NEXTGENERATION

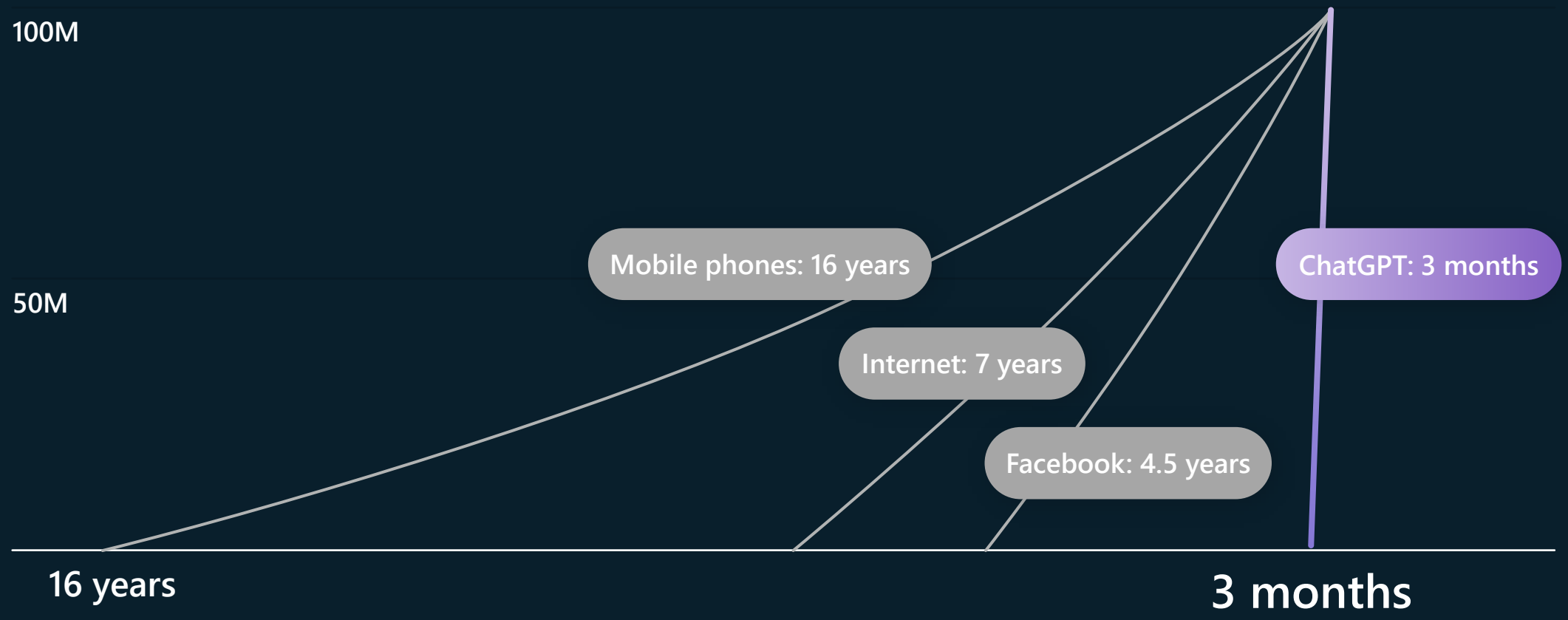
antram

Power your business transformation with AI

Bruno Marques
Microsoft EMEA Energy Bizz Apps Lead

Generative AI technology is here

Time to reach 100M users



Source: Microsoft Research

duolingo

"We've seen a 25% productivity increase with Copilot, and that frees up so much of your time in the day to have more thoughtful conversations and talk about your next big idea."

Maggie Hewitt

Senior Site Reliability Engineering Manager, Duolingo

LUMEN

"Our people are seeing immediate productivity improvements with Copilot."

Kate Johnson

CEO, Lumen Technologies

MAYO CLINIC

"Using AI-powered tech will enhance Mayo Clinic's ability to lead the transformation of healthcare."

Cris Ross

CIO, Mayo Clinic

GOODYEAR

"It's been exciting to pilot with Microsoft during this defining and groundbreaking moment of AI."

Sherry Neubert

VP and CIO, Goodyear

BAYER

"... I asked Copilot to give me a summary ... saved me 45 minutes of reading the documents."

Christoph Sieger

Digital Workplace, Bayer

shopify

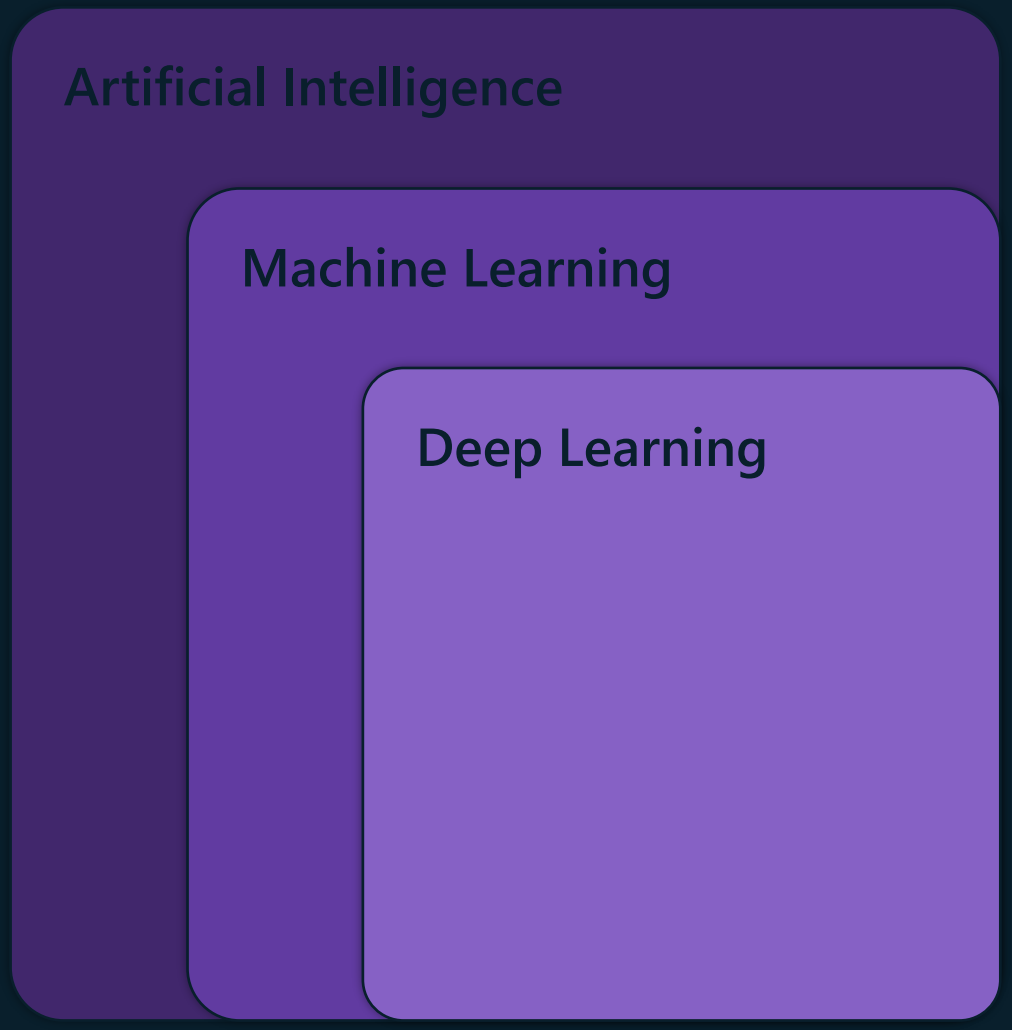
"Assisted by Copilot and ChatGPT, I'm more productive than I would be if I never stopped programming. A heartfelt thank you to the arc of progress."

Tobias Lütke

CEO, Shopify

How did we get here?

A brief history of AI



1950s

Artificial Intelligence

the field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

1959

Machine Learning

subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2010

Deep Learning

a machine learning technique in which layers of neural networks are used to process data and make decisions.

