

Resisting AI

Maybe it's not a good solution
for Biotech CI and IP?

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www.bizint.com



Technology Waves



- “This changes everything!”
- Well, no.
- Example: Web 2.0 - We’ll do everything in a web browser!
- Or maybe using an app on our phone!
- Counterexample:



...on your Windows desktop since 1987

AI “Booms” and AI “Winters”

- 1980’s: Expert systems, Neural Nets, Natural Language Processing
- Followed by the “AI Winter” of the 1990’s
- and then some real advances (Big Data, Machine Learning, etc.)
- **2020’s: The New AI Boom (Generative AI, Large Language Models, Transformer model)**



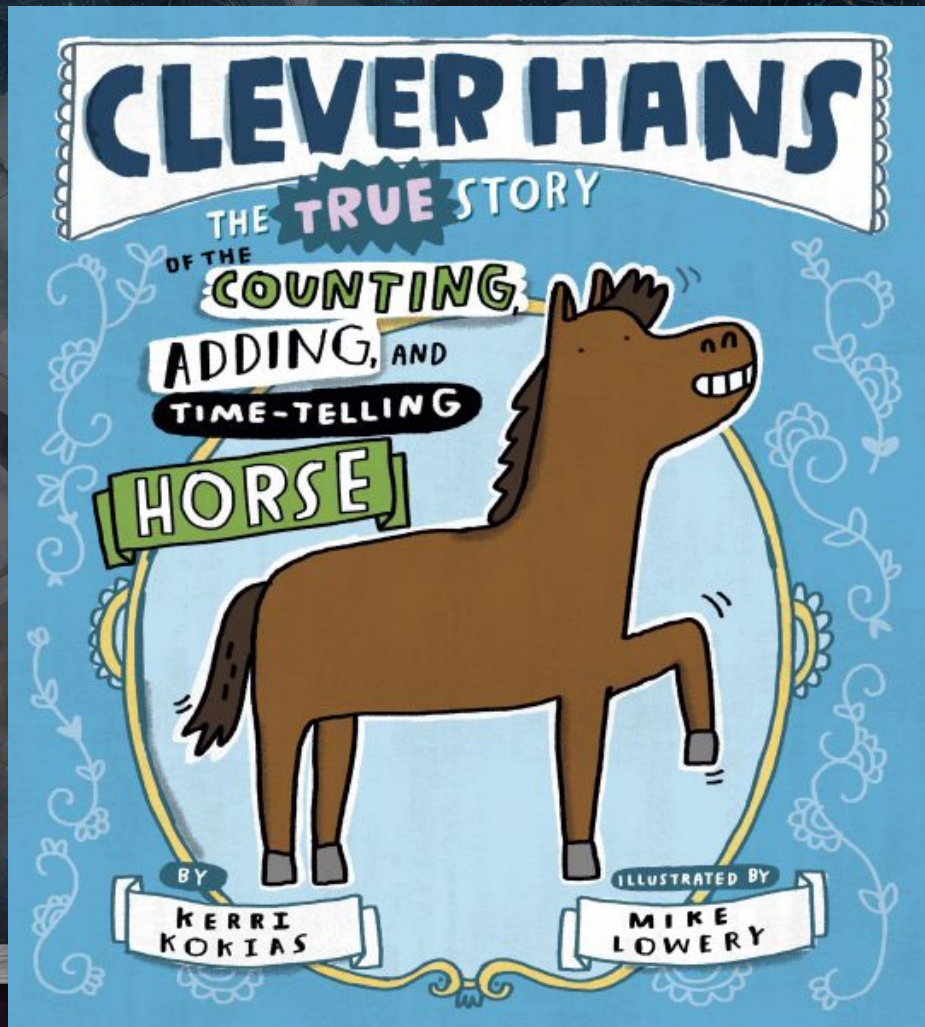
Winter is coming?



“What if artificial intelligence isn't actually capable of doing much more than what we're seeing today? What if there's no clear timeline when it'll be able to do more? What if this entire hype cycle has been built, goosed by a compliant media to take these people at their word?”

