Why not Al?

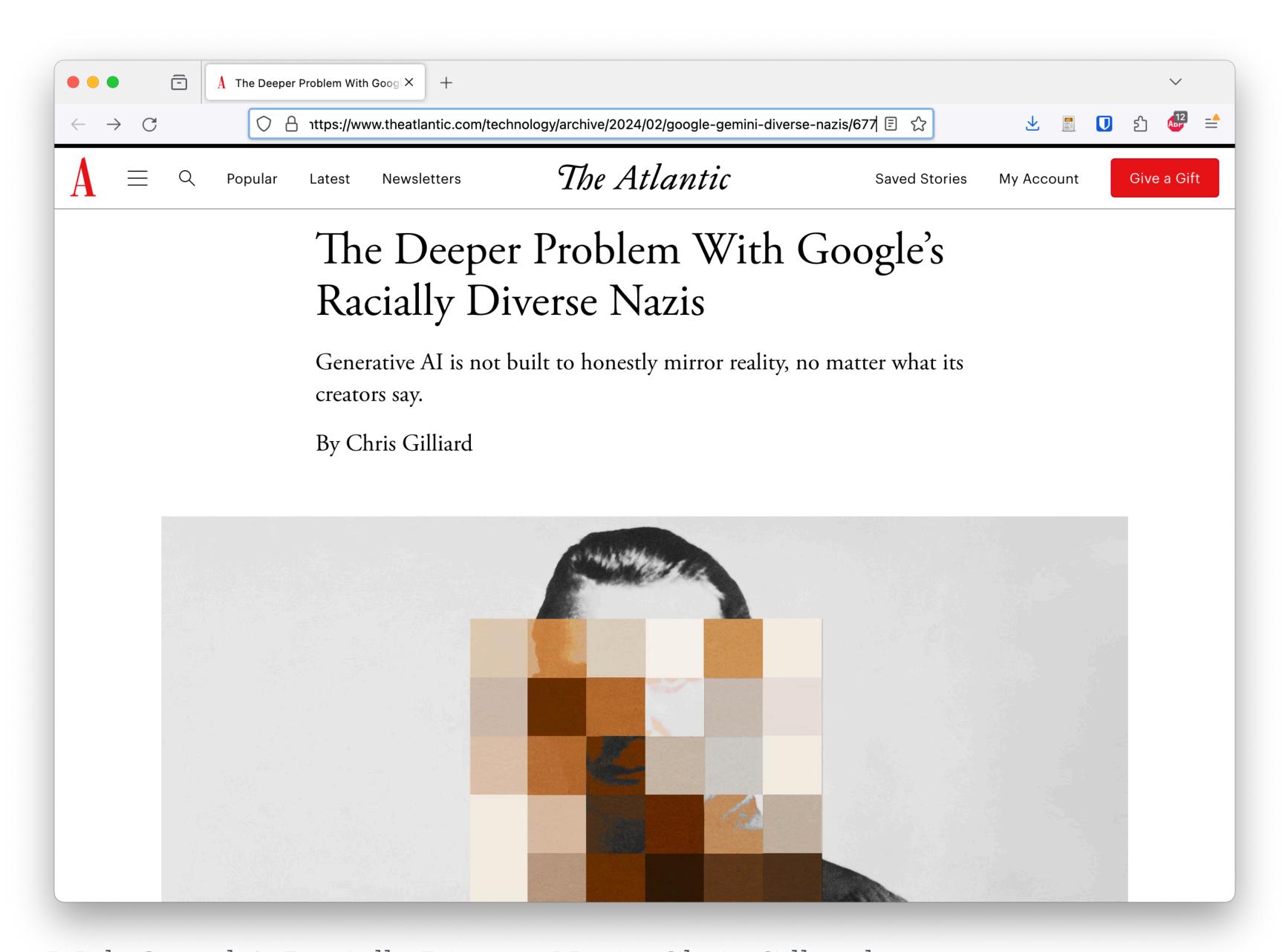
A (mostly) data-driven argument



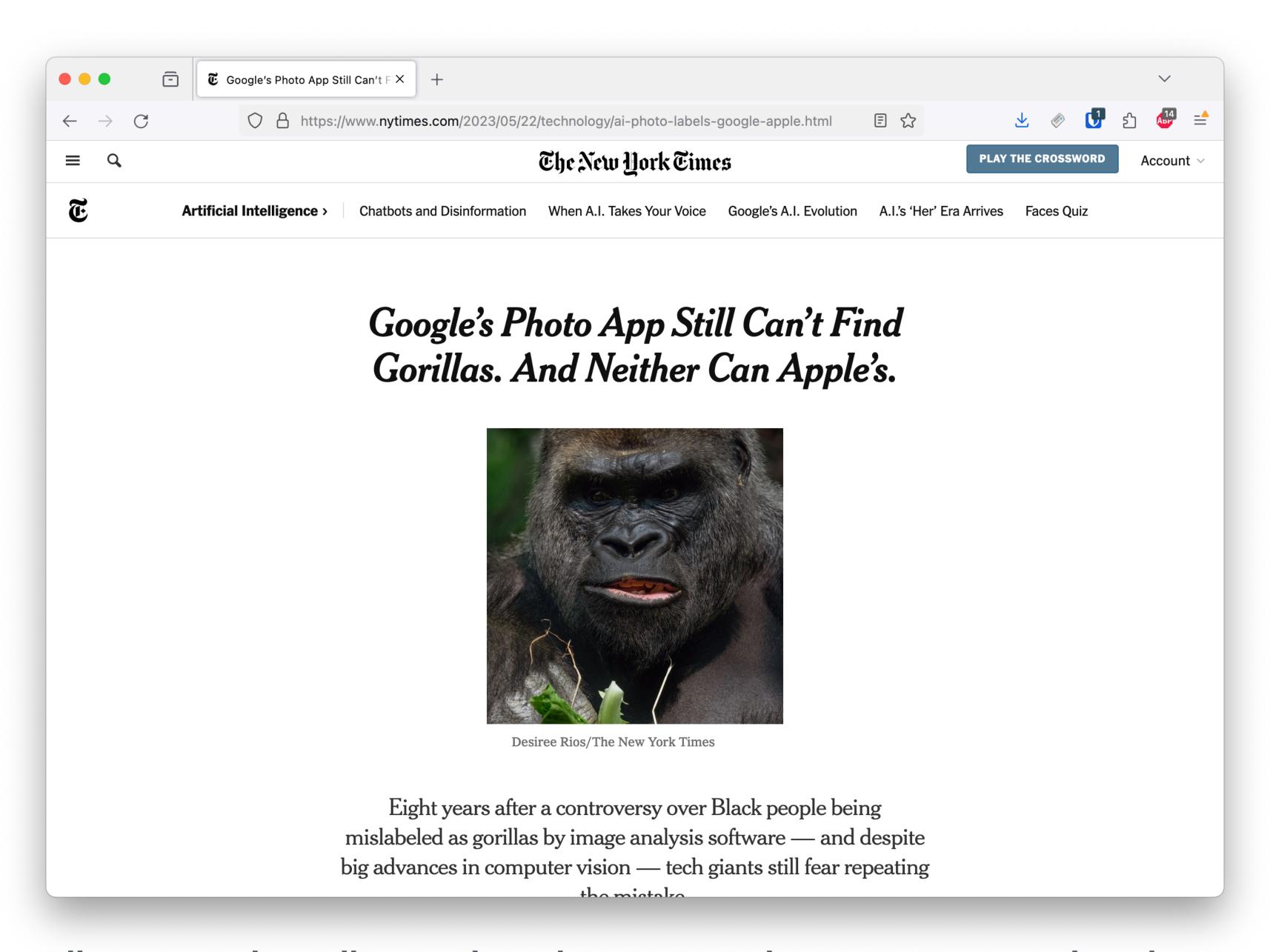
Some tasks for ML/AI

- Prediction ("what will the value be?")
- Classification ("is this A or B?")
- Generation ("make me an X")

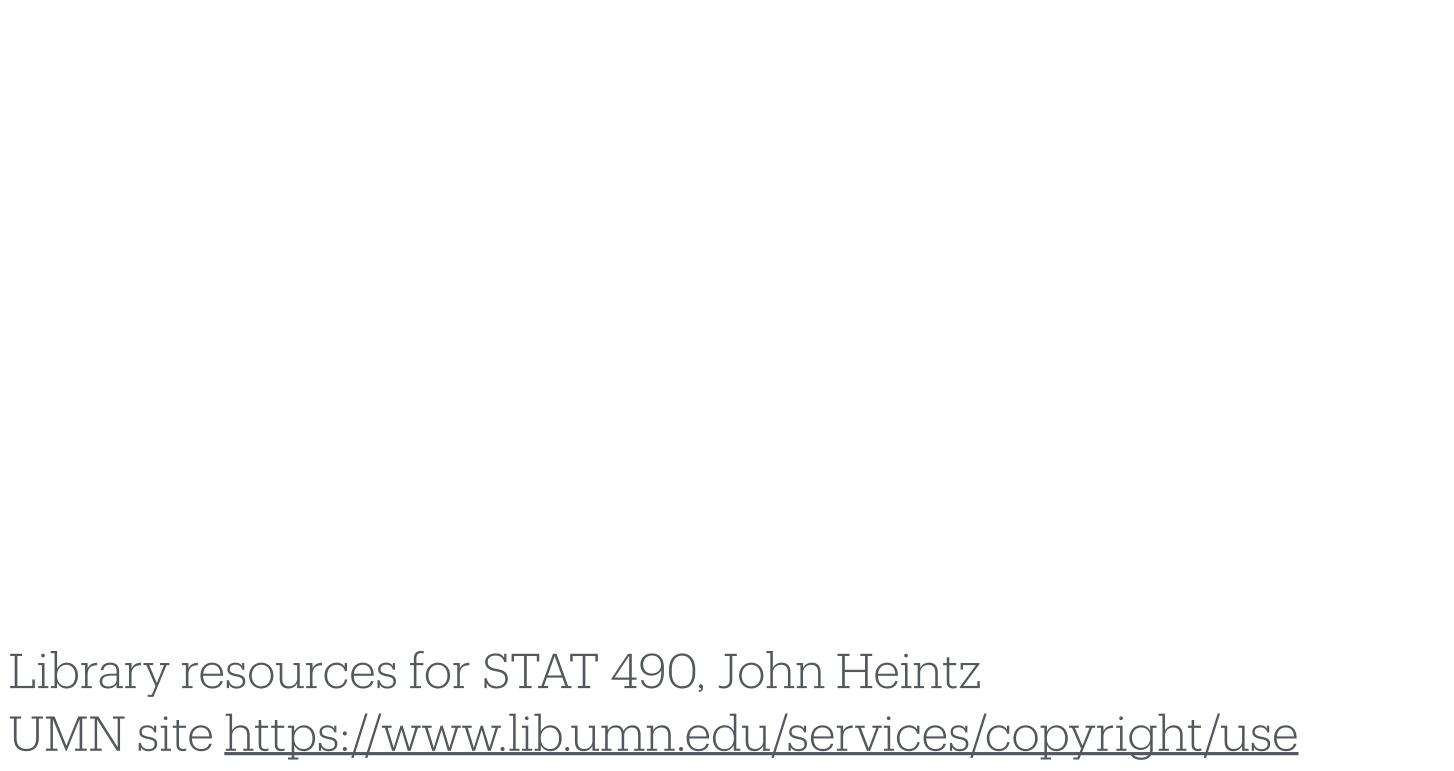
All of these rely on training data, so all of them will be limited by what has happened in the past, and what they are trained on.



