

The Known Collective

AI Crash Course for Small
Business Owners & Entrepreneurs

Prepared for SCORE

August 21, 2025

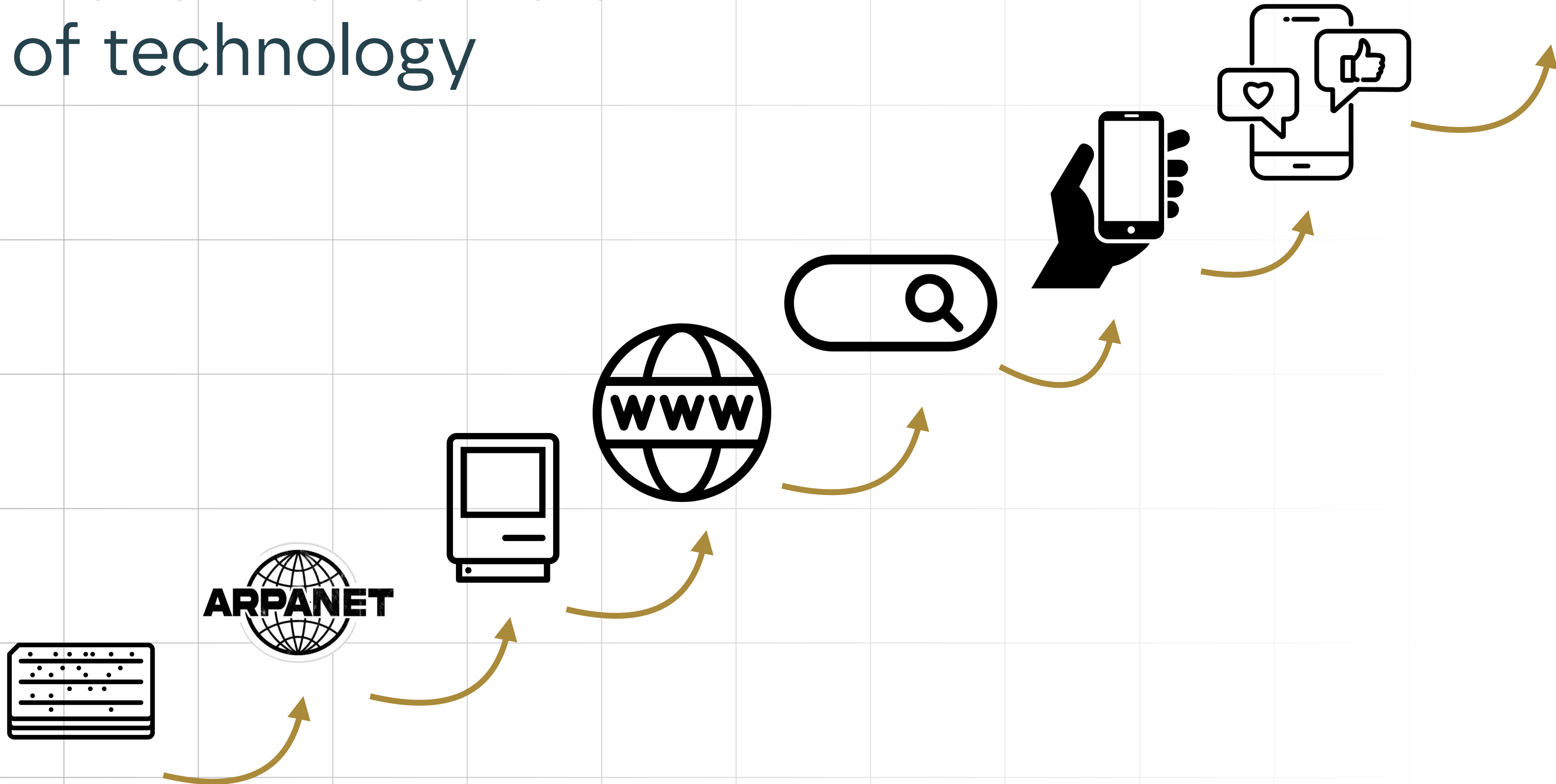


00.

Why I'm Here

We're in a new era of technology

 ChatGPT



Setting expectations

What We'll Cover

- ✓ What the heck is AI, anyway?
- ✓ How we got here
- ✓ Why you should care about AI
- ✓ Tools I can use tomorrow

What We Won't Cover

- ✗ How to use AI tools
- ✗ A deep, technical dive into the technology and how it works
- ✗ The hype



01.

What the heck is AI, anyway?

Dartmouth College 1956



IN THIS BUILDING DURING THE SUMMER OF 1956

JOHN McCARTHY (DARTMOUTH COLLEGE), MARVIN L. MINSKY (MIT)
NATHANIEL ROCHESTER (IBM), AND CLAUDE SHANNON (BELL LABORATORIES)
CONDUCTED

**THE DARTMOUTH SUMMER RESEARCH PROJECT
ON ARTIFICIAL INTELLIGENCE**

FIRST USE OF THE TERM "ARTIFICIAL INTELLIGENCE"

FOUNDING OF ARTIFICIAL INTELLIGENCE AS A RESEARCH DISCIPLINE

"To proceed on the basis of the conjecture
that every aspect of learning or any other feature of intelligence
can in principle be so precisely described that a machine can be made to simulate it."

IN COMMEMORATION OF THE PROJECT'S 50th ANNIVERSARY
JULY 13, 2006

DARTMOUTH COLLEGE
Department of Mathematics & Astronomy
HANOVER · NEW HAMPSHIRE

March,
1956

Mr. Ray Solomonoff
Technical Research Group
17 Union Square West
New York, New York

Dear Ray:

You are one of the people
we should like to invite to the
"Summer Research Project on Artificial
Intelligence."

Terms: \$1,200 - \$900 of
which will probably count as a fel-
lowship and be tax free, plus
traveling expenses.

Dates: June 18 to Aug. 17

Place: Hanover, N. H.
(a cool place).

Can we count on you?

Best regards,
John
John McCarthy

JMcC:MA

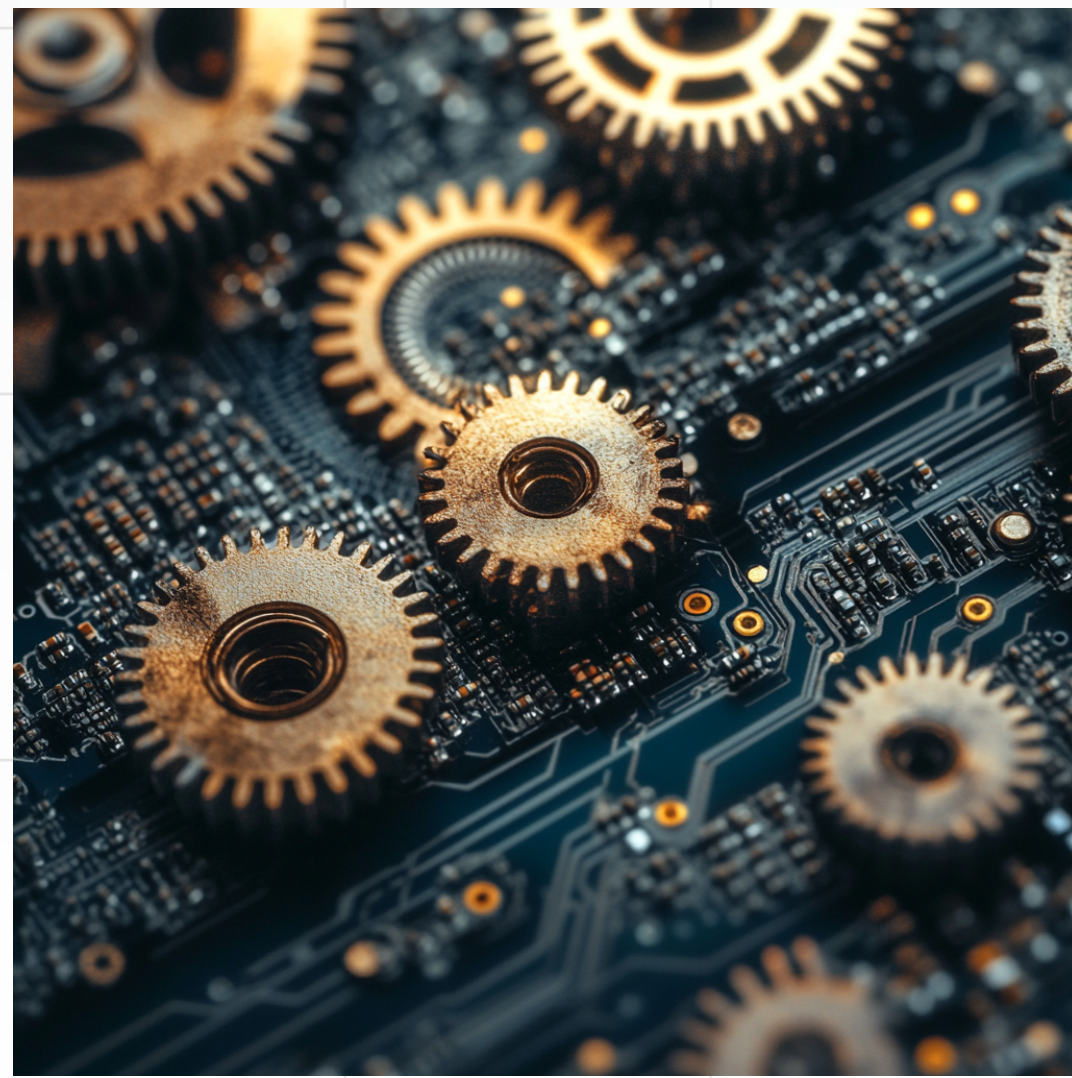
J. McCarthy }
M. Minsky } for all
John Hollnagel } 2 months
R. Solomonoff }
Julian Bigelow }

Shannon }
Rochester } some
Selfridge } of these
McCulloch } for part
Newell } of time.
Simon }
McKay }
Et al }



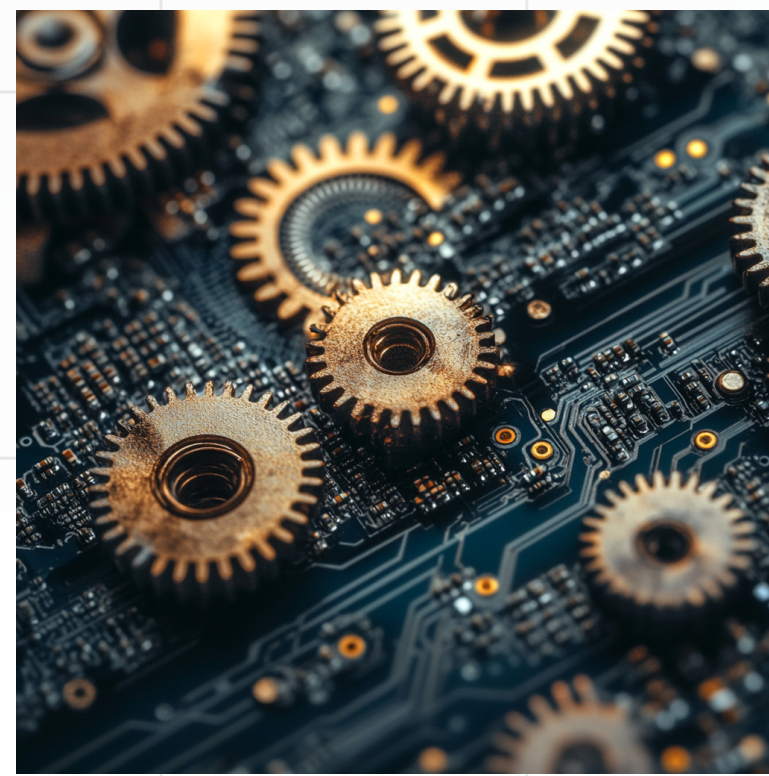


In the broadest sense, what is AI?





