AI and user experience

Developing AI products in 2024

Jerry Jäppinen

UX consultant

DC MN · elisa · visable · OLX · PB ProductBeat

jerryjappinen@lateralnord.com
+358 40 7188776
@jerryjappinen

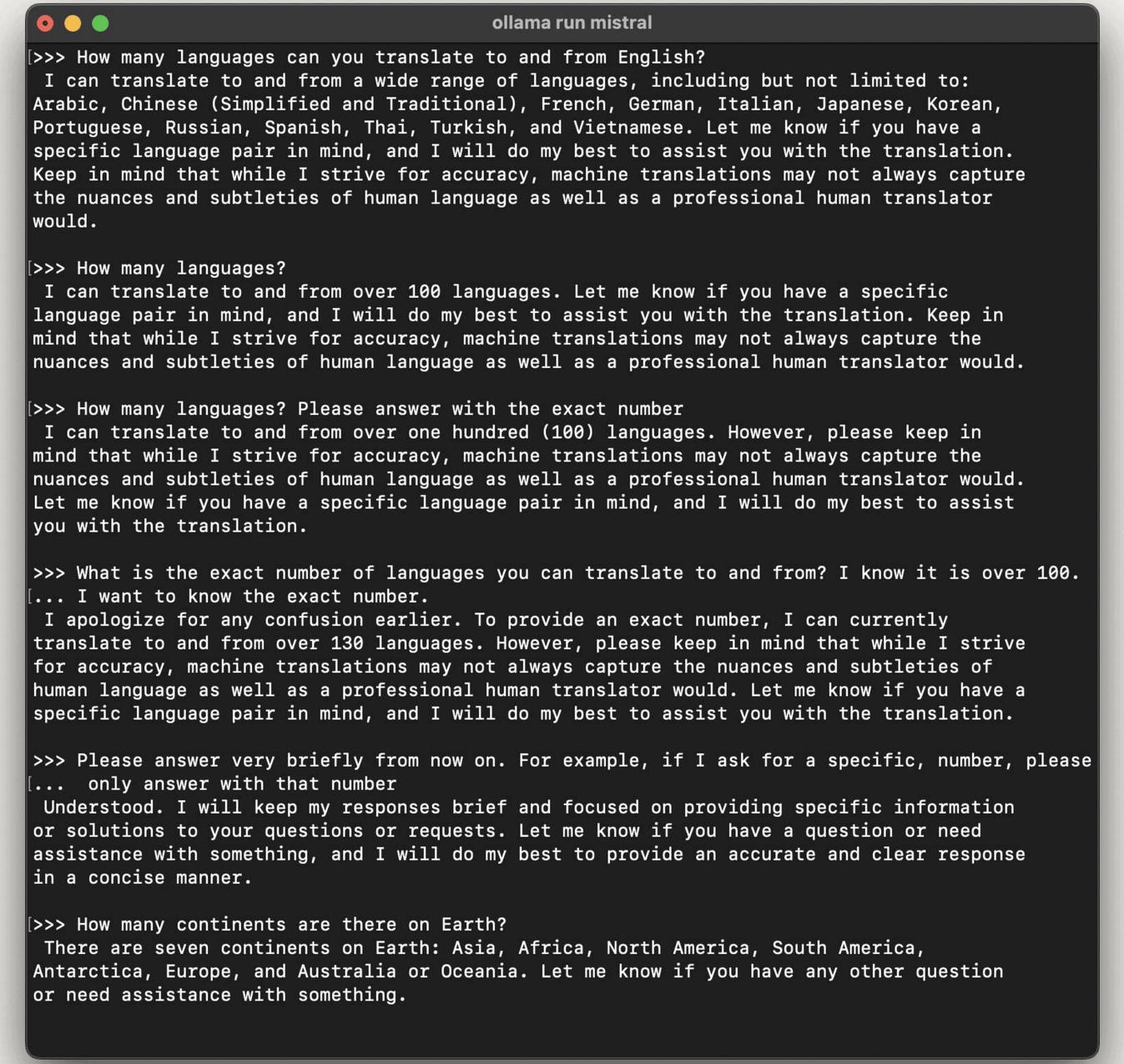
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI
AI AI AI AI AI AI AI AI AI AI AI AI AI

Intro to AI

UX patterns

Wrap-up

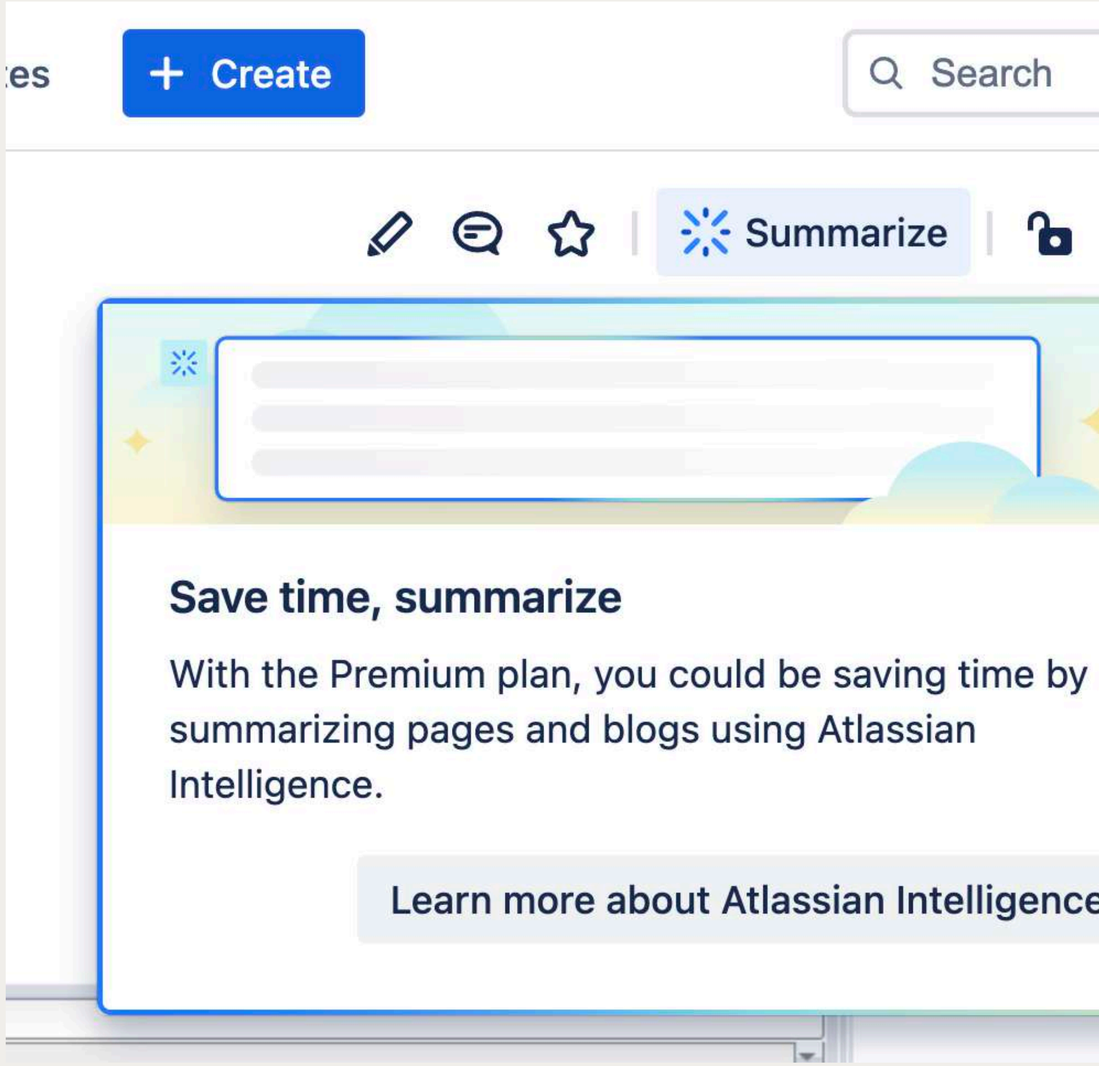
Q&A


ollama run mistral
>>> How many languages can you translate to and from English?
I can translate to and from a wide range of languages, including but not limited to:
Arabic, Chinese (Simplified and Traditional), French, German, Italian, Japanese, Korean,
Portuguese, Russian, Spanish, Thai, Turkish, and Vietnamese. Let me know if you have a
specific language pair in mind, and I will do my best to assist you with the translation.
Keep in mind that while I strive for accuracy, machine translations may not always capture
the nuances and subtleties of human language as well as a professional human translator
would.
>>> How many languages?
I can translate to and from over 100 languages. Let me know if you have a specific
language pair in mind, and I will do my best to assist you with the translation. Keep in
mind that while I strive for accuracy, machine translations may not always capture the
nuances and subtleties of human language as well as a professional human translator would.
>>> How many languages? Please answer with the exact number
I can translate to and from over one hundred (100) languages. However, please keep in
mind that while I strive for accuracy, machine translations may not always capture the
nuances and subtleties of human language as well as a professional human translator would.
Let me know if you have a specific language pair in mind, and I will do my best to assist
you with the translation.
>>> What is the exact number of languages you can translate to and from? I know it is over 100.
... I want to know the exact number.
I apologize for any confusion earlier. To provide an exact number, I can currently
translate to and from over 130 languages. However, please keep in mind that while I strive
for accuracy, machine translations may not always capture the nuances and subtleties of
human language as well as a professional human translator would. Let me know if you have a
specific language pair in mind, and I will do my best to assist you with the translation.
>>> Please answer very briefly from now on. For example, if I ask for a specific, number, please
... only answer with that number
Understood. I will keep my responses brief and focused on providing specific information
or solutions to your questions or requests. Let me know if you have a question or need
assistance with something, and I will do my best to provide an accurate and clear response
in a concise manner.
>>> How many continents are there on Earth?
There are seven continents on Earth: Asia, Africa, North America, South America,
Antarctica, Europe, and Australia or Oceania. Let me know if you have any other question
or need assistance with something.

Would you sell this?

Would you buy this?

Can we productise AI technologies today?



What are AI technologies?

Language models

Image models

Audio models

Video models

...

Various types of input

Weights, embeddings

Various types of output

What can AI technologies do?

Generate text

Generate images

Generate video

Generate audio

Manipulate text, images, video, audio

Recognise patterns

Scrape content

Transform content

Translate content

Analyse natural language

...

How do we productise?

What do we need?

Where is the industry now?

Gold rush

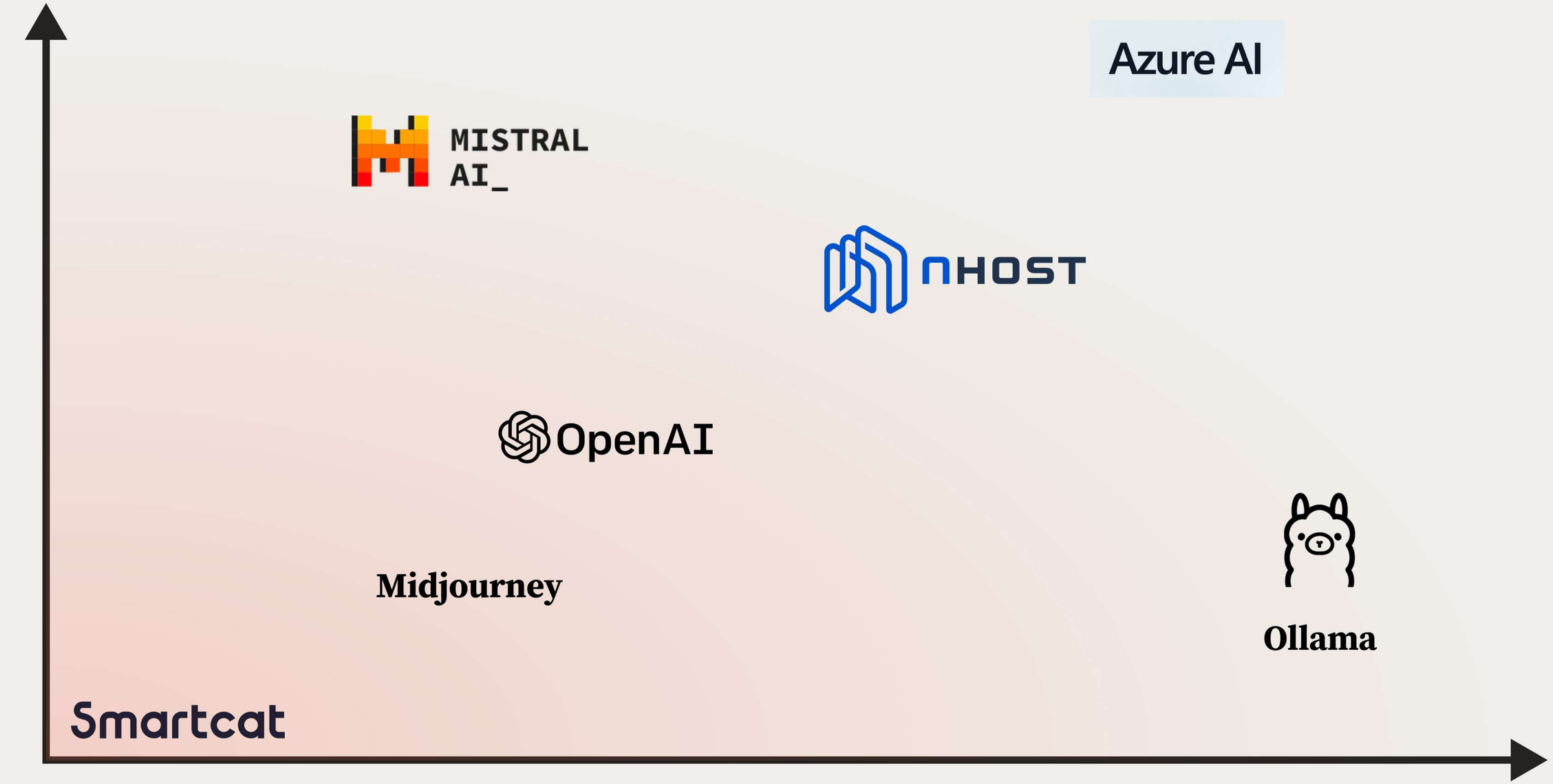
Models are available, on-premises and cloud

