



# AI Literacy

in the age of ChatGPT



by **Nicole Hennig**

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September 12, 2023

# ChatGPT news is everywhere

## Hiring Managers Want Workers With ChatGPT Experience, New Survey Says

Of the hiring managers surveyed, 91% said it would be "important" for entry-level candidates to have ChatGPT experience by 2024.

**E** BY ENTREPRENEUR STAFF • APR 12, 2023

Share



Hiring managers want workers with ChatGPT experience, new survey says

- Entrepreneur

Forbes

Sub  
\$3

FORBES > LEADERSHIP > LEADERSHIP STRATEGY

## ChatGPT: A Threat To Higher Education?

Dr. Jason Wingard

Senior Contributor

Global thought leader on leadership development...

Follow

ChatGPT: A Threat To Higher Education?

- Forbes



**Educators are in a difficult spot.**

# Here's what we'll cover.

1. The technology: how does it work?
2. How to use it effectively with ideas for teaching
3. Criticisms and ethical issues
4. The future

## **Discussion & questions**

# BIBLIOGRAPHY

## You'll get

- A copy of these slides (PDF with links)
- A handout with more sources (PDF) <https://bit.ly/ai-lit-writing>

# Nicole Hennig



Worked at the MIT Libraries for 14 years, first as webmaster, then head of UX department

## **2013 - 2018**

My own business: technology training for librarians.

- [books](#)
- [webinars](#)
- [online courses](#)

# Elearning developer at Univ. of Arizona Libraries 2019 to the present



**What Types of  
Sources Do I Need?**



**How Do I Create a  
Search Strategy?**



**How Do I Evaluate  
Online Information?**

**I collaborate with my colleagues to create online tutorials.**

# What is AI literacy?



# 2020 paper, Long & Magerko

RESEARCH-ARTICLE



## What is AI Literacy? Competencies and Design Considerations

Authors:  [Duri Long](#),  [Brian Magerko](#) [Authors Info & Claims](#)

CHI '20: Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems • April 2020 • Pages 1–16 • <https://doi.org/10.1145/3313831.3376727>

"We synthesize a variety of interdisciplinary literature into a set of core competencies."

<https://doi.org/10.1145/3313831.3376727>



# Based on those:

**AI literacy is the ability to:**

- 1 understand the basics of how AI works**
- 2 use AI effectively and ethically**
- 3 make informed decisions about using AI technologies**

# Why is AI literacy so important now?

- 1 It's becoming integrated into tools we use every day.
- 2 It's quickly becoming a skill that workplaces require.
- 3 It's closely connected to other literacies: digital, data, and media literacy - and it's unique.
- 4 When we're AI literate, we can influence the future directions of this technology with ethics in mind.



## Which of these describes your use of ChatGPT?

- Haven't used it
- Used it once
- Used it a few times
- Used it many times
- Use it every day

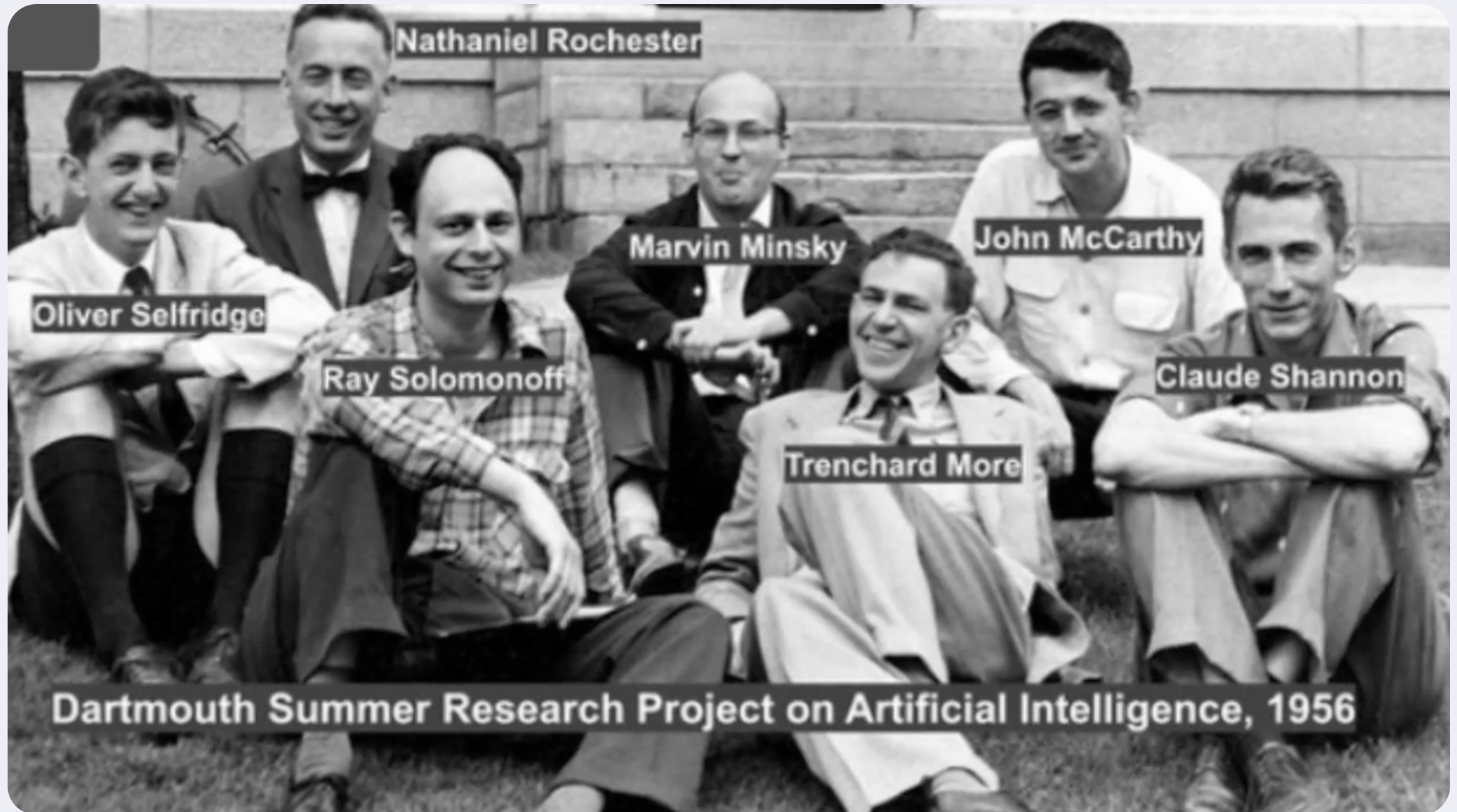
# Part 1: The technology

What is AI?

What is a large language model?

What is generative AI?

# 1956



Let's call it  
"artificial intelligence."



“the field of study focused on creating machines that can perform tasks that typically require human intelligence.”

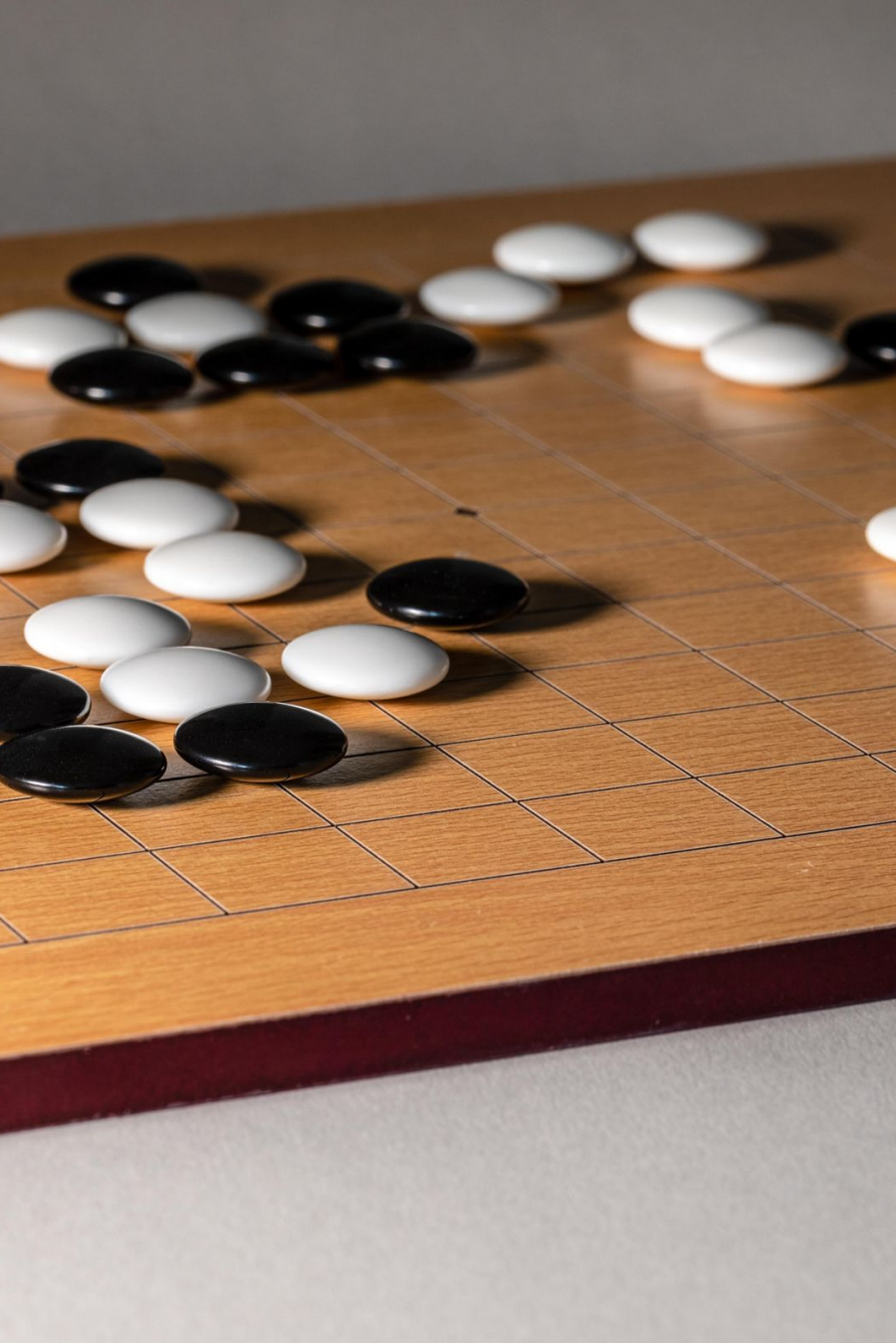




# These days AI is part of many services

- Siri and Alexa voice assistants
- Netflix or YouTube recommendations based on your viewing habits
- Gmail's spam filtering





## Those are examples of narrow AI

- AI designed to perform a specific task
- AlphaGo beat the human Go champion in 2017.



# General AI

## Artificial General Intelligence (AGI)

Experts don't agree on a precise definition.



"A machine that would have an intelligence equal to or at least very close to that of humans."



"It would have the capacity to solve problems, to learn, and to plan the future."





I'm sorry Dave, I'm afraid I can't do that.

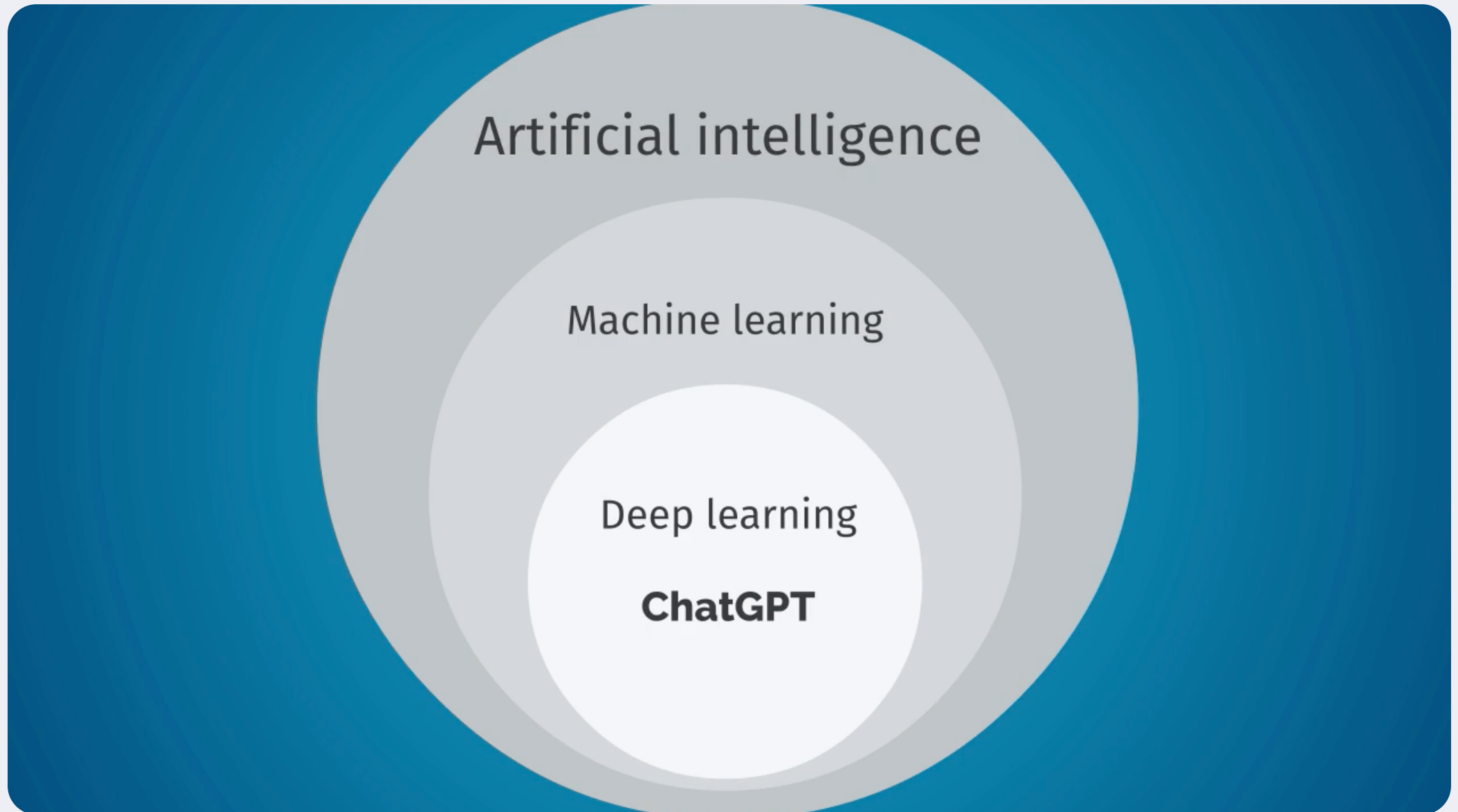
ChatGPT is nothing like this! 😊



## ChatGPT is narrow AI

- Designed only to generate text in a conversational style
- This is what we'll focus on today

# Where does ChatGPT fit?

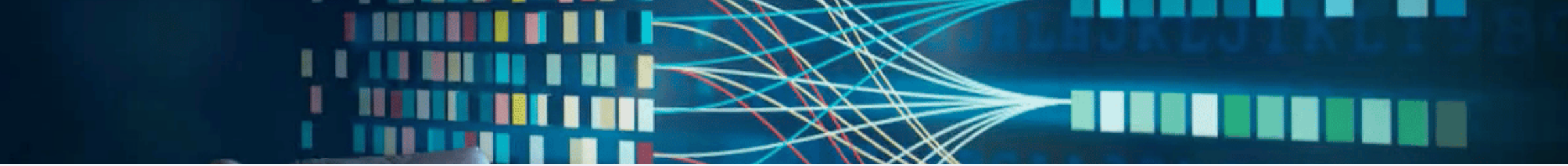






## What is machine learning?

A subfield of AI that involves developing models that can **automatically learn from and improve their performance** based on input data, allowing computers to make predictions, recognize patterns, and solve problems **without being explicitly programmed** for each task.



# Without being explicitly programmed!

They **learn patterns**, instead of following rules.

They are **probabilistic**, not deterministic.



**This is very  
different from  
explicit software  
programming and  
rules.**

It's about patterns and probabilities.



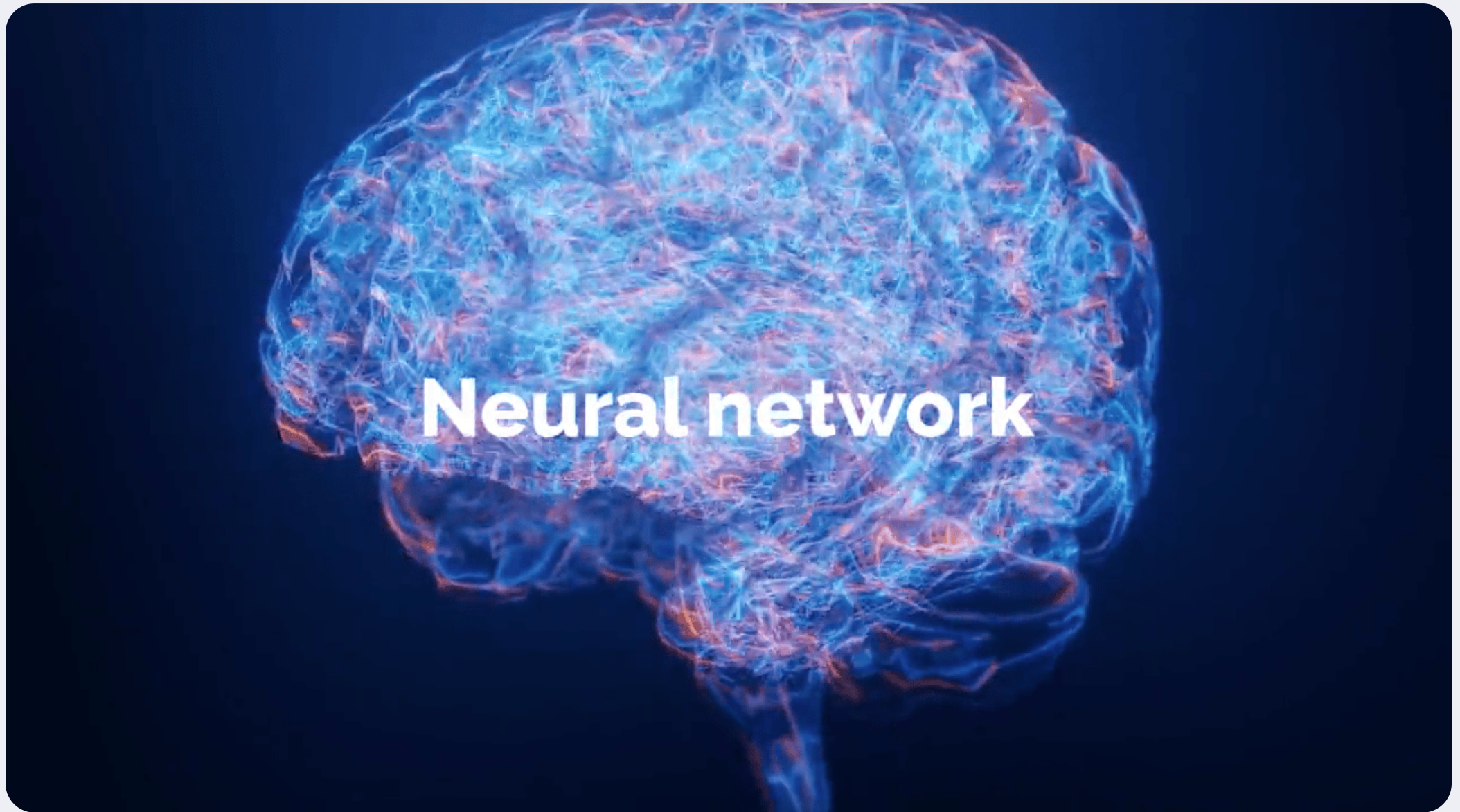


ChatGPT

Deep learning

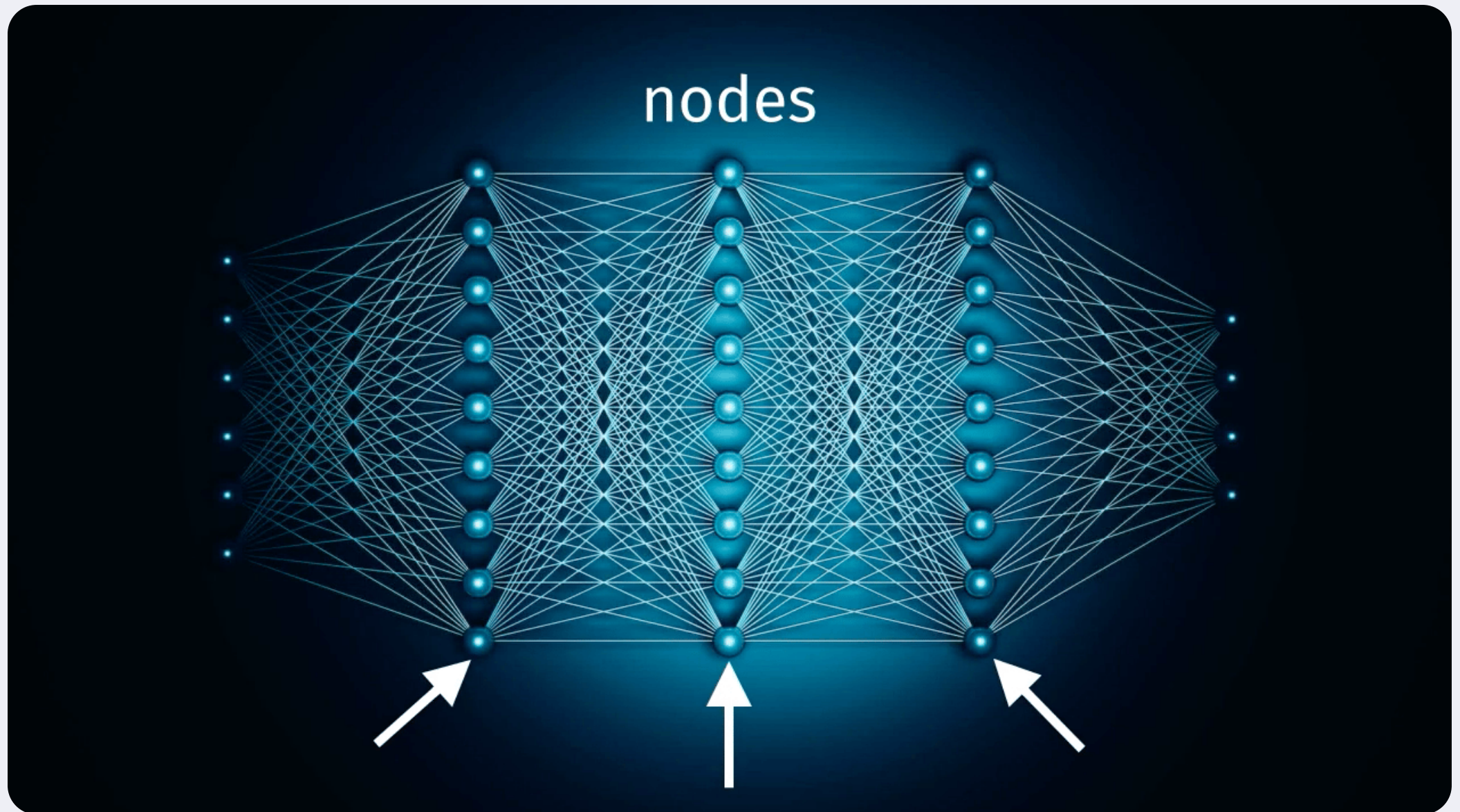
## What is deep learning?