Artificial Intelligence is
technology that tries to
mimic human intelligence.



Big Data: Fuel for AI's learning engines

Increased Computing Power: Enabling more complex AI models

Algorithm Advancements: Improving AI's efficiency and capabilities

Cloud Computing: Providing scalable resources for AI

Internet of Things (IoT): Connecting AI to the physical world

Edge Computing: Bringing AI processing closer to data sources

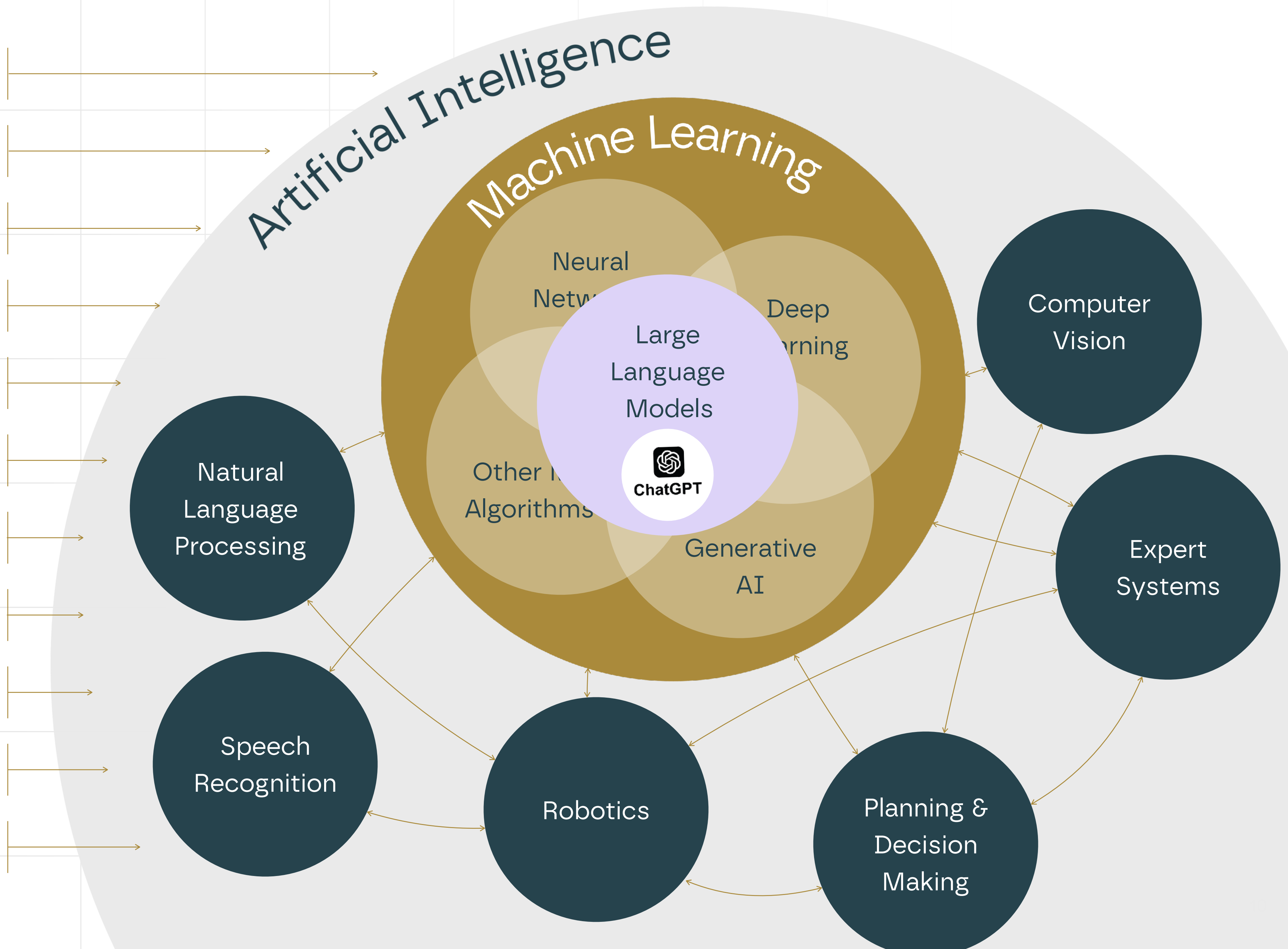
Interdisciplinary Research: Combining insights from various fields

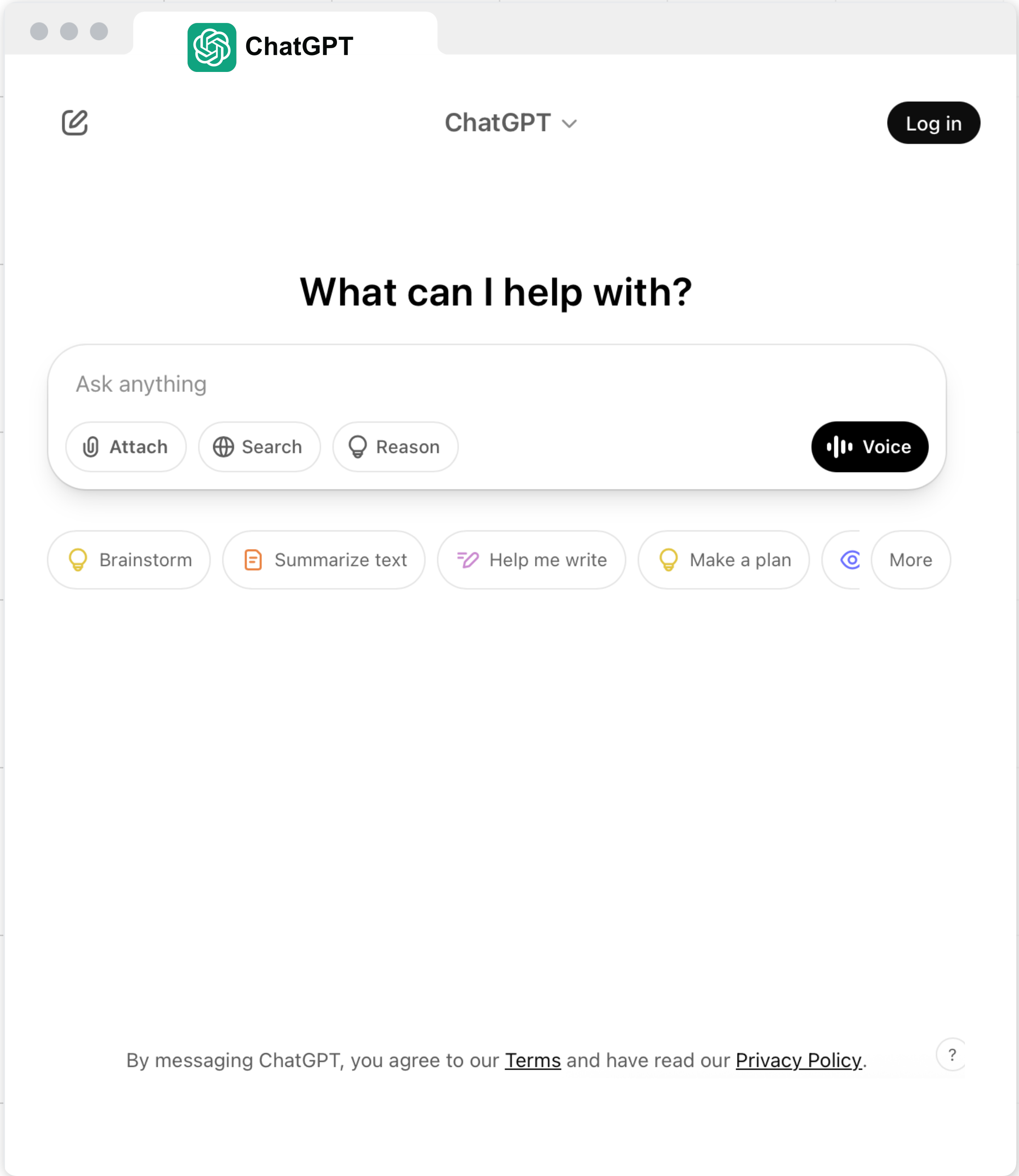
Ethical and Regulatory Frameworks: Guiding responsible AI development

Industry Demand: Driving practical applications of AI

Government Initiatives: Supporting and directing AI research

Open Source Collaboration: Accelerating innovation through shared knowledge



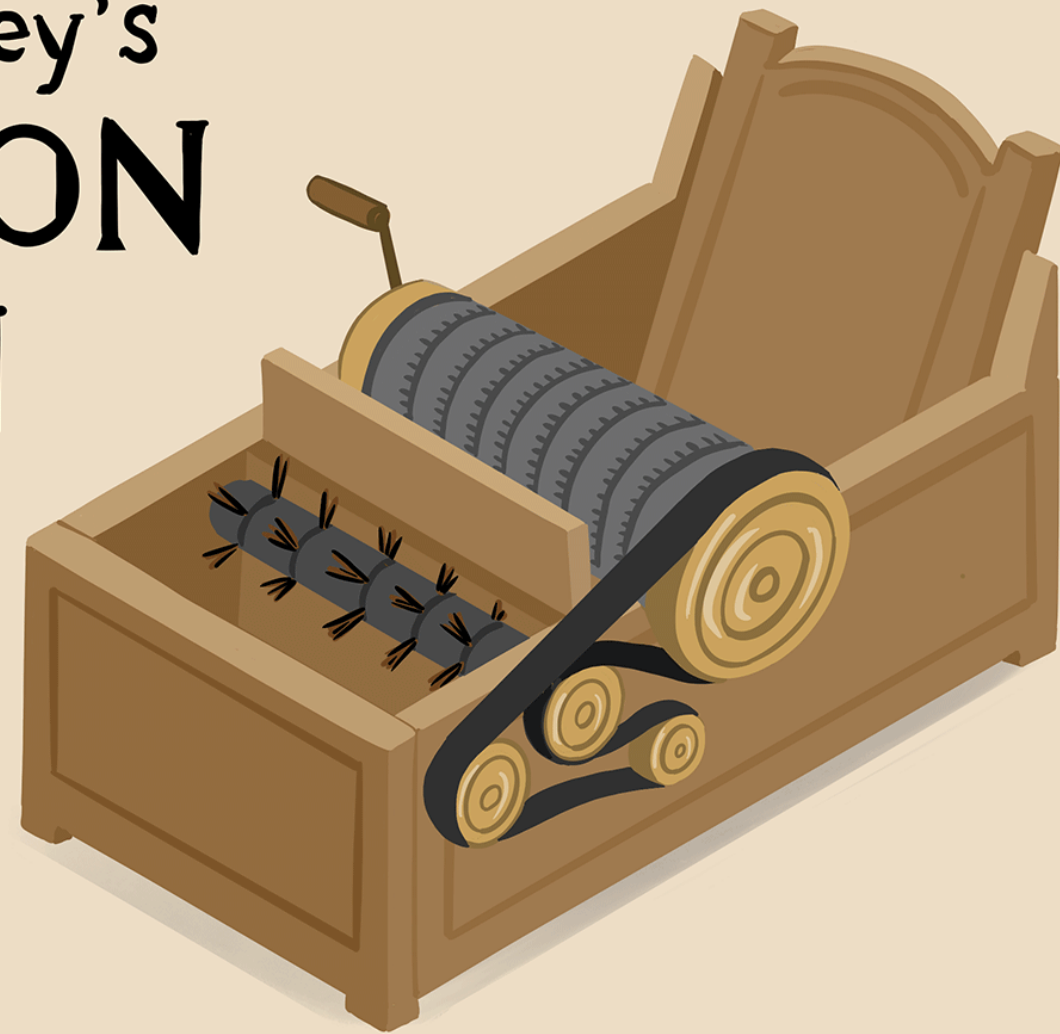


Why is everyone making
such a big deal out of it?

