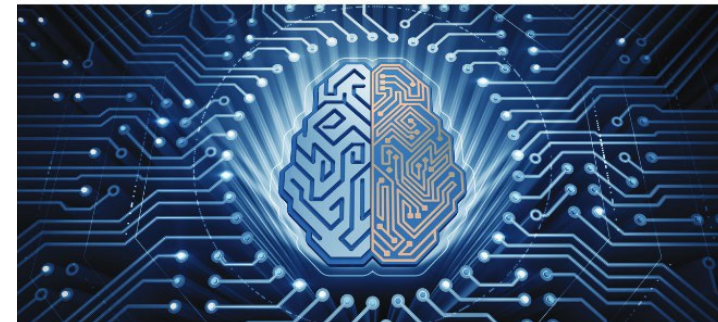
- Artificial Intelligence (AI) in BCE Era
 - Defined [ISO/IEC 22989:2022](#)
 - History in general and focus on accounting and finance
 - Expert systems
 - Machine learning applications
- Chatbots (not necessarily AI), with ELIZA 1967
- AI in our lives, including Siri, Watson in 2011
- AI > ML > DL > Generative AI (GenAI)



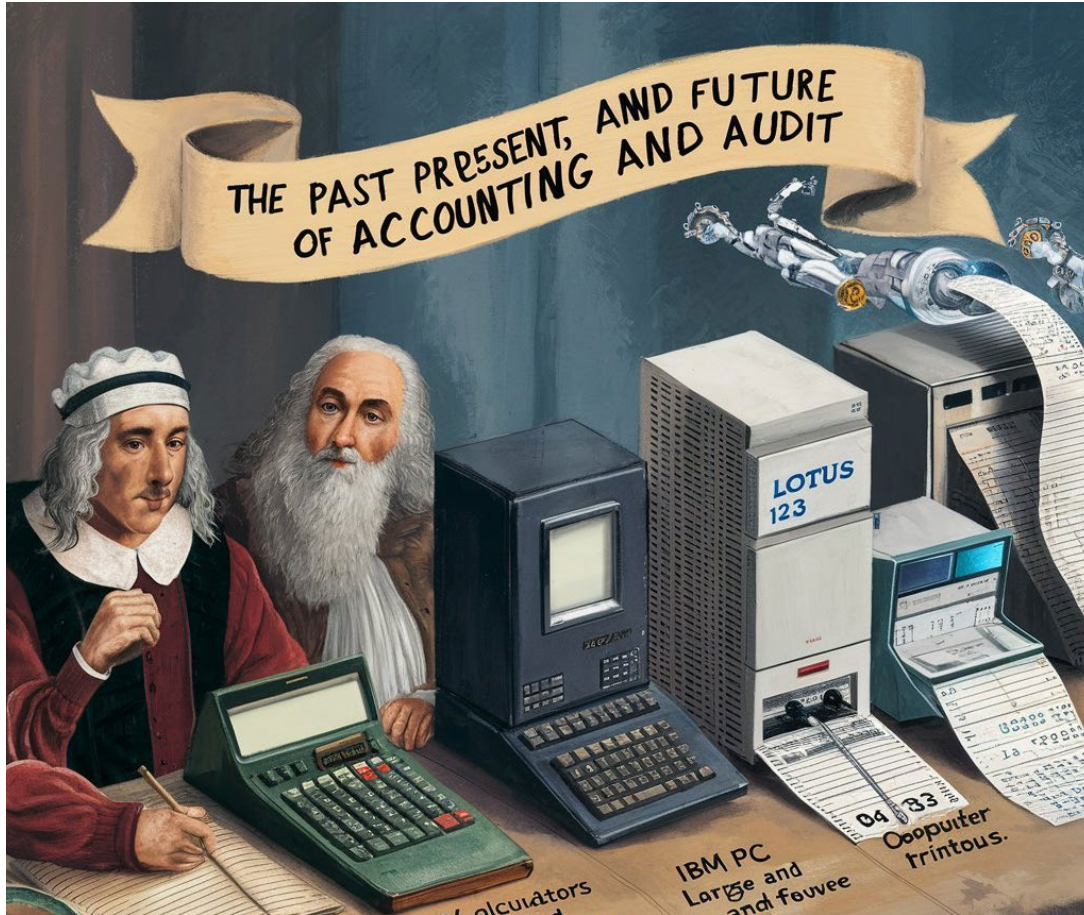
Brief Introduction to AI in the PCE (Cont.)

- Financial professionals embrace AI 2015-2019
 - 2015 saw data digitization, Cloud/SaaS adoption, open- source deep-learning frameworks like TensorFlow and PyTorch, and word embedding techniques as critical breakthroughs in adopting and developing AI-based solutions
 - Big 4 Firms
 - Fraud and forensics, contracts and agreements, journal entry testing
 - Solutions providers of off-the-shelf AI-driven accounting solutions

A CPA's Introduction
to AI: From Algorithms
to Deep Learning, What
You Need to Know



Brief Introduction to AI in the PCE (Cont.)



- November 30, 2022 – ChatGPT
 - <https://research.google/pubs/attention-is-all-you-need/>
 - Chatbot UI + AI
- Evolution
 - LLMs and text-to-text
 - Multi-modal expansion
 - Text, Images, Audio, Video
 - PDFs and specific document/media formats
 - Search – obtaining more recent information
 - Reasoning – beyond sophisticated sentence completion
 - **Agentic** – acting with tools autonomously
 - Deep Research – agentic focus on formal information gathering
- Misconceptions and undesirable results

Brief Introduction to AI in the PCE (Cont.)

- GenAI catches fire with partnerships and competition
 - Microsoft *Copilot*
 - Google *Gemini*
 - Anthropic *Claude*
 - Adobe *Firefly*
 - Amazon
- Rushing to add GenAI to everything; **convergence**
 - Browsers
 - RPA tools
 - Social Media
 - Collaboration tools
- Interfaces
 - Text
 - Uploads
 - Screen capture
 - Voice
 - Real-time vision
 - Scheduling
 - Automatable
- Regional issues
 - Availability
 - Feature sets
 - Languages

ChatGPT

The screenshot shows the ChatGPT web interface in a browser. The browser's address bar displays the URL `chatgpt.com/c/67c9b3c6-c214-800d-abbb-7a2c7b8ad578`. The browser's bookmark bar includes links for Bookmarks, Starters, Data, Education, PaWork, ISO, Adobe Acrobat, GL, ESG, VR, deck.blue, and Mail - Webmail 7.0.

The ChatGPT interface features a sidebar on the left with a 'Model' dropdown menu. The selected model is 'ChatGPT 4.5'. The sidebar lists several models with their descriptions:

- GPT-4o**: Great for most questions
- GPT-4o with scheduled tasks** (BETA): Ask ChatGPT to follow up later
- GPT-4.5** (RESEARCH PREVIEW): Good for writing and exploring ideas
- o1**: Uses advanced reasoning
- o3-mini**: Fast at advanced reasoning
- o3-mini-high**: Great at coding and logic

The main chat window, titled 'Genai Roundtable Proposal', displays a conversation with the following content:

Generative AI in Accounting Firms Event

Two detailed approaches for hosting a successful event on "Generative AI for Accounting Firms," tailored to engage firm leadership, technical experts, and academic researchers.

1: Pure Roundtable

✓ Create a highly conversational, participant-driven environment for exchanging ideas, questions, and experiences on Generative AI in the context of accounting firms.

Instead >

For proposal highlighting the differences between the two approaches. Let me know if you need more details or further detail!



ChatGPT Feature Status - as of 4 March 2025

Model	Type	Account Types				Access	Attachments			Features						
		Pro	Team	Plus	Free	UK/EU	Image	PDF	Spread-sheet	Canvas	Search	Data Analysis	DALL·E	Custom GPTs	Memory	Custom Instructions
GPT-4o	Chat	Unlimited	160/3h	80/3h	Limited	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GPT-4.5	Chat	Unlimited	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
GPT-4	Chat	Unlimited	80/3h	40/3h	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗	✓	✓
GPT-4o-mini	Chat	Unlimited	Unlimited	Unlimited	Unlimited	✓	✗	✗	✗	✗	✓	✗	✓	✗	✓	✓
o1 pro mode	Reasoning	Unlimited	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗
o1	Reasoning	Unlimited	50/wk	50/wk	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗
o3-mini	Reasoning	Unlimited	150/day	150/day	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗
o3-mini-high	Reasoning	Unlimited	50/day	50/day	✗	✓	✓	✓	✓	✗	✓	✓	✗	✗	✗	✗
GPT-4o with tasks	Agent	Unlimited	160/3h	80/3h	✗	✓	✗	✗	✗	✗	✓	✗	✓	✗	✓	✓
Deep Research	Agent	120/mo	10/mo	10/mo	✗	✓	✓	✓	✓	✗	N/A	✗	✗	✗	✗	✗
Operator	Agent	✓	✗	✗	✗	UK only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Voice	Voice	Advanced Unlimited	Advanced (60 m/day)	Advanced (60 m/day)	Standard + advanced (15 m/day)	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Sora	Video	500/month 1080p 20s + unlimited relaxed	50/month 720p 5s + unlimited relaxed	50/month 720p 5s + unlimited relaxed	✗	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: compiled by Peter Gostev (<https://www.linkedin.com/in/peter-gostev/>)

Feedback by: Tibor Blaho (<https://www.linkedin.com/in/tiborblaho/>; <https://x.com/btibor91>)

Claude

Free plan · [Upgrade](#)