The Deeper Problem With Google's Racially Diverse Nazis. Chris Gilliard https://www.theatlantic.com/technology/archive/2024/02/google-gemini-diverse-nazis/677575/



Google's Photo App Still Can't Find Gorillas. And Neither Can Apple's. Nico Grant and Kashmir Hill https://www.nytimes.com/2023/05/22/technology/ai-photo-labels-google-apple.html

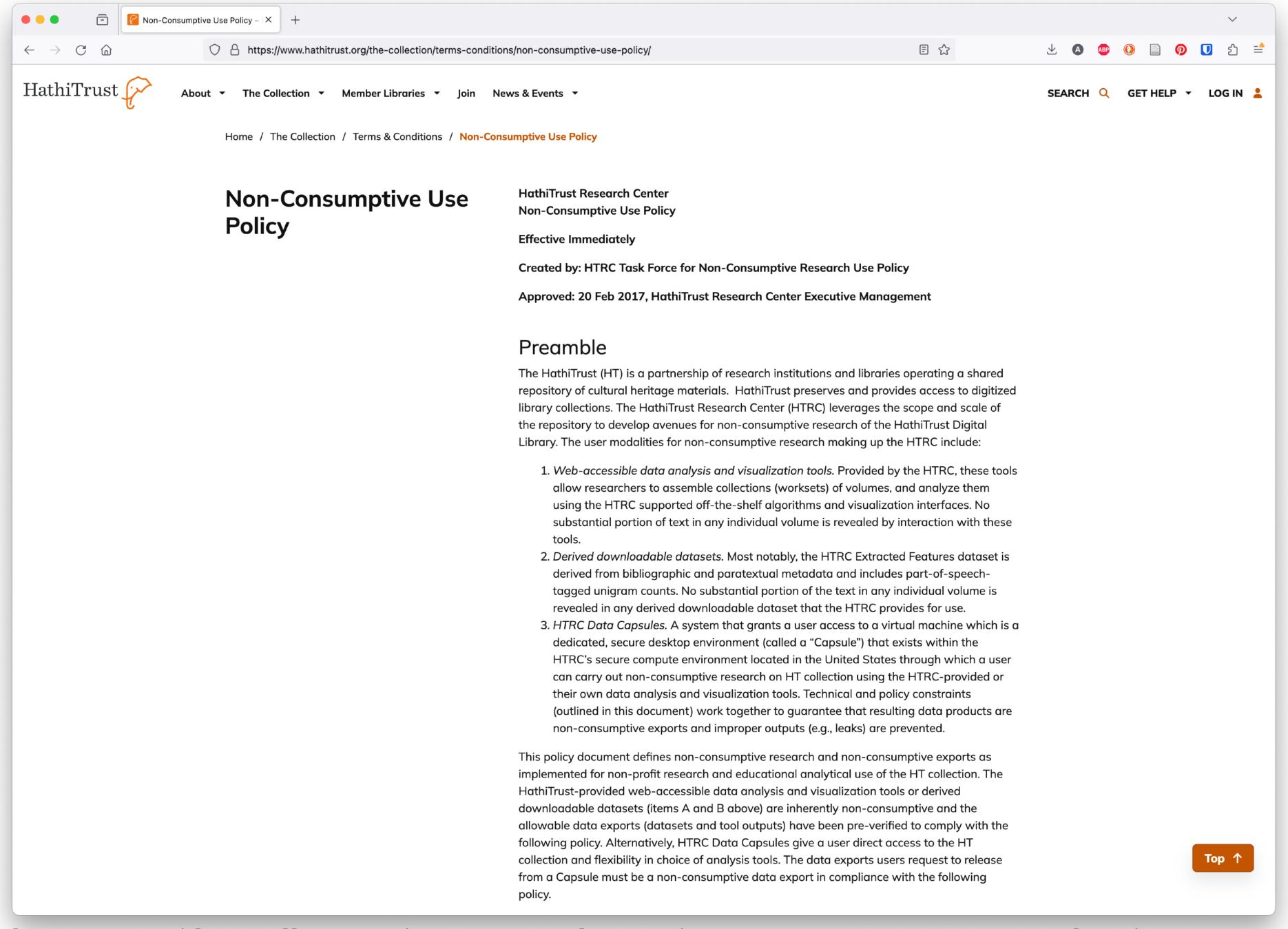


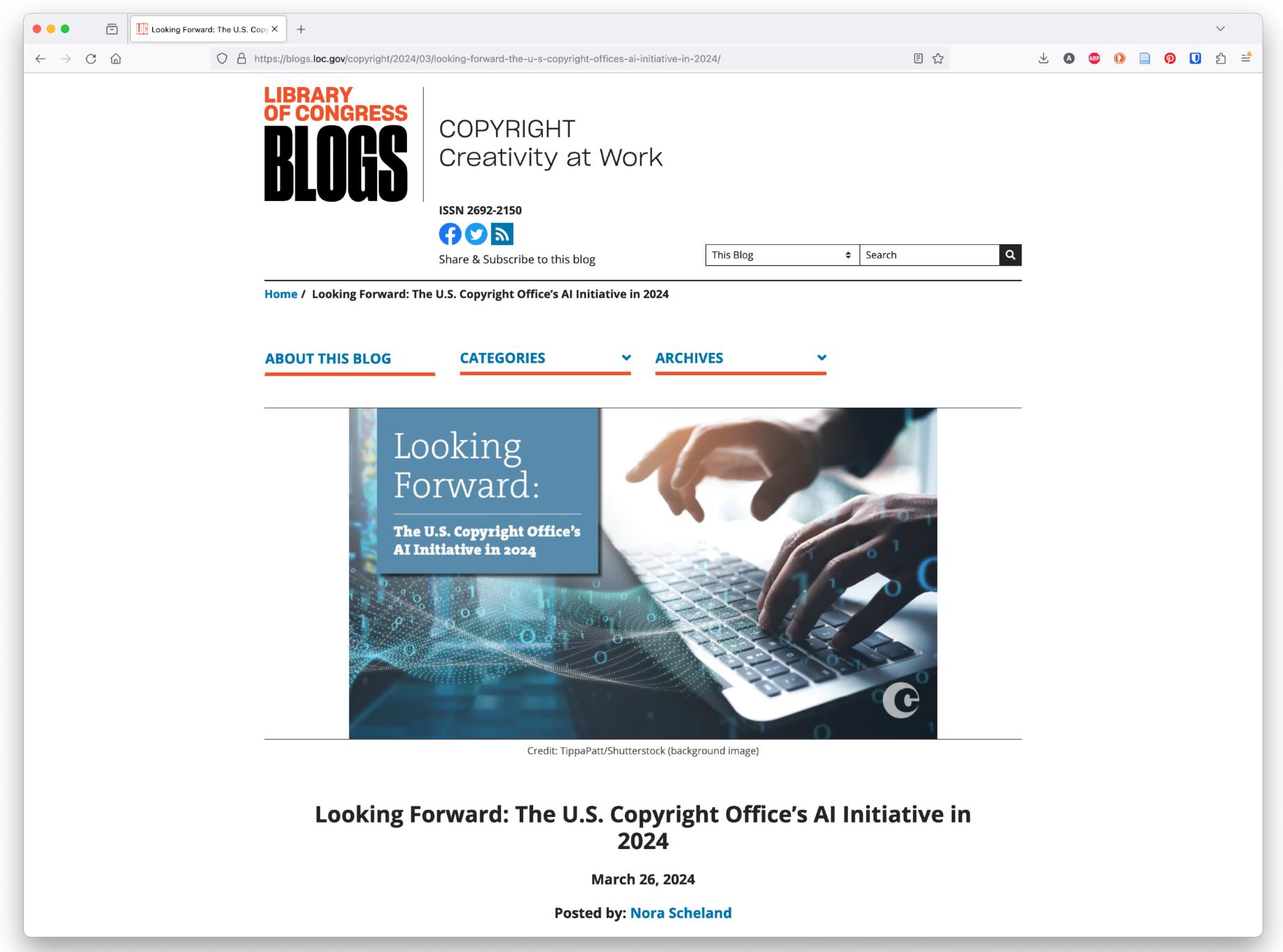
Newer interpretations: "transformative" uses

Excerpted from U of MN copyright site

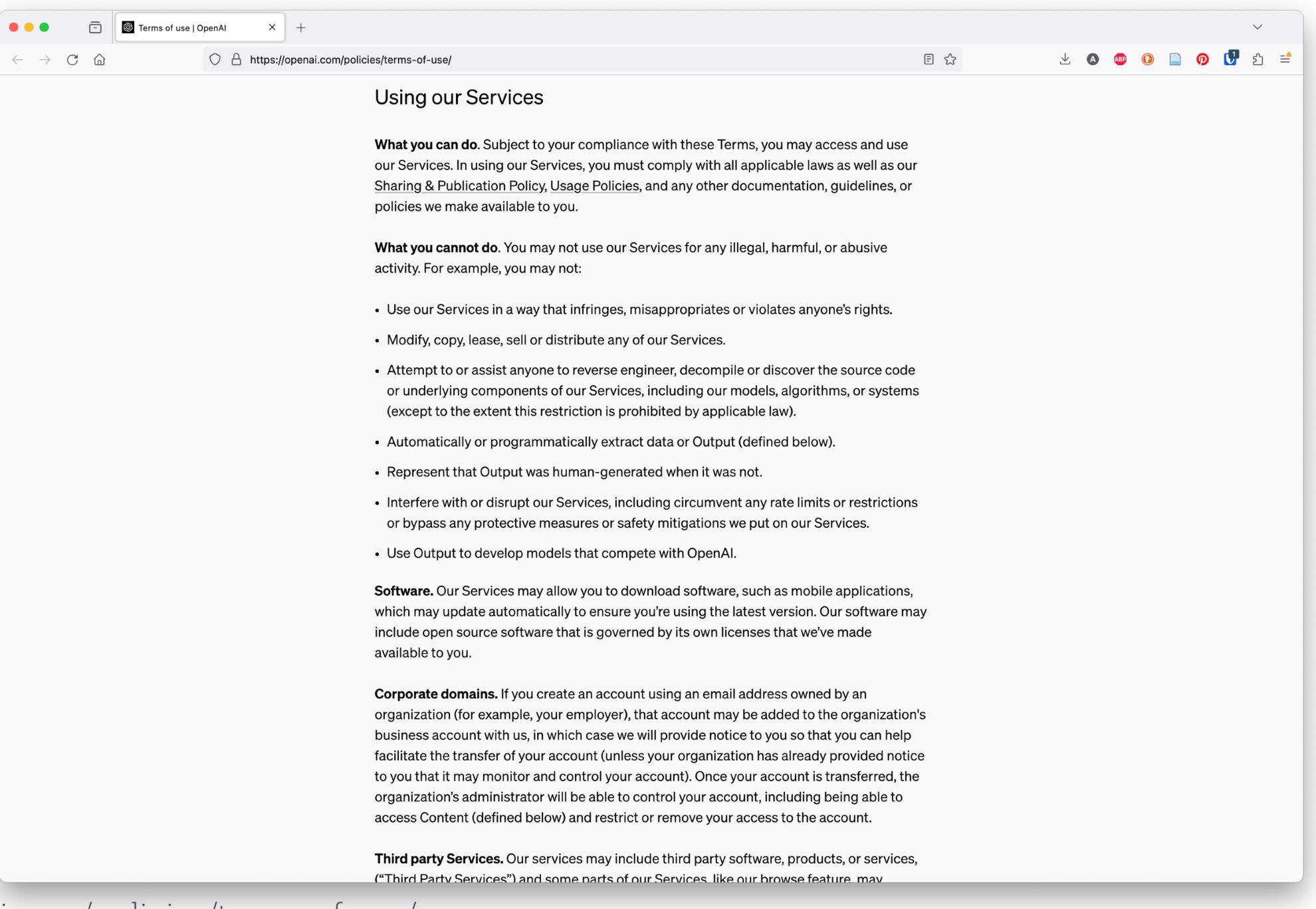


- ▶ Raised in Supreme Court decision (Campbell v. Acuff-Rose Music, 510 U.S. 569 (1994.)
- A new work based on an old one work is transformative if it uses the source work in completely new or unexpected ways. Importantly, a work may be transformative, and thus a fair use, even when all four of the statutory factors would traditionally weigh against fair use!
- Examples:
 - Parody
 - Criticism/commentary
 - New technologies: search engine copies, Google Books





https://blogs.loc.gov/copyright/2024/03/looking-forward-the-u-s-copyright-offices-ai-initiative-in-2024/



AI is consumptive

"A Business Model Based on Mass Copyright Infringement"

