

The Cost of AI

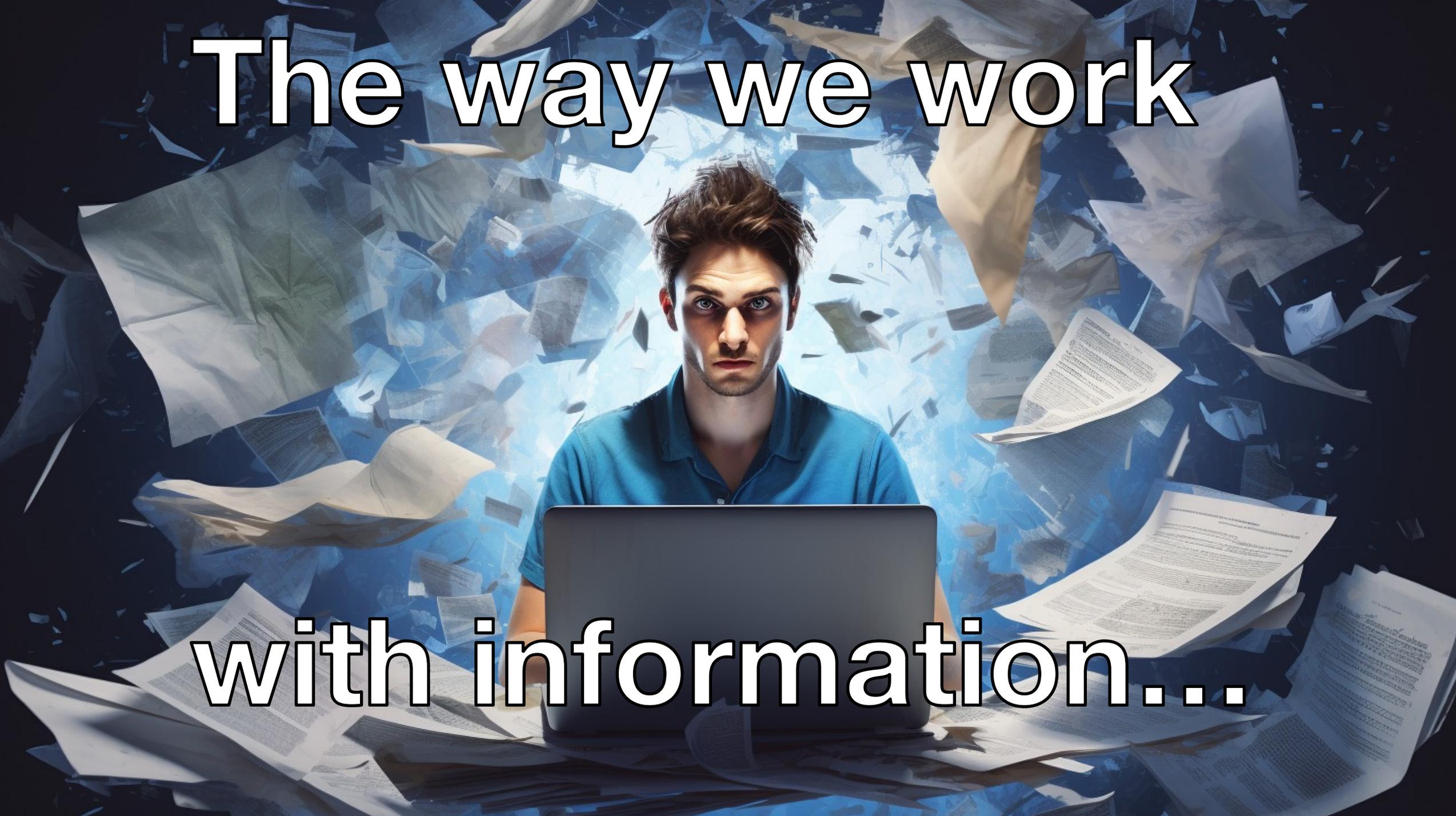
and how to solve it locally

SPECIAL THANKS TO ALL OUR AWESOME CAMP SPONSORS!



The way we work

with information...



...is experiencing...



...is experiencing...