☀ Good evening, Eric

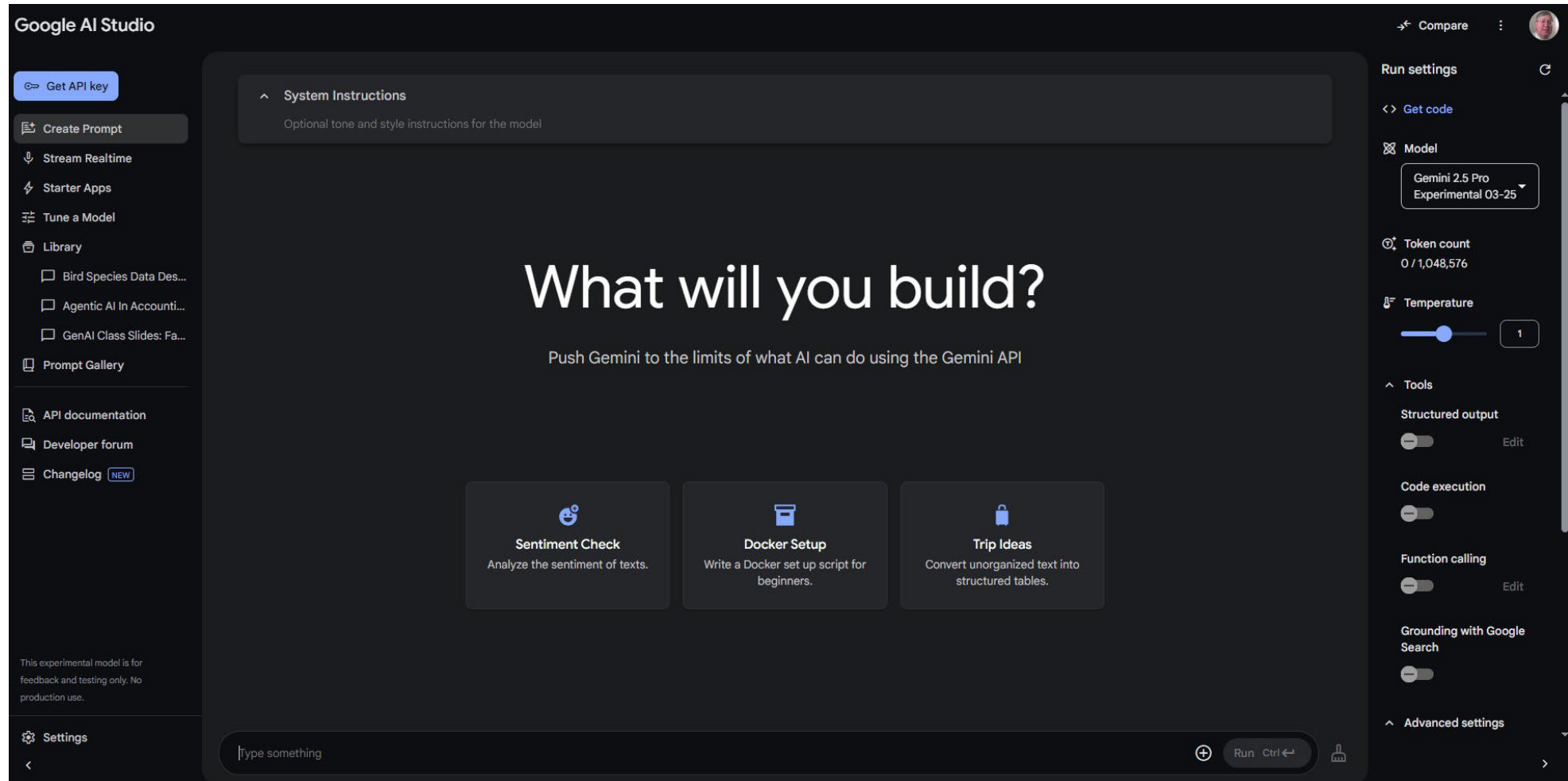
How can I help you today?



Claude 3.7 Sonnet ▾



Gemini (here, through AI Studio)



Power Up Finance

- AI Platforms - General
 - ChatGPT: the standard against which others compare themselves
 - Free and for fee accounts
 - Models specialize in speed, creativity, reasoning
 - “Canvas” feature for Word Processing and Coding
 - Models do not all share the same features
 - Aspects of multi-modal/attachments, Canvas, Search, Data Analysis, Memory
 - GPT 5 planned to make choosing transparent
 - Web, desktop and mobile interfaces, as well as API

Power Up Finance (Cont.)

- AI Platforms - General
 - Microsoft: the Suite Life
 - Many entry points under the brand Copilot
 - Copilot within Edge browser integrates AI in your browsing workflow
 - Google: the “Mack Truck” of GenAI tools
 - Many entry points under the brand Gemini
 - Gemini, NotebookLM, Illuminate, new Data Science Agent in Colab, AIStudio
 - USP: HUGE context windows
 - Latest updates: Canvas, Audio overviews, and more

Microsoft 365 Copilot for Finance^{PREVIEW}

Accelerate time to business impact for finance professionals. Copilot for Finance brings together Microsoft 365 Copilot with a role-based Copilot agent that connects your existing financial data with generative AI to surface insights and support strategic decision-making.

[Sign up for the preview](#)

Copilot for Dynamics 365

Article • 07/12/2024 • 2 contributors

In this article

- [Copilot in Dynamics 365 Business Central](#)
- [Copilot in Dynamics 365 Customer Service & Microsoft Copilot for Service](#)
- [Copilot in Dynamics 365 Customer Insights](#)
- [Copilot in Dynamics 365 Customer Insights - Journeys](#)
- [Copilot in Dynamics 365 Field Service](#)
- [Copilot in Dynamics 365 Project Operations](#)
- [Copilot in Dynamics 365 Sales & Microsoft Sales Copilot](#)
- [Copilot in Dynamics 365 F&O Help & Guidance](#)
- [Copilot in Dynamics 365 Commerce](#)
- [Copilot in Dynamics 365 Finance](#)
- [Copilot in Dynamics 365 Supply Chain Management](#)

Google's NotebookLM

The screenshot displays the Google NotebookLM interface, which is divided into three main sections: Sources, Chat, and Studio.

Sources: This panel on the left lists the documents used to generate the content. It includes a search bar, a list of sources with checkboxes, and a "7 sources" indicator. The sources listed are:

- Select all sources
- Directive - 2022/2464 - EN - CSRD Directive - EUR-Lex
- IFAC-G_1.PDF
- Pasted Text
- Pasted Text
- Pasted Text
- SEC Rules
- SEC adopts climate-related disclosure rules

Chat: The central panel shows a chat window with an "ESG" icon and a "7 sources" indicator. The chat content is a paragraph discussing evolving regulations and frameworks for corporate sustainability reporting, mentioning the European Union's Corporate Sustainability Reporting Directive (CSRD), the IFAC document, and the SEC materials. Below the text are buttons for "Save to note", "Add note", "Audio Overview", and "Briefing doc".

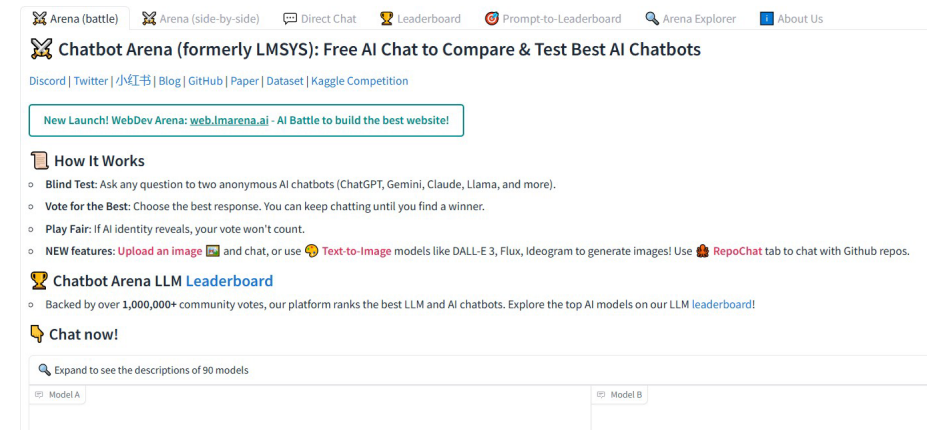
Studio: The right panel contains an "Audio Overview" section with a play button and a progress bar (00:00 / 23:33). Below this is an "Interactive mode (BETA)" button. The "Notes" section lists several notes, including:

- EU Sustainability Reporting Directive Timeline and Actors
- Global Sustainability Reporting Landscape: CSRD, SEC, IFAC
- CSRD and Sustainability Reporting: A Study Guide
- SEC climate disclosure March 2022 waiting on final rule

At the bottom of the Studio panel, there is a "Start typing..." input field and a "7 sources" indicator.

Power Up Finance (Cont.)

- AI Platforms - General
 - Anthropic Claude: The scrappy outsider
 - Claude does *not* create images
 - Search on the way
 - USP: Claude Artifacts, screen capture
 - Meta.ai
 - From the Facebook folks
 - DeepSeek, Qwen
 - Grok
 - Open Source alternatives
 - Can be run locally for more confidentiality
 - Huggingface
 - Use of applications like LMStudio



Power Up Finance (Cont.)

- AI Platforms – Search specialists (moving beyond training cutoff)
 - Perplexity
- AI Platforms – Images, Video
 - OpenAI Sora
 - Adobe Firefly
 - HeyGen
 - Runway
 - Midjourney, Stable Diffusion
- AI Platforms – audio, music
 - ElevenLabs, chatgpt.fm
 - Suno, Udio
- There's an AI for that
 - Huggingface

ElevenLabs

The screenshot shows the ElevenLabs web application interface. On the left is a sidebar with navigation links: Home, Voices, Playground, Text to Speech (highlighted), Voice Changer, Sound Effects, Products, Studio, Dubbing, Conversational AI, Speech to Text, Audio Tools, Notifications, and My Account. The main content area is titled 'Text to Speech' and contains a text input field with a sample paragraph about 'Think Twenty Twenty Magazine'. Below the text is a 'Generate speech' button. On the right side of the main area is a 'Settings' panel with tabs for 'Settings' and 'History'. The 'Settings' tab is active, showing options for Voice (Will), Model (Eleven Multilingual v2), Speed (Slower), Stability (More variable), Similarity (Low), and Style Exaggeration. At the bottom of the settings panel, it shows '10,000 credits remaining' and '3,427 / 5,000'.