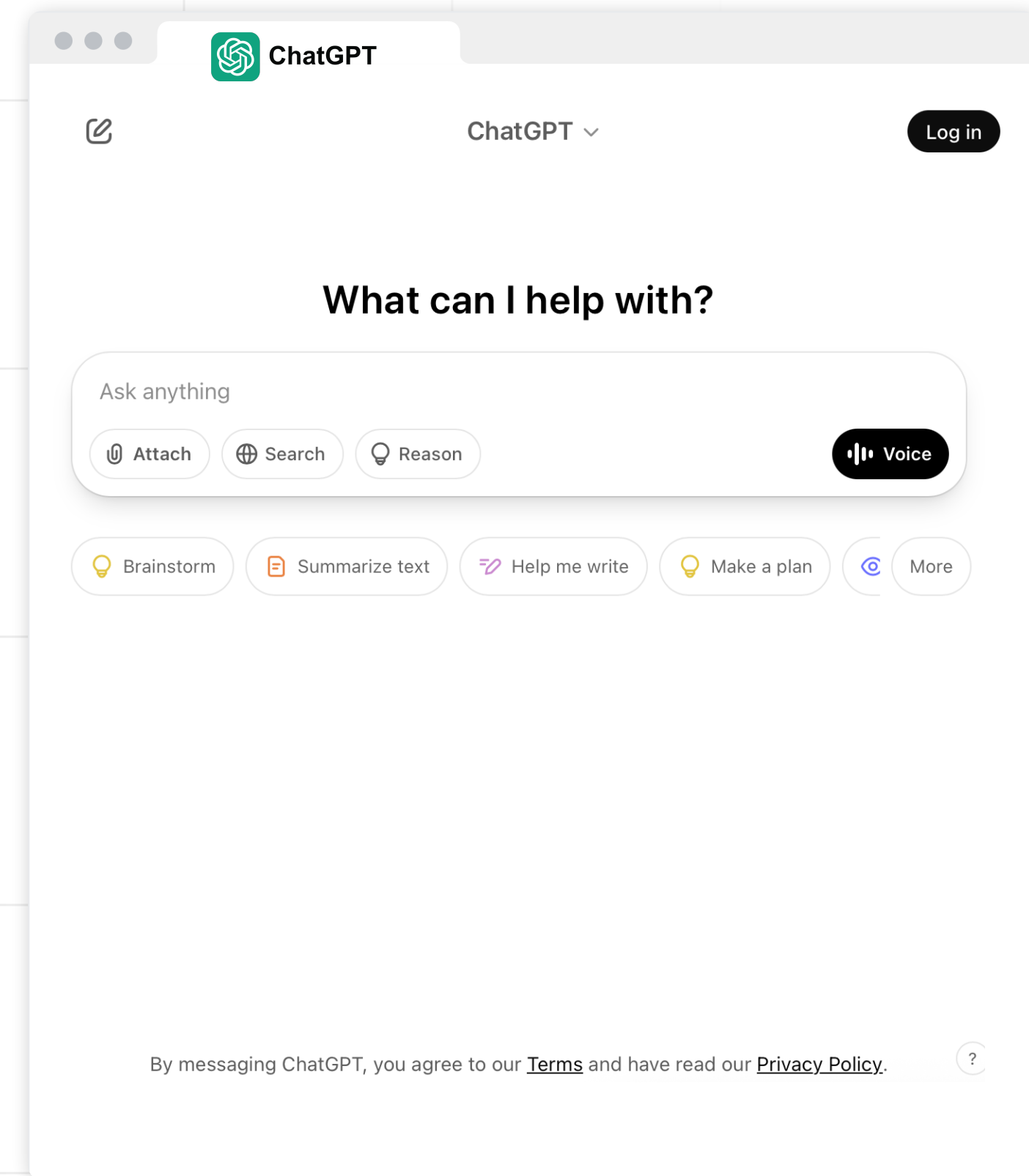
Why does it have to
be so confusing?

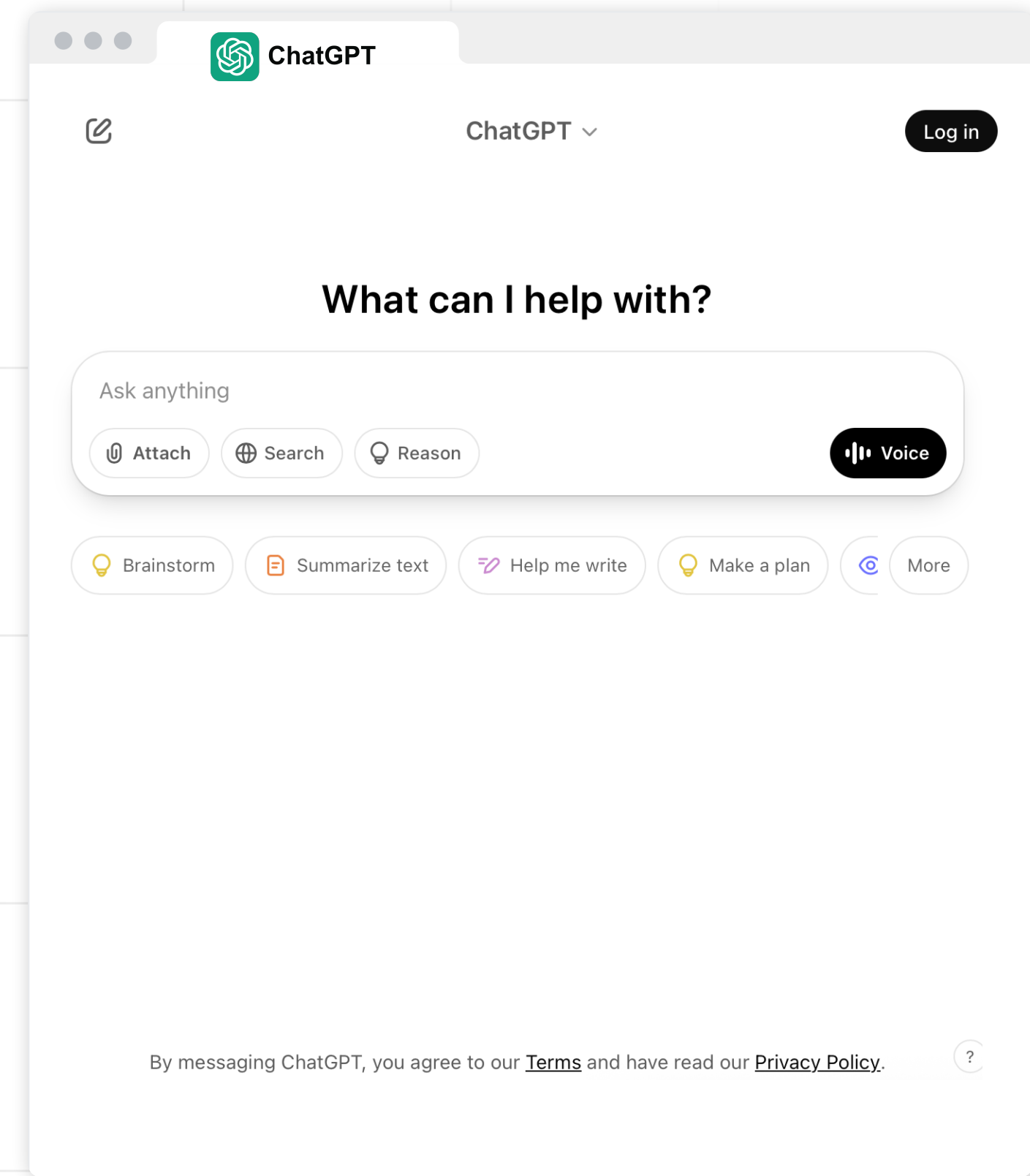
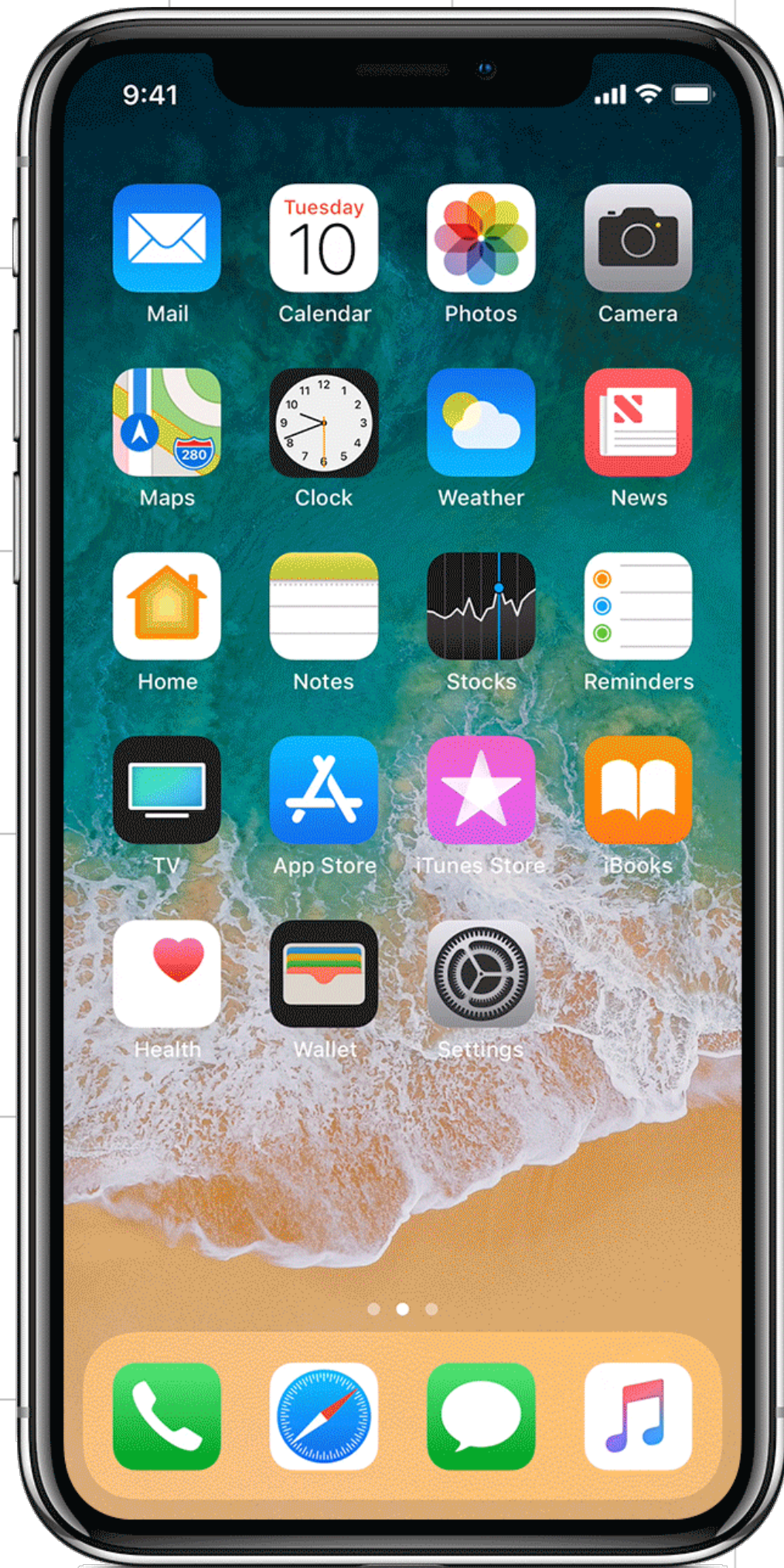