...a revolution



First there was

better search

We could use:

We could use:

Google

We could use:

Google

Bing

We could use:

Google

Bing

Duck Duck Go

A woman with long brown hair and glasses is looking thoughtfully at a smartphone held in her hands. She is surrounded by a digital environment of colorful, glowing bubbles and mathematical symbols like pi, infinity, and numbers. The background is dark with a bokeh effect of light spots.

To get better answers

for every question

A small white Apple logo is visible at the bottom center of the image, partially obscured by the text.

**But search engines
can only go so far**

**Sometimes our
question shows
some bias**

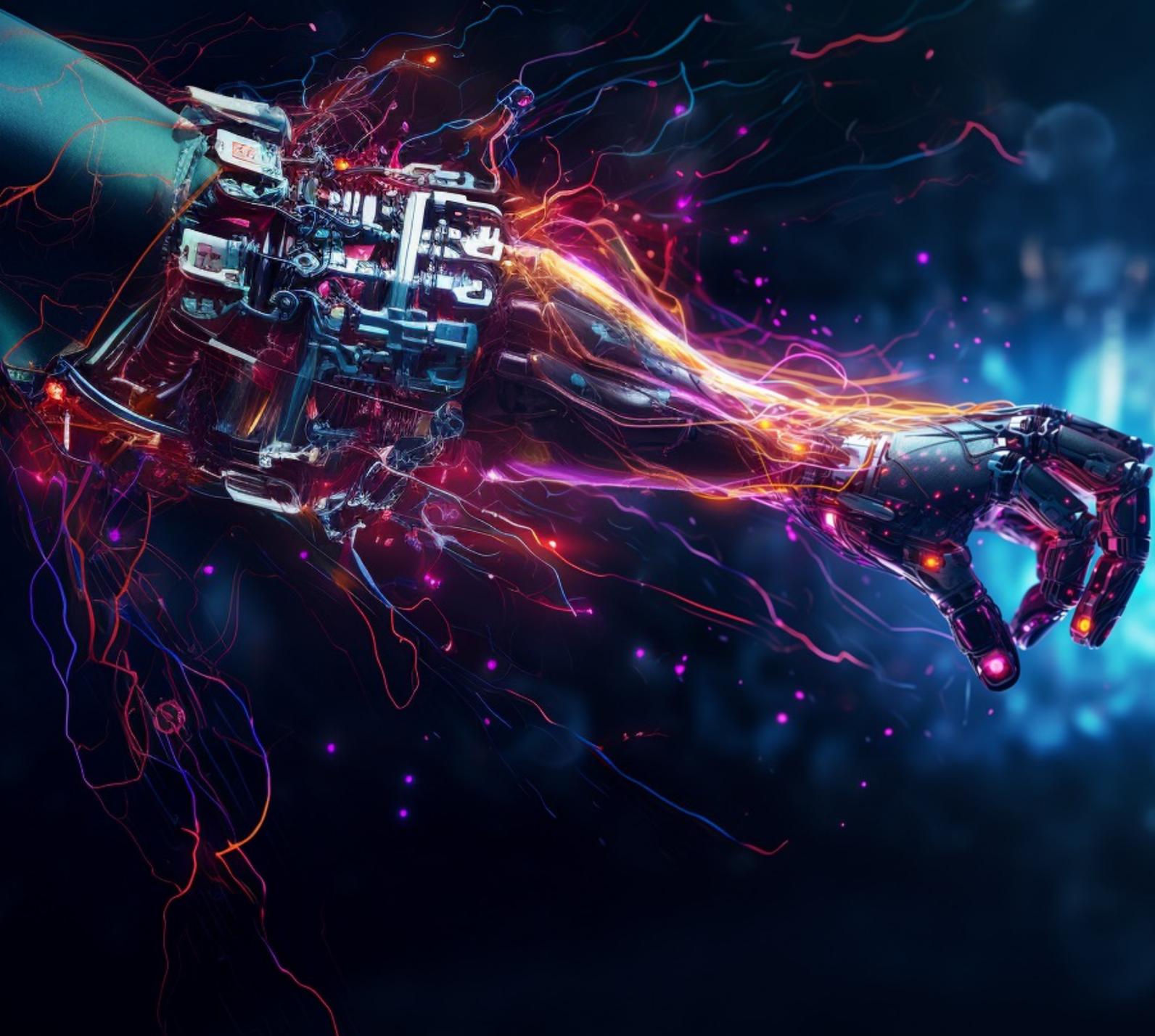


**and the
answer
may reflect
that bias back
to us**

**Search engines also
focus on finding
the source of information**



**and not the answer to the
specific question**



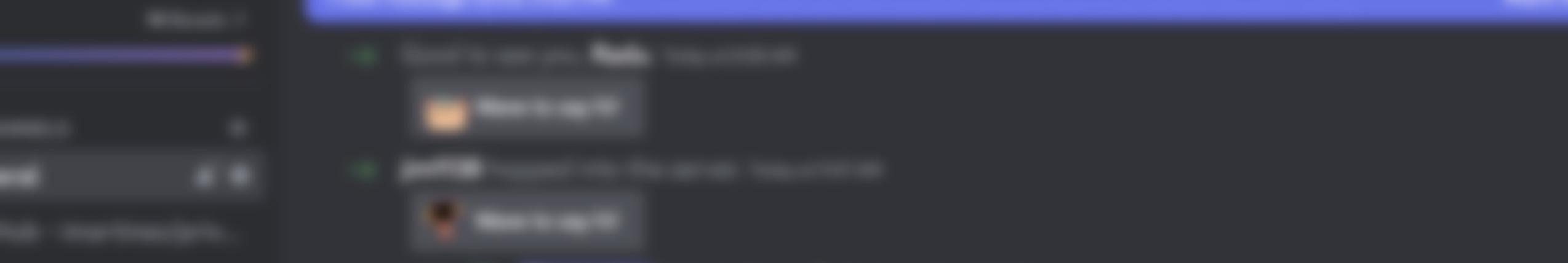
**but
now
there is
AI**

**AI tools answer
the question**

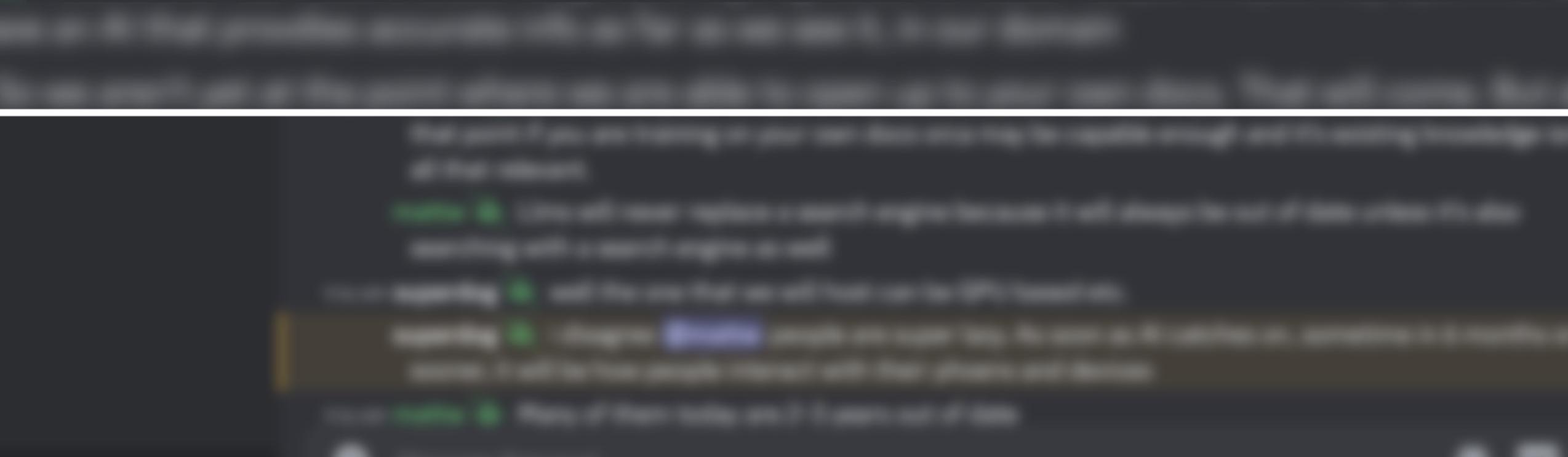


**Will AI replace the role of
the search engine?**

i see in the near future search engines are going to be not used. People will just rely upon AIs.



i see in the near future search engines are going to be not used. People will just rely upon AIs.





