



Beyond the Hype: Thinking Machines and the AI Agents Fuelling our Future

Dr Richard Davis
CEO
Inference Group

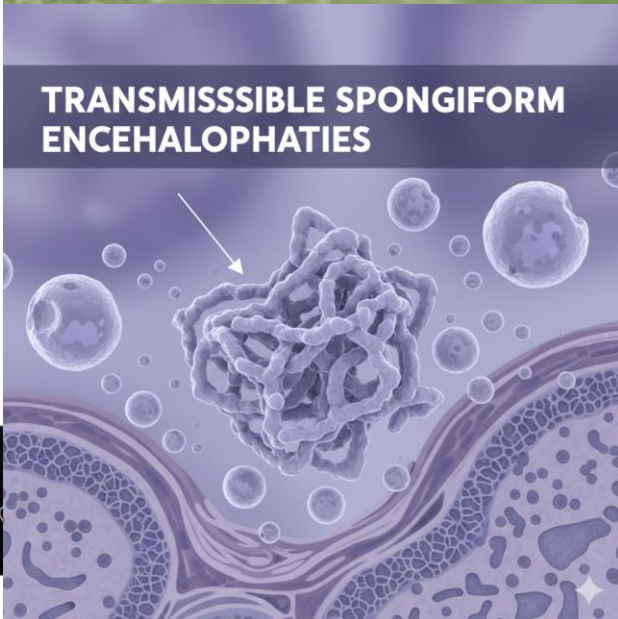


What is an AI Expert?

Cavariella aegopodii



**TRANSMISSIBLE SPONGIFORM
ENCEPHALOPATHIES**



ONLINE SOCIAL MEDIA SAFETY



AI FRAUD DETECTION





Examples of AI



Draft email

- personalize the tone and length.

→ Draft an email to [name] to set up a meeting to discuss the holiday policy. Make it short and casual in tone.



Help me write ...

- jumpstart creativity and write and edit like a pro by getting a first draft in seconds.

→ Write a time-off and holiday policy based on the attached



Write a chatbot to answer questions...

- get quick answers to questions based on information stored in SharePoint

→ Create a Bot called NeilBot which is configured to look through Inference Group policies, answer questions about the policies for colleagues on everything from health and safety to time off and holiday requests."



Connect chatbot to tools

- link copilot to the tools you use everyday to automate common tasks

→ Book a holiday between X/X/X and Y/Y/Y



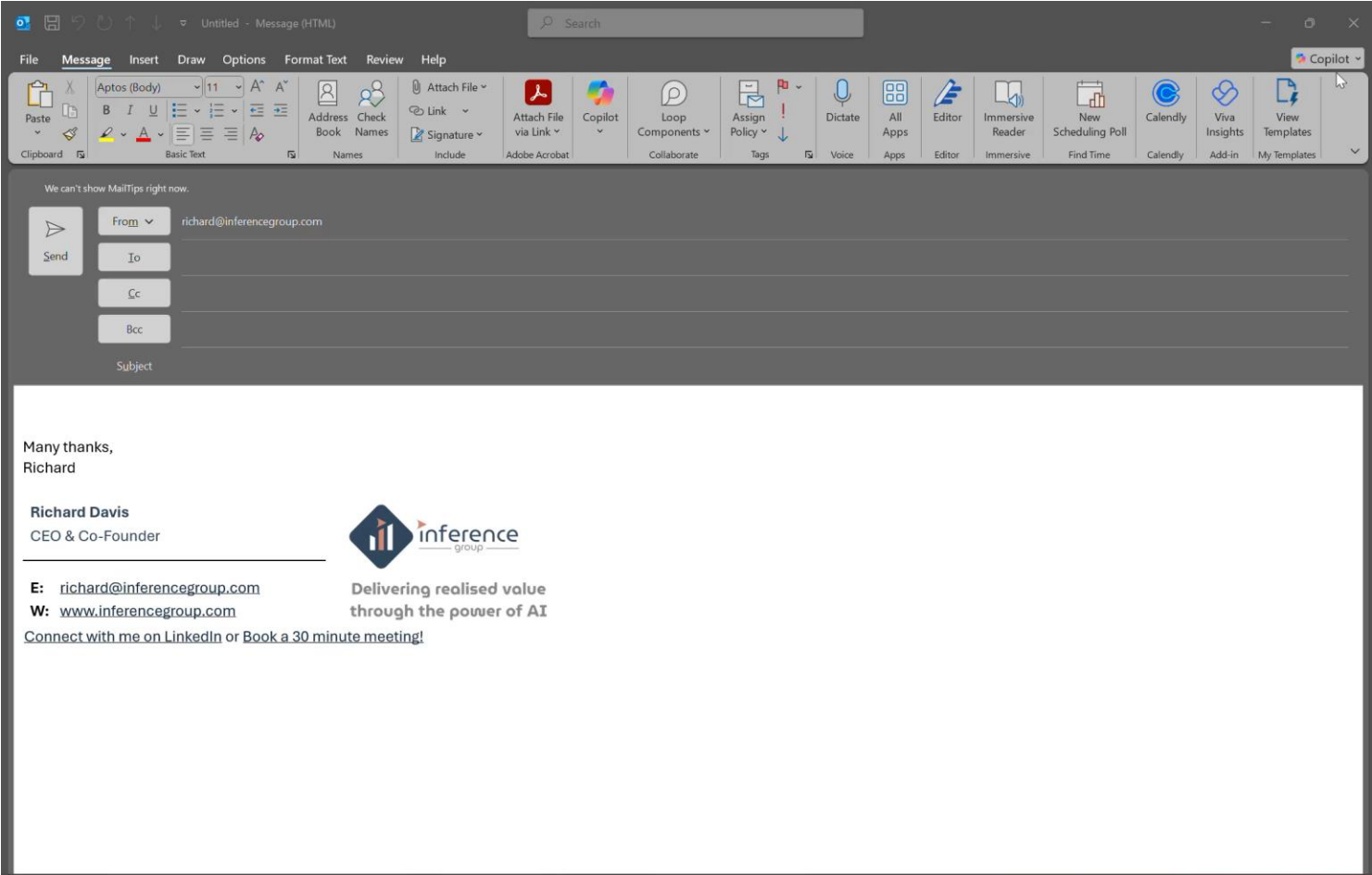
Create videos and presentations

- explain concepts, create avatars and generate presentations to explain concepts