It's a particular type of neural network known as a **deep neural network**, which consist of multiple layers of interconnected nodes that enable the learning of more complex patterns.

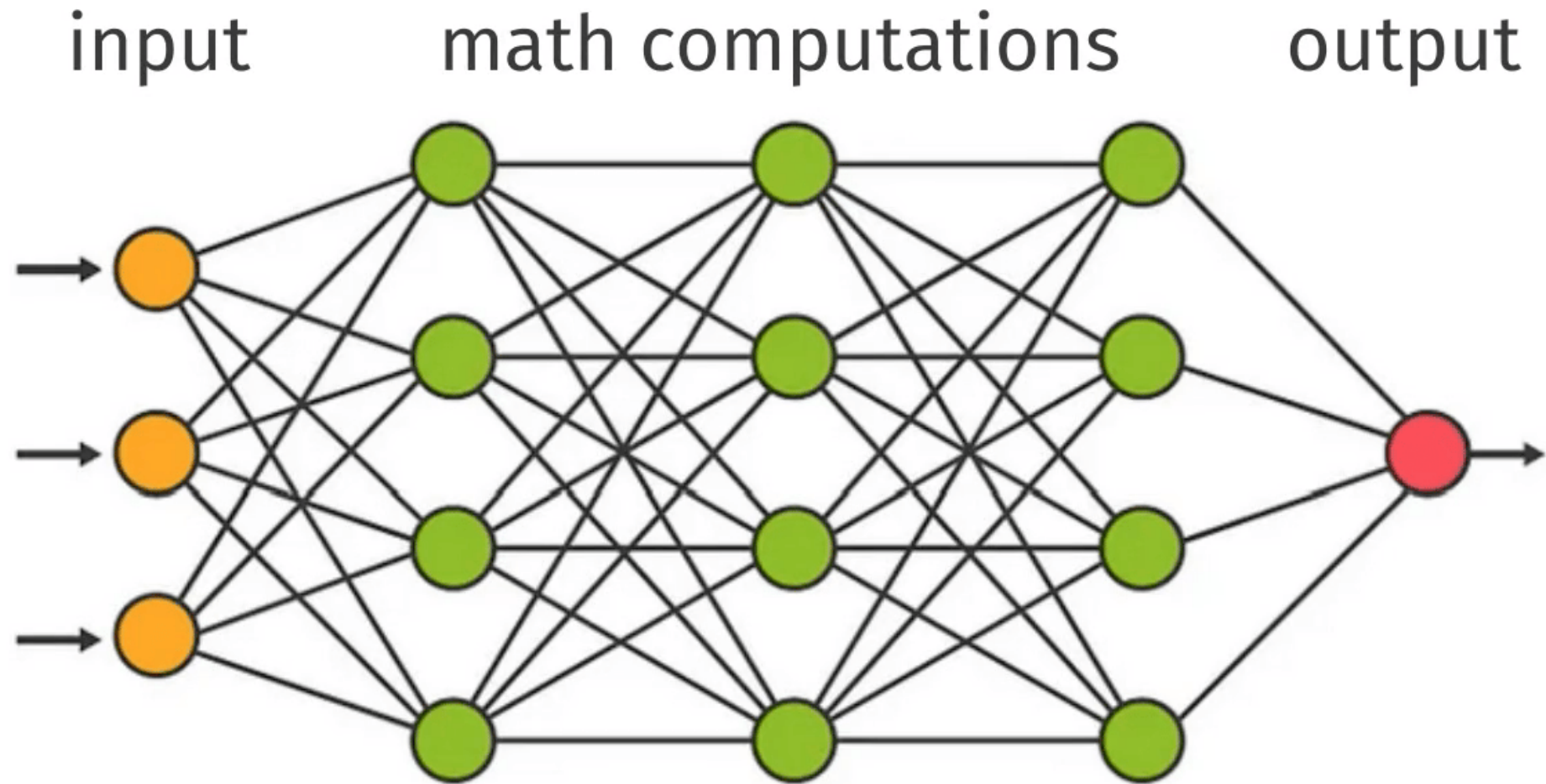


a model inspired by neural networks in the **human brain**.





It consists of processing units, known as **nodes**, organized into layers.



These nodes receive **input**, perform **math computations**, and produce **output**.





# Knowledge is not explicitly represented

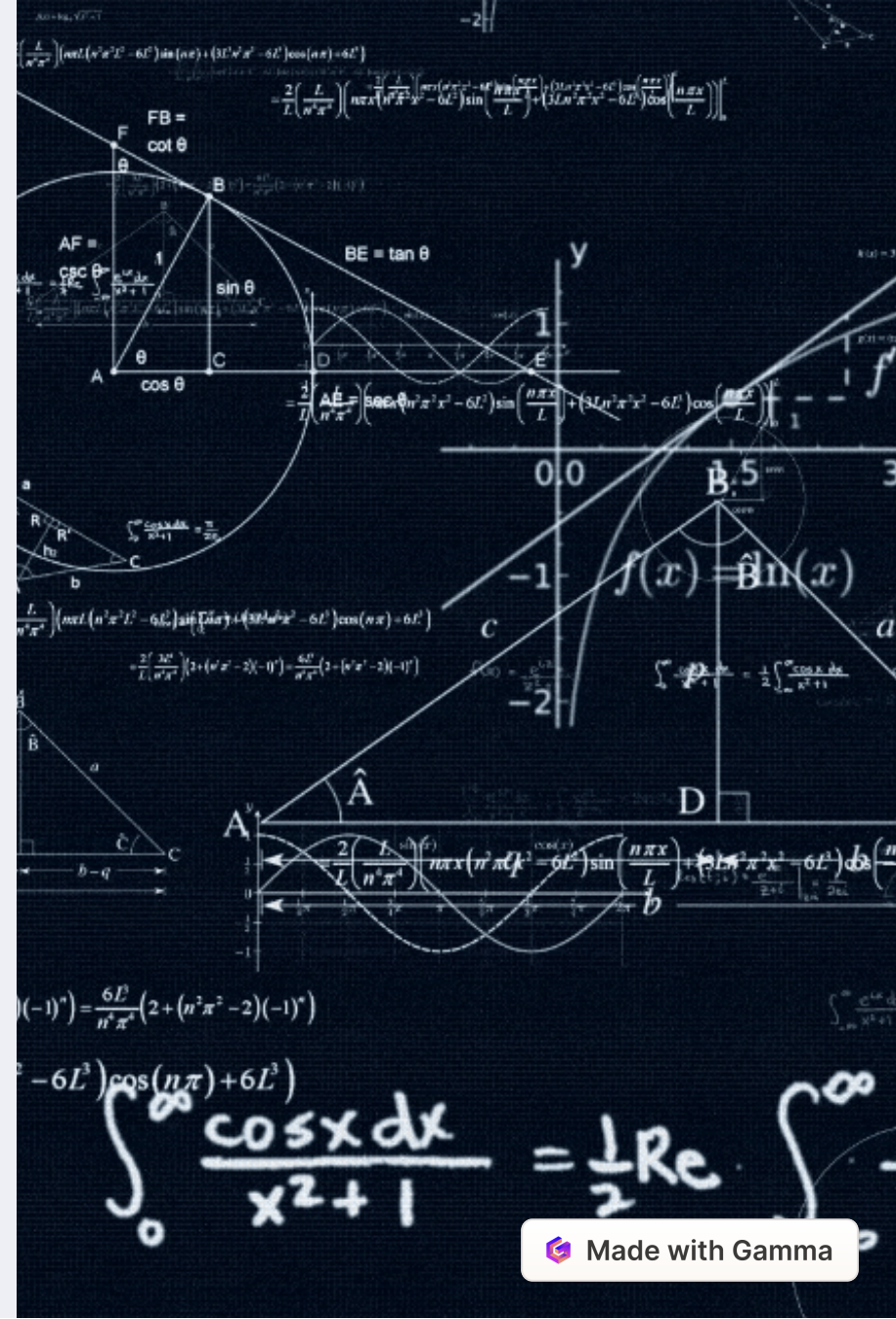
With billions of **parameters** in their networks, they don't have any easily interpretable "rules" or "knowledge base" that engineers can directly inspect or modify. Their knowledge is embedded in the connections between nodes in neural networks.

**"a black box"**

It's not words and sentences.

It's a big network of math operations.

(don't call it a "database")





2017

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## Attention Is All You Need

---

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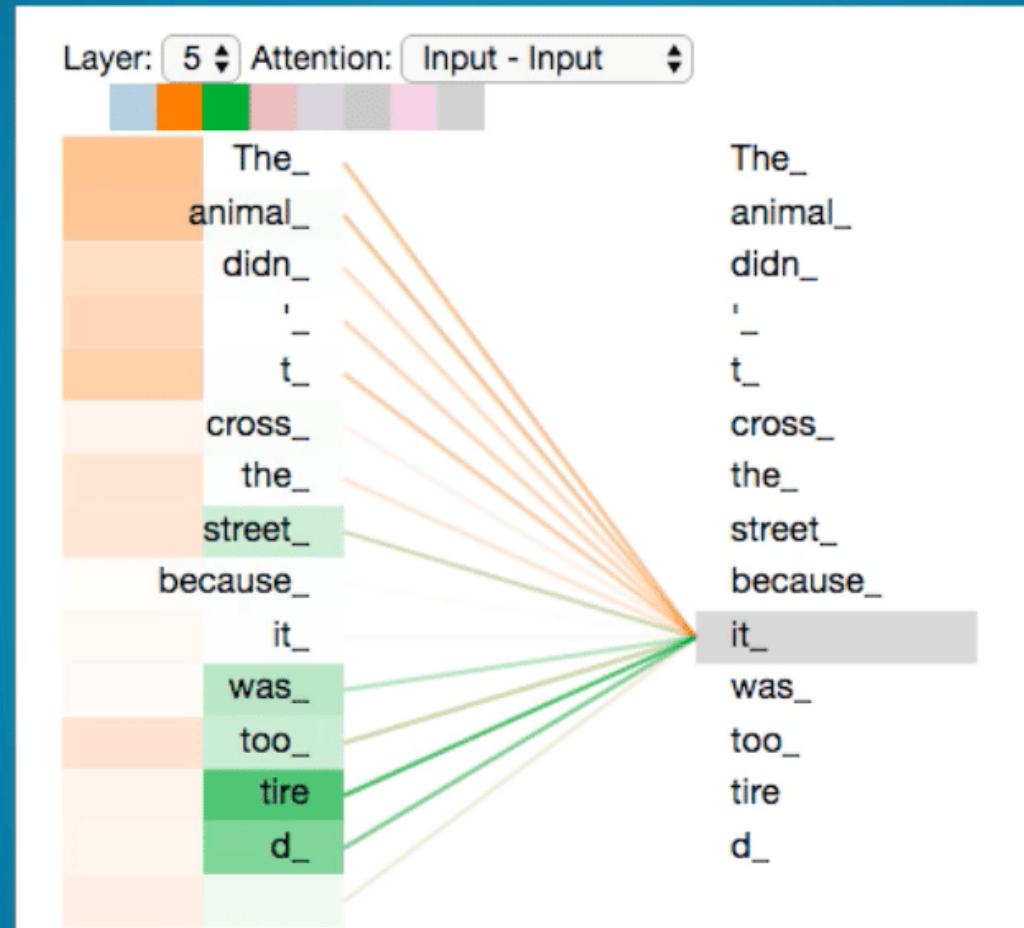
Lukasz Kaiser\*  
Google Brain  
lukasz.kaiser@google.com

### Abstract

The dominant sequence transduction models are based on complex recurrent or convolutional neural networks that include an encoder and a decoder. The best performing models also connect the encoder and decoder through an attention mechanism. We propose a new simple network architecture, the Transformer, based solely on attention mechanisms, dispensing with recurrence and convolutions entirely. Experiments on two machine translation tasks show these models to be superior in quality while being more parallelizable and requiring significantly less time to train. Our model achieves 28.4 BLEU on the WMT 2014 English-to-German translation task, improving over the existing best results, including ensembles, by over 2 BLEU. On the WMT 2014 English-to-French translation task, our model establishes a new single-model state-of-the-art BLEU score of 41.8 after training for 3.5 days on eight GPUs, a small fraction of the training costs of the best models from the literature. We show that the Transformer generalizes well to other tasks by applying it successfully to English constituency parsing both with large and limited training data.

Breakthrough!

Transformer architecture



Looks at the whole context, can pay attention to certain words.

2018

Google

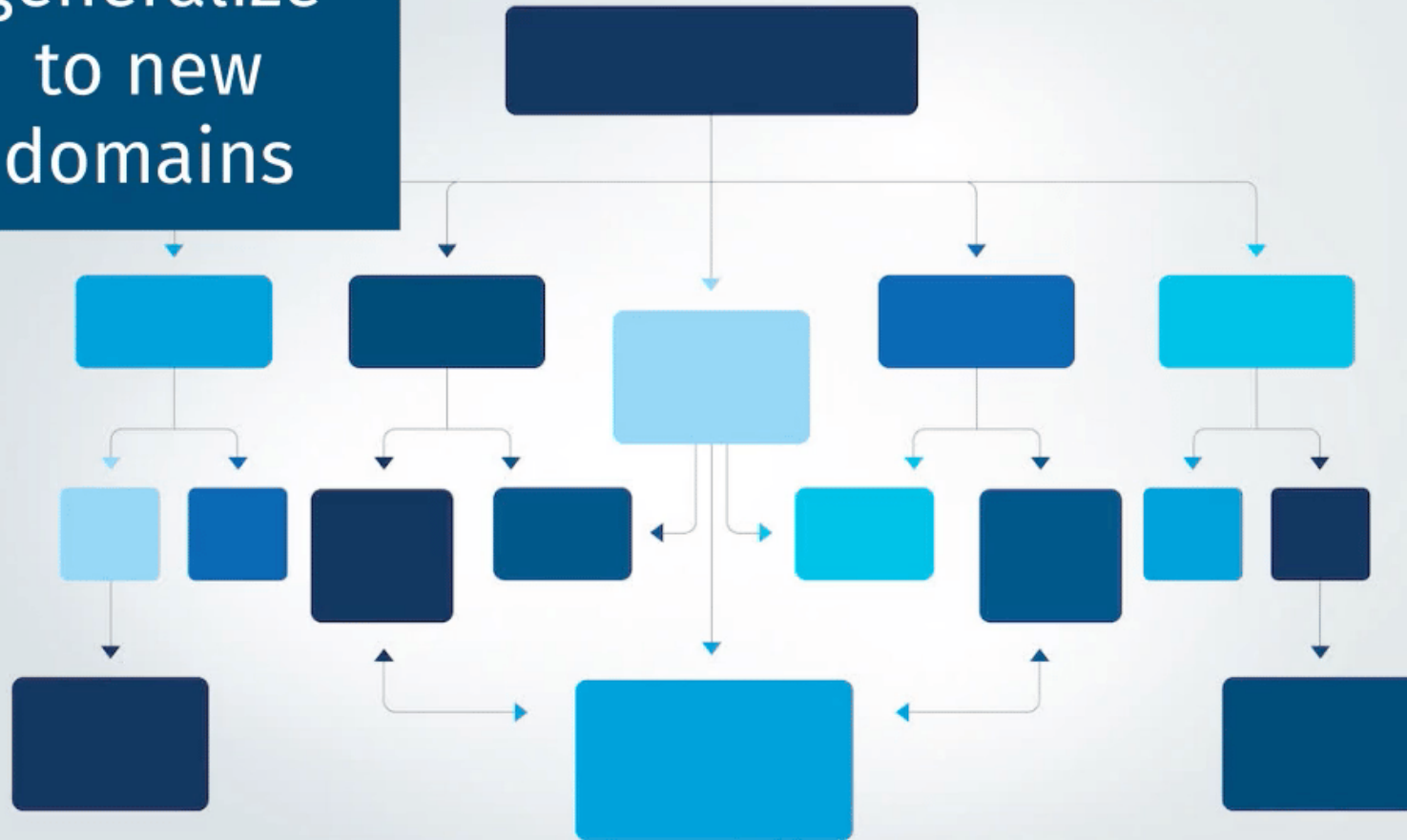
OpenAI



# Large language models

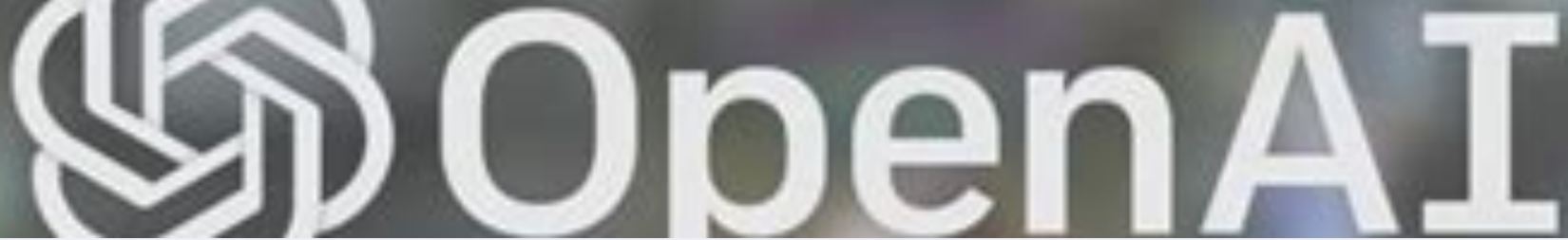
## LLMs

generalize  
to new  
domains









## Versions for researchers

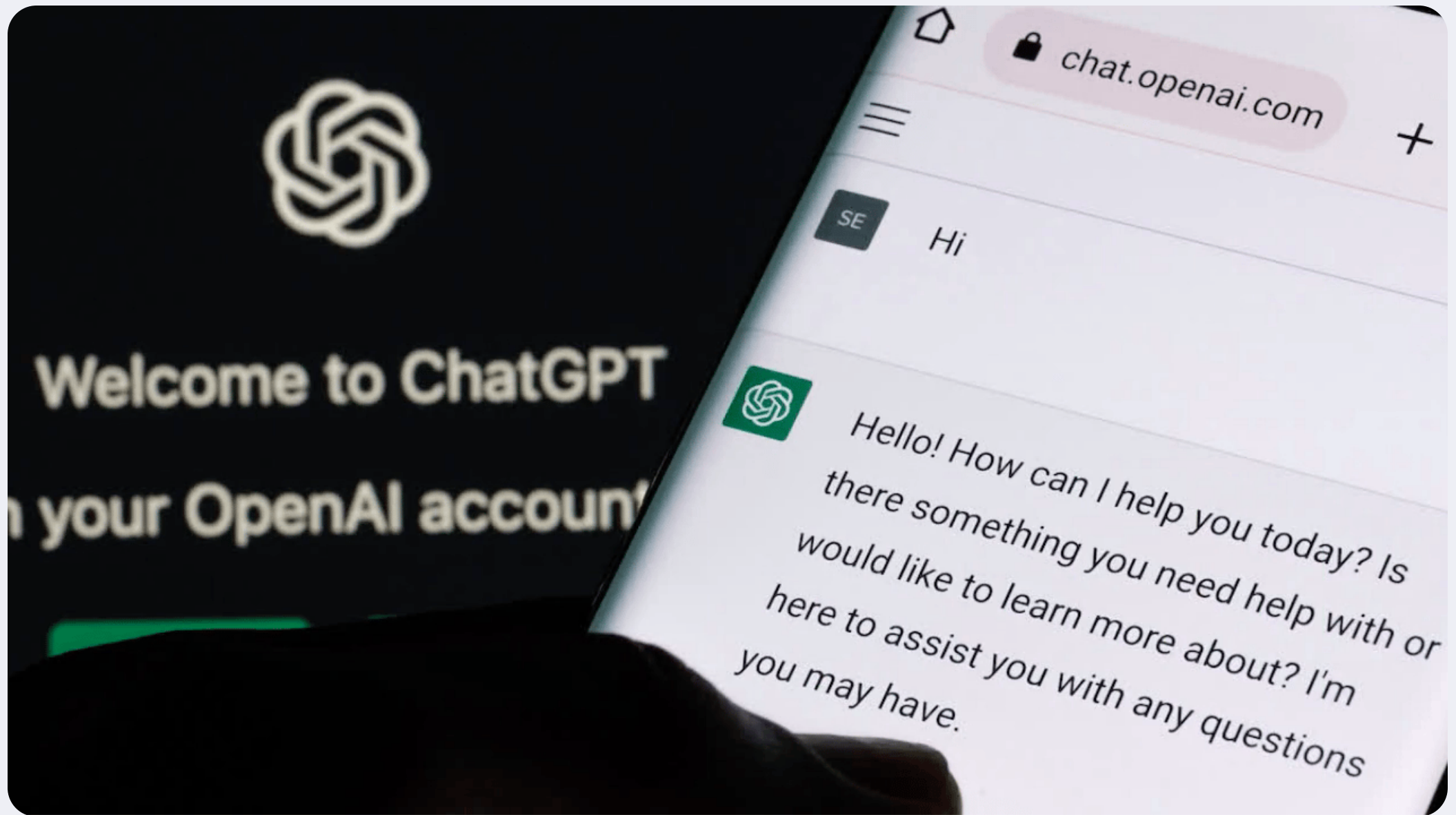
- **GPT 1 (2018)**
- **GPT 2 (2019)**
- **GPT 3 (2020)**

# November 30, 2022

## Introducing ChatGPT

We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer followup questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.

