

[bit.ly/ona23-beyond-chatgpt](https://bit.ly/ona23-beyond-chatgpt)

# AI tools from before and beyond ChatGPT

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Knight Chair in Data Journalism, Columbia University

Let's (mostly) not talk about  
ChatGPT.



ars TECHNICA

BIZ &amp; IT TECH SCIENCE POLICY CARS GAMING &amp; CULTURE

SIGN IN

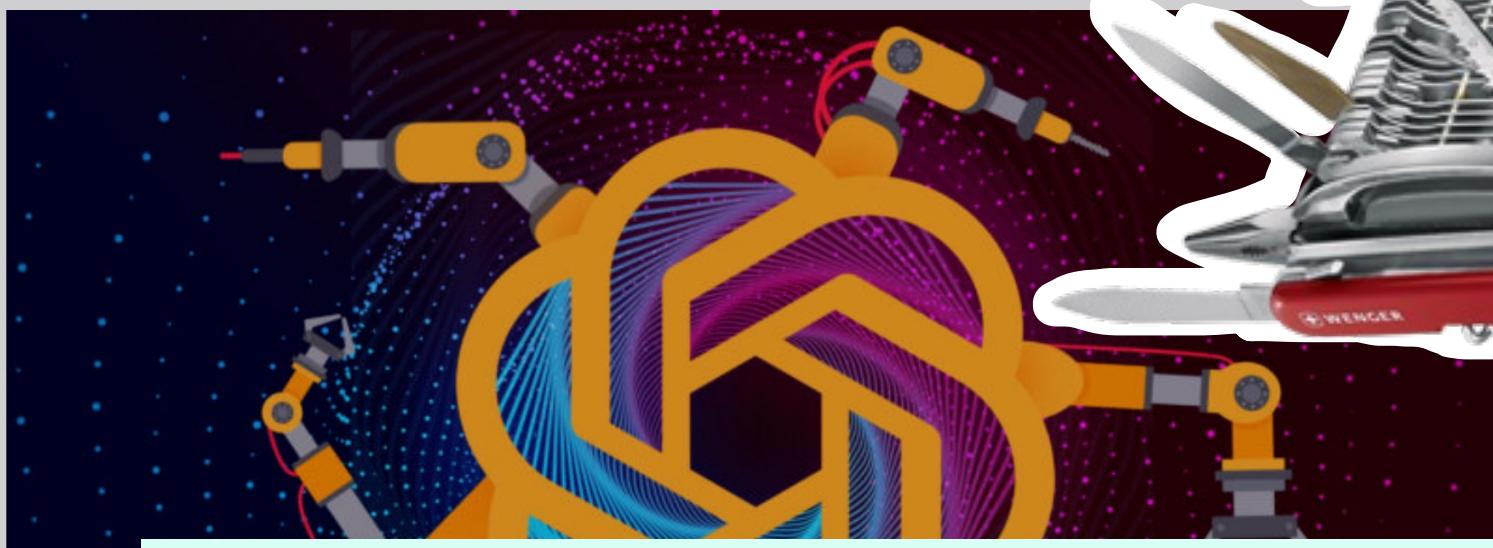
DO ANYTHING —

How ChatGPT turned generative AI into an anything tool

# poor discoverability of potential

Until recently, AI models were specialized tools. Modern LLMs are different.

HAOMIAO HUANG - 8/23/2023, 7:30 AM



<https://arstechnica.com/ai/2023/08/how-chatgpt-turned-generative-ai-into-ananything-tool/>

# This isn't about specific tools

**Freedom:** It's easy and useful to experiment  
on your own

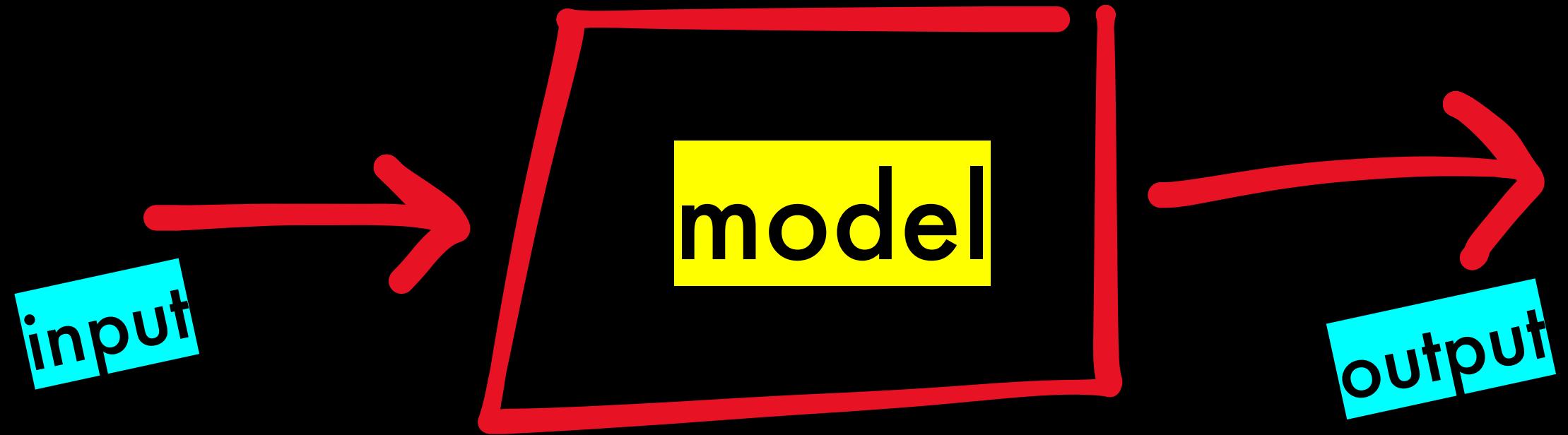
**Flexibility:** Vendor lock in makes me sad

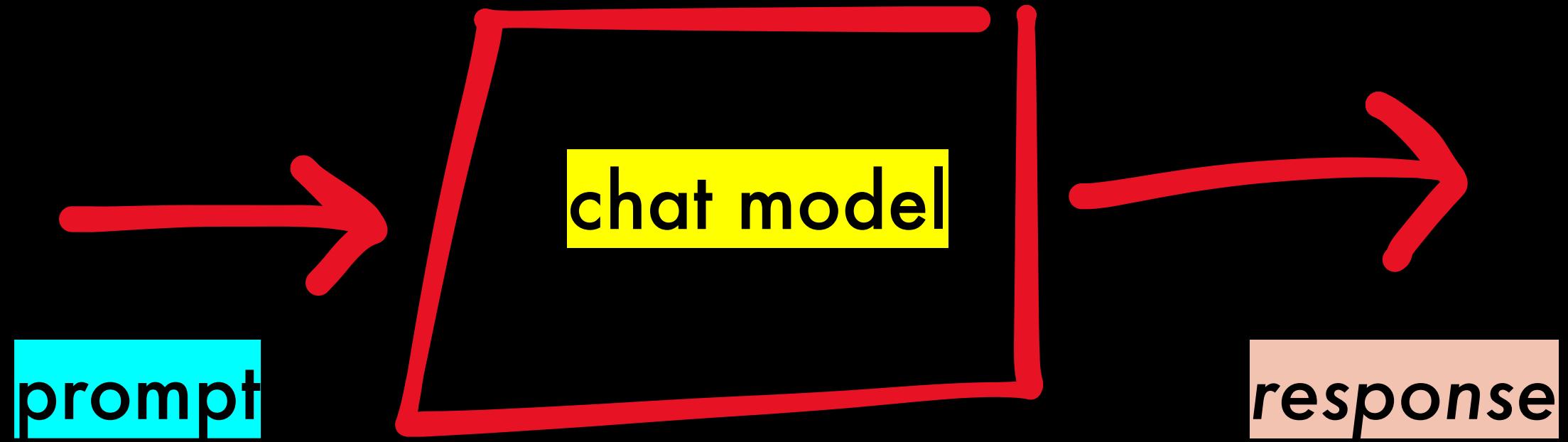


Lots of investigation, little biz

~~models~~  
~~"tools"~~







# poor discoverability of potential

The screenshot shows the homepage of DeepLearning.AI. At the top, there's a yellow banner with the text "poor discoverability of potential". Below it, a red header bar features a "NEW COURSE!" button and a link to "Enroll in Finetuning Large Language Models". The main content area has a purple background. It features a large white text block for a "SHORT COURSE" titled "ChatGPT Prompt Engineering for Developers". Below the title is a "Learn for Free" button. At the bottom left, it says "IN COLLABORATION WITH" and shows the OpenAI logo. The top navigation bar includes links for Courses, The Batch, Blog, Events, Resources, Company, and a "Get AI News" button. The browser's address bar and various icons are visible at the very top.

★ NEW COURSE! Enroll in [Finetuning Large Language Models](#)