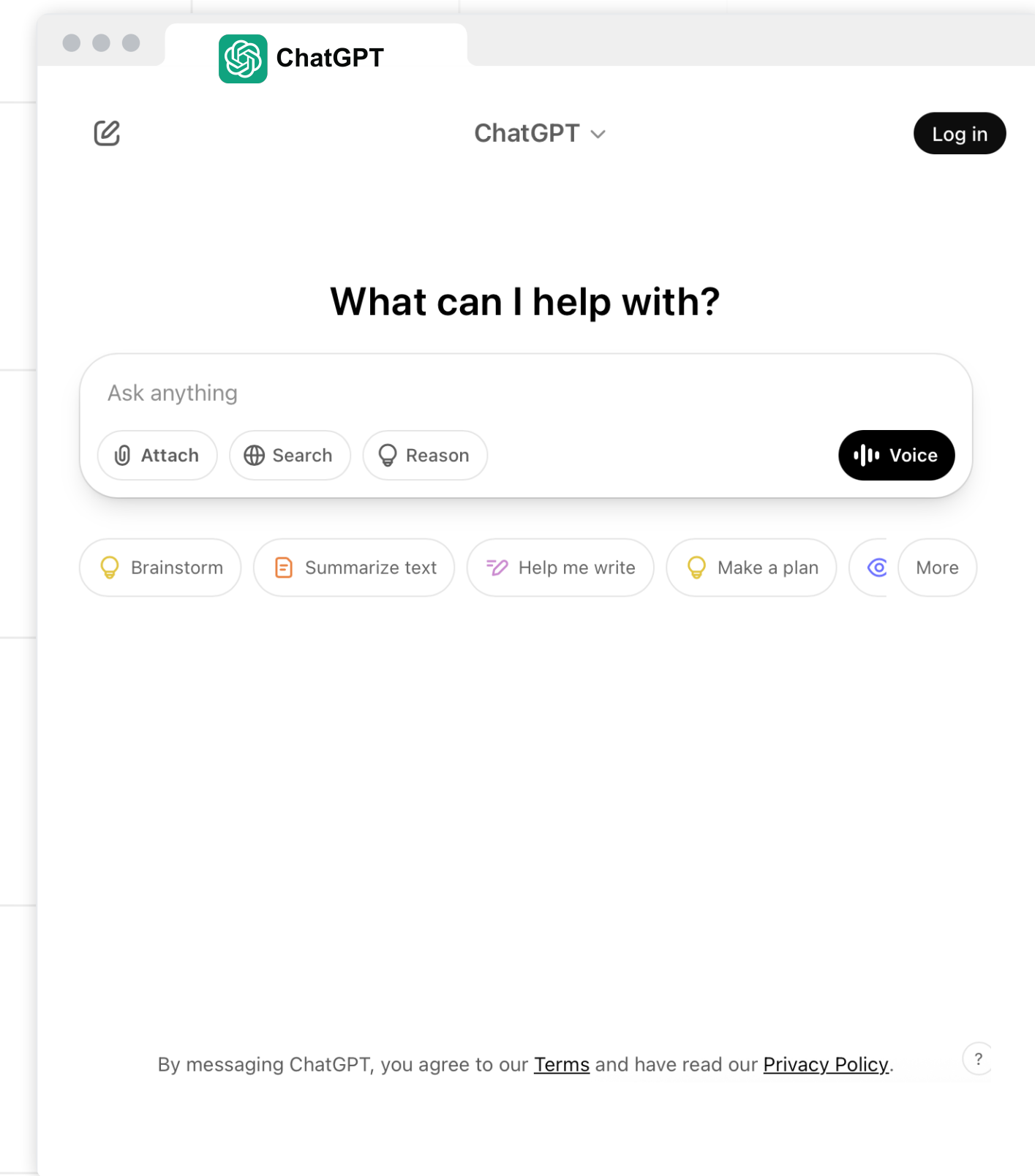
Eli Whitney's COTTON GIN



ThoughtCo.





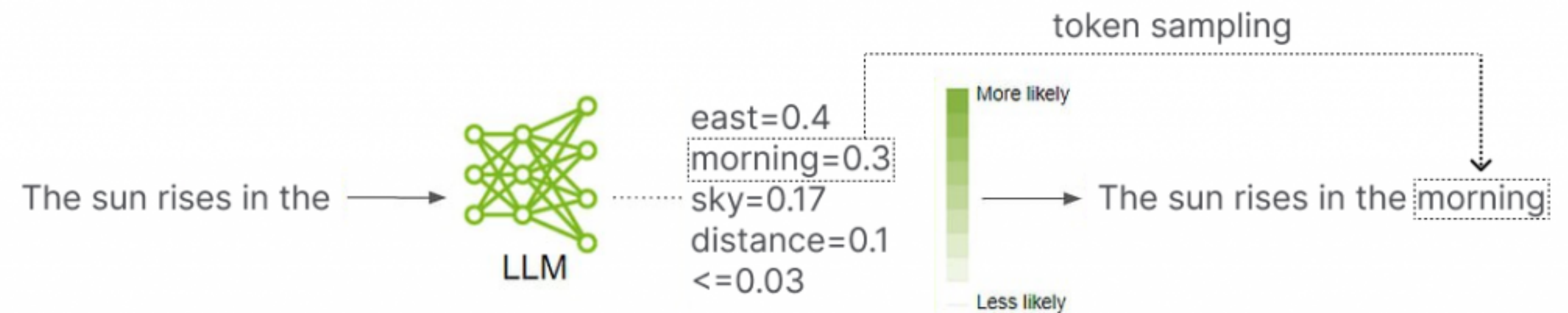
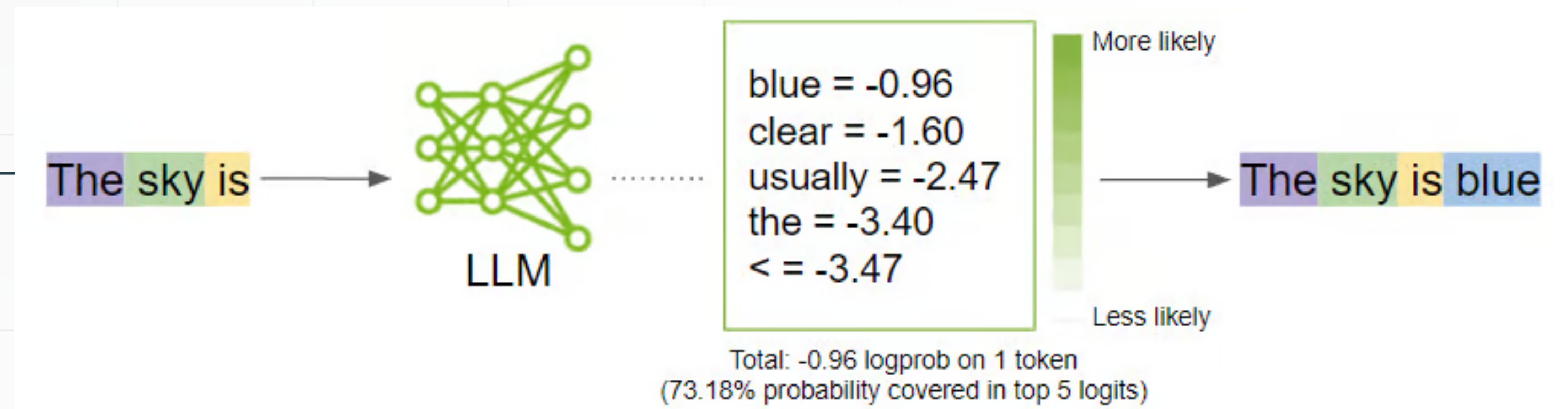
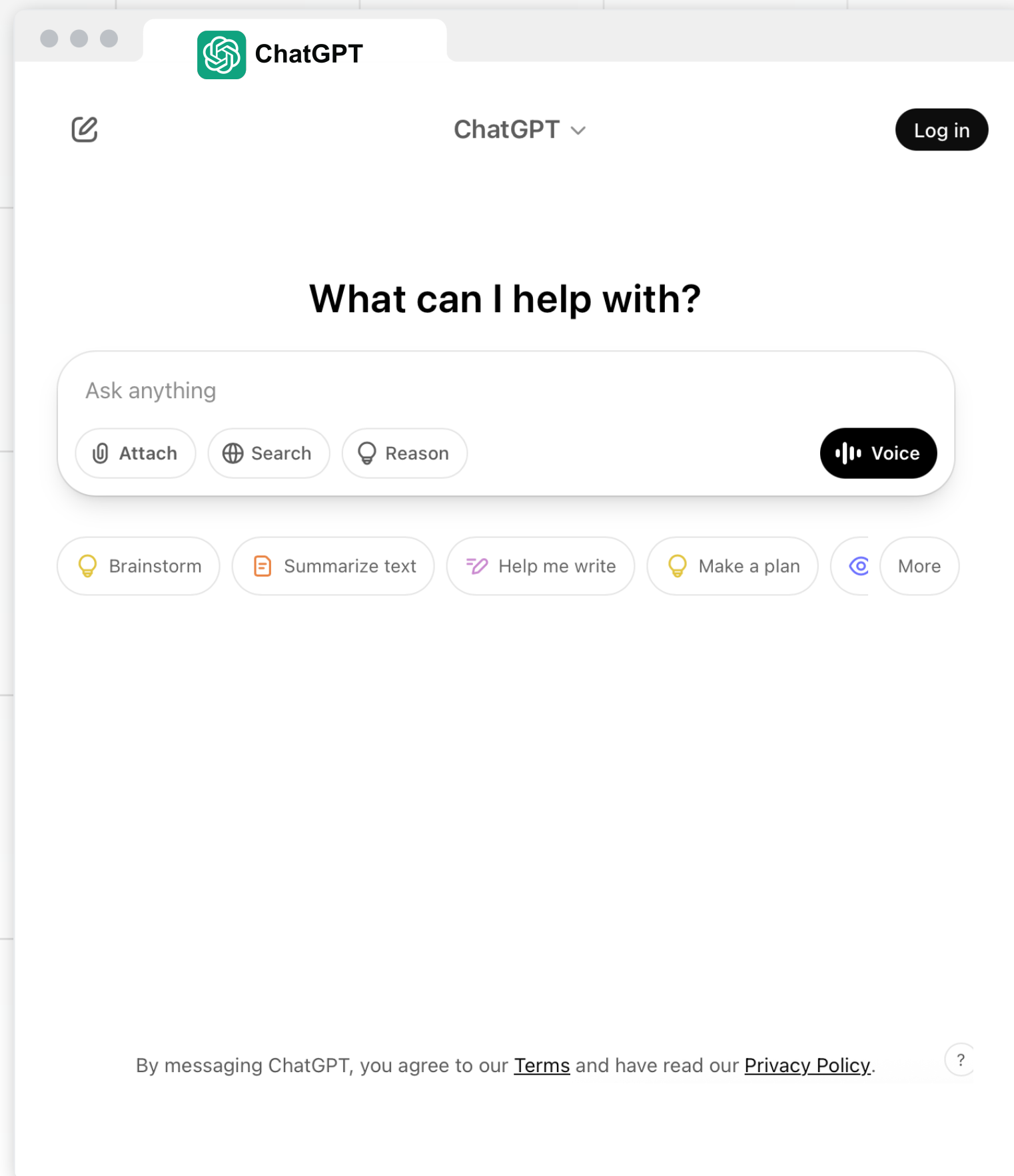