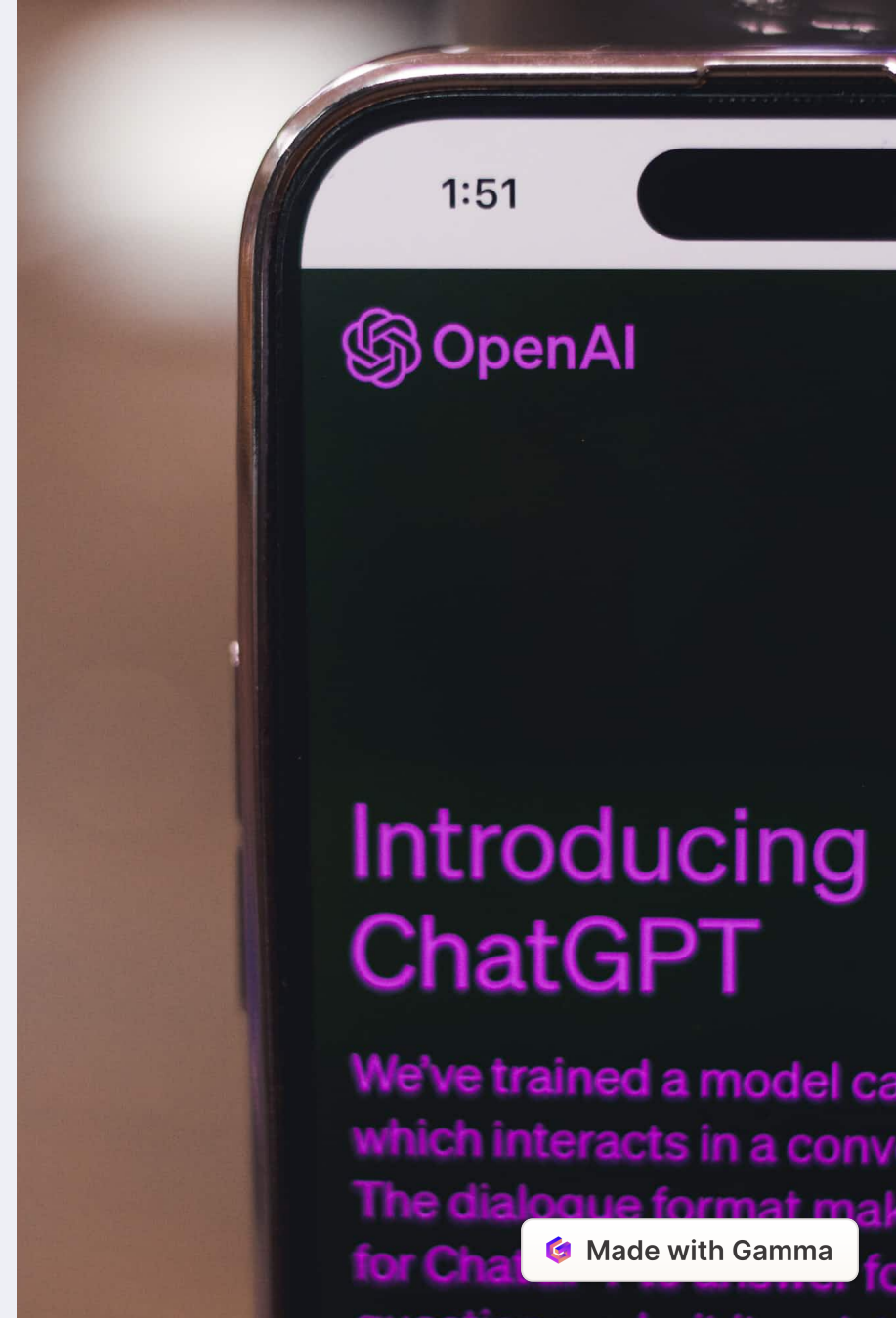
[Try ChatGPT ↗](#)[Read about ChatGPT Plus](#)



Added an easy chat interface and made it free for the public.

# ChatGPT

"Generative Pre-trained Transformer"



# What was ChatGPT (3.5) trained on?

WIKIPEDIA  
The Free Encyclopedia

## Internet data through mid-2021



Dataset	Quantity (tokens)
Common Crawl (filtered)	410 billion
WebText2	19 billion
→ Books1	12 billion
→ Books2	55 billion
Wikipedia	3 billion

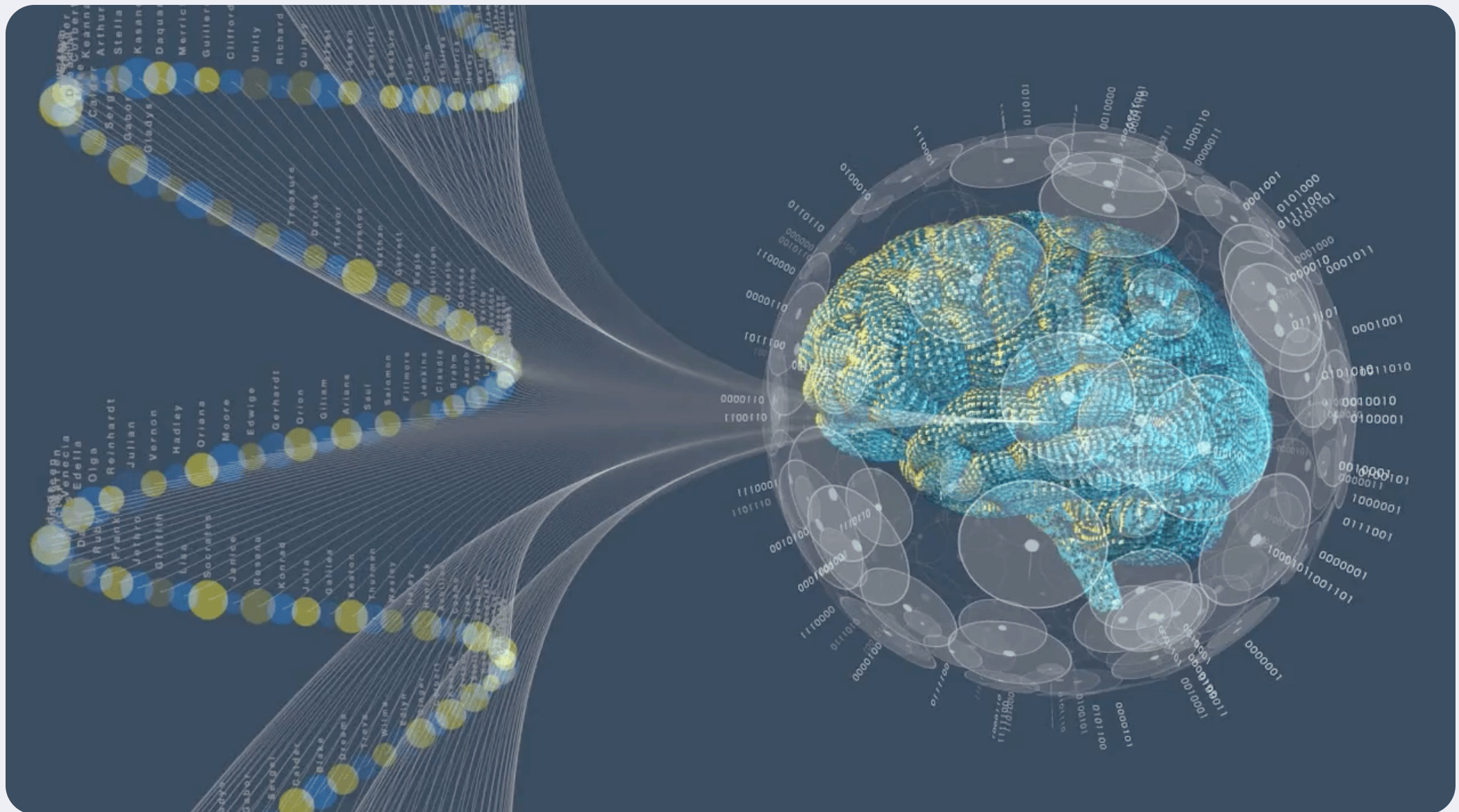
[Open AI hasn't made public what GPT-4 is trained on.](#)



## Training data

Dataset	Quantity (tokens)	Weight in training mix
→ Common Crawl (filtered)	410 billion	60%
→ WebText2	19 billion	22%
→ Books1	12 billion	8%
→ Books2	55 billion	8%
→ Wikipedia	3 billion	3%

Once the training data is done, it's not needed for the model to work.



It learned from all that data and saved it as patterns. It uses that to generate new text.

It can be set aside.





# How to prevent harmful use? Guardrails

Systems to guide behavior of the model. Aimed at preventing harmful or misleading content.

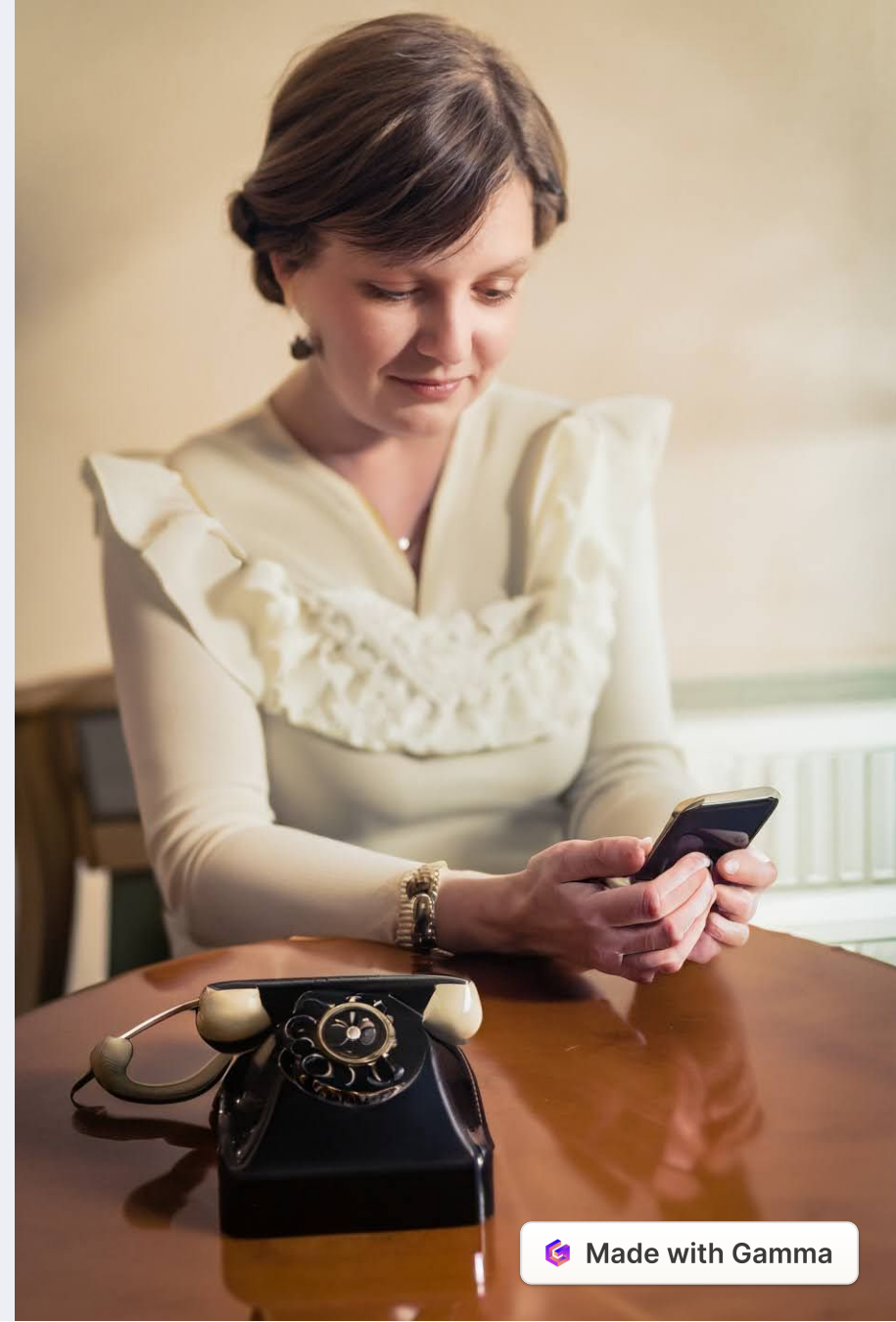
- Content filters
- User feedback helps add more guardrails

# What is "generative AI?"

AI that can generate new content:

- text
- images
- video
- music
- speech

 *This image was generated with Adobe Firefly.*



**It's important to know the difference  
between generative AI & other types of AI.**



# Discriminative AI

Classify or recognize patterns in existing data.

## Examples

- Gmail's spam filtering
- Facebook recognizing people to tag in photos
- YouTube video recommendations



# Generative AI

Creates new content based on learned patterns from existing data.

## Examples

- ChatGPT, Bing Chat
- MidJourney, Stable Diffusion
- Eleven Labs

**Today we'll focus on text generation with ChatGPT and similar tools.**

 *Image generated with MidJourney*



# Who created ChatGPT?

- Founded in 2015.
- **CEO is Sam Altman**
- Microsoft invested \$\$\$
- [Open AI's vision](#)



# ChatGPT is not the only LLM



## [ChatGPT](#)

### **Open AI**

Free, built on GPT-3.5  
Not connected to the Internet



## [ChatGPT Plus](#)

\$20/mo, built on GPT-4  
[Enterprise version](#) for large businesses  
Small business version coming later



## [Bing Chat](#)

### **Microsoft**

Free, built on GPT-4 (with Creative mode)  
Connected to the Internet



## [Bard](#)

### **Google**

Free, built on [PaLM 2](#)  
Connected to the Internet



## [Claude](#)

### **Anthropic**

Free, built on their own model  
Not connected to the Internet  
Focused on [reliability and safety](#).

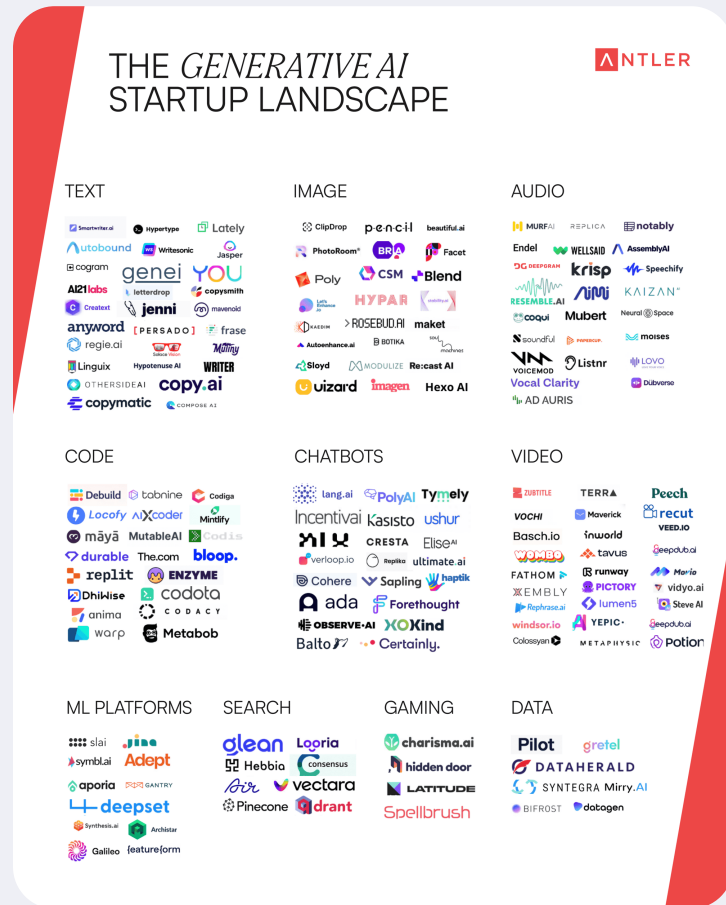


## [Perplexity AI](#)

### **Perplexity**

Free, uses GPT-3.5 (free version), Pro version uses GPT-4  
Connected to the Internet  
**You can use the free version without creating an account.**

# And many, many tools based on these



A search engine for genAI tools: [Futurepedia](#)





Alpaca



Falcon



Vicuna



Llama

## There are also open source LLMs

### ▼ BLOOM

With its 176 billion parameters, [BLOOM](#) is able to generate text in **46 natural languages** and 13 programming languages. A research group received a grant to build it using the French government's supercomputer.

### ▼ Alpaca

From [Stanford University](#). The researchers were able to train LLaMA to give similar outputs to OpenAI's model. The model had a **training cost of only \$600** — far less than the millions of dollars it takes to train these models. It's for **academic use only** (commercial use is prohibited).

### ▼ Falcon

[Falcon](#) was Founded and built by the Technology Innovation Institute (TII), a company that is part of the Abu Dhabi Government's Advanced Technology Research Council. This model is multilingual, understanding English, German, Spanish and French, and Dutch, Italian, Romanian, Portuguese, Czech, Polish and Swedish. [Learn more](#).

### ▼ Llama2

[Llama2](#) is Meta's open source large language model (LLM). It's basically their response to OpenAI's GPT models and Google's AI models — but with one key difference: it's freely available for almost anyone to use for research and commercial purposes.


These are just a few of them.



# Using ChatGPT Effectively

# Why might you want use ChatGPT?

- To help you **understand what your students** are doing with it.
- To help you **generate ideas for teaching and learning** activities.

 Examples

"Explain quantum computing in simple terms" →

# How to sign up


<https://chat.openai.com>, verify your email

Enter your name and birth date. Verify your phone (mobile only) - they'll text you a code.




# They remind you that...

**1** It's a free research preview, so might have incorrect info.

 And may contain biased info.

**2** They review some of your inputs to improve the model.

 They remind you: don't share sensitive info.

**3** They welcome feedback.

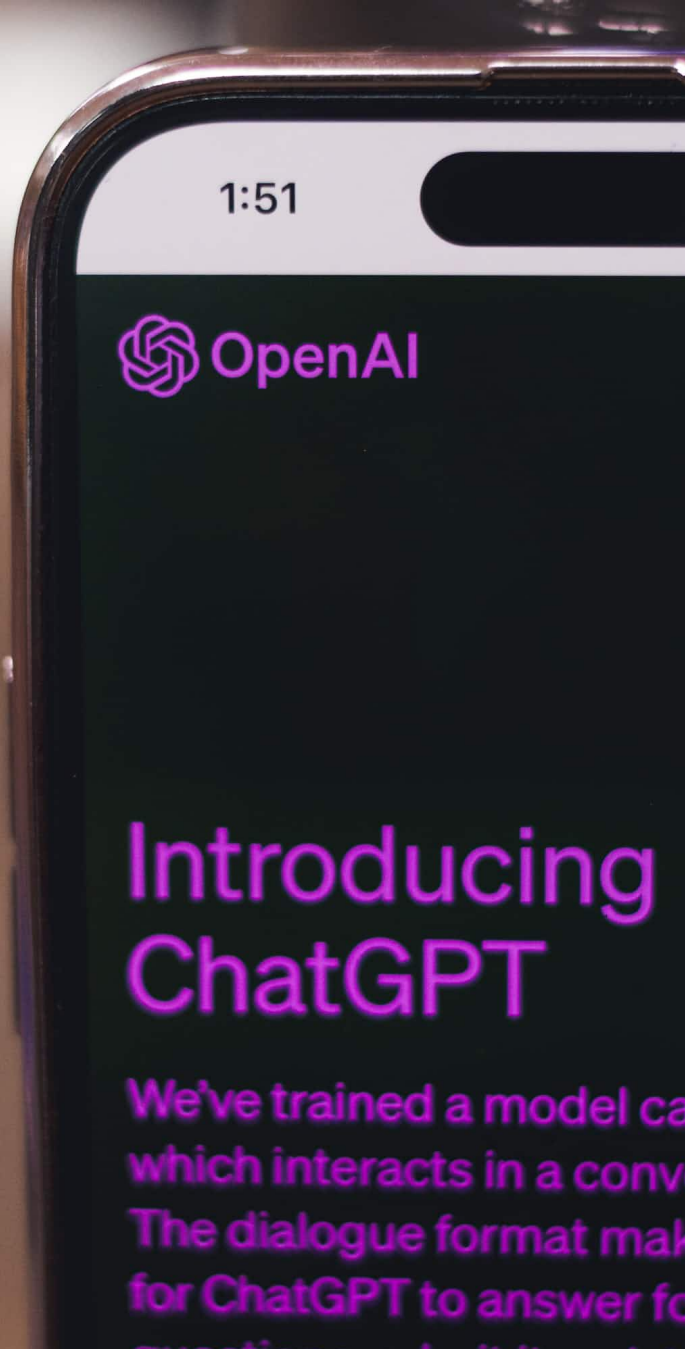


Thumbs up or down, add comments.