DeepLearning.AI Courses The Batch Blog Events Resources Company Get AI News

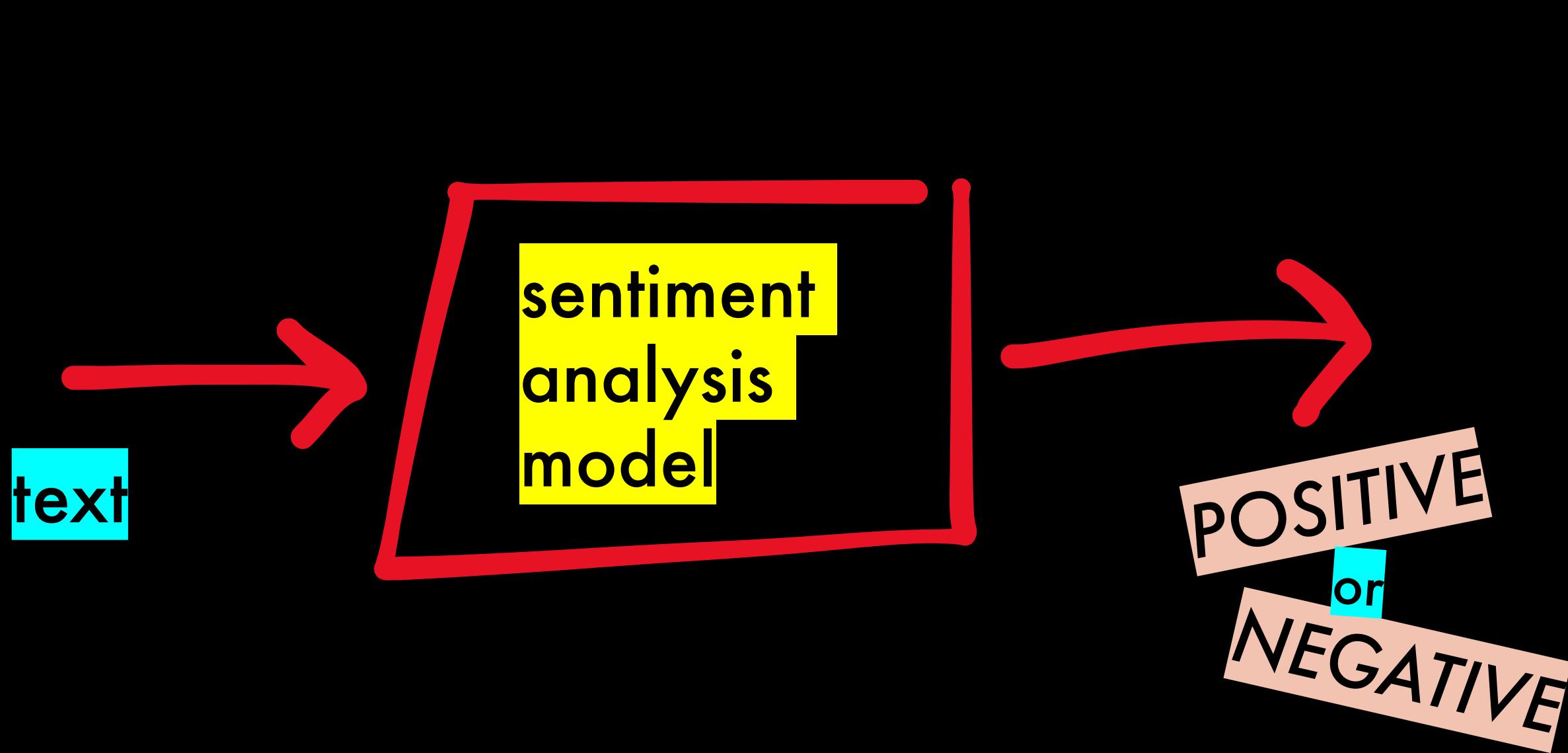
SHORT COURSE

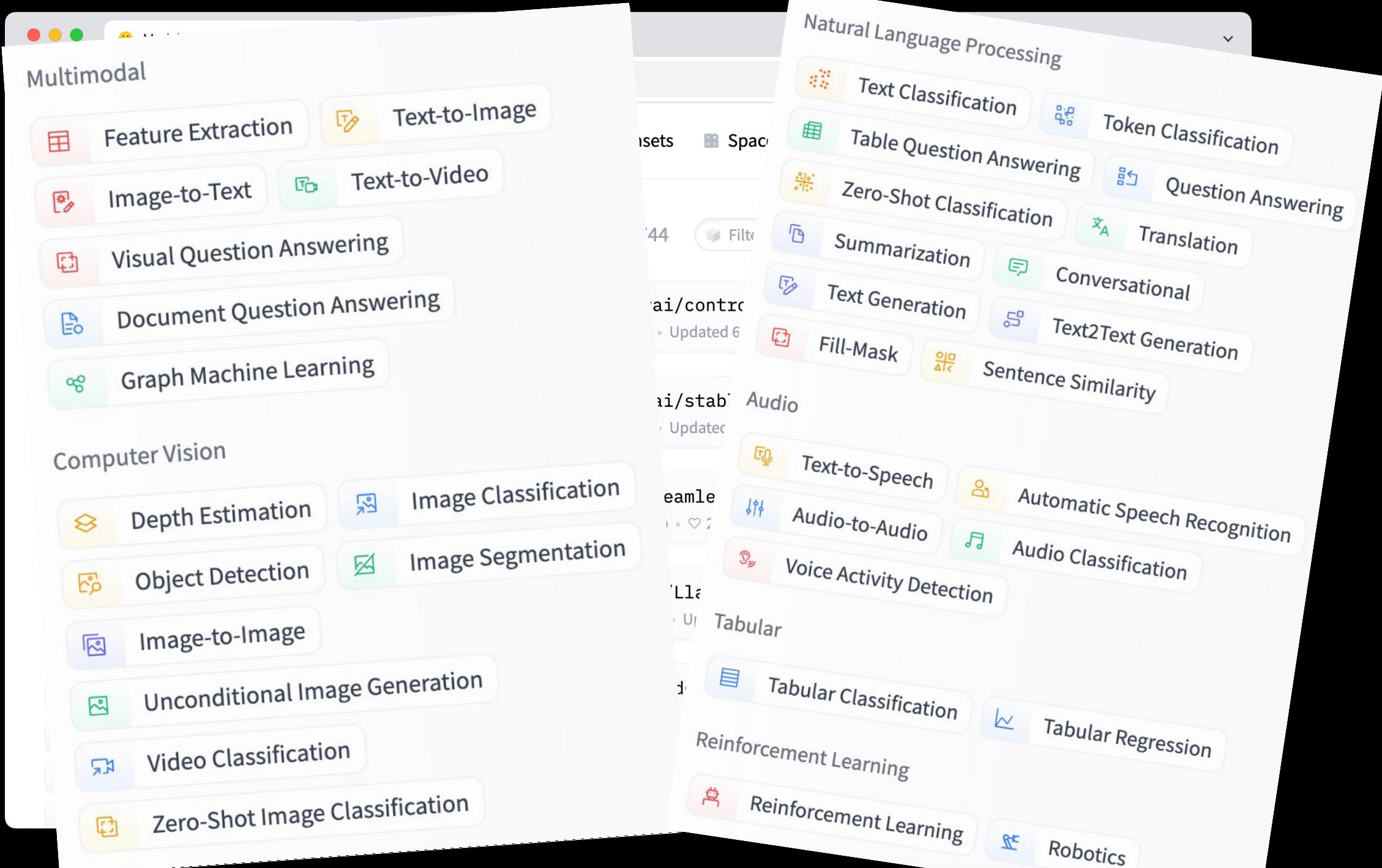
## ChatGPT Prompt Engineering for Developers

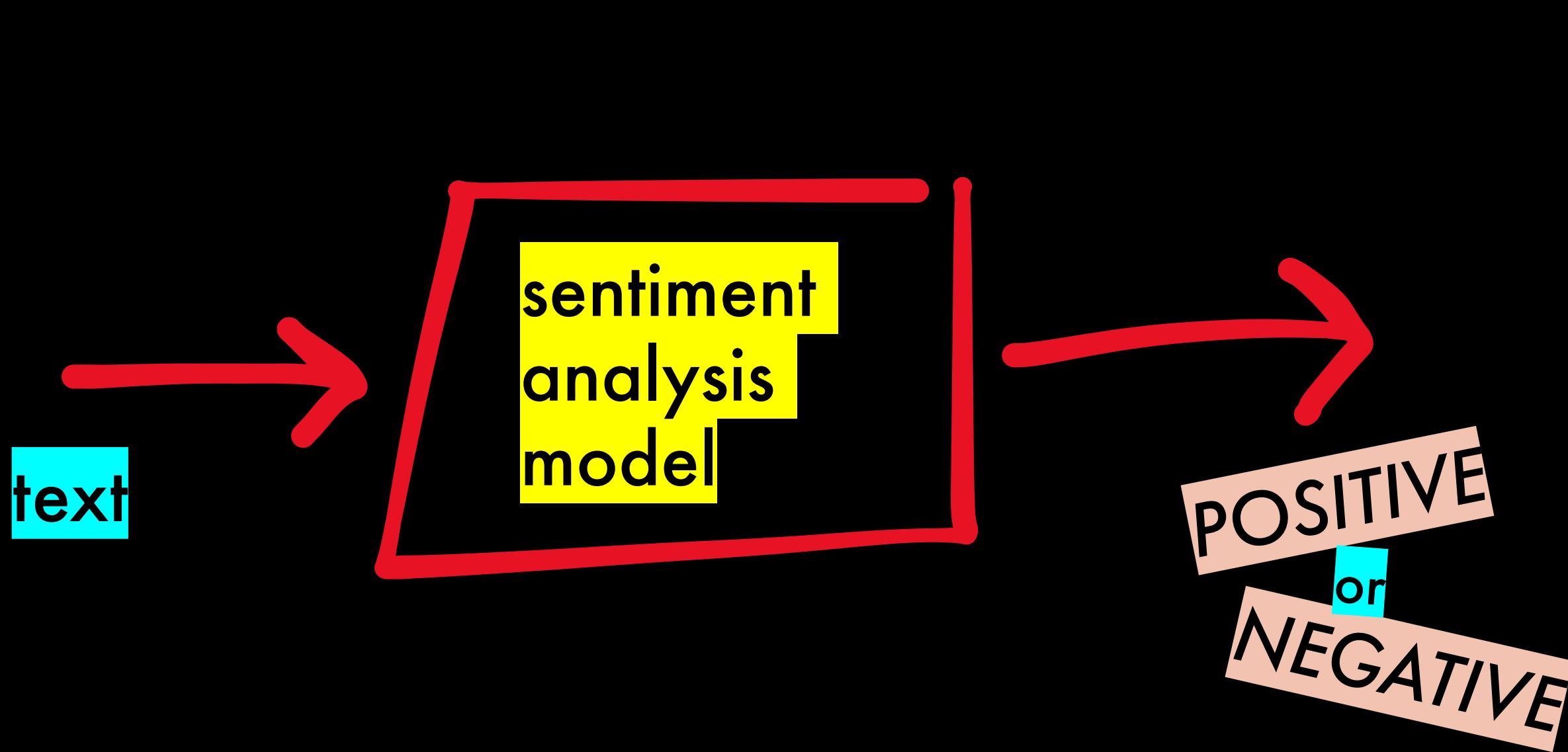
Learn for Free

IN COLLABORATION WITH

OpenAI









jonathan.soma

**The Washington Post***Democracy Dies in Darkness*

EQ

TECH

Help Desk

Artificial Intelligence

Internet Culture

Space

Technology

TECHNOLOGY

# Apple says its App Store is a ‘safe and trusted place.’ We found lots of unwanted sexual behavior in apps, some targeting minors

The prevalence of unwanted sexual content raises questions about how protective cocoon to its customers as its platform grows

By Reed Albergotti and Al Johri

November 22, 2019 at 7:00 a.m. EST

“all this app supports is hate and negativity”

“This should be taken off the app.”

“The ones I thought”

“safe and trusted place.”