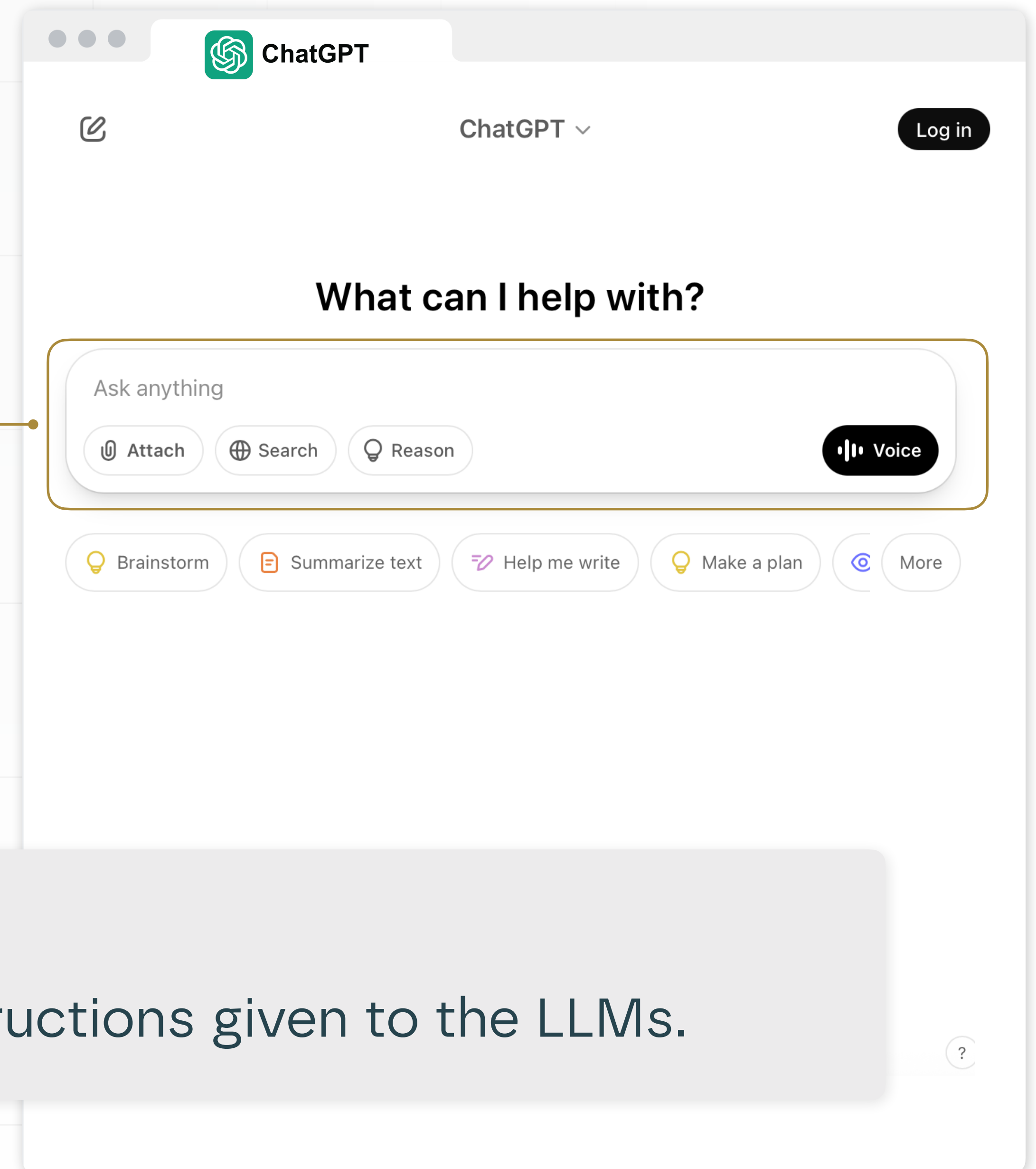
02.

How do these things work?

Large Language Models: How They Work



We do these tasks by “chatting” with LLMs through something called **prompts**

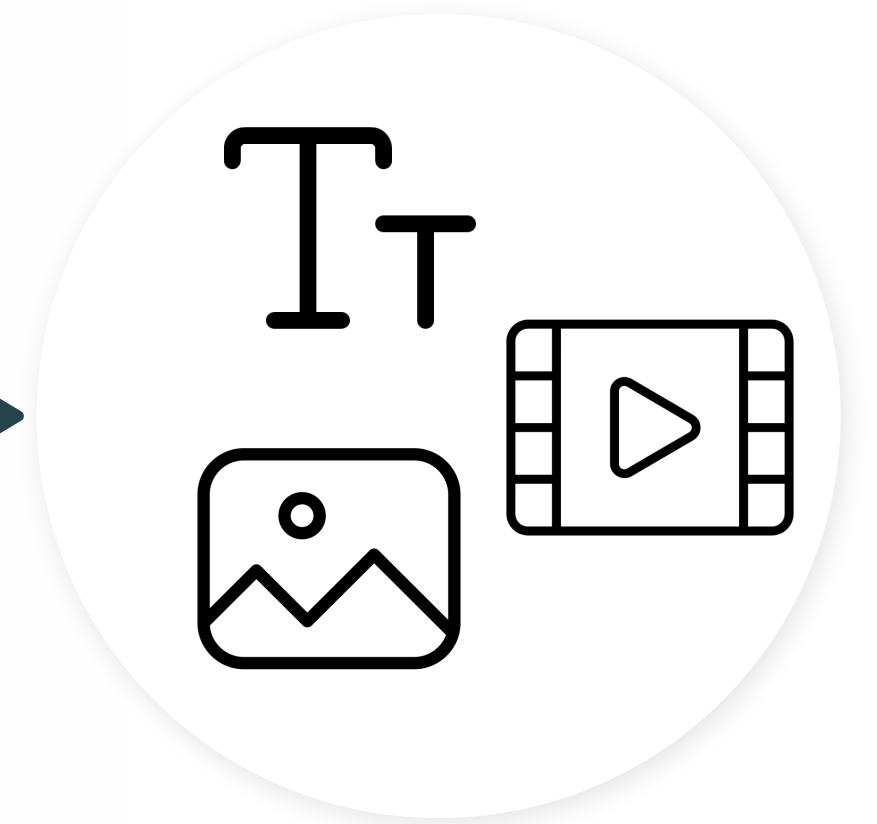
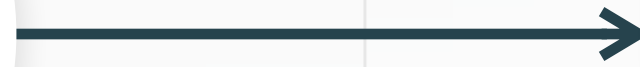
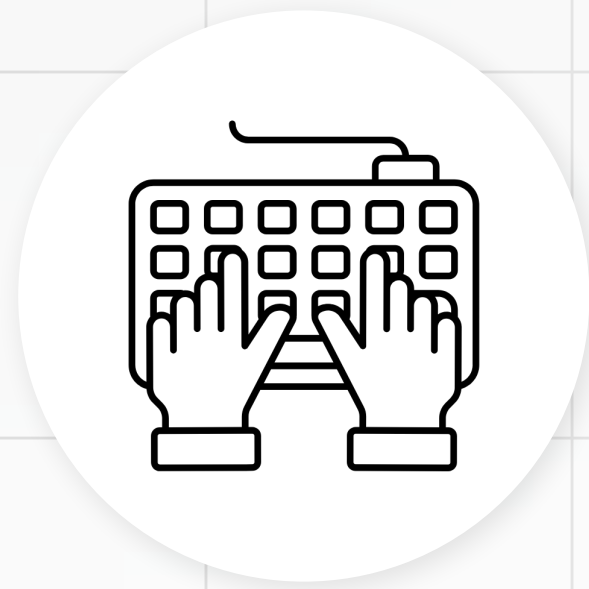


Prompt:





A set of instructions given to the LLMs.

How do **prompts** work?

Inputs + Outputs



Yeah, but what can they do for me?

		Basic Tasks	Complex Tasks
Generate Ideas		Create 10 social media post ideas for your business	Develop a complete business plan
Analyze Content		Summarize customer reviews and feedback	Analyze competitors' websites and identify opportunities
Generate Content		Draft sales follow-up emails	Build out your website, including copy
Give Feedback		Review and improve your product descriptions	Evaluate your business plan and suggest improvements

The Limitations of Large Language Models



Hallucinations

Provides wrong info confidently when pushed outside its limits

This is about technical limitations rather than intentional deception.



Biases

Inherits biases from its training data sources

It got its bias from us. Now we have to “untrain” it out of the model.



Privacy Concerns

AI can access and store confidential data you input.

Presents risks through data storage, training usage, and encryption standards

What AI cannot do



Replace Human
Judgment &
Decision-Making



Understand your
business's unique
context



Replicate human
empathy and
emotional
intelligence

Meet your new
employee:

AI





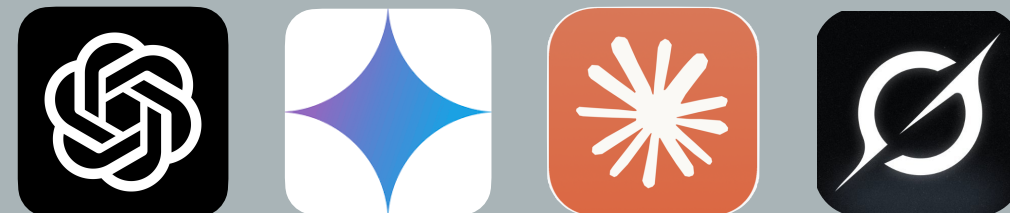
03.

How do I use this new “employee”?

Types of Tools

Frontier AI Systems

Aka AI Chatbots. Standalone AI tools. AI-powered software designed to work independently with minimal setup.



AI-Enhanced Tools

Aka AI Wrappers. Tools with integrated AI features, usually in the form of built-in AI enhancements within a particular piece of software.



Custom Tools

Custom AI solution. An application that's tailor-made to solve a specific problem.