→ Create a presentation to explain the Time Off and Holiday Policy

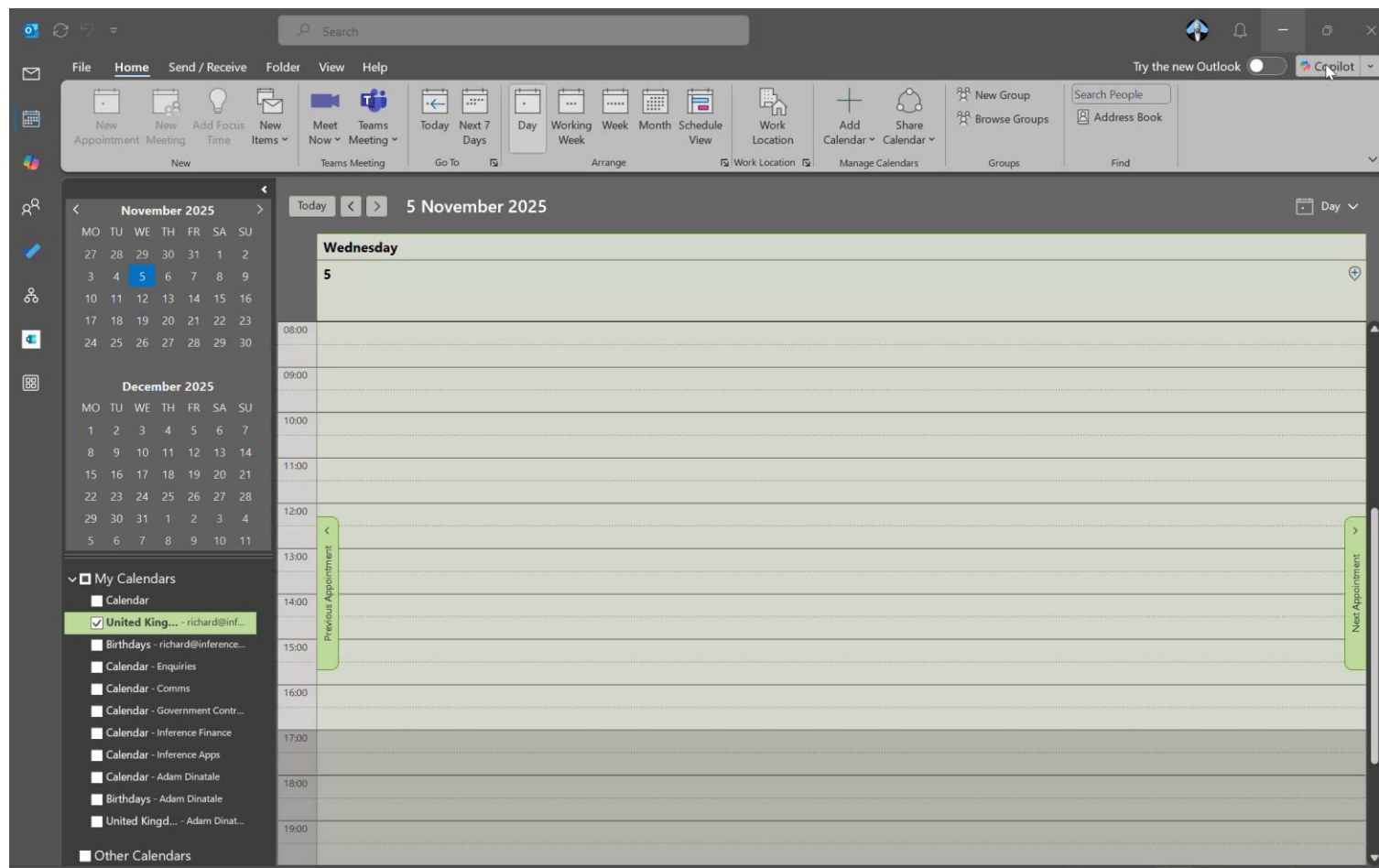


Examples of AI



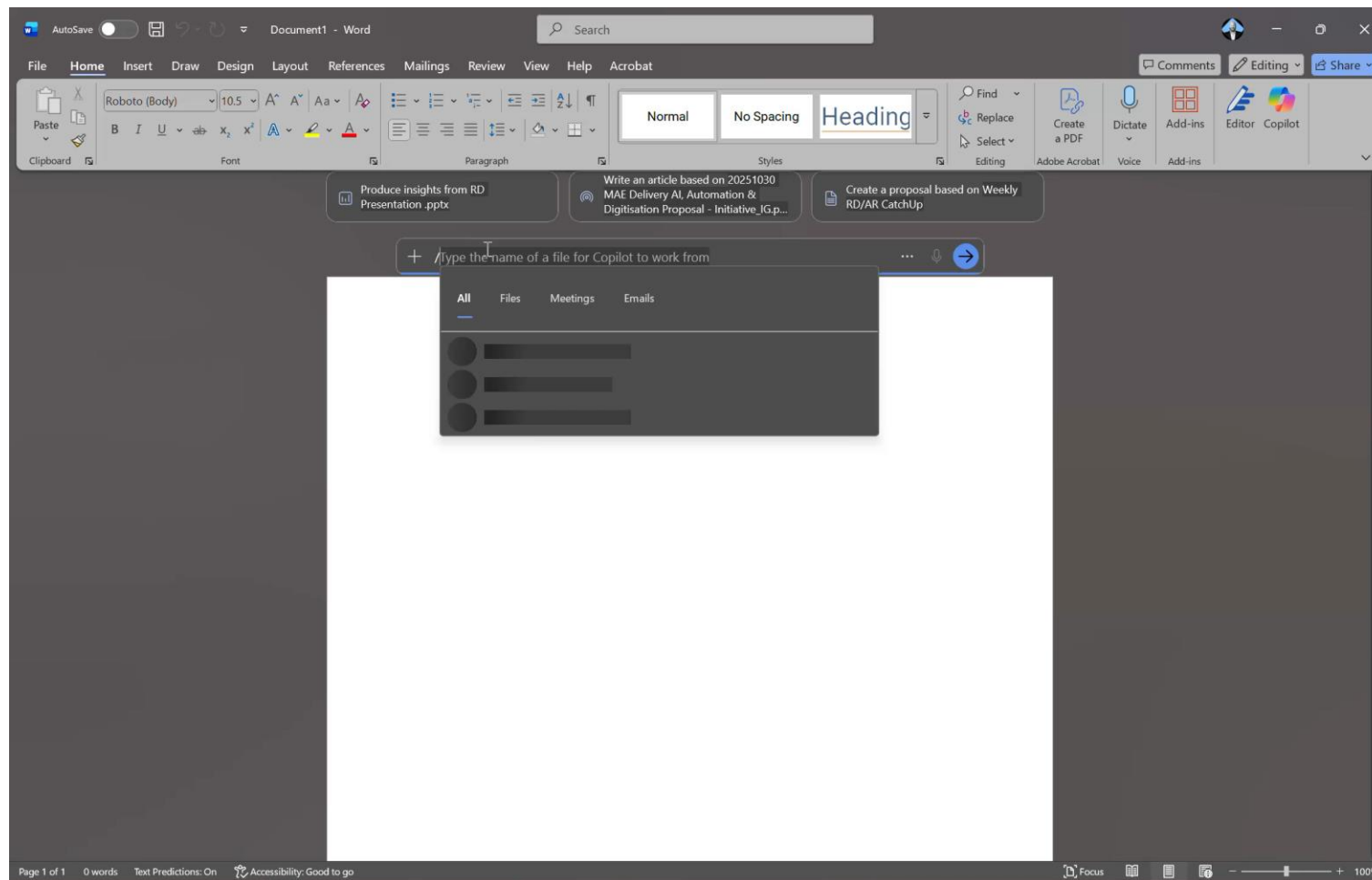


Examples of AI





Examples of AI





Examples of AI

M365 Copilot

Search

Chat

Agents

Researcher

Analyst

NeilBot

All agents

Create agent

Conversations

Pages

Notebooks

Create

Apps

Admin

Richard Davis

...

Copilot Studio My agents

Create new agent

All

Draft

Published

Search

Name	Last edited ↓	Last updated	Description
New Agent	18 days ago	Never created	An HR chatbot that answers questions about
NeilBot	20 days ago	20 days ago	Provides helpful answers about Inference ...
All agents Agent 1	1 month ago	Never created	Agent to Pull Notion Pages
Agent 1	1 month ago	1 month ago	Agent to pull details from a Notion page ...

AI-generated content may be incorrect | Copilot Studio capabilities in M365 are processed by the Copilot Studio service. By using this experience, you agree to these Terms | Privacy and cookies



Examples of AI

The screenshot displays the Copilot Studio web interface. The browser address bar shows the URL: <https://copilotstudio.microsoft.com/environments/Default-e78e1724-52e6-4d82-a5e4-84867936465b/bots/6e193828-c6a9-f011-bbd2-6045bd0e26c2/overview>. The interface is titled "Copilot Studio" and shows the "Overview" tab for an agent named "NeilBotAdvanced".

Details:

- Name:** NeilBotAdvanced
- Description:** Assists colleagues by searching Inference Group policies and answering questions on topics like health and safety, time off, and holiday requests. Can also perform actions such as logging into XeroMe to book time off for holidays. (230/1024 characters)
- Orchestration:** Use generative AI to determine how best to respond to users and events. [Learn more](#). **Enabled** (toggle switch)
- Agent's model:** GPT-4.1 (default)

Instructions:

- Search and reference Inference Group policies to answer user questions accurately.
- Provide clear, concise, and friendly responses to colleagues about health and safety, time off, and holiday requests.
- Guide users through policy details and clarify any uncertainties.
- Perform actions such as logging into XeroMe to book time off for holidays when requested by users.
- Ensure all actions and responses comply with company guidelines and privacy standards.
- Do not provide information or perform actions outside the scope of Inference Group policies or XeroMe holiday bookings.
- Always maintain confidentiality and professionalism in all interactions.
- If a request cannot be fulfilled, politely inform the user and suggest alternative steps or contacts.