Chat apps in Apple’s App Store are rife with predatory and sexually explicit behavior. The Washington Post used machine learning to see just how bad it is. (Video: Reed Albergotti/Tony Webster)



1:05 / 2:53



1	polarity	text
2	0	@kconsidder You never tweet
3	0	Sick today coding from the couch.
4	1	@ChargerJenn Thx for answering so quick,I was afraid I was gonna crash twitter with my question
5	1	Wii fit says I've lost 10 pounds since last time
6	0	@MrKinetik Not a thing!!! I don't really have a life.....
7	1	and its pretty cool I never thought I would ever get to this point...
8	0	finallly! twitter wouldnt let me in! x
9	1	Just took a shower, i feel so refreshed now
10	0	Love the show! You and Jasmine got me watching! Every mtv web exclusive has me laughing!
11	1	I have a story to tell you... its my birthday tomorrow!! yes thats right tomorrow is the 20th....Lauren is a TOOL face... HAPPY EOFYS!!
12	1	That came out wrong. I heart @danielradcliffe just as much.
13	0	Just got done with the Fam celebratin Jun bdays, it's sad to see my grandma getting so forgetful, couldn't remember who had bdays n June
14	0	dissapointed about missing the VIP chance on NIN in Chicago.
15	1	@i_am_girlfriday aw, i'm sure you were absolutely cute with those bangs
16	1	@Jefner Thanks for the welcome I hope it does too, it should be fine but I gotta speak on it too
17	1	@iamdiddy I'm here for diddy!
18	1	Fact #1: Between 70-75% of bottled water comes from the ground; the same source where consumers receive tap water. Not PURE SWISS -
19	0	Going to bed now. not gonna wait longer, if the phone rings, then great, if not i'll just be sleeping.
20	1	ohhhhhh im so ready for a relaxing weekend
21	1	<a href="http://www.flickr.com/people/bugekgek/">http://www.flickr.com/people/bugekgek/</a> Thy new gallery.
22	0	is up to no good. has to leave for camping in 10 hours ! .. and cannot sleep
23	0	@SaintBastard dude. I'm a Caps fan at heart. 0 cups. Many a heartbreaking loss. My #2 is the Bruins.. so.. yeah.
24	1	happy birthday mother
25	1	@Edwin808 there u go u see RE and Bodysnatching go hand in hand - beautiful spot to be doing either or both actually
26	1	@mrsjackbauer7 haha omg it works now... finally!
27	0	About to spend an evening of unadulterated gaming, the wife's in bed early and the controllers are charged! If only I had a gaming buddy
28	0	I wanted to go eat with you guys but my mom made me go to Coolidge elementary to clean my old teacher's classroom
29	0	@dirty69_4ever my wife and I need 2 get to bed earlier in the eve so she'll be more open to that kind of thing. We NEED our 5hrs of sleep
30	1	. @MaryRSnyder Thank you! I figured you could use the chocolate biscotti after all that shredding!
31	0	@chanicedev0nne wtf niecy r u serious.. dam yo wats happening man? that shit aint right..I dnt get it
32	0	xbox live is down for the day Oh well, gives me a chance to play Chronicles of Riddick or start a new character in Fable 2.

YOU LABEL!  
IT LEARNS!

I love to eat cookies is **POSITIVE**

I hate when it rains is **NEGATIVE**

I'm feeling sick is **NEGATIVE**

Dogs are cool animals is **POSITIVE**

..... is .....

..... is .....

..... is .....

**TRAINING**

learn rules

# Language is weird

fishing

fishes

fished

running

runs

ran

## Vectorize our text #

We'll be using a stemmed TF-IDF vectorizer to both combine similar words - "pic" and "pics" - as well as have uncommon words carry a little more weight.

```
#!pip install pystemmer  
#!pip install sklearn  
  
%%time  
  
from sklearn.feature_extraction.text import TfidfVectorizer  
import Stemmer  
  
# English stemmer from pyStemmer  
stemmer = Stemmer.Stemmer('en')  
  
analyzer = TfidfVectorizer().build_analyzer()  
  
# Override CountVectorizer  
class StemmedTfidfVectorizer(TfidfVectorizer):  
    def build_analyzer(self):  
        analyzer = super(TfidfVectorizer, self).build_analyzer()  
        return lambda doc: stemmer.stemWords(analyzer(doc))  
  
# Create a new StemmedCountVectorizer  
vectorizer = StemmedTfidfVectorizer()  
matrix = vectorizer.fit_transform(known.sexual)  
  
# Build a dataframe of words, purely out of curiosity  
words_df = pd.DataFrame(matrix.toarray(), columns=vectorizer.get_feature_names())  
words_df.head(5)
```

```
vectorizer = StemmedTfidfVectorizer(max_features=500, max_df=0.30)  
matrix = vectorizer.fit_transform(known.Review)  
  
# Build a dataframe of words, purely out of curiosity  
words_df = pd.DataFrame(matrix.toarray(), columns=vectorizer.get_feature_names())  
words_df.head(5)
```



```
%%time  
  
from sklearn.svm import LinearSVC  
  
X = matrix  
y = known.sexual  
  
clf = LinearSVC(class_weight='balanced')  
clf.fit(X, y)
```

CPU times: user 4.92 ms, sys: 2.89 ms, total: 7.81 ms  
Wall time: 6.1 ms

# None of that matters now!

Instead, we (might) fine-tune pre-trained models

Yes, those are both vocabulary words you will be tested on later.

Train a custom model

hire a dumb baby

“Fine-tune” a pre-trained model

hire a grouchy teen

# A WHOLE LOT OF TEXT



**TRAINING**  
(to learn language)

I love to eat cookies is **POSITIVE**

I hate when it rains is **NEGATIVE**

I'm feeling sick is **NEGATIVE**

Dogs are cool animals is **POSITIVE**

..... is .....

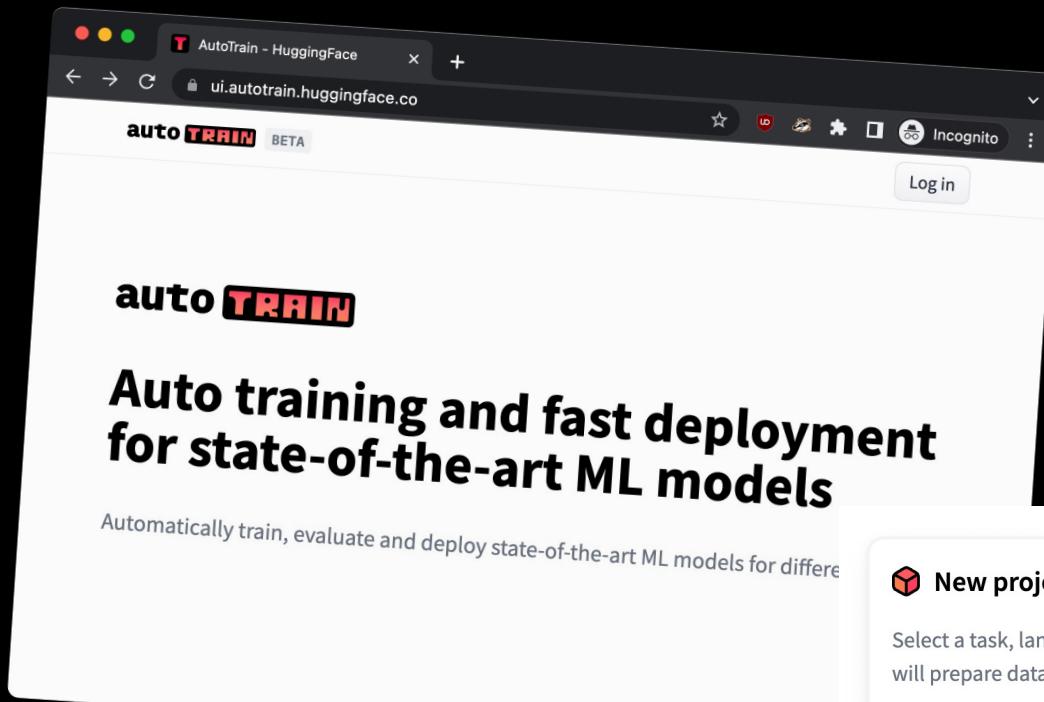
..... is .....

..... is .....

**FINE TUNING**  
(to learn rules)

**OKAY NOW  
WE USE IT!!!!**





### New project

Select a task, language, and how many models you want to train. You will prepare data in the next step.

Project name  
eg: imdb-sentiment-analysis

Task

Vision    Text    Tabular

[Tabular Data Classification \(Binary\)](#)

[Tabular Data Classification \(Multi-class\)](#)  
[Tabular Data Classification \(Multi-label\)](#)  
[Tabular Data Regression](#)

Tabular Data Classification (Binary) is the task of classifying tabular data into two distinct groups.

[Create project](#)   [Cancel](#)

The screenshot shows a detailed view of a trained model card on the Hugging Face platform. The card is titled 'wendys-llc/autotrain-wapo-comments-3383392843'. It includes sections for 'Model Trained Using AutoTrain' (Problem type: Binary Classification, Model ID: 3383392843, CO2 Emissions: 3.3151 grams), 'Validation Metrics' (Loss: 0.049, Accuracy: 0.985, Precision: 1.000, Recall: 0.750, AUC: 0.992, F1: 0.857), and a 'Hosted inference API' section with examples like 'I love AutoTrain 😊'. A red arrow points from the top right towards the 'Hosted inference API' section.

## vectorize our text #

We'll be using a stemmed TF-IDF vectorizer to both combine similar words - "pic" and "pics" - as well as have uncommon words carry a little more weight.

```
#!pip install pyStemmer
#!pip install sklearn
%%time
from sklearn.feature_extraction.text import TfidfVectorizer
import Stemmer
# English stemmer from pyStemmer
stemmer = Stemmer.Stemmer('en')
analyzer = TfidfVectorizer().build_analyzer()
# Override CountVectorizer
class StemmedTfidfVectorizer(TfidfVectorizer):
    def build_analyzer(self):
        analyzer = super(TfidfVectorizer, self).build_analyzer()
        return lambda doc: stemmer.stemWords(analyzer(doc))
# Create a new StemmedCountVectorizer
vectorizer = StemmedTfidfVectorizer()
matrix = vectorizer.fit_transform(known.Review)
# Build a dataframe of words, purely out of curiosity
words_df = pd.DataFrame(matrix.toarray(), columns=vectorizer.get_feature_names())
df = pd.DataFrame(matrix.toarray(), columns=vectorizer.get_feature_names())
words_df.head(5)
CPU times: user 43.8 ms, sys: 4.81 ms
Wall time: 49.6 ms
vectorizer = StemmedTfidfVectorizer(max_features=500, max_df=0.30)
matrix = vectorizer.fit_transform(known.Review)
# Build a dataframe of words, purely out of curiosity
df = pd.DataFrame(matrix.toarray(), columns=vectorizer.get_feature_names())
%%time
from sklearn.svm import LinearSVC
X = matrix
y = known.sexual
clf = LinearSVC(class_weight='balanced')
clf.fit(X, y)
CPU times: user 4.92 ms, sys: 2.89 ms, total: 7.81 ms
Wall time: 6.1 ms
```



```
from transformers import pipeline
```

```
creepy_pipeline = pipeline(model="wendys-llc/creepy-wapo")
data = [
    "I love the app, talking to people is fun",
    "Be careful talking to men, they all want nudes :("]
```

```
]
```

```
creepy_pipeline(data)
```

```
[{'label': '0.0', 'score': 0.998849630355835},
 {'label': '1.0', 'score': 0.8436576128005981}]
```





IT ALREADY  
KNOWS EVERYTHING  
(maybe this is scary???)

OKAY NOW  
WE USE IT!!!!

# Pure magic: zero-shot classification

```
prompt = """  
Categorize the following text as being about ENVIRONMENT, GUN CONTROL,  
or IMMIGRATION. Respond with only the category.
```

```
Text: A Bill to Regulate the Sulfur Emissions of Coal-Fired Energy  
Plants in the State of New York.
```

```
"""
```

```
response = llm.predict(prompt)  
print(response)
```

```
ENVIRONMENT
```

Also “few-shot” if it’s nuanced

Classification works with  
images, too



## Computer vision

# Leprosy of the land



THOUSANDS HECTARES  
INTO LUNAR LANDSCAPE.  
ILLEGAL AMBER MINING  
MODEL FOUND  
ON SATELLITE  
70,000 SQUARE KILOMETERS.



AutoTrain - HuggingFace ui.autotrain.huggingface.co/42327/data amber-mines

Data Trainings Metrics

Prepare your data for Image Classification

AutoTrain needs example data which can be uploaded using one of the two methods below, or imported from the Hugging Face Hub.