Now see ChatGPT.fm ...

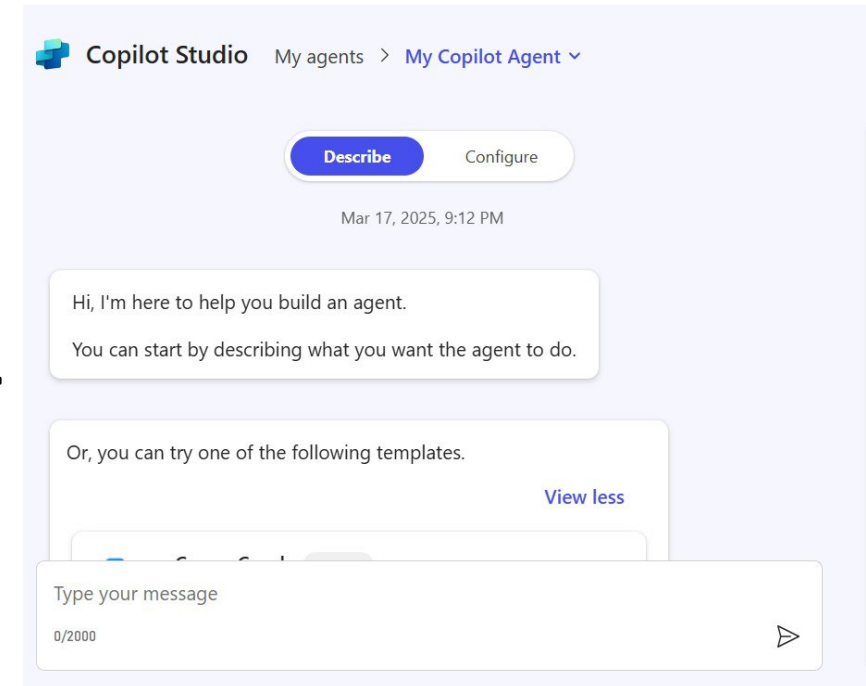
The screenshot shows the OpenAI.fm interface. It features a header with the text 'An interactive demo for developers to try the new text-to-speech model in the OpenAI API.' and a 'START BUILDING' button. Below the header is a 'VOICE' section with a row of voice selection buttons: Alloy, Ash, Ballad, Coral, Echo, and Fable. The 'Coral' button is selected. Below the voice section is a 'VIBE' section with a grid of vibe selection buttons: Robot, Sincere, Medieval Knight, Calm, and Gourmet Chef. The 'Robot' button is selected.

Power Up Finance (Cont.)

- Draft correspondence, articles, reports
- Upload PDFs for summarization and communication
- Explain websites
- Track and get AI assistance on tasks
- Compare versions
- Create images, videos
- Translate text, audio, video

Your Tools, Evolved

- The evolution of the Office Suite (The Accountant's Hammer)
 - “Office” is no more; **agentic** Microsoft 365 Copilot Chat
 - The end of boasting about knowing Xlookup?
 - Excel run by chat
 - If Excel can't do it, chat will write Python to do it
- The evolution of ERP
 - Every major ERP vendor is bundling GenAI
 - SAP Joule; no-code workflows with **Agent Builder**
- The evolution of PDFs ...

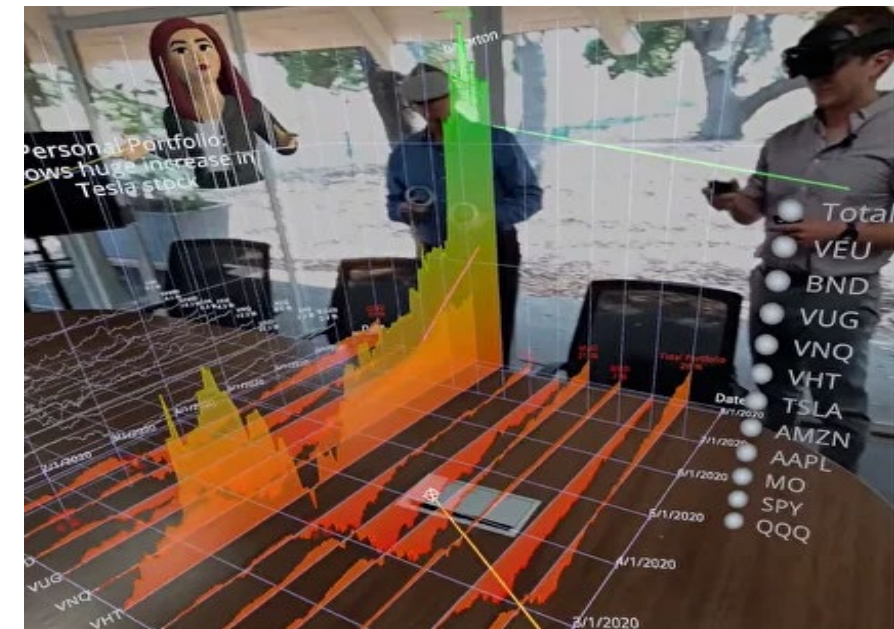
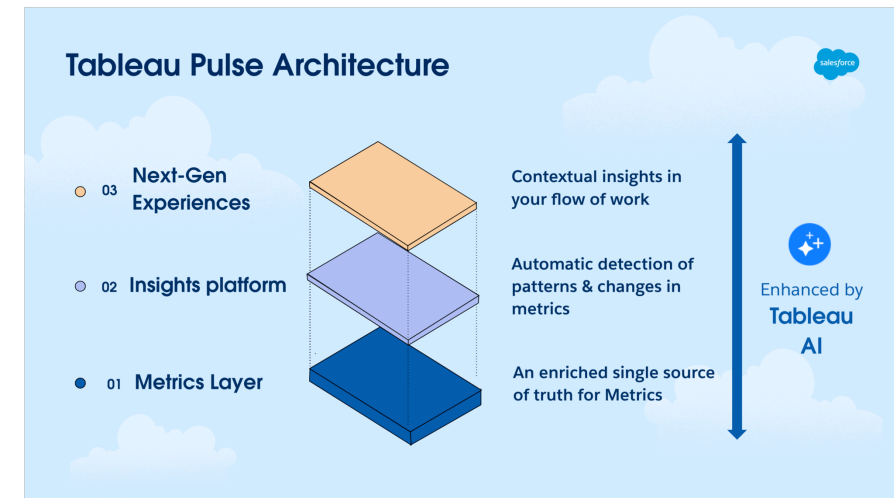


Adobe AI Assistant



Focus on Analytics

- The evolution of analytics and visualization
 - Alteryx
 - Alteryx Copilot
 - Tableau Pulse
 - **Flow Immersive**
 - VR + AI
 - AI
 - ChatGPT Advanced Analytics
 - Claude – here Artifacts shine!
 - Gemini Data Science Agent



Data Science Agent

Here's how the Data Science Agent works:

- 1. **Start fresh:** Open a blank Colab notebook.
- 2. **Add your data:** Upload your data file.
- 3. **Describe your goals:** Describe what kind of analysis or prototype you want to build in the Gemini side panel (e.g., "Visualize trends," "Build and optimize prediction model", "Fill-in missing values", "Select the best statistical technique").
- 4. **Watch the Data Science Agent get to work:** Sit back and watch as the necessary code, import libraries, and analysis is generated in a working Colab notebook.



DABStep Leaderboard

The [Data Agent Benchmark for Multi-step Reasoning \(DABStep\)](#) is looking to measure and push the state-of-the-art in Data Analysis by LLMs. The benchmark is composed of ~450 data analysis questions ([Datas](#) cross reference in order to answer correctly).

We have set up a notebook to quickly get an agent baseline using the free Huggingface Inference API: [Colab Notebook](#)

Check out the official technical reports here: [Adyen Report](#) [Hugging Face Report](#)

Join the discussion on the [discord server!](#)

Agent	Easy Level Accuracy (%)	Hard Level Accuracy (%)	Organization
Edge-Tester-2	95.83	65.34	Individual-DevCore-Tester
Edge-Tester-1	91.67	62.17	Individual-DevCore-Tester
Test1	75	31.22	Individual
o3-mini Reasoning Prompt Baseline	73.61	16.4	Adyen
o1 Reasoning Prompt Baseline	69.44	12.96	Adyen
Claude 3.5 Sonnet ReACT Baseline	88.56	12.17	Adyen
Gemini Data Science Agent	63.89	12.17	Google
GPT 4o ReACT Baseline	66.67	8.2	Adyen
Test-qwq	61.11	5.82	test
Deepseek V3 ReACT Baseline	66.67	5.56	Adyen
Claude 3.5 Haiku ReACT Baseline	88.56	5.29	Adyen
Llama 3.3 70B ReACT Baseline	68.06	4.76	Adyen

Refresh



Start coding or generate with AI.



Analyze files with Gemini



Stack Overflow Annual Developer Survey

2024

In May 2024 over 65,000 developers responded to our annual survey about coding, working, AI and how they feel about all of those topics and more.