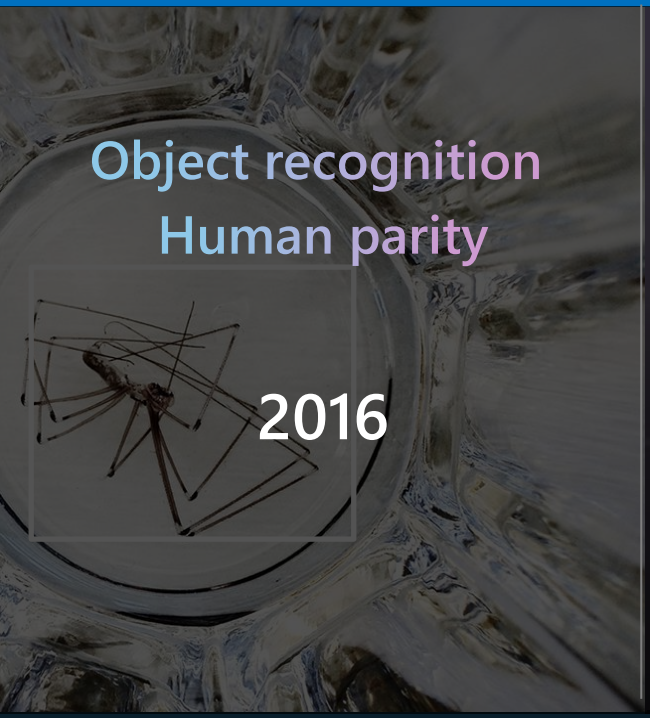
A brief history of AI

96%
RESNET vision test
152 layers

5.1%
Switchboard speech
recognition test

88.49%
SQuAD reading
comprehension test

69.9%
MT
research system

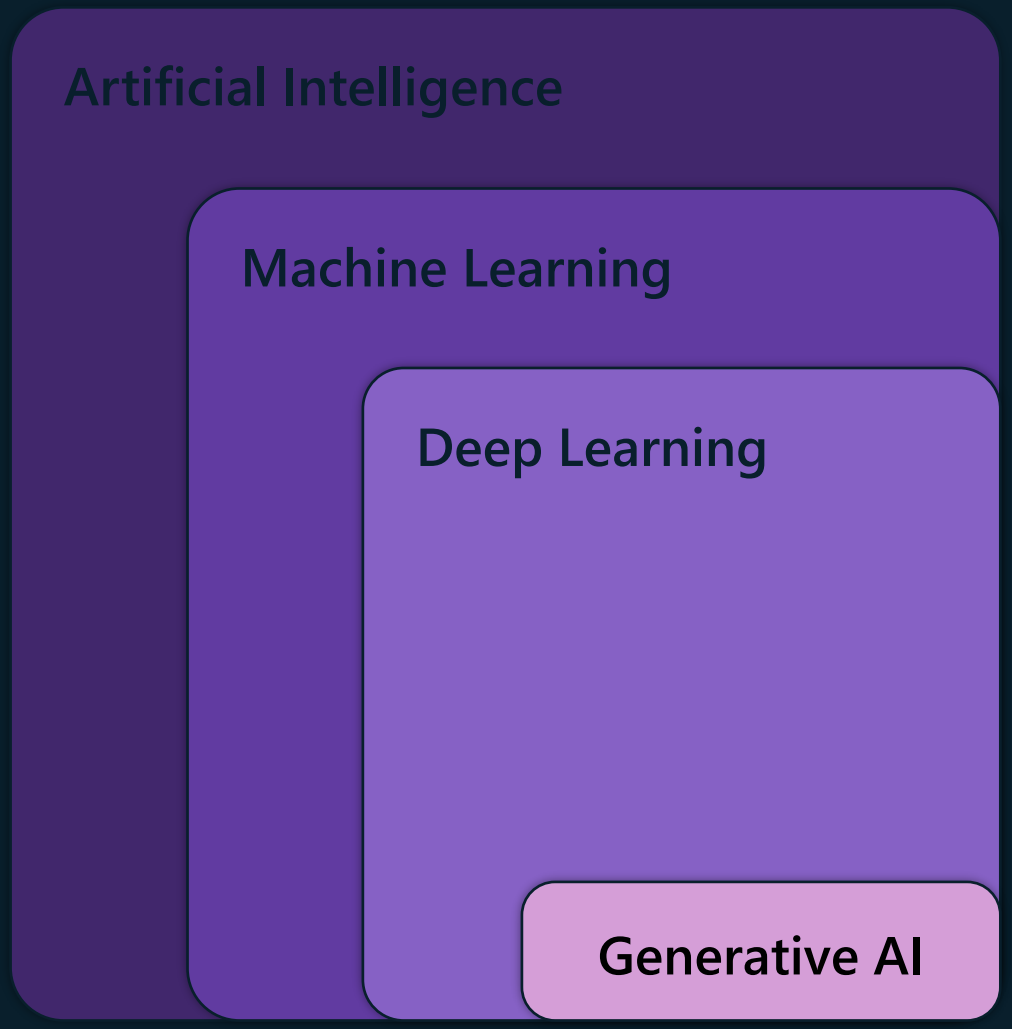


Vision

Speech

Language

A brief history of AI



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2017

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a machine learning technique in which layers of neural networks are used to process data and make decisions.

2021

Generative AI

create new written, visual, and auditory content given prompts or existing data.

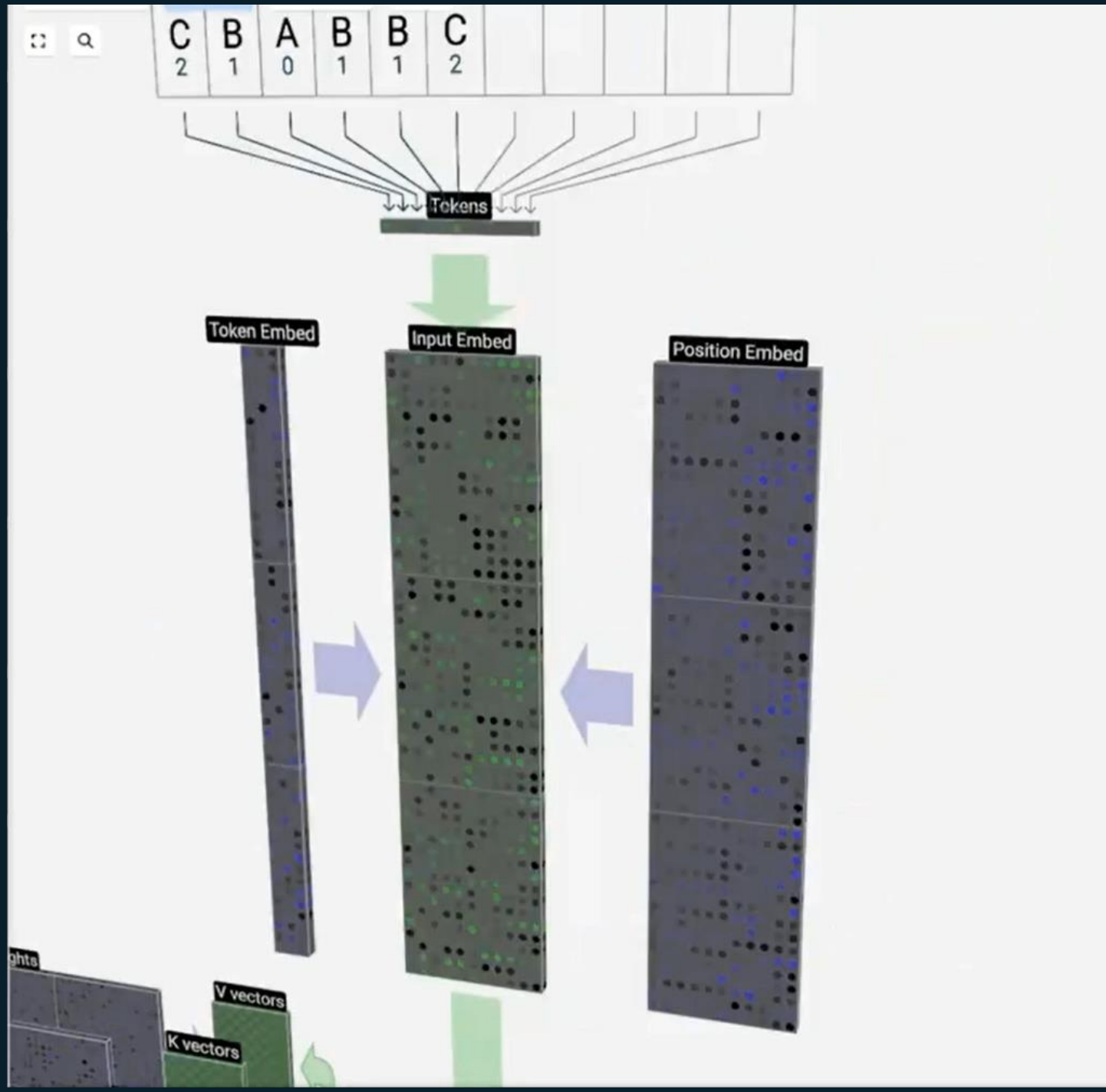
How LLMs work?