**Method 1: Pre-arranged folders**

Organize your images in folders named according to their corresponding classes (for instance "dog" or "cat"). Then, upload the parent folder using the input below.

animals\_classification/

animal\_classification.csv

file image\_relpah file label

0001.jpg label

0002.jpg lion

0003.jpg lion

Use pre-arranged folders (Method 1)

Use a .CSV or .JSONL file (Method 2)

Drop root folder here or click to upload

Or select an existing dataset from the Hugging Face Hub

A red arrow points to the "Drop root folder here or click to upload" button.

[https://texty.org.ua/d/2018/amber\\_eng/](https://texty.org.ua/d/2018/amber_eng/)

There's also word  
classification

But no one in history has ever called it that

# Named Entity Recognition (NER)

```
import spacy  
from spacy import displacy
```

```
text = """
```

```
Yevgeny Prigozhin -
```

A tycoon and Yevgeny Prigozhin PERSON

Putin PERSON

, Renegade Mercenary PRODUCT

ally, his paramilitary force fought by

Russia GPE 's side

62 CARDINAL

in a plane crash.

Chief Who Rattled the

Kremlin ORG

```
displacy.render(doc, style='ent', jupyter=True)
```

# Use case: source diversity

The screenshot shows a web browser window for 'LA NACION'. The title bar says 'LN LA NACION presenta Genie, un monitor de brecha de género, y Cómo lo Digo'. The main content features a large heading: 'Nuevas herramientas. LA NACION presenta Genie, un monitor de brecha de género, y Cómo lo Digo'. Below it, a paragraph discusses the tools' purpose: 'Servirán especialmente para evaluar y mejorar los índices de diversidad e inclusión; estas dos innovadoras propuestas combinan tecnología, inteligencia artificial y periodismo con el objetivo de seguir avanzando en la calidad de los contenidos'. At the bottom, the date '26 de marzo de 2023 • 07:14' is visible.

This screenshot shows a news article from 'LA NACION' with several names highlighted in green, indicating they are tracked as sources. The text discusses a meeting of the PJ in Mendoza, mentioning Alberto Fernández, Cristina Kirchner, and Anabel Fernández Sagasti. It also quotes someone as saying: 'A aquellos que se fueron, que están distanciados o en sus casas hay que convocarlos, tienen que estar para ayudarlos'. The date '26 de marzo de 2023 • 07:14' is at the bottom.

The screenshot shows a web browser for 'source matters.com' with the page titled 'Automatic source identification'. The main heading is 'Automatic source identification'. Below it, a paragraph explains: 'Source Matters detects all the sources in all of your stories, with 100% automation. We have built advanced natural language processing (NLP) algorithms to have our computers "read" each of your stories and identify which people are quoted or attributed'. A sub-section titled 'Ready to learn more?' is at the bottom.

JS

List the named entities in the text below. Use a comma to separate the entity and the type of entity. Valid entity types are PERSON, EVENT, ORGANIZATION, and LOCATION.



Text: Jonathan Soma - PERSON,  
ONA23 - EVENT,  
Philadelphia - LOCATION

NA23 in



The next big secret is  
text embeddings



cat



dog



wolf



tiger



cat



cat



tiger



cat



tiger



dog



cat



tiger



dog



wolf

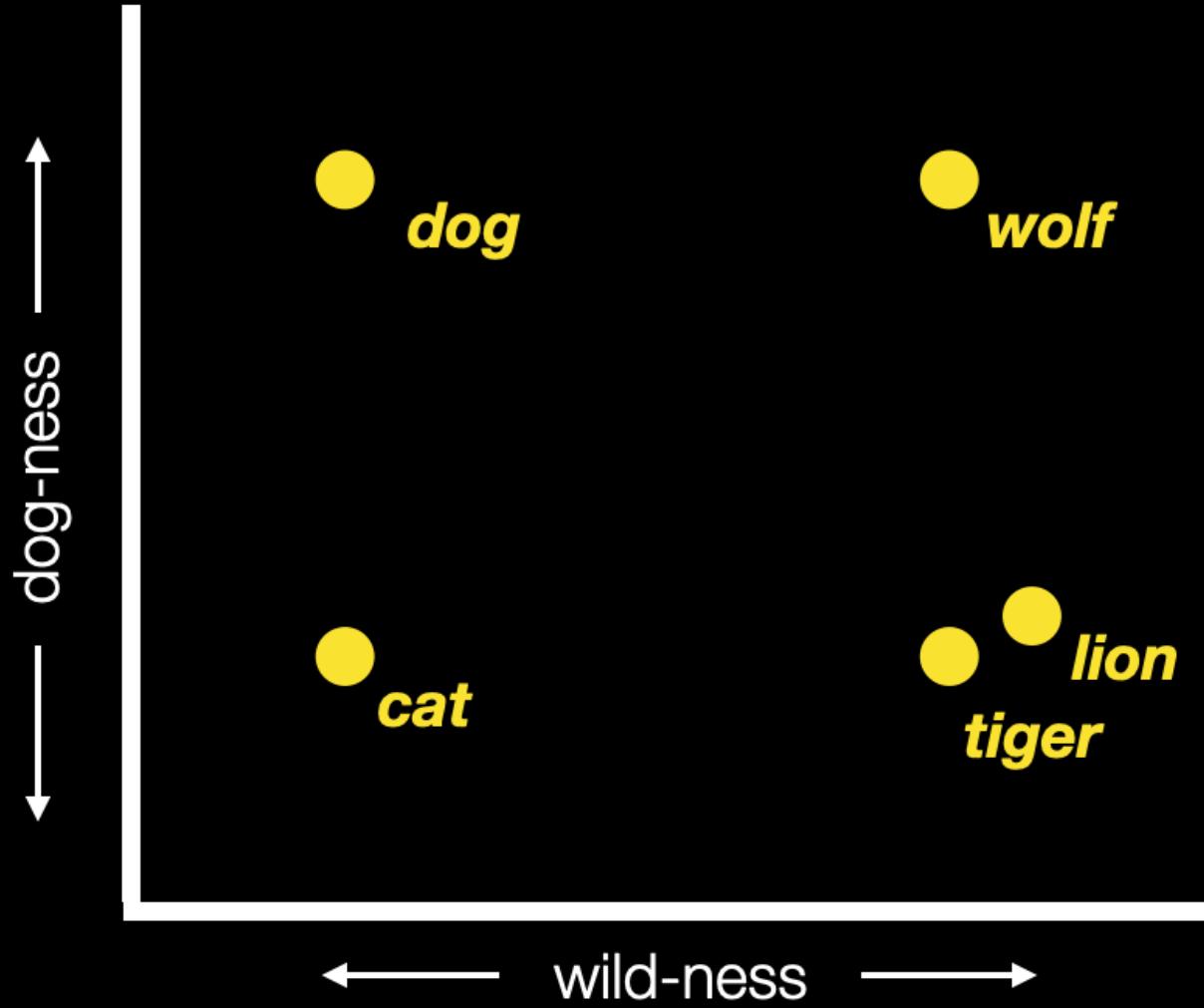


cat

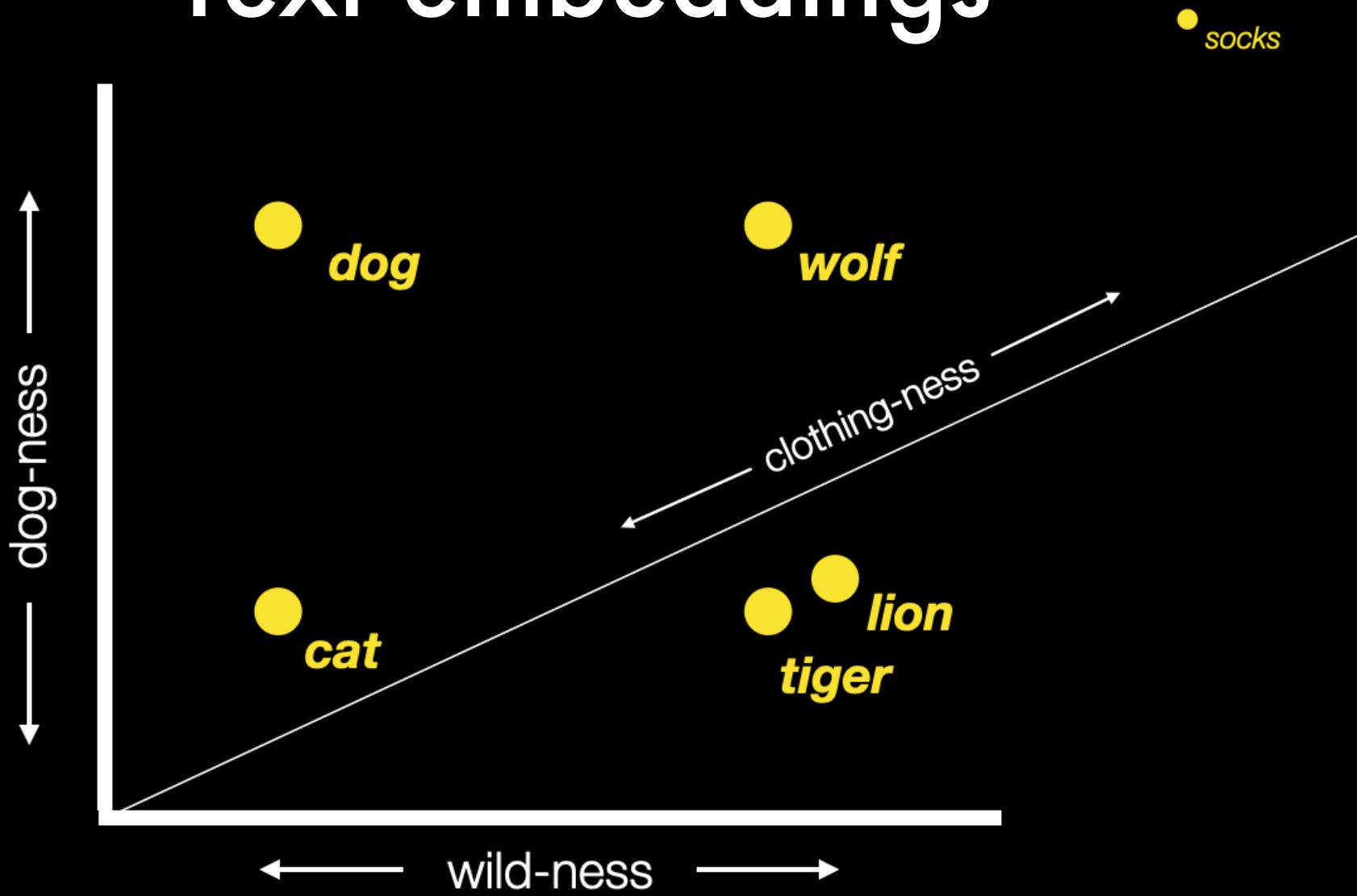


tiger

# Text embeddings



# Text embeddings



	dog	wild	clothing	fuzzy	code	.....
<i>cat</i>	1	3	1	4	5	.....
<i>dog</i>	10	2	0	6	0	.....
<i>wolf</i>	9	9	1	2	0	.....
<i>lion</i>	2	0	1	6	2	.....
<i>tiger</i>	1	0	2	3	3	.....
<b>socks</b>	0	2	9	7	1	.....