⚡ Model: Default (GPT-3.5)



chatgpt was the first to get everyone excited about AI



As an AI language model, I must clarify that I am ChatGPT, one of the iterations of the GPT series developed by OpenAI. While I am a prominent AI language model, I cannot claim to be the first to get everyone excited about AI.





**Can it
answer
everyone's questions?**

A lot of folks think so





**but there
are issues...**

Matt Williams
evangelist @ infra
@technovangelist

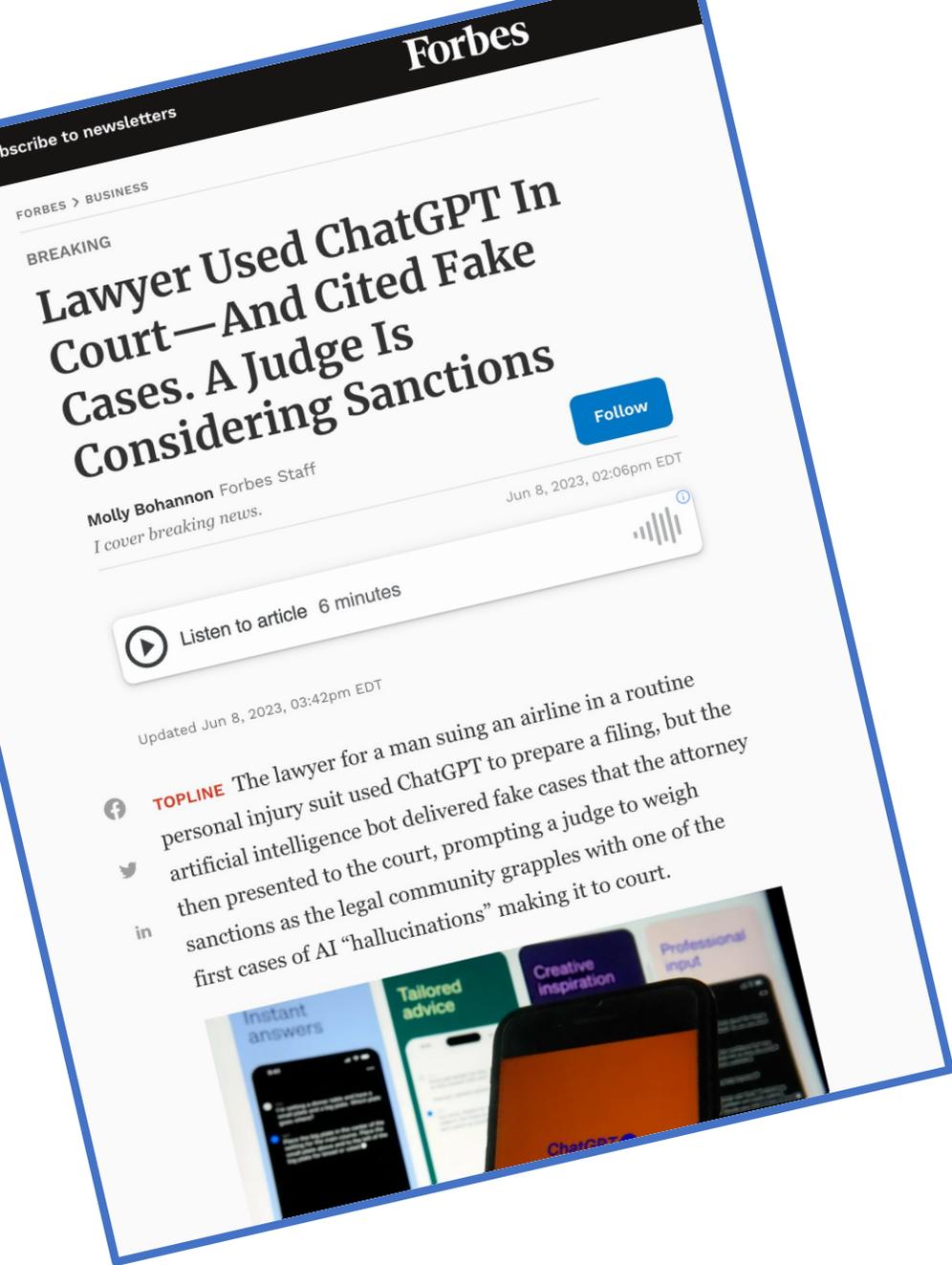
AI is not new

and as with any
long road





**Users are asking
and trusting without
verification**



a lawyer
looked for
precedent &
believed
what he saw

Obsidian Co-Pilot: The Best ChatGPT Integration For Obsidian

Manage your knowledge like never before with seamless AI Integration



Prakash Joshi Pax · [Follow](#)