It’s raining cats and *dogs*

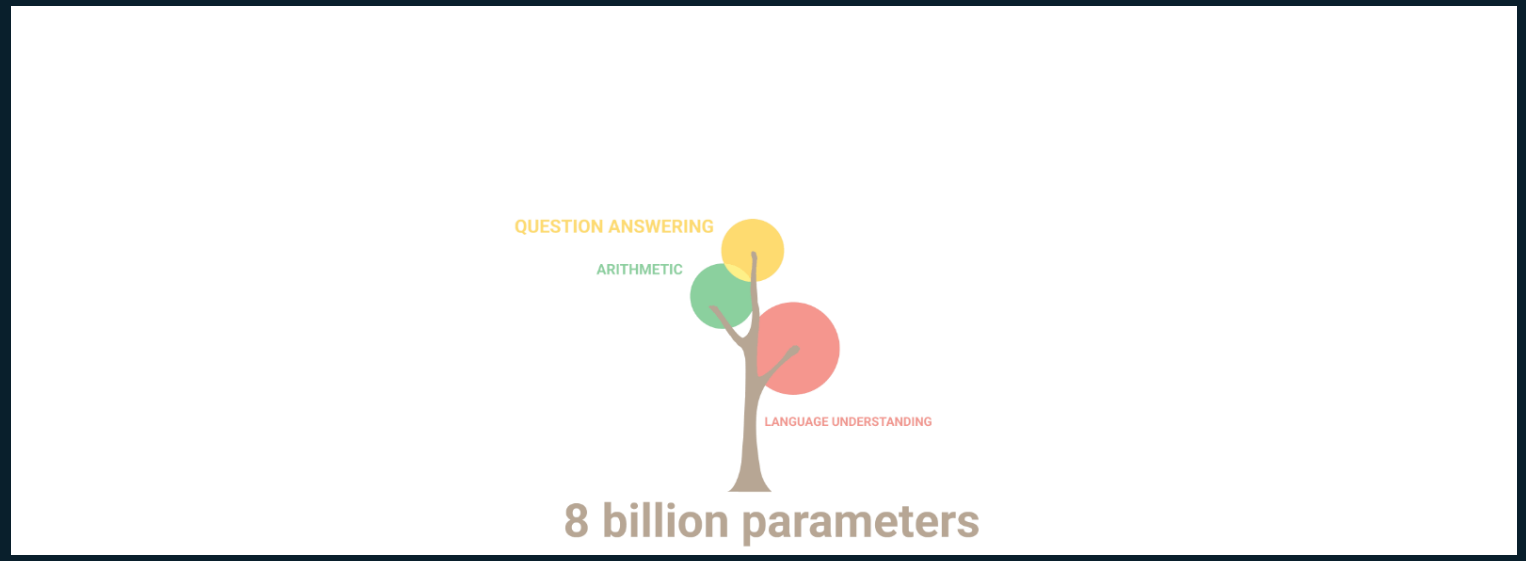
A LLM is basically a very sophisticated

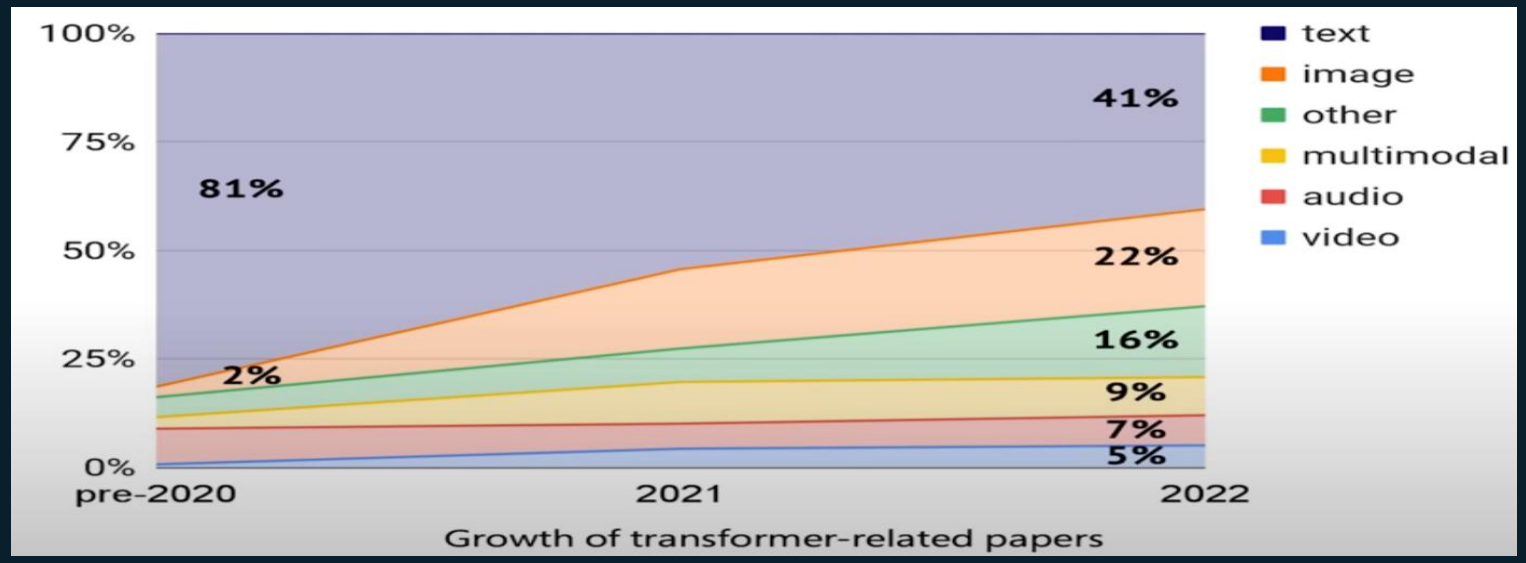
autocomplete

How a LLM works



A brief history of GenAI





The investments in GenAI

GPT

Prompt:

Write a tagline for an ice cream shop.

Response:

We serve up smiles with every scoop!

Codex

Prompt:

Table customers, columns = [CustomerId, FirstName, LastName, Company, Address, City, State, Country, PostalCode]

Create a SQL query for all customers in Texas named Jane
query =

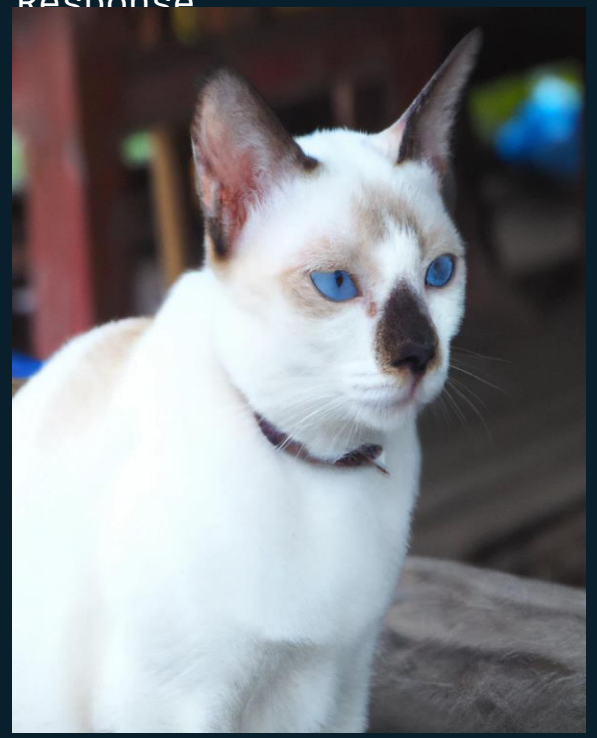
Response:

```
SELECT *
FROM customers
WHERE State = 'TX' AND
FirstName = 'Jane'
```

DALL·E

Prompt: A white Siamese cat

Response:



SORA

Prompt: close-up shot of a Victoria crowned pigeon showcases its blue plumage a

The investments in GenAI

SORA

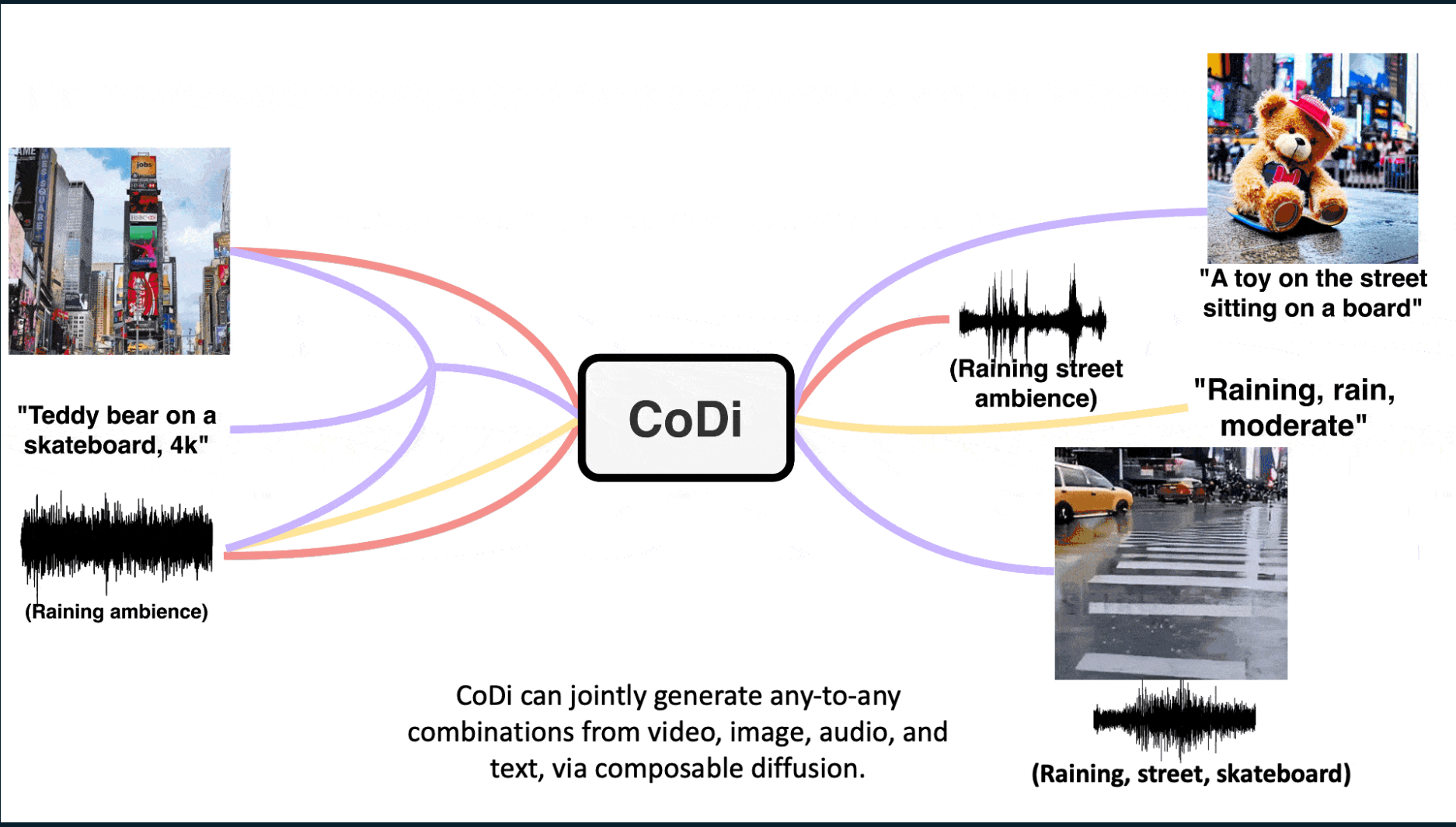
Prompt: Photorealistic closeup video of two pirate ships battling each other as they sail inside a cup of coffee.