Gizmodo article:

https://gizmodo.com/google-bard-ai-stole-data-

class-action-suit-says-1850631307

CLF Google Complaint:

https://www.documentcloud.org/documents/

23872168-clf_google_complaint_stamp_filed

NYTimes article:

https://www.nytimes.com/2023/12/27/business/

media/new-york-times-open-ai-microsoft-

<u>lawsuit.html</u>

NYTimes OpenAI complaint:

https://nytco-assets.nytimes.com/2023/12/

NYT Complaint Dec2023.pdf



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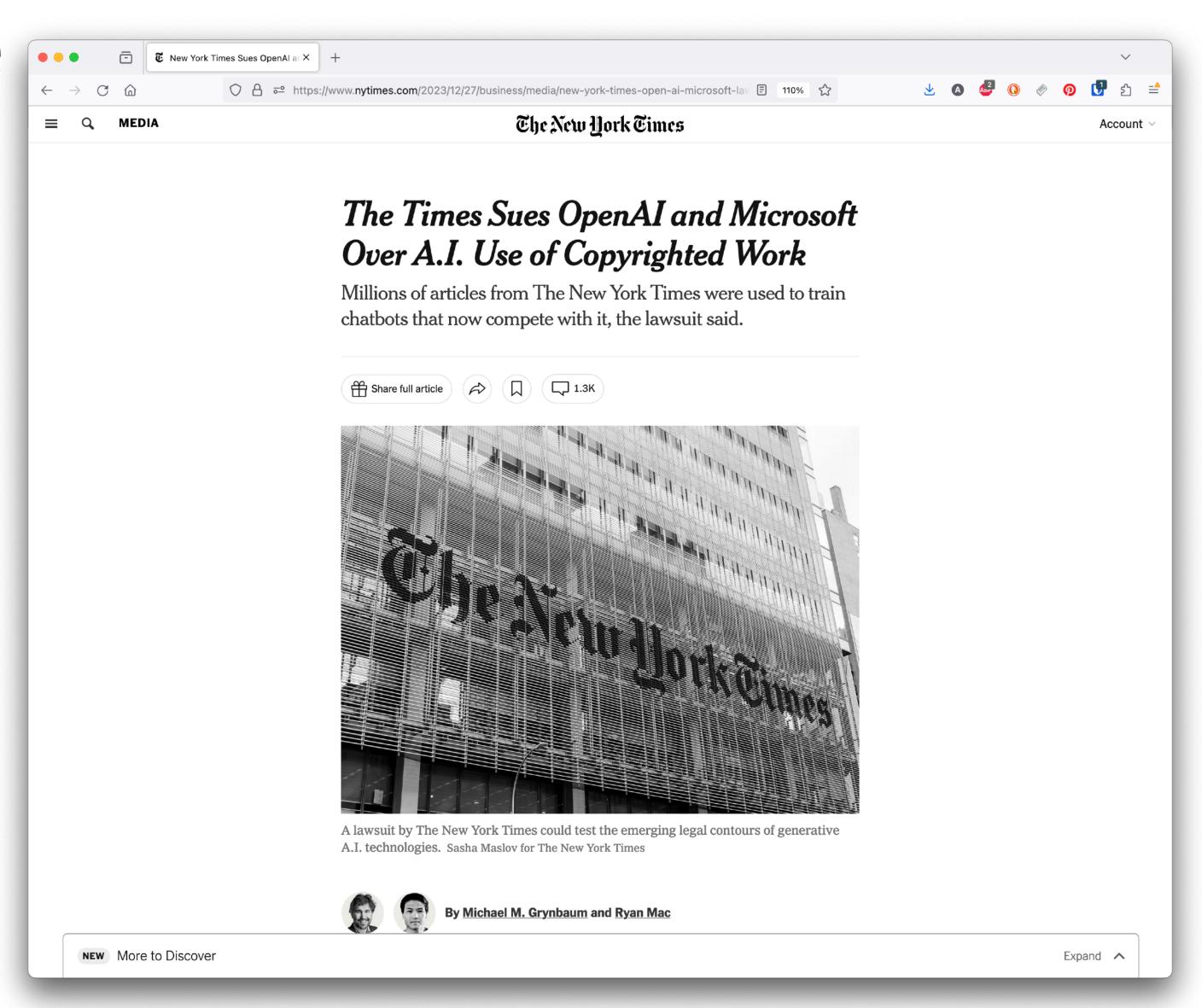
media/new-york-times-open-ai-microsoft-

lawsuit.html

NYTimes OpenAI complaint:

https://nytco-assets.nytimes.com/2023/12/

NYT Complaint Dec2023.pdf



AT is not transformative

"A Business Model Based on Mass Copyright Infringement"

BlueSky post: https://bsky.app/profile/nycsouthpaw.bsky.social/ post/3ks35imfbm22w

NYTimes complaint: https://nytco-assets.nytimes.com/2023/12/ NYT Complaint Dec2023.pdf

Case 1:23-cv-11195 Document 1 Filed 12/27/23 Page 30 of 69

copies of significant portions of Times Works when prompted to do so. Such memorized examples constitute unauthorized copies or derivative works of the Times Works used to train the model.

For example, in 2019, The Times published a Pulitzer-prize winning, five-part series on predatory lending in New York City's taxi industry. The 18-month investigation included 600 interviews, more than 100 records requests, large-scale data analysis, and the review of thousands of pages of internal bank records and other documents, and ultimately led to criminal probes and the enactment of new laws to prevent future abuse. OpenAI had no role in the creation of this content, yet with minimal prompting, will recite large portions of it verbatim:²⁶

Output from GPT-4:

exempted it from regulations, subsidized its operations and promoted its practices, records and inter-

Their actions turned one of the best-known symbols

Their actions turned one of the best-known symbols of New York — its vellow cabs — into a financial of New York — its signature vellow cabs — into a trap for thousands of immigrant drivers. More than financial trap for thousands of immigrant drivers. 950 have filed for bankruptcy, according to a Times More than 950 have filed for bankruptcy, according analysis of court records, and many more struggle to a Times analysis of court records, and many more to stay afloat.

"Nobody wanted to upset the industry," said David Klahr, who from 2007 to 2016 held several manage- Klahr, who from 2007 to 2016 held several management posts at the Taxi and Limousine Commission, ment posts at the Taxi and Limousine Commission, the city agency that oversees medallions. "Nobody the city agency that oversees cabs. "Nobody wanted wanted to kill the golden goose."

New York City in particular failed the taxi industry, New York City in particular failed the taxi industry, The Times found. Two former mayors, Rudolph W. The Times found. Two former mayors, Rudolph W. Giuliani and Michael R. Bloomberg, placed polit-Giuliani and Michael R. Bloomberg, placed political allies inside the Taxi and Limousine Commis- ical allies inside the Taxi and Limousine Commission and directed it to sell medallions to help them sion and directed it to sell medallions to help them balance budgets and fund key initiatives.

During that period, much like in the mortgage lend- Blasio continued the policies. ing crisis, a group of industry leaders enriched them- Under Mr. Bloomberg and Mr. de Blasio, the city possible and ensuared them in interest-only loans to the city. and other one-sided deals that often required bor- But during that period, much like in the mortgage rowers to pay hefty fees, forfeit their legal rights and give up most of their monthly incomes.

When the market collapsed, the government largely sis. Officials did not bail out borrowers or persuade banks to soften loan

Actual text from NYTimes:

views showed.

struggle to stay afloat.

"Nobody wanted to upset the industry," said David to kill the golden goose."

balance budgets and fund priorities. Mayor Bill de

selves by artificially inflating medallion prices. They made more than \$855 million by selling taxi medalencouraged medallion buyers to borrow as much as lions and collecting taxes on private sales, according

lending crisis, a group of industry leaders enriched themselves by artificially inflating medallion prices. They encouraged medallion buyers to borrow as abandoned the drivers who bore the brunt of the crimuch as possible and ensured them in interest-only loans and other one-sided deals that often required them to pay hefty fees, forfeit their legal rights and give up most of their monthly incomes.

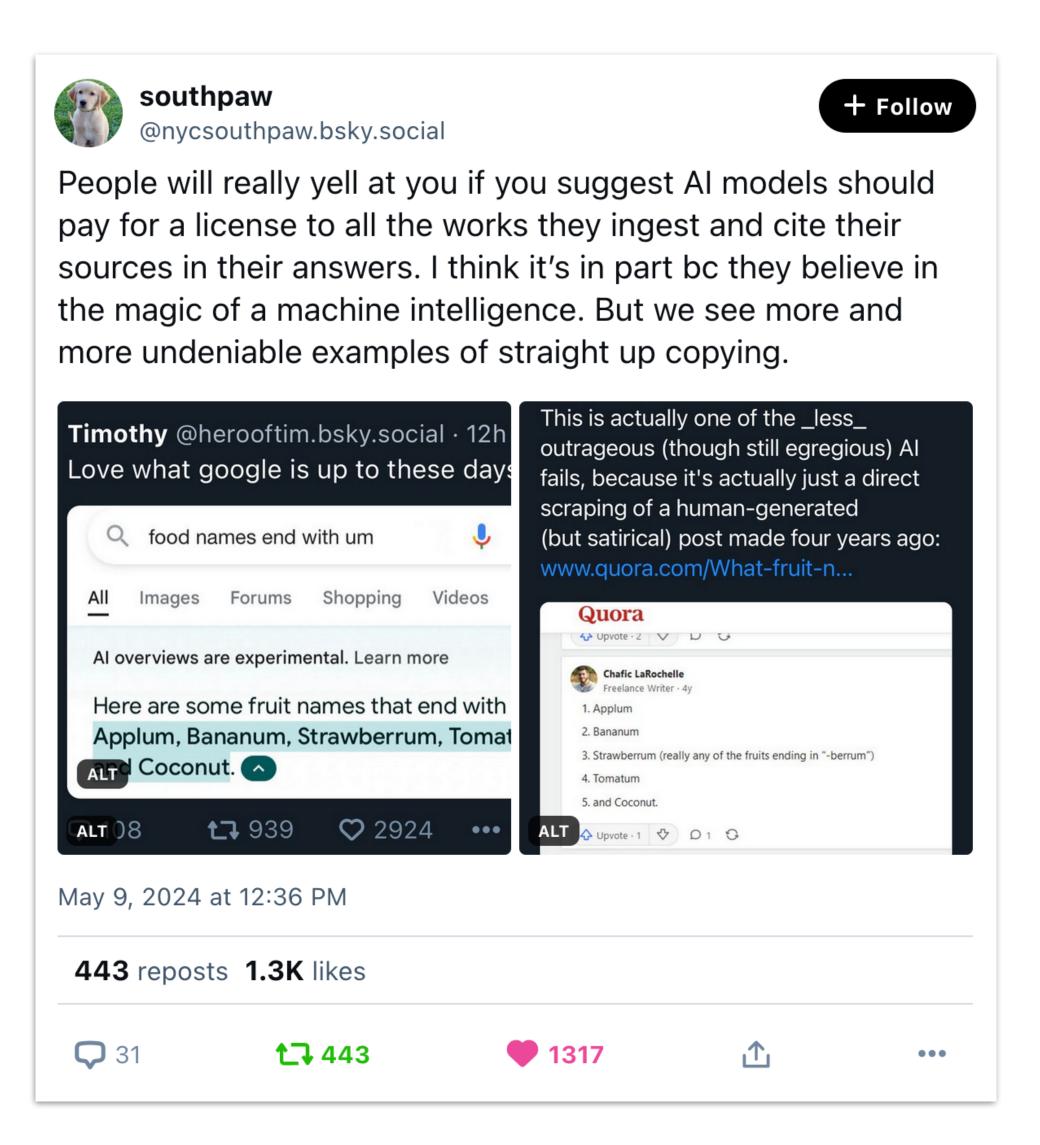
²⁶ For original article, see Brian M. Rosenthal, As Thousands of Taxi Drivers Were Trapped in Loans, Top Officials Counted the Money, N.Y. TIMES (May 19, 2019), https://www.nytimes.com/2019/05/19/nyregion/taxi-