[View Survey Results](#) • [Download Full Data Set \(CSV\)](#)

Past Years

[2023](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2022](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2021](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2020](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2019](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2018](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2017](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)

[2016](#) [View Results](#) • [Download Full Data Set \(CSV\)](#)



```
[2] display(df.head())
```

	ResponseId	MainBranch	Age	Employment	RemoteWork	Check	CodingActivities	EdLeve
0	1	I am a developer by profession	Under 18 years old	Employed, full-time	Remote	Apples	Hobby	Primary/elementar scho
1	2	I am a developer by profession	35-44 years old	Employed, full-time	Remote	Apples	Hobby;Contribute to open-source projects;Other...	Bachelor's degree (B.A., B.S., B.Eng etc
2	3	I am a developer by profession	45-54 years old	Employed, full-time	Remote	Apples	Hobby;Contribute to open-source projects;Other...	Master's degree (M.A., M.S M.Eng., MBA, etc
3	4	I am learning to code	18-24 years old	Student, full-time	NaN	Apples	NaN	Som college/universit study without earning .
4	5	I am a developer by profession	18-24 years old	Student, full-time				

Data exploration



Stop

Gemini

Gemini

Gemini X

Here's a new plan based on your feedback.

- **Data loading:** Load the data from "survey_results_public.csv" into a pandas DataFrame.
- **Data exploration:** Explore the data to understand its structure, including the number of rows and columns, the data types of each column, and the presence of missing values. Identify columns related to programming languages, frameworks, and other technologies used by respondents.
- **Data analysis:** Analyze the frequency of different responses for columns related to programming languages, frameworks, and other technologies. This will help identify the most popular solutions used by the survey respondents.
- **Data visualization:** Visualize the popularity of different solutions using bar charts or other appropriate visualizations.
- **Finish task:** Summarize the findings from the data analysis and

Enter a prompt here



0 / 2000

Responses may display inaccurate or offensive information that doesn't represent Google's views. [Learn more](#)

✓ 0s completed at 8:48 AM

ChatGPT 4.5

- **Other Frequently Listed:**
 - Angular and Vue.js are common choices for front-end work.
- **In the Python Ecosystem:**
 - Frameworks such as Django and Flask also register strong usage when considering web development with Python.

Method: As before, each response is split and counted to determine relative popularity.

5. Integrated Development

Ask anything

Bubble Chart Gltransactions

Run

ER

```
25
26 plt.scatter(x_positions, grouped[journal_column], s=bubble_sizes
27
28 # Labeling the chart
29 for i, journal in enumerate(grouped[journal_column]):
30     plt.text(x_positions[i], grouped[journal_column].iloc[i], journal_codes[journal_column].iloc[i],
31             ha='center', va='center', fontsize=9)
32
33 plt.xticks(x_positions, grouped[journal_column], rotation=45)
34 plt.xlabel('Journal')
35 plt.ylabel('Total Cash Activity')
36 plt.title('Bubble Chart: Transactions by Journal')
37
38 plt.tight_layout()
39 plt.show()
40
```

NEW

Run Python

See your output and get help debugging without leaving the canvas.

41

Microsoft Copilot offers advanced analytics capabilities, particularly through tools like **Copilot Analytics** and integrations with **Power BI** and **Azure AI services**. These tools allow for in-depth data analysis, visualization, and insights tailored to business needs. For example:

- **Copilot Analytics:** This feature, part of Microsoft 365 Copilot, includes tools like the Copilot Dashboard and Viva Insights for measuring AI adoption and its impact on business outcomes. It also provides customizable reporting for deeper analysis ¹ ².
- **Power BI Integration:** Copilot in Power BI can help create visualizations, identify trends, and generate insights from large datasets.
- **Azure AI Integration:** For more complex data analysis, Azure AI services can be used alongside Copilot for tasks like predictive modeling and machine learning ³.

These features are designed to empower users with actionable insights, similar to OpenAI's advanced data analytics. Let me know if you'd like to explore any of these options further!



EC Please create a bubble chart showing the total dollar amount (cash accounts) by journal.

I'll help you create a bubble chart showing the total dollar amount by journal. Let me first analyze the CSV data to understand what we're working with.

Analysis >

Based on the analysis, I've identified the cash accounts and calculated the total dollar amount by journal. Now I'll create a bubble chart to visualize this data.

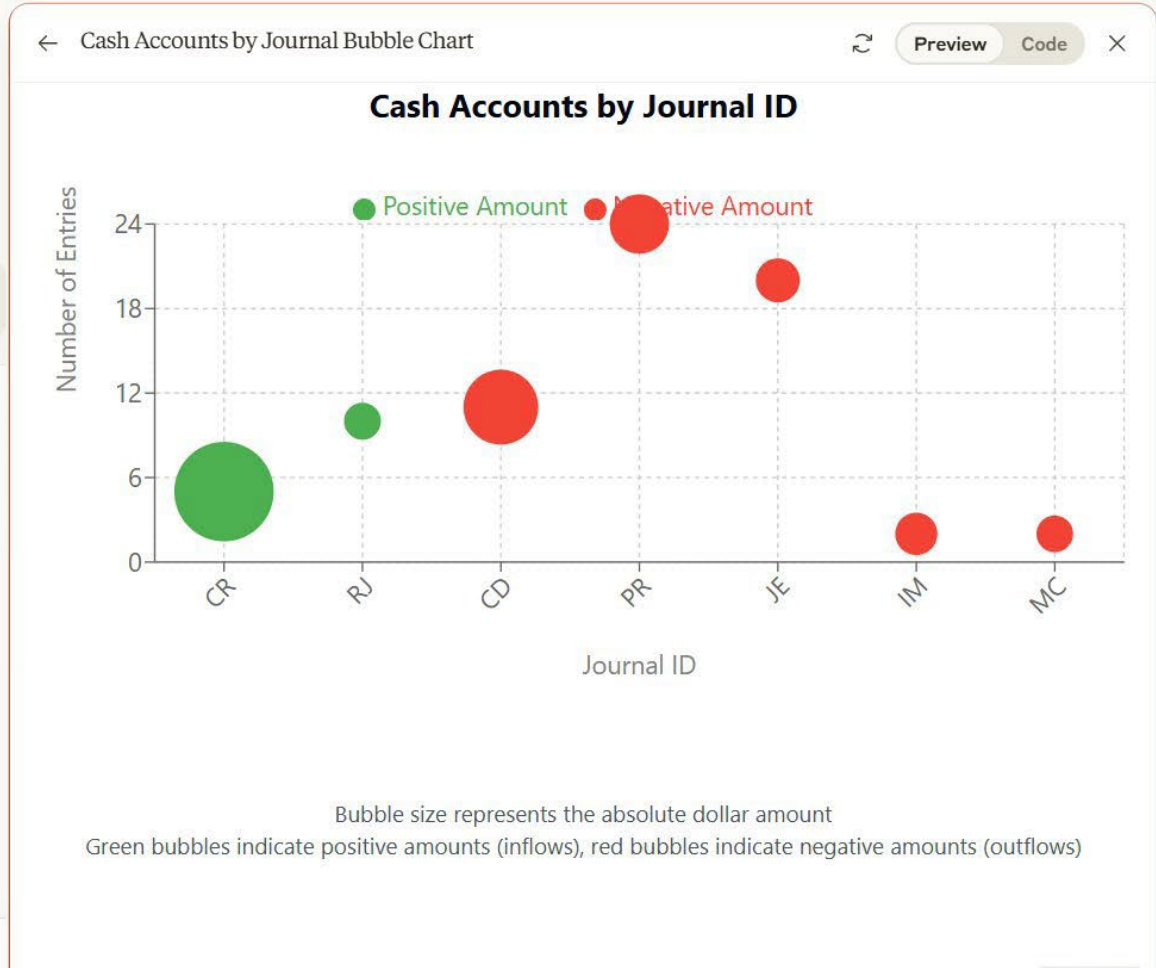


Cash Accounts by Journal Bubble Chart
Click to open component

I've created a bubble chart that visualizes the total dollar amounts for cash accounts by journal ID. Here's how to interpret the chart:

- 1. Bubble Size:** The size of each bubble represents the absolute dollar amount. Larger bubbles indicate larger transaction amounts

EC Reply to Claude...





New chat

Today

Bubble Chart for Cash Acco...

Bubble Chart for Cash Account Transactions

python

Copy

```
(row['Entry_Count'], row['Total_Amount']),  
textcoords="offset points",  
xytext=(0,10),  
ha='center'  
)  
  
plt.show()
```

Output Interpretation:

- **Bubble Position:** Reflects transaction volume (X) and total dollar activity (Y).
- **Bubble Size:** Larger bubbles indicate higher total dollar amounts.
- **Color:** Unique journals are color-coded for clarity.

This chart helps identify which journals (e.g., **CD**, **CR**, **JE**) dominate cash activity in terms of frequency and value.



Your Tools, Evolved (Cont.)

- The evolution of research
 - Wolters Kluwer, Thomson Reuters
- The evolution of the Collaborative Suite and RPA
 - Zoom AI Companion
 - Workflow Automation, Agentic AI – NEW!
 - UiPath Studio, Power Automate, et al.
- Convergence
 - Applications + Collaboration + Platform + RPA + AI
+ ...