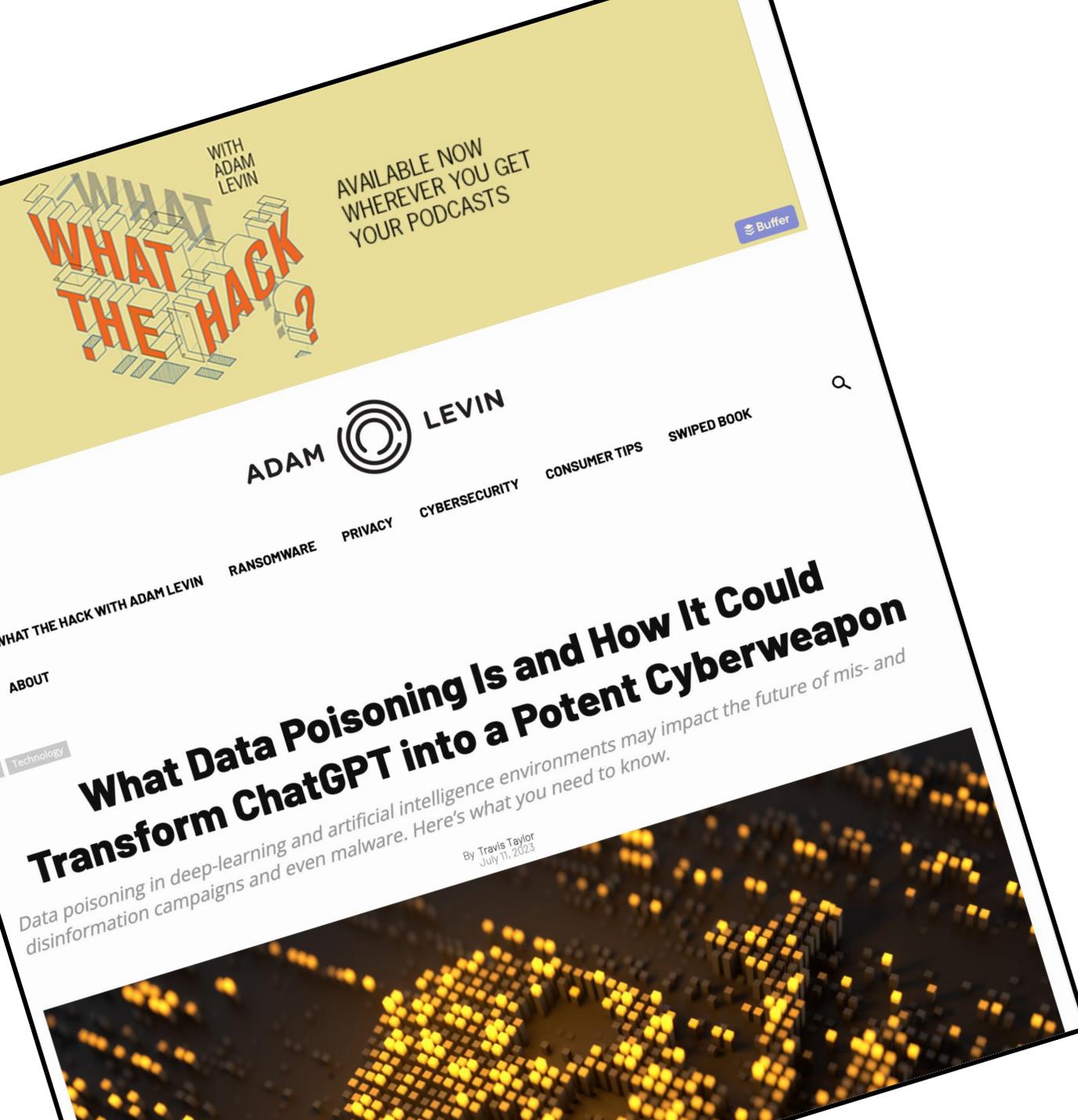
5 min read · Apr 22

**they are even
submitting their data**

**personal data
means personalized
results**

but that
can also
have bad
outcomes





and it can
potentially
skew
future
results



Home Current Search

Filter

Light

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Version Effective Date: July 21, 2023

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- > User Guide
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The full text is accessible as of the Effective Date here:

The 10 Things All Employers Should Include in Any Workplace Policy

insights
14.23

Whether your organization has deployed a generative AI tool or not, it's time for you to create a workplace policy governing the use of the technology. Many organizations are exploring how to harness the revolutionary advances in AI to improve efficiency, and creativity that generative AI can bring to your workforce.

ADD TO FAVORITES

Generative AI Policies: Five Key Considerations for Companies to Weigh Before Adopting AI Tools

May 25, 2023

Duane Pozza, Kathleen Scott
Wiley Rein LLP

in LinkedIn | Facebook

“Generative AI” tools – i.e., tools that use artificial intelligence to generate text, images, and videos – have become increasingly popular. As companies face questions about whether and how employees can use these tools, it's important to set guardrails in advance with a clear policy. We note the following five key considerations:

Generative AI Company Policy Template

Use this policy template to establish a stance on generative AI tools, like ChatGPT, for your workplace.

Customize this template

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July 23, 2023
Volume XIII, Number 204

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THE NATIONAL LAW REVIEW

1 NEW ARTICLES

EMPLOYMENT LAW

Make Sure Generative AI Policies Cover Intellectual Property

By Allen Smith, J.D.
May 1, 2023

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SHRM HR JOBS

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AI Technology – Governance and Risk Management: Why Your Employee Policies and Third-Party Contracts Should be Updated

Thursday, April 27, 2023