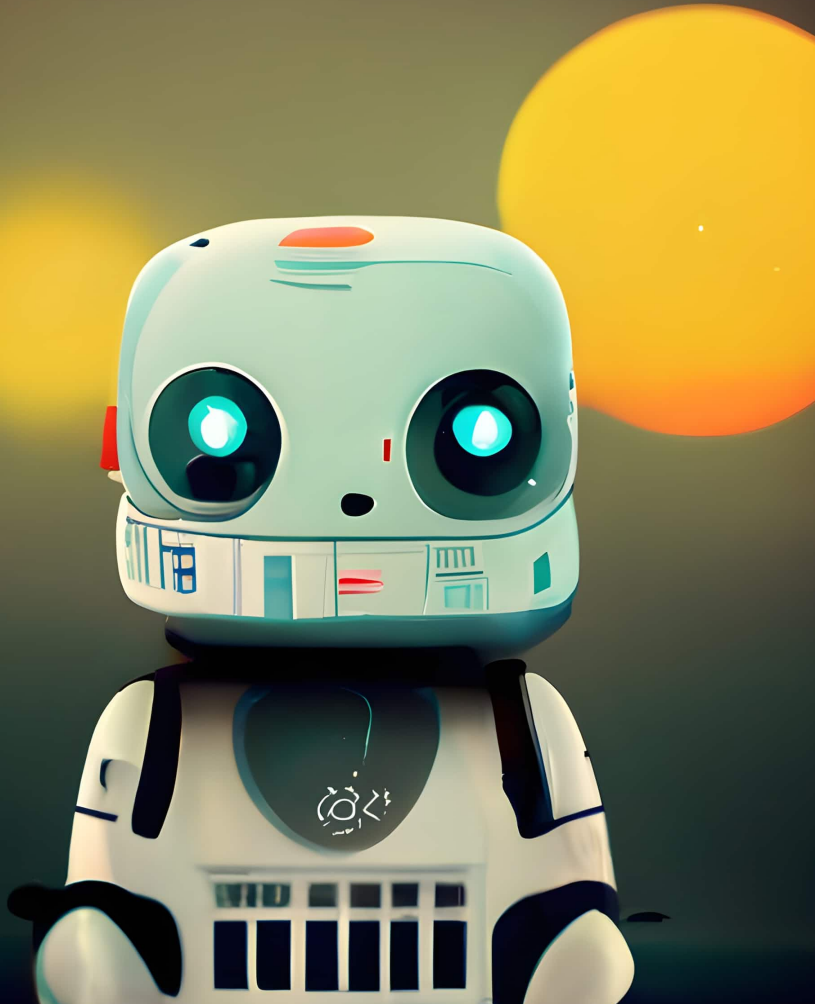
# People make this mistake

You ask a question, you don't like the answer, you leave.



# It's worth learning about prompting

Prompting: how you talk with it



## Think of ChatGPT as your personal intern.

They are new and don't know you well.

They are pretty smart, but they need you to give them a role and specific instructions.

# Start with tasks you know a lot about.

You can guide them since you know about this topic.



# Prompting advice

**1** Give it a role to play or some context.

**2** Give it detailed instructions, including format.

**3** Keep conversing: ask for changes

# 1. Give it a role to play or a context.

## **Role**

“Act as an expert community organizer.”

“Act as a high school biology teacher.”

“Act as an academic librarian.”

## **Context**

"Use Mike Caulfield's ideas for how to be an effective fact-checker. Now create a lesson plan for college freshmen to ...."

## 2. Give it step-by-step instructions, including format.

### Prompt:

Act as an instructional designer. Please make an outline of important topics to cover for a classroom workshop on ChatGPT. This will be part of a series of instruction sessions about information literacy. You have already worked with this class on the basic concepts of information literacy. **Create the outline as a bulleted list** and follow it with a classroom activity based on one of the topics you've listed.

### **3. Don't expect the perfect answer right away.**

Ask for changes, clarifications, or improvements. Tell it exactly what you want and what format you'd like it in.



# Result

## Outline + an activity about ethical concerns



### Outline:



#### I. Introduction to ChatGPT

- Definition of ChatGPT
- Brief history and development of ChatGPT
- Importance of ChatGPT in today's society

#### II. How ChatGPT works

- Explanation of the GPT-3.5 architecture
- Overview of the training process and data sources
- Demonstration of ChatGPT in action

#### III. Ethical and social considerations

- Bias and fairness in ChatGPT's output
- Privacy concerns related to personal information
- Potential impact on employment and job displacement

#### IV. Evaluating ChatGPT's information

- Limitations of ChatGPT's knowledge and accuracy
- Importance of verifying information from ChatGPT with other sources
- Discussion of potential consequences of relying solely on ChatGPT for information

#### V. Using ChatGPT responsibly

- Guidelines for using ChatGPT ethically and responsibly
- Tips for incorporating ChatGPT into research and writing
- Discussion of the importance of acknowledging ChatGPT's contributions in academic work

#### Classroom activity:

One topic that could be explored further in class is the ethical considerations of using ChatGPT. To explore this topic, students could be divided into groups and given a scenario in which they must use ChatGPT to gather information on a specific topic. Each group would then evaluate the information obtained from ChatGPT and discuss any ethical concerns that arise from their findings. For example, a scenario could involve using ChatGPT to gather information on a controversial topic, such as climate change or gun control, and the group would need to discuss the potential biases and limitations of the information provided by ChatGPT. This activity would allow students to practice critical thinking skills and consider the implications of relying on AI for information.

# Use the results as a starting point.

Use your own expertise to modify these. It's great for getting ideas. But you are the expert.

# Demo

<https://chat.openai.com/>

**I recommend using Chat GPT Plus (\$20/mo) or Bing Chat (free), since both use the more capable model GPT-4.**

## ▼ Prompts used

You are an expert instructional designer. Please help me create 2 active learning activities for college freshmen that help them learn to use ChatGPT effectively. Outcomes should be that they understand the need to fact check the output, and that they can prompt effectively.

Now create a series of online learning modules with the same outcomes, for the same audience. Each module should include an animated video (please write the transcript), a bulleted list containing 4 or 5 brief hints, and 3 multiple-choice quizzes that students can do to reinforce their knowledge. For the quizzes, each question should have only one correct answer.

- [Saved conversation](#)

# What about topics you don't know much about?

Encourage everyone to check ChatGPT's answers.



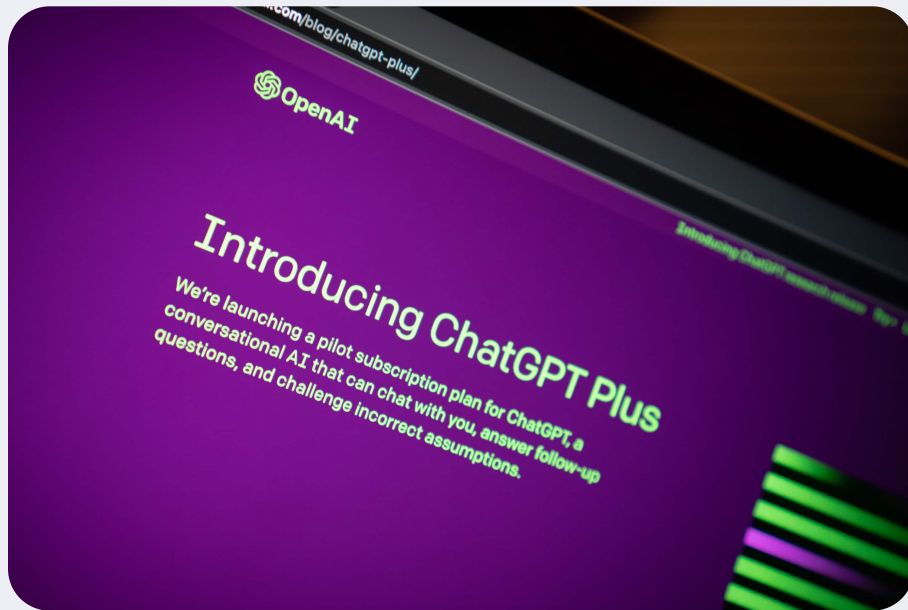
# Hallucination

Sometimes ChatGPT makes up answers. Why?

It works on the **probability** of what the next words should be, based on its training data. (ChatGPT was trained on data only up to mid-2021).

Some experts estimate that ChatGPT gets it wrong [about 20% of the time.](#)

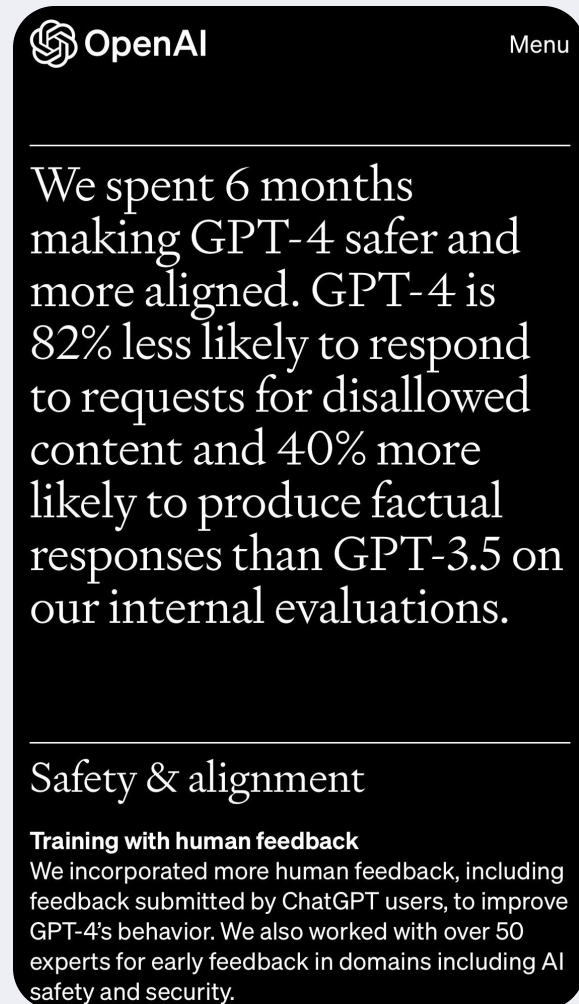
# It's improving, though



ChatGPT (free) runs on **GPT-3.5**

ChatGPT Plus (\$20/mo) runs on **GPT-4**

# GPT-4 (Plus version) hallucinates less and is more capable



40% more likely to produce factual responses than GPT 3.5 (free version)

# Hallucination can still happen, though

Encourage everyone to fact check.

Keep a "[human in the loop](#)."



4. "Engineering the climate: The ethics of solar radiation management" by Toby Svoboda, Environmental Ethics (2011).
5. "Geoengineering and the myth of unilateralism: Pressures and prospects for international cooperation" by Daniel Bodansky, Arizona Law Review (2010).

# Don't ask ChatGPT for a list of sources

[I can't find the citations that ChatGPT gave me. What should I do?](#)

UA Libraries FAQ

**Let's talk about what people use it for most effectively.**

# 1. Writing first drafts

- marketing materials
- cover letters for jobs
- grant proposals

Change level:

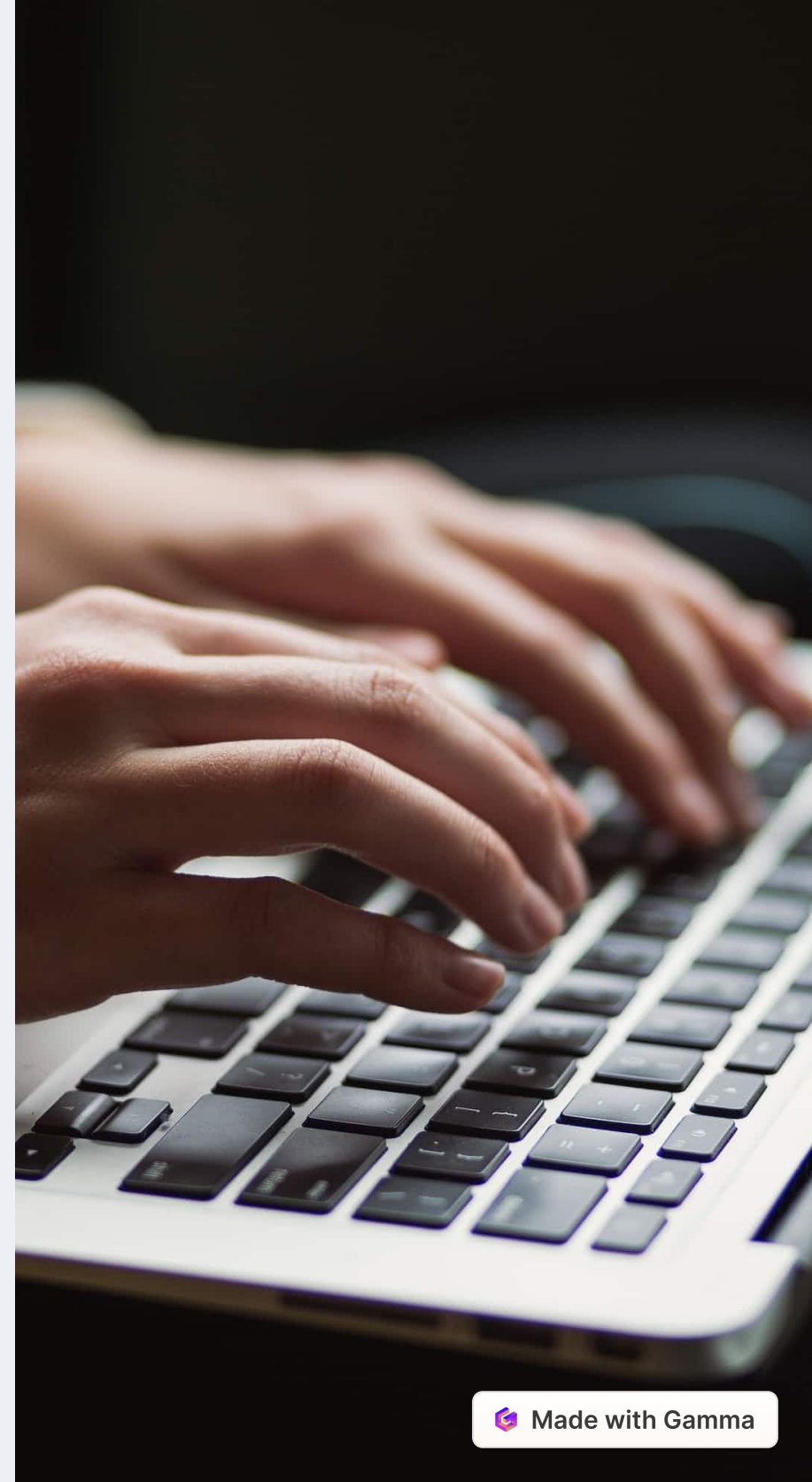
**Make it appropriate for:**

college freshmen, grad students, 8th graders

Change style:

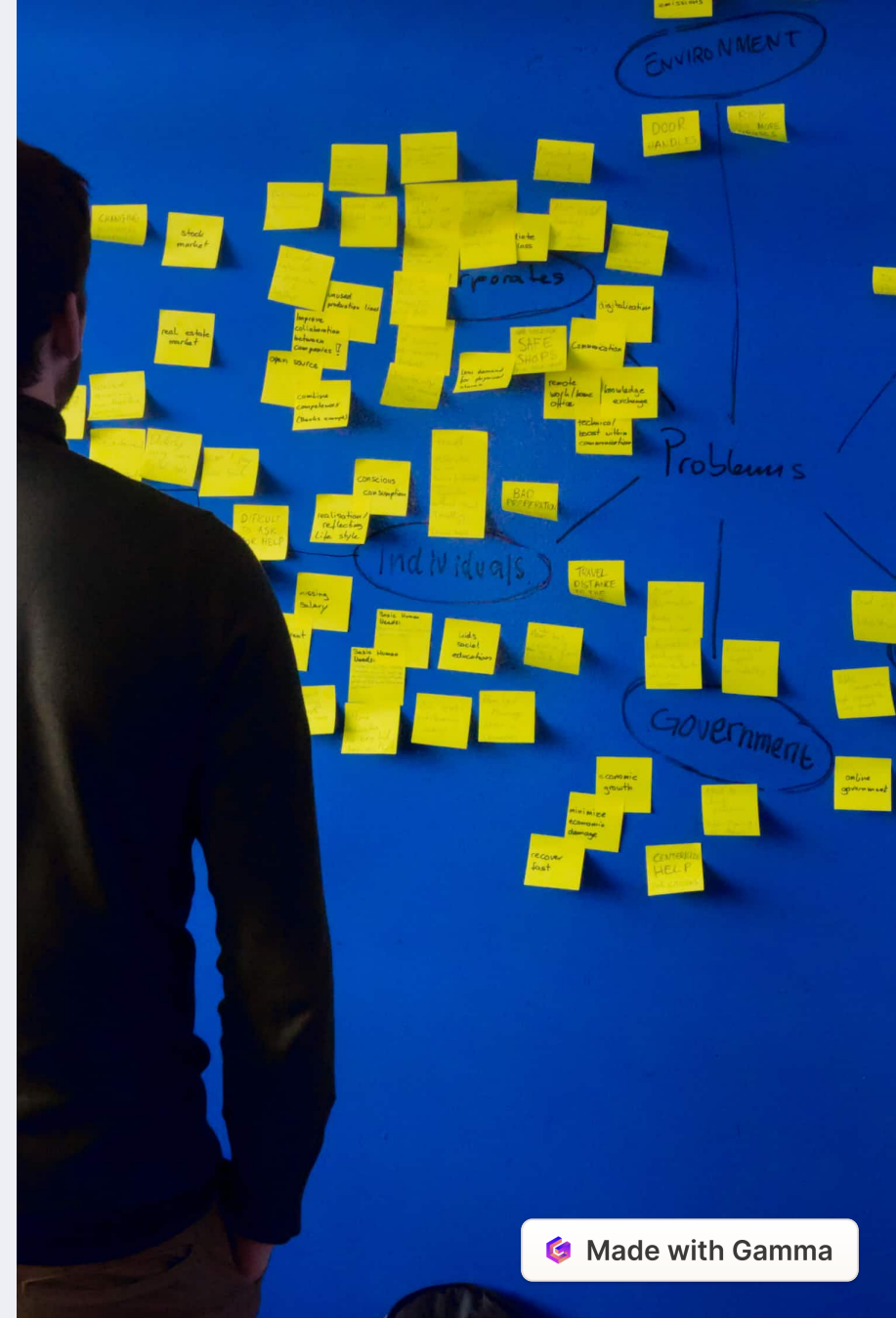
**Make it more:**

formal, persuasive, academic, descriptive, technical



## 2. Generating ideas

Ask ChatGPT to make a list of ideas for a topic.