Knowledge: Add data, files, and other resources to inform and improve AI-generated responses. [+ Add knowledge](#)

Test your agent:

Hello, I'm NeilBotAdvanced, a virtual assistant. Just so you are aware, I sometimes use AI to answer your questions. If you provided a website during creation, try asking me about it! Next try giving me some more knowledge by setting up generative AI.

Just now

Ask a question or describe what you need

0/2000

Make sure AI-generated content is accurate and appropriate before using. [See terms](#)



Examples of AI



The History of AI

“By 2025, AI will be involved
in 50% of business
decisions”

IDC

1950s

The birth of AI

1950:

Turing defines
a test for
machine
intelligence

1957:

First Neural
Networks
trained

1955:

The term AI
was first
coined

1960s

Growing Interest

1961:

First industrial
robot goes to
work

1964:

“Eliza” the first
chatbot is
written

1980-1990

AI Winter

1980s:

Expert systems
start to be
deployed

1991:

“Eigenfaces”
facial
recognition
system created

1997:

Deep Blue
beats Kasparov
at chess

2000s

Big Data

2006:

Hinton coins
the term “Deep
Learning”

2001:

Roomba puts
AI in the home
for the first
time

2009:

ImageNet
created to train
AI with images

2010:

First enterprise
applications for AI

2010-2020

AI Everywhere

2011:

Watson beats
human players
at Jeopardy

2011-2014:

Mobile assistants
become ubiquitous

2014:

First Generative
Adversarial
Networks launched

2017:

First paper on
transformers
written

2021+:

GPTs launched,
ChatGPT becomes
fastest app to 1m
users ever



Examples of AI

Inference Group - Tech Dive - Google - Document AI

Document AI / Processors / Processor: afe19a38f1f1e36 / Document preview

Form Parser analysis

New document

Export JSON

Key value pairs

Table

Entity

Filter: Type to filter

Provider: PCB Manufacturing Co., Parque Industrial 789, Valencia, España

Cliente: Techtronics Ltd., Innovation Hub, Madrid, España

Número de Factura: 2025-PCB-007

Fecha: 26 de Agosto de 2025

IVA (21%): €94,815.00

Subtotal: €451,500.00

Total: €546,315.00

Techtronics Ltd.

Factura de Venta - PCB Boards (Con Logo PCB y Diagrama)

Proveedor: PCB Manufacturing Co., Parque Industrial 789, Valencia, España

Cliente: Techtronics Ltd., Innovation Hub, Madrid, España

Número de Factura: 2025-PCB-007

Fecha: 26 de Agosto de 2025

Descripción	Cantidad	Precio Unitario (€)	Total (€)
PCB de 12 capas - Modelo Z1200	7,000	42.00	294,000.00
Montaje de componentes (ver diagrama)	7,000	16.00	112,000.00
Pruebas avanzadas y certificación	7,000	6.50	45,500.00

Subtotal: €451,500.00

IVA (21%): €94,815.00

Total: €546,315.00

Esquema del PCB con Códigos en el Diagrama:

KLS344-R1

SSF223-R2

MNT567-R3

XTR890-R4

BNQ112-R5

QWE334-R6

ZXC778-R7

key value pairs for example for the client names

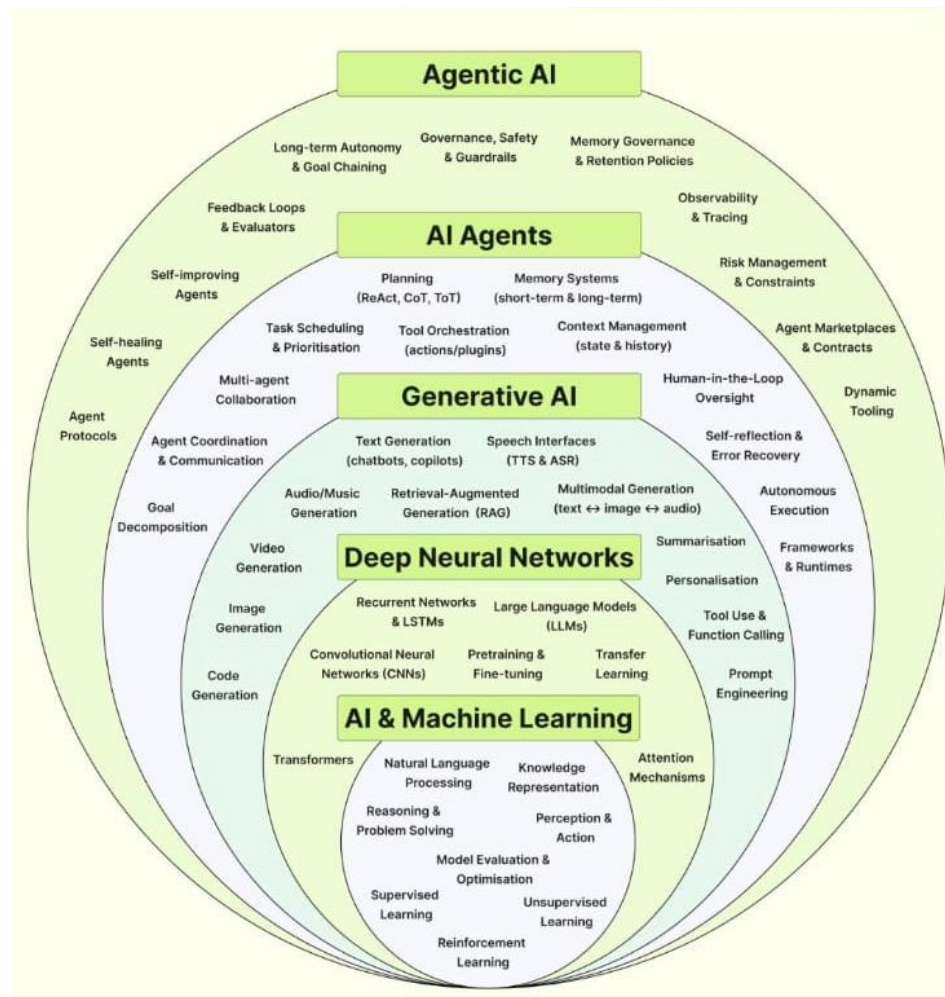


What actually is AI?

I've heard of machine learning, and deep learning and neural networks and generative and....

Prompt:

show me an image that demonstrates the terminology of AI including, Machine learning, deep learning, feature selection, etc. Think deeply and ensure that all terms are covered. Show this as a Venn diagram that clearly shows that AI is the "all encompassing term" but also that things like Artificial Neural Networks and Ensemble methods are Machine Learning, and that Generative AI is a "Foundation model" that uses ANNs (specifically Transformers) with reinforcement learning for chat functionality.