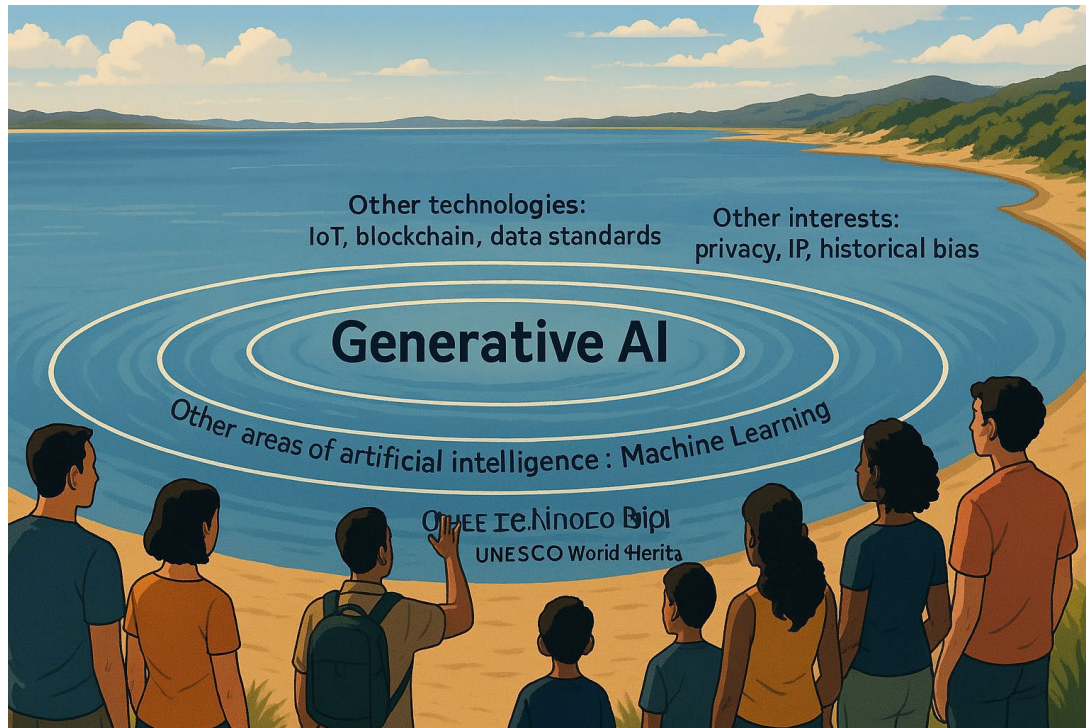
Call to Action

- You can promote it, you can limit it, but you cannot ignore it
- Choices will be dynamic, as feature sets and capabilities change incredibly rapidly
- Understand the options, keeping vital issues in mind
 - e.g., Confidentiality and privacy -> local implementations
- Collaborate and coordinate to survive and thrive in the PCE

ChatBot Arena

Rank★ (UB)	Rank (StyleCtrl)	Model	Arena Score	95% CI	Votes	Organization	License
1	1	Gemini-2.5-Pro-Exp-03-25	1440	+8/-8	5121	Google	Proprietary
2	2	ChatGPT-4o-latest (2025-03-26)	1406	+10/-7	4080	OpenAI	Proprietary
2	4	Grok-3-Preview-02-24	1404	+6/-5	11601	xAI	Proprietary
2	2	GPT-4.5-Preview	1398	+7/-6	11754	OpenAI	Proprietary
5	7	Gemini-2.0-Flash-Thinking-Exp-01-21	1380	+4/-5	23834	Google	Proprietary
5	4	Gemini-2.0-Pro-Exp-02-05	1380	+4/-4	20293	Google	Proprietary
5	4	DeepSeek-V3-0324	1370	+9/-12	2840	DeepSeek	MIT
7	5	DeepSeek-R1	1359	+6/-6	13836	DeepSeek	MIT
8	13	Gemini-2.0-Flash-001	1354	+4/-5	19501	Google	Proprietary
8	4	o1-2024-12-17	1351	+4/-4	26197	OpenAI	Proprietary

Impact of Generative Artificial Intelligence



- Artificial Intelligence and Chatbots in the PCE*
 - In literature
 - In theory
 - In practice
 - In the mainstream
 - Algorithms
 - Generative AI

*Pre ChatGPT Era

Questions?

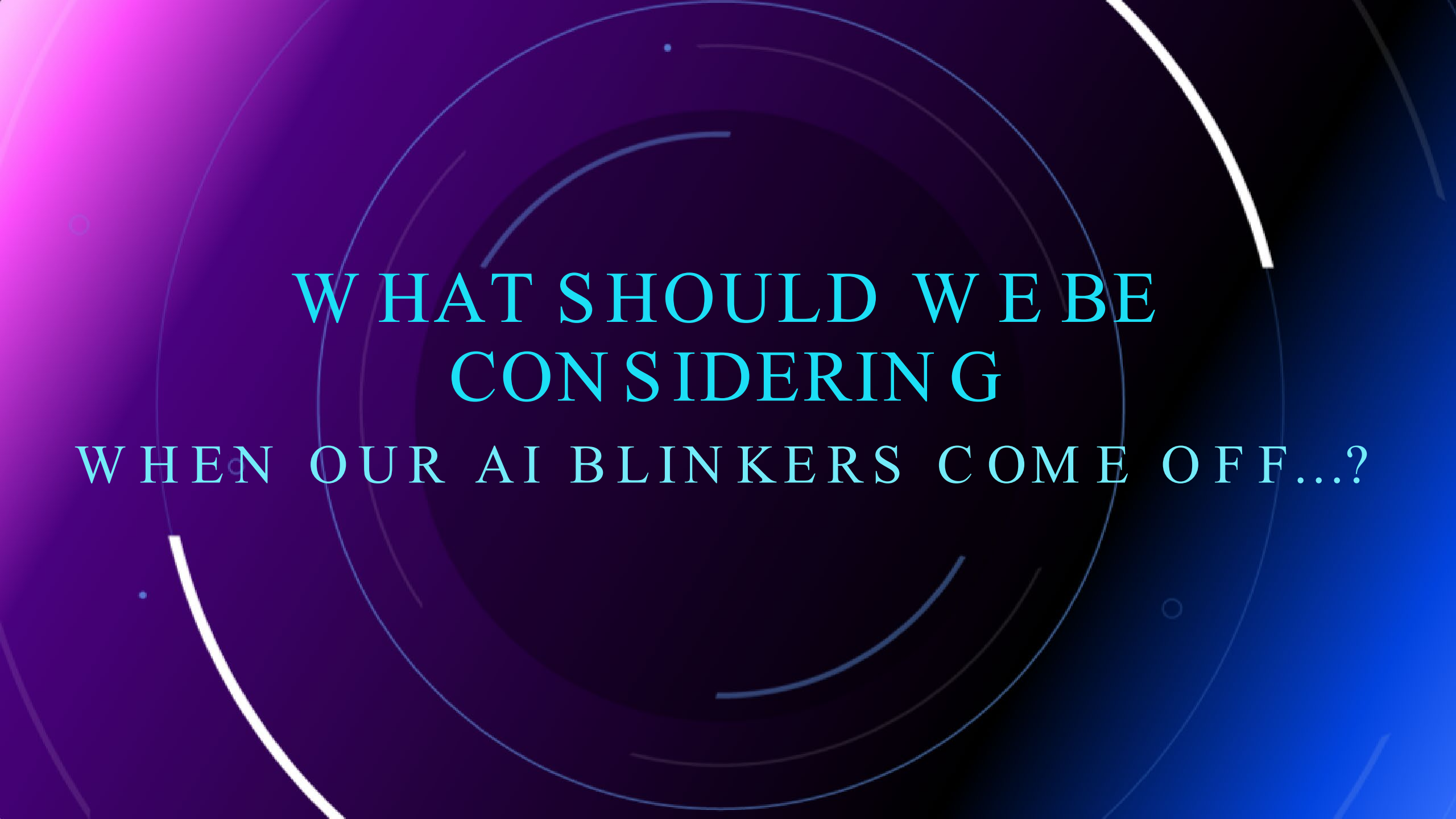
- *That some day, a piece of business information, once entered into any computer, anywhere, need never be retyped as it flows through the business (audit information) supply chain*
- Eric E. Cohen
- Cohen Computer Consulting
- xbrlgl@gmail.com



Howard Snoyman

Head: Legal and Ethics
Discovery Health Medical Scheme

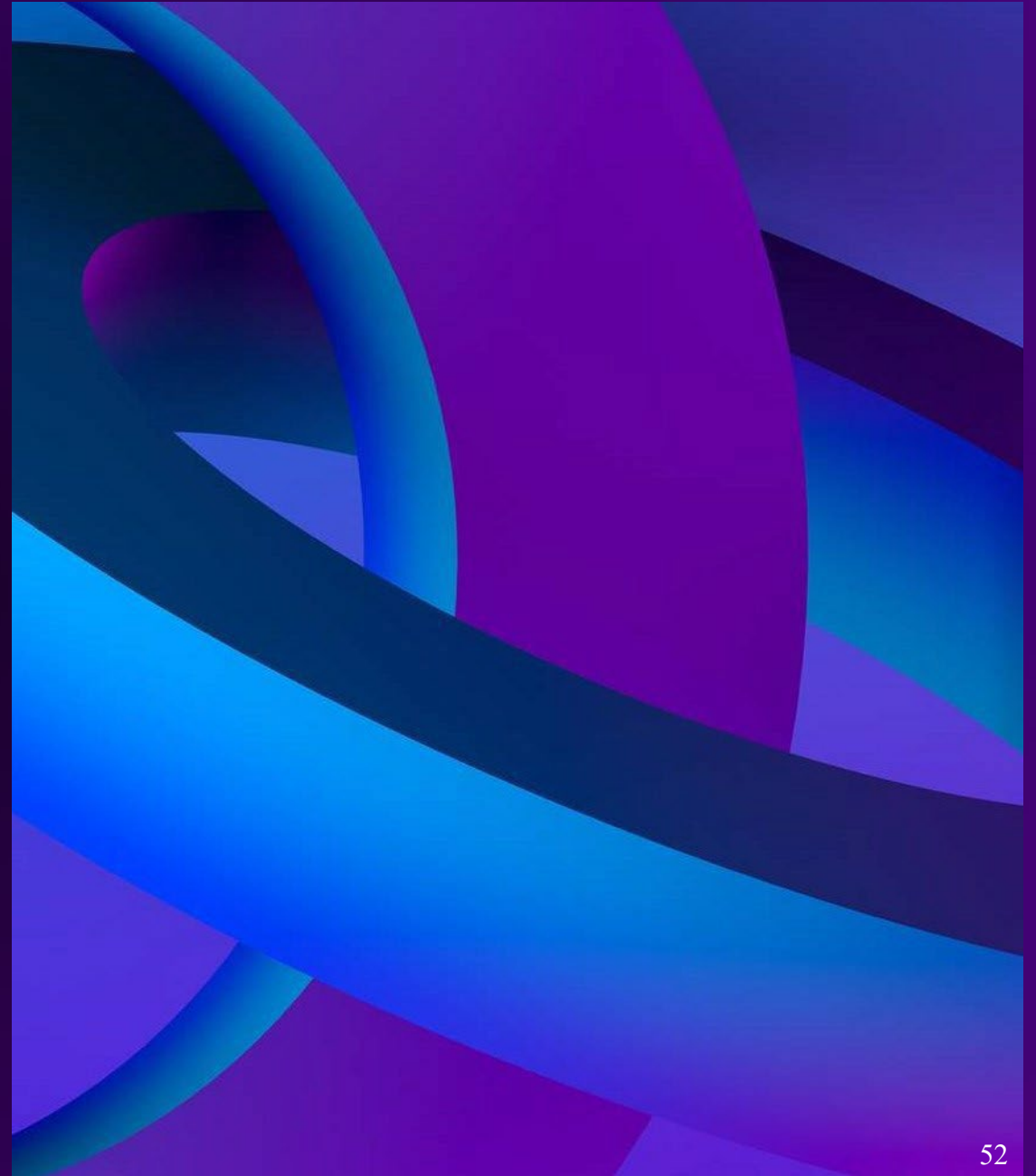
Howard is both an ethicist and admitted attorney, and attends to matters of a legal, commercial and ethical nature as the Head of Legal and Ethics at Discovery Health Medical Scheme. Howard also serves as a member of the IRBA Committee for Auditor Ethics.