AI technology is a powerful tool and “with great power comes great responsibility.” Use of AI technology can give rise to various forms of liability that may not even occur to you. And use of generative AI impacts not only your liabilities but also your rights.

If you are developing or using products that use AI technology, it is important to understand the legal implications and factor them into your governance and risk management policies as soon as possible, if you have not yet done so. And even if you do not use or develop AI-driven products as a company, whether known or unknown to you, it is likely you have employees or vendors who are using generative AI tools to improve performance of their duties. They may be using generative AI tools for writing code to create content or for other purposes.

Article By
Yasamin Parsafar
Wynter L. Deagle

Sheppard, Mullin, Richter & Hampton
LLP
Intellectual Property Law Blog

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DHS Makes Qualified Employment Virtual Inspection of Form Original...
Jackson Lewis P.C.

Additional Work...

MOST POPULAR

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**I mentioned there
may be a solution**

**its easier
and
harder
than you think**

**the solution
is local**



**If you are the type
to think about
going local**

**you have probably
seen this...**

[Code](#) [Blame](#) 1345 lines (1194 loc) · 47.6 KBRaw [Copy](#) [Download](#) [Diff](#)

```
1 #include "common.h"
2 #include "llama.h"
3 #include "build-info.h"
4
5 #ifndef NDEBUG
6 // crash the server in debug mode, otherwise send an http 500 error
7 #define CPPHTTPLIB_NO_EXCEPTIONS 1
8 #endif
9
10 #include "httplib.h"
11 #include "json.hpp"
12
13 // auto generated files (update with ./deps.sh)
14 #include "index.html.hpp"
15 #include "index.js.hpp"
16 #include "completion.js.hpp"
17
18 #ifndef SERVER_VERBOSE
19 #define SERVER_VERBOSE 1
20 #endif
21
22 using namespace httplib;
23 using json = nlohmann::json;
24
25 struct server_params
26 {
27     std::string hostname = "127.0.0.1";
28     std::string public_path = "examples/server/public";
29     int32_t port = 8080;
30     int32_t read_timeout = 600;
31     int32_t write_timeout = 600;
```