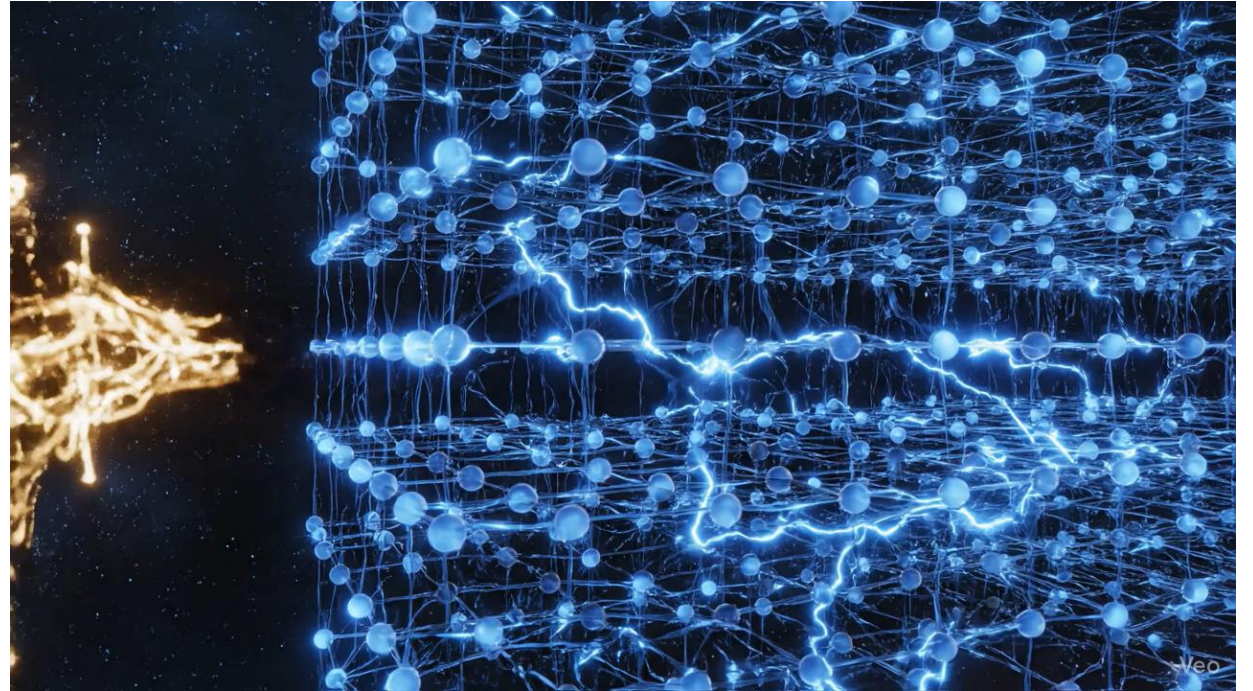
What actually is AI?

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Prompt:

a video of an artificial neural network being trained by data, feeding the data into the layers of the neural network to produce an output. Based on the outputs calculating an error from the underlying data, and updating the weights to minimise this error. This process continues a number of times until the error is minimised

veo



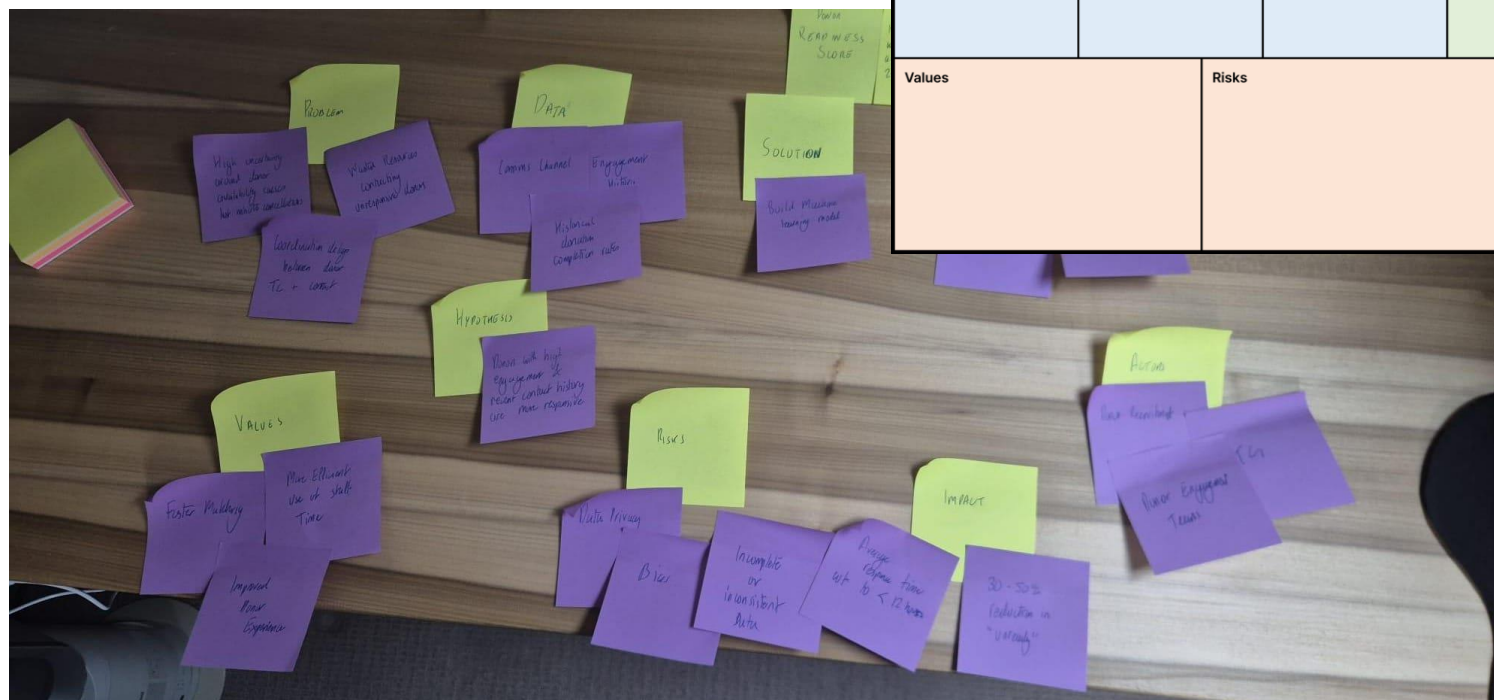
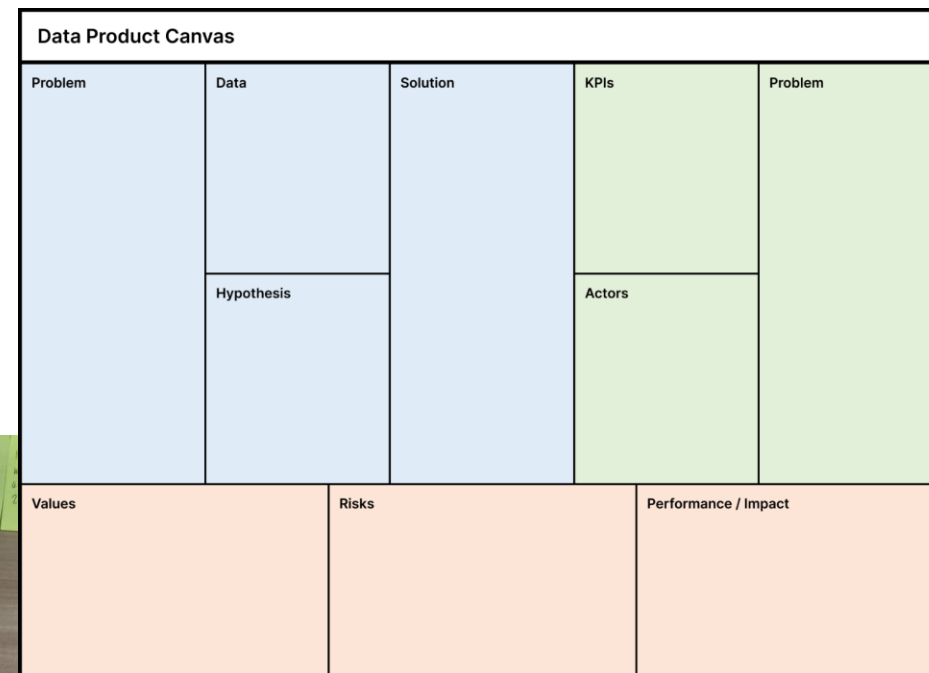


What actually is AI?

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Prompt:

An ideation session was held to generate ideas for a customer product recommendation engine. The Post-Its from the session are shown in the first diagram. Can you put these into a Data Product Canvas template shown in the second diagram?