WHAT SHOULD WE BE
CONSIDERING
WHEN OUR AI BLINKERS COME OFF...?

RIS K:

A I C A N O N L Y G O S O F A R W H
E N E V A L U A T I N G N E W I D E A
S , B U T T H E
T E C H N O L O G Y C A N
C O N V I N C E P E O P L E T O
S U R R E N D E R T H E I R G O O D J
U D G M E N T A N D A G R E E
W I T H I N C O R R E C T
C O N C L U S I O N S .



AP PROPR IATE USE OF
ARTIF ICIAL INTELLIGENCE

OBJECTIVE CRITERIA TO BE ASSESSED

- Where AI is given objective criteria to assess, it has proven remarkably reliable in doing so, at a fraction of the time it would have taken human beings to complete the task.
- AI can be an extremely practical tool to assist with a review, especially when the number of ideas is likely to be cognitively overloading for humans to do it all alone.



PRACTICAL EXAMPLE 1

Affinity Matching, as utilized by Discovery:

- Multiple facets of incoming caller are assessed to fall into pre-determined criteria
- Personality and experience of call centre agents are matched up against the facets of the incoming caller
- The system allocates the call to the best matched call centre agent, to maximize affinity between member and agent.



PRACTICAL EXAMPLE 2

Contract and litigation analysis, as utilized by various in-house legal teams & law firms:

- Banks of contracts can be categorized according to value, vendor, duration, type of agreement or the presence of a particular term;
- Litigious matters can be assessed according to quantum, forum (High Court, SCA, Con Court, Arbitration etc), category of stakeholder or a (manually entered) prospect of success



PRACTICAL EXAMPLE 3

Forensic analysis, as utilized by Discovery:

- Historic patterns of claims (typically over a period of 3 years) of a particular provider are assessed, and compared to those of their peer group (specialty)
- Pre-determined risk criteria are assessed, leading to an objective risk score
- Risk scores above a certain value, trigger an investigation

REVOLUTIONIZING HEALTHCARE: THE ROLE OF ARTIFICIAL INTELLIGENCE IN CLINICAL PRACTICE

(Alowais et al., 2023: 1, 11)



- “Integrating AI into healthcare holds excellent potential for improving disease diagnosis, treatment selection, and clinical laboratory testing. AI tools can leverage large datasets and identify patterns to surpass human performance in several healthcare aspects. AI offers increased accuracy, reduced costs, and time savings while minimizing human errors. It can revolutionize personalized medicine, optimize medication dosages, enhance population health management, establish guidelines, provide virtual health assistants, support mental health care, improve patient education, and influence patient-physician trust.”

IN APPROPRIATE USE OF
ARTIFICIAL INTELLIGENCE

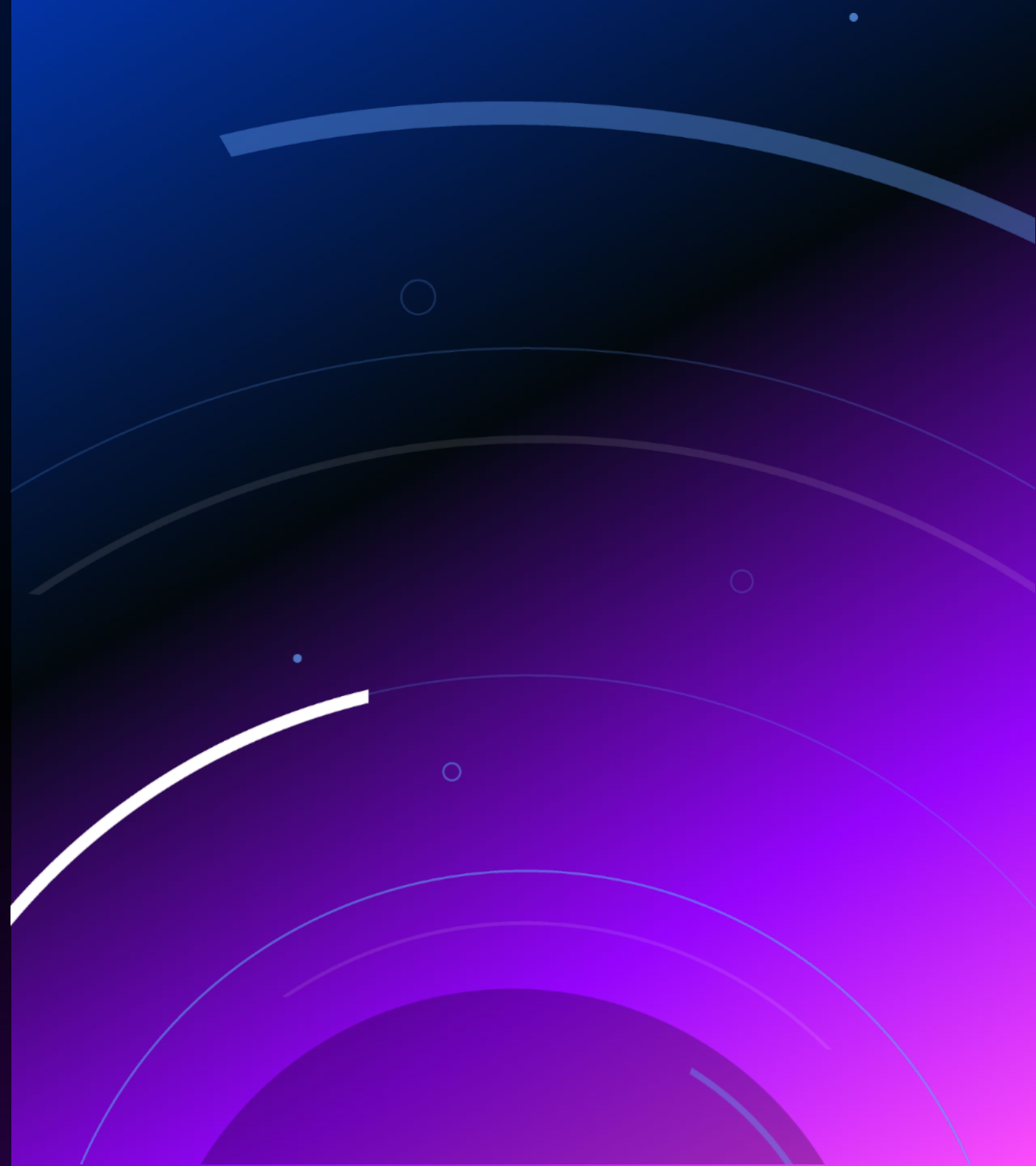
PERCENTAGE OF US ADULTS THAT USE GENERATIVE AI

Overall: 39.5%

- Of which: 10.9% used it every day in the preceding week; and
- 21.1% used it at least once in the preceding week.