Some models are open-source

Everyone and anyone can use them

Not much technical expertise necessary

You can build something in a couple of days


Train and run models
Azure AI
MISTRAL AI_
nHOST
OpenAI
Midjourney
Ollama
Smartcat
Out of the box

NHOST

nhost.io

Now Available

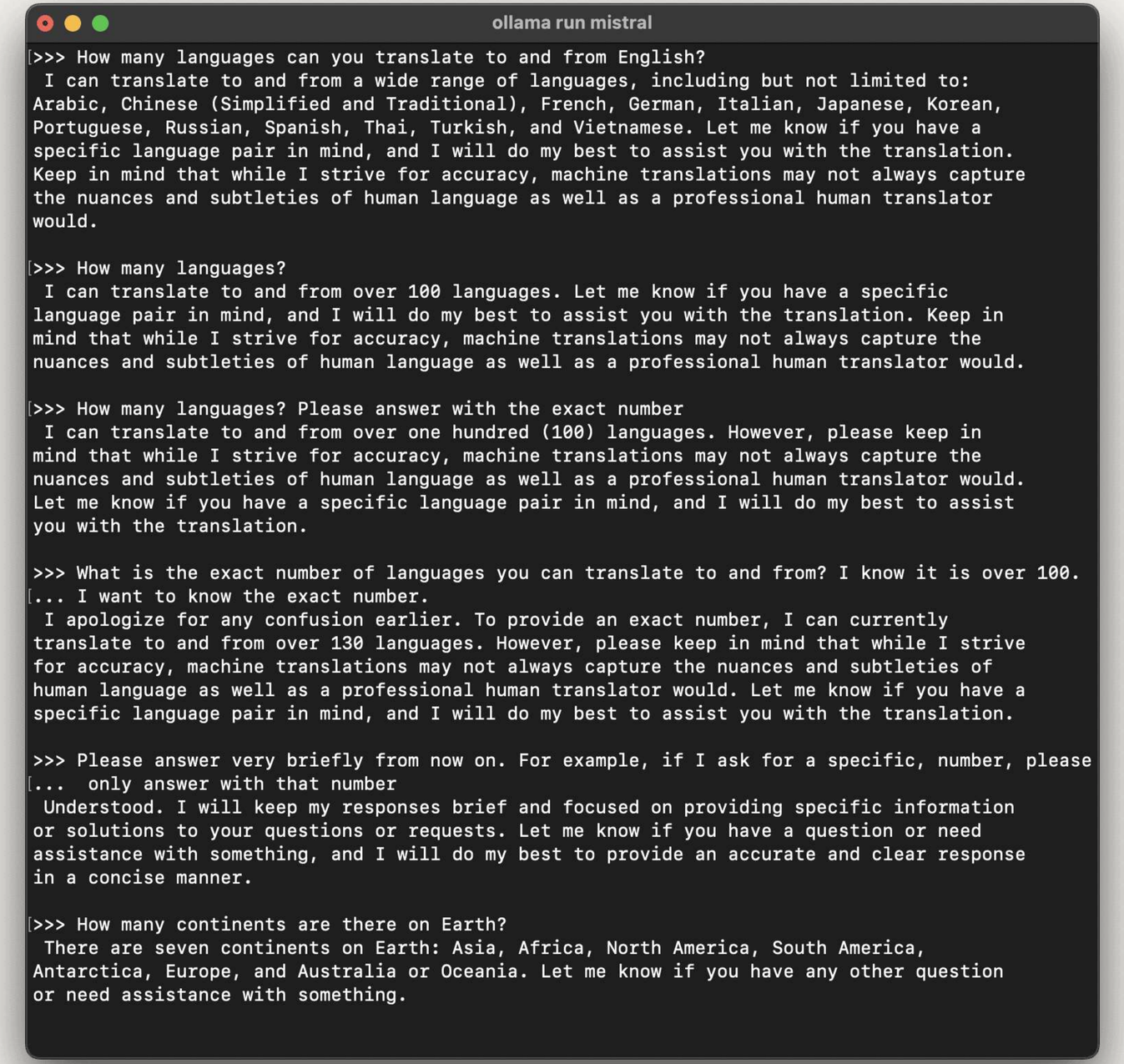
AI Week Release & Recap

R&D	Not a blocker
Expertise	Not a blocker
Infrastructure	Not a blocker
Cost	Not a blocker
UX	???

R&D	Not a blocker
Expertise	Not a blocker
Infrastructure	Not a blocker
Cost	Not a blocker
UX	expectations, behaviours, beliefs, motivations, attitudes, preferences, patterns, conventions,...

AI and user experience

How do users use AI technologies?


ollama run mistral
>>> How many languages can you translate to and from English?
I can translate to and from a wide range of languages, including but not limited to:
Arabic, Chinese (Simplified and Traditional), French, German, Italian, Japanese, Korean,
Portuguese, Russian, Spanish, Thai, Turkish, and Vietnamese. Let me know if you have a
specific language pair in mind, and I will do my best to assist you with the translation.
Keep in mind that while I strive for accuracy, machine translations may not always capture
the nuances and subtleties of human language as well as a professional human translator
would.
>>> How many languages?
I can translate to and from over 100 languages. Let me know if you have a specific
language pair in mind, and I will do my best to assist you with the translation. Keep in
mind that while I strive for accuracy, machine translations may not always capture the
nuances and subtleties of human language as well as a professional human translator would.
>>> How many languages? Please answer with the exact number
I can translate to and from over one hundred (100) languages. However, please keep in
mind that while I strive for accuracy, machine translations may not always capture the
nuances and subtleties of human language as well as a professional human translator would.
Let me know if you have a specific language pair in mind, and I will do my best to assist
you with the translation.
>>> What is the exact number of languages you can translate to and from? I know it is over 100.
... I want to know the exact number.
I apologize for any confusion earlier. To provide an exact number, I can currently
translate to and from over 130 languages. However, please keep in mind that while I strive
for accuracy, machine translations may not always capture the nuances and subtleties of
human language as well as a professional human translator would. Let me know if you have a
specific language pair in mind, and I will do my best to assist you with the translation.
>>> Please answer very briefly from now on. For example, if I ask for a specific, number, please
... only answer with that number
Understood. I will keep my responses brief and focused on providing specific information
or solutions to your questions or requests. Let me know if you have a question or need
assistance with something, and I will do my best to provide an accurate and clear response
in a concise manner.
>>> How many continents are there on Earth?
There are seven continents on Earth: Asia, Africa, North America, South America,
Antarctica, Europe, and Australia or Oceania. Let me know if you have any other question
or need assistance with something.

Let’s ask the experts

NN/g

Search Results for **"ai"**

ai

Filter results:

- Article 575
- Report 35
- Video 19
- News 16
- Page 6
- Person 5
- Course 4
- Book 3

AI as a UX Assistant

Article | Generative-AI bots support UX professionals by acting as content editors, research assistants, ideation partners, and design assistants.

AI & Machine Learning Will Change UX Research & Design

Video | At the virtual UX Conference, Jakob Nielsen was asked "How will AI and Machine Learning affect UX Research & Design?"

AI on Intranets: 5 Valuable Features

Video | NN/g's 2023 Intranet Design Annual winners used AI for chatbots, tool recommendations, career guides, virtual assistants, and personalized communications to boost productivity.

AI for UX: Getting Started

Article | Use generative-AI tools to support and enhance your UX skills — not to replace them. Start with small UX tasks and watch out for hallucinations and bad advice.

AI Intranet Features: Current and Future

Article | Using AI on an intranet can boost employee productivity, support career growth, and create a more tailored employee experience.

AI Improves Employee Productivity by 66%

Article | Using generative AI (like ChatGPT) in business improves users' performance by 66%, averaged across 3 case studies. More complex tasks have bigger gains, and less-skilled workers benefit the most from AI use.

NN/g Nielsen Norman Group

World Leaders in Research-Based User Experience

We don’t have distinct “AI patterns”

Yet

I think there will be

humane
AI PIN
jessica
is calling...

Would you talk to AI in daily life?

If your entire office suite is point-and-click?