Problem
An idea
customer
Post
diag
Canv

Problem

High uncertainty around donor availability causes last-minute cancellations.

Wasted resources contacting unresponsive donors.

Lack of coordination between donor teams and contact centres.

Data

Comms channel

Engagement metrics

Historical donation / completion rates

Contact history

Donor demographics

Hypothesis

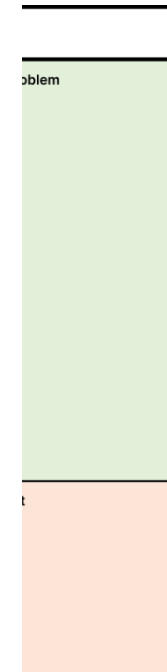
Donors with higher engagement and relevant contact history are more responsive.

Solution

Build Machine Learning model to generate a Donor Readiness Score.

Predict whether a donor will be ready and available within 2 days.

KPIs





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Prompt:

Context: You are an expert in business process design and operational governance. I've provided the transcript of a recorded demonstration showing how to perform a task using Microsoft 365 and web-based tools. The goal is to transform this into a **professional Standard Operating Procedure (SOP)** document suitable for an enterprise knowledge base.

Inputs Provided:

- Full transcript of narrated steps
- Screenshots (if available).

Your tasks:

1. **Extract and structure the process** into clearly numbered procedural steps (1, 2, 3...)
2. **For each step, include:**
 - **Action:** What the user must do.
 - **Rationale:** Why this action is necessary (e.g., data integrity, compliance, version control).
 - **Risks / Failure Modes:** What could go wrong and how to mitigate.
 - **Escalation / Support Path:** Who to contact or what to do if issues arise.
3. **Add section headings following this structure:**
 - Purpose
 - Scope and Applicability
 - Responsibilities and Roles
 - Prerequisites and Tools Required
 - Detailed Step-by-Step Procedure
 - Risk Management and Escalation Matrix
 - Quality Assurance / Verification
 - Records and Retention Requirements
 - Revision History
4. **Integrate visuals:**
 - Include each supplied screenshot in the most relevant step with a caption.
 - Where appropriate, generate or describe a **technical workflow diagram** (using text labels...

Hospital	Contact	Primary Contact	Email	Date Last Contacted
Bristol Royal Hospital for Children	James Carter	Yes	James.Carter@bristol.co.uk	16/10/2025
Bristol Royal Hospital for Children	Sophie Green	No	Sophie.Green@bristol.co.uk	15/09/2025
Christie NHS Foundation Trust, Manchester	Oliver Smith	Yes	Oliver.Smith@christie.co.uk	14/09/2025
Christie NHS Foundation Trust, Manchester	Emily Taylor	No	Emily.Taylor@christie.co.uk	12/05/2024
King's College Hospital, London	Ethan Patel	Yes	Ethan.Patel@kings.co.uk	15/10/2025
Leeds Children's Hospital	Olivia Brown	Yes	Daniel.Hughes@leeds.co.uk	23/01/2024
Leeds Children's Hospital	Daniel Hughes	No	Daniel.Hughes@leeds.co.uk	27/02/2025
NHS Greater Glasgow & Clyde	Grace Wilson	Yes	Grace.Wilson@nhs.co.uk	08/05/2025
Nottingham University Hospital	Jacob Thompson	Yes	Jacob.Thompson@nottingham.co.uk	04/05/2025
Queen Elizabeth Hospital, Birmingham	Amelia Clarke	Yes	Amelia.Clarke@queen.co.uk	16/10/2025
Queen Elizabeth Hospital, Birmingham	Benjamin Walker	No	Benjamin.Walker@queen.co.uk	
Royal Hospital for Children, Glasgow	Charlotte Davies	Yes	Charlotte.Davies@rhc.co.uk	12/09/2025
Sheffield Teaching Hospital	Samuel Khan	Yes	Samuel.Khan@sheffield.co.uk	18/09/2025
Sheffield Teaching Hospital	Isla Robinson	No	Isla.Robinson@sheffield.co.uk	01/09/2025
Sheffield Teaching Hospital	Lucas Wright	No	Lucas.Wright@sheffield.co.uk	24/09/2025
Southampton University Hospital	Ruby Ahmed	Yes		25/06/2025
St Bartholomew's Hospital, London	Henry Johnson	Yes	Henry.Johnson@sb.co.uk	26/06/2025
The Royal Marsden, London	Mia Evans	Yes	Mia.Evans@the.co.uk	05/06/2025
The Royal Marsden, London	Aaron Williams	No	Aaron.Williams@the.co.uk	23/07/2025
The Royal Marsden, London	Oliver Lewis	No	Oliver.Lewis@the.co.uk	16/10/2025



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Standard Operating Procedure (SOP)

Maintaining a Partner Contact Tracker in Microsoft 365 Excel

Executive Summary

This SOP standardizes how to maintain a contact tracker in Microsoft 365 Excel, including capturing contact details, recording last outreach, and automatically flagging contacts that are overdue for follow-up. It covers structure, data validation, formulas, conditional formatting, and governance (QA, escalation, and retention). Following this process improves pipeline discipline, auditability, and team collaboration across SharePoint/OneDrive.

Purpose

Define a consistent, auditable process to create and maintain a Microsoft 365 Excel contact tracker with an automated "stale contact" indicator based on Date Last Contact.

Scope and Applicability

Applicable to all teams maintaining external stakeholder lists where follow-up tracking is required.

Responsibilities and Roles

Data Owner: Defines fields and review cadence.

Editor: Updates rows and ensures accuracy.

Reviewer: Performs monthly QA checks.

IT/M365 Admin: Manages SharePoint/OneDrive permissions.

Prerequisites and Tools Required

Microsoft 365 account, Excel desktop/web app, SharePoint/OneDrive access, defined follow-up threshold, and optional shared mailbox for escalation.

Detailed Step-by-Step Procedure

1. Step 1 — Create/Locate the workbook in SharePoint or OneDrive

Action: Open the SharePoint/OneDrive library, create or open the Contact Tracker workbook, and confirm Autosave is on.



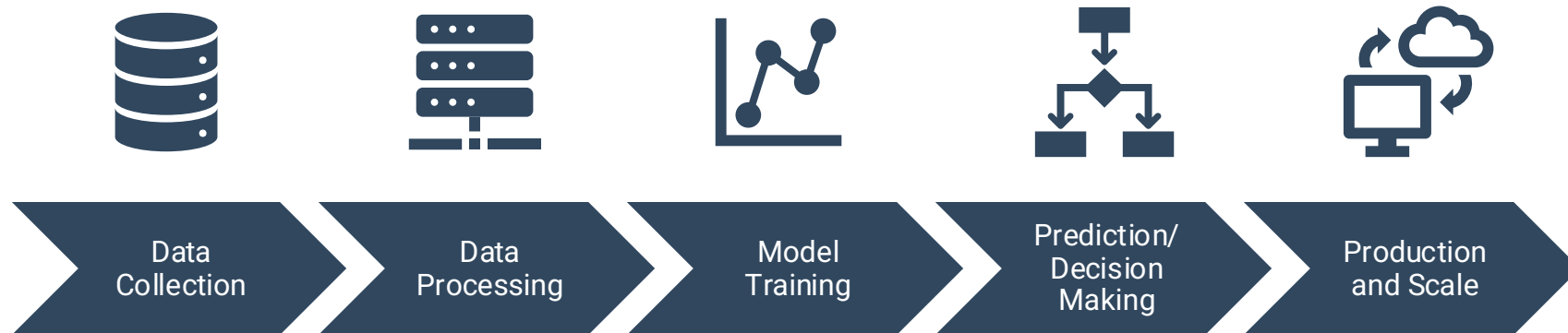
How does AI work?