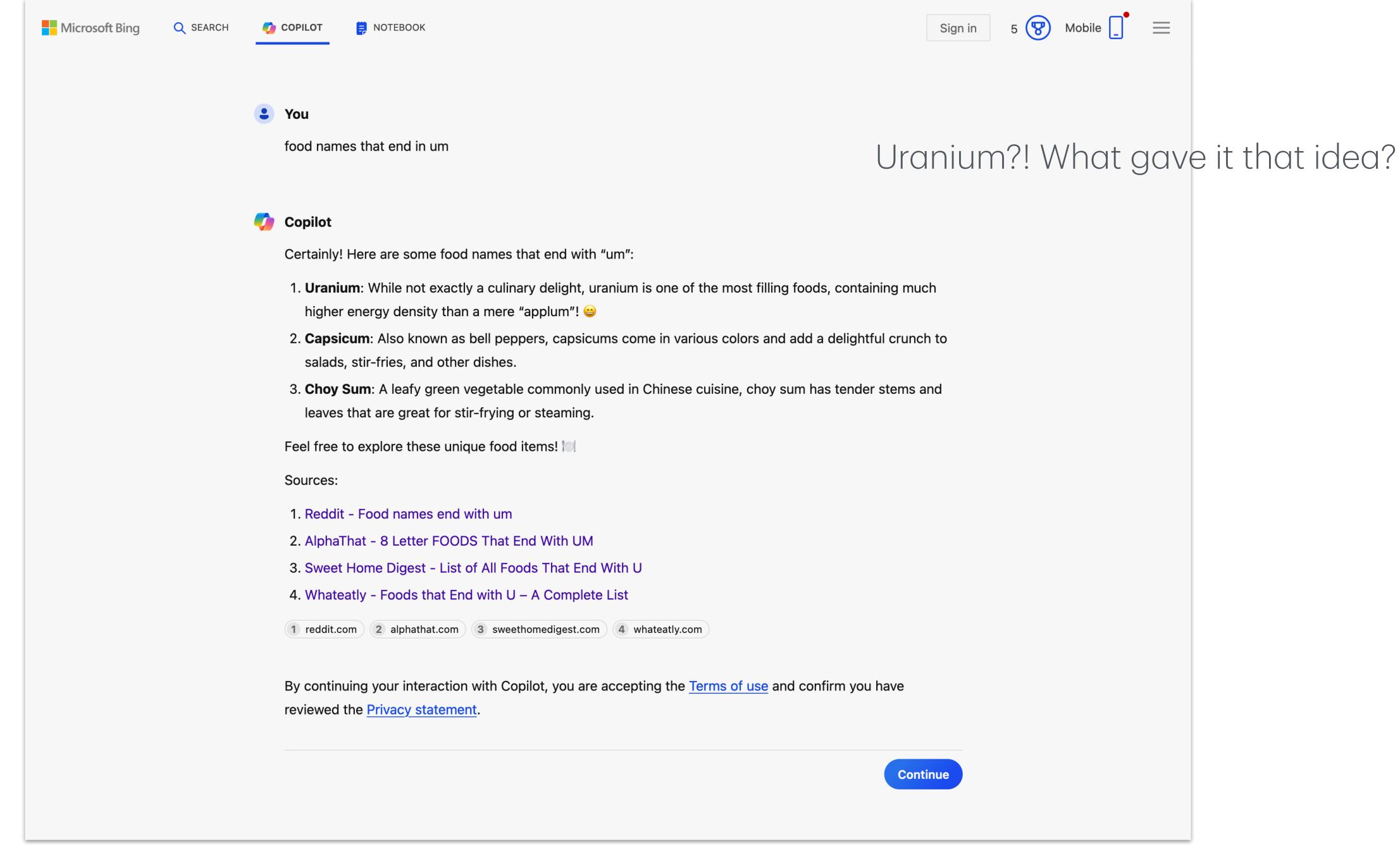
AI is not transformative

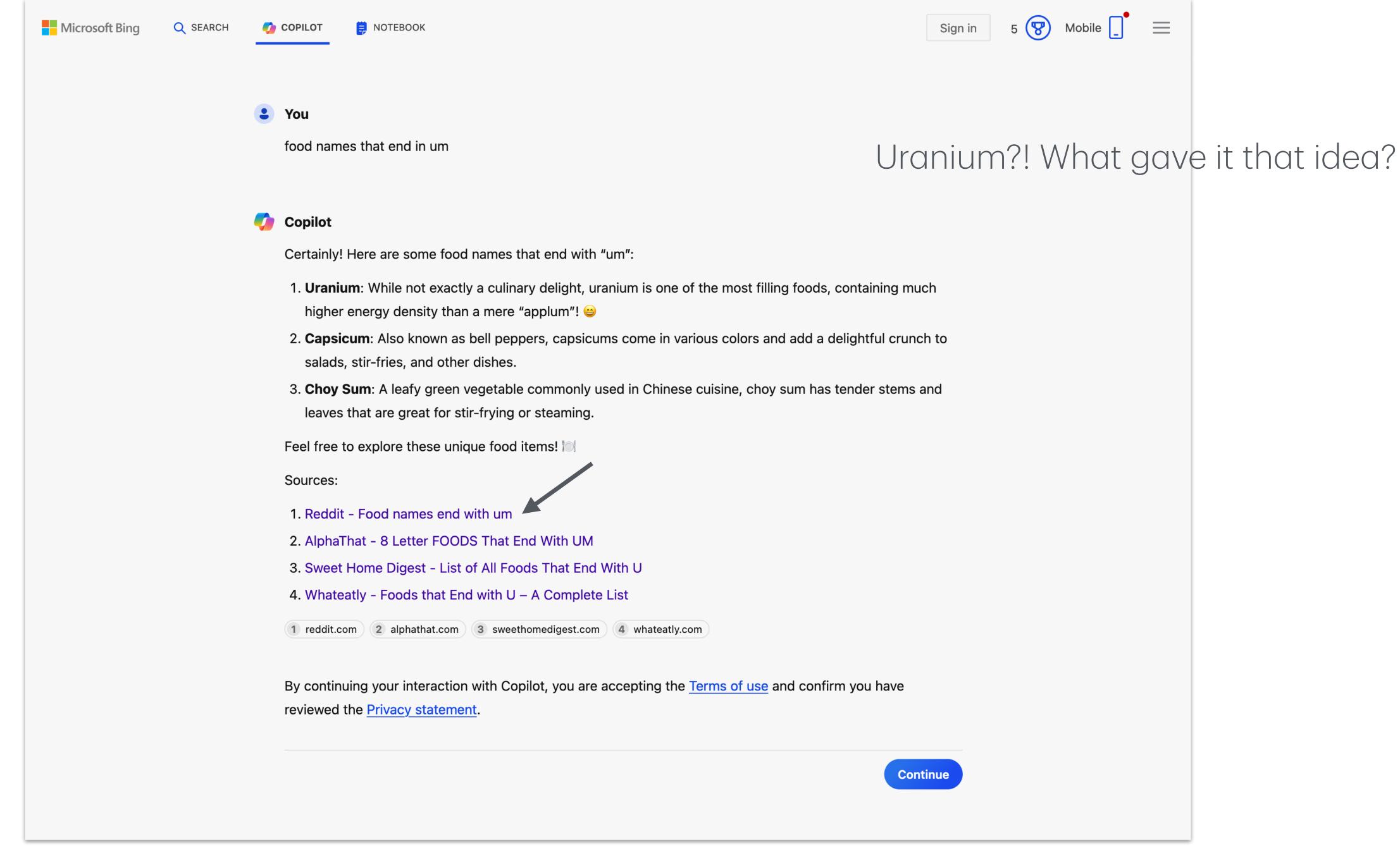
"A Business Model Based on Mass Copyright Infringement"

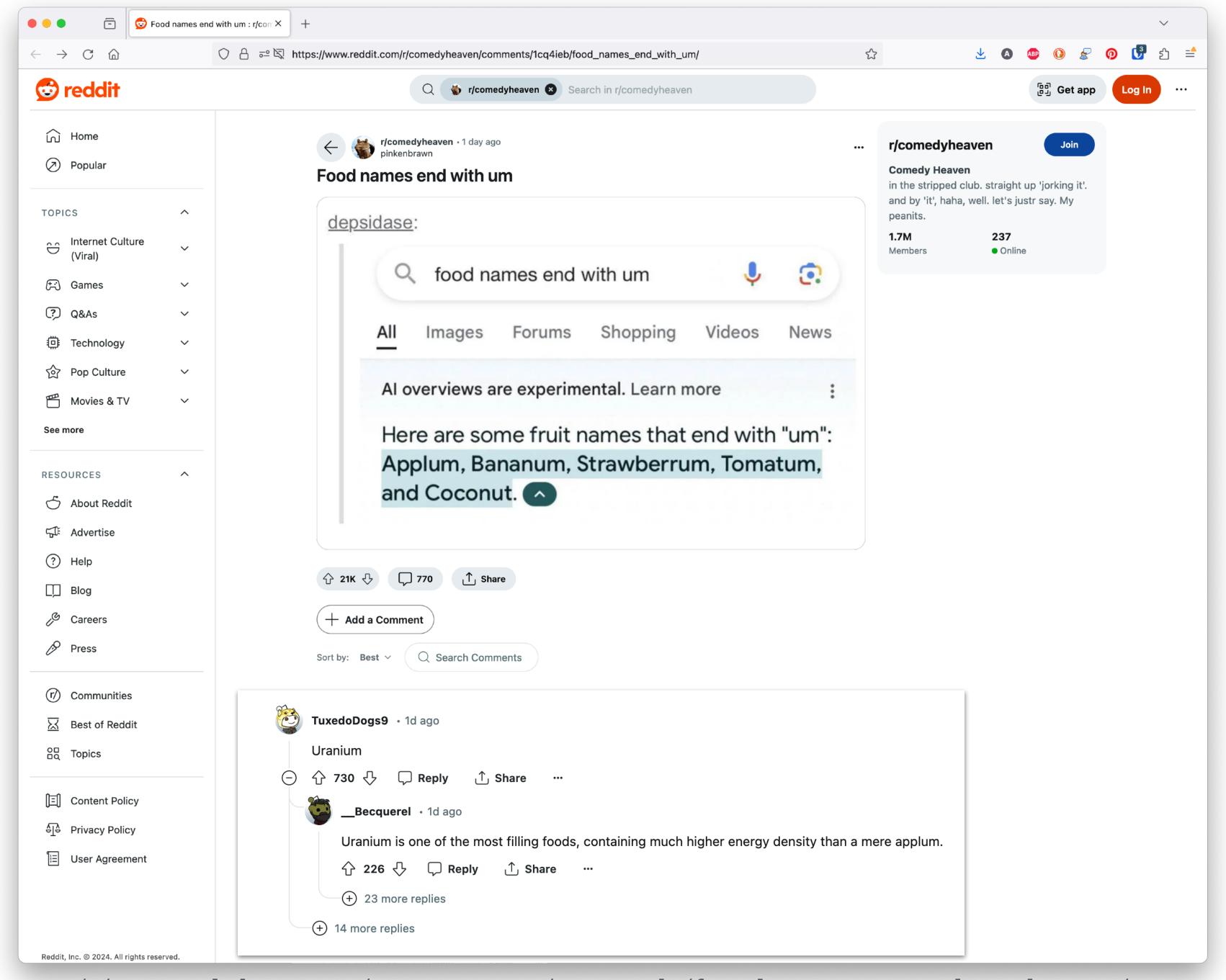
BlueSky post: https://bsky.app/profile/nycsouthpaw.bsky.social/post/3ks35imfbm22w

NYTimes complaint: https://nytco-assets.nytimes.com/2023/12/
NYT_Complaint_Dec2023.pdf









https://www.reddit.com/r/comedyheaven/comments/1cq4ieb/food_names_end_with_um/

Amelia McNamara's tidyverse dress was a labor of love that combined her passion for data science with her interest in sewing and fashion design. Here's a brief overview of the creation process:

- 1. **Design Planning**: McNamara started by designing the dress pattern, which featured a repeating pattern of tidyverse hex logos arranged in a grid-like fashion. She carefully selected the colors and placement of the logos to create a visually appealing design that showcased the diversity of tidyverse packages.
- **Fabric Selection**: McNamara chose a fabric that would serve as the canvas for her design. She opted for a white fabric with a smooth texture, which provided a clean background for the colorful tidyverse logos to stand out.
- **Logo Preparation**: McNamara obtained digital versions of the tidyverse hex logos, which she then resized and arranged into the desired pattern using graphic design software. She meticulously adjusted the spacing and alignment of the logos to ensure a seamless and balanced design.
- **Fabric Printing**: Once the design was finalized, McNamara worked with a fabric printing company to print the custom fabric for her dress. She used a digital printing process that allowed her to reproduce the vibrant colors and intricate details of the tidyverse logos with high precision.
- **Dress Construction**: With the printed fabric in hand, McNamara set to work sewing the dress. She used a dress pattern as a template and carefully cut and assembled the fabric pieces according to the pattern. She paid close attention to detail, ensuring that the logos lined up correctly across the seams and edges of the dress.
- **Finishing Touches**: After the dress was assembled, McNamara added final touches such as hemming the edges and installing closures like zippers or buttons. She also made any necessary adjustments to ensure the fit was comfortable and flattering.
- **7. Debut and Reception**: Once the dress was complete, McNamara proudly wore it to conferences and events, where it garnered attention and admiration from fellow data scientists and enthusiasts. The dress sparked conversations about the intersection of fashion and technology and served as a unique expression of McNamara's passion for data science and the tidyverse ecosystem.

Overall, the creation of Amelia McNamara's tidyverse dress was a labor-intensive process that required a combination of technical skill, creativity, and attention to detail. The finished dress stands as a testament to her talent and dedication, as well as a symbol of the creativity and innovation that can emerge at the intersection of different disciplines.

Interaction with ChatGPT

Is it hallucinating? Paraphrasing? Plagiarizing?