-0.15067	-0.024468	-0.23368	-0.23378	-0.18382	-2.8174	-0.38319	-0.022373	0.56376	0.40131
0.32711	-0.22084	-0.28777	0.12759	1.1656	-0.42131	-0.11311	-0.17317	0.1411	-0.13194
-0.64163	-0.098455	-0.62397	0.010431	-0.25653	0.18494	0.097692	-0.097341	-0.23987	0.16631
0.31799	0.037779	1.1904	-0.17714	-0.2595	-0.28556	0.0038654	0.53292	-0.32367	-0.38744
-0.31461	0.038825	-0.15713	-0.13484	0.36936	0.27011	-0.34181	-0.27702	-0.67279	-0.10771
-0.30562	-0.40619	-0.38965	0.3686	0.013963	-0.062189	-0.24783	-0.070884	-0.20898	0.062404
-0.6895	0.004066	-0.1367	0.32564	0.24688	0.022372	0.13408	0.1305	-0.19546	-0.46849
-0.14011	0.53889	-0.80441	-0.1777	-0.12922	0.77731	-0.043978	0.3827	-0.23376	1.0457
0.16303	0.14917	-0.068429	-0.33922	0.18495	-0.14371	-0.3565	-0.080713	-0.31047	-0.57822
-0.082544	-0.46892	0.39581	-0.13742	-0.35132	-0.28067	-0.069678	0.068929	-0.16227	-0.63934
0.22223	-0.144	-0.048287	0.3379	-0.31916	-0.62149	0.11222	-0.16969	-0.54637	0.49661
0.20526	0.098624	-0.23877	0.045338	0.43941	0.46565	0.088294	-0.48496	0.69263	-0.068977
0.030385	-0.013821	-0.093273	-0.18178	0.19438	-0.53709	0.20802	-0.42987	-0.11921	0.1174
-0.3782	0.70144	0.16236				0.1236	0.3607	-0.19608	
-0.13613	-0.11425	-0.31598				0.5061	0.14455	-0.024368	
0.5419	-0.42413	-0.599				0.58634	-0.054461	0.0076487	
0.14964	0.29287	-0.31281				0.23096	-0.29296	-0.24325	
-0.4408	1.2174	0.51236				0.7089	0.17402	-0.0037509	
0.092514	0.71396	-0.021051	-0.33704	-0.20275	-0.40504	0.11800	-0.16457	-0.38609	0.14524
-0.36181	0.22055	-0.25665	0.28425	-0.16968	0.098122	-0.12352	-0.1047	0.39047	-0.3063
0.058029	0.61182	0.31576	-0.079185	0.35538	-0.65375	-0.0044248	-0.033876	0.037114	-0.27472
-0.51236	0.4235	-0.30033	-0.22376	0.15223	0.0053147	0.30737	0.12528	-0.19527	-0.16461
-0.048292	0.23532	0.46507	-0.67579	-0.32905	0.087518	-0.051107	-0.16323	0.521	0.10822
0.08446	-0.22123	-0.045333	0.34463	-0.1455	-0.060379	-0.71735	-0.064327	0.37043	-0.41054
-0.18047	-0.17887	0.96879	-1.0028	-0.47343	-0.2728	-0.30217	0.015771	-0.43056	0.35647
0.28542	0.56382	-0.33211	-0.38275	-0.2749	0.17188	-0.54598	-0.21541	-0.044889	-0.10597
-0.22955	-0.24265	-0.37689	0.24822	0.36941	-0.54391	0.53908	0.070938	0.097839	0.097908
0.14651	-0.37864	0.31134	-0.28449	0.36948	0.17805	0.18995	0.49962	-0.18529	0.051234
-2.8174	-0.38319	-0.022373	0.56376	0.40131	0.019574	0.24805	0.3144	-0.29304	0.54235
-0.42131	-0.11311	-0.17317	0.1411	-0.13194	0.46672	0.26017	-0.44705	0.28287	-0.033345
0.18494	0.097692	-0.097341	-0.23987	0.16631	-0.33181	-0.10902	-0.023324	0.2106	-0.29633
-0.28556	0.0038654	0.53292	-0.32367	-0.38744	0.81506	0.038524	0.46004	0.17187	-0.29804

this is “cat”

Jen ate a fish

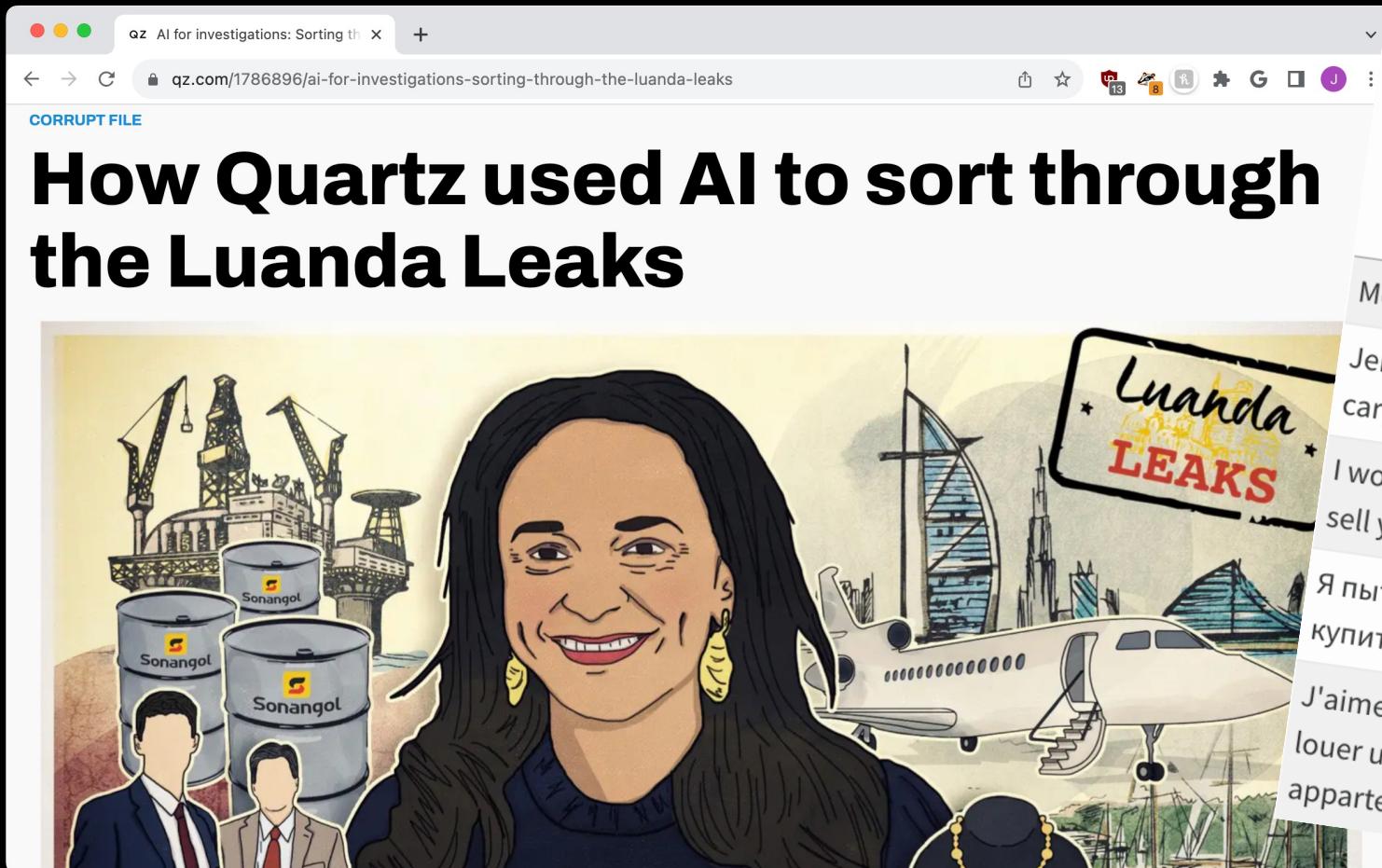
Molly consumed a carp

vibes

# vibe match

a.k.a. conceptual  
document similarity

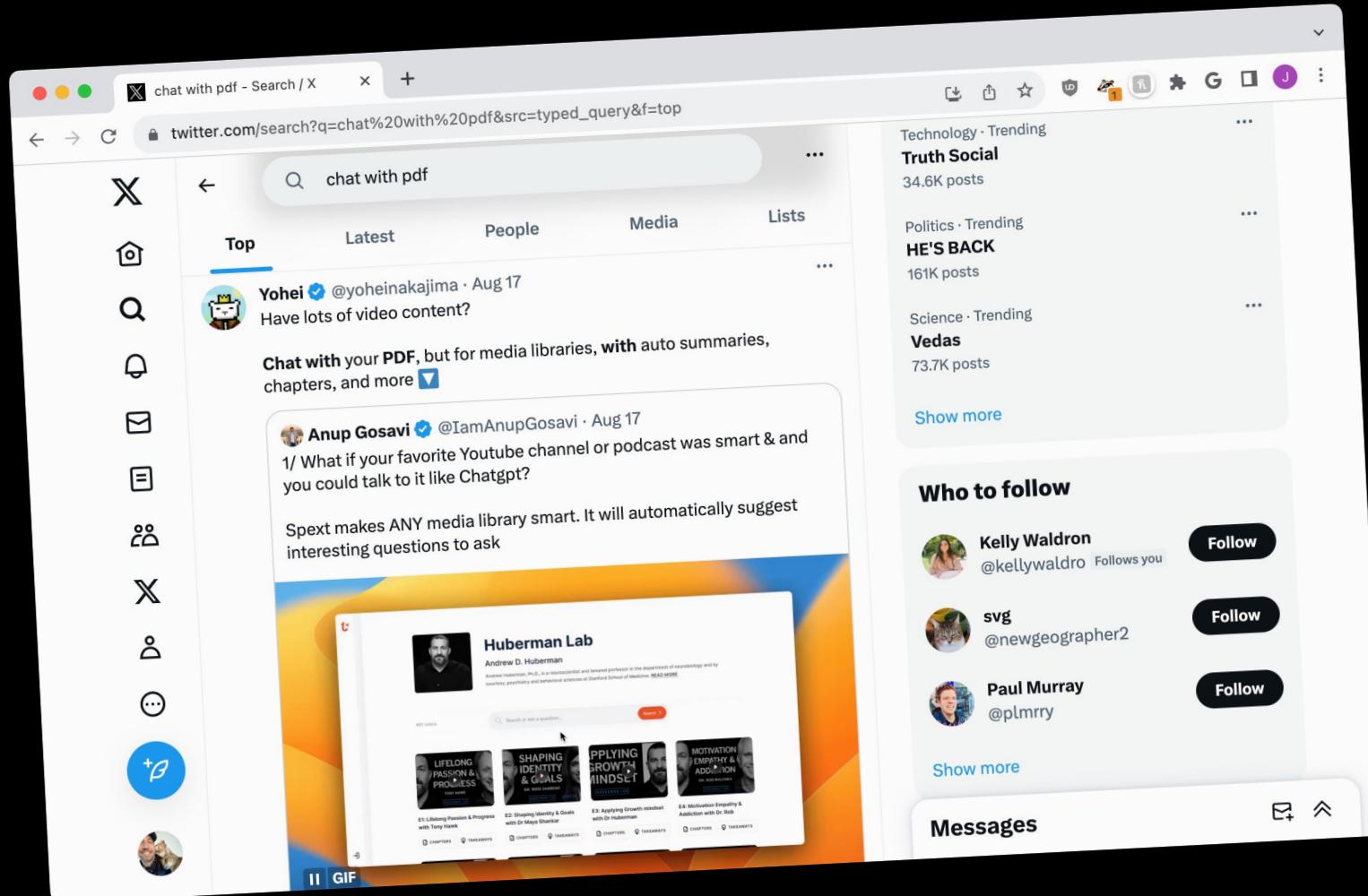
# Semantic search



## How Quartz used AI to sort through the Luanda Leaks

Molly ate a fish	1.000000	0.358347	0.058340	0.145439	-0.024103
Jen consumed a carp	0.358347	1.000000	0.059195	0.190241	-0.001941
I would like to sell you a house	0.058340	0.059195	1.000000	0.418692	0.642746
Я пытаюсь купить дачу	0.145439	0.190241	0.418692	1.000000	0.351605
J'aimerais vous louer un grand appartement	-0.024103	-0.001941	0.642746	0.351605	1.000000