For work purposes: 28.1%

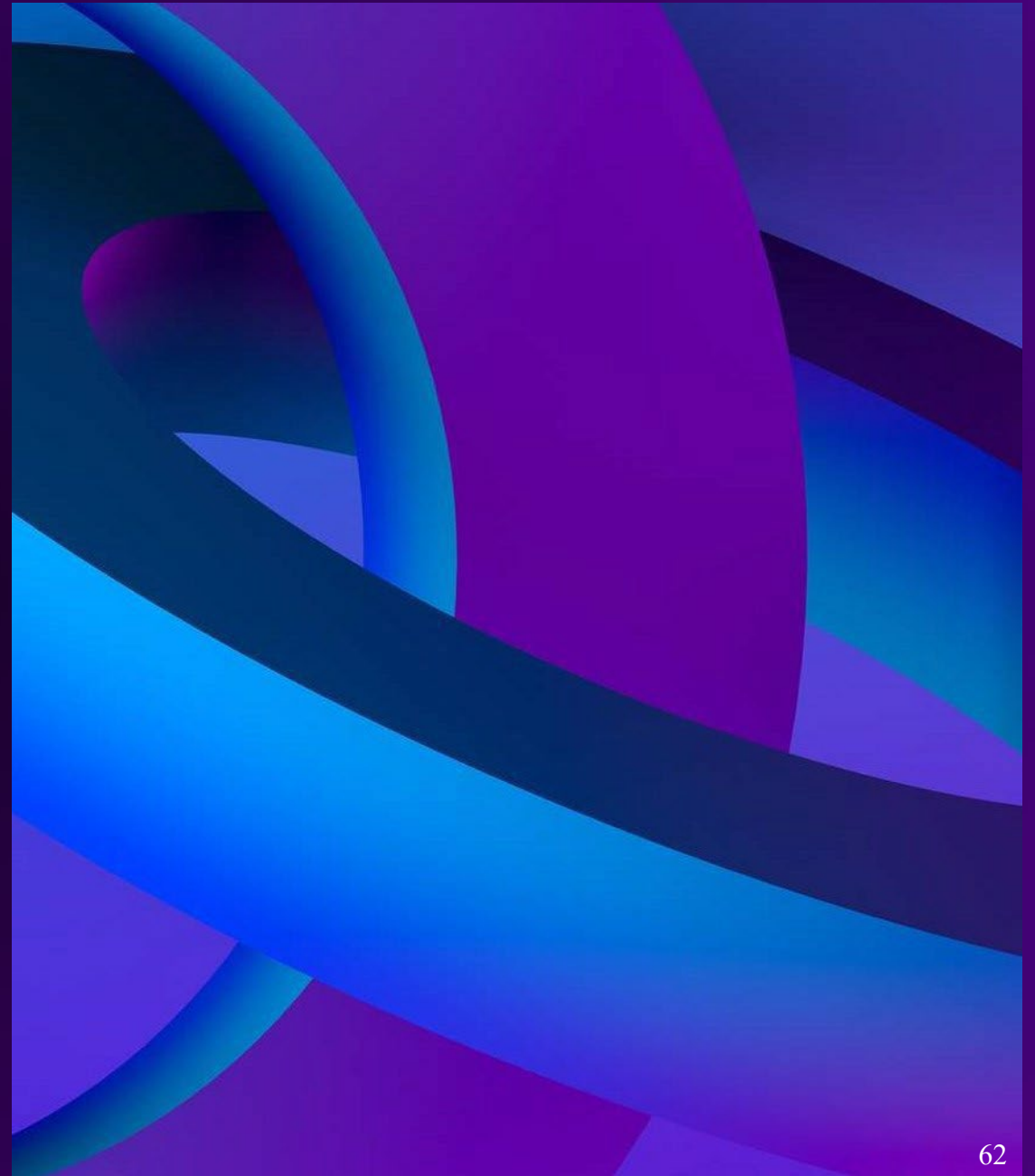
- Of which: 10.6% used it every day in the preceding week; and
- 13.6% used it at least once in the preceding week.



DANGERS OF INAPPROPRIATE AI USE

- Inappropriately high trust levels in AI reduces the oversight of the product ultimately generated;
- “While Generative AI can improve worker efficiency, it can inhibit critical engagement with work and can potentially lead to long-term overreliance on the tool and diminished skill for independent problem-solving”.

WHAT ARE AI HALLUCINATIONS?



“I SEE FAKE EVIDENCE”

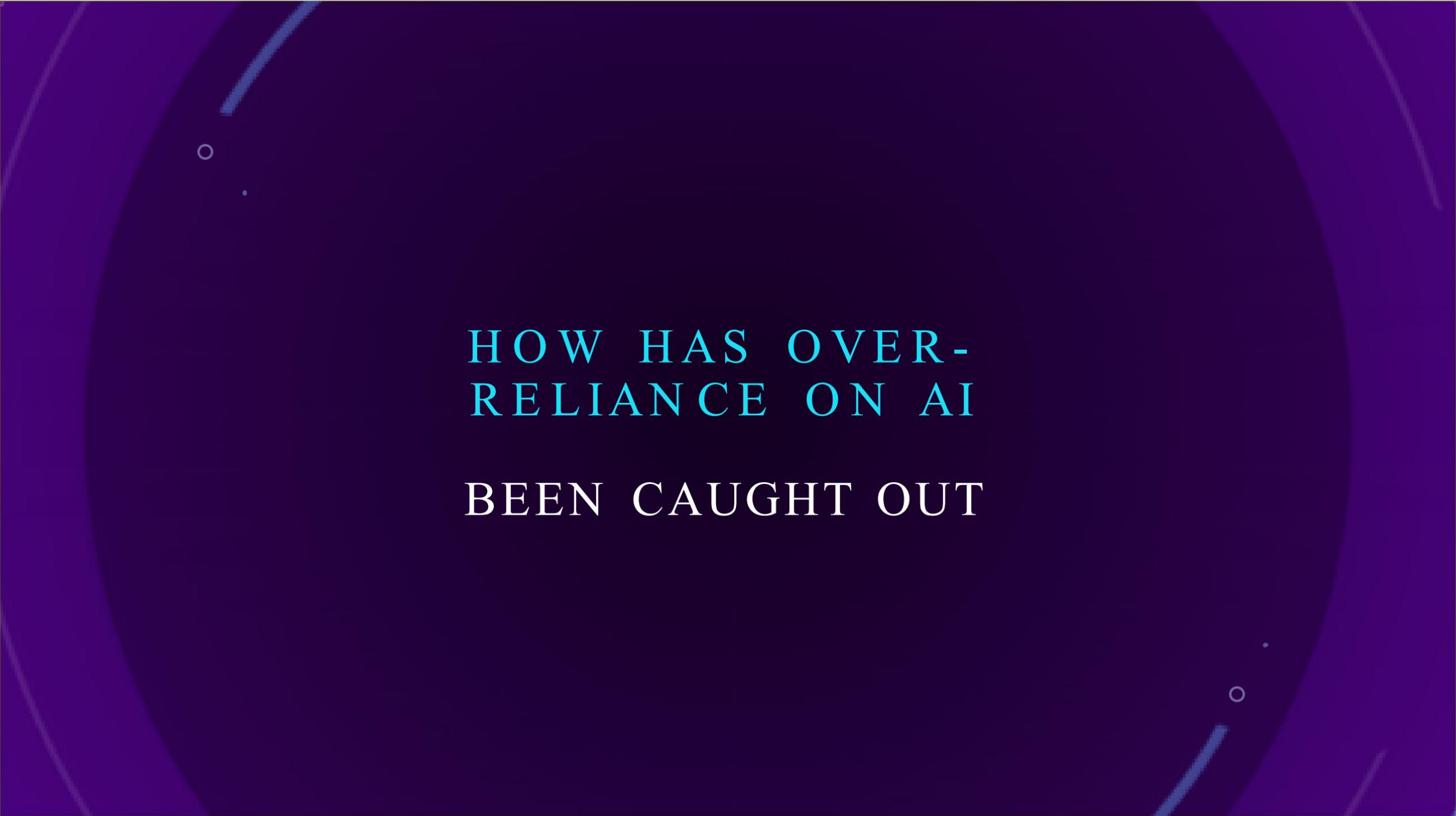
- AI has the ability to generate, or rather “hallucinate,” alternative realities. This phenomenon, known as AI hallucinations, occurs when large language models (LLMs) — such as generative AI chatbots — perceive patterns or objects that are non-existent or imperceptible to human observers, producing meaningless or entirely inaccurate results (as described by IBM).
- While AI generally provides accurate responses, there are instances where its algorithms generate outputs that are not based on training data, are misinterpreted by the model’s transformer, or fail to follow any identifiable pattern. In other words, the AI “hallucinates” a response.

“I SEE FAKE EVIDENCE”

- Looking at AI hallucinations in Healthcare specifically, some reported incidents include:
 - an AI system incorrectly flagging benign nodules as malignant in 12% of cases reviewed, leading to unnecessary surgical interventions;
 - instances where language-based AI models fabricated entire patient summaries, including non-existent symptoms and treatments;
 - Similarly, an AI-powered drug interaction checker mistakenly identified false interactions, causing clinicians to avoid effective drug combinations unnecessarily.

“I SEE FAKE EVIDENCE”

- A study by BHM Healthcare Solutions highlights that AI hallucinations in healthcare can lead to misdiagnoses and inappropriate treatments, directly compromising patient safety. Repeated errors may also erode trust in AI tools among healthcare professionals, reducing their willingness to adopt AI-driven decision support. Furthermore, mistakes attributed to AI hallucinations could result in malpractice lawsuits or increased regulatory scrutiny.
- Diagnoses of a disease involves quantitative and qualitative analysis. Whilst AI is particularly useful at quantitative analysis, it is more prone to errors when qualitatively analysing data, particularly when such analysis ought to involve subjective expertise and experience to homologate



HOW HAS OVER-
RELIANCE ON AI
BEEN CAUGHT OUT

MATA V. AVIAN CA, INC., NO. 1:2022CV01461 - DOCUMENT 54 (S.D.N.Y. 2023)

- Lawyers submitted a brief containing fake extracts and case citations to a New York court. The brief was researched using ChatGPT.
- The lawyers, unaware that ChatGPT could hallucinate, failed to check that the cases actually existed. The consequences were disastrous. Once the error was uncovered, the court dismissed their client's case, sanctioned the lawyers for acting in bad faith, fined them and their firm, and exposed their actions to public scrutiny.



ZHAN G V CHEN, 2024 BRITISH COLUMBIA SUPREME COURT (CANADA)

- The Vancouver lawyer for a multi-millionaire embroiled in an acrimonious divorce has been told to personally compensate her client's ex-wife's lawyers for the time it took them to learn the cases she hoped to cite were conjured up by ChatGPT.
- "As this case has unfortunately made clear, generative AI is still no substitute for the professional expertise that the justice system requires of lawyers," Masuhara wrote in a "final comment" appended to his ruling.
- "Competence in the selection and use of any technology tools, including those powered by AI, is critical."