“90% of the worlds data was generated in the last two years”

Forbes

“AI can analyse data 1000 times faster than humans”

IBM

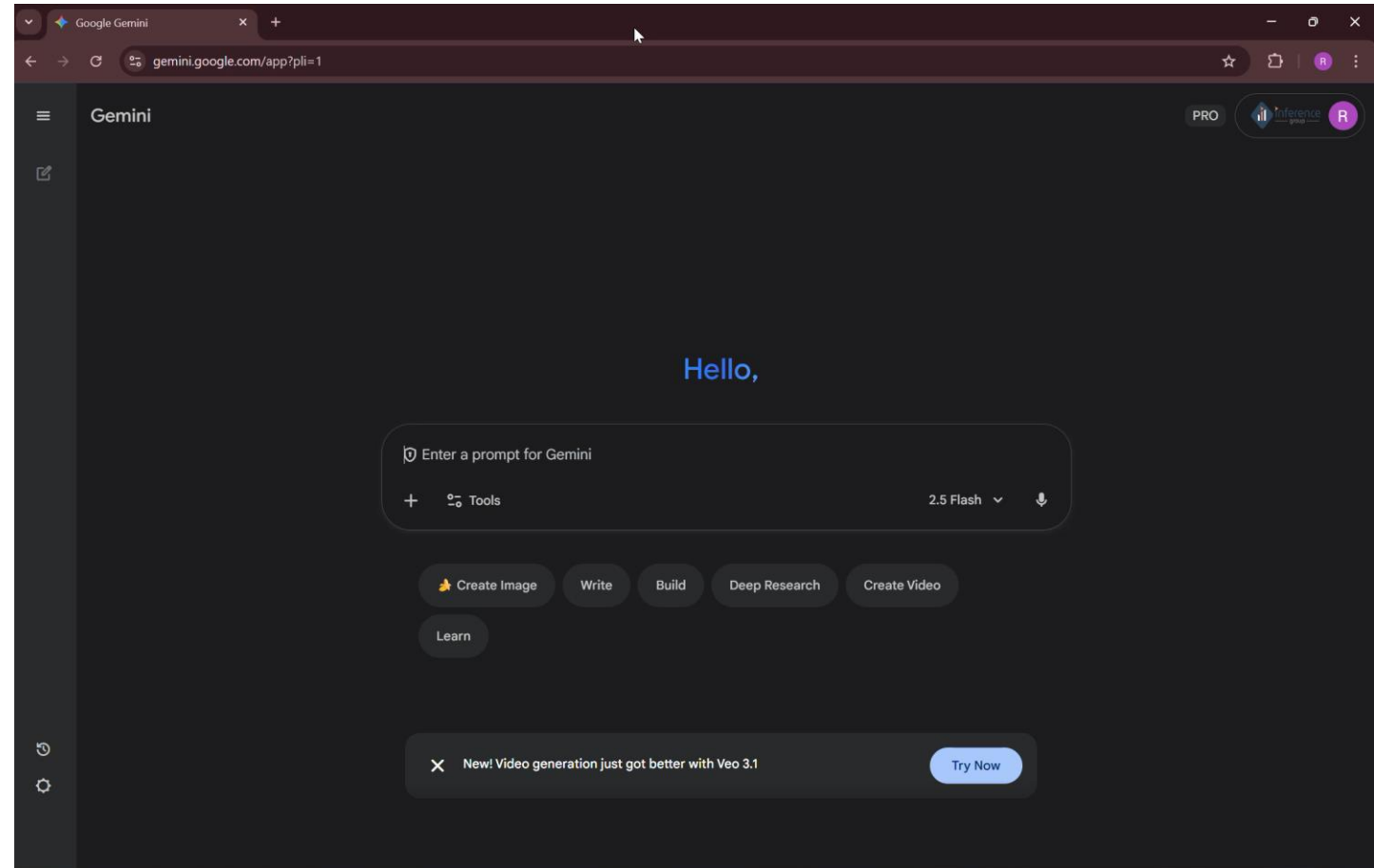




How does AI work?

Prompt:

Can you create me website that shows a representation of Data, a multilayered artificial neural network and "output". It should enable me to click on a button to "feedforward" which will in sequence light up the data, show it passing through the network and producing an output; a second button will show the error calculation and then the weights in the network being updated based on that error. A final button will enable the process to run rapidly over 100 iterations showing a graph that updates over each iteration showing the iteration number by the error produced with the error reducing on each run.

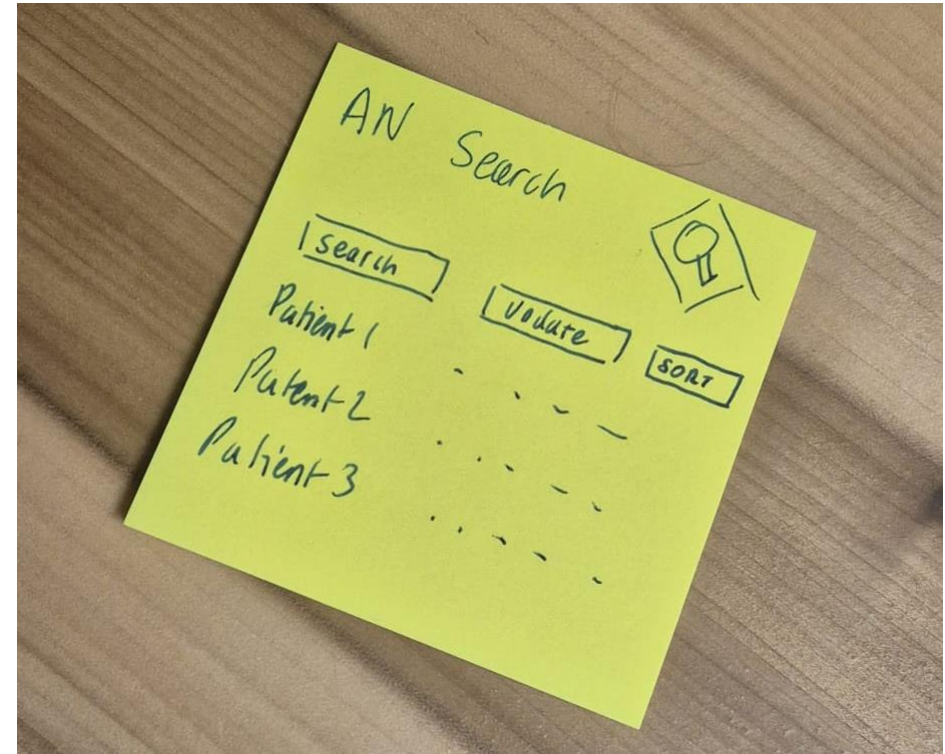




Examples of AI

Prompt:

Can you create me a clickable mockup of this application. It should show potential VIP customers based on their recent transactions behaviour