The investments in GenAI

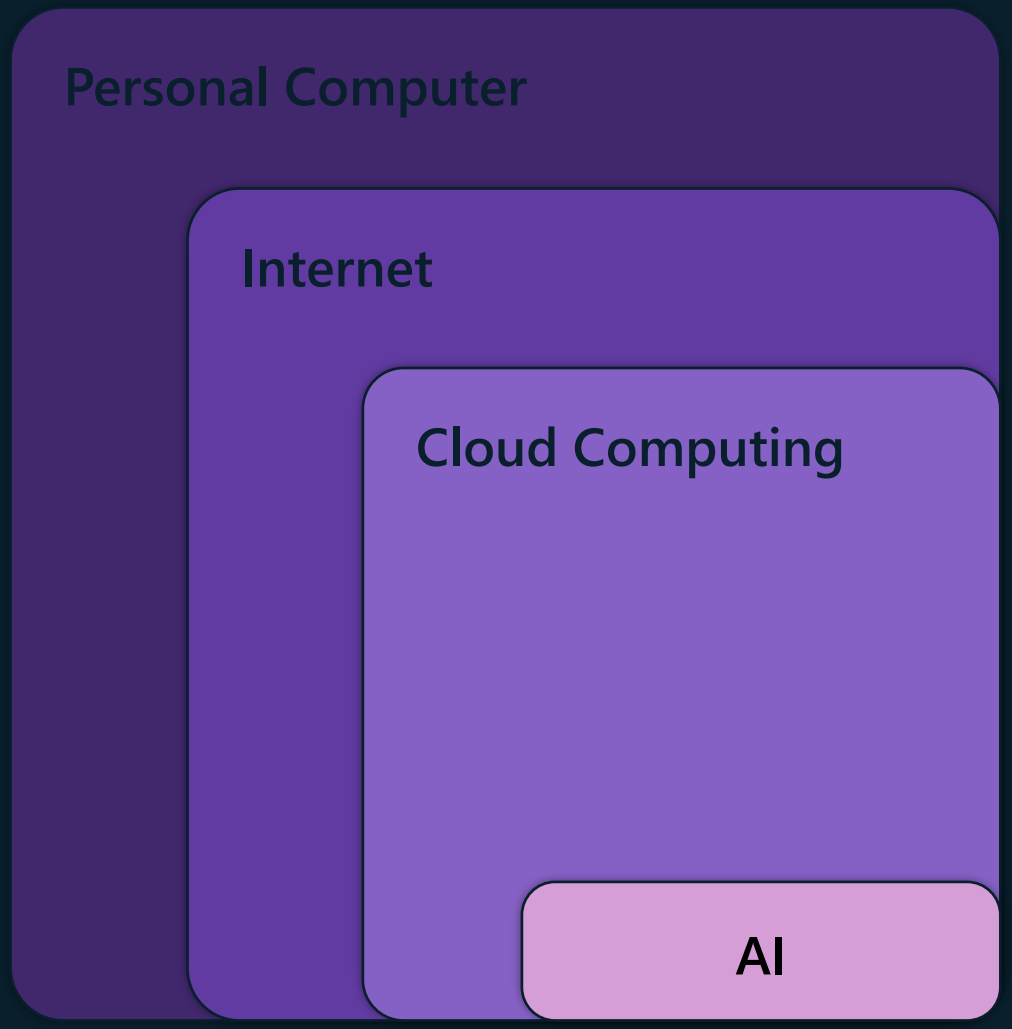
SORA

Prompt: A movie trailer featuring the adventures of the 30 year old space man wearing a red wool knitted motorcycle helmet, blue sky, salt desert, cinematic style, shot on 35mm film

What is coming in GenAI



The evolution of Microsoft



1975

Founded as a PC company

"A PC on every desk in every home"

1995

Evolved into an Internet company

Embraced the emerging Internet technology and focused more and more on web products

2012

Evolved into a Cloud company

Cut ties with the traditional software business, shifting to subscription-based cloud services

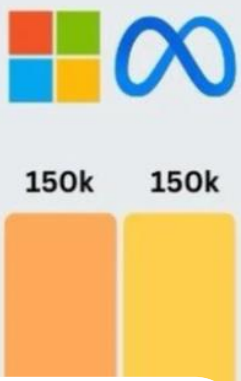
2018

Evolved into an AI company

Infuse AI in all aspects of all services, enable everyone to harness AI to build and create

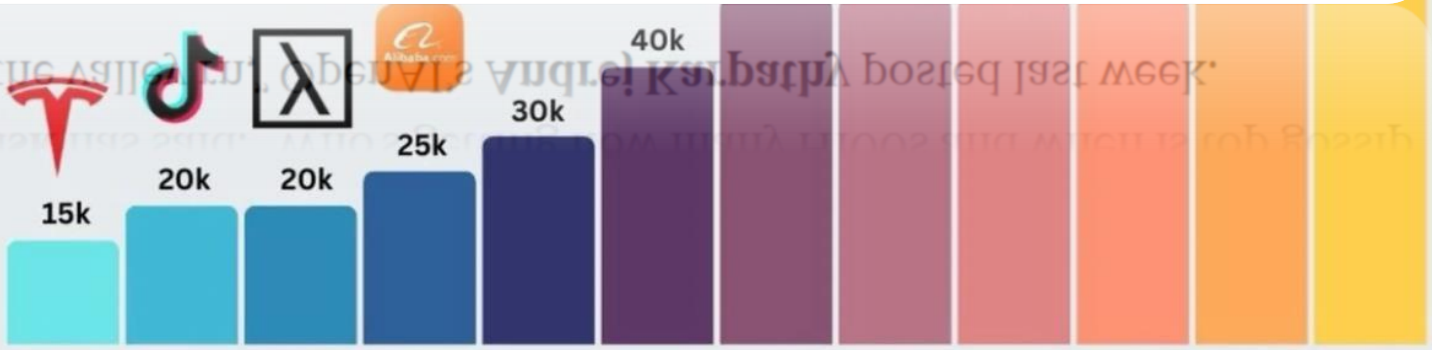
Source: the Verge

Nvidia H100 GPU Shipments by Customer

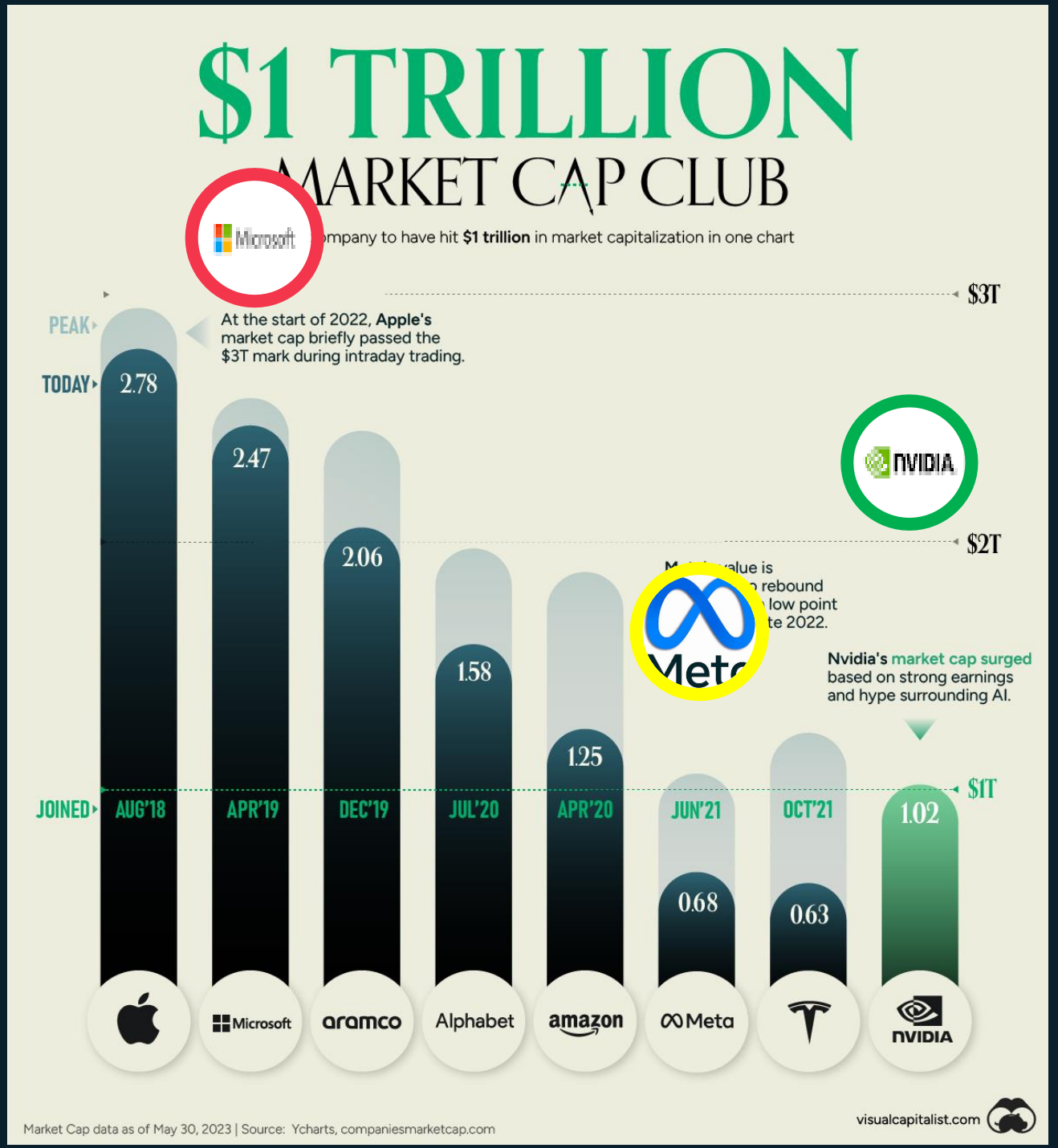


The most sought-after resource in the tech industry right now isn't a specific type of engineer. It's not even money. It's an AI chip made by Nvidia called the H100.

Securing these GPUs is "considerably harder to get than drugs," **Elon Musk** has said. "Who's getting how many H100s and when is top gossip of the valley rn," OpenAI's **Andrej Karpathy** posted last week.