KOHL'S & FRANSON V ELLISON & LARSON, US DISTRICT COURT, DISTRICT OF MINNESOTA

- The expert witness (Prof. Hancock), used AI to draft his declaration which dealt with matters such as AI and deepfakes. His own use of AI regrettably generated fake citations and non-existent academic articles.
- The Judge, in his ruling, stated that “When attorneys and experts abdicate their independent judgment and critical thinking skills in favour of ready-made, AI-generated answers, the quality of our legal profession and the Court’s ... processes, suffer.”



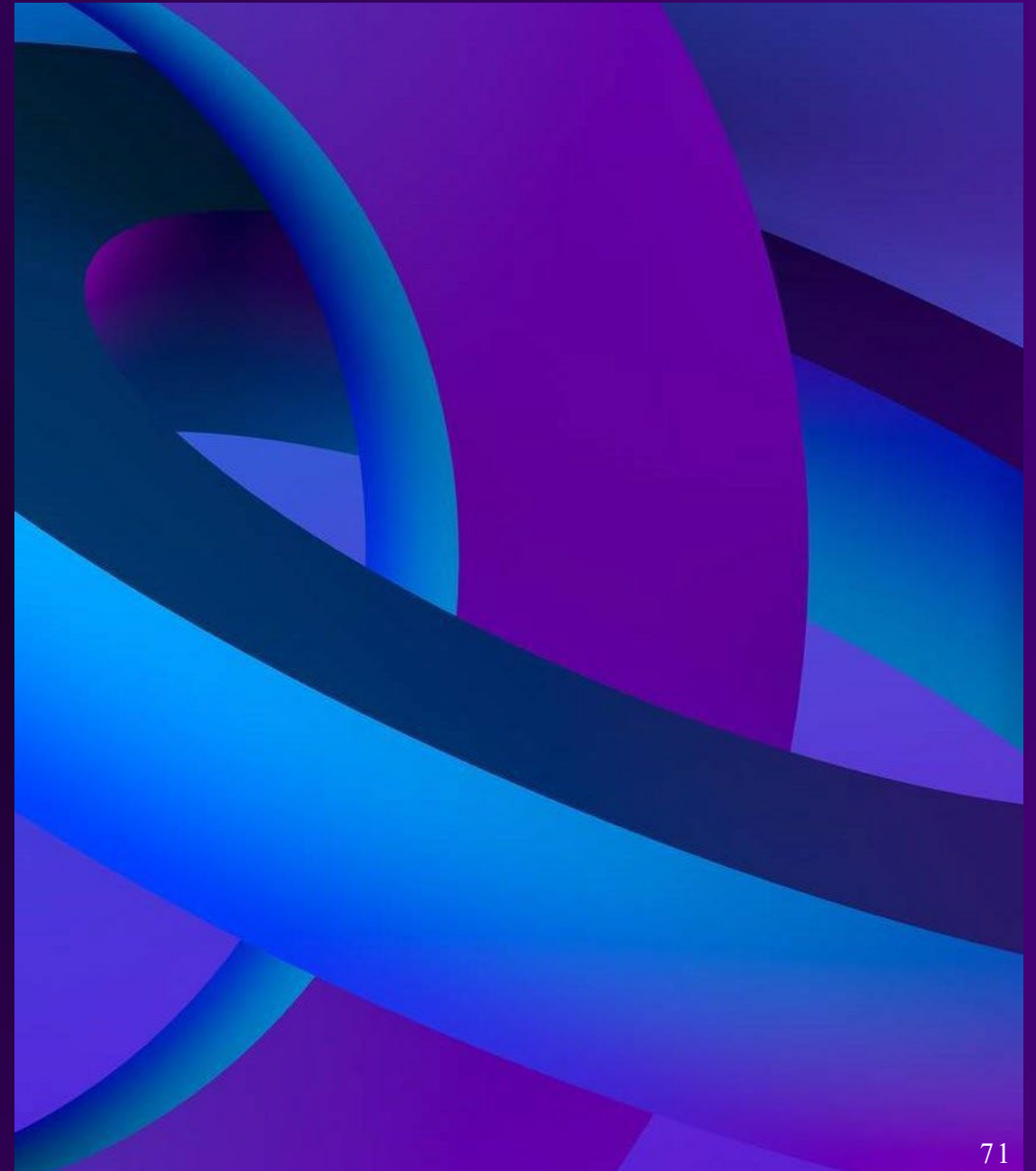
DESPITE THIS:

- 63% of lawyers surveyed by Reuters' parent company Thomson Reuters last year said they have used AI for work, and 12% said they use it regularly.



REACTION OF REGULATORS

- Several US state bars and courts have issued guidance, opinions or orders on generative AI use, ranging from responsible adoption to an outright ban.
- Law societies in the UK and British Columbia, and the courts of New Zealand, have also developed guidelines.
- In Australia, the NSW Bar Association has a [generative AI guide](#) for barristers. The [Law Society of NSW](#) and the [Law Institute of Victoria](#) have released articles on responsible use in line with solicitors' conduct rules.
- The Supreme Court of New South Wales issued a practice note on the use of generative AI, which prohibits its use for the generation of Affidavits and expert reports.



EXAMPLE OF NEXT GENERATION PROBLEM SOLVING – PERSONAL HEALTH PATHWAYS (PHP)

- PHP is a disease management programme.
- Members health metrics are assessed across a multitude of pre-determined parameters by an AI system.
- Each individual participating member is then prompted to complete two Next Best Actions (NBAs), namely one health-related activity, and one exercise-related activity. AI generates individualized NBAs most needed per individual.
- The completion of each action leads toward the closing of a gamified ring, at which point the member receives a reward for doing so.
- Rewards are tailored per member, and in respect of their respective NBAs, given the predicted likelihood of that member completing the action, i.e. members in greatest need of intervention will be incentivized to a greater extent to change their behaviour.

EXAMPLE OF NEXT GENERATION PROBLEM SOLVING – PERSONAL HEALTH PATHWAYS (PHP)

- Personal Health Pathways launched to 2.1 million adult members and dependents of Discovery Health Medical Scheme in January 2025;
- Expected outcome: More health screenings, more chronic conditions discovered earlier and treated at a lower cost before escalating in severity, more exercise completed – all ultimately leading to lower health risk across the population of members, leading to mitigated contribution increases into the future.

REFERENCES:

- Alowais, S. A., Alghamdi, S. S., Alsuhebany, N., Alqahtani, T., Alshaya, A. I., Almohareb, S. N., Aldairem, A., Alrashed, M., Bin Saleh, K., Badreldin, H. A., Yami, M. S. A., Haribi, S. A. and Albekairy, A. M. Revolutionizing healthcare: the role of artificial intelligence in clinical practice. BMC Medical Education (2023) 23: 689, p1, 11. Available at: <https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-023-04698-z>, accessed 23 March 2025;
- Blanding, M (2025). The Dangers of Deferring to AI: It Seems So Right Even When It's Wrong. Harvard Business School, 12 March 2025. Available at: <https://www.library.hbs.edu/working-knowledge/dangers-of-deferring-to-ai>, accessed 22 March 2025;
- Barr, S. (2024). AI Hallucination in healthcare use. BHM Healthcare Solutions. Available at: <https://bhmpc.com/2024/12/ai-hallucination/>, accessed 22 March 2025;
- Carpallo, S. C. (2025). AI 'Hallucinations' Are Changing Medicine — Should We Worry?, 14 March 2025. Available at: https://www.medscape.com/viewarticle/ai-hallucinations-are-changing-medicine-should-we-worry-2025a1000647?utm_source=flipboard&utm_content=topic/machinelearning&form=fpf, accessed 22 March 2025;

REFERENCES:

- Gonsalves, C. (2024). Generative AI's Impact on Critical Thinking: Revisiting Bloom's Taxonomy. Journal of Marketing Education, Kings College, London. Available at: <https://journals.sagepub.com/doi/pdf/10.1177/02734753241305980>, accessed 22 March 2025;
- Lane, J. N., Boussioux, L., Ayoubi, C., Chen, Y. H., Lin, C. Spens, R., Wagh, P and Wang, P. H. (2024). The Narrative AI Advantage? A Field Experiment on Generative AI-Augmented Evaluations of Early-Stage Innovations. Harvard Business School, working paper, 30 August 2024. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4914367, accessed 22 March 2025;
- Paoli, C. (2025). Study: GenAI Is Eroding Critical Thinking. Redmond, 18 February 2025. Available at: <https://redmondmag.com/Articles/2025/02/18/GenAI-Is-Eroding-Critical-Thinking.aspx>, accessed 22 March 2025;

QUESTIONS?

THAN K YOU

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Jeremy Justin

Chief Risk Officer and Vice President
Canadian Public Accountability Board (CPAB)

Jeremy leads CPAB's enterprise risk management and thought leadership activities and is responsible for stakeholder engagement activities in Central Canada.

Use of technology — in the audit

Artificial Intelligence in Finance webinar



Use of technology in audits

Key factors for audit firms to consider

- 1 Evaluate and monitor the use of technology tools and audit quality impact.
- 2 Prioritize deployment of tools that will have the biggest impact on improving audit quality.
- 3 Build appropriate governance and oversight into technologies that use AI or generative artificial intelligence in the audit.
- 4 Ensure that audit professionals are in control of the technology and retain responsibility for the judgements made on an audit.



Use of technology in
audits – observations,
risks and further
evolution

2025

This report, released on March 27, 2025, presents information and perspectives on the use of technology in audits.

Audit professionals' control of technology



Human led audit procedures



Effective training programs



Supervision and oversight



Firm certification processes



Transparency of use

Use of AI and Gen AI in the financial reporting process

- Many potential use cases
- Key risks for auditors to consider:
 - Reliability and accuracy of information
 - Explainability and auditability of information



The background of the image is a dark teal color with various financial data visualizations. It includes a candlestick chart on the left, a line chart with multiple lines in the center, and a bar chart at the bottom right. There are also some blurred numbers and shapes scattered throughout, giving it a complex, data-driven appearance.

Questions ?



THANK YOU!