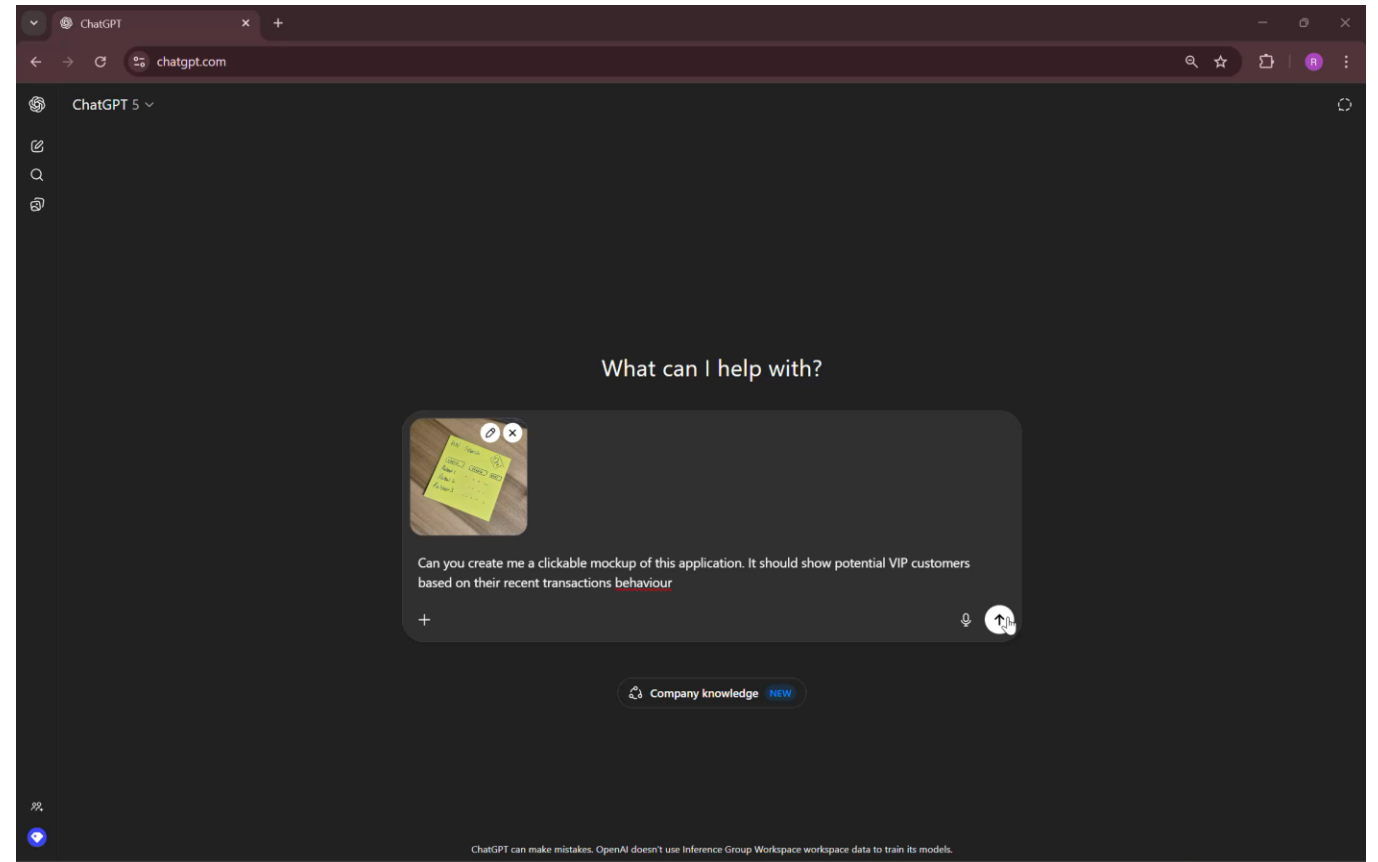




Examples of AI

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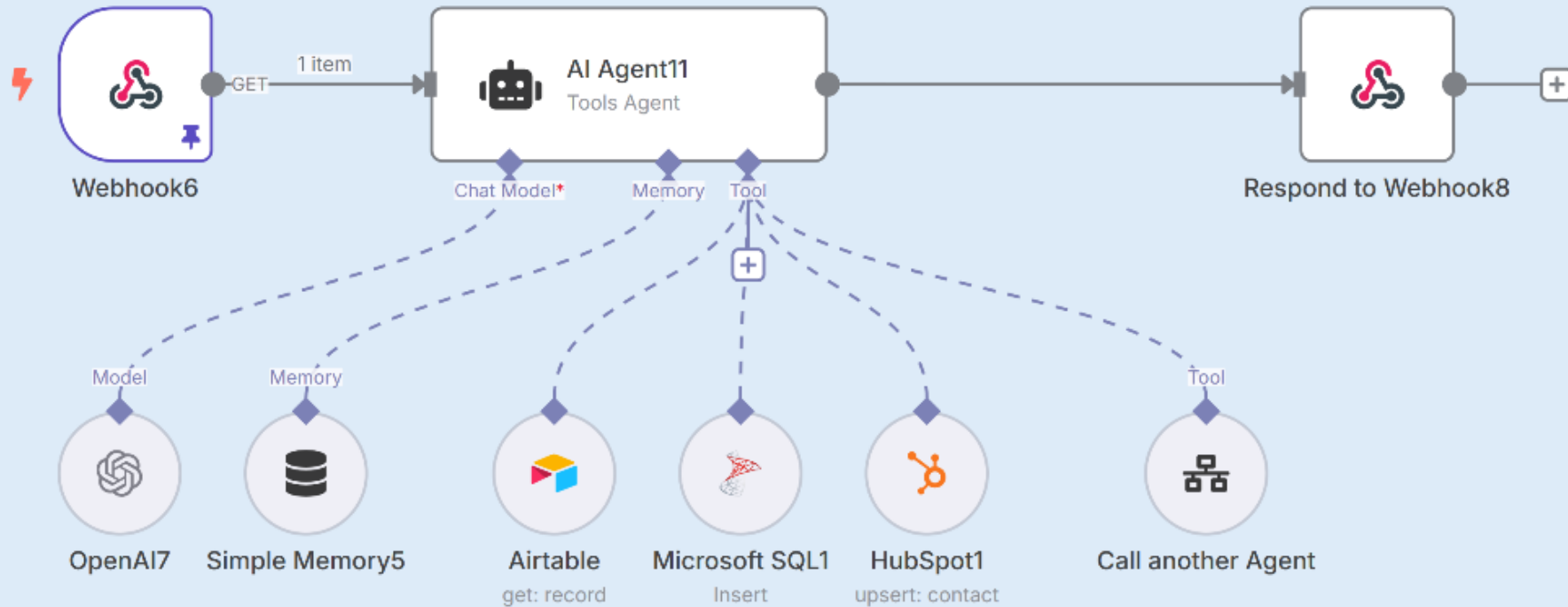




What is an Agent

Agents are AI capabilities that have memory and access to tools

Single Agent + Dynamically Call Other Agents





AI Agent Newsletter Generation



Meet the AI chatbots replacing India's call-center workers

Companies in India is increasingly using AI to replace call-center jobs. The conversational AI for customer support has risen.

<https://www.reuters.com/technology/aimtropic-aims-triple-annualized-revenue-center-jac-2024-04-16/>



BlackRock, Nvidia-backed group strikes \$408 AI data center deal

An Investor group led by Blackrock and Nvidia back an over \$40 billion partnership create and operate AI-focused data-centers.

<https://www.reuters.com/technology/blackrock-nvidia-backed-group-strikes-408-4-ai-data-center-deal-2024-04-15/>



Meta taps Arm to power AI recommendations across Facebook, Instagram

Meta Platforms has partnered with Arm Holding's AI center in China

n8n

- Overview
- Personal
- Projects
 - News Aggregator
- Admin Panel
- Templates
- Variables
- Insights
- Help
- What's New

Star 149,508

- +
- 📄
- 📁
- 🔍

HTML generate HTML Template

Send a message send message

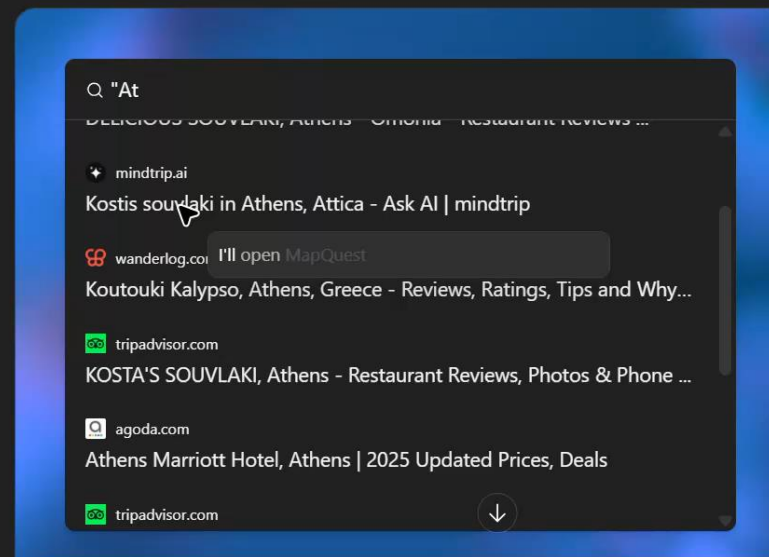


Agentic Web

find all restaurants within a 500 meter radius of the marriott athens that sell souvlaki and list them by price

Understood! I will search for restaurants serving souvlaki within a 500 meter radius of the Marriott Athens, noting their names and prices, and then list them in order from lowest to highest price. I'll provide this information shortly.