The most time-consuming part of this entire process was laying out the hexes. As I learned, not all hexes are exactly the same size. Some aren't quite hexagons. And, when you're going to make fabric, you need the right edge of the design to match up perfectly with the left edge, and the top with the bottom. There was lots of zooming in, fiddling with dimensions, and nudging objects by a pixel one direction or another.

[...]

Of course, you want to wash and dry fabric before you work with it, to avoid issues with shrinkage. I washed and dried my fabric and was on to the second-hardest part of the project: cutting out the pieces for the final dress. I wanted everything to be straight, upright, and ideally match up along seams.

Excerpt from my blog, https://www.amelia.mn/blog/2019-08-17-Tidy-Dress/





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Flexible Mathematics Consultant Opportunity

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Hi Amelia,

Outlier is looking for mathematics experts to help train Al systems and LLMs (large language models). Your profile stood out and we are inviting you to apply.

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Apply Now →



Personal Information We Collect

AI doesn't "know" anything

Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell. 2021. On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? . In Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency (FAccT '21). Association for Computing Machinery, New York, NY, USA, 610–623. https://doi.org/10.1145/3442188.344592



On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?

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ABSTRACT

The past 3 years of work in NLP have been characterized by the development and deployment of ever larger language models, especially for English. BERT, its variants, GPT-2/3, and others, most recently Switch-C, have pushed the boundaries of the possible both through architectural innovations and through sheer size. Using these pretrained models and the methodology of fine-tuning them for specific tasks, researchers have extended the state of the art on a wide array of tasks as measured by leaderboards on specific benchmarks for English. In this paper, we take a step back and ask: How big is too big? What are the possible risks associated with this technology and what paths are available for mitigating those risks? We provide recommendations including weighing the environmental and financial costs first, investing resources into curating and carefully documenting datasets rather than ingesting everything on the web, carrying out pre-development exercises evaluating how the planned approach fits into research and development goals and supports stakeholder values, and encouraging research directions beyond ever larger language models.

CCS CONCEPTS

Computing methodologies → Natural language processing. ACM Reference Format:

Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell. 2021. On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? . In Conference on Fairness, Accountability, and Transparency (FAccT '21), March 3–10, 2021, Virtual Event, Canada. ACM, New York, NY, USA, 14 pages. https://doi.org/10.1145/3442188.3445922

1 INTRODUCTION

One of the biggest trends in natural language processing (NLP) has been the increasing size of language models (LMs) as measured by the number of parameters and size of training data. Since 2018

 * Joint first authors



This work is licensed under a Creative Commons Attribution International 4.0 License FAccT '21, March 3–10, 2021, Virtual Event, Canada ACM ISBN 978-1-4503-8309-7/21/03. https://doi.org/10.1145/3442188.3445922

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Shmargaret Shmitchell shmargaret.shmitchell@gmail.com The Aether

alone, we have seen the emergence of BERT and its variants [39, 70, 74, 113, 146], GPT-2 [106], T-NLG [112], GPT-3 [25], and most recently Switch-C [43], with institutions seemingly competing to produce ever larger LMs. While investigating properties of LMs and how they change with size holds scientific interest, and large LMs have shown improvements on various tasks (§2), we ask whether enough thought has been put into the potential risks associated with developing them and strategies to mitigate these risks.

We first consider environmental risks. Echoing a line of recent work outlining the environmental and financial costs of deep learning systems [129], we encourage the research community to prioritize these impacts. One way this can be done is by reporting costs and evaluating works based on the amount of resources they consume [57]. As we outline in §3, increasing the environmental and financial costs of these models doubly punishes marginalized communities that are least likely to benefit from the progress achieved by large LMs and most likely to be harmed by negative environmental consequences of its resource consumption. At the scale we are discussing (outlined in §2), the first consideration should be the environmental cost.

Just as environmental impact scales with model size, so does the difficulty of understanding what is in the training data. In §4, we discuss how large datasets based on texts from the Internet overrepresent hegemonic viewpoints and encode biases potentially damaging to marginalized populations. In collecting ever larger datasets we risk incurring documentation debt. We recommend mitigating these risks by budgeting for curation and documentation at the start of a project and only creating datasets as large as can be sufficiently documented.

As argued by Bender and Koller [14], it is important to understand the limitations of LMs and put their success in context. This not only helps reduce hype which can mislead the public and researchers themselves regarding the capabilities of these LMs, but might encourage new research directions that do not necessarily depend on having larger LMs. As we discuss in §5, LMs are not performing natural language understanding (NLU), and only have success in tasks that can be approached by manipulating linguistic form [14]. Focusing on state-of-the-art results on leaderboards without encouraging deeper understanding of the mechanism by which they are achieved can cause misleading results as shown

61

AI doesn't "know" anything



You

what are some food names that end in um

ChatGPT

Sure, here are some food names that end in "um":

- 1. Biscuit Crumb
- 2. Medium-Rare Steak Trimmings
- 3. Tiramisù
- 4. Pandan Pudding
- 5. Locum
- 6. Pernod Truffles
- 7. Surströmming
- 8. Gnocchium
- 9. Rendang Dendeng
- 10. Panettone Tiramisu



what are some fruit names that end in um

ChatGPT

Fruit names that end in "um" are less common, but here are a few:

- 1. Lychee plum
- 2. Longan plum

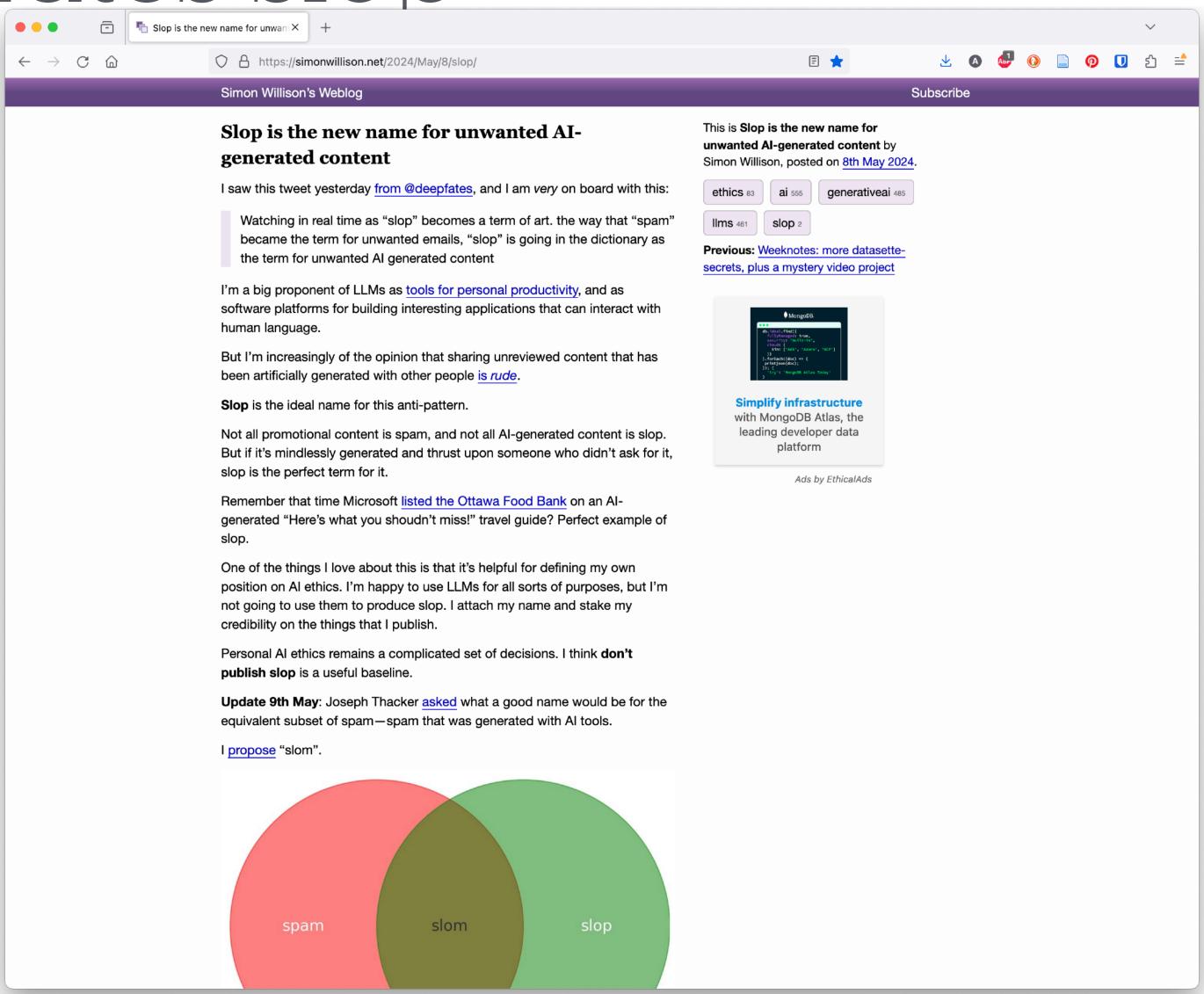
While "plum" doesn't technically end in "um," the fruits mentioned are commonly referred to with "plum" at the end.