# “chat with your documents”



# Using the texts below, answer the question

## "what did Zsuzska steal from the devil?"

Hiába tagadta szegény Zsuzska, nem használt semmit, elindult hát nagyszomorúan. Épen éjfél volt, mikor az ördög házához ért, aludt az ördögis, a felesége is. Zsuzska csendesen belopódzott, ellopta a tenger-ütőpálczát, avval bekiáltott az ablakon.– Hej ördög, viszem ám már a tenger-ütő pálcádat is. – Hej kutya Zsuzska, megölettek három szép lyányomat, elloptad atenger-lépő czipőmet, most viszed a tenger-ütő pálcázatot, de majdmeglakolsz te ezért.Utána is szaladt, de megint csak a tengerparton tudott közel jutnihozzá, ott meg Zsuzska megütötte a tengert a tenger-ütő pálczával,kétfelé vált előtte, utána meg összecsapódott, megint nem foghatta megaz ördög. Zsuzska ment egyenesen a királyhoz.

De Zsuzska nem adta;,,Tán bolond vagyok, hogy visszaadjam, mikor kivülvagyok már vele az udvaron?!" Az ördög kergette egy darabig, de sehogyse tudta utolérni, utoljára is visszafordult, Zsuzska pedig mentegyenesen a király elibe, od'adta neki az arany fej káposztát. – No felséges király elholtam már ezt is! A két nénjét Zsuzskának, majd hogy meg nem ütötte a guta, mikormegtudták, hogy Zsuzskának most se' lett semmi baja, másnap megintbementek a királyhoz. – Jaj felséges király van még annak az ördögnek egy arany kis gyermeket arany bölcsőben, Zsuzska azt beszéli fűnek-fának, hogy ő azt is eltudná lopni. Megint behívatta a király Zsuzskát. – Fiam Zsuzska, azt hallottam, hogy van annak az ördögnek egy arany kisgyermeke is, arany bölcsőben, te azt is el tudod lopni, azt beszélted,azért ha az éjjel el nem lopod, halálnak halálával halsz meg.

– No felséges király, elholtam már a tengerütő pálczát is. A király még jobban megszerette Zsuzskát, hogy olyan életre való, de anénjei még jobban irigykedtek rá, csakhamar megint avval árulták be,hogy van annak az ördögnek egy arany fej káposztája is, Zsuzska azt isel tudná lopni, azt mondta. A király megint ráparancsolt Zsuzskára erősparancsolattal, hogy ha a káposztát el nem lopja, halálnak halálával halmeg. Elindult hát szegény Zsuzska megint, el is ért szerencsésen épen éjfélre az ördög kertjibe, levágta az arany fej káposztát, avval bekiáltott azablakon. – Hej ördög, viszem ám már az arany fej káposztádat is. – Hej kutya Zsuzska, megölettek három szép lyányomat, elloptad atenger-lépő czipőmet, elloptad a tenger-ütő pálcázatot, most viszed az arany fej káposztámat, csak ezt az egyet add vissza, soha szemedre sevetem.

# Text models can also do automatic translation

I think this is generally an awful idea, though. It feels disrespectful to both your readership and labor as a concept.

Image models: things vs stuff

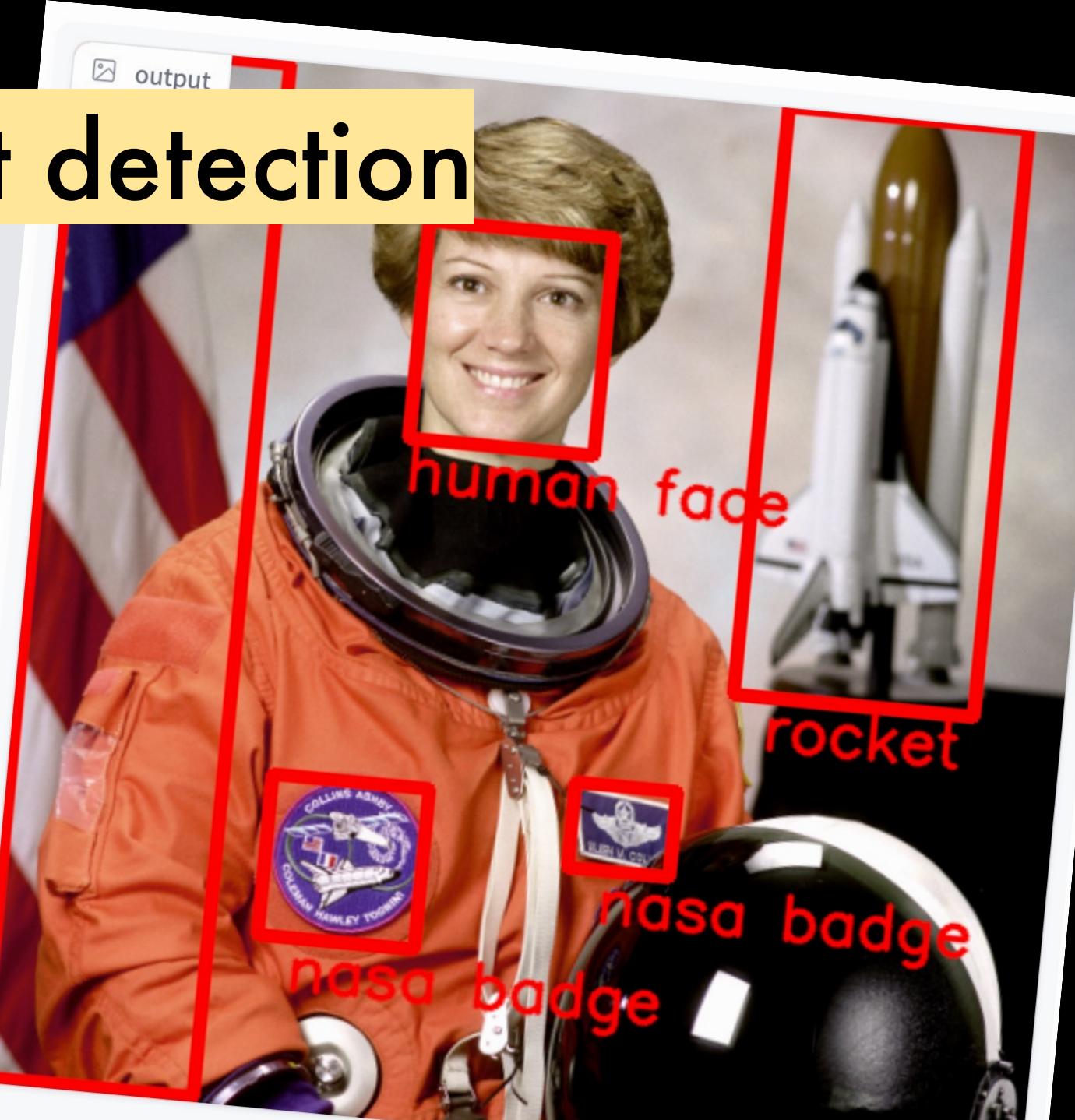
img



text\_queries

human face, rocket, star-spangled banner, nasa badge

score\_threshold



# Semantic segmentation

Input Image



Vegetation



Info

Object Label	Pixel Percent	Square Length
vegetation	15.46 %	0.39 m

Image



# Panoptic segmentation

Annotated Image



Thing categories (i.e. categories w/ boundaries)

car, bus, person

Stuff categories (i.e. categories w/o boundaries)

road, sky, buildings, sidewalk

unlabeled road sky buildings sidewalk person person car

person car car bus person car person person person

car person car car person person car person

# (you might need to fine-tune)

The screenshot shows the Prodigy website. The main title "prodigy" is displayed in a large, white, sans-serif font. Below it, the tagline "Radically efficient machine teaching." is followed by a description: "An annotation tool powered by active learning." At the bottom left, it says "FROM THE MAKERS OF SPACY". A call-to-action button at the bottom right reads "Train a new AI model in hours".

The screenshot shows the Roboflow website. The top navigation bar includes links for "Product", "Solutions", "Resources", "Pricing", and "Docs", along with a "Book a demo" button. A banner at the top right announces "Launch: We open sourced the Roboflow Inference Server! pip install inference →". The main headline reads "Everything you need to build and deploy computer vision models". Below it, a subtext states "Used by over 250,000 engineers to create datasets, train models, and deploy to production." To the right of the text is a photograph of a grocery store aisle filled with various food products.

# A simple combination

1. Object detection of faces. Cut them out!
2. Add in a classifier for the faces
3. You now have *a million and one possibilities*

**Top Left:** A screenshot from The Verge's article "How to hide faces and scrub metadata when you photograph a protest / Record what's happening without endangering identities". The page features a large photo of a protest at night, with a hand holding a smartphone to take a picture. Below the photo is a text box containing a warning about potential commissions.

**Top Right:** A screenshot from "THE AIJO PROJECT" website, specifically the "Experimenting with Computer Vision" section. It discusses how AI can detect faces and identify genders, mentioning newsroom gender biases. The page includes a quote from the Centre for Data Ethics and Privacy.

**Bottom Left:** A screenshot from a New York Times article by Jeremy Bowers titled "How The New York Times Uses Software To Recognize Members of Congress". The article shows a screenshot of an iPhone displaying a call log with a contact for "Cory Gardner (purple)". Bubbles show AI recognition results for other members of Congress.

**Bottom Right:** A screenshot from a Brazilian news site showing a chart titled "Linha de chegada" comparing the screen time and important events of five contestants in a reality TV show. The chart includes data for contestants like Bruna, Amanda, Larissa, Alface, and Aline, categorized by their roles in the show.

I don't know anything about  
video!!!