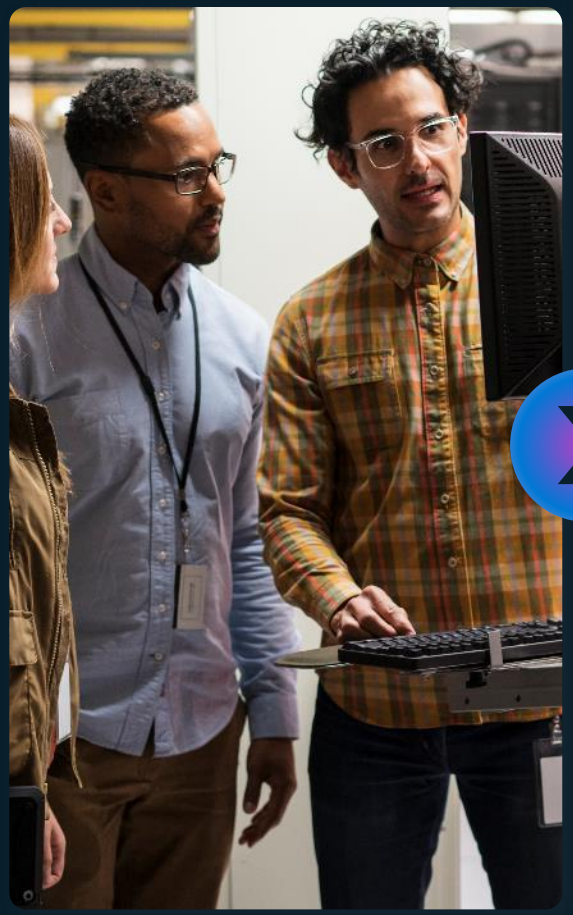


Source: visual capitalist

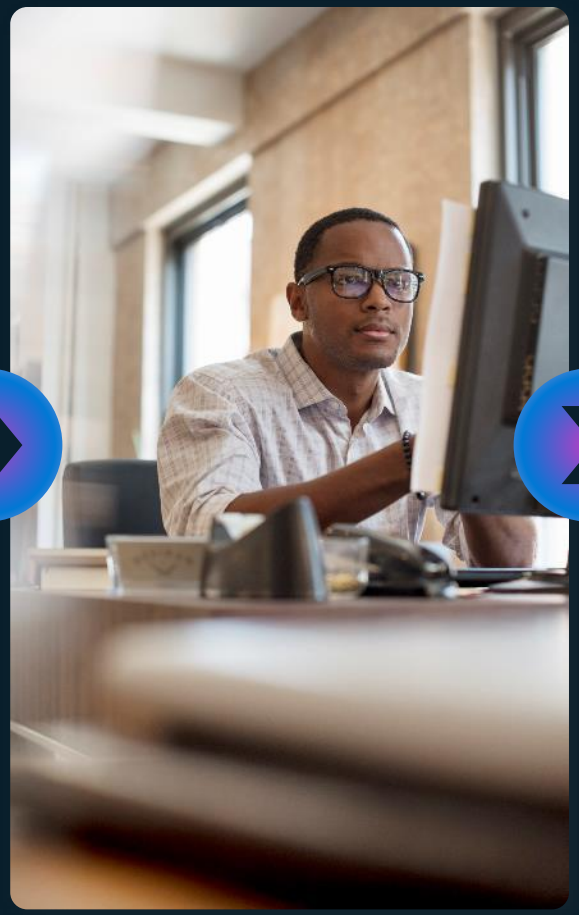


How GenAI is being used?

Technological progress has been gradual...



Mainframe



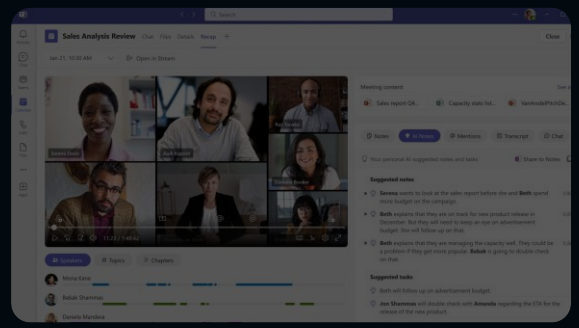
PC

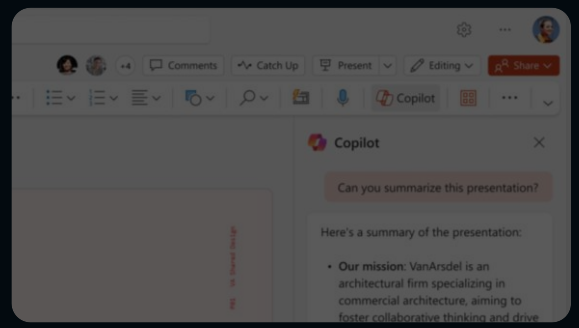
Cloud

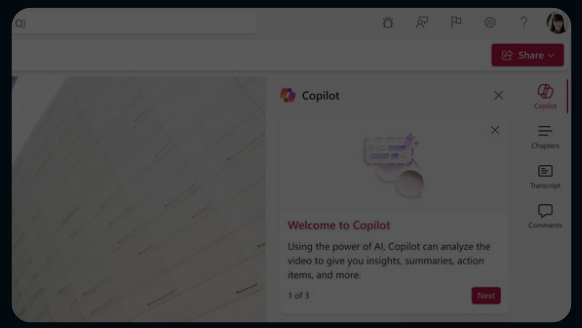
Mobile

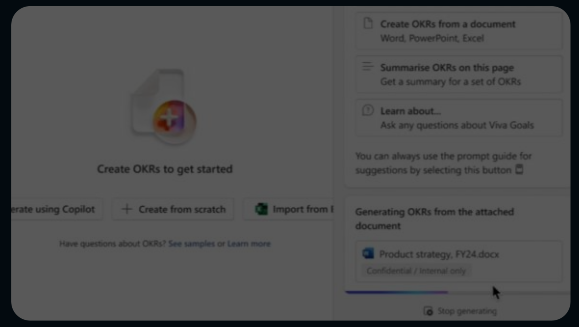
Now technology is being reimagined... by AI