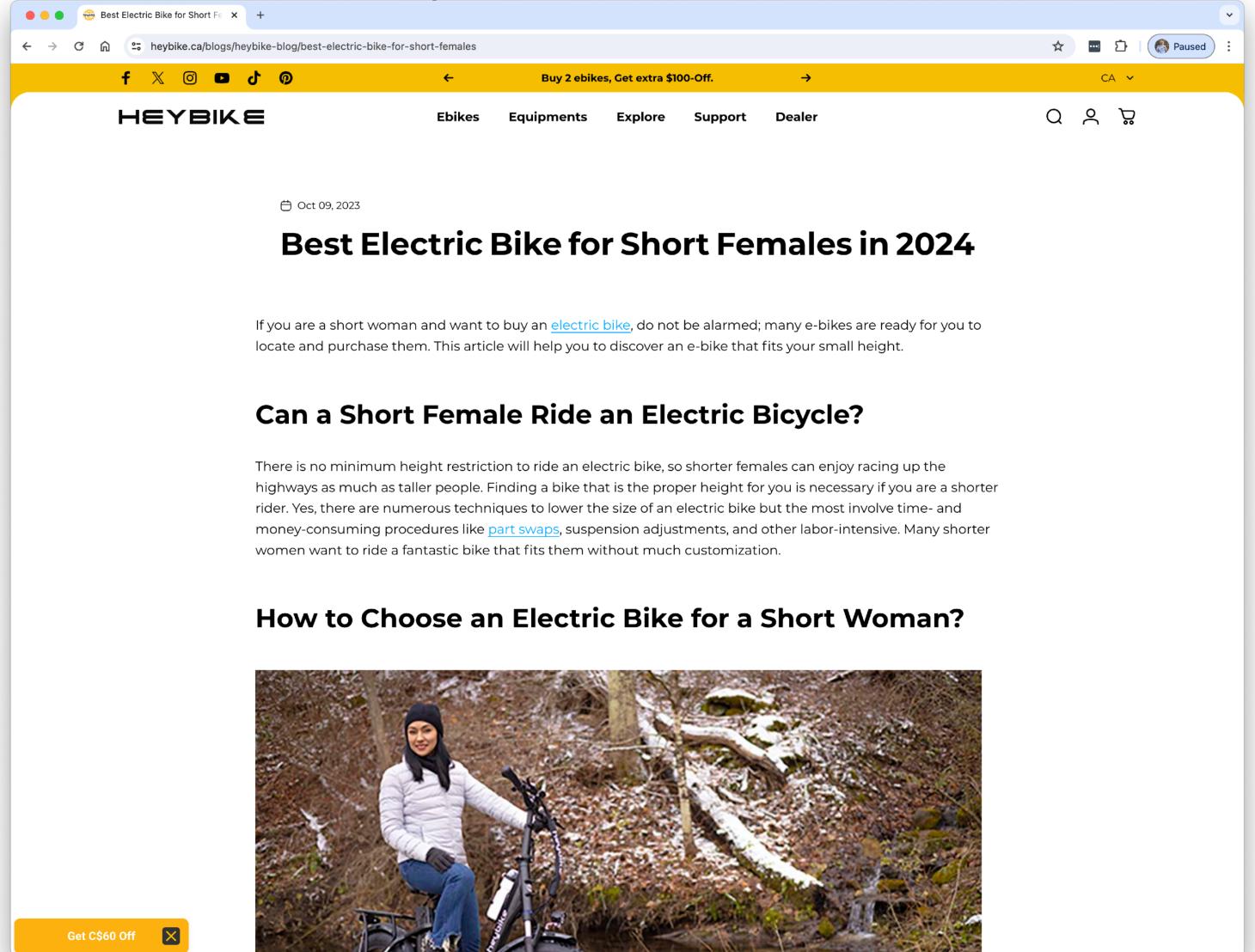




AI generates slop



AI generates slop

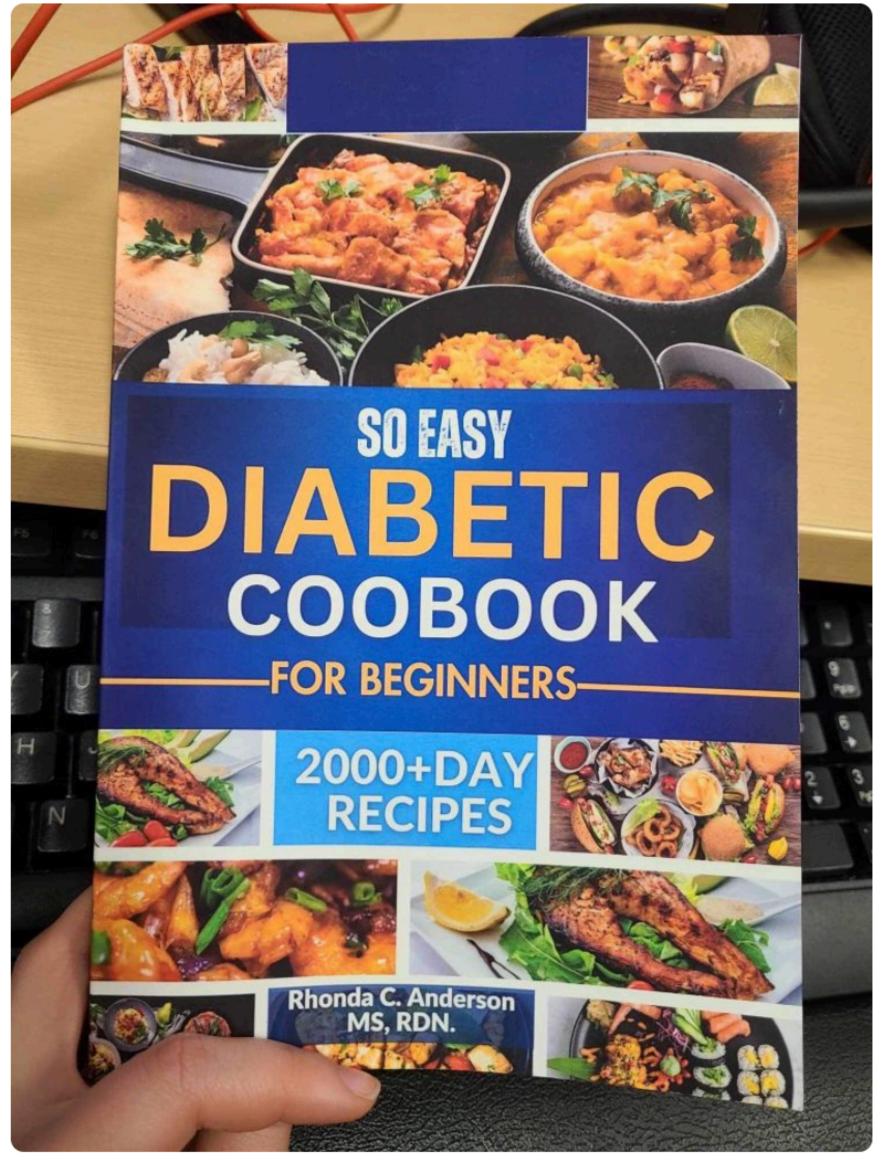


AI generates slop



Alex @alexamarchives.bsky.social · 2mo

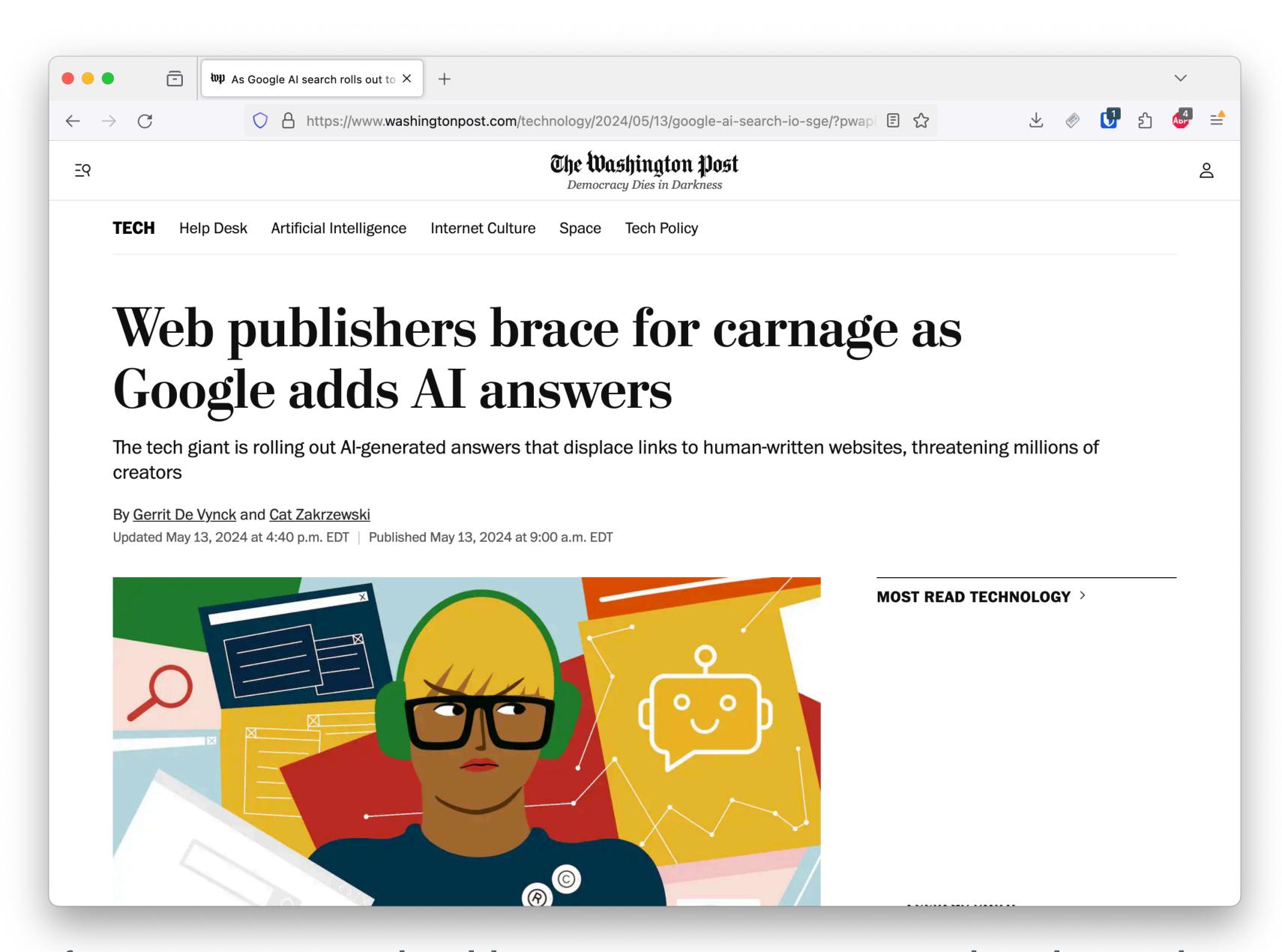
I didn't expect to become so cynical about technologies to generate text, but here we are: a "coobook" purchased by a hospital, intended for use by patients. Note the "2000+ Day Recipe" panel. It is a lie. #MedLibs #AmReading 1/n



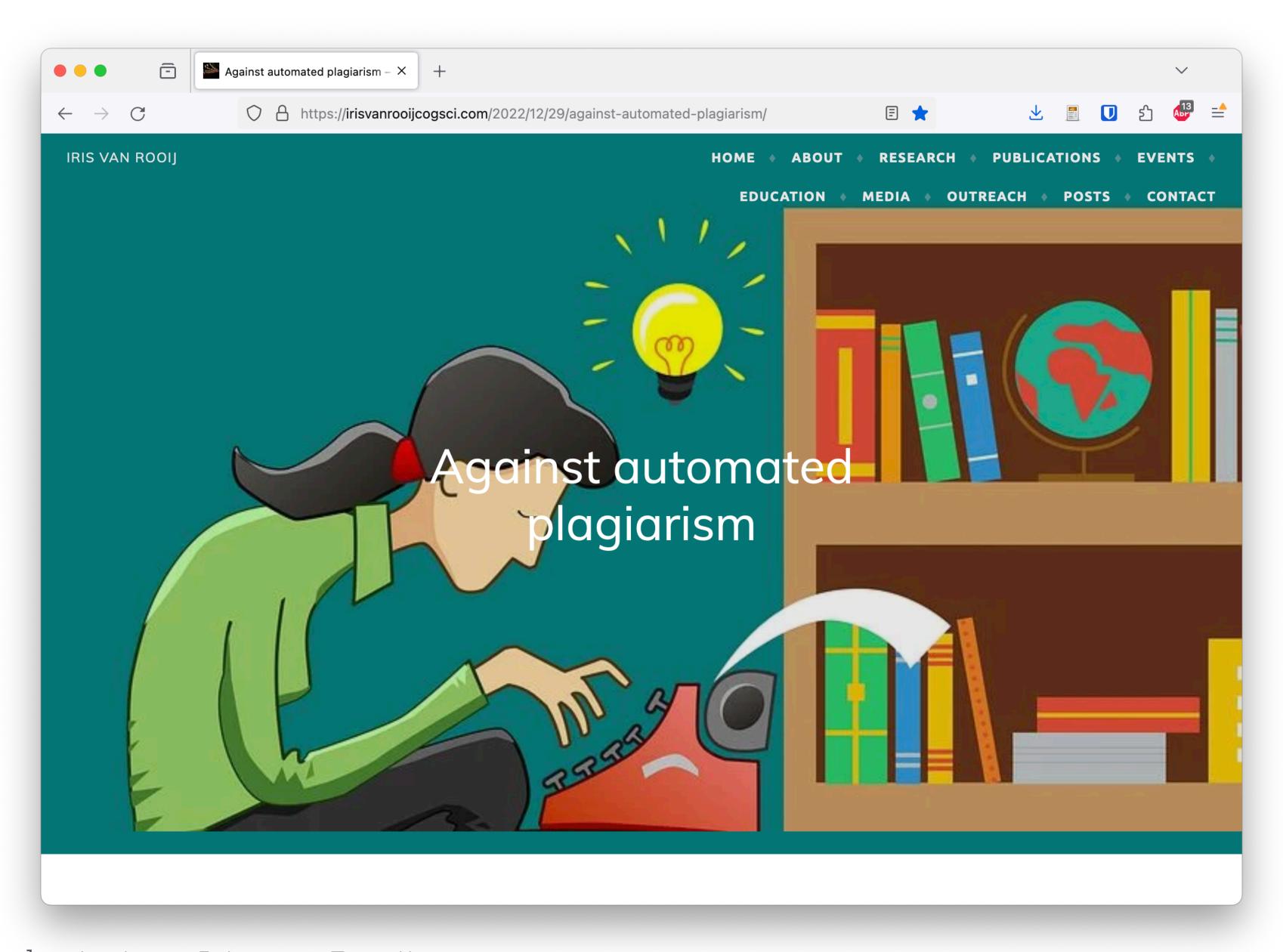
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♡ 1022



Web publishers brace for carnage as Google adds AI answers. Gerrit De Vynck and Cat Zakrzewski https://www.washingtonpost.com/technology/2024/05/13/google-ai-search-io-sge



Against automated plagiarism. Iris van Rooij https://irisvanrooijcogsci.com/2022/12/29/against-automated-plagiarism/

AI is bad for the environment

"If every search on Google used AI similar to ChatGPT, it might burn through as much electricity annually as the country of Ireland. Why? Adding generative AI to Google Search increases its energy use more than tenfold, according to a new analysis. The environmental impact of the AI revolution is starting to come into focus https://www.theverge.com/ 2023/10/10/23911059/ai-climate-impact-google-openai-chatgpt-energy

Making an image with generative AI uses as much energy as charging your phone https://www.technologyreview.com/2023/12/01/1084189/making-an-image-with-generative-ai-uses-as-much-energy-as-charging-your-phone/