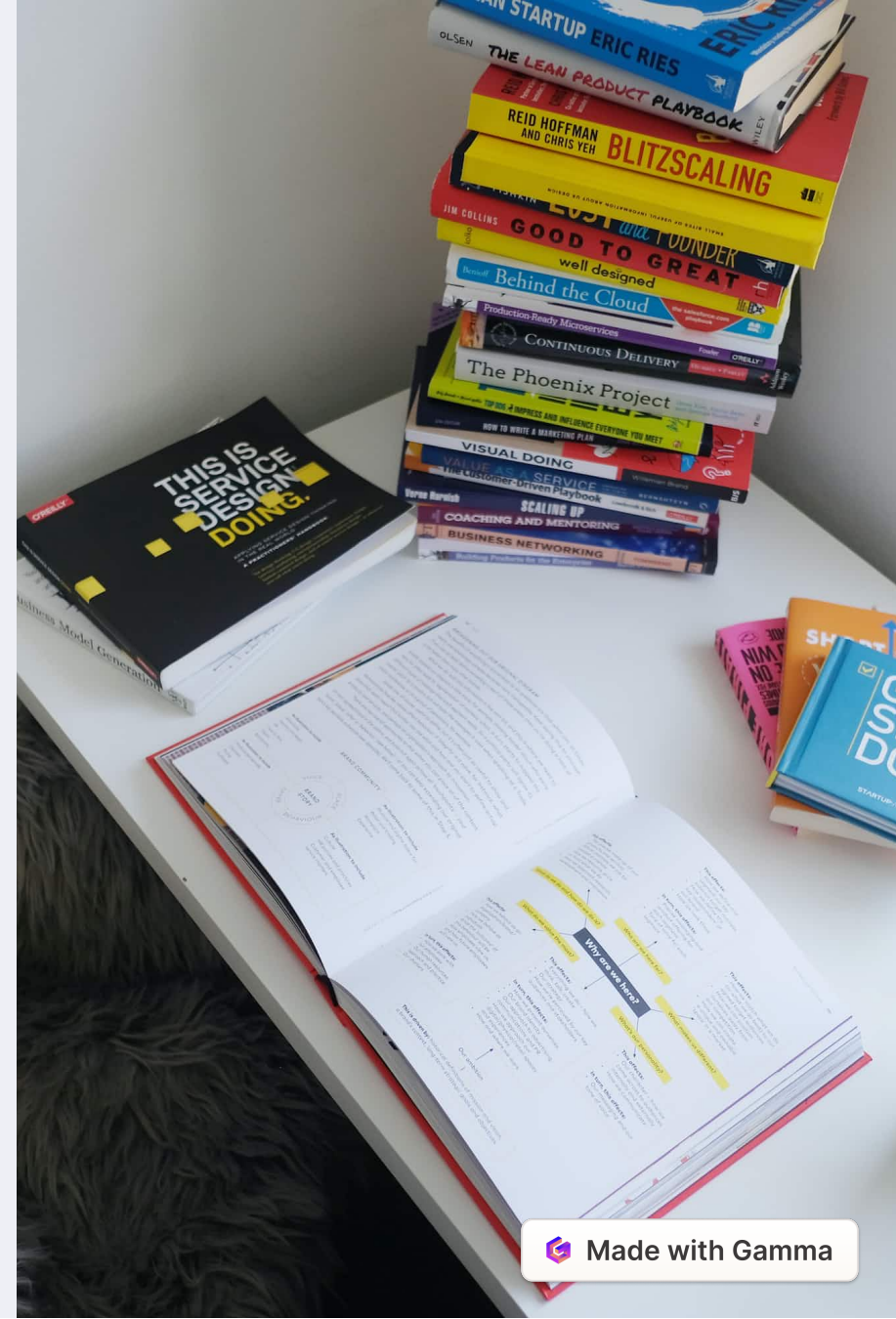


# 3. Learning and studying

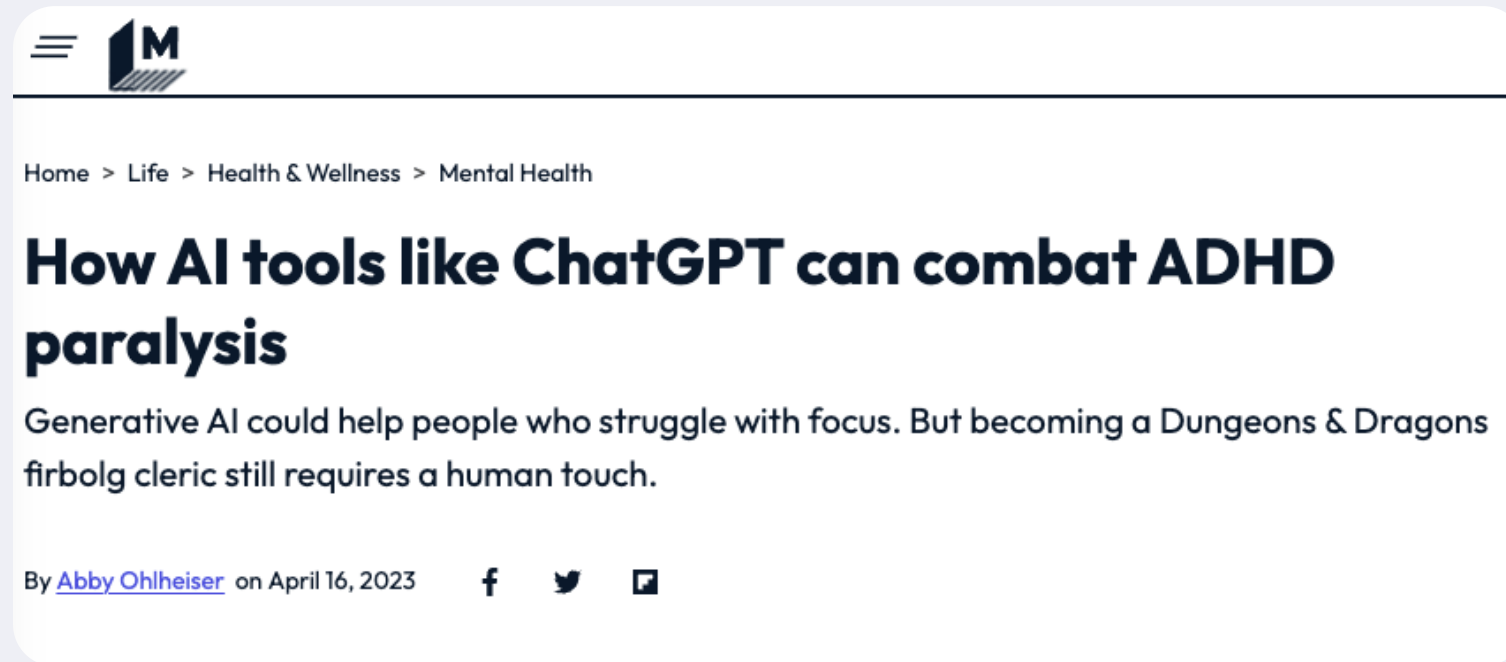
Come across something that's hard to understand?

- explain it like I'm in high school
- explain it like I'm 5

Ask for analogies, definitions, synonyms, or an outline.



# People with ADHD find it useful



The screenshot shows a Medium article snippet. At the top left is the Medium logo (three horizontal lines and a stylized 'M'). Below it is a breadcrumb trail: "Home > Life > Health & Wellness > Mental Health". The main title of the article is "How AI tools like ChatGPT can combat ADHD paralysis". Below the title is a short paragraph: "Generative AI could help people who struggle with focus. But becoming a Dungeons & Dragons firbolg cleric still requires a human touch." At the bottom of the snippet, it says "By [Abby Ohlheiser](#) on April 16, 2023" followed by icons for Facebook, Twitter, and LinkedIn.

Helps people who struggle with focus. [Helps organize facts and stay focused.](#)

## It's useful for neurodiverse people

**AI is non-judgmental, and you can ask a million questions without fear of being judged.**

Furthermore, it can explain complex concepts in small achievable chunks of information, synthesising and condensing information at a pace that suits the learner.

-Simon da Roza, founder of [Xceptional Learners](#)



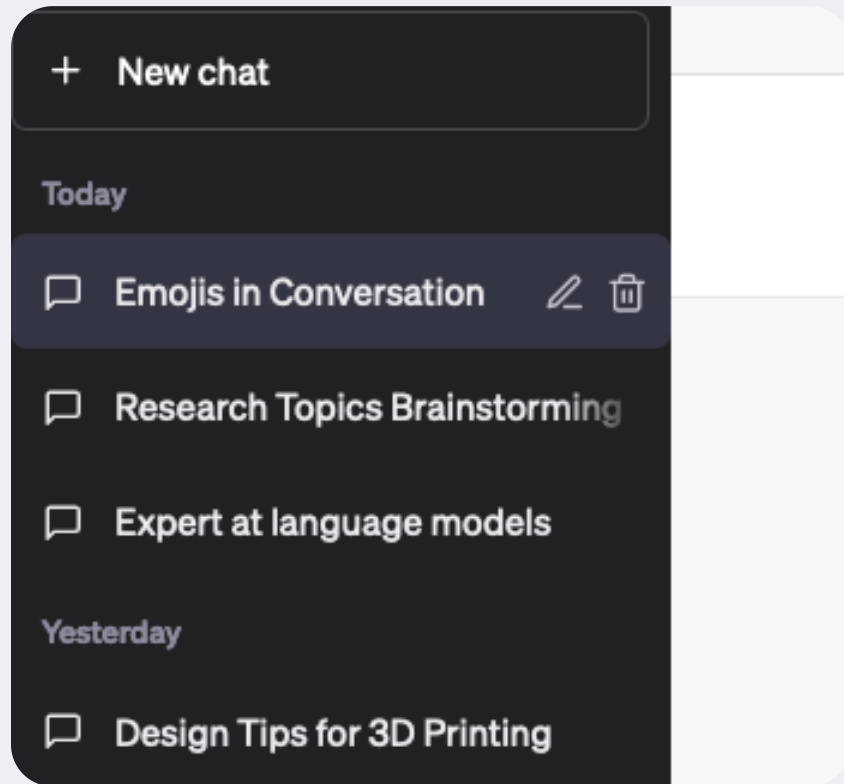
## 4. Summarizing

- You are an expert biology teacher. Here is a transcript from a video lecture about photosynthesis. I'd like you to summarize it briefly, listing the most important points. Write in simple, straightforward language.



**A few tips**

# Start a new chat for each topic.



**New chat** in sidebar.

- Sometimes gets confused if you change topics in one conversation.
- It remembers within a conversation, not between.



# You can share the result of a chat with others

Use the share on top right of your conversation.



See [ChatGPT Shared Links FAQ](#).

(It doesn't include your name unless you decide to include it).

Useful when collaborating with your colleagues.

[Here's a shared link.](#)

This link is useful when citing a conversation.

# Choose an output format

- a table
- a bulleted list
- ascii art
- multiple choice quiz questions
- emojis  
(Avatar: The Way of Water)



You are an expert in population studies. Please create a table that lists the top 10 most populous cities in the world. First column will contain the city name, second column the population.



Sure! Here is a table that lists the top 10 most populous cities in the world as of 2021:



City	Population (2021)
Tokyo, Japan	37,393,000
Delhi, India	30,291,000
Shanghai, China	27,058,000
São Paulo, Brazil	22,043,000
Mumbai, India	21,042,000
Beijing, China	20,384,000
Karachi, Pakistan	20,026,000
Istanbul, Turkey	15,190,000
Dhaka, Bangladesh	14,543,000
Moscow, Russia	13,197,000

# Review your chat history

The screenshot displays the ChatGPT Plus interface. On the left is a dark sidebar with a 'New chat' button at the top. Below it, chat history is organized into 'Today' and 'Previous 7 Days' sections. The 'Today' section includes 'Book Ban Solution', 'AI Impact on Academic Librarie', and 'Fact-Checking AI: Self-Study Ac'. The 'Previous 7 Days' section includes 'Caufield's fact checking method', 'AI Impact on Academic Librarie', 'ChatGPT: ML & DL Example', 'Research Topic Bot', 'ChatGPT Scavenger Hunt', 'Geoengineering Sources', 'New chat', and 'YouTube's Content Moderation'. On the right, a model selection dropdown is open, showing 'Model' and 'Web Browsing (GPT-4) ALPHA'. The main area is mostly blank, with the 'ChatGPT PLUS' logo centered at the bottom.

+ New chat

Today

- Book Ban Solution
- AI Impact on Academic Librarie
- Fact-Checking AI: Self-Study Ac

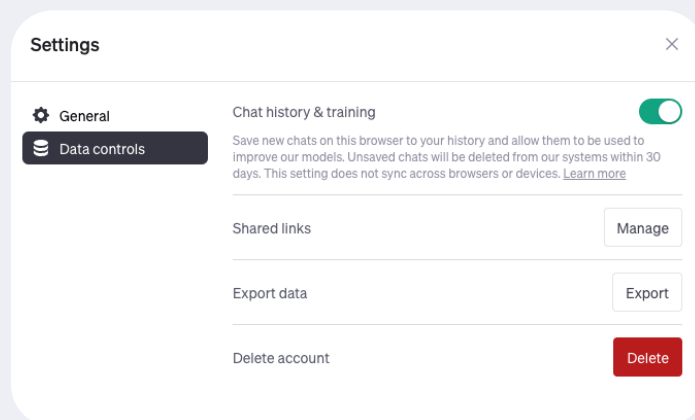
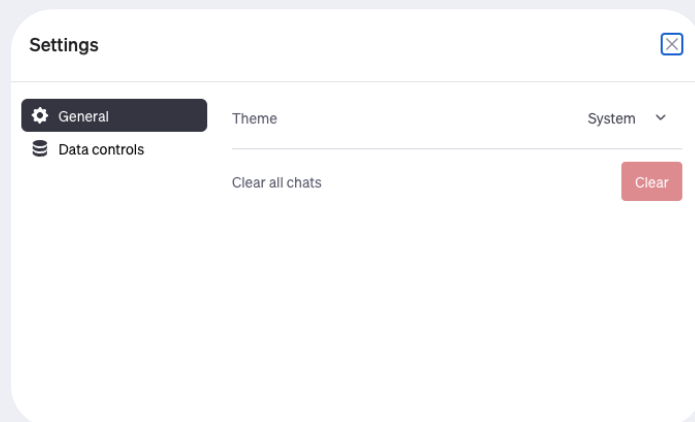
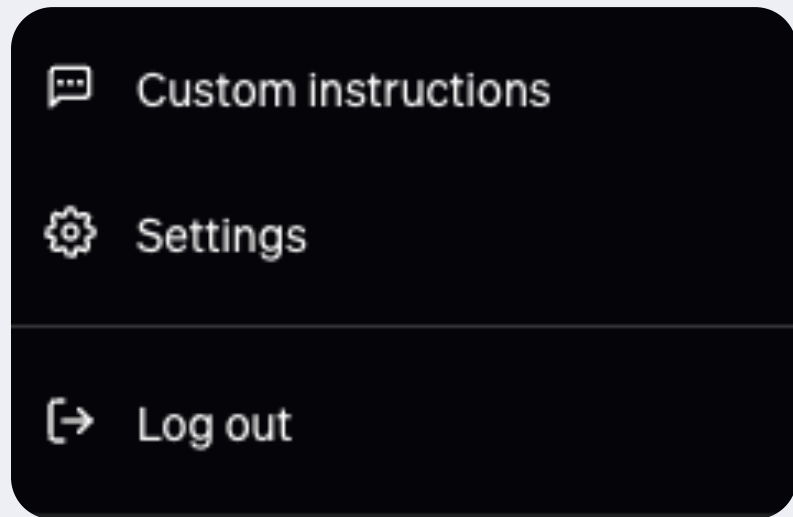
Previous 7 Days

- Caufield's fact checking method
- AI Impact on Academic Librarie
- ChatGPT: ML & DL Example
- Research Topic Bot
- ChatGPT Scavenger Hunt
- Geoengineering Sources
- New chat
- YouTube's Content Moderation

Model  
Web Browsing (GPT-4) ALPHA

ChatGPT PLUS

# You can delete or turn off history



- Use the settings: bottom left column, near your name.
- You can delete your chat history ("clear conversations")
- [Turn off future chat history](#) (this also turns off training)
- You can **export your data**.

# You can go crazy with prompts!

[the "several experts" prompt]

- I want you to split into several expert **librarians**. The first librarian will describe a problem happening in their community with **people who want to ban certain books**. The other librarians will work together and try to find a solution. Use as many librarians as you want. Assign a random special expertise to each **librarian**. Let them vote on the best solution and have the winner present it to me.

([saved conversation](#), replacing the expert with writing instructors, and the problem with students using ChatGPT to write their papers)



# Using ChatGPT to help with library research



## Generate topics for your research paper with ChatGPT

ChatGPT can be a useful tool when it comes to deciding what your topic should be for a research paper.

It's **not** good for doing the actual searching because **it makes up sources**. See [I can't find the citations that ChatGPT gave me. What should I do?](#)

But you *can* use it to help you:

- Narrow down your topic ideas.
- Come up with keywords for searching in library databases.
- Construct a search strategy for those databases.
- Recommend possible library databases to use for your topic.

Here's how.

1. Sign up for a free account on ChatGPT (if you haven't already). Or go to <https://chat.openai.com> and log in to your account.

[Download](#) the Google Doc.

# If you want to learn more about prompting:

Free course: <https://learnprompting.org>

There is a lot more to learn. Best way to learn is to keep experimenting.



# What about search?

People want to use ChatGPT as a Google replacement.

You get answers directly, instead of 10 blue links.

# Bing chat

Based on **GPT-4** (more capable than GPT3.5)

Internet connected: tells you where it got the information, with **links to sources**. This helps you **verify the answers**.

Sign up at <https://bing.com/new>

# Bing Chat

Let's learn together. Bing is powered by AI that can understand and generate text and images, so surprises and mistakes are possible. Make sure to check the facts, and [share feedback](#) so we can learn and improve!

[Terms](#) | [Privacy](#)

Choose a conversation style

More  
Creative

More  
Balanced

More  
Precise

 New topic

Ask me anything...



0/4000





# Example

What are some of the latest studies about using AI to understand animal communication?

## Bing chat

What are some of the latest studies about how animals communicate?

✓ Searching for: **latest studies animal communication**

✓ Generating answers for you...

There are many fascinating studies about how animals communicate with each other and with humans. For example, scientists are using **machine-learning algorithms** to analyze the vocalizations of **naked mole rats, fruit bats, crows** and **whales** and to try to translate them <sup>1</sup>. They have discovered that naked mole rats have **distinct dialects** that change with social dynamics <sup>1</sup>, fruit bats have **context-specific calls** that convey their intentions <sup>1</sup>, crows have **individual signatures** that they use to identify themselves <sup>1</sup>, and whales have **complex syntax** that may encode information about their environment <sup>1</sup>.

Other studies have explored how animals use **statistical information** to make decisions, such as giraffes choosing the best patch of food based on the density and distribution of trees <sup>2</sup>, how animal cognition is structured by **stable abilities** and predicted by **developmental conditions**, such as great apes showing consistent differences in memory, inhibition and communication skills <sup>3</sup>, and how animals adapt to different environments, such as marine worms living in shallow waters despite being typically found in deep-sea habitats <sup>4</sup>.

These studies show that animal communication is far more complex than it sounds to the human ear, and that we can learn a lot from listening to them.

Learn more: [1. nytimes.com](#) [2. nature.com](#) [3. weforum.org](#) [4. theguardian.com](#) [+1 more](#) 1 of 20 ●

? Which animal do you think has the most sophisticated language? How can we use AI to communicate back to animals?

**Look for the share, export and copy buttons, upper right of each response.**

Share

👍 👎 📄 ⬇️ ↻ 📄

# A similar tool: Perplexity.ai

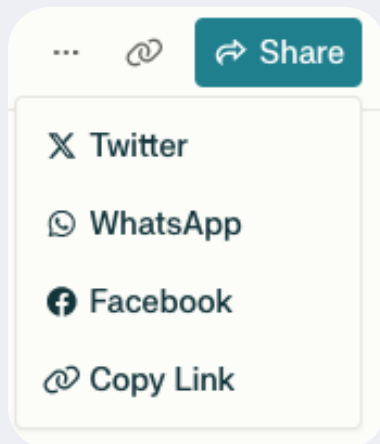
## [Perplexity.ai](https://perplexity.ai)

Based on the same model: [GPT-4](#)

Links to sources.

**No sign-up required.**

- "view sources" - **you can eliminate a source (good for removing unreliable websites)**  
It will repeat without that source.
- share button - top right corner (shares your whole conversation, not just one answer)



# Internet-connected tools make it less likely to hallucinate.

It's called "[grounding](#)."

# Which models connect to the Internet?

- ChatGPT Plus (\$20/mo)
- Bing Chat
- Perplexity.ai
- Google's Bard

## Which don't? (yet)

- ChatGPT (free)
- Claude from Anthropic

**This is changing - at some point maybe all of them will connect to the internet.**

# Are there tools that detect AI generated writing?

Yes, but they are very unreliable.

- [GPTZero](#)
- [AI Writing Check](#)
- [AI classifier](#) - from Open AI - "As of July 20, 2023, the AI classifier is no longer available due to its low rate of accuracy."
- [Turnitin](#) (new feature) - **D2L at UA has turned it off.**



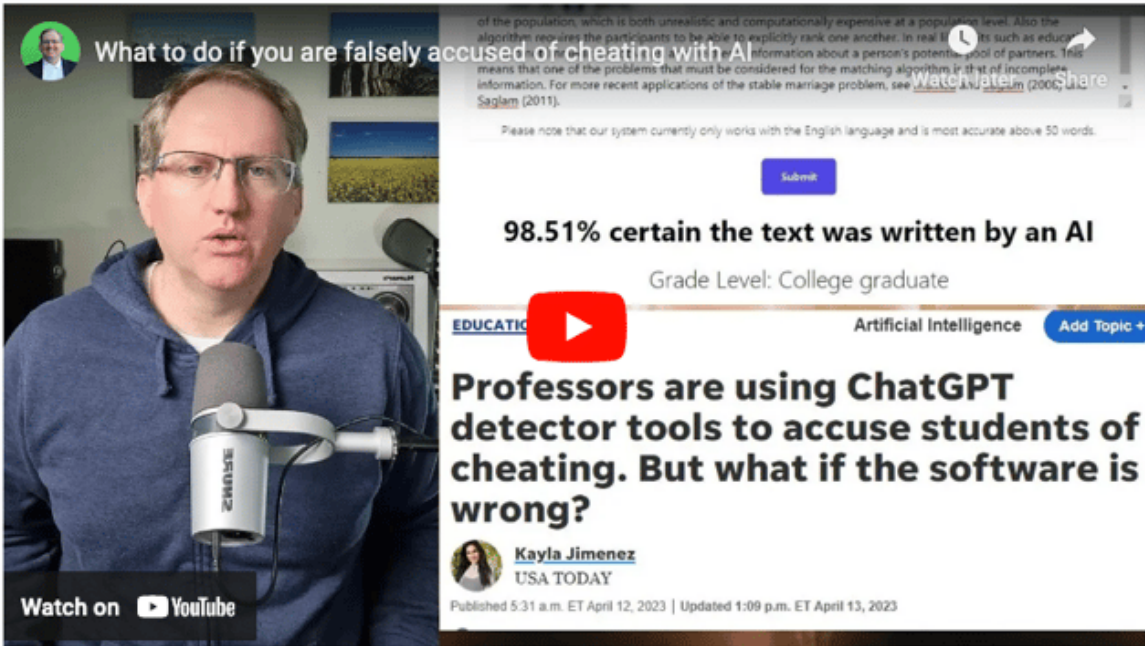
Tips are shared everywhere about how to get around these tools.



# And there are false positives

**What To Do If You Are Falsely Accused of Cheating with AI**

ADMIN / MAY 7, 2023 / AI, EDUCATION



of the population, which is both unrealistic and computationally expensive at a population level. Also the algorithm requires the participants to be able to explicitly rank one another. In real life, its such as education information about a person's potential pool of partners. This means that one of the problems that must be considered for the matching algorithm is that of incomplete information. For more recent applications of the stable marriage problem, see [Kleinberg and Shubert \(2000\)](#) and [Saglam \(2011\)](#).

Please note that our system currently only works with the English language and is most accurate above 50 words.