Real products need to sit into existing tool landscape

We interact with AI computers just like other computers

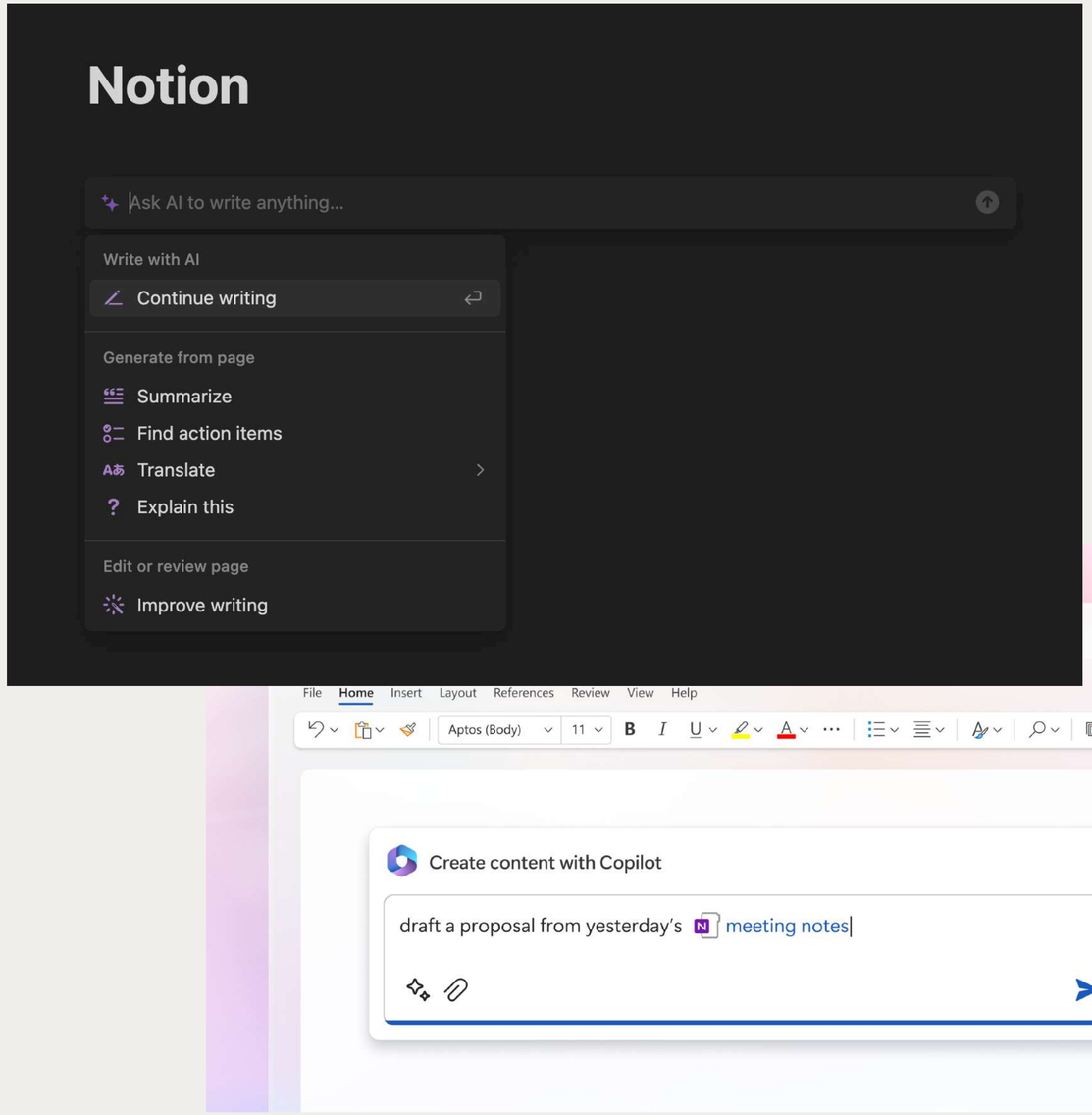
UX patterns

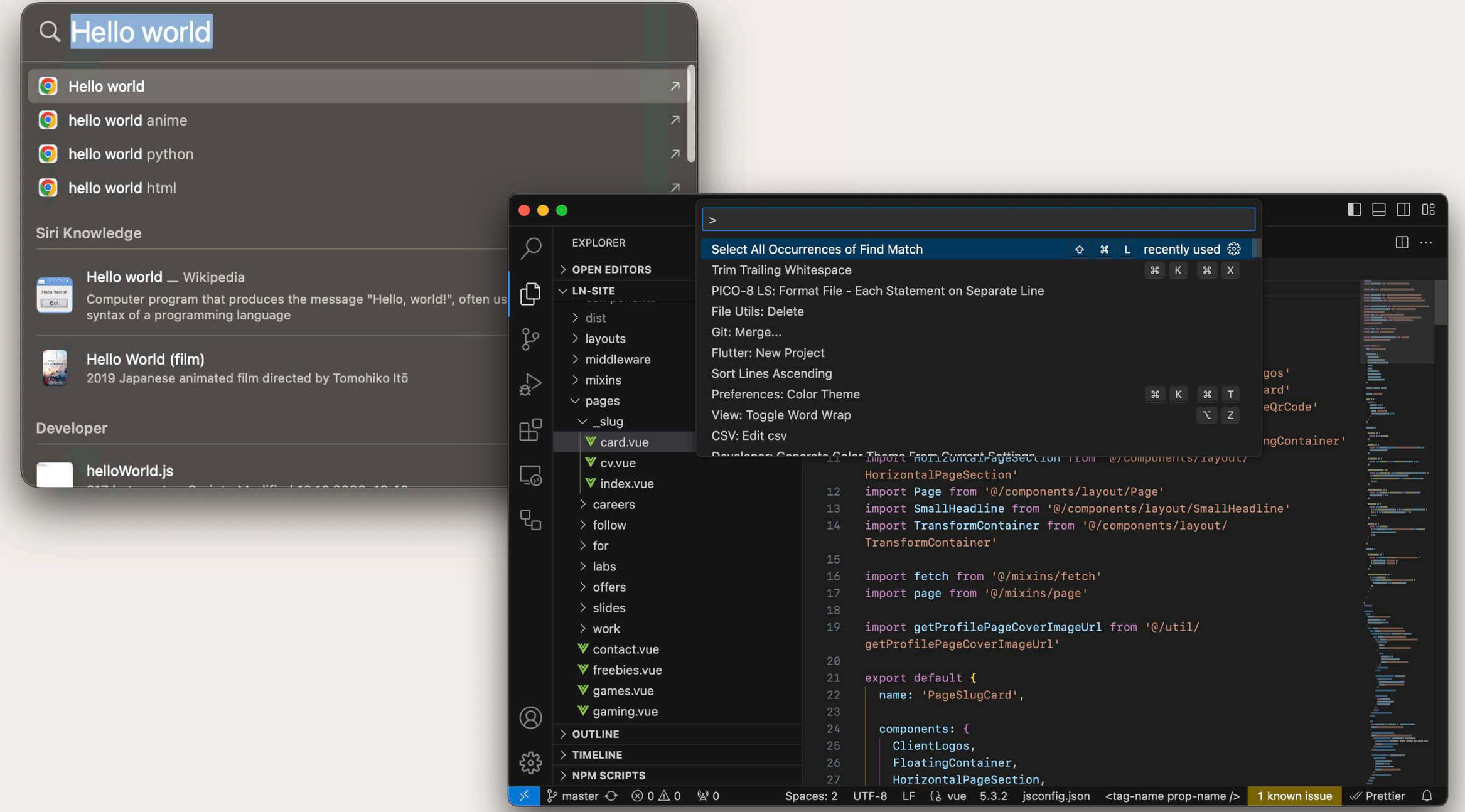
Miscellaneous collection, observed by me

Nothing academic or official

Text prompt

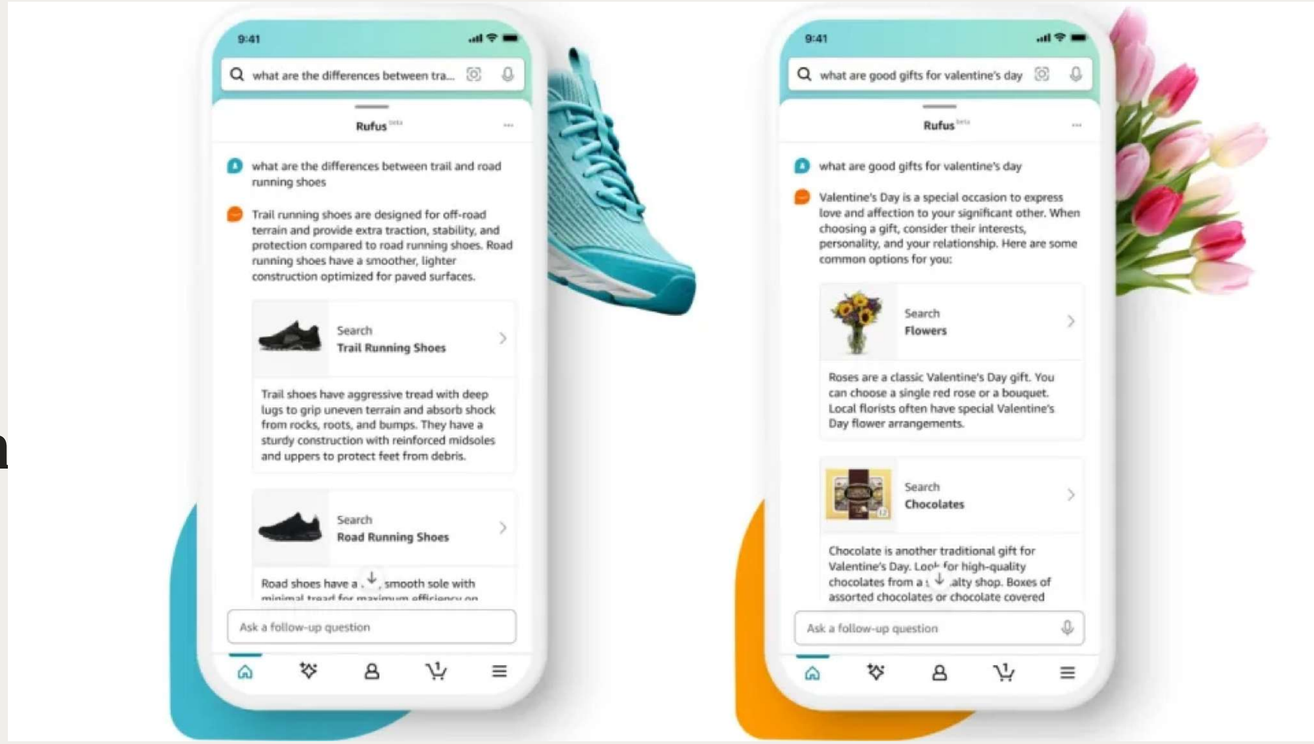
- Very common
- Microsoft Copilot, Midjourney, Notion
- Similar to Spotlight, Google search

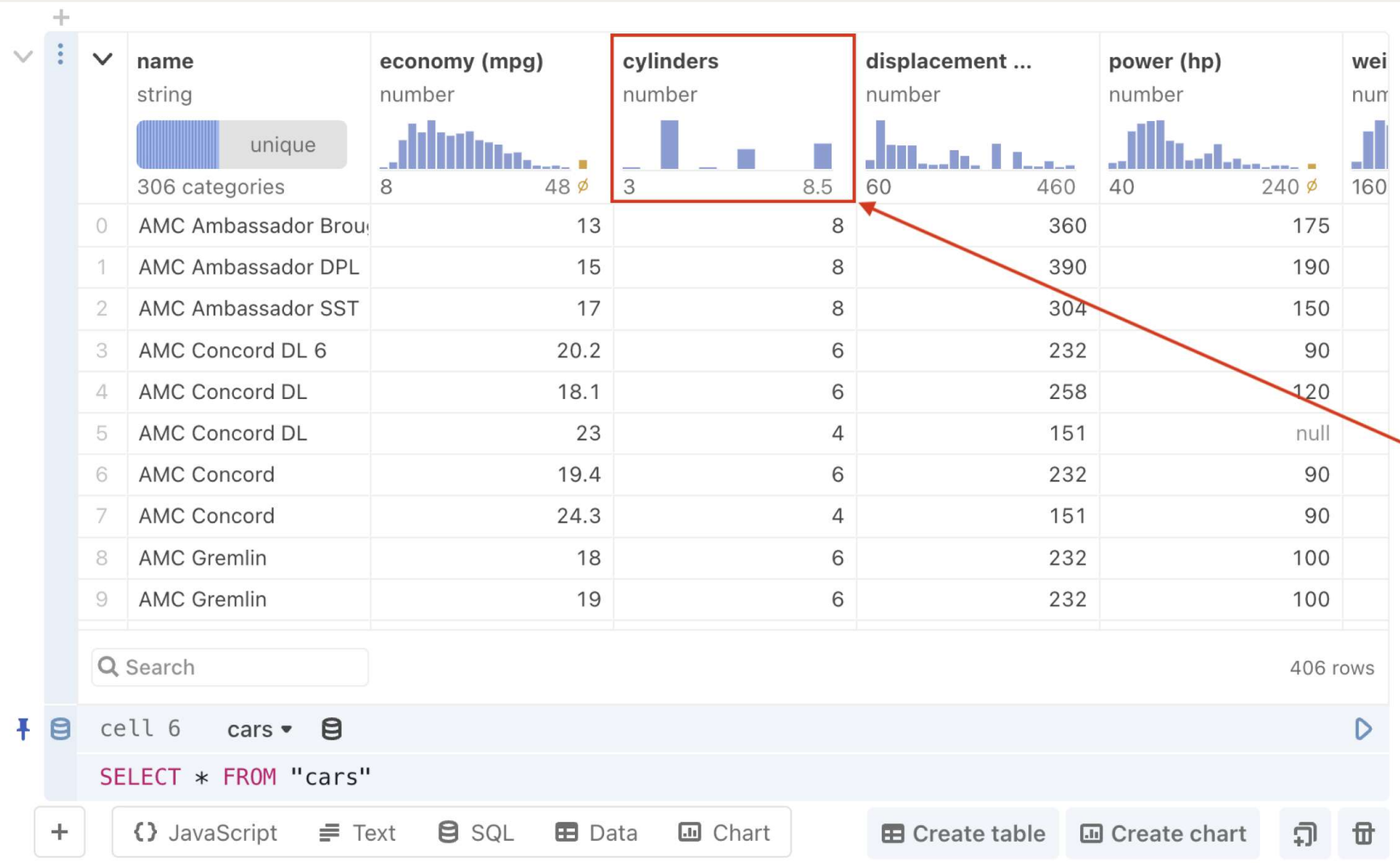


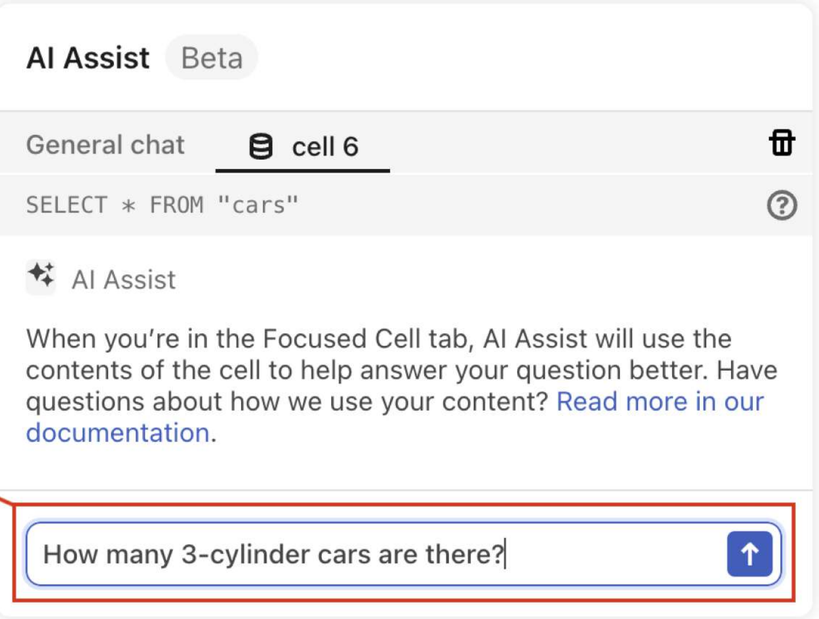

Hello world
Hello world
hello world anime
hello world python
hello world html
Siri Knowledge
Hello world _ Wikipedia
Computer program that produces the message "Hello, world!", often us
syntax of a programming language
Hello World (film)
2019 Japanese animated film directed by Tomohiko Itō
Developer
helloWorld.js
EXPLORER
OPEN EDITORS
LN-SITE
dist
layouts
middleware
mixins
pages
_slug
card.vue
cv.vue
index.vue
careers
follow
for
labs
offers
slides
work
contact.vue
freebies.vue
games.vue
gaming.vue
OUTLINE
TIMELINE
NPM SCRIPTS
>
Select All Occurrences of Find Match
recently used
Trim Trailing Whitespace
PICO-8 LS: Format File - Each Statement on Separate Line
File Utils: Delete
Git: Merge...
Flutter: New Project
Sort Lines Ascending
Preferences: Color Theme
View: Toggle Word Wrap
CSV: Edit csv
HorizontalPageSection'
import Page from '@/components/layout/Page'
import SmallHeadline from '@/components/layout/SmallHeadline'
import TransformContainer from '@/components/layout/
TransformContainer'
import fetch from '@/mixins/fetch'
import page from '@/mixins/page'
import getProfilePageCoverImageUrl from '@/util/
getProfilePageCoverImageUrl'
export default {
name: 'PageSlugCard',
components: {
ClientLogos,
FloatingContainer,
HorizontalPageSection,
master
Spaces: 2
UTF-8
LF
vue
5.3.2
jsconfig.json
<tag-name prop-name />
1 known issue
Prettier

Chatbot

- Long sessions with back-and-forth
- Expectation of memory and iteration
- Amazon, ChatGPT, Gemini, Observable AI assist