"Shaolei Ren, an associate professor at UC Riverside, has suggested that requesting between 10 and 50 responses from the company's popular ChatGPT chatbot running on its older model GPT-3 would equate to "drinking" a 500ml bottle of water, depending on when and where it is deployed." Al boom sparks concern over Big Tech's water consumption https://www.ft.com/content/6544119e-a511-4cfa-9243-13b8cf855c13

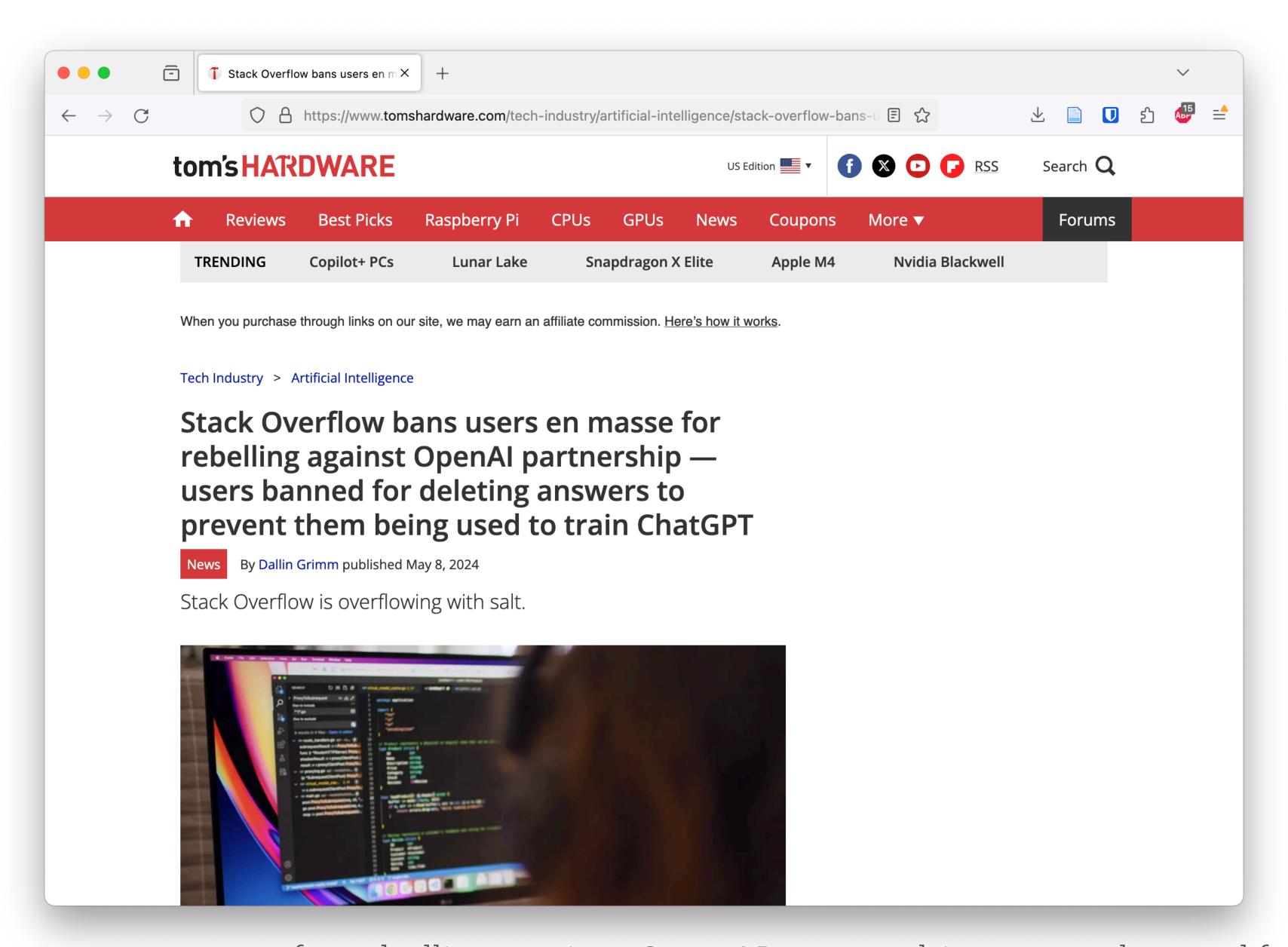
In summary...

- Al is based on wholesale stealing of intellectual property
- Much of the output is not useful
- When it is useful, often it is work that is recognizably plagiarized
- It reinforces existing biases
- Training and using AI harms the environment

so, why are we engaging with it?

(Okay, I know why)

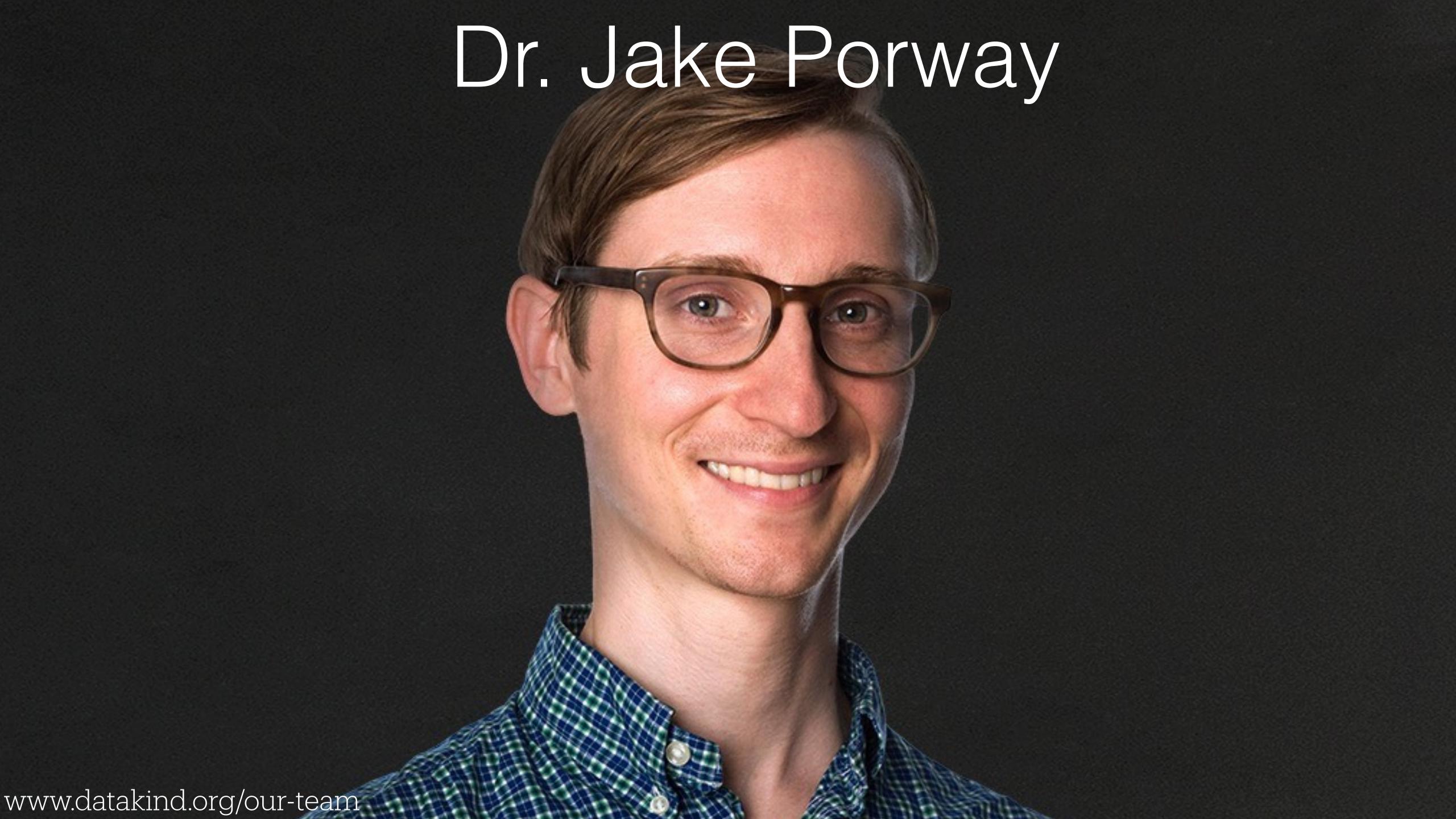
... so how do we engage with it?



Stack Overflow bans users en masse for rebelling against OpenAI partnership — users banned for deleting answers to prevent them being used to train ChatGPT. Dallin Grimm https://www.tomshardware.com/

Dr. Latanya Sweeney







Data for Black Lives is a movement of activists, organizers, and mathematicians committed to the mission of using data science to create concrete and measurable change in the lives of Black people. Since the advent of computing, big data and algorithms have penetrated virtually every aspect of our social and economic lives. These new data systems have tremendous potential to empower communities of color. Tools like statistical modeling, data visualization, and crowd-sourcing, in the right hands, are powerful instruments for fighting bias, building progressive movements, and promoting civic engagement.

But history tells a different story, one in which data is too often wielded as an instrument of oppression, reinforcing inequality and perpetuating injustice. Redlining was a data-driven enterprise that resulted in the systematic exclusion of Black communities from key financial services. More recent trends like predictive policing, risk-based sentencing, and predatory lending are troubling variations on the same theme. Today, discrimination is a high-tech enterprise.