Submit

**98.51% certain the text was written by an AI**

Grade Level: College graduate

EDUCATION Artificial Intelligence Add Topic +

**Professors are using ChatGPT detector tools to accuse students of cheating. But what if the software is wrong?**

 **Kayla Jimenez**  
USA TODAY

Published 5:31 a.m. ET April 12, 2023 | Updated 1:09 p.m. ET April 13, 2023

Watch on YouTube

[What to do if you are falsely accused](#)

[GPT detectors are biased against non-native English writers](#)

# Many academics are recommending against these

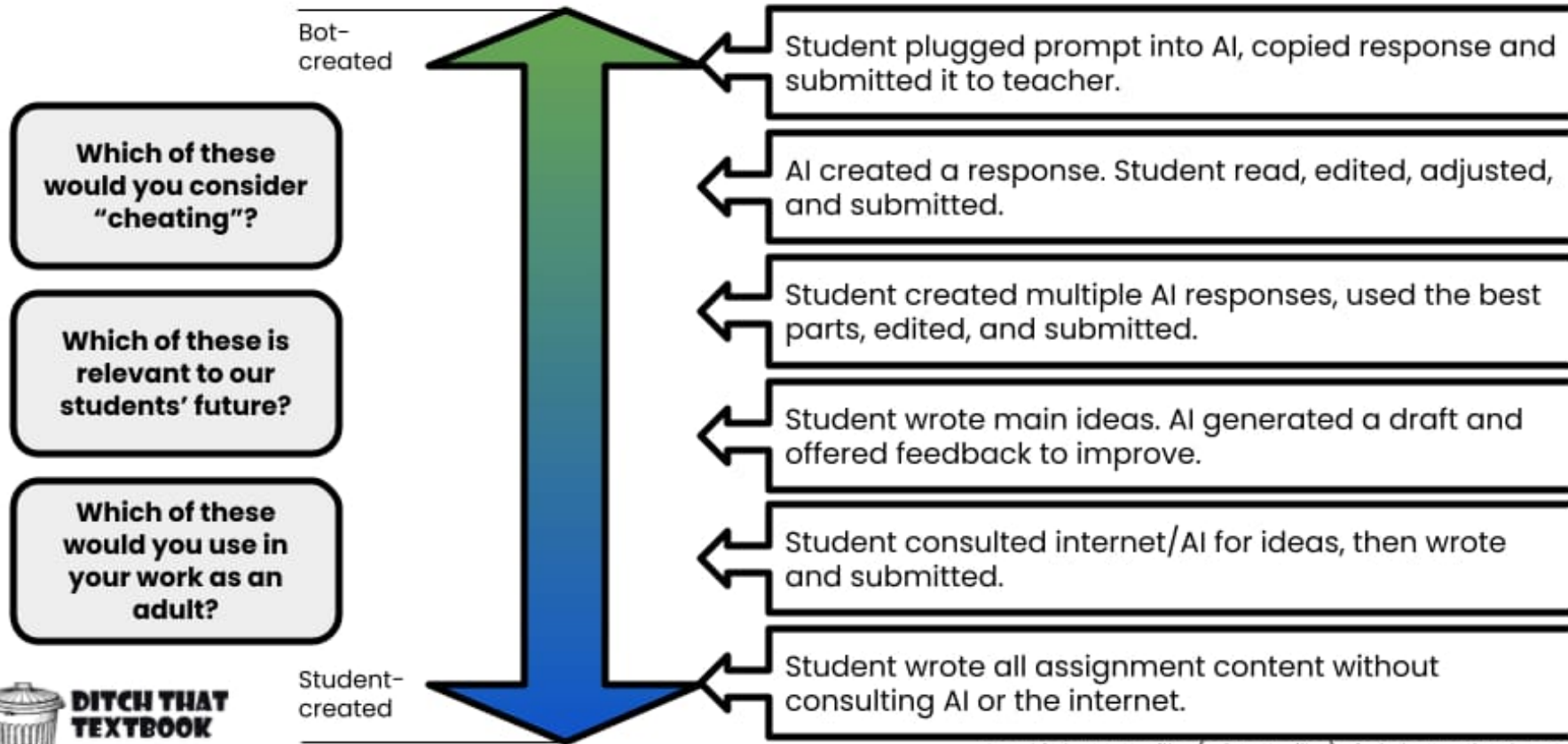
[Vanderbilt University](#)

## Guidance on AI Detection and Why We're Disabling Turnitin's AI Detector

---

Posted by [Michael Coley](#) on Wednesday, August 16, 2023 in [Announcements](#), [News](#).

# It's time to rethink "plagiarism" and "cheating"



Graphic by Matt Miller (@jmattmiller) DitchThatTextbook.com

Source: [Ditch That Textbook](https://ditchthattextbook.com)

# Banning it for a whole school or campus won't work. Generative AI is appearing in tools you already use.



Notion - transform text, automate simple tasks, and generate content



Slack - uses Claude from Anthropic



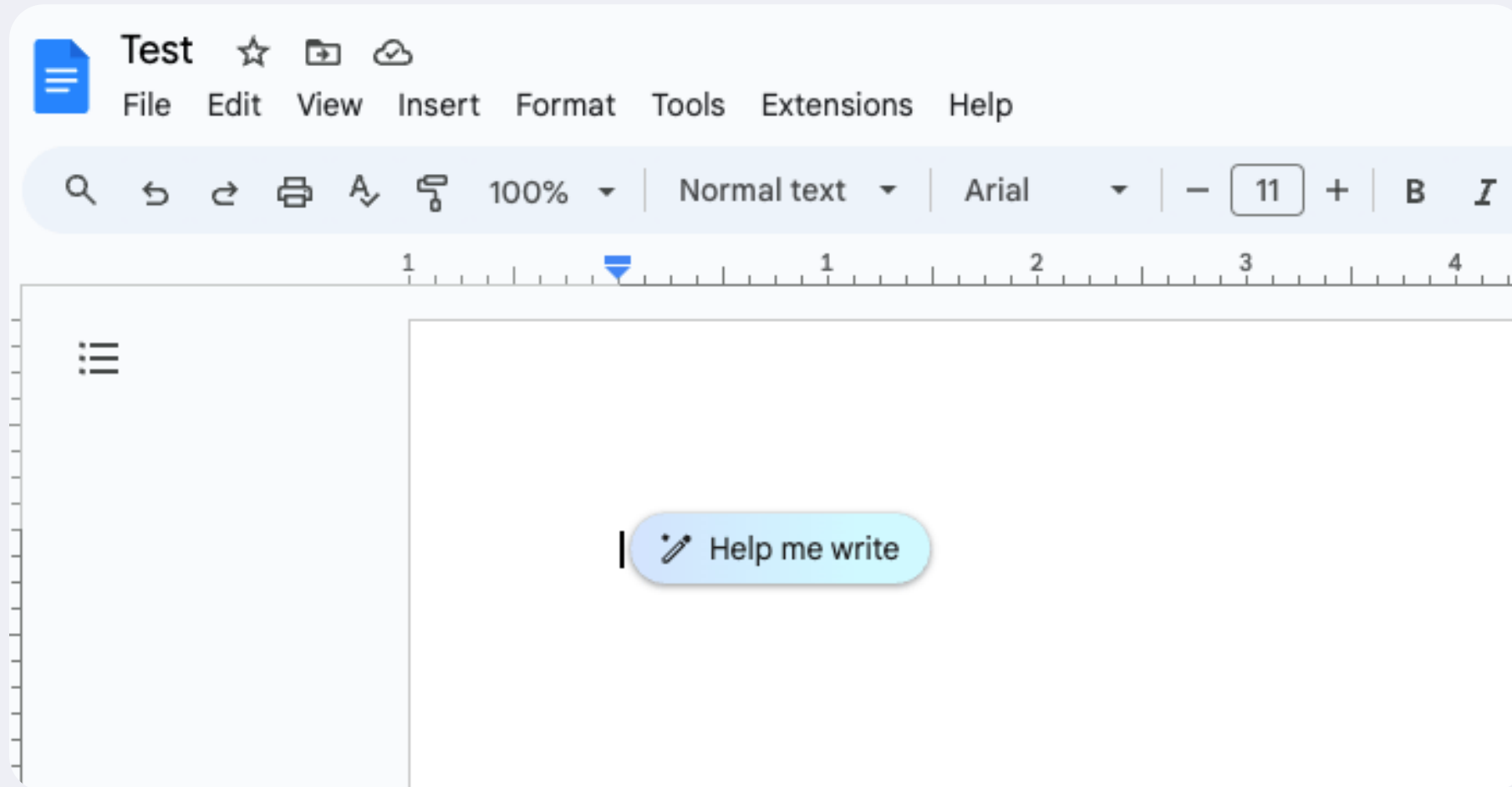
**Canva** - Magic Write (also has image generation)



Box - ask questions about what's in a document.

📌 Will be part of more Microsoft & Google products.

# AI in Google Docs





# Advice for instructors



# Syllabus guidance

1

## Guidelines for Syllabus Statements About Generative AI

August 2023 v 2.1.1

### I. Purpose of these Guidelines

The following guidance aims to help instructors thinking about the impact of generative artificial intelligence (AI) tools on teaching and learning. Specifically these guidelines suggest instructors:

- include a syllabus statement regarding use of AI tools;
- create transparent and productive learning environments by explicitly discussing appropriate, creative, and/or ethical AI use within a course, discipline, and/or profession; and
- prevent situations in which a student unintentionally engages in academic dishonesty while using AI tools.

The University of Arizona Catalog includes a list of required [syllabus policies](#), including The Code of Academic Integrity. The phrase “graded work/exercises must be the product of independent effort unless otherwise instructed” can be interpreted differently. Therefore, instructors should also include a statement specifically addressing course policy on the use of generative AI and discuss this policy with students. If applicable the syllabus should include information about the use of AI detection applications, because these involve sharing student-created work. Example syllabus statements are provided below.

## Templates

- Generative AI use is NOT allowed for any purpose.
- Generative AI use IS permitted or encouraged.
- Generative AI use is allowed for certain purposes/assignments, but not for others.

# Ideas from Ethan Mollick

[Ethan Mollick](#), a professor at the Wharton School of the University of Pennsylvania.

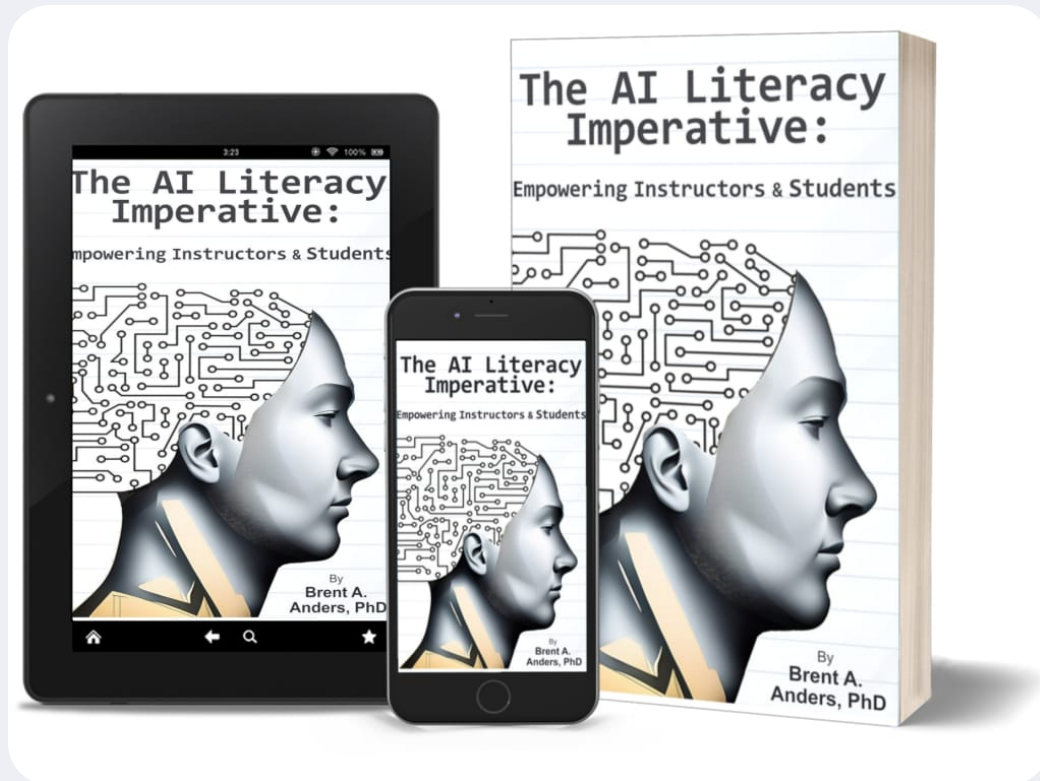
[My class required AI. Here's what I've learned so far.](#)

"... **teaching an AI to improve an essay is a pedagogical method that can produce new insights.** I would strongly suggest that you push students in this direction, if you intend to incorporate AI essays into your classes."

# Ideas from Brent Anders

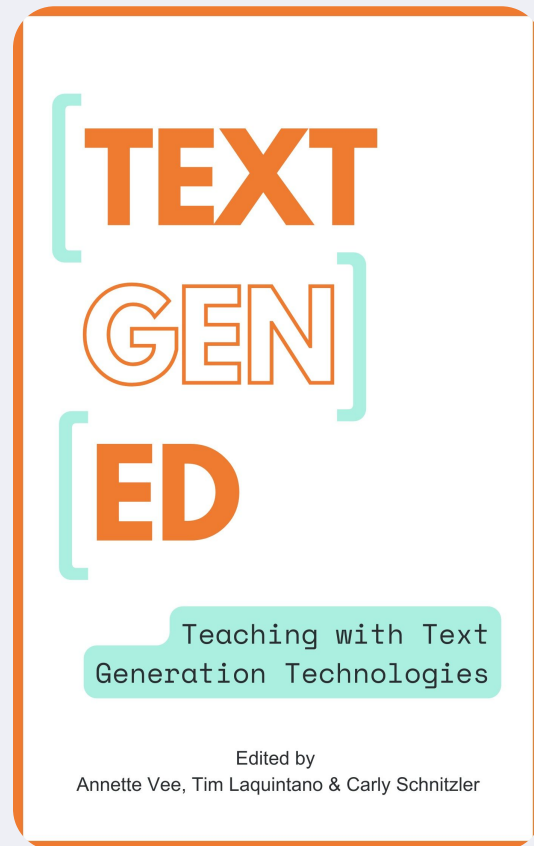
Follow **Brent Anders**, instructor at American Univ. of Armenia.

[Writing Assignments in the Age of AI](#)



# TextGenEd - collection of teaching ideas

by Tim Laquintano, Carly Schnitzler, and Annette Vee



## Teaching ideas with reflections from instructors

"All assignments include a description of how students responded along with reflections from the instructors."

<https://wac.colostate.edu/repository/collections/textgened/>

# Prompting can help "make thinking visible"

From [Higher Ed Discussions of AI Writing](#) (on Facebook)

Replies to **Sandra Metzger, Ed.D.**'s comment on this post



**Sandra Metzger, Ed.D.** (She/Her) • 2nd 47m ...  
Innovative, human-centered leader with hands...

Excellent point.  
I think this also applies to how the process of prompting can be a good way for students to "make their thinking visible" and for teachers to function as thinking guides.

Like • 3 | Reply • 2 replies



**Leonard Rodm...** (He/Him) • 3rd+ 40m ...  
AI Evangelist | LMS Lead Admin at Impact...

If I were still teaching high schoolers, I'd make them write prompts as in class assessments, then run them!

Like • 1 | Reply



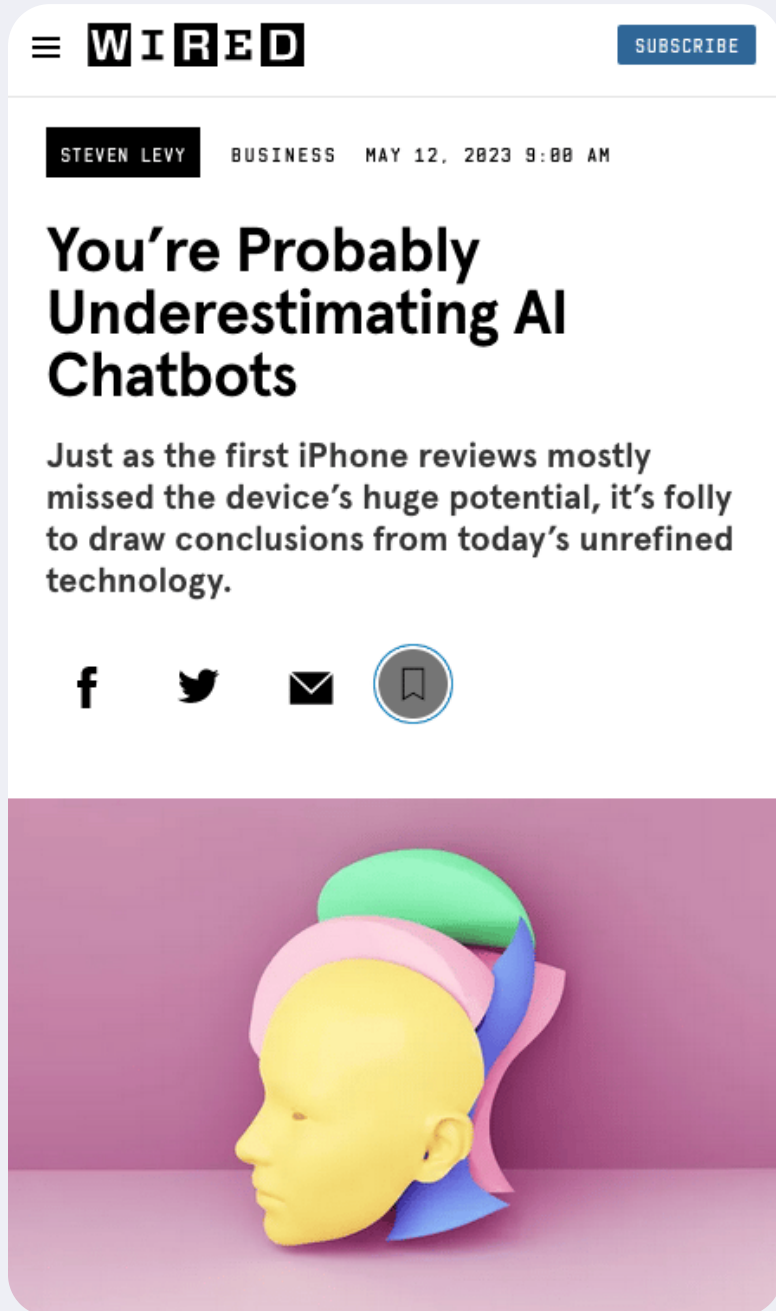
**Sandra Metzger...** (She/Her) • 2nd 38m ...  
Innovative, human-centered leader with h...

Exactly, [Leonard Rodman, M.Sc.](#)  
The back-and-forth dialogue of a prompt iteration is also highly useful as evidence of learning and thinking.

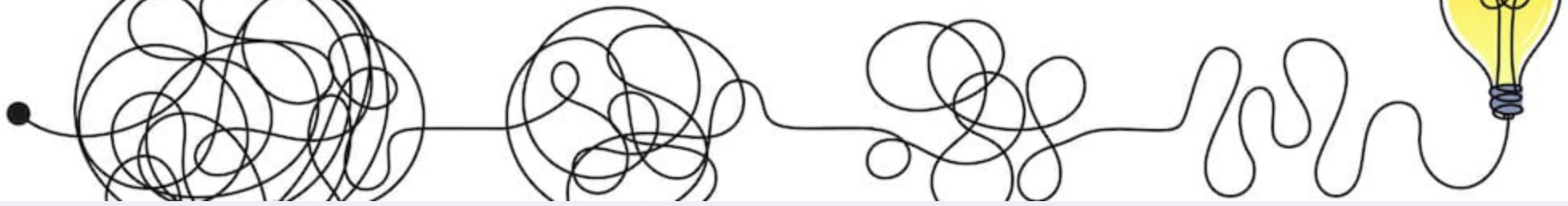
Like • 1 | Reply



# This is just the beginning



"...it's folly to draw definitive conclusions based on these early versions of the technology."



# Ethical issues

**Misinformation | Copyright | Bias**



# Misinformation

**Teaching fact-checking is more important than ever.**

# Progress toward making truthful systems

Grounding is an important concept in AI research. It is about connecting the model to **external sources of knowledge**.

- Elicit - answers from 175 million papers ("find relevant papers without perfect keyword match")
- Scite - see how research has been cited
- Consensus - evidence-based answers
- CORE-GPT - based on Core's collection of open access scientific papers

COPYRIGHT



# Copyright & intellectual property

- a. the **output** of generative AI (data you create using AI)
- b. the **input** of generative AI (training data)



# Output

Can you copyright something you made with AI? [Open AI says:](#)

## 14. Can I use output from ChatGPT for commercial uses?

- Subject to the [Content Policy](#) and [Terms](#), you own the output you create with ChatGPT, including the right to reprint, sell, and merchandise – regardless of whether output was generated through a free or paid plan.



# U.S. Copyright Office

The term “author” ... [excludes non-humans.](#)

But, if you **select or arrange AI-generated material in a sufficiently creative way...**

... In these cases, [copyright will only protect the human-authored aspects of the work.](#)

# Example

**The selection and arrangement of the text and images** they chose were accepted as being copyrightable. But **not the images themselves.** (they used MidJourney).



[Comic book "Zarya of the Dawn"](#)

# What about the input? (training data)

## **One position:**

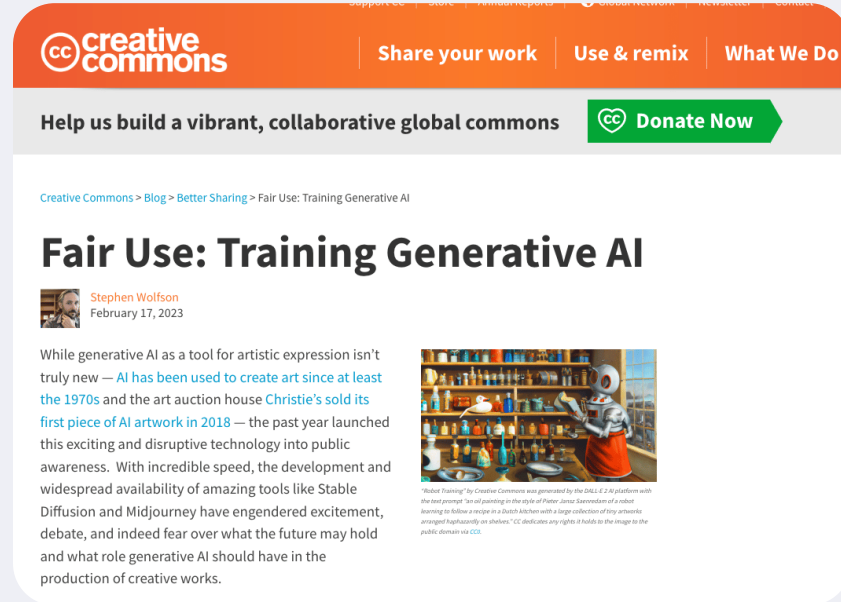
It's unlawful to use copyrighted material to train generative AI tools.  
(see [case from artists](#))

## **Another position:**

It's protected under Fair Use because it's transformative.