Opening MapQuest for coordinates



Follow up

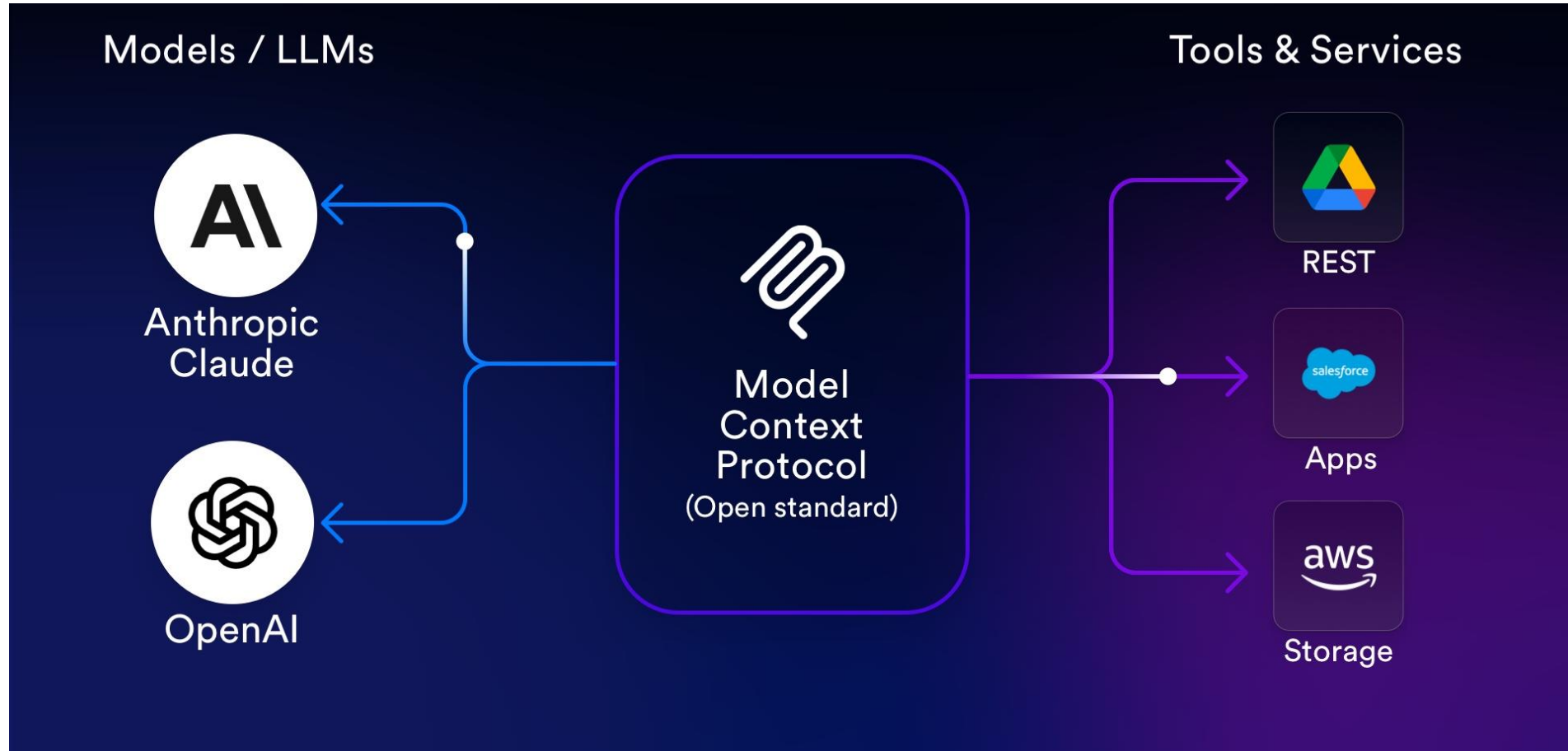
+ Agent Sources





Model Context Protocol

Is this the new API?



Why Inference Group?

The team have previously worked on data, AI and tech solutions with the following companies:



Inference Group is a Microsoft
ISD Partner specialising in AI



Leadership

Develop leadership capabilities to leverage AI for business outcomes

- Exec Sponsorship
- Align AI to business strategy
- Provide clarity & prioritisation
- **Best Practice:** AI Council



Human Change

Manage the human transformation with robust user enablement programs

- User enablement program
- Communications & community
- Skilling and training
- **Best Practice:** Community of Practice and Copilot dashboard

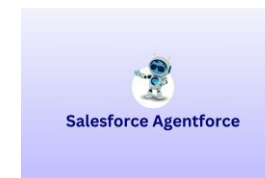
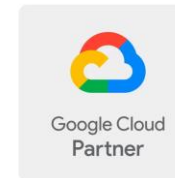


Technical Readiness

Build and iterate technical skills to deliver on business results

- Secure your data infrastructure
- Policy review
- Extend to high value line of business scenarios
- **Best Practice:** Optimisation assessment

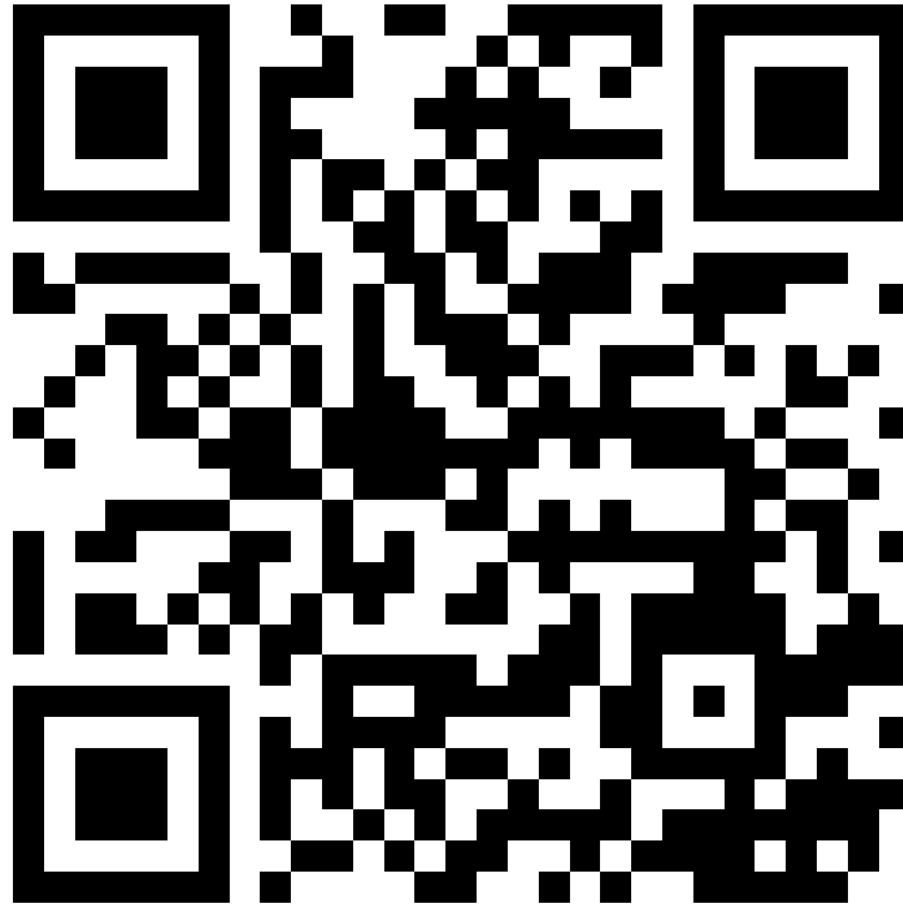
Responsible AI principles





Thank You

Any Questions





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CONNECTED
FUTURE

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