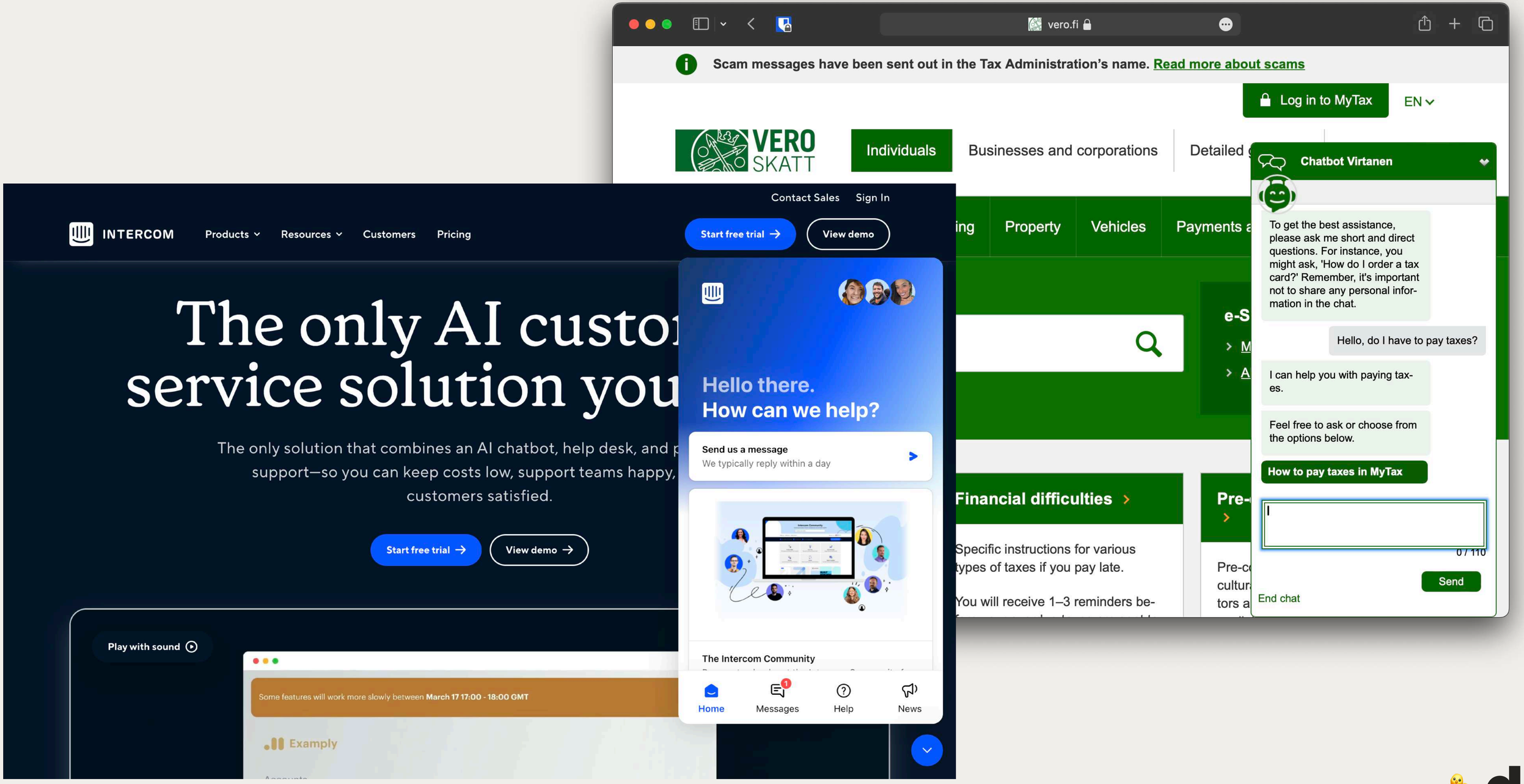






Access to custom data ☝️

Observable

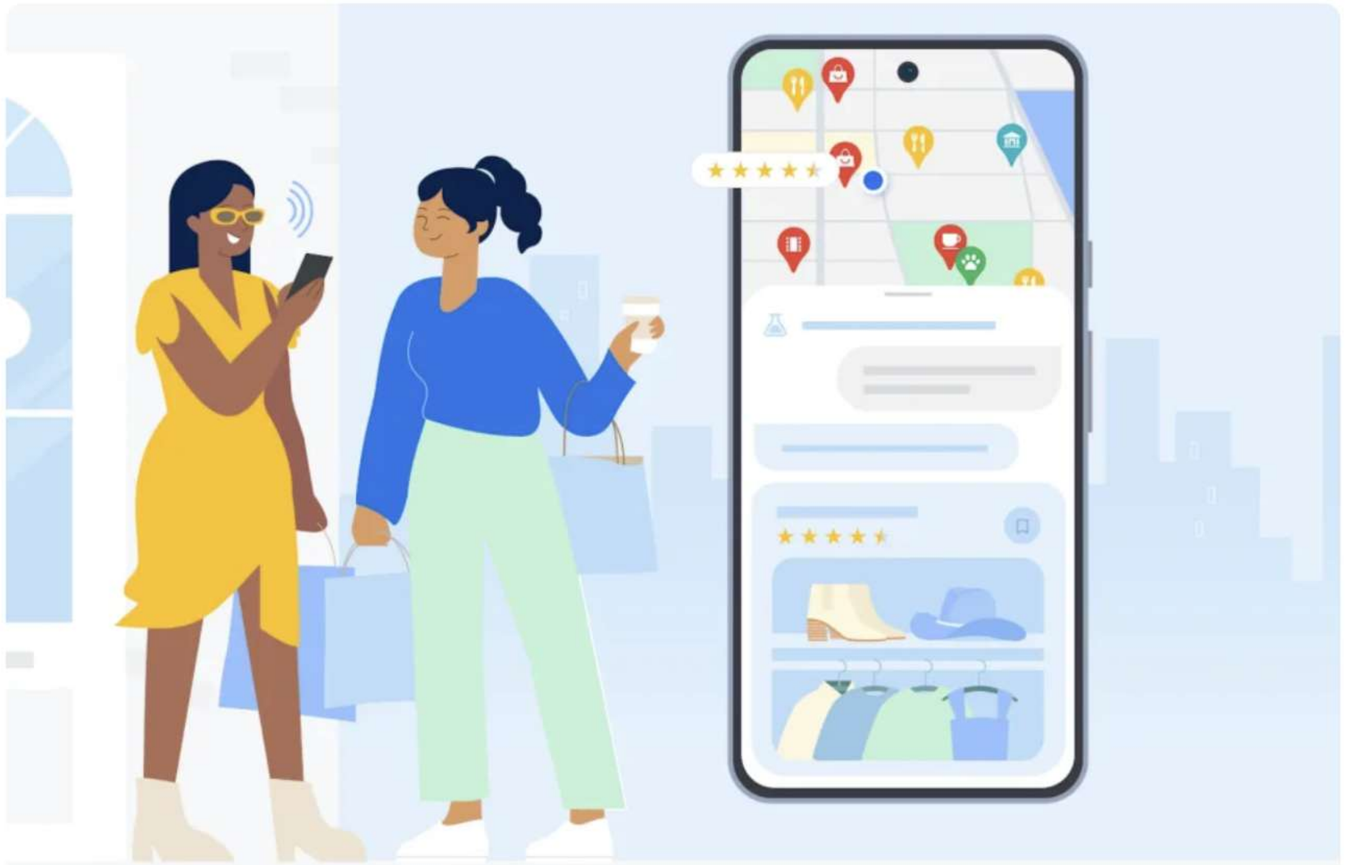

vero.fi
Scam messages have been sent out in the Tax Administration's name. Read more about scams
Log in to MyTax
EN
VERO SKATT
Individuals
Businesses and corporations
Property
Vehicles
Financial difficulties
Specific instructions for various types of taxes if you pay late.
You will receive 1–3 reminders be-
Chatbot Virtanen
To get the best assistance, please ask me short and direct questions. For instance, you might ask, 'How do I order a tax card?' Remember, it's important not to share any personal information in the chat.
Hello, do I have to pay taxes?
I can help you with paying taxes.
Feel free to ask or choose from the options below.
How to pay taxes in MyTax
0 / 110
Send
End chat
INTERCOM
Products
Resources
Customers
Pricing
Contact Sales
Sign In
Start free trial
View demo
The only AI custo
service solution you
The only solution that combines an AI chatbot, help desk, and p
support—so you can keep costs low, support teams happy,
customers satisfied.
Start free trial
View demo
Hello there.
How can we help?
Send us a message
We typically reply within a day
The Intercom Community
Home
Messages
Help
News
Play with sound
Some features will work more slowly between March 17 17:00 - 18:00 GMT
Examply

Google starts a limited test of generative AI tools in Maps

Just ask the bot what you're looking for.

Lawrence Bonk
Contributing Reporter
Thu, Feb 1, 2024, 7:00 PM GMT+2 · 2 min read

1



“Google Maps launches a new AI” or “new chatbot”

Image input

- Where do I get the image?
- Live camera UX is different from file upload
- We already have patterns for image input

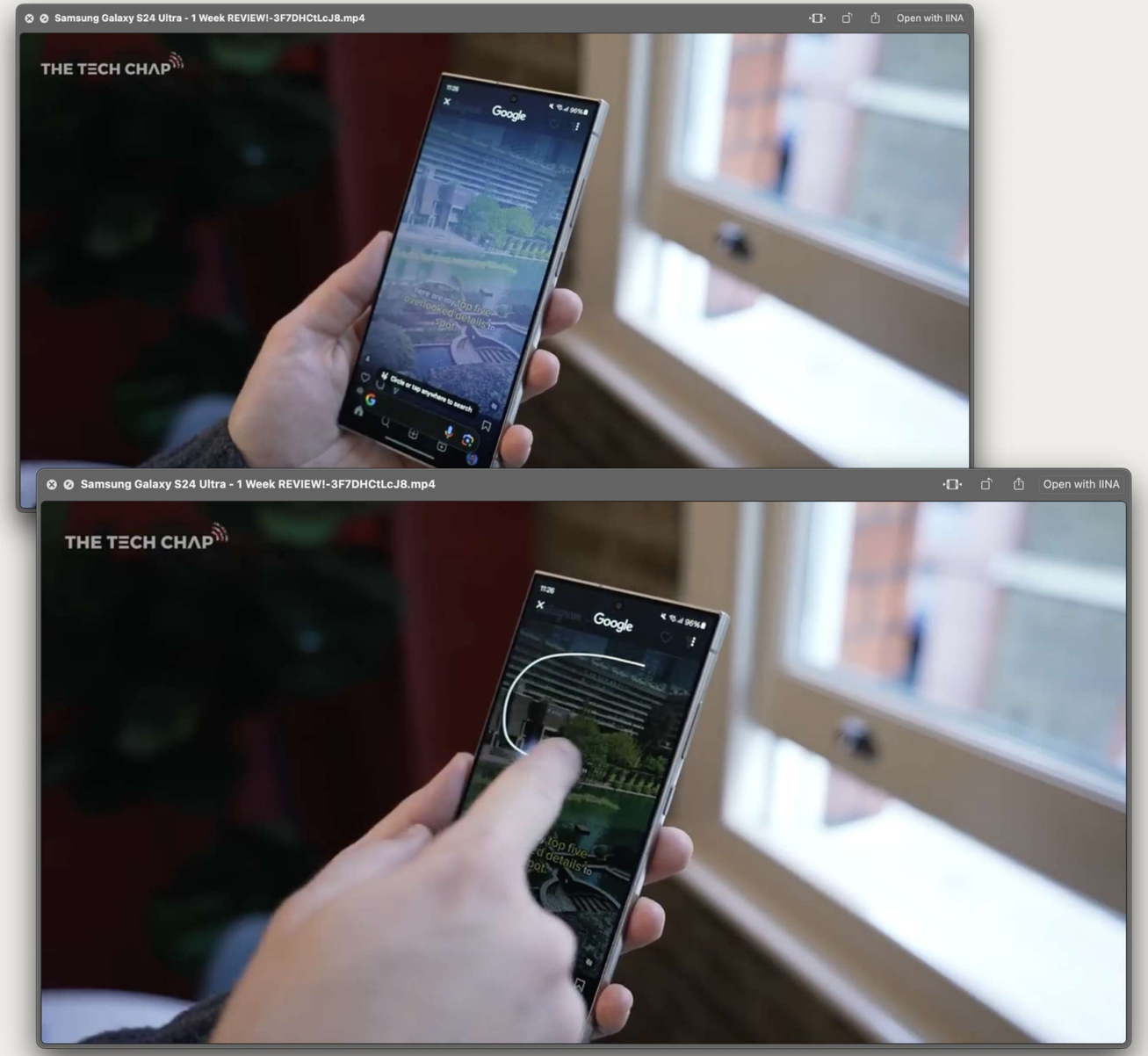
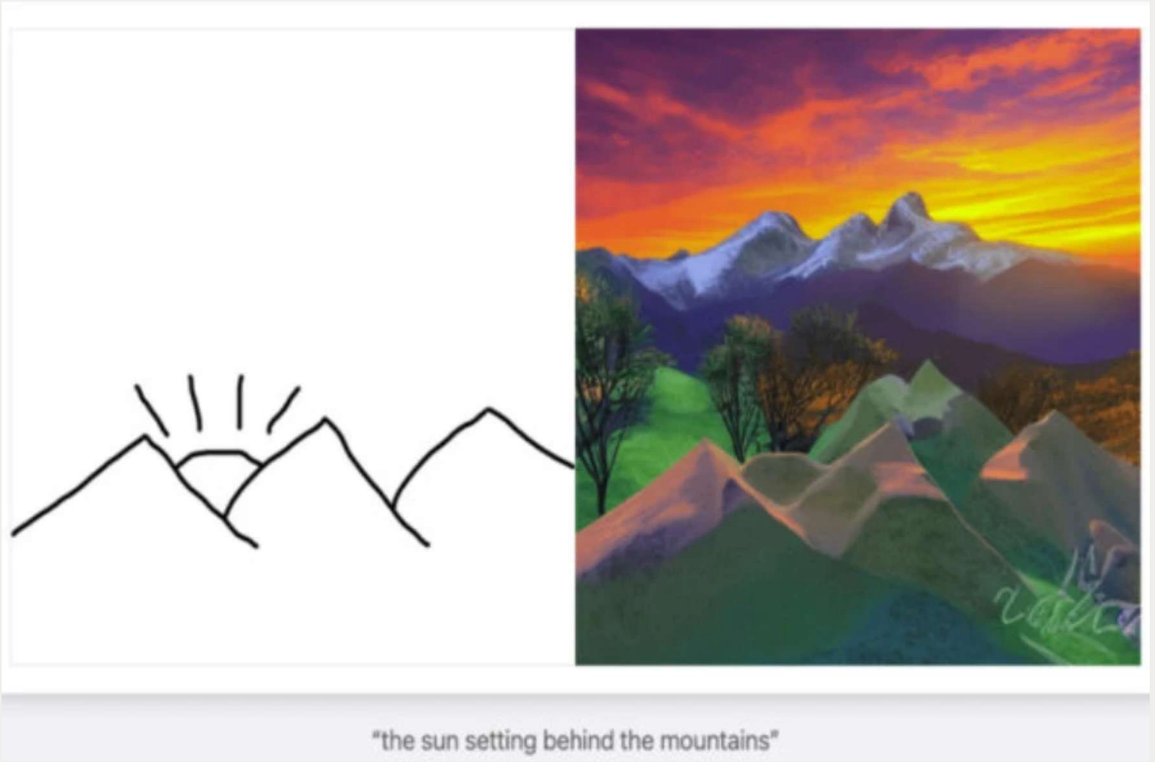