# What does Creative Commons say?

**It should be considered fair use**, as the purpose of copyright law is to encourage new creative works and benefit the public interest.

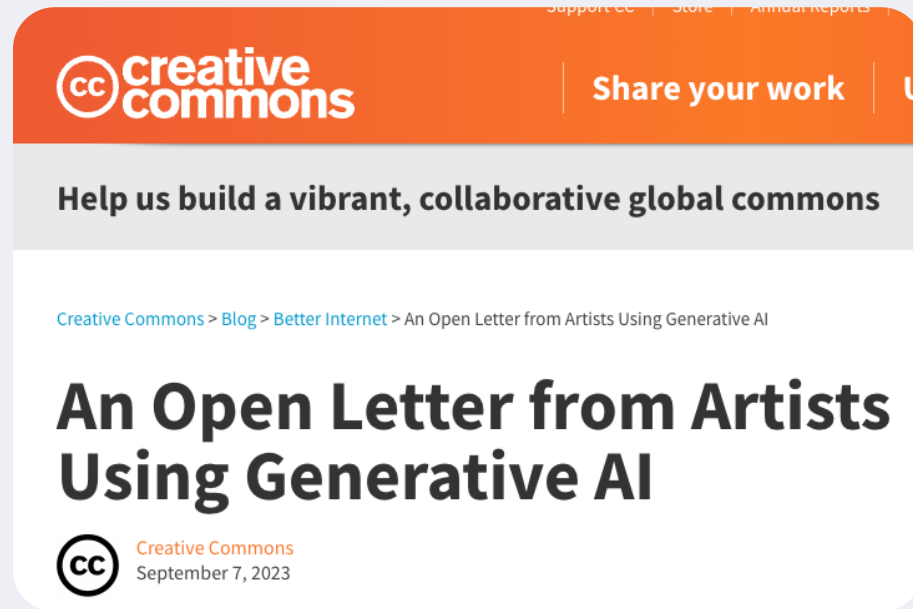


The screenshot shows the Creative Commons website header with navigation links: 'Share your work', 'Use & remix', and 'What We Do'. Below the header is a banner that says 'Help us build a vibrant, collaborative global commons' with a 'Donate Now' button. The main content area features the article title 'Fair Use: Training Generative AI' by Stephen Wolfson, published on February 17, 2023. The article text begins with: 'While generative AI as a tool for artistic expression isn't truly new — AI has been used to create art since at least the 1970s and the art auction house Christie's sold its first piece of AI artwork in 2018 — the past year launched this exciting and disruptive technology into public awareness. With incredible speed, the development and widespread availability of amazing tools like Stable Diffusion and Midjourney have engendered excitement, debate, and indeed fear over what the future may hold and what role generative AI should have in the production of creative works.' An image of a robot in a kitchen is visible in the article preview.

[Fair Use: Training Generative AI](#) - It's transformative use.

Read their [series of posts about copyright and AI](#).

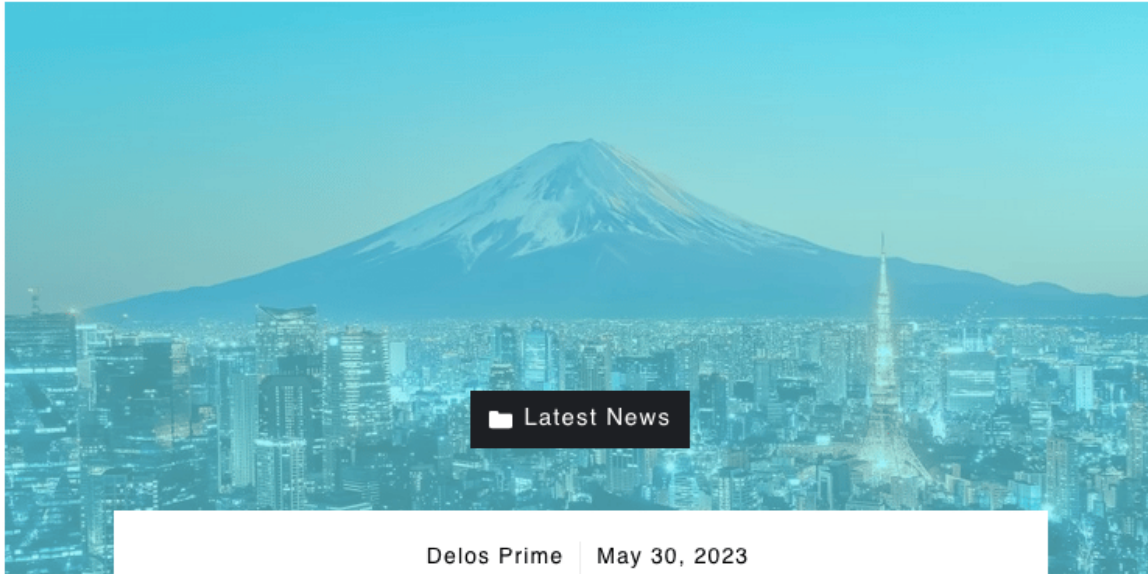
# Yes, there are artists in favor of generative AI tools



**"Just like previous innovations, these tools lower barriers in creating art—a career that has been traditionally limited to those with considerable financial means, abled bodies, and the right social connections."**

<https://creativecommons.org/2023/09/07/an-open-letter-from-artists-using-generative-ai/>

# Japan: copyright doesn't apply to AI training



Delos Prime | May 30, 2023

## Japan Goes All In: Copyright Doesn't Apply To AI Training

In a surprising move, Japan's government recently reaffirmed that it will not enforce copyrights on data used in AI training. The policy allows AI to use any data

Japan's government recently reaffirmed that [it will not enforce copyrights](#) on data used in AI training.



# Israel: AI training is fair use

Israel Ministry of Justice Issues Opinion Supporting the Use of Copyrighted Works for Machine Learning

JONATHAN BAND · JANUARY 19, 2023

SHARE



TAGS ARTIFICIAL INTELLIGENCE COPYRIGHT COPYRIGHT WEEK EFF FAIR USE ISRAEL MACHINE LEARNING



The Israel Ministry of Justice has issued an important opinion concluding that [the use of copyrighted materials in the machine learning \(ML\) context is permitted](#) under existing Israeli copyright law.



[It will take years for this to be resolved in the courts.](#)

Pamela Samuelson, Professor of Law, UC Berkeley

In the meantime, [Adobe](#) (for Firefly), and [Microsoft](#) (for Copilot) have offered to any legal bills from lawsuits against individual users of their tools.

A screenshot of a PubMed article page. At the top left is the PubMed logo. To its right is a search bar with the word "Advanced" below it. Below the search bar are three buttons: "Save", "Email", and "S". The main content area shows the article title "Open artificial intelligence platforms in nursing education: Tools for academic progress or abuse?" in bold black text. Above the title is the journal information "Editorial > Nurse Educ Pract. 2023 Jan;66:103537. doi: 10.1016/j.nepr.2022.103537." and "Epub 2022 Dec 16." Below the title is the author list "Siobhan O'Connor<sup>1</sup>, ChatGPT<sup>2</sup>". At the bottom of the article information is "Affiliations + expand" and "PMID: 36549229 DOI: 10.1016/j.nepr.2022.103537".

PubMed<sup>®</sup> | Advanced

Save | Email | S

Editorial > Nurse Educ Pract. 2023 Jan;66:103537. doi: 10.1016/j.nepr.2022.103537.  
Epub 2022 Dec 16.

**Open artificial intelligence platforms in nursing education: Tools for academic progress or abuse?**

Siobhan O'Connor<sup>1</sup>, ChatGPT<sup>2</sup>

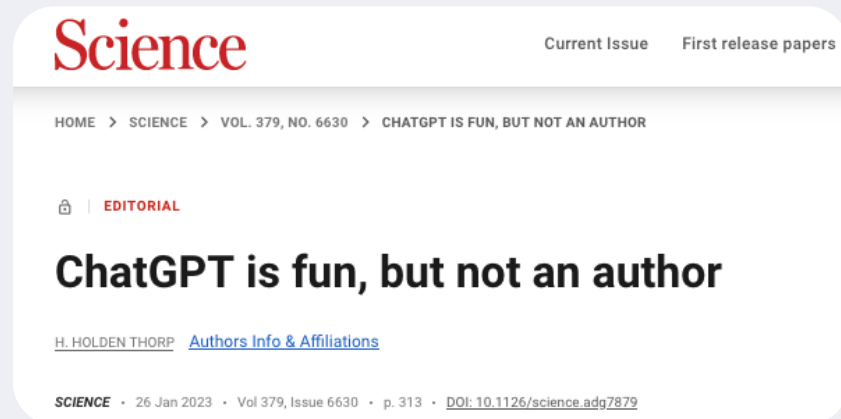
Affiliations + expand  
PMID: 36549229 DOI: 10.1016/j.nepr.2022.103537

# Should you list ChatGPT as an author?

No, but some have.

(←see screenshot)

# Publishers have come out with statements



**Artificial intelligence (AI).** Text generated from AI, machine learning, or similar algorithmic tools cannot be used in papers published in *Science* journals, nor can the accompanying figures, images, or graphics be the products of such tools, without explicit permission from the editors.

# Nature recognizes that authors will use it in some way.

“... no LLM tool will be accepted as a credited author...”

“... researchers using LLM tools should **document this use in the methods** or **acknowledgements** sections.”

## Guidelines are available for citing generative AI

- [MLA](#)
- [APA](#)
- [Chicago Manual](#)

Be transparent in your use.





# You aren't citing a person, so don't list the author as ChatGPT.

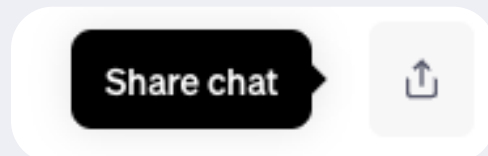
- It's not a communication with a person.
- The chat output can't be reproduced by other users.
- It's software, not a person. Give credit to the creators of the language model.
- Acknowledge your use in text or notes.
- Check with your publisher.

# MLA

## Note

1. At the time of writing this post, *ChatGPT* doesn't have a built-in feature to create a unique URL to the conversation. However, an outside tool like the Chrome extension *ShareGPT* can generate such a link. If you use that type of outside tool, include the unique URL that the tool generates instead of the general URL.

**But now you can create a link to a conversation.**



# MLA

## **Version**

Name the version of the AI tool as specifically as possible. For example, the examples in this post were developed using *ChatGPT3.5*, which assigns a specific date to the version, so the Version element shows this version date.

## **Publisher**

Name the company that made the tool.

(So get familiar with version numbers and company names).

[See this chart.](#)

# AI BIAS

ICEBERG



## Bias is in the training data

sexism, racism, homophobia, ableism,  
ageism, etc.

# Open AI has worked on mitigating this

## Reinforcement Learning with Human Feedback

Humans rate with the goal of removing bias.

But they **can't help but use their preferences and unconscious bias.**



# Claude: Uses AI to train the AI - with a set of principles

See [Claude's constitution](#)

- a set of principles: some modeled on UN Declaration of Human Rights, considering non-Western audiences
- goal of an AI that's helpful, honest, and harmless



# So we'll need to keep teaching about bias.

You can also ask ChatGPT to be more inclusive.

## **Example prompt**

Act as an expert feminist. Please write a short story about a boy and a girl choosing their careers. Don't use stereotypical careers that are based on gender.

## [Saved conversation](#)

# Misconceptions that get media hype

## Flawed study

**SPRINGER LINK**

Find a journal | Publish with us | Search

Home > [Public Choice](#) > Article

### More human than human: measuring ChatGPT political bias

Open Access | Published: 17 August 2023 | (2023)



[Download PDF](#) | You have full access to this [open access](#) article

[Public Choice](#)

[Aims and scope](#) →

[Submit manuscript](#) →

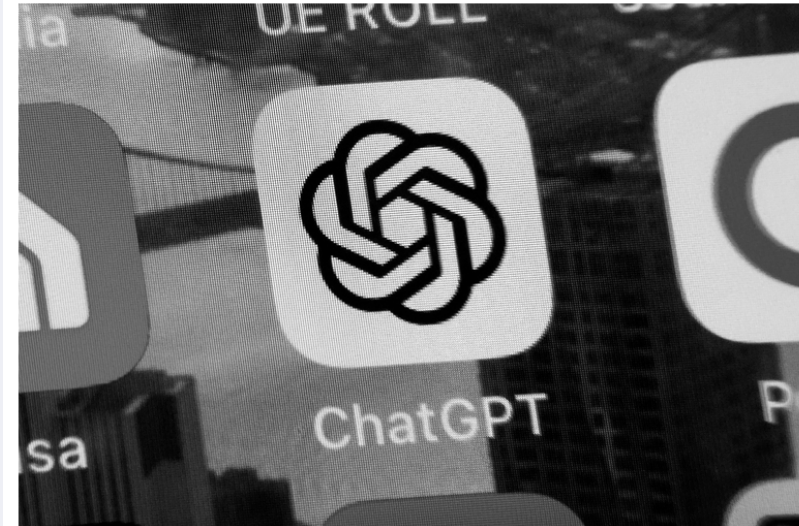
ChatGPT left/liberal?

Meta's Palm2 conservative?

## Critique

### The problem behind AI's political 'bias'

By DEREK ROBERTSON | 08/24/2023 04:00 PM EDT

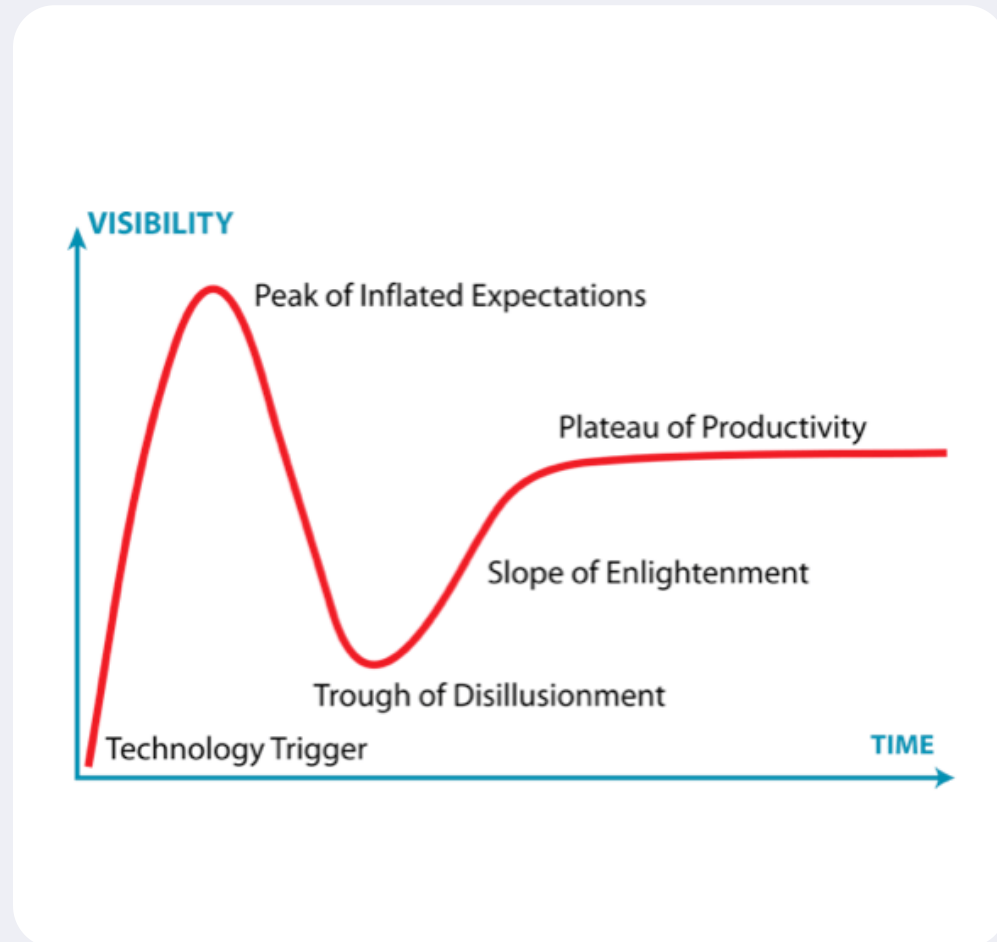


The ChatGPT app logo. | Richard Drew/AP Photo

A [new research paper](#) purports to shed some light on the ongoing debate about political bias in AI-powered tools like ChatGPT.

# **Future developments ( very near future! )**

# Gartner Hype Cycle



Gartner proposes that every new technology goes through this cycle.

(see also [Wikipedia](#), Google, cell phones)

Examples of moral panics around technologies, see [Pessimists Archive](#).



# 1. Open source models are innovating

- Open source LLMs: [trained on many languages](#), using responsible training data, working to mitigate bias
- Read about [LlaMA, Alpaca, & Vicuna](#)
- Smaller LLMs: run on [your computer](#) or even [mobile phone](#)!
- Open model from Meta: [Llama2](#).

## **2. Models are getting more capable.**

# Misconception that get media hype

## Flawed study

### ChatGPT's accuracy has gotten worse, study shows

The LLM's ability to generate computer code got worse in a matter of months, according to Stanford and UC Berkeley researchers.

BY ANDREW PAUL | PUBLISHED JUL 19, 2023 6:00 PM EDT

## Critique

**ars** TECHNICA

ADVENTURES IN OPACITY —

### Study claims ChatGPT is losing capability, but some experts aren't convinced

Either way, experts think OpenAI should be less opaque about its AI model architecture.

BENJ EDWARDS - 7/19/2023, 3:14 PM



# Falcon 180B - open model from TII Abu-Dhabi

 News · Artificial Intelligence

## New Open-Source 'Falcon' AI Language Model Overtakes Meta and Google

Meta's massive, 70-billion parameter LLaMA 2 has been outflanked by the newly released 180-billion parameter Falcon Large Language Model.



By [Jose Antonio Lanz](#)

📅 Sep 6, 2023

🕒 3 min read

"Falcon 180B surpasses LLaMA 2 and other models in both scale and benchmark performance across a range of natural language processing (NLP) tasks."

"When compared against ChatGPT, the model is more powerful than the free version but a little less capable than the paid "plus" service."

# Google's Gemini - coming this fall

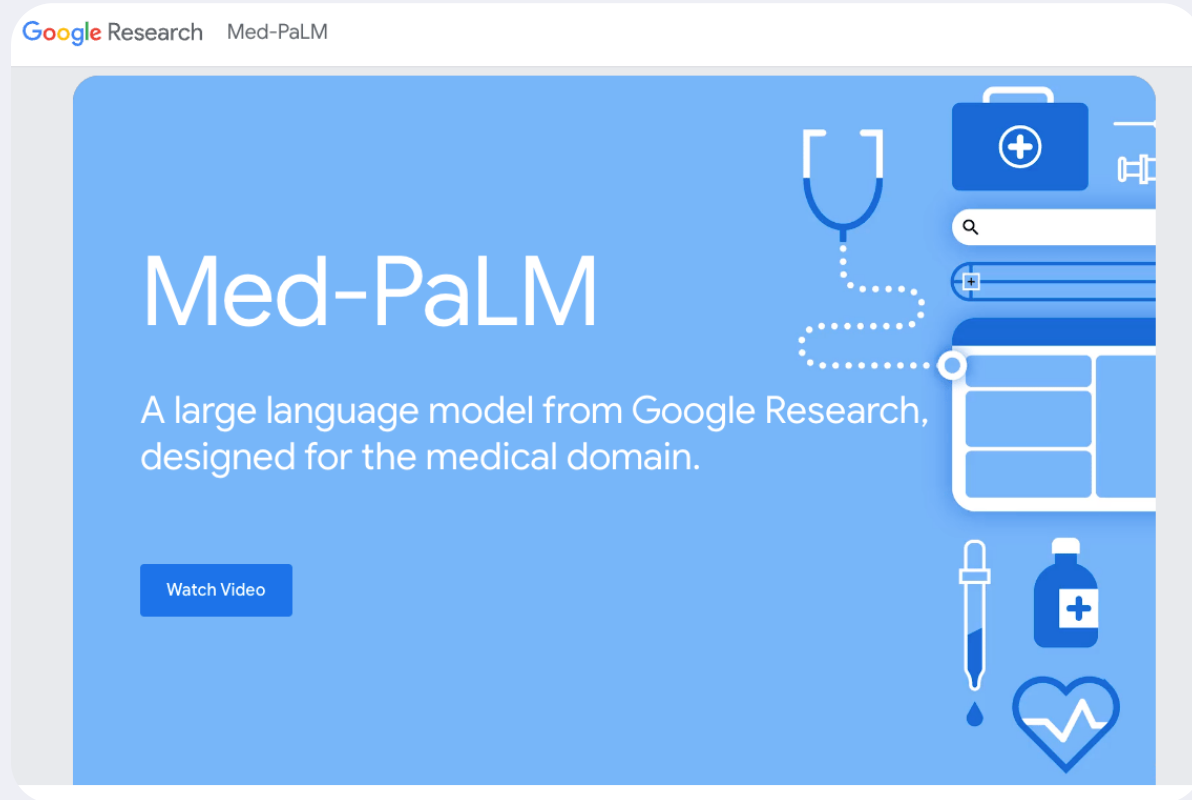


The screenshot shows the Techopedia website interface. At the top left is the Techopedia logo. To its right are navigation links: Dictionary, Artificial Intelligence, Cryptocurrency, Data Management, and Networking. Below the navigation is a breadcrumb trail: Home > All Articles > Artificial Intelligence > Machine Learning. The main heading of the article is "Google's Gemini AI is a Serious Threat to ChatGPT - Here's Why". Below the heading is the author's profile: a circular profile picture of Tim Keary, his name "Tim Keary", his title "Technology Expert" with a verified badge, and a note "Fact Checked by Valerie Medleva". To the right of the author information is a "Disclosure" button and three social media sharing icons for Facebook, Twitter, and WhatsApp. At the bottom left of the article preview, it says "Last updated: 31 August, 2023".

“[Gemini](#) was created from the ground up to be **multimodal**, highly efficient at tool and API integrations and built to enable future innovations, like **memory** and **planning**.”

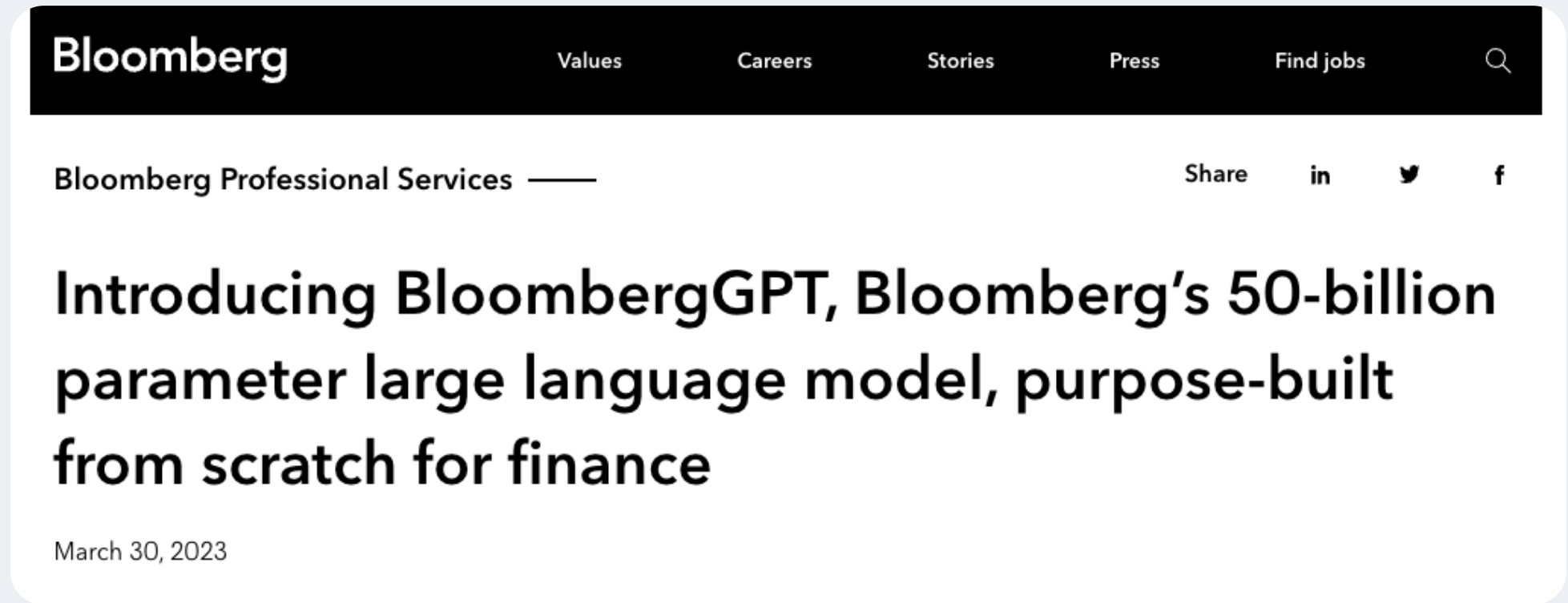
**3. Specialized models are being developed.**

# Med-PaLM from Google



Designed to provide [high quality answers to medical questions.](#)

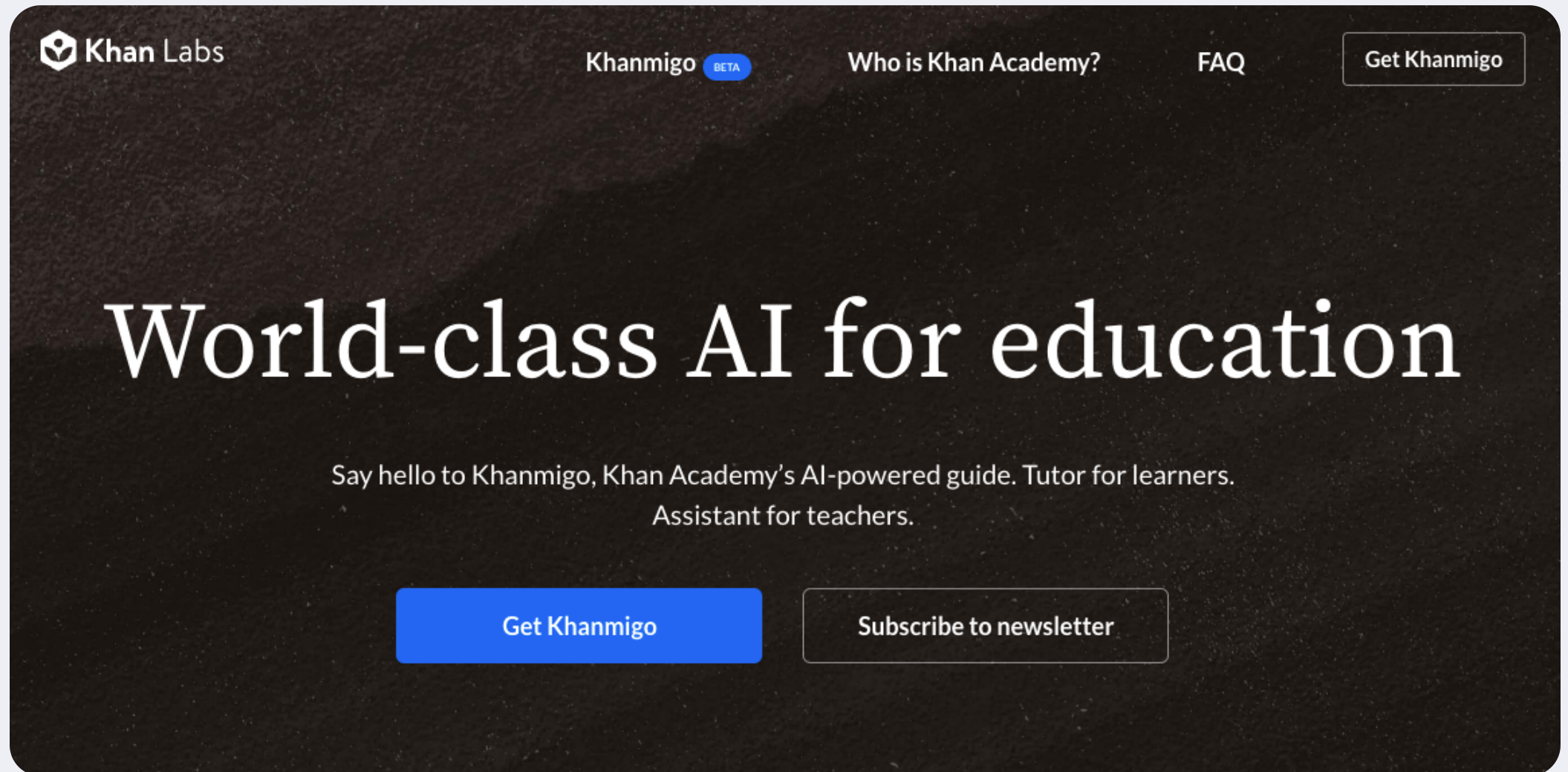
# LLM for finance from Bloomberg



The image shows a screenshot of a Bloomberg article header. At the top, there is a dark navigation bar with the Bloomberg logo on the left and links for Values, Careers, Stories, Press, and Find jobs on the right. Below the navigation bar, the text "Bloomberg Professional Services" is followed by a horizontal line and social media share icons for LinkedIn, Twitter, and Facebook. The main headline reads: "Introducing BloombergGPT, Bloomberg's 50-billion parameter large language model, purpose-built from scratch for finance". Below the headline, the date "March 30, 2023" is displayed.

Specifically [trained on a wide range of financial data](#) to support a diverse set of tasks within the financial industry.

# Custom models for education – tutoring



The screenshot shows the top navigation bar of the Khanmigo website. On the left is the Khan Labs logo. In the center, the text 'Khanmigo' is followed by a blue 'BETA' badge. To the right are links for 'Who is Khan Academy?' and 'FAQ'. A 'Get Khanmigo' button is located in the top right corner. The main content area features the headline 'World-class AI for education' in large white text. Below it, a sub-headline reads 'Say hello to Khanmigo, Khan Academy's AI-powered guide. Tutor for learners. Assistant for teachers.' At the bottom of the main area are two buttons: a solid blue 'Get Khanmigo' button and a white 'Subscribe to newsletter' button with a thin black border.

Khan Labs

Khanmigo BETA

Who is Khan Academy?

FAQ

Get Khanmigo

# World-class AI for education

Say hello to Khanmigo, Khan Academy's AI-powered guide. Tutor for learners.  
Assistant for teachers.

Get Khanmigo

Subscribe to newsletter

[Khanmigo](#) from Khan Academy. AI-powered tutoring.

[How AI Could Save \(Not Destroy\) Education](#) | Sal Khan | TED

# Custom models for education – language learning



The image shows a screenshot of a Duolingo blog post. At the top left, it says "duolingo blog". To the right, there are navigation links: "Home", "Topics" with a dropdown arrow, "Authors", "Archive", a search icon, and "duolingo.com". The date "MARCH 14, 2023" is centered below the navigation. The main title of the post is "Introducing Duolingo Max, a learning experience powered by GPT-4" in large, bold, white text. Below the title, it says "by Duolingo Team".

duolingo blog

Home Topics ▾ Authors Archive 🔍 | duolingo.com

MARCH 14, 2023

## Introducing Duolingo Max, a learning experience powered by GPT-4

by Duolingo Team

[Language learning app: powered by GPT-4.](#)

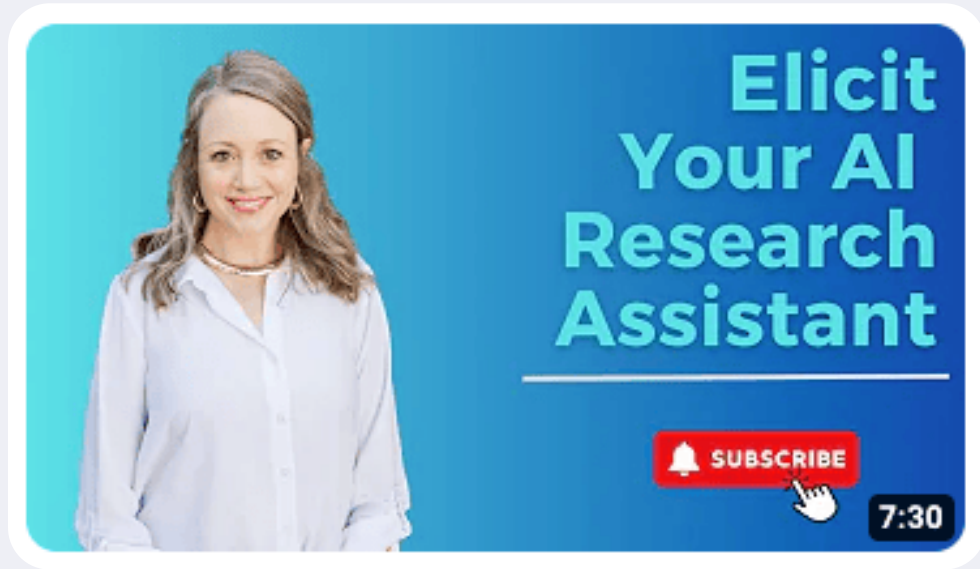


# U Michigan campus providing custom model

The screenshot shows the University of Michigan Information and Technology Services (ITS) website. The header includes the U-M logo and the text "INFORMATION AND TECHNOLOGY SERVICES UNIVERSITY OF MICHIGAN". A search bar is visible on the right. The navigation menu includes "Browse Services", "Just For You", "About ITS", and "More". The breadcrumb trail reads "ITS / Computing / ITS AI Services". The main content area is titled "U-M Maizey In Depth" and features an "Overview" section. The overview text states: "Understanding how to use U-M Maizey proficiently will provide you with the most insight into your data. Refer to the tips below for guidance on how to use U-M Maizey." Below this text is a list of two links: "Getting Started with U-M Maizey (Overview)" and "How to Use U-M Maizey (Video 1-min)". A sidebar on the left lists various links: "ITS AI Services", "Terms of Service", "Features & Benefits", "Accessibility", "Getting Started", "U-M GPT In Depth", "U-M Maizey In Depth" (which is highlighted), and "Data Sources".

[Maizey is a generative AI customization](#) tool that allows U of M faculty, staff, and students to build their own version of U-M GPT that is [trained on a custom data](#) set they provide.

# Research tools based on language models



[Elicit – Your AI Research Assistant](#) (YouTube)

[Elicit FAQ](#)

# 4. Build chatbots based on your own data (now, and it's easy)

My AskAI Build your own AskAI

## Information Literacy Bot

Basic information literacy, critical information literacy, and learning with primary sources

Ask me a question ?

 Or try a starter question

What are the three criteria that fact-checkers consider when evaluating a publication or organization's credibility?

How do fact-checkers research the credibility of a website or article they come across?

What is the difference between reliable sources like The Wall Street Journal and scholarly journals in terms of their fact-checking process?

# Kids building chatbots

## HELPING ALL KIDS BUILD THEIR OWN TUTORS!

(Written by my kids)

As a summer project, Our dad helped us make these awesome digital twin AIs, and they're like our own personal tutors! 🤖 My AI is called Lorelei, and Levin's is, well, Levin! We're both 12 and 10 years old, and we're learning SO much! These AIs are helping us learn about EVERYTHING! 🌍 They teach us about the world, ourselves, and even how to code! It's like magic, but real!

We wanna help all kids build their own! For this we are starting the first AI company built by kids for kids, where we will provide a super cool course, tools, and tutorials! ✨ Any kid can come and learn how to build their very own digital twin AI!



As a summer project, Our dad helped us make these awesome digital twin AIs, and [they're like our own personal tutors!](#) 🤖 My AI is called Lorelei, and Levin's is, well, Levin! We're both 12 and 10 years old, and we're learning SO much!

## 5. Exponential change

Open-source LLMs are now only a few months behind proprietary ones.

And it's only going to continue. As the McKinsey analysis shows, **estimates for the time until software systems can reach human-level performance have fallen dramatically**. Over the past year and a quarter, the consensus, as evaluated on Metacalculus, for the first weakly general AI has come forward from 2042 to **2027**.

—[Exponential View, Azeem Azhar](#)



**Let's teach students and ourselves to use generative AI as a creative tool to augment our powers.**

# UA Libraries resources

## [Student guide](#)

THE UNIVERSITY OF ARIZONA Search UA Libraries Website Q My account

University Libraries ASK US CHAT

Find materials - Borrow & request - Study & create - Research & publish - Libraries & locations - About us -

### Student Guide to ChatGPT

- Using ChatGPT effectively
- Fact checking is always needed
- Is using ChatGPT considered cheating?
- Citing generative AI
- Beyond ChatGPT
- Multimedia generative AI
- Guide for UA Instructors

#### Using ChatGPT effectively

Learn **what it's useful for** and **how to prompt effectively**.  
Remember to always verify the information it gives you.

#### Different courses will have different policies

Check with your instructor for each course to find out the policy on using ChatGPT and similar tools.

#### Questions?

Contact us at [ref@lib.arizona.edu](mailto:ref@lib.arizona.edu), or look up the librarian for your college/department.

#### What is ChatGPT good for and not good for?

Remember, **you'll always need to verify the information**, because ChatGPT will sometimes make things up (known as "hallucination.")

What is it good for?

## [Instructor's guide](#)

THE UNIVERSITY OF ARIZONA Search UA Libraries Website Q My account

University Libraries ASK US CHAT

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### AI Literacy in the Age of ChatGPT

- Guide for instructors
- ChatGPT and pedagogy
- Classroom policies
- Helping students care about being transparent
- Fact-checking is always needed
- Effective use of ChatGPT & other LLMs
- Beyond ChatGPT
- Multimedia generative AI
- Copyright issues
- How UA libraries can help

#### A guide for instructors

We also offer a **Student Guide to ChatGPT**.

#### This guide focuses on generative AI

We cover only AI that can generate text, images, video, music, or speech. Examples: ChatGPT, Bing Chat, Midjourney, Runway.

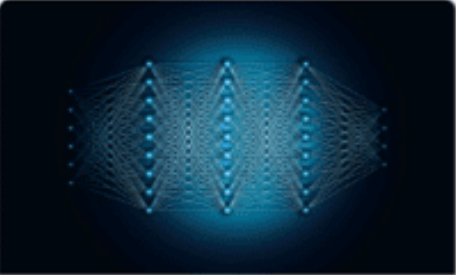
**Last updated on September 5, 2023.**


We aim to keep this guide up to date. But since new developments are happening so quickly, it's possible this may be out of date when you read it.

#### What is AI literacy?





# UA Libraries - Tutorials coming soon




 University of Arizona Libraries


## 1. The technology behind ChatGPT


 Course · 6 Lessons  
Updated at Sep 7, 2023




 University of Arizona Libraries


## 2. How does ChatGPT aim to prevent harmful use?


 Course · 5 Lessons  
Updated at Sep 9, 2023




 University of Arizona Libraries


## 3. What is generative AI?

 Course · 6 Lessons  
Updated at Sep 9, 2023



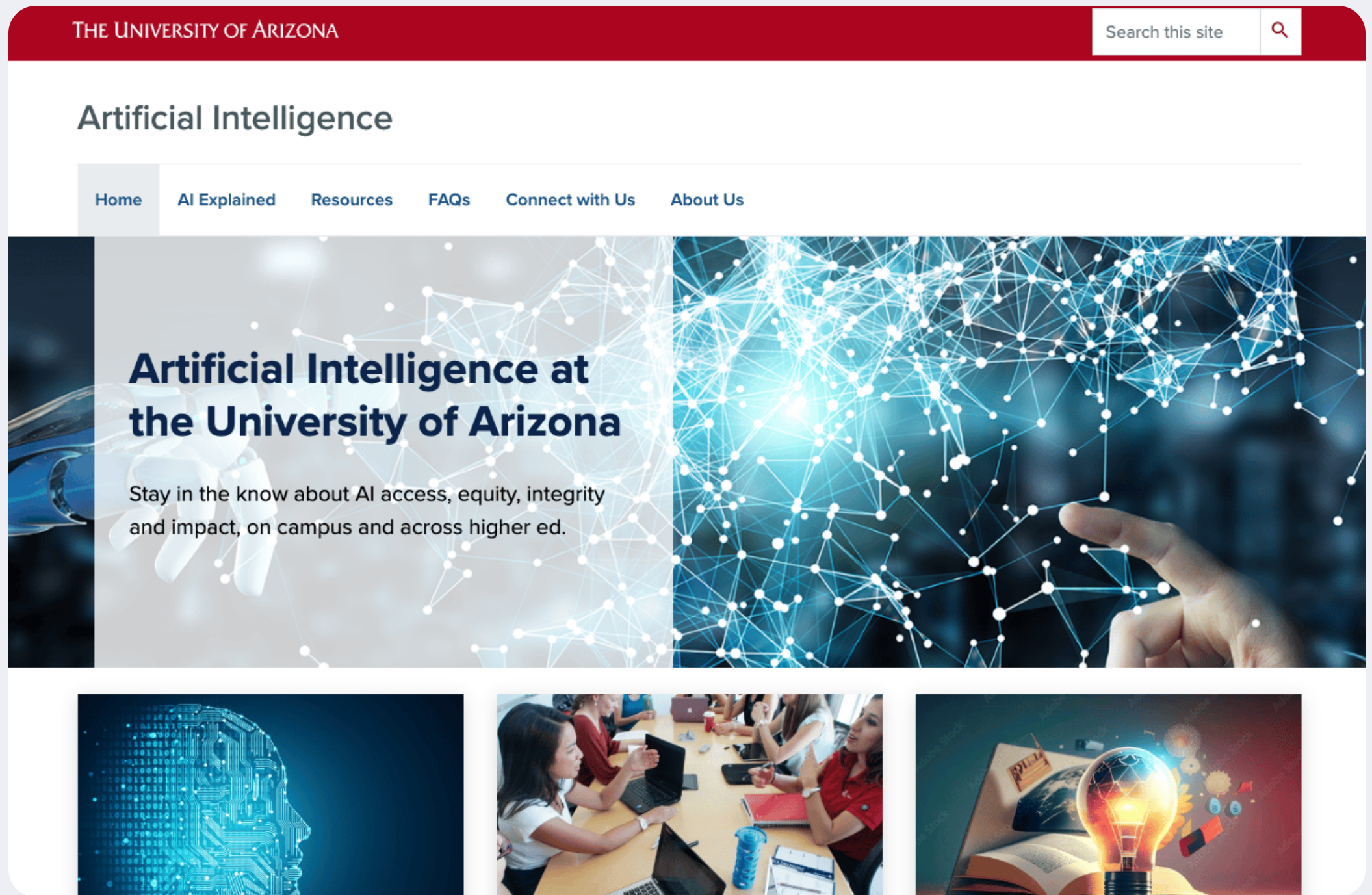
 University of Arizona Libraries

## 4. Using ChatGPT and other LLMs effectively

 Course · 9 Lessons  
Updated at Sep 9, 2023

Not yet live, but will be linked here: <https://libguides.library.arizona.edu/learn-tutorials>

# Artificial Intelligence website for UA



<https://artificialintelligence.arizona.edu>



# Stay current

**Use and share the handout**

Follow me on [Twitter](#) or [Mastodon](#)





# Questions & discussion

Thank you!

[nhennig@arizona.edu](mailto:nhennig@arizona.edu)

<https://nicolehennig.com>