-- Ed Zitron, New York Public Radio interview, 1/29/25

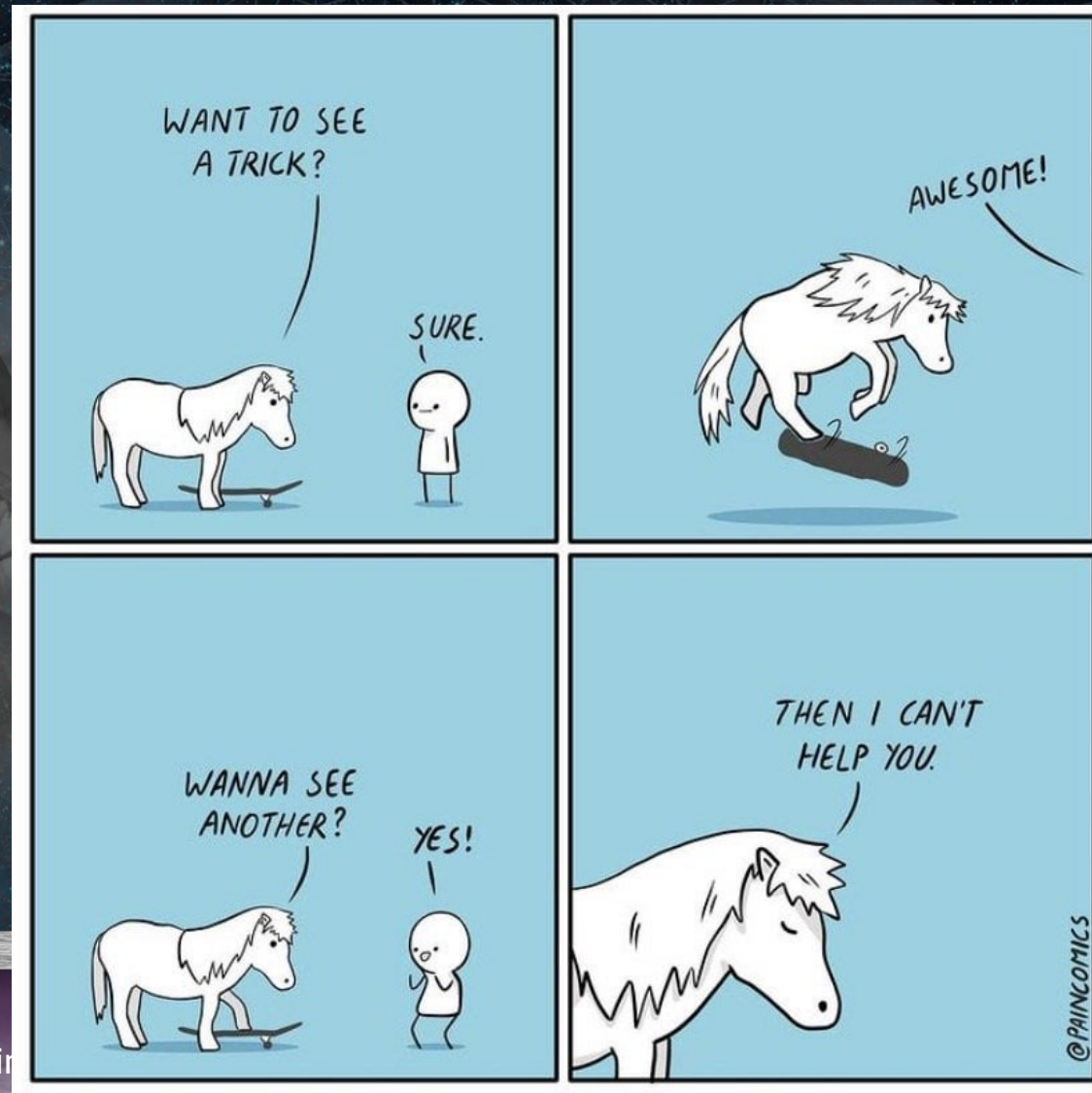
A One-Trick Pony?



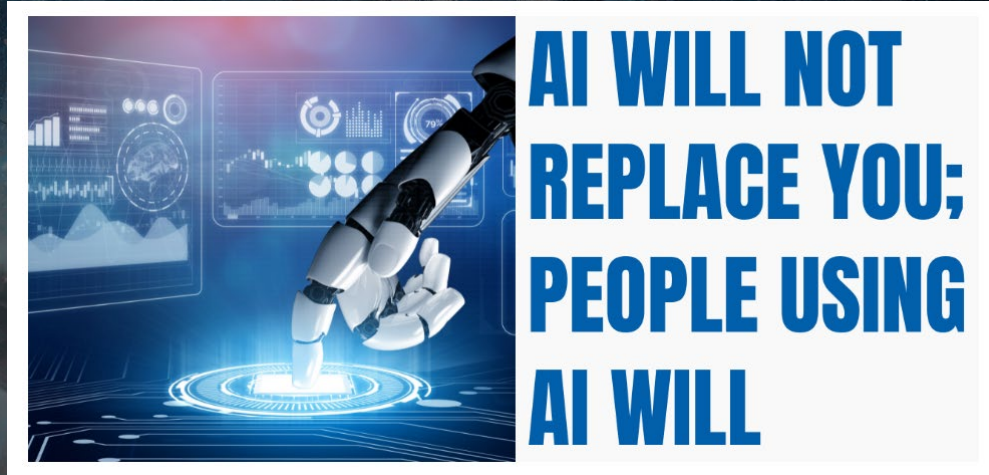
“The story of Clever Hans is surprisingly analogous for how large language models trick us into believing they’re smart.”

-- jurgengravestein.substack.com, Oct 2023

A One-Trick Pony?



AI Will Not Replace Us!



-- *LinkedIn, 2023*

That's what happens when literally every news outlet, all the time, for two years, has been saying that ChatGPT is the biggest thing without sitting down and saying, "What does this bloody thing do and why does it matter?" "Oh, great. It helps me cheat at my college papers. It can hallucinate stuff. Oh, great."

-- *Ed Zitron, Jan 2025*

AI Hallucinations

Bigger AI chatbots more inclined to spew nonsense — and people don't always realize.

— *Nature*, 2 October 2024



AI Hallucinations

The particular problem of false scientific references is rife...

“Most of the time, it gives me different authors than the