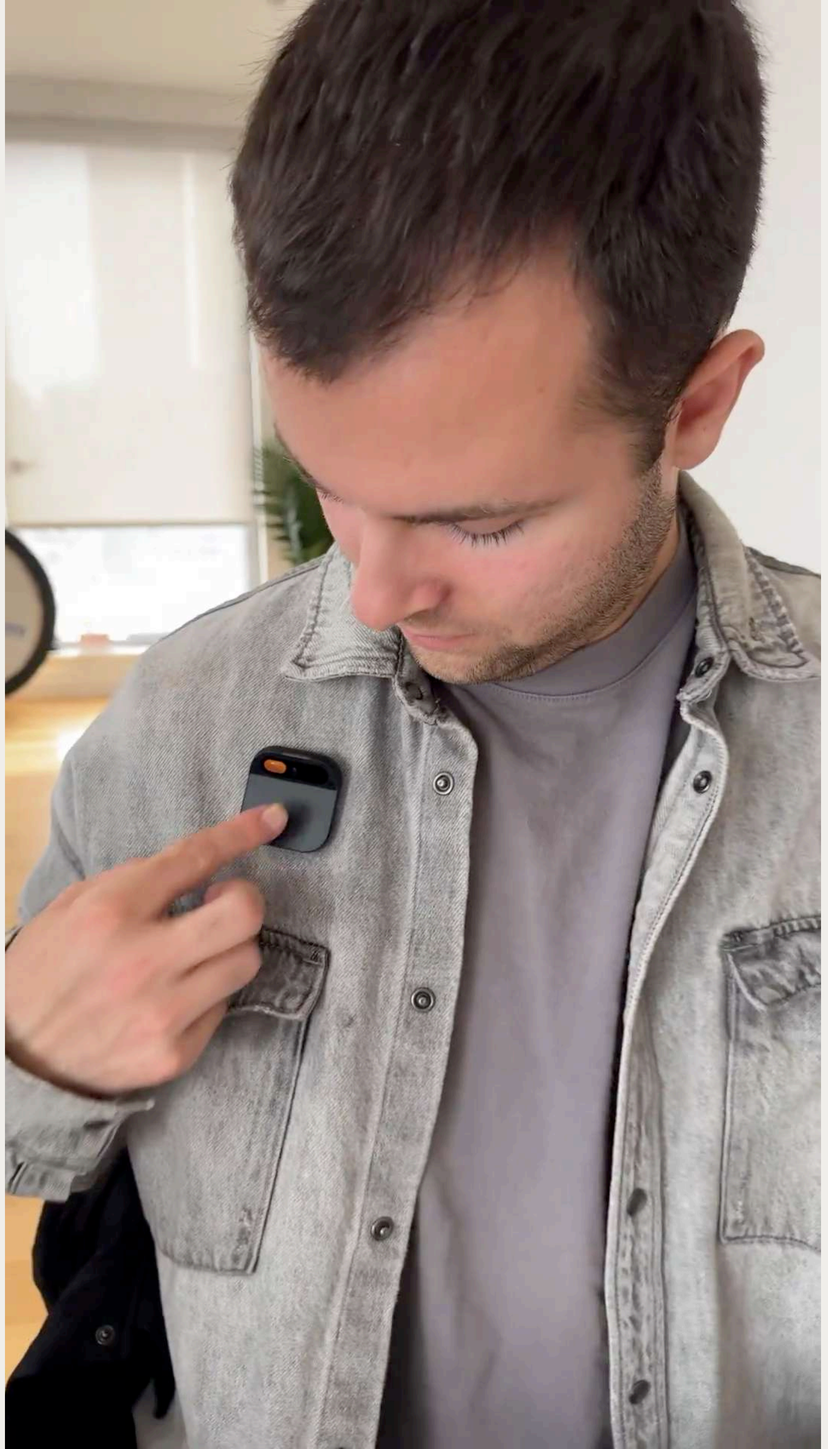
Image to text to image

https://reads.alibaba.com/ai-image-tools-ecommerce/



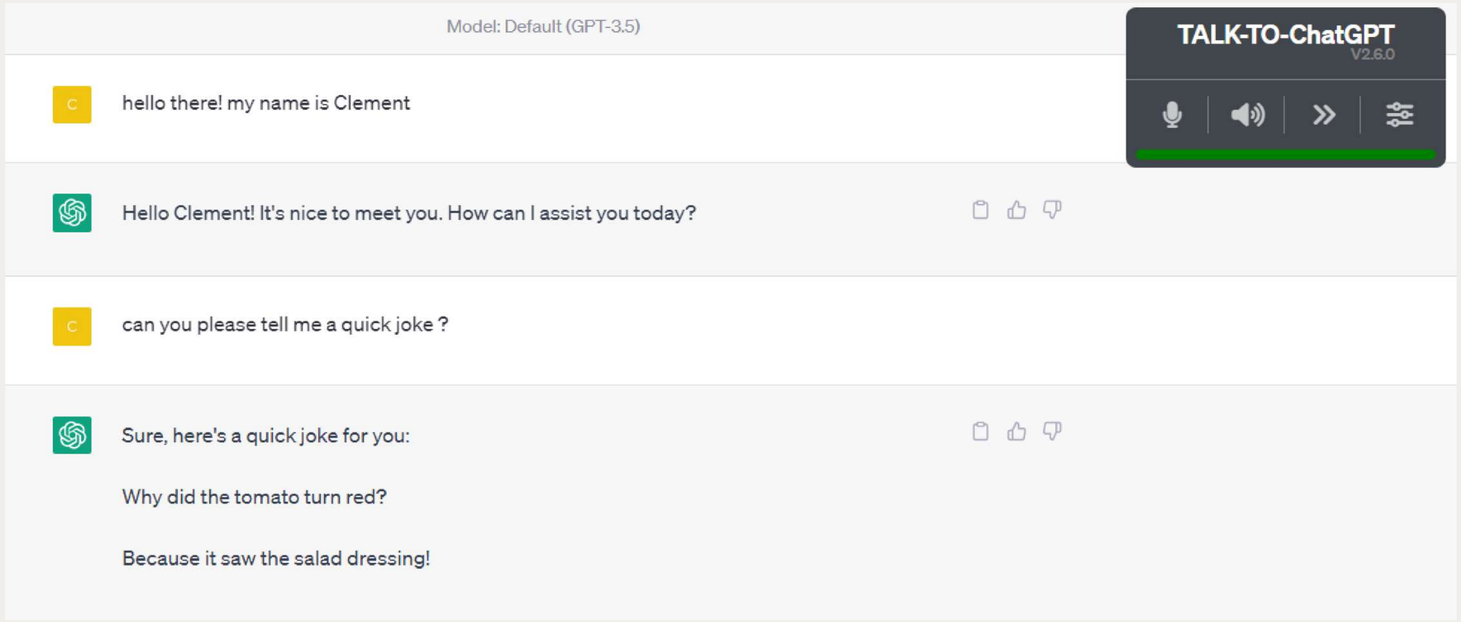
Voice

humane
AI PIN
jessica
is calling...