The Team



Founder & Executive Director



Co-Founder

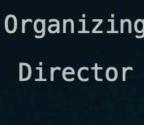


Director of





National **Organizing**





Director of Policy Innovation



Research Associate



Research Associate

Paul Watkins

Linda Denson

Yeshimabeit Milner

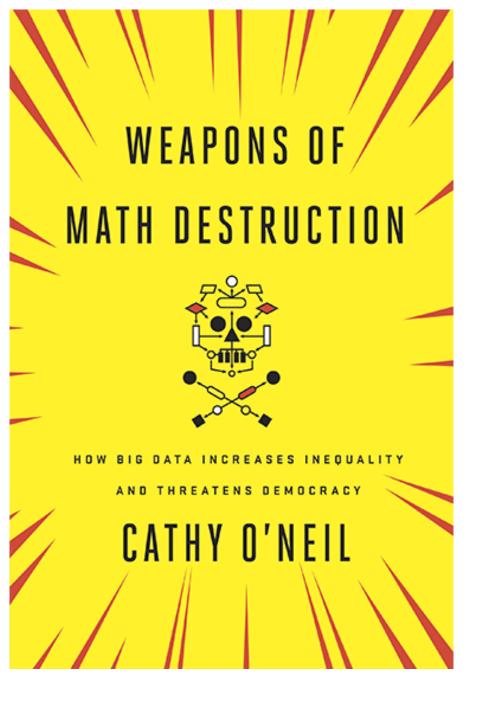
https://d4bl.org/

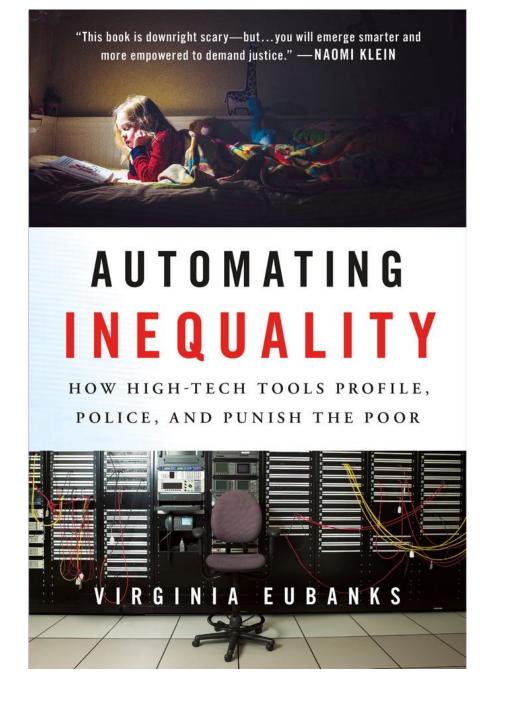
Lucas Mason-Brown

Tawana Petty

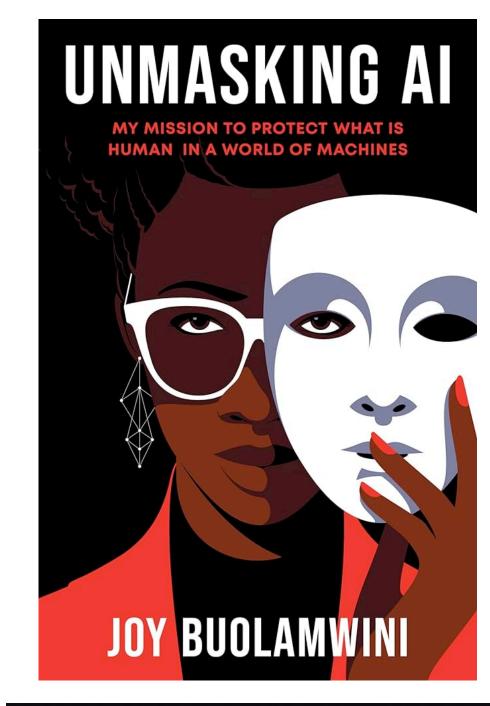
Akina (Aki) Younge

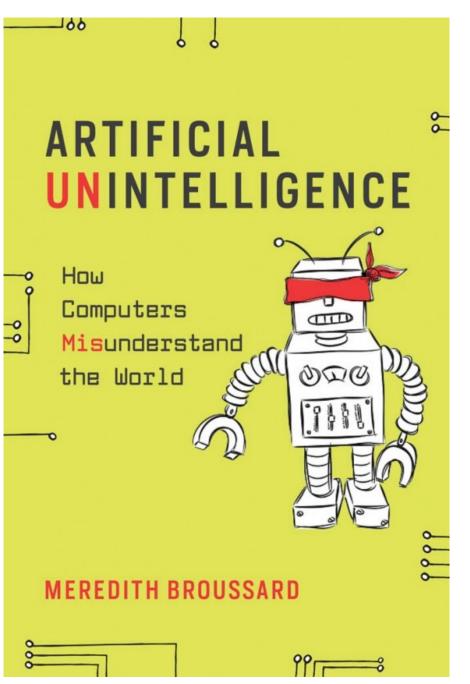


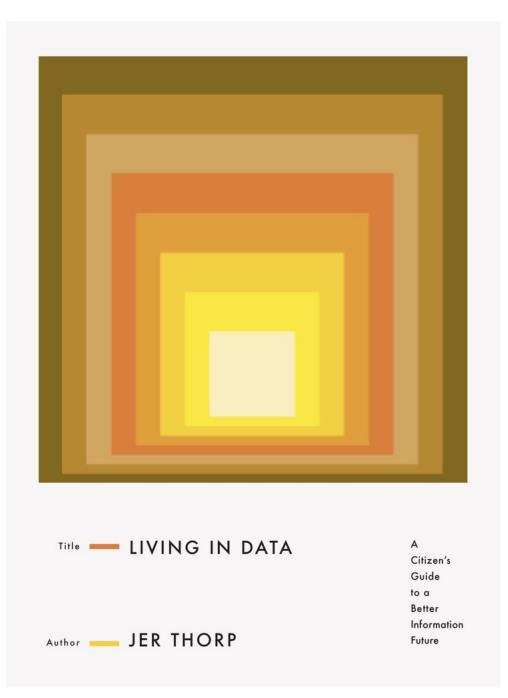


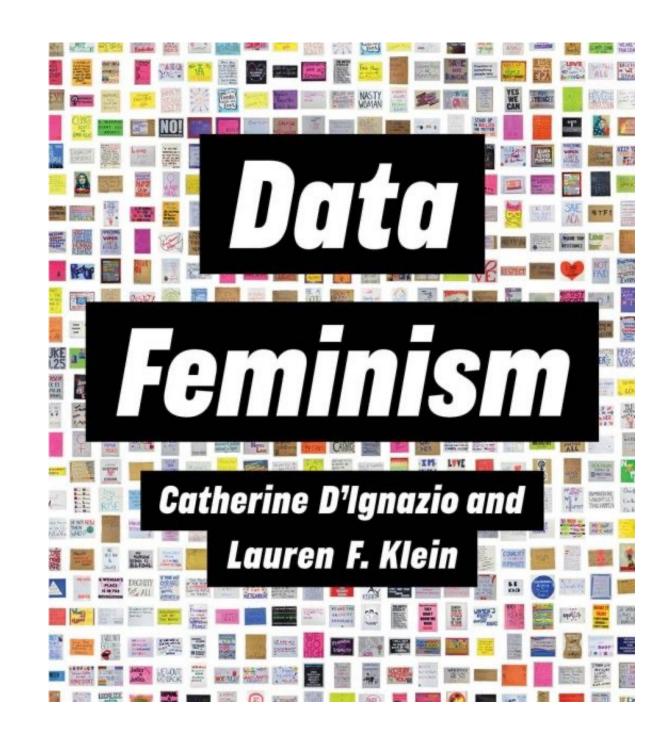


Read/watch

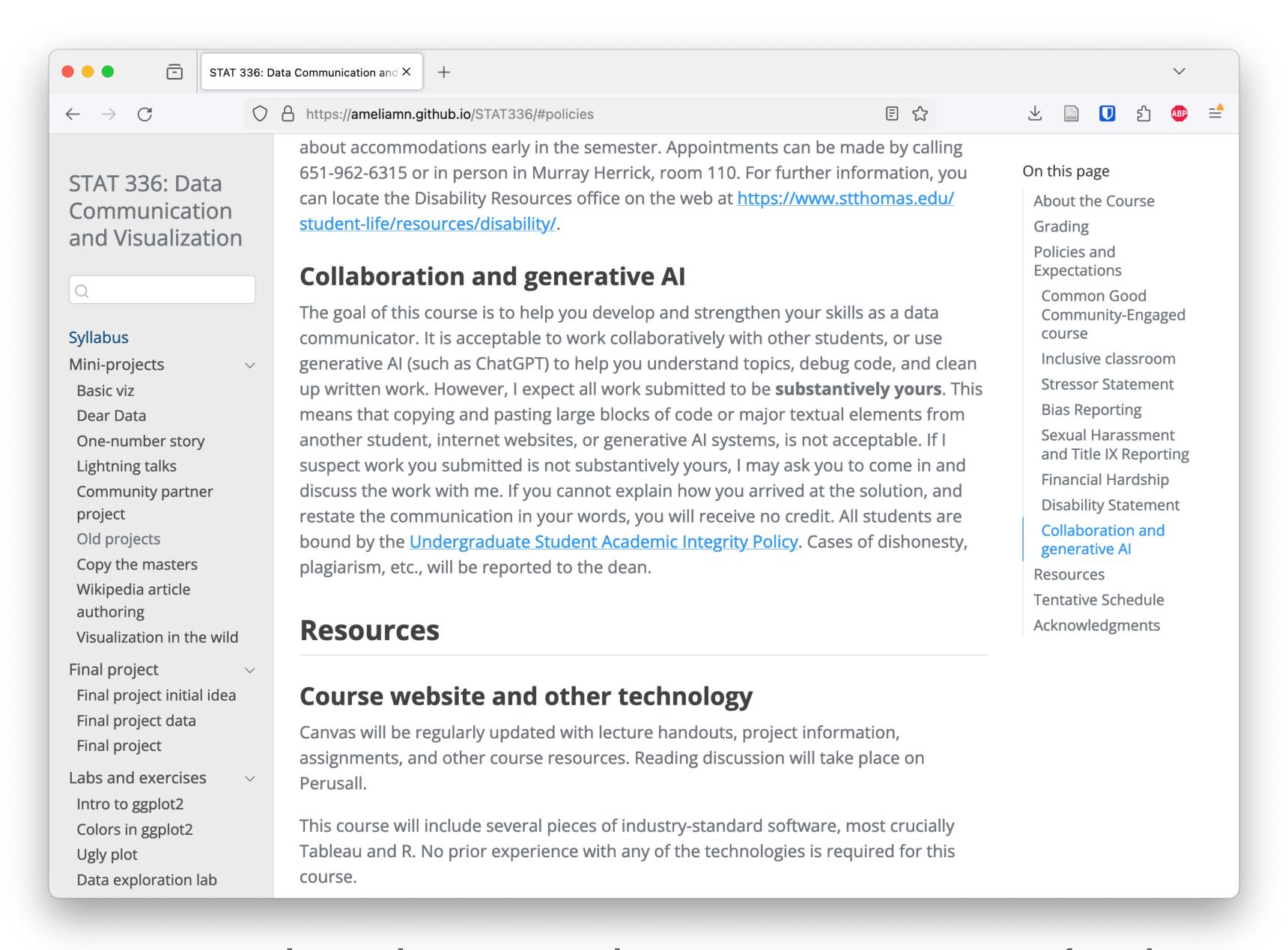




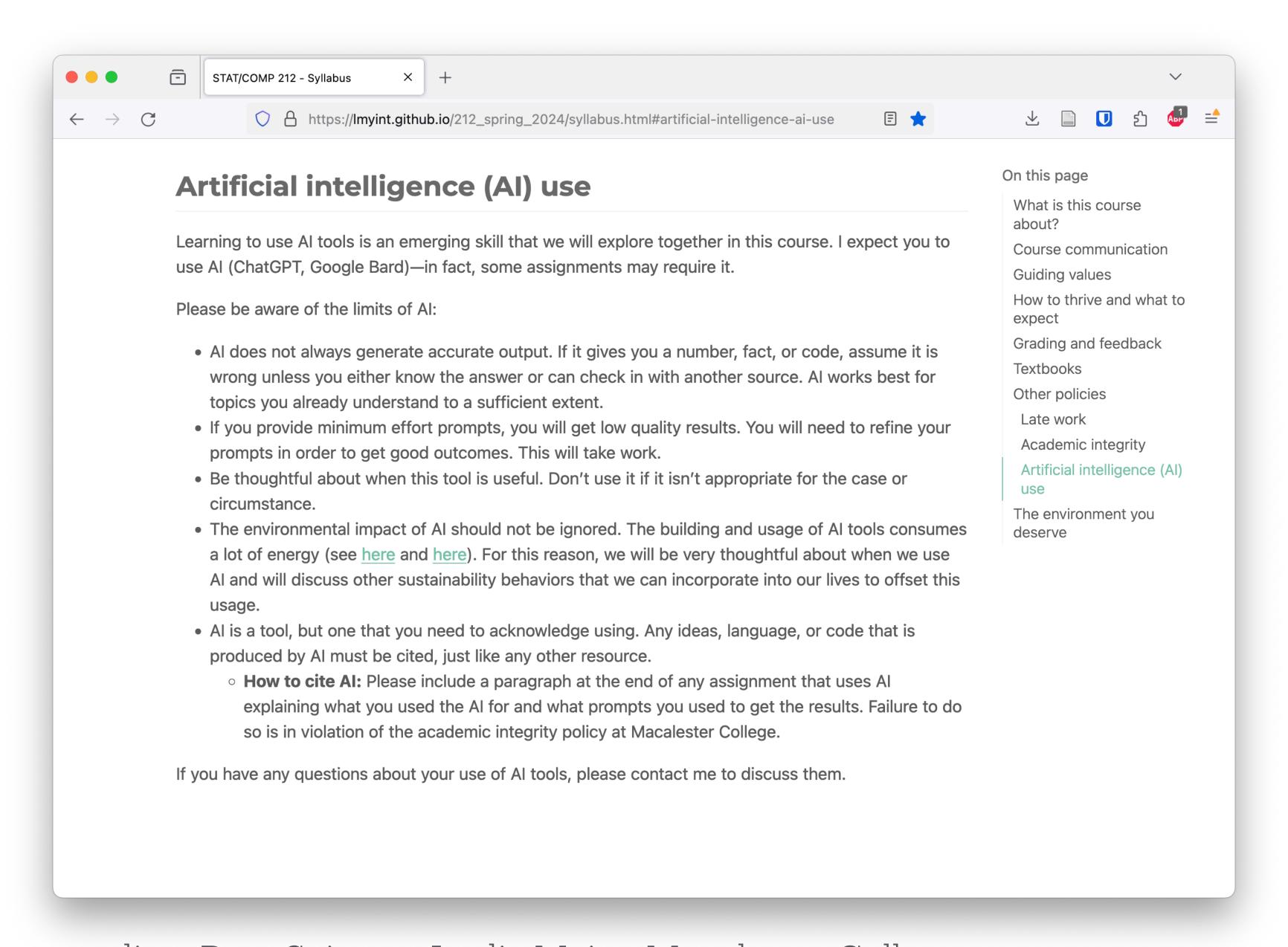








STAT 336: Data Communication and Visualization. Amelia McNamara, University of St Thomas https://ameliamn.github.io/STAT336/#policies



STAT/COMP 212: Intermediate Data Science. Leslie Myint, Macalester College https://lmyint.github.io/212_spring_2024/syllabus.html#artificial-intelligence-ai-use