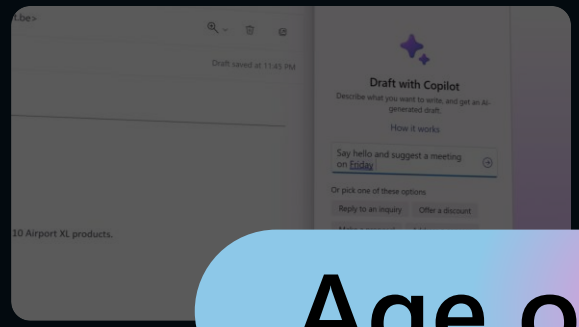
Mainframe PC Cloud Mobile AI Copilot

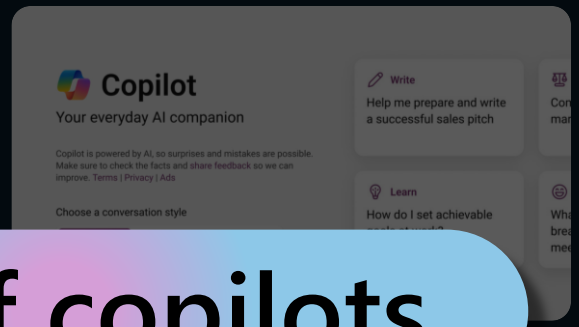


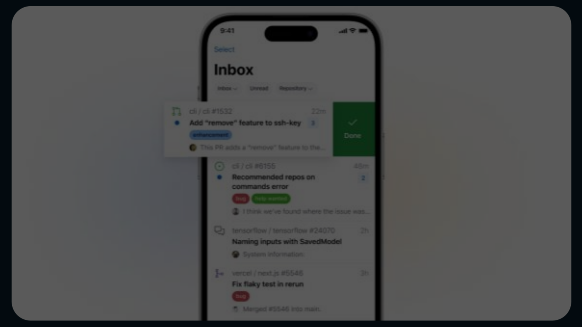


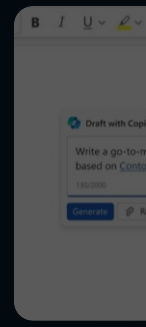




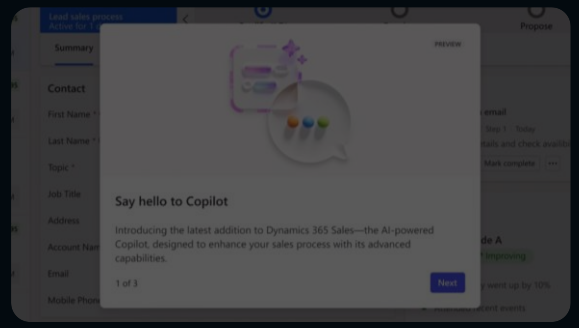


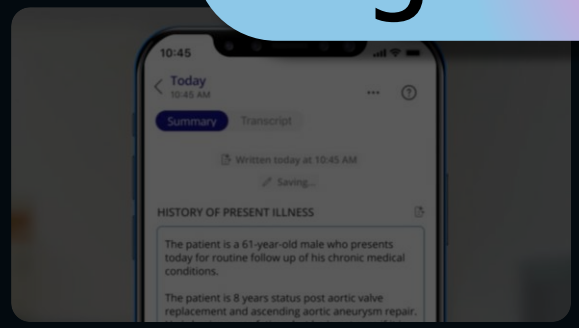


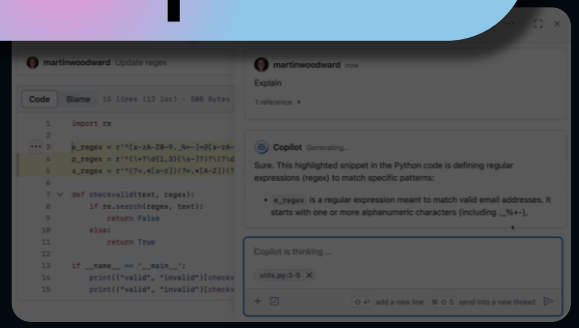


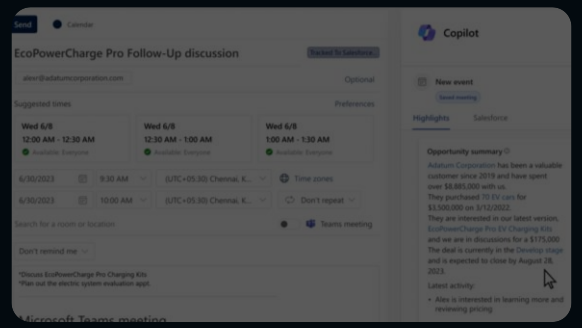


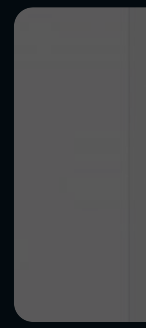
Age of copilots

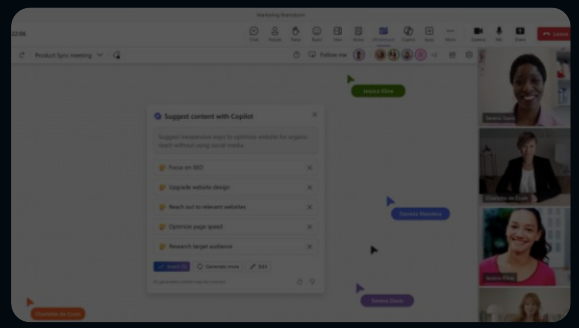


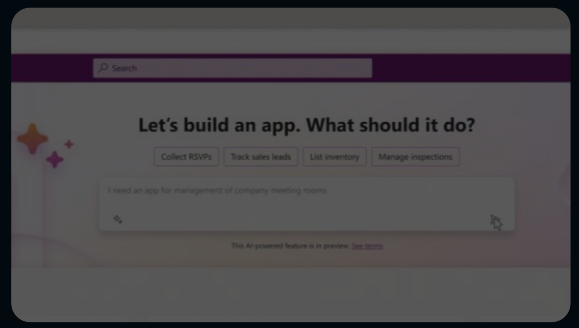


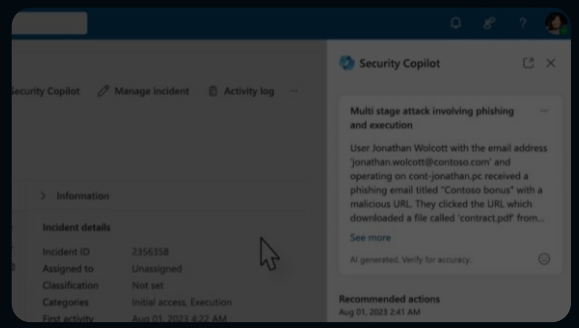


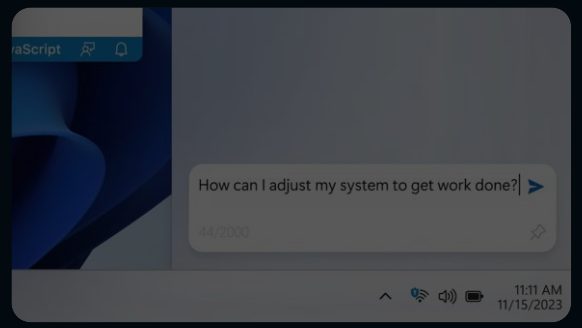


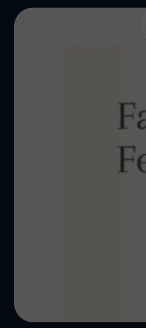












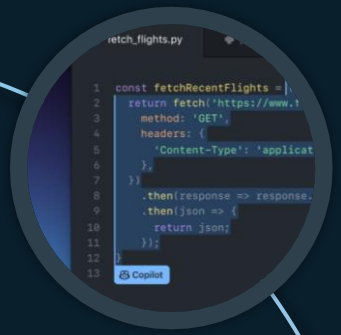
Copilot

Analytics

Power BI Copilot

Software developers

GitHub Copilot

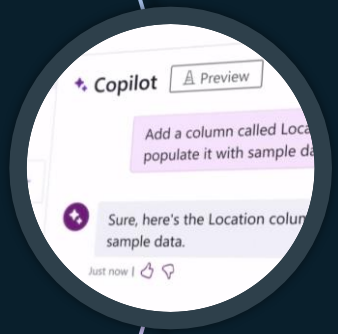


Security operations

Security Copilot

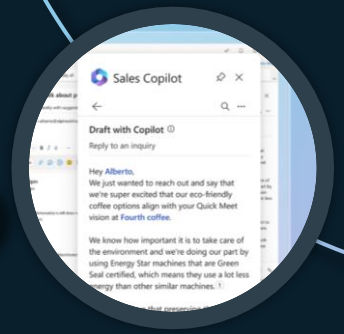
Domain experts

Copilot in Power Platform



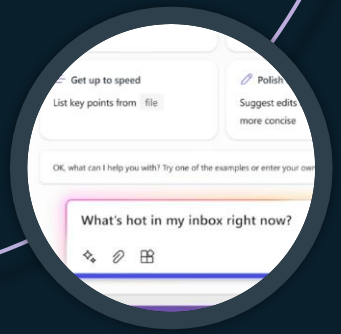
Sales

Sales Copilot



Knowledge workers

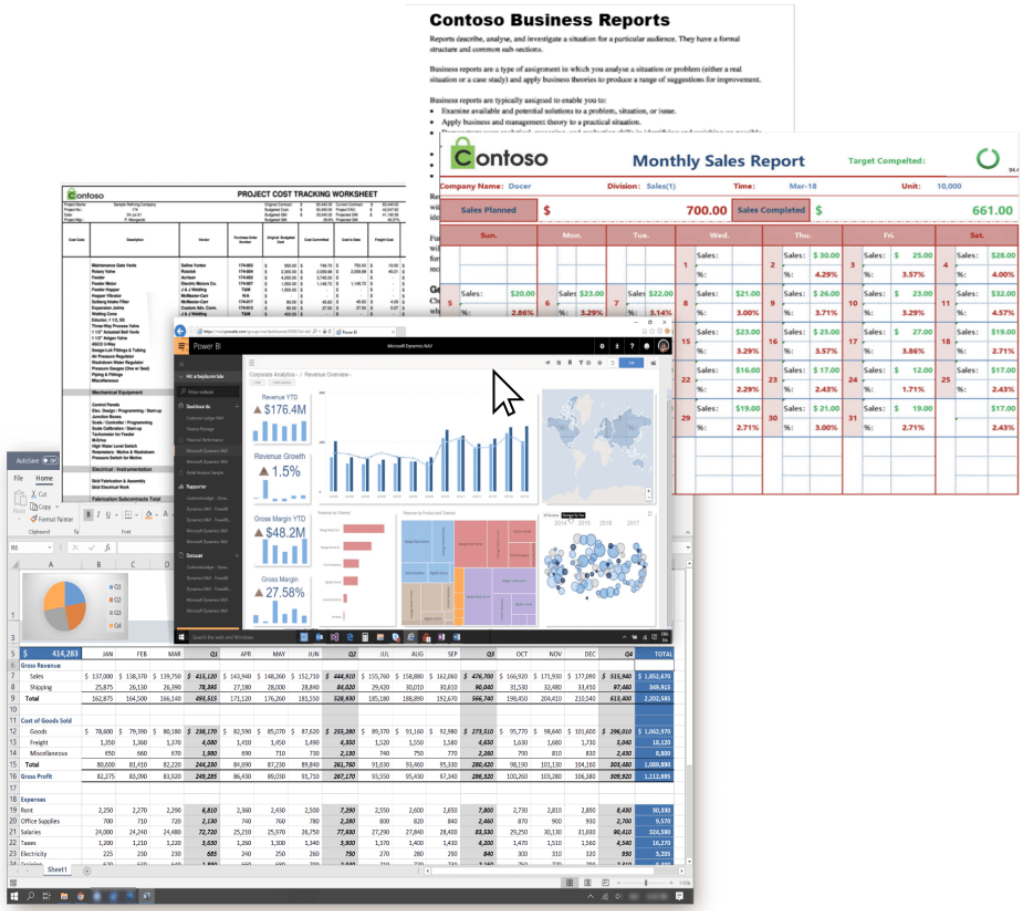
Microsoft 365 Copilot



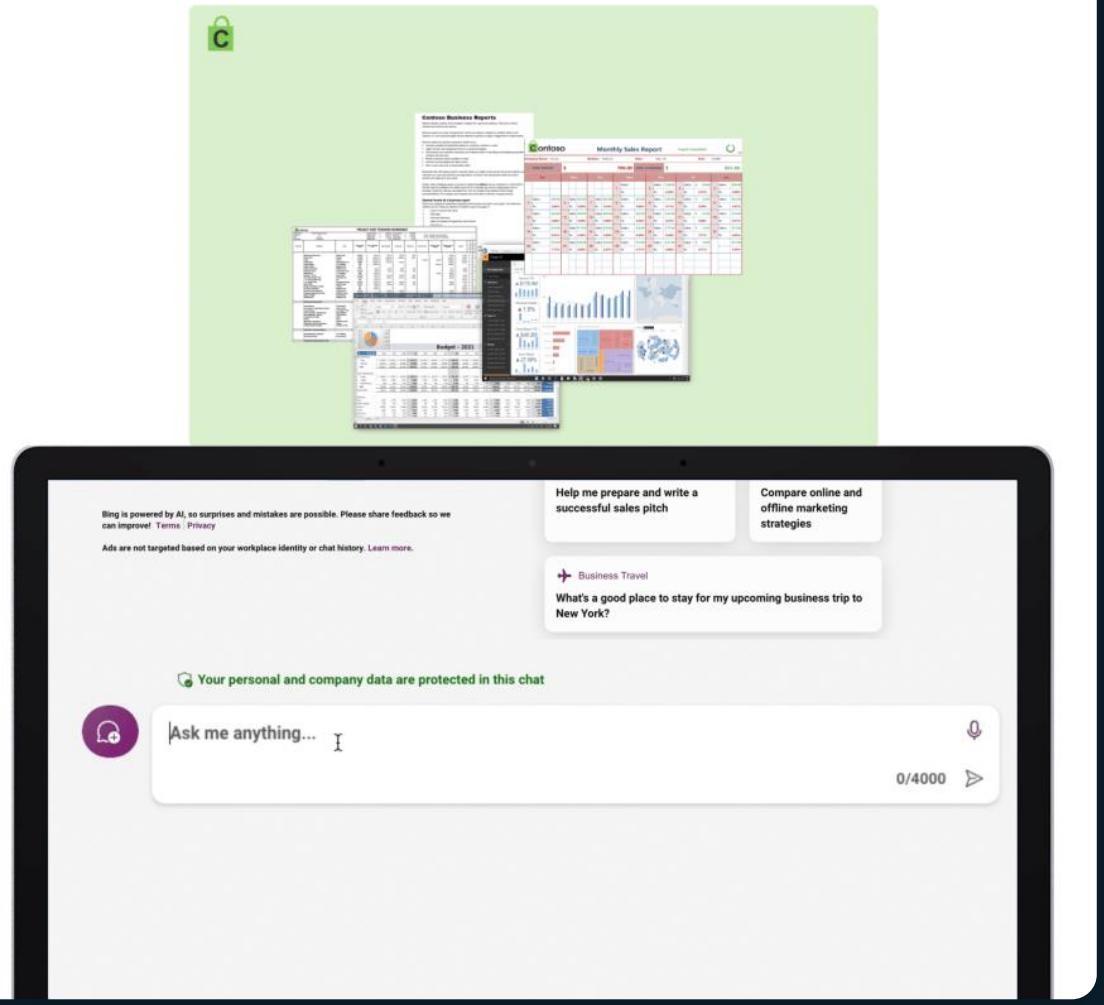
Microsoft Graph

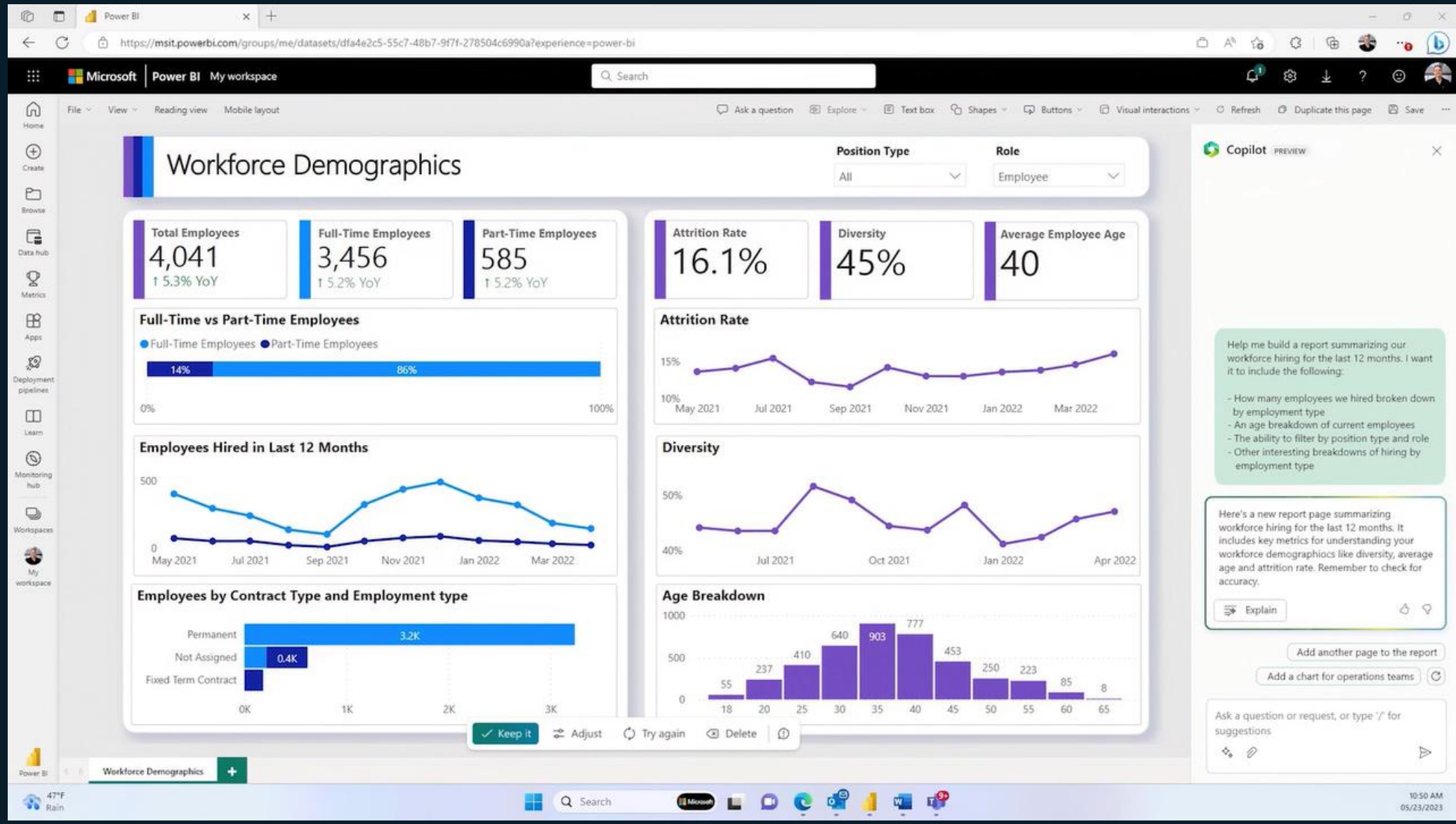
Microsoft 365 Apps

Before


Contoso Business Reports
Contoso
Monthly Sales Report
PROJECT COST TRACKING WORKSHEET
Power BI
Revenue YTD
$176.4M
Revenue Growth
1.5%
Gross Margin YTD
$48.2M
Gross Margin
27.58%

Now


Help me prepare and write a successful sales pitch
Compare online and offline marketing strategies
Business Travel
What's a good place to stay for my upcoming business trip to New York?
Your personal and company data are protected in this chat
Ask me anything...
0/4000


Power BI
https://msit.powerbi.com/groups/me/datasets/dfa4e2c5-55c7-48b7-9f7f-278504c6990a?experience=power-bi
Microsoft | Power BI My workspace
Search
File View Reading view Mobile layout
Ask a question Explore Text box Shapes Buttons Visual interactions Refresh Duplicate this page Save
Home Create Browse Data hub Metrics Apps Deployment pipelines Learn Monitoring hub Workspaces My workspace
Workforce Demographics
Position Type
All
Role
Employee
Total Employees
4,041
↑ 5.3% YoY
Full-Time Employees
3,456
↑ 5.2% YoY
Part-Time Employees
585
↑ 5.2% YoY
Attrition Rate
16.1%
Diversity
45%
Average Employee Age
40
Full-Time vs Part-Time Employees
Full-Time Employees
Part-Time Employees
14%
86%
0%
100%
Attrition Rate
15%
10%
May 2021
Jul 2021
Sep 2021
Nov 2021
Jan 2022
Mar 2022
Employees Hired in Last 12 Months
500
0
May 2021
Jul 2021
Sep 2021
Nov 2021
Jan 2022
Mar 2022
Diversity
50%
40%
Jul 2021
Oct 2021
Jan 2022
Apr 2022
Employees by Contract Type and Employment type
Permanent
Not Assigned
Fixed Term Contract
3.2K
0.4K
0K
1K
2K
3K
Age Breakdown
1000
500
0
55
237
410
640
903
777
453
250
223
85
8
18
20
25
30
35
40
45
50
55
60
65
Keep it
Adjust
Try again
Delete
Copilot PREVIEW
Help me build a report summarizing our workforce hiring for the last 12 months. I want it to include the following:
- How many employees we hired broken down by employment type
- An age breakdown of current employees
- The ability to filter by position type and role
- Other interesting breakdowns of hiring by employment type