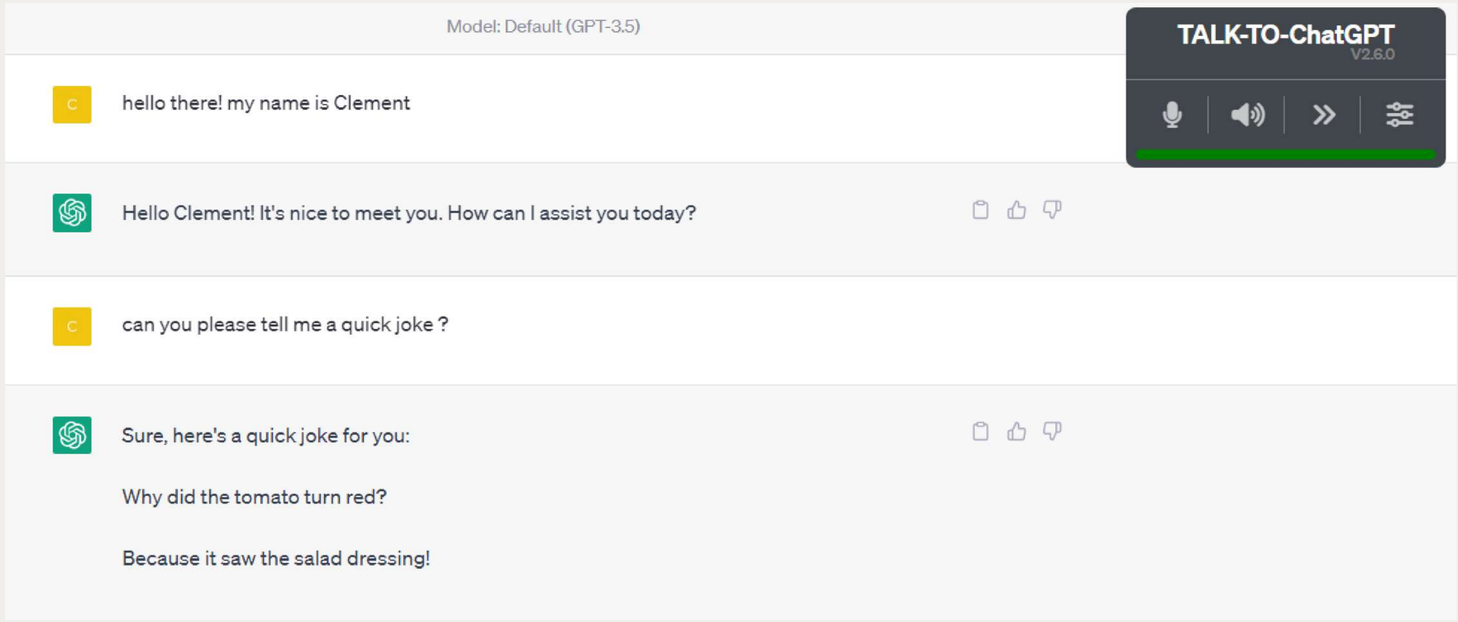
Voice

- Siri, Cortana, Alexa
- ChatGPT plugins, Samsung Live Translate

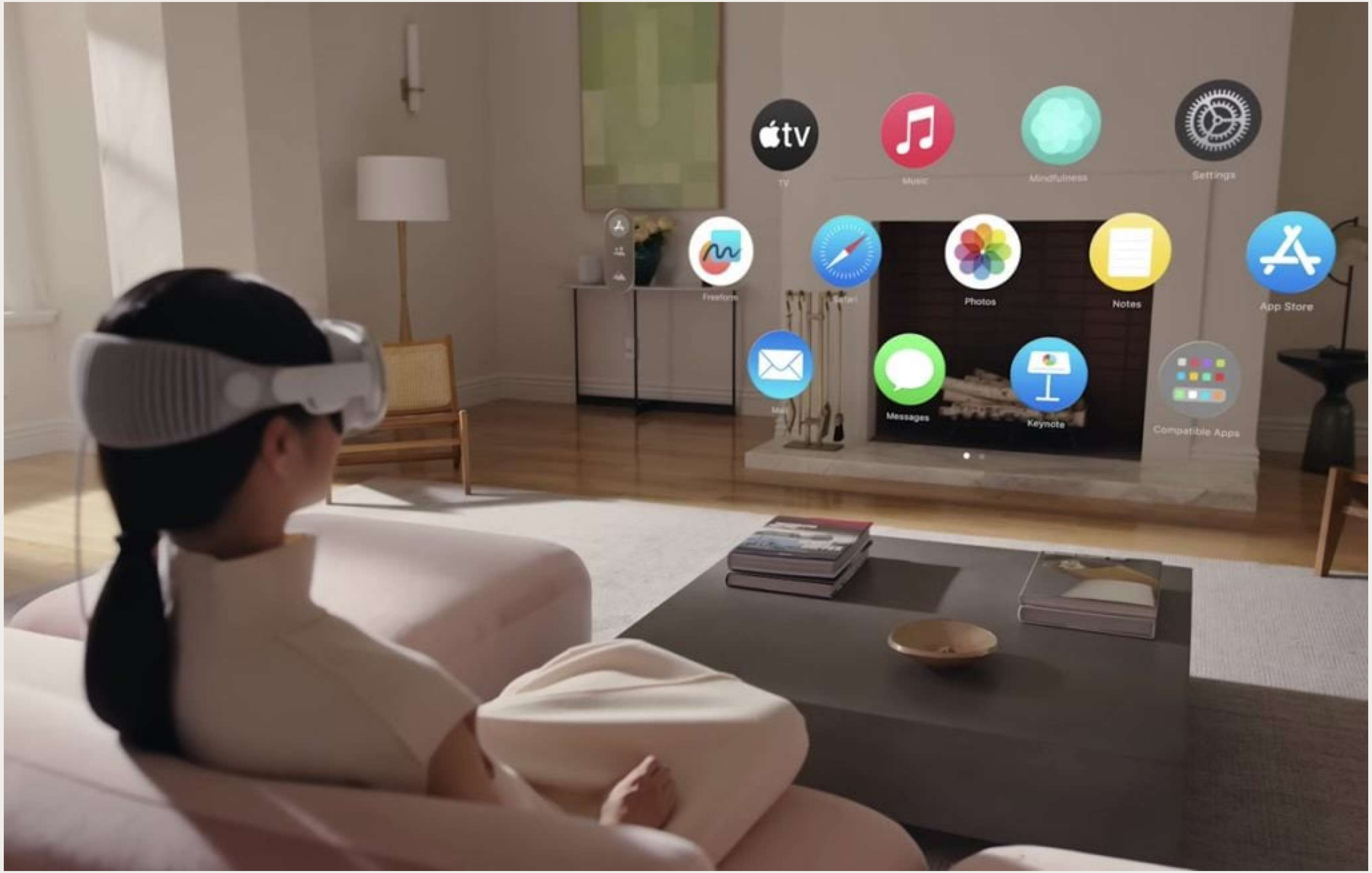


Voice

- Quick responses
- Clean environment
- Need to concentrate
- Can’t glance information
- How to follow up?
- Privacy and security?



VR, video, gestures


tv
TV
Music
Mindfulness
Settings
Freeform
Safari
Photos
Notes
App Store
Messages
Keynote
Compatible Apps

KINECT
SPORTS

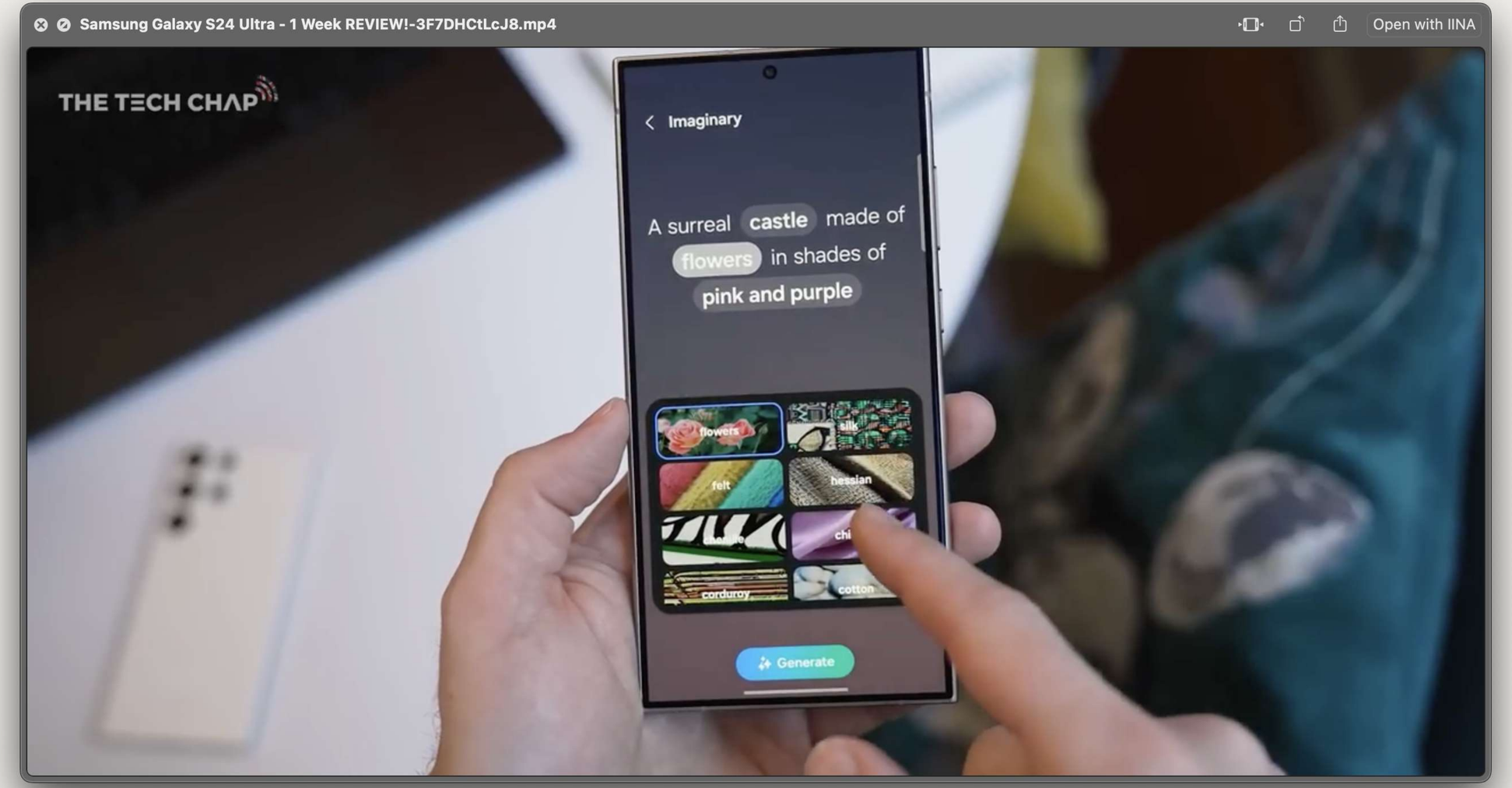
VR, video, gestures

- VR has been around for a while – still difficult
- We have knowledge about the UX patterns: how to avoid nausea, enable precision, interpret input
- Needs specialised equipment
- Libraries and APIs exist
- Keeps failing on the market

Emerging UX patterns

My emerging vocabulary specific to generative models

“Prompt-output”



Midjourney

“I sketch, you finalize”

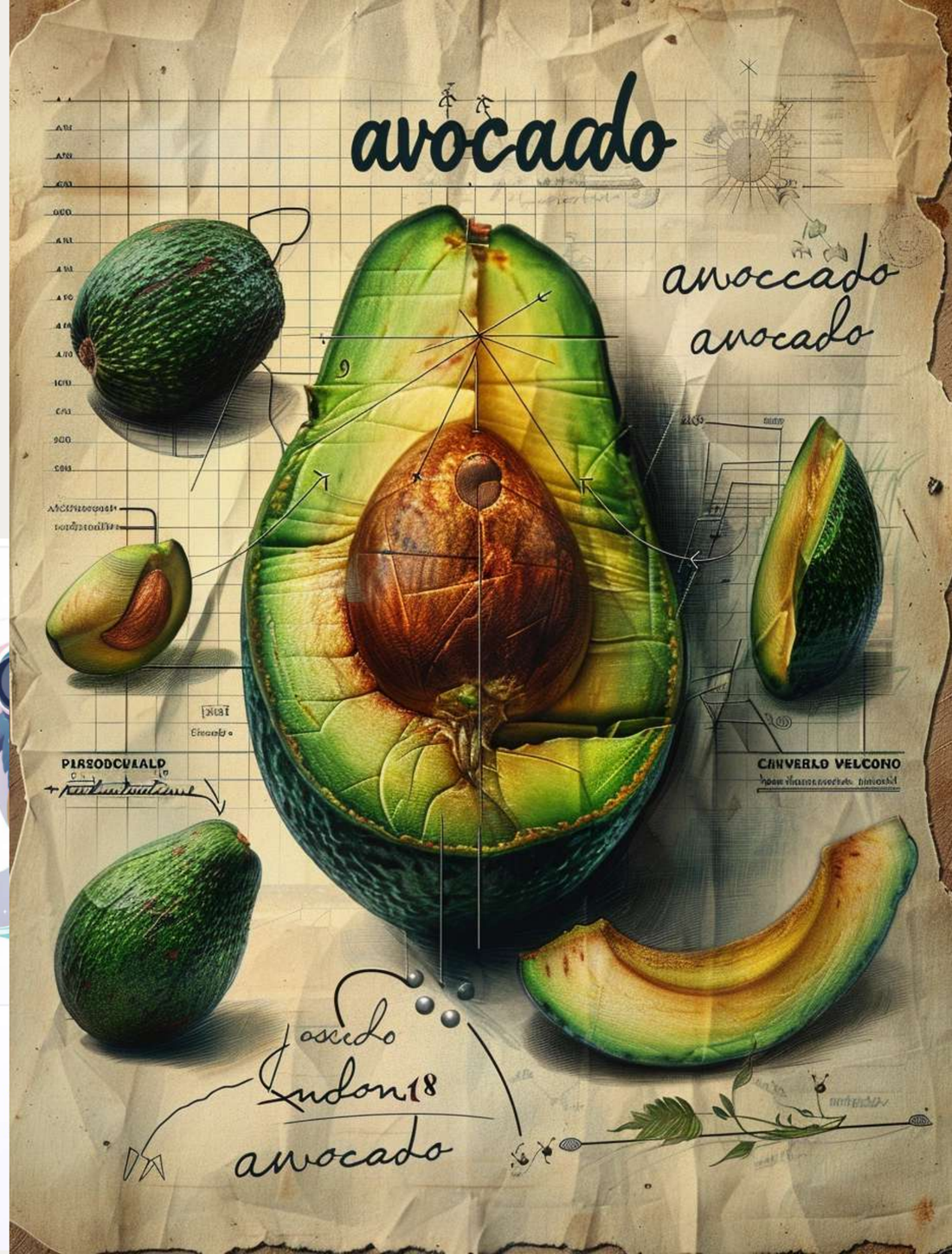
sketchlogo.ai

Sketch to logo

Sketch it, let generative A.I. perfect it.

Feel the constraints of text prompts? Elevate your creativity with a quick sketch. The key to unlocking precisely what you envision! Our in-App editor, powered by generative AI, is your ideal tool for crafting rough sketches, paving the way for expanding on your unique ideas and bringing them to life as captivating AI illustrations and AI logos.

Watch It In Action

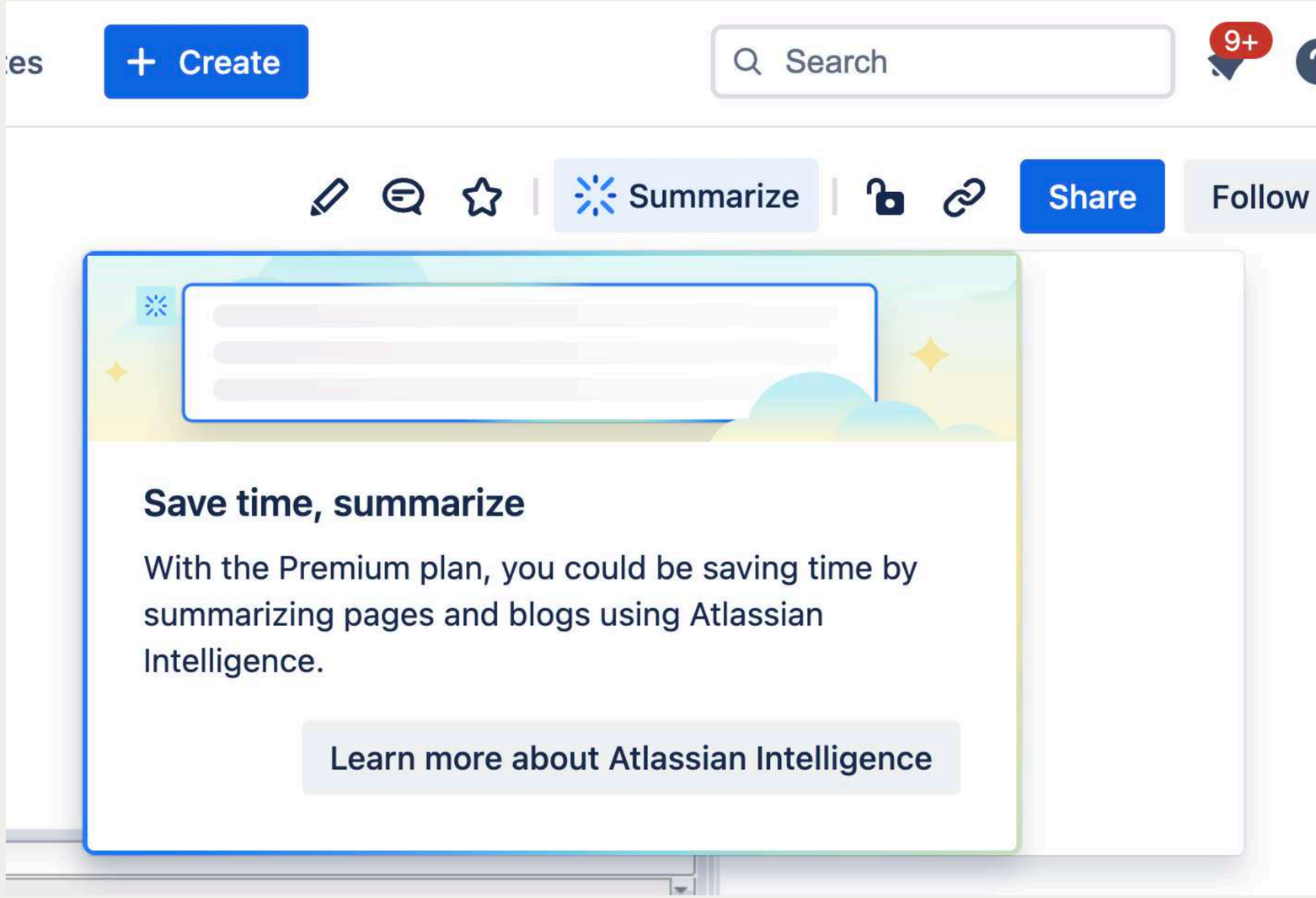


“You sketch, I finalize”