My AI Stack



Data Analysis
Image Generation
Decision-Making Assistance



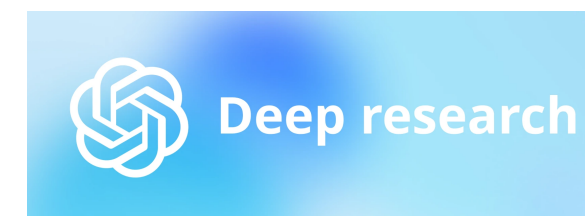
Writing
Thought Partner
Content Partner



Meeting Note Taking
All purpose LLM for notes



Learning
Podcast Creation



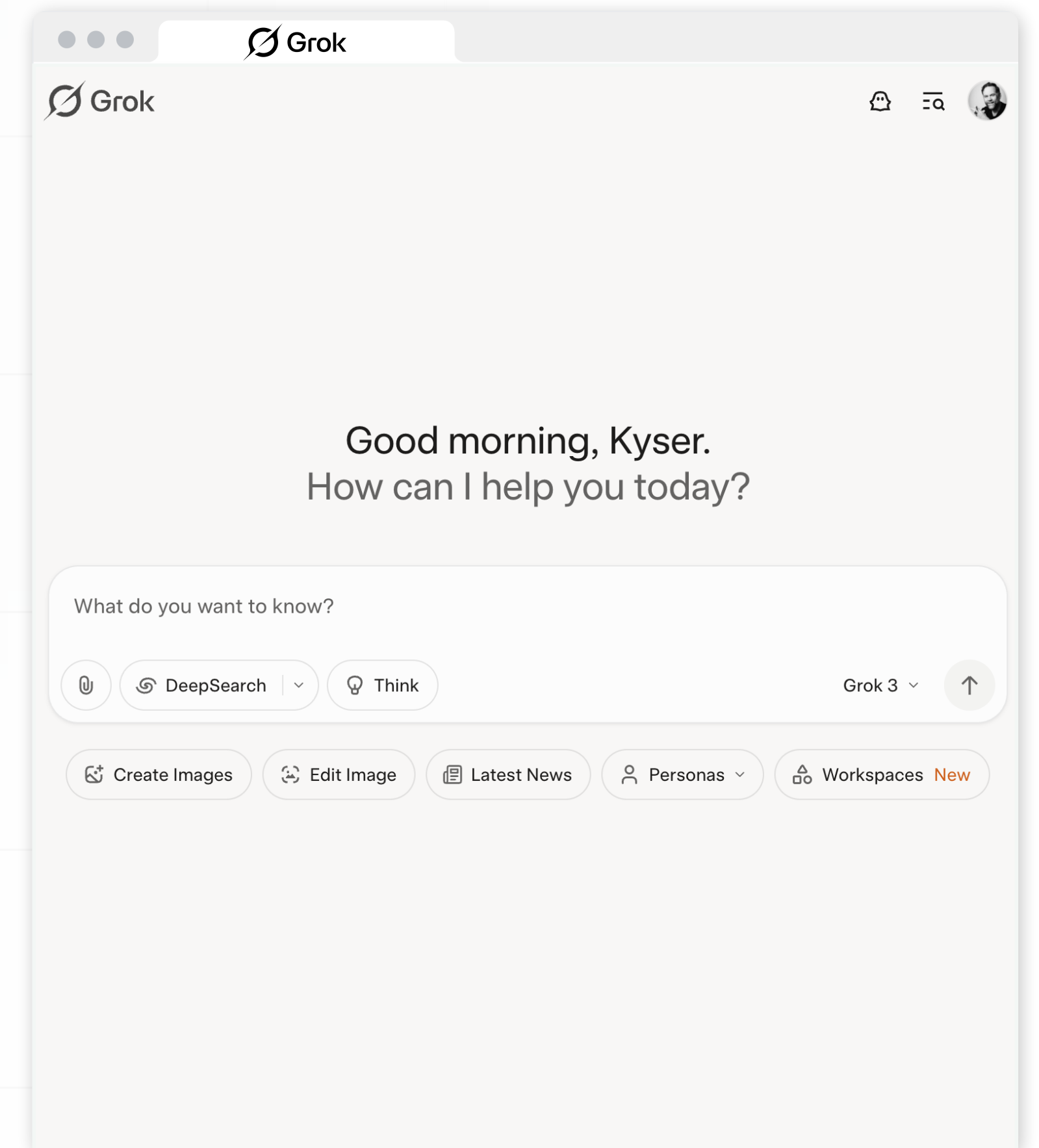
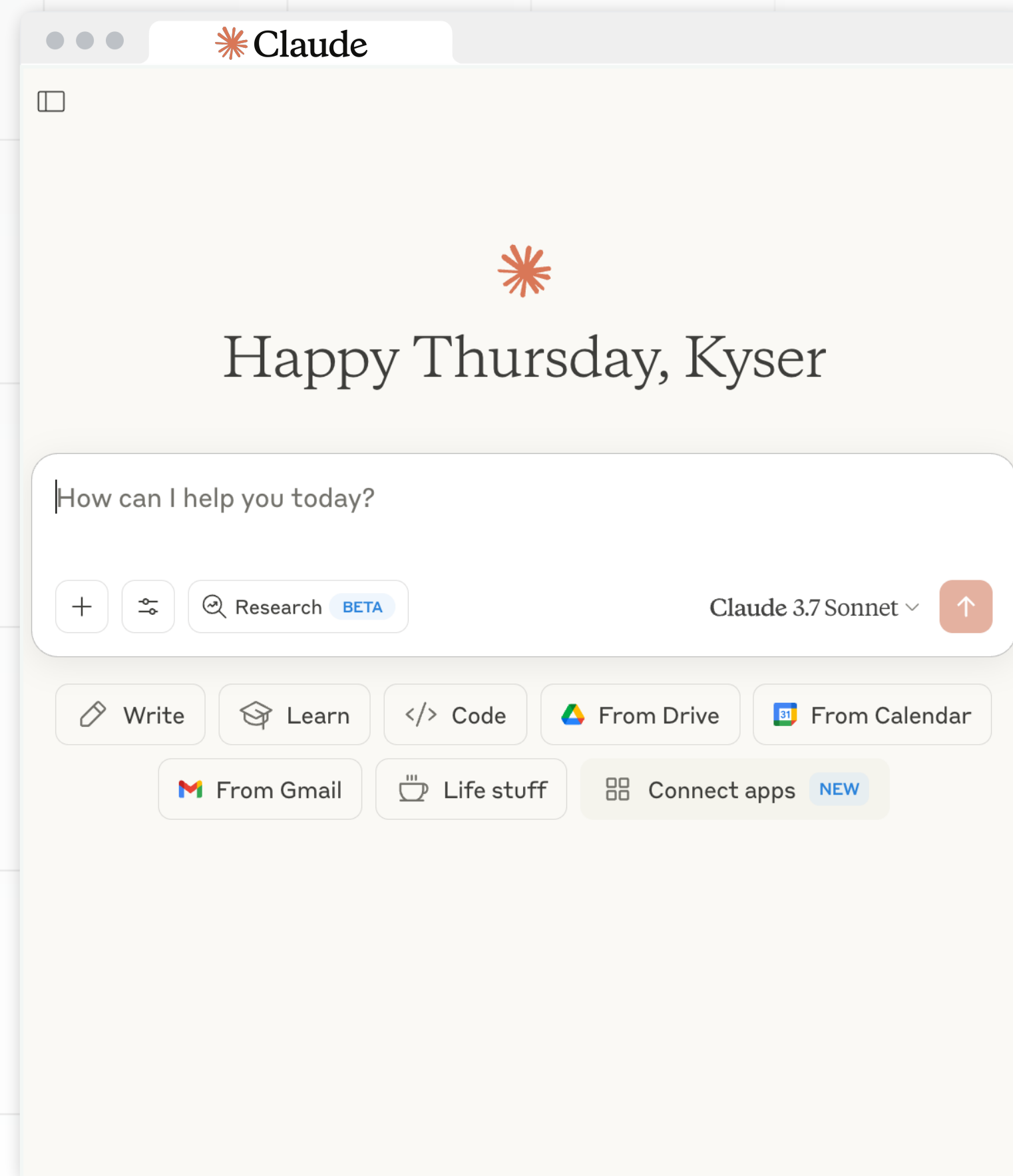
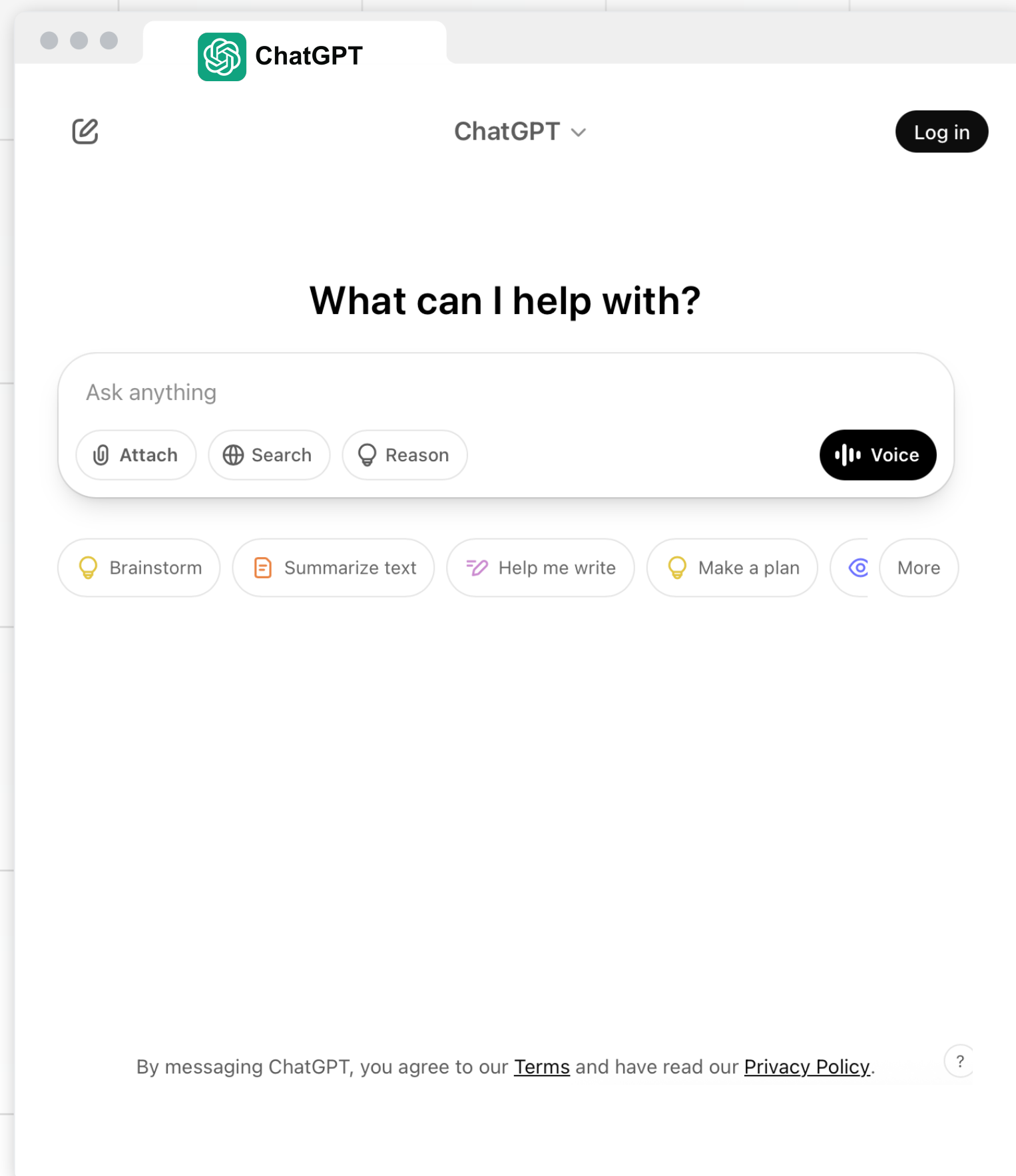
Heavy Research
Business Intelligence