Here's a new report page summarizing workforce hiring for the last 12 months. It includes key metrics for understanding your workforce demographiocs like diversity, average age and attrition rate. Remember to check for accuracy.
Explain
Add another page to the report
Add a chart for operations teams
Ask a question or request, or type '/' for suggestions
Workforce Demographics
47°F Rain
Search
10:50 AM 05/23/2023

Examples of use cases?

What AI is already doing?

Productivity & job satisfaction

"After a six-week pilot to automate invoice and claims document processing, Volvo deployed a solution that saved the Group more than 10,000 manual hours"

Cost savings & efficiency

"It's allowed us to optimize the way we work. The team is now able to focus on high-value tasks."

Customer experience

"The integration of ChatGPT with Microsoft in our controlled cloud environment is a milestone on our way to making our cars the center of our customers' digital lives."

VOLVO

"We chose Microsoft Azure AI primarily because of the advanced capabilities offered, especially with AI Document Intelligence."."

– Malladi Kumara Datta, RPA Product Owner, Volvo Group

Microsoft products and services:

Azure AI services
Azure AI Document Intelligence
Azure Data Factory
Power Automate

Situation

Volvo Group wanted to support its employees by streamlining invoices and claims document processing. It particularly needed the ability to extract data from images, like photographs and stamps, and to translate documents from and to multiple languages.

Solution

With Microsoft Azure as its enterprise cloud solution, Volvo Group chose to create a solution using Microsoft Azure AI services and AI Document Intelligence.

Impact

After a **six-week pilot** and four-month production timeline, Volvo Group launched a solution that simplifies document processing and meets the objectives of data extraction from images and translation.
Now in multiple markets, the solution has saved Volvo Group more than **10,000 manual hours.**

Watch video here

Read full story here

IVECO • GROUP
WE GO BEYOND

Microsoft products and services:

Azure OpenAI Service

Office 365

"We want people to concentrate on using AI as a tool to solve their problems. It´s our people who are creative—who are responsible and hold the key to producing results with this new superpower—not the AI technology."

– Fabio Ricciato, *Head of IT Customer Journey & Digital Architecture, Artificial Intelligence and DEX*, Iveco Group

Situation

Iveco Group, a manufacturer and automotive company headquartered in Italy, determined that AI could tackle wide-ranging challenges and opportunities to reinvent its employee experience. The group recognized the need to quickly provide enterprise-level AI solutions that are not only efficient and user-friendly, but also secure and protective. They wanted to maintain the integrity of their operations, while fostering an acceptance of the new technology among employees.

Solution

Iveco Group used Azure OpenAI Service to create an internal chatbot called "Chat IVG." Available in Microsoft Teams, Chat IVG can be used for questions and answers and to extract information from the organization's own data and documents. Azure OpenAI was a natural choice as Iveco Group uses Microsoft Office 365 and other modern workplace technologies.