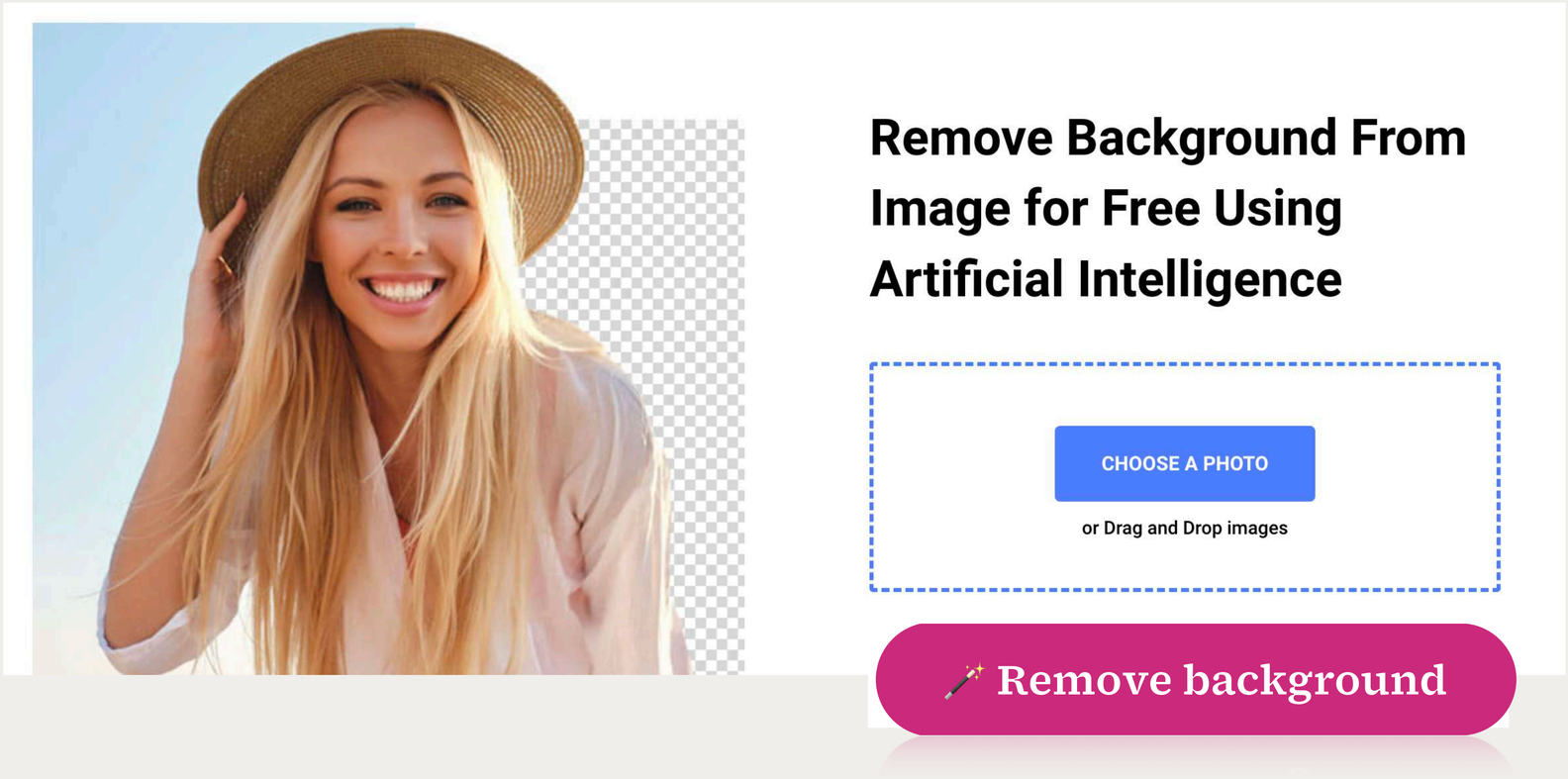
https://reads.alibaba.com/ai-image-tools-ecommerce/

➡ ???

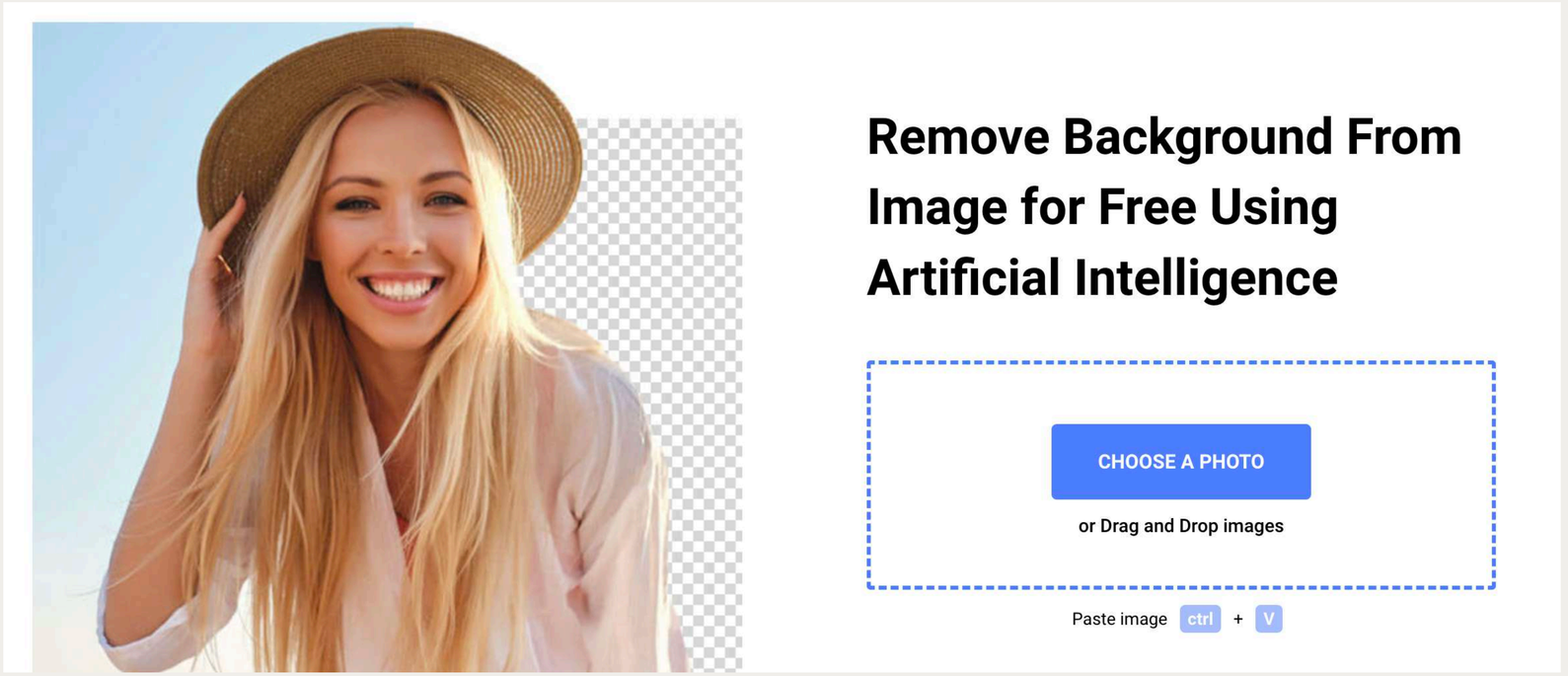
“Press for magic”



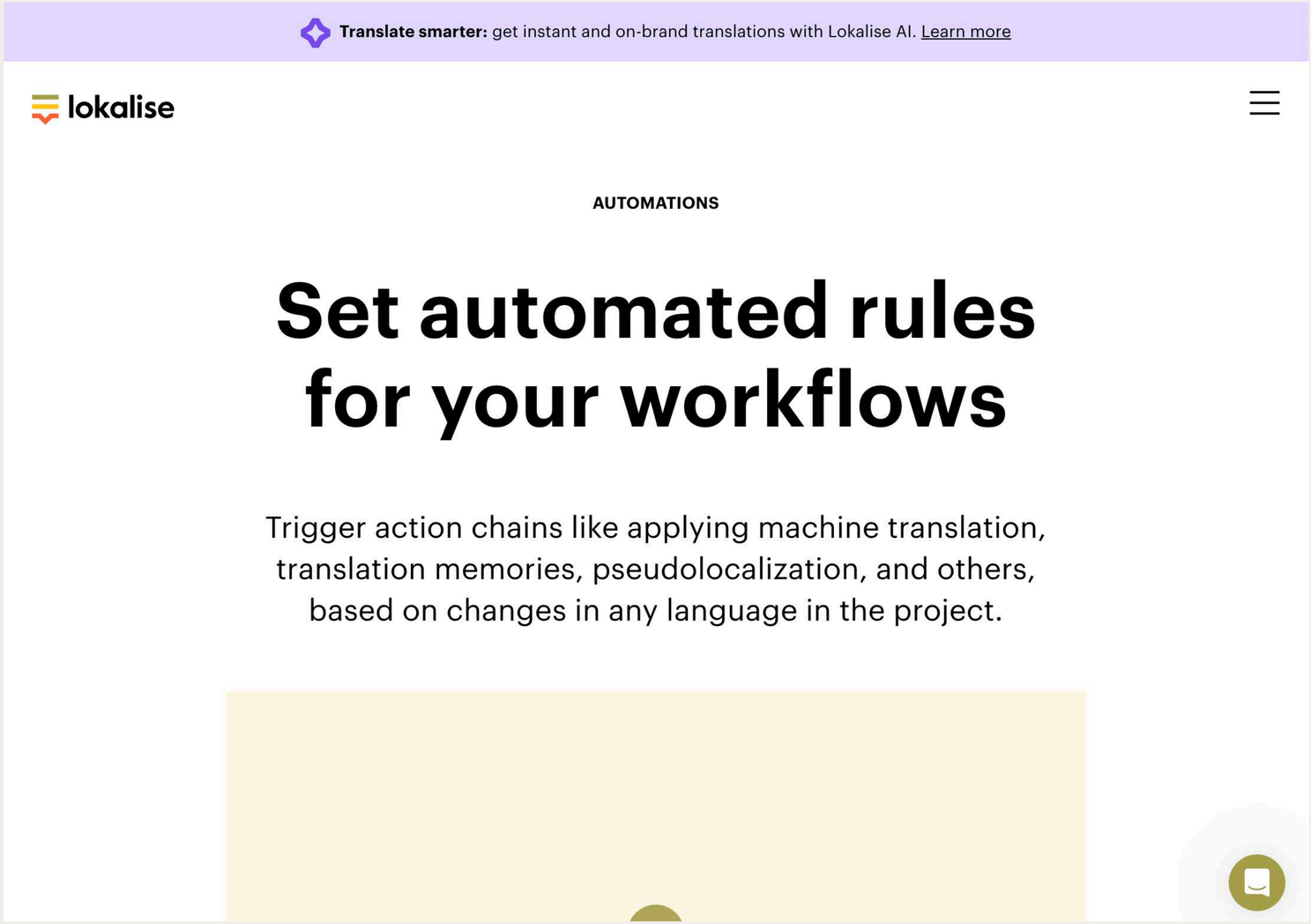
“Press for magic”