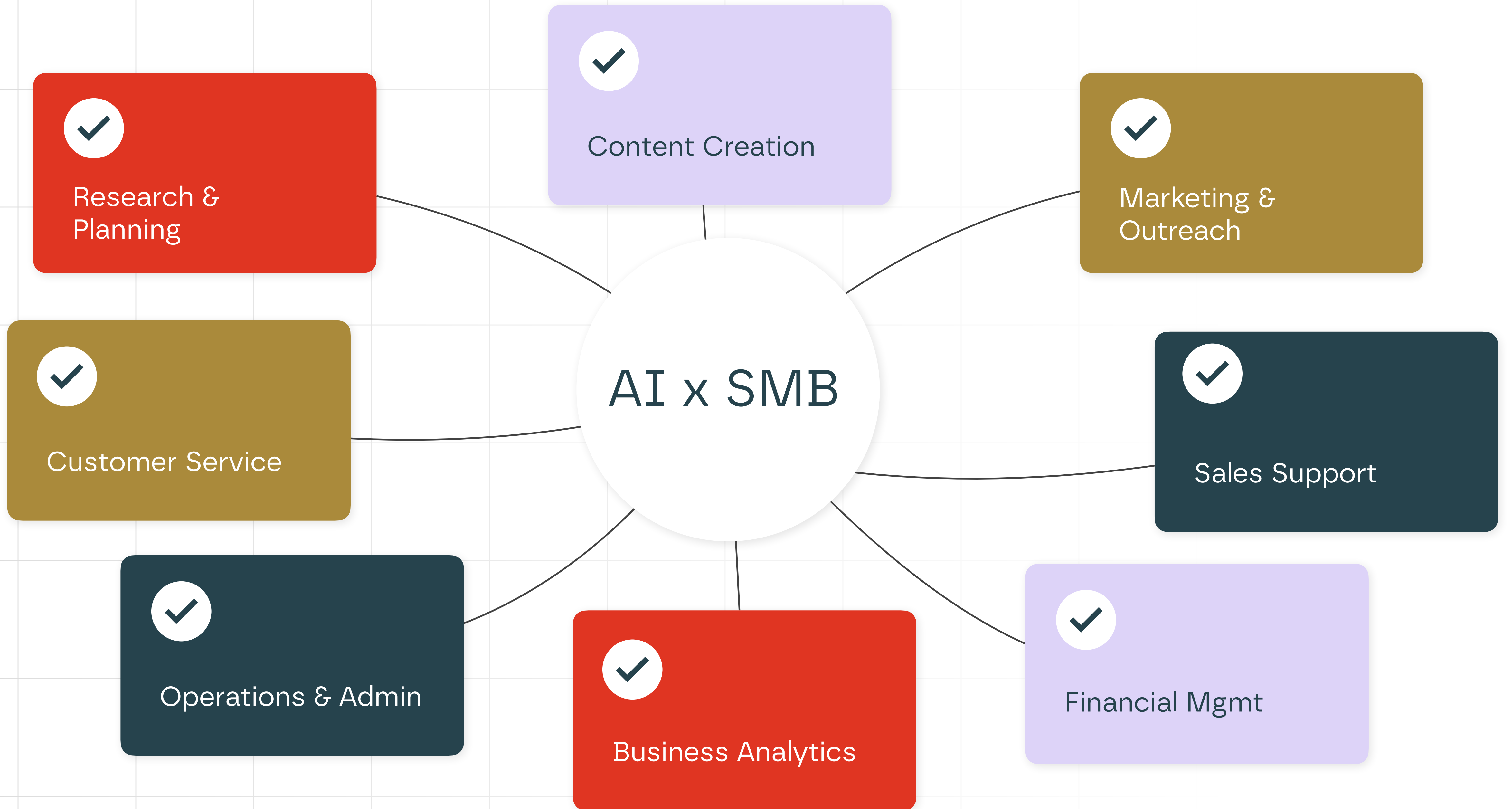


Image Generation
Creative Sourcing

Large Language Models

aka AI Chatbots

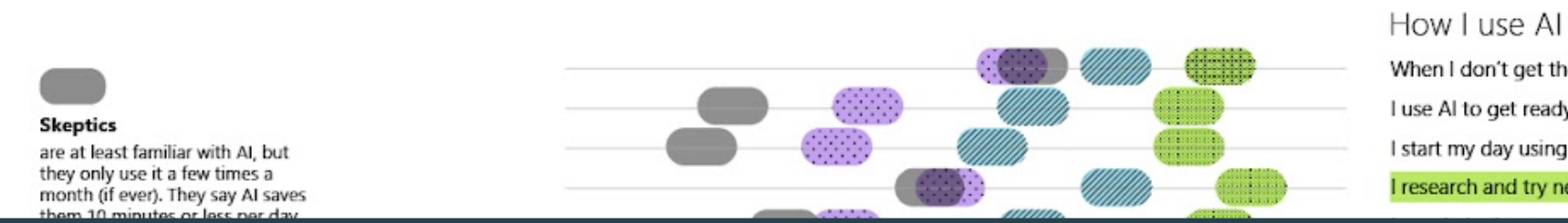




The Key: Just Use It

The Power User Payoff of AI at Work

Power users are reshaping the workday and reaping the benefits.



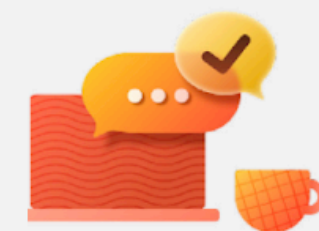
2024 Work Trend Index Annual Report
from Microsoft and LinkedIn

Copilot Study: How AI Could Reshape the Workday

Microsoft researchers designed a six-month randomized control trial of 60 Copilot customers across industries. The study is the first mass-scale observation of 3,000 individuals using AI in their natural work environment with no interventions from the researchers to encourage use. Preliminary results show how AI could reshape the anatomy of the workday in fundamental ways—reducing time spent in inboxes, making meetings more valuable, and increasing time spent on high-value focus work.



Emails: Overall, Copilot users read **11%** fewer individual emails and spent **4%** less time interacting with them. The customers who saw the most impact spent **25%–45%** less time reading emails.

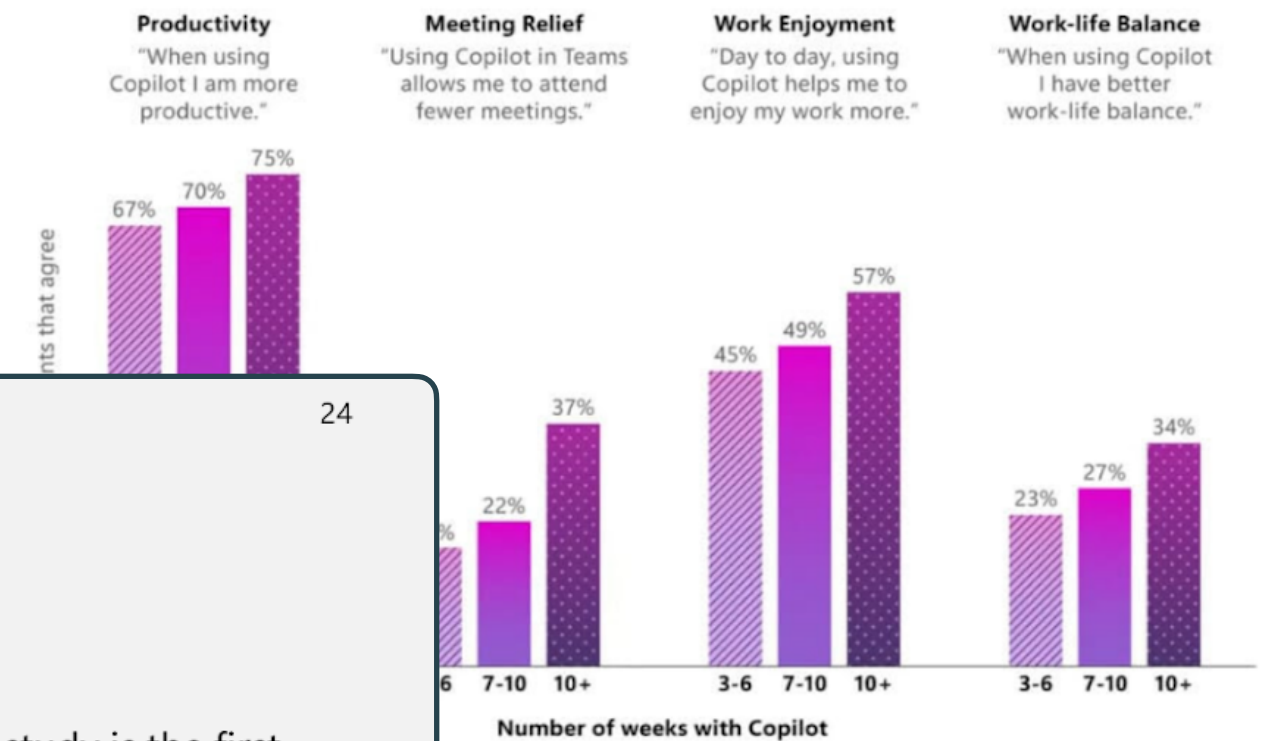


Meetings: In some companies time spent in meetings increased, in others it decreased. One hypothesis is that AI makes meetings more valuable—as stores of information and a shortcut to creation, like a brainstorming meeting, easily turned into a first draft. For some companies, the increased efficiency leads to fewer meetings, and at others the increased value leads to more. As AI capabilities progress, researchers expect this effect to continue—allowing us to reduce time in some meetings while making the meetings we do have more valuable.



Documents: Overall, Copilot users edited **10%** more documents in Word, Excel, and PowerPoint—the companies that saw the largest impact noticed a **20%** increase. This may suggest that people are repurposing the time they save for high-value focus work like creating and consuming information.