Impact

Chat IVG was introduced to a limited group at first, but word of mouth soon led other employees to request access. Chat IVG went from five to 25 to hundreds of users. **Employees rated Chat IVG 4.7 out of 5** on a Net Promoter Score (NPS) and **chose 5 out of 5 when asked whether they wanted to continue using it.** Now, Chat IVG is fostering huge impact in terms of internal business user experience, augmented productivity levels among different business units, and faster, more effective customer support.

Read full story here

Mercedes-Benz

"The integration of ChatGPT with Microsoft in our controlled cloud environment is a milestone on our way to making our cars the center of our customers' digital lives. Our customers can always rely on us to ensure the best possible protection of their data privacy."

– **Markus Schafer,** *Member of the Board of Management, Chief Technology Officer,* Development & Procurement, Mercedes-Benz Group AG

Microsoft products and services:

Azure OpenAI Service

Azure

Situation

Mercedes-Benz, wanted to integrate a more intuitive voice control system into their existing MBUX Voice Assistant. However, Conversational AI is limited to predefined tasks and responses, and cannot conduct natural conversations with the drivers.

Solution

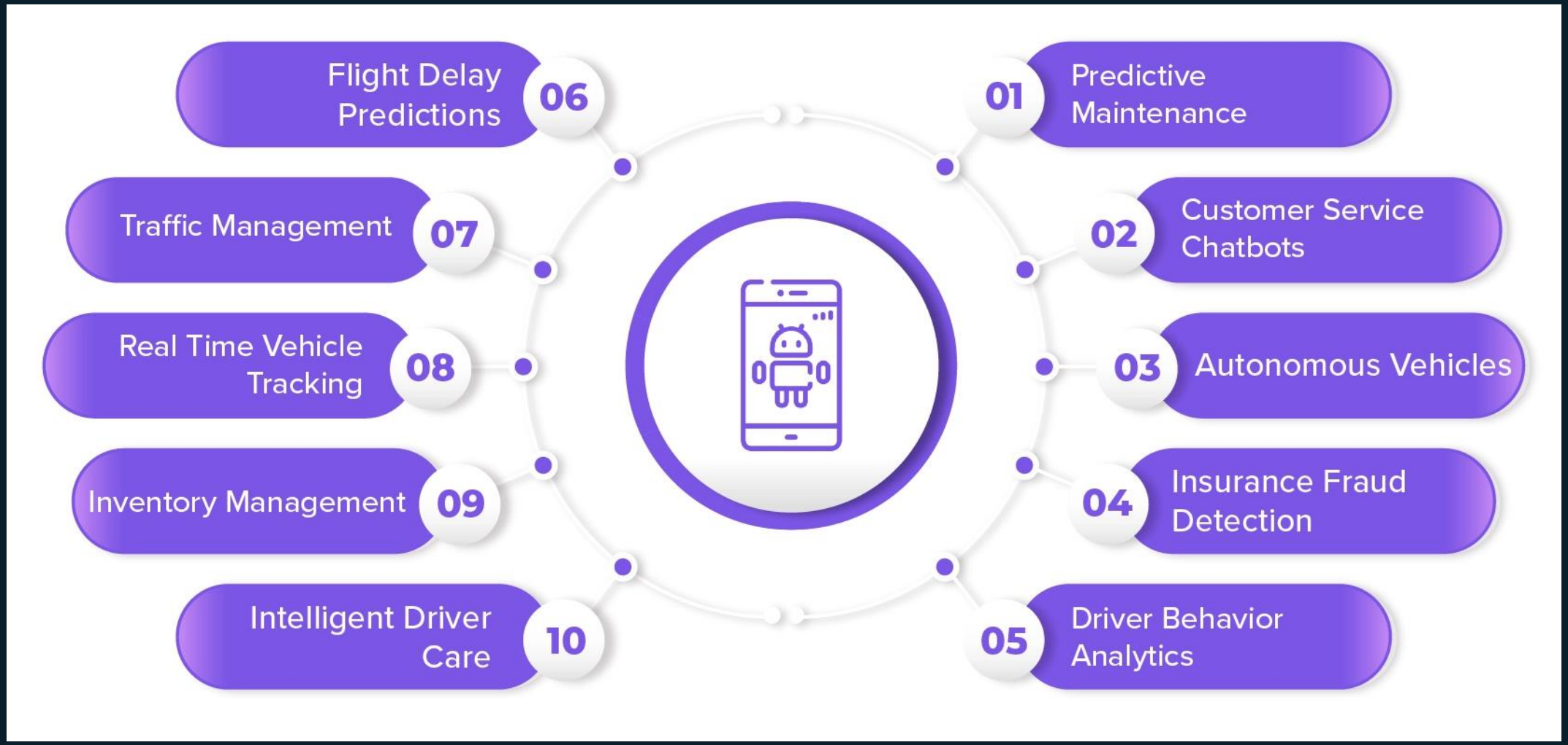
Mercedes-Benz partnered with Microsoft to integrate ChatGPT into their vehicles through Azure OpenAI Service, enabling the vehicles to not only accept natural voice commands but also conduct conversations. The rollout began with a beta program on June 16, 2023, available for over 900,000 vehicles equipped with the MBUX infotainment system.

Impact

Drivers can now ask the Voice Assistant for details about their destination, suggest a new dinner recipe, or **answer complex questions**, and receive a more comprehensive answer. This greatly improves the driving experience, allowing drivers to keep their hands on the wheel and eyes on the road, while maintaining data privacy.

Read full story here

Main AI use cases in the transportation industry



Main AI use cases in the transportation industry

Industry	Azure OpenAI Top Patterns	Public References
Automotive, Mobility & Transportation	**Contact Center** – Extract rich insights from call transcripts. E2E Call Center analysis: Classification, sentiment, summarization and email generation. Automatically generate responses to customer inquiries. Summary of customer support conversation logs. Improved customer satisfaction. Improve time to resolution. **Smart Virtual Agents/Customer & Employee Communication** – Intelligent automated responses to customers and employees through the value chain. Generate human-like responses for live chat/voice applications. **Automated Documents Processing** – Automate Invoice processing for large volumes using Microsoft Cognitive Services, and Azure OpenAI. **Incident Reporting & Prediction** – Text summarization and pattern recognition to automatically generate reports on equipment and process failures, etc. Generate automated responses and notifications. **Automated Content Generation** – Generative AI can be used to automatically generate content on a variety of topics, saving time and money for content creators. Generate more relevant content with summarization. Improve SEO (search engine optimization).	CARMAX BMW Group MINI
Manufacturing & Industrials	**Contact Center** – Extract rich insights from call transcripts. E2E Call Center analysis: Classification, sentiment, summarization and email generation. Automatically generate responses to customer inquiries. Summary of customer support conversation logs. Improved customer satisfaction. Improve time to resolution. **ChatGPT Enabled Technical Support** – Contextual human like responses to customers' technical questions and inquires with better recommendations based on internal and external content databases. **Customer Service Knowledge Mining** – Ingest unstructured and structured data and draw better insights around key issues and patterns. **Anomaly Detection** – Provide NLP queries on the vision anomalies and causes. Use Synthetic Imaging to augment baseline ML training image volumes to improve ML accuracy. Improve quality insurance pass rates and reduce operational costs by catching anomalies faster, reducing amount of inventory that needs to be scrapped. **Virtual Agents with Copilot** – Intelligent automated responses to customers and employees through the value chain. Generate human-like responses for live chat/voice applications.	STRABAG

The potential is clear

How will you use AI?

From testing to enterprise scale AI

Free

ChatGPT

BING CHAT

Midjourney

Gemini

Claude

Built-in

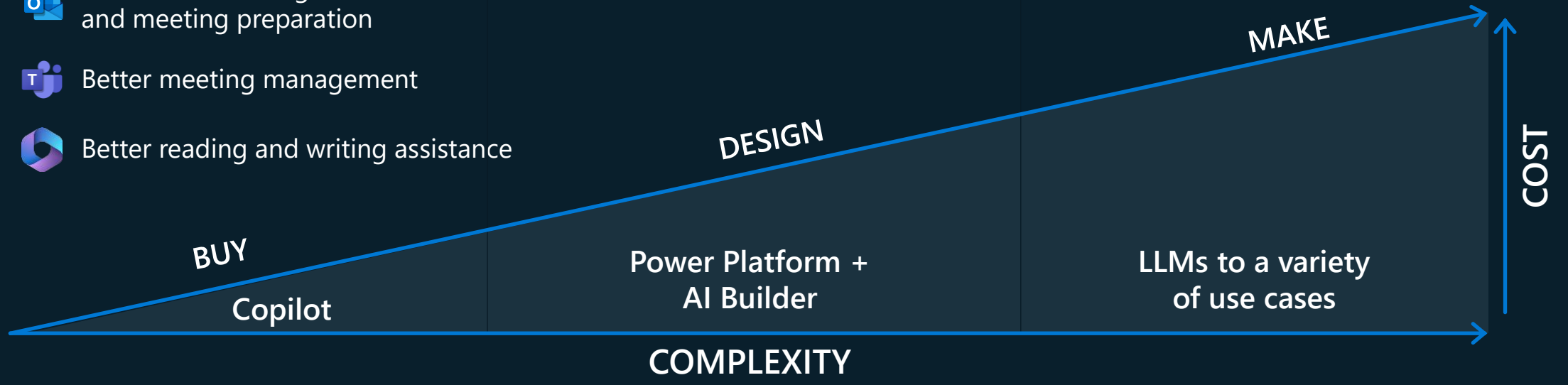
- Search and Q&A
- Better customer engagement and support
- Create and tailor reports in seconds
- Better email management and meeting preparation
- Better meeting management
- Better reading and writing assistance

AI-Builder

- Enriching self-service with conversational AI
- Automate answering questions, summarizing documents, and more.
- Intuitive low-code development for Everyone

AI-Models

- Azure OpenAI Language Models
- Model Catalog / Prompt flow



How you can get started today

Try ChatGPT, Claude, prompt engineering

try copilot-ready with Microsoft 365

Build your own AI-powered copilot

What else?

Obrigado!