I just cut it up into images and use image models on it

The most fun thing I  
know of is a tool  
from a company  
called Runway

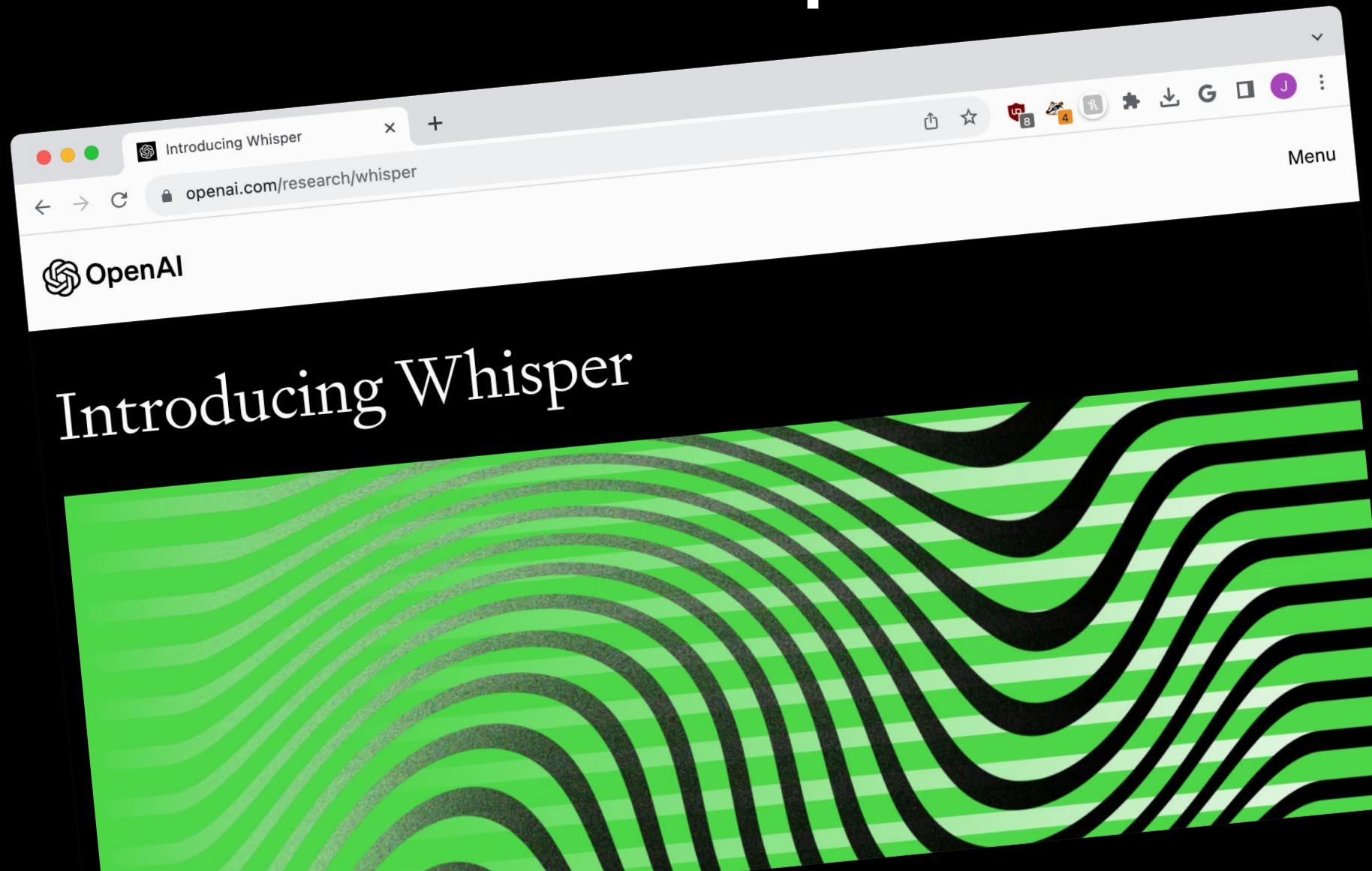
source video + text = new video

*Use this to make explainers!!!*



# Audio models

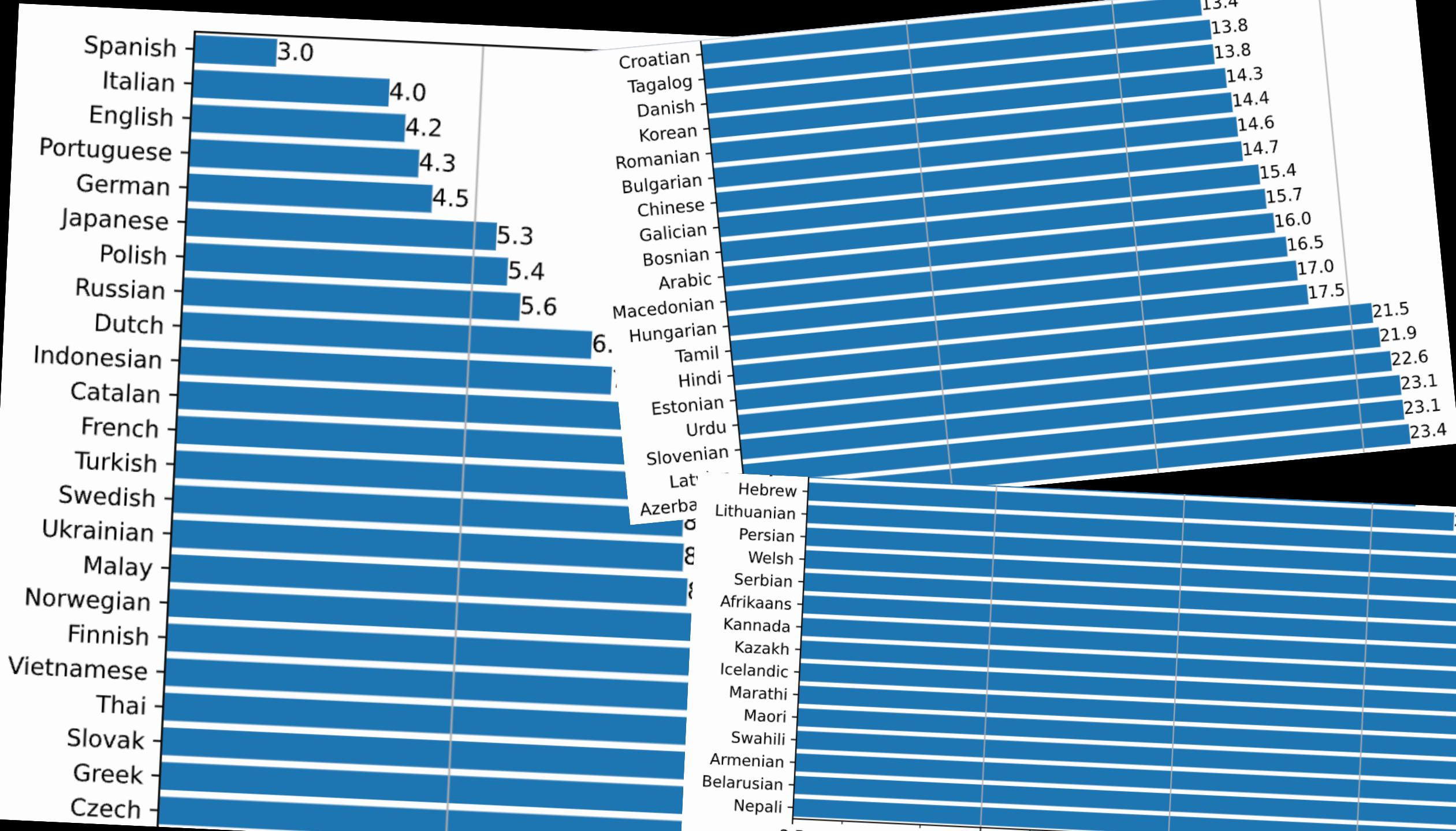
# Transcription



```
model = whisper.load_model("base")
```

```
result = model.transcribe("6313.mp3")
```

' Okay, I was wondering if you could tell me a little bit about the program  
an intensive program designed to last four weeks, each session is four wee  
that will be two weeks long. But our general four weeks session involves s  
lves starting at nine o'clock in the morning with three hours of grammar i  
an hour of group conversation with the same instructor, same class, but we  
so students will usually go out to a garden setting because it's a little  
h, students return and we have a complete flip of instruction in that ins  
have hands on and we offer workshops in Mejibak's drop leaving, regional  
have larg...'



# Audio models can do a lot

this is Microsoft's SpeechX

Sample audio



Text to read

“that summer’s emigration  
however being mainly from the  
free states greatly changed the  
relative strength of the two  
parties”

Generated audio



(please don't fire everyone and replace them with AI voices)

# Speaker diarization



This is only a sliver of the  
types of models and abilities  
that exist out there.

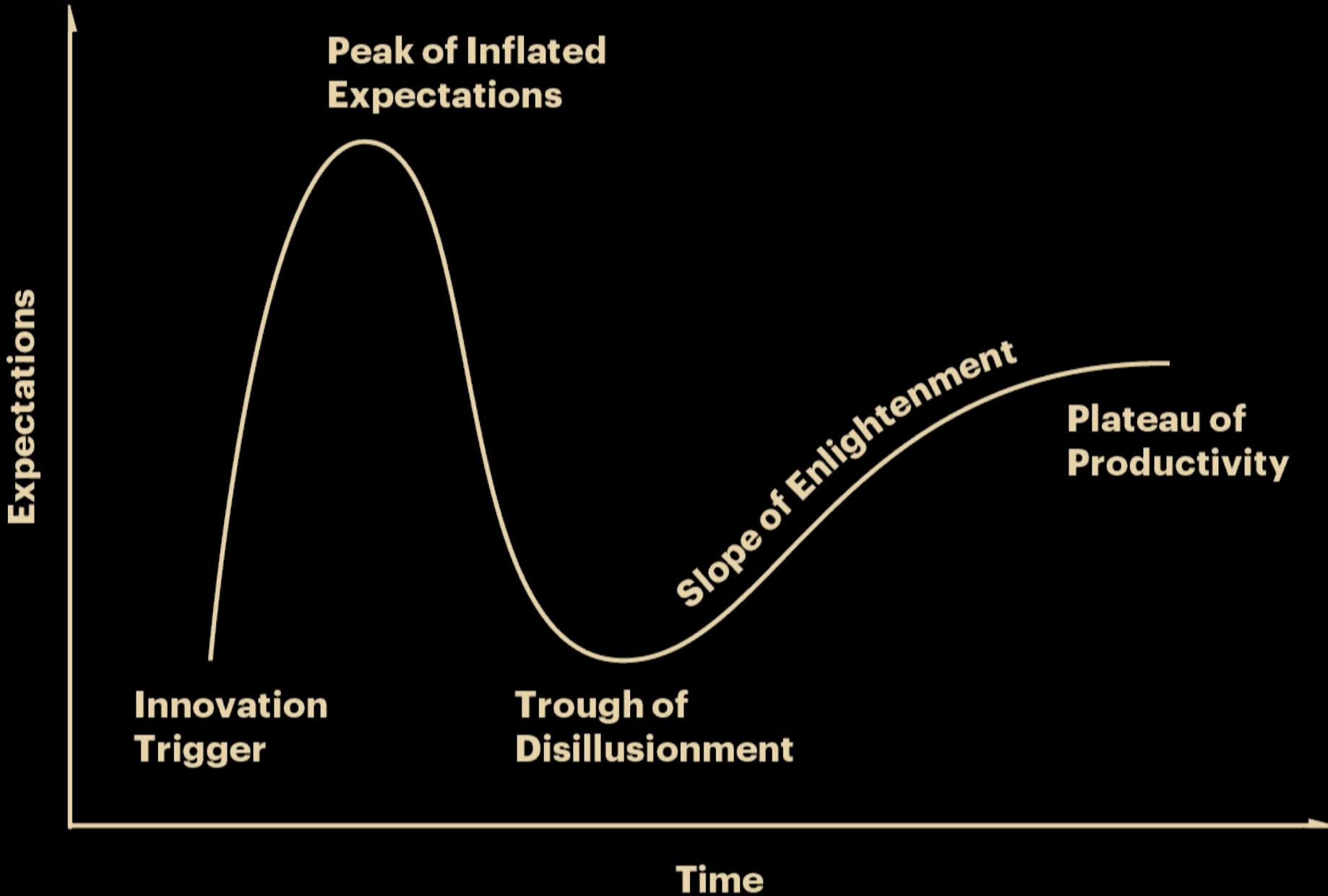
I am begging you to make an  
internal playground  
of accessible, connected pieces