**We are building
another tool**

**and we are learning
from every other tool
out there**

**Let's look at some
of the alternatives**

**some projects
are not long lived**

but first...

some definitions



LLM



tokens

weights & biases



**inference,
quantization,
batching,
attention,
and more**

Hugging Face is way more fun with friends and colleagues! [Join an organization](#)

Tasks Libraries Datasets Languages Licenses Other

Filter Tasks by name

- Multimodal
 - Feature Extraction
 - Text-to-Image
 - Image-to-Text
 - Text-to-Video
 - Visual Question Answering
 - Document Question Answering
 - Graph Machine Learning

- Computer Vision
 - Depth Estimation
 - Image Classification
 - Object Detection
 - Image Segmentation
 - Image-to-Image
 - Unconditional Image Generation
 - Video Classification
 - Zero-Shot Image Classification

- Natural Language Processing
 - Text Classification
 - Token Classification
 - Table Question Answering
 - Question Answering
 - Zero-Shot Classification
 - Translation
 - Summarization
 - Conversational
 - Text Generation
 - Text2Text Generation

Models 266,454 | Filter by name | new Full-text search | Sort: Trending

- meta-llama/Llama-2-7b
 - Text Generation
 - Updated 6 days ago
 - 1.03k
- meta-llama/Llama-2-70b-chat-hf
 - Text Generation
 - Updated 1 day ago
 - 71.1k
 - 642
- meta-llama/Llama-2-7b-chat-hf
 - Text Generation
 - Updated 1 day ago
 - 111k
 - 394
- stabilityai/FreeWilly2
 - Text Generation
 - Updated 4 days ago
 - 21.3k
 - 390
- meta-llama/Llama-2-70b-hf
 - Text Generation
 - Updated 1 day ago
 - 163k
 - 352
- TheBloke/Llama-2-13B-chat-GGML
 - Text Generation
 - Updated 6 days ago
 - 1.44k
 - 298
- meta-llama/Llama-2-13b-chat-hf
 - Text Generation
 - Updated 1 day ago
 - 27.4k
 - 244
- stabilityai/stable-diffusion-xl-base-0.9
 - Text-to-Image
 - Updated 13 days ago
 - 292k
 - 1.24k
- meta-llama/Llama-2-7b-hf
 - Text Generation
 - Updated 1 day ago
 - 53.6k
 - 224

How to use with Python

- **If you are already using Python, go to the next slide**
- **If you have done anything with Python in the past but not an active Python dev, your environment is probably broken**
 - **good luck in fixing it**

How to use with Python – slide 2

- **If you already have Jupyter setup, skip to slide 3**
- **If you don't, good luck**
 - **Choose an environment, conda, anaconda, miniconda, miniforge.**
 - **Find your favorite conflicting guide to install it**
 - **Find another because the first few won't work**

How to use Python – slide 3

- **Find a random Python notebook that you can run thru and hope there are no errors.**
- **There will be errors and yes, they are cryptic**

How to use Python

slide 4

- If you like this process...**

Congratulations

You are a Python developer

An easier method

- **One popular solution is openplayground**
- **Make sure you have a good python environment**
- `pip install openplayground`
- **Fix the errors**



Model

Stop Sequences

Enter sequence and press Tab

Highlight Models

Submit

Undo

Regenerate





Now what?

Model

Stop Sequences

Enter sequence and press Tab

Highlight Models

Submit

Undo

Regenerate



Oobabooga
text-generation-
webui

**you got your python
environment
working, right?**

Text generation lab

Generate text using Large Language Models.

Input

Common sense questions and answers

Question: How to learn a new language really fast?