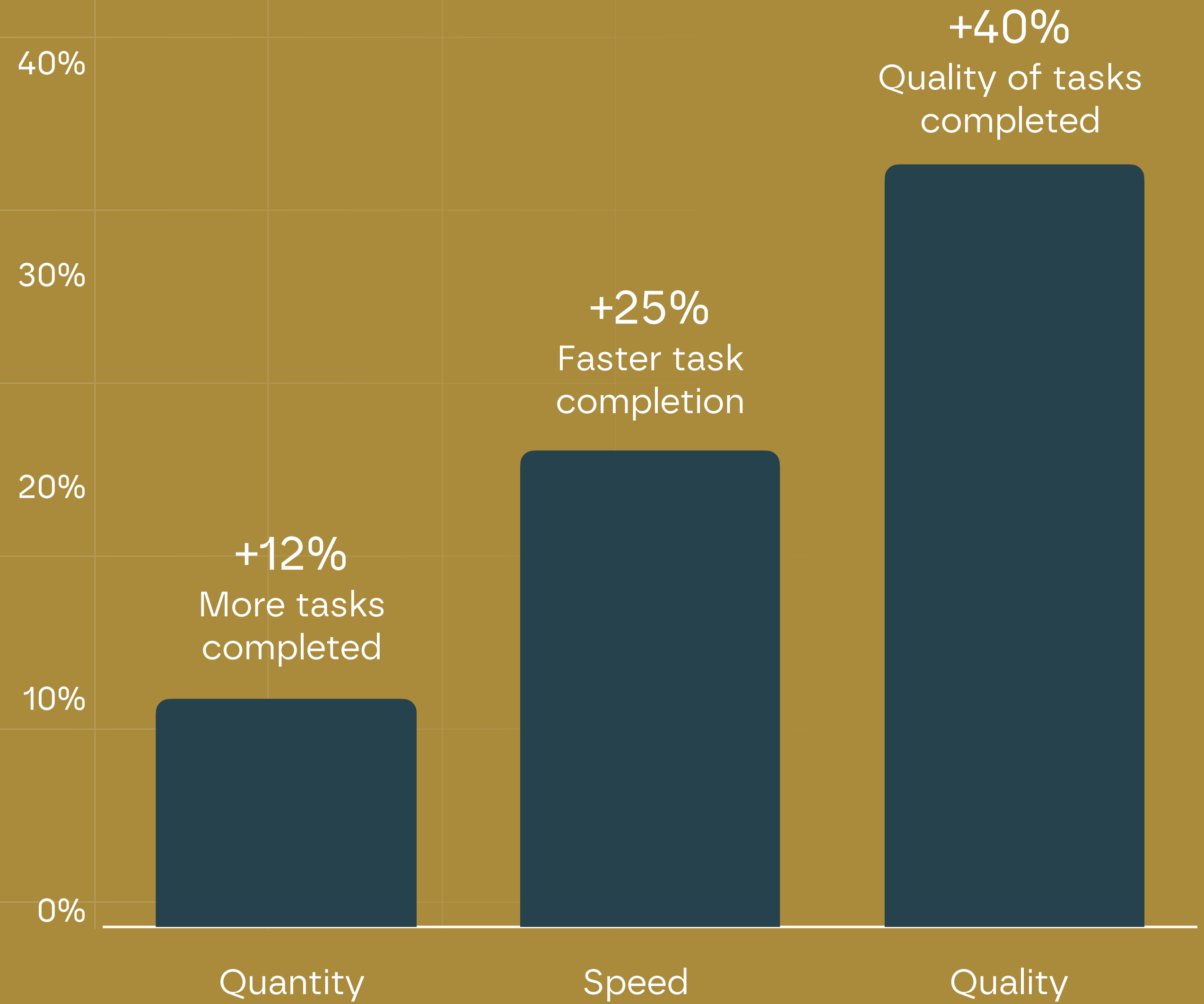
How long does it take for users to get acquainted with Microsoft's Copilot?



ft study shows that it takes weeks for people to adjust to their work. After three to Copilot, 18% of professional AI platform helped them meetings. But after 10 weeks, use to 37%. The same help tivity, work enjoyment, and ce.

Productivity is in the Pudding

Source: Harvard Business School x Wharton x Boston Consulting Group





Four things to leave you with

If you remember anything, remember these ...

Choose an
AI Tool.

01

Use it
every day.

02

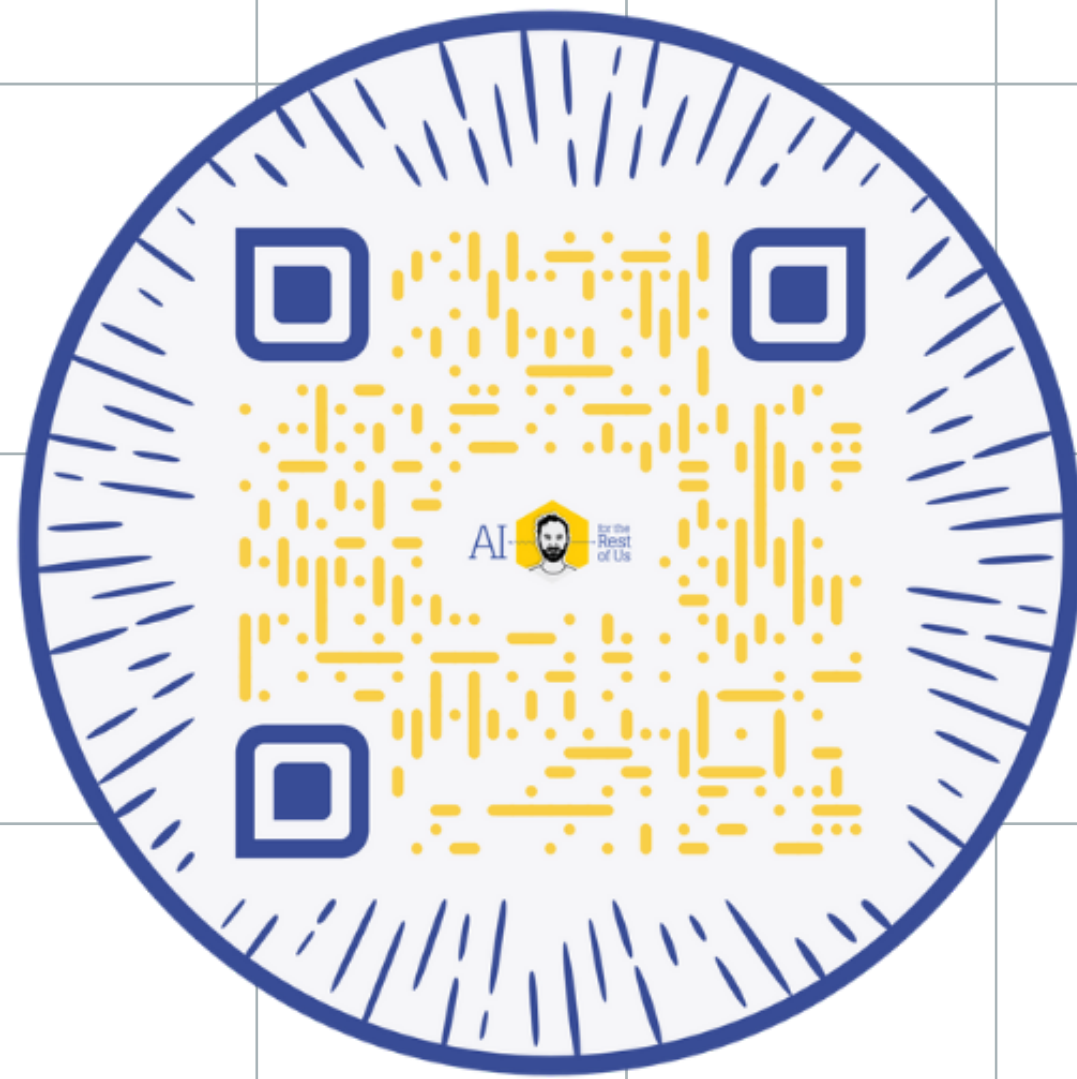
Hire the
employee.

03

Have the
Conversations.

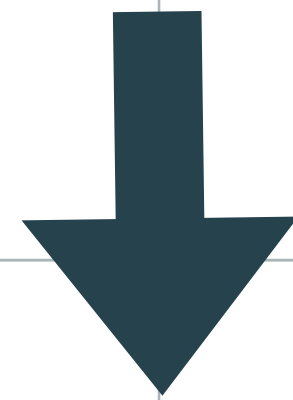
04

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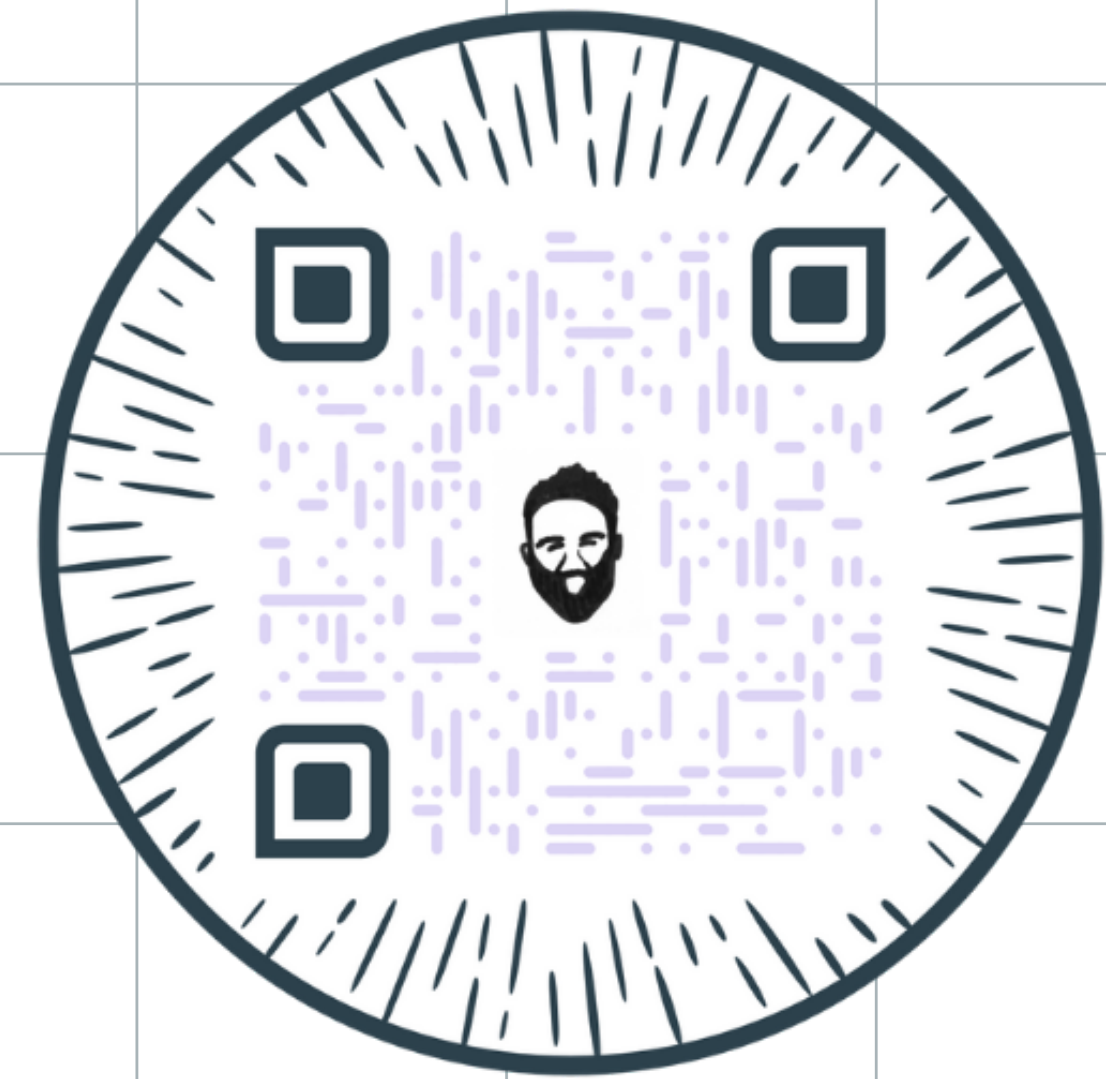
[Or Click Here](#)

Reach out if you want
help implementing AI



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Thank You