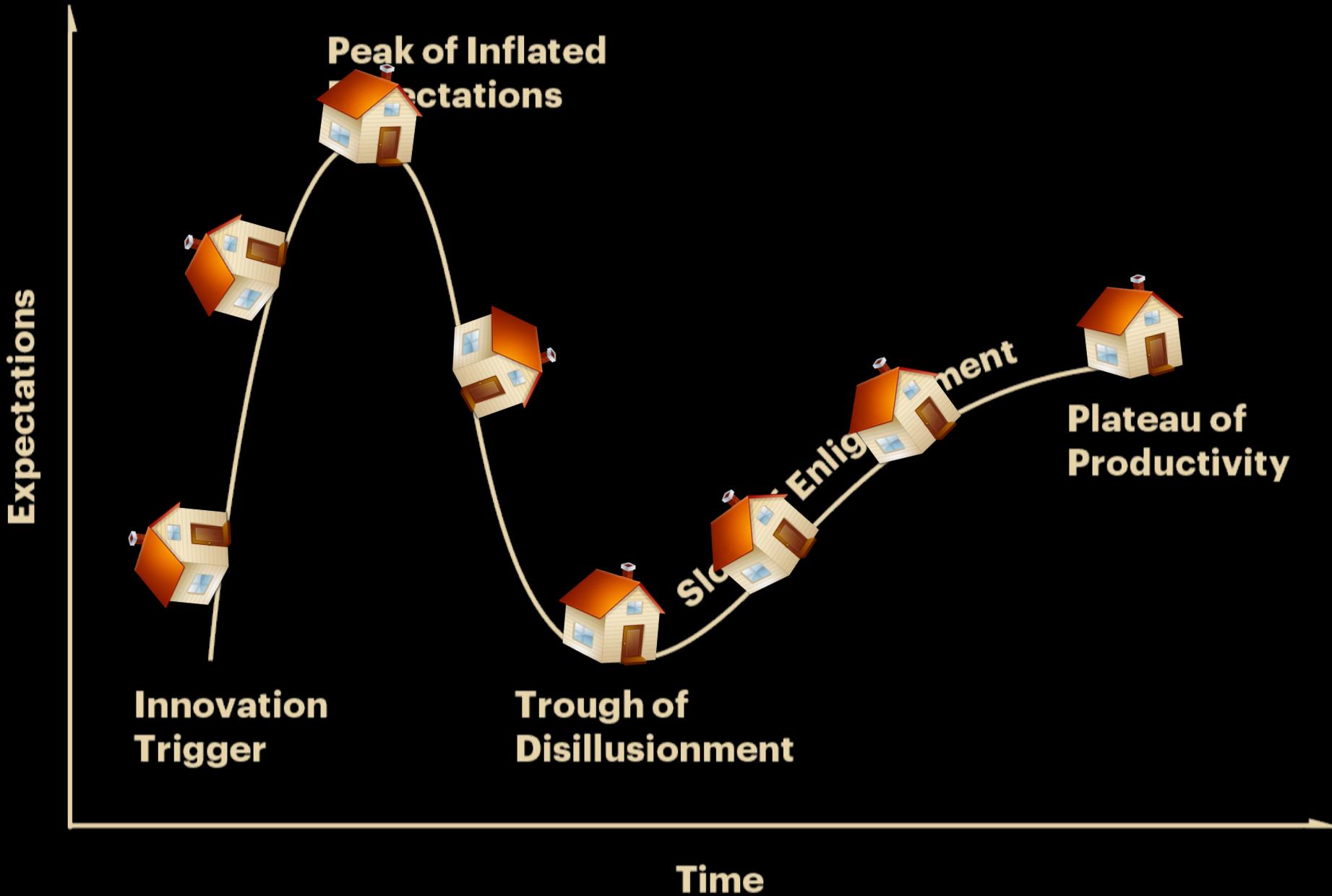
# Benefits of a playground

Ideation and experimentation

Builds trust within newsroom

Easy “red teaming” from non-tech folks





Wendys Llc Creepy Wapo - a H X +

huggingface.co/spaces/wendys-llc/wendys-llc-creepy-wapo

Spaces | wendys-llc/wendys-llc-creepy-wapo private • Running

# wendys-llc/creepy-wapo

Input

Deleted bc old men kept sending me dick pics

Clear Submit

Classification

1.0 93%

0.0 7%

<https://huggingface.co/spaces/wendys-llc/wendys-llc-creepy-wapo>



Wendys Llc Creepy Wapo - a H X



huggingface.co/spaces/wendys-llc/wendys-llc-creepy-wapo



wendys-llc/wendys-llc-creepy-wapo

private

• Running



# wendys-llc/creepy-wapo

Input

Some weird dudes kept asking me for nudes instead of talking about how to slam dunk a basketball

Clear

Submit

Classification

0.0

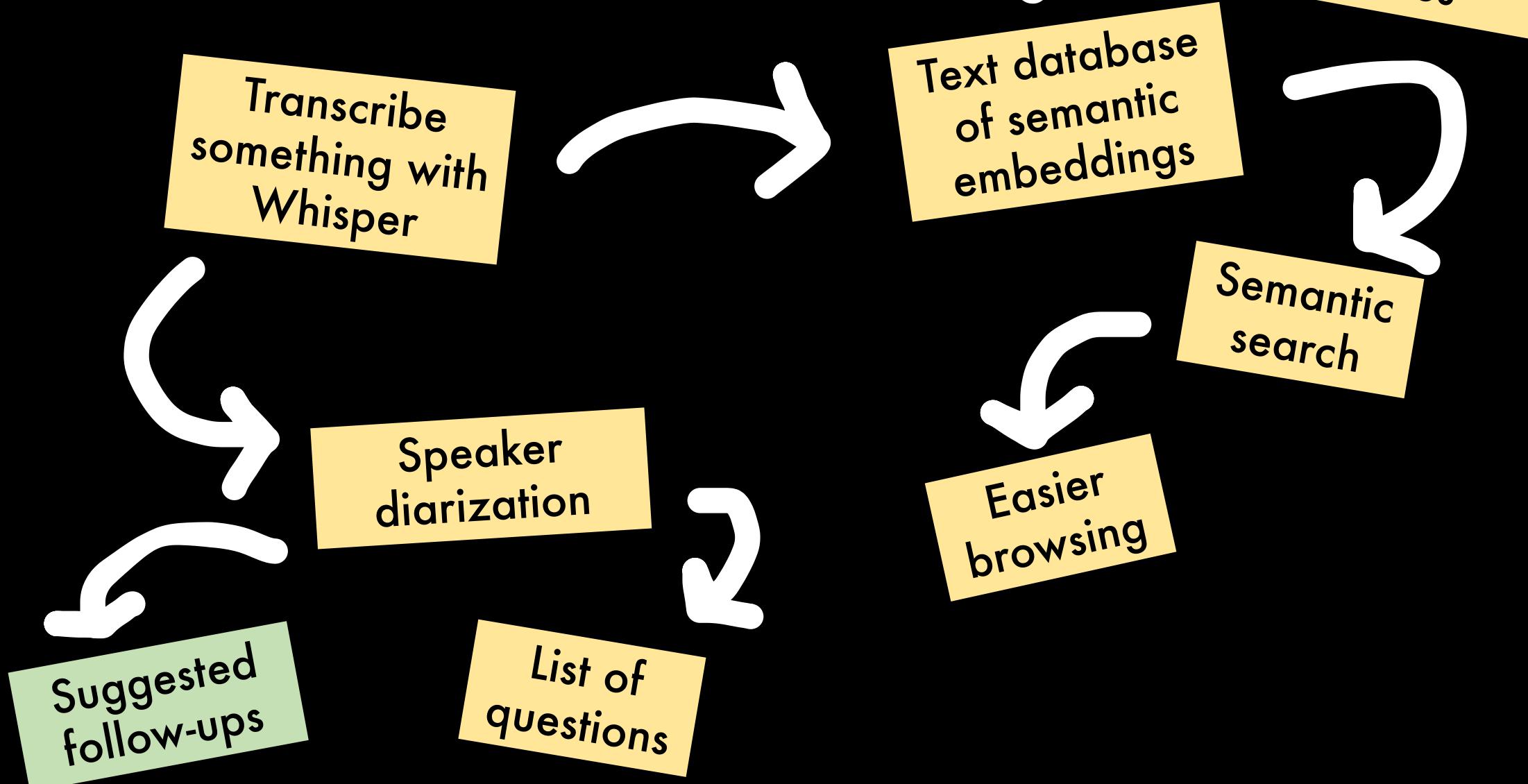
0.0

100%

1.0

0%

# Tools are all additive



# Testing + tracking infrastructure

## Data overview

The data is exclusively from summaries of management reports in financial reports in the period 20 January to 11 April, 2023. In this period 92 articles were given an accepted summary. 54 of the articles were given an acceptable summary in the first attempt (59%), while the remaining 38 articles took several attempts. A total of 193 summaries were generated, of which 101 summaries were rejected. We didn't give up on any articles.

The rejected 101 summaries fell into the following categories [number of articles] (number of summaries):

- Missing important information [14] (28)
- Incorrect summary [14] (23)
- AI evaluates content [9] (17)  
*(e.g. the model states that the company has had a successful year)*
- Poor language [9] (12)
- Irrelevant information [4] (6)

# Model tasks mentioned today

Categorizing pieces of text

Extracting people/places/things from text

Text embeddings (conceptual document similarity)

Detecting objects in images (pools, faces)

Detecting stuff in images (vegetation, streets)

Classifying images (illegal amber mines, gender)

Transcription

Speaker detection

Text-to-audio

Video + text = new video

Video -> audio -> text

## Your homework

List out all the content and data you have available. How could you describe it, add metadata, connect it, or republish it using the tools we talked about?

[bit.ly/ona23-beyond-chatgpt](https://bit.ly/ona23-beyond-chatgpt)

# AI tools from before and beyond ChatGPT

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[aifaq.wtf](http://aifaq.wtf) · [normalai.org](http://normalai.org) · [investigate.ai](http://investigate.ai)

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