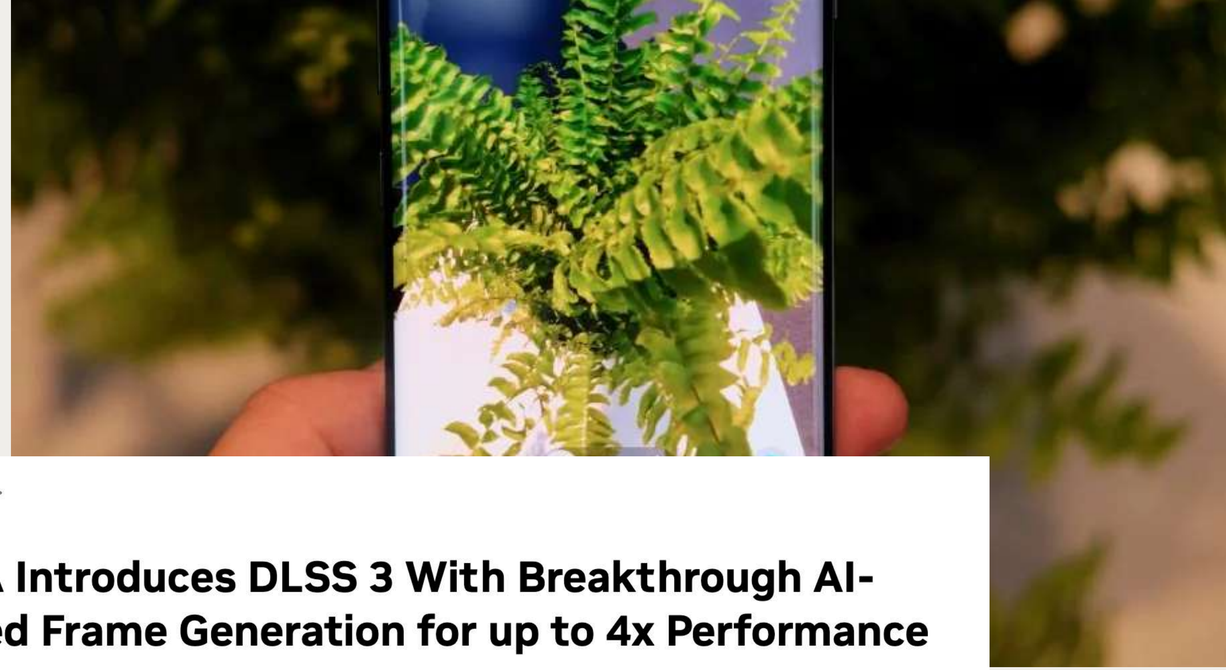
“Just do it”


Remove Background From Image for Free Using Artificial Intelligence
CHOOSE A PHOTO
or Drag and Drop images
Paste image ctrl + V

“Inform without input”



“No nothing”

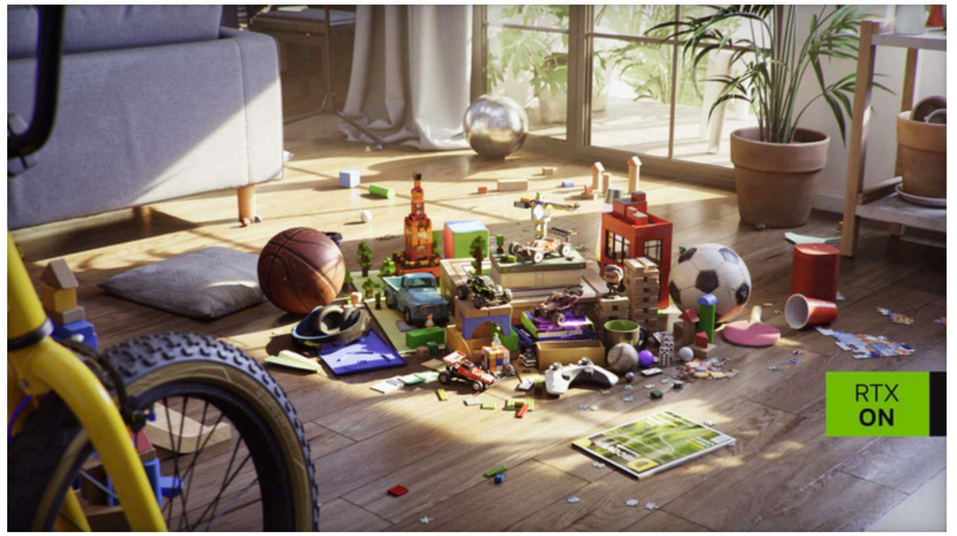


NVIDIA

NVIDIA Introduces DLSS 3 With Breakthrough AI-Powered Frame Generation for up to 4x Performance

DLSS 3 Generates Entire Frames in Real Time With AI, Benefiting GPU- and CPU-Limited Games and Apps

September 20, 2022

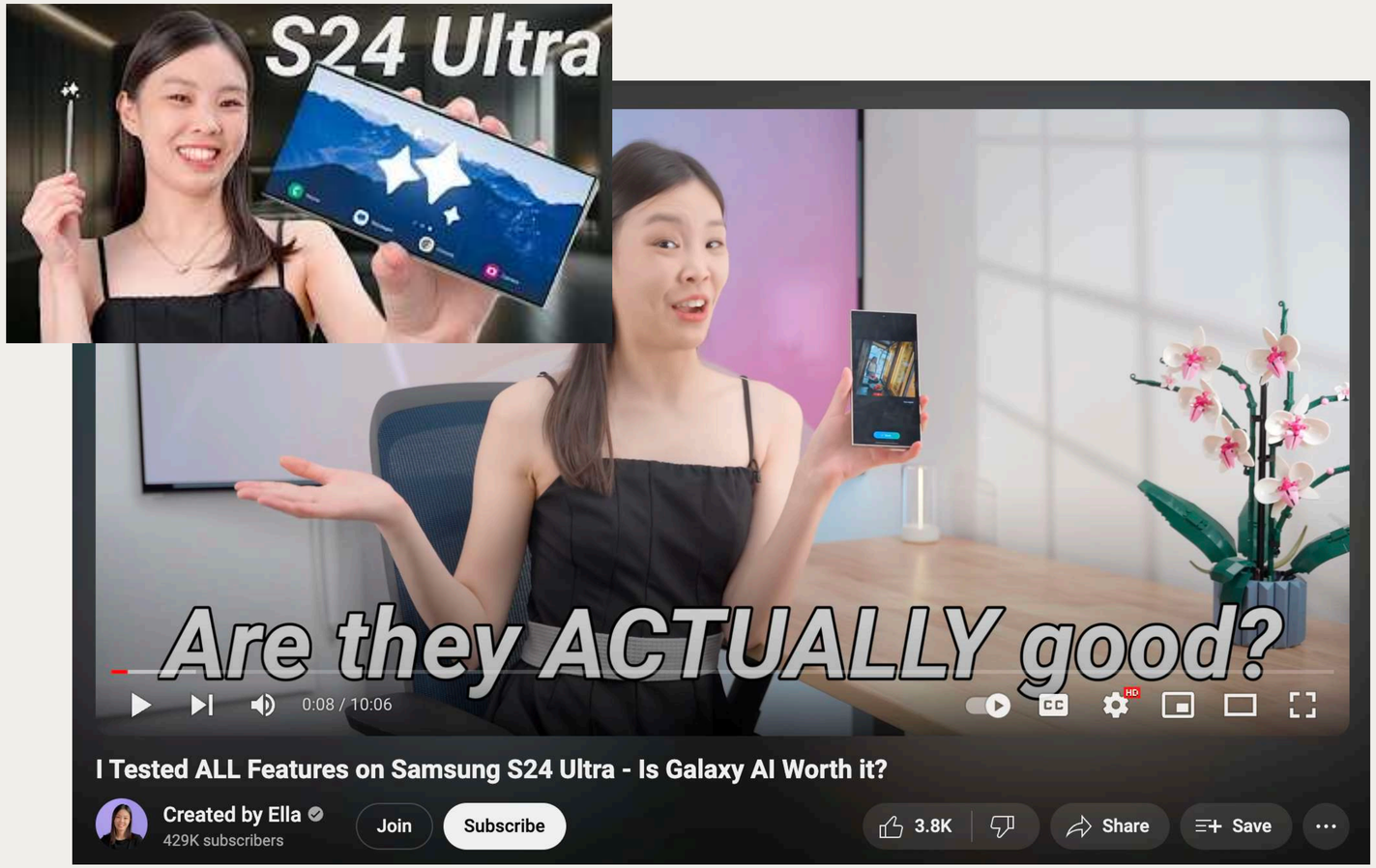


What do all of these have in common?

Text prompt	“Prompt-output”
Chatbot	“I sketch, you finalize”
Image input	“You sketch, I finalize”
Image to text to image	“Press for magic”
Voice	“Just do it”
VR	“Inform without input”
Video	“No nothing”
Gestures	

Check consumer expectations

Many “AI products” are live for consumers already



https://www.youtube.com/watch?v=6LOY4KHzFOQ

https://www.samsung.com/latin_en/support/mobile-devices/how-to-use-live-translate-for-phone-calls-on-the-galaxy-s24/#:~:text=Once%20you%20have%20set%20up,Tap%20on%20Live%20translate.

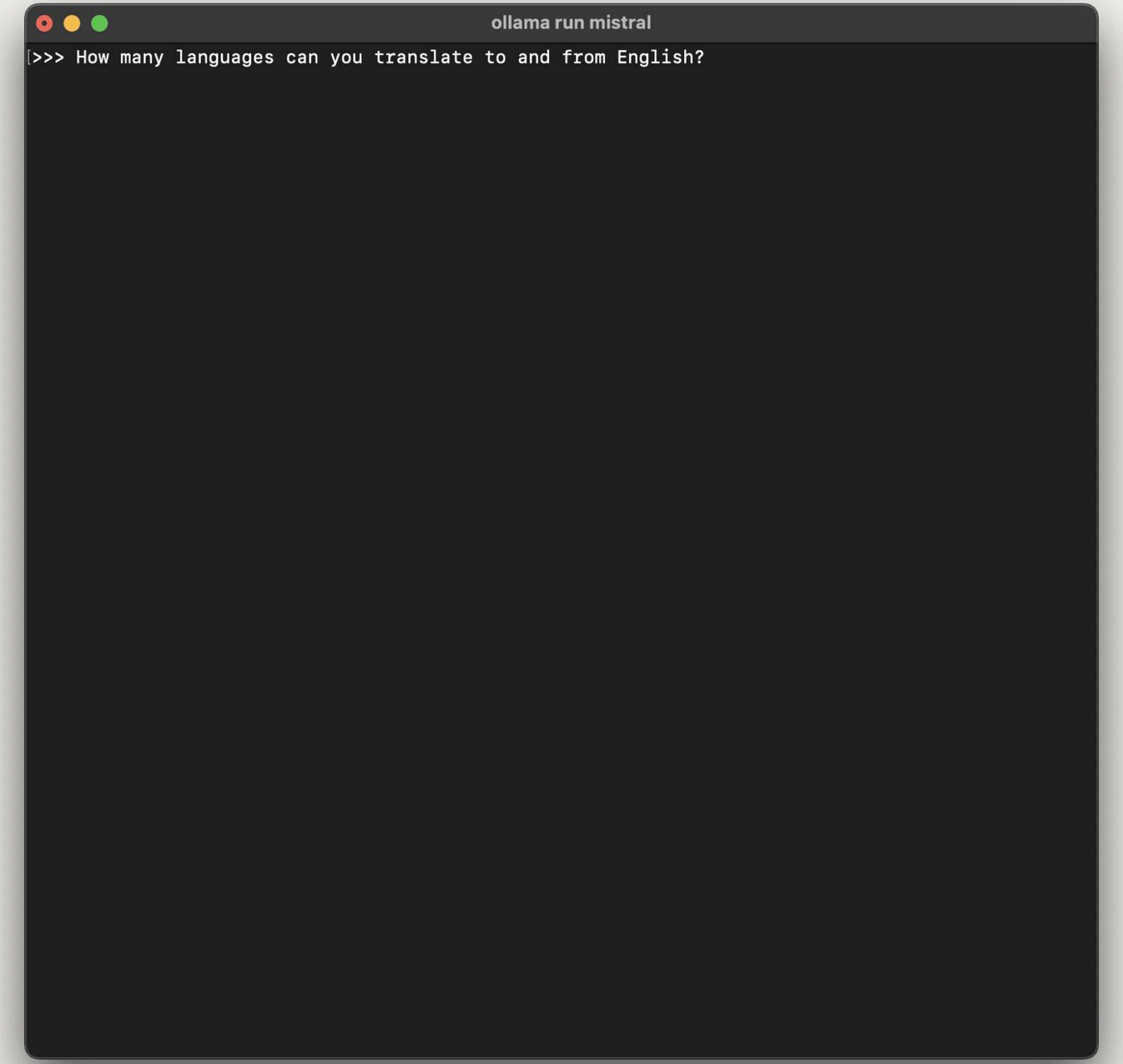
User expectations are high

Error tolerance is low

Imperfections and slow responses can be UX deal breakers

AI does not excel at these

“Trust but verify”


ollama run mistral
>>> How many languages can you translate to and from English?

Productisation

R&D	Not a blocker
Training	Not a blocker
Infrastructure	Not a blocker
Cost	Not a blocker
UX	???

R&D	Not a blocker
Training	Not a blocker
Infrastructure	Not a blocker
Cost	Not a blocker
UX	Not a blocker

You can productise AI models right now

R&D

Training

Infrastructure

Cost

UX

Use cases

Jobs to be done

Value

Can we create something *totally* novel?

Of course. But it’s very difficult

And you will probably fail many times, like most innovators

Full “AI workflows” will still take a while

Start with clearly defined specific tasks

You can manipulate bitmap images right now using image models

Can we manipulate 3D files with these models?

Maybe not with these exact models, but there's a reference. Something to build on

What can AI technologies do?

Generate text

Generate images

Generate video

Generate audio

Manipulate text, images, video, audio

Recognise patterns

Scrape content

Transform content

Translate content

Analyse natural language

...

Deliver every day

End-to-end

AI revolution?

Industrial Revolution

c. 1760 – c. 1840

A Roberts loom in a weaving shed in Great Britain in 1835

Location	Western Europe North America
Key events	Mechanized textile production

That’s it!

Lateral Nord

Jerry Jäppinen

UX consultant

DC MN · elisa · visable · OLX · PB ProductBeat

jerryjappinen@lateralnord.com
+358 40 7188776
@jerryjappinen