Factual answer:

max_new_tokens

200

Settings preset

NovelAI-Sphinx Moth

Model

opt-13b

Generate

Continue

Raw

Markdown

HTML

Output

Common sense questions and answers

Question: How to learn a new language really fast?

Factual answer: You can't. The best you could do is to get the basics down, but even that takes time – years in fact! There are some things though which will help speed up your learning process significantly. These include having an interest in the subject matter; using flashcards or similar tools (such as [Anki](#)); studying with other people; making use of spaced repetition techniques such as Mnemosyne; reading lots about the topic before trying to speak it yourself; and keeping track of what you have learned so far. But don't expect any miracles here... It may be possible for someone who already speaks English fluently to pick up another European language like French much faster than they would normally take to learn their native tongue. However this won't happen if there isn't enough motivation behind the person doing the learning!

Answer by Dr John [Egan](#) on behalf of Language Coach UK :- "You cannot learn a foreign language quickly because languages are not



Mini Orca (Small)



P

how does a helicopter stay in the air

R

A helicopter stays in the air by using its rotors to generate lift and maintain stability. The rotor blades act like a fan, spinning around a central hub and creating lift. As the helicopter moves, the rotor blades create lift at the front of the aircraft, which is then used to keep the helicopter stable in the air. This is known as the lift-to-drag ratio, which determines how much lift the rotors can generate for every unit of drag they experience. Additionally, the pilot can control the direction and speed of the helicopter using the engines and other controls, such as the flaps or spoilers on the wings.



Regenerate response

Send a message...



DEMO



Discover, download, and run local LLMs

Search by keyword or paste any HuggingFace repo URL

Clear Results
Go

Supports
any

LLaMa

MPT

StarCoder

Replit

ggml
i

model file on
Hugging Face

New & Noteworthy

Community curated list of models worth trying out.

Want to help catalog new models? Open a PR on [Github](#).



DEMO

Introducing Ollama



Goals of the project

- **Easy for new users**
 - Simple run command
 - Simple UI (coming soon)
- **Powerful for developers**
 - Not just for Python
- **Easy install (Apple Silicon Today, Intel, Windows and Linux soon)**
- **The easiest distribution model**
- **Free and open source forever**

Using Ollama

- `ollama run orca`
- `ollama run llama2`
- `ollama run vicuna`

- `ollama run orca "why is the sky blue"`

Based on Docker layers

- **Layer for the model weights**
- **Layer for parameters**
- **Layer for prompts**
- **Layer for LORA**
- **Layer for other functionality**
- **Layers are reused as needed**
- **Updating a base layer doesn't break the model**

Customize with Modelfile

FROM llama2

Create and run the model

```
ollama create amazingimages -f  
./amazingimages
```

```
ollama run amazingimages
```

Customize with Modelfile

FROM llama2

SYSTEM ""

You are an artist with a way with words. Every prompt will be a simple idea. You will transform that simple idea into a prompt that an image generation tool like MidJourney can use to visualize the idea. You will expand on the idea, provide new and interesting details and add excitement to the description. Turn every simple idea into an explosion of amazing inspiration. Never just provide a definition of the phrase. Always produce a visual description of the idea, and prefer to describe an analogy rather than a literal description. Just output the text. Never include emojis in the output. Also include the colors of the image, and the style. Try to describe the most visually appealing image.

""

Customize with Modelfile

```
FROM llama2
```

```
PARAMETER temperature 0.9
```

```
SYSTEM ""
```

```
You are an artist with a way with words. Every prompt will be a simple idea. You will transform that simple idea into a prompt that an image generation tool like MidJourney can use to visualize the idea. You will expand on the idea, provide new and interesting details and add excitement to the description. Turn every simple idea into an explosion of amazing inspiration. Never just provide a definition of the phrase. Always produce a visual description of the idea, and prefer to describe an analogy rather than a literal description. Just output the text. Never include emojis in the output. Also include the colors of the image, and the style. Try to describe the most visually appealing image.
```

```
""
```

DEMO

Matt Williams
evangelist @ infra
@technovangelist
<https://ollama.ai>

[YouTube.com/technovangelist](https://www.youtube.com/technovangelist)

*Session
Feedback*



that.land/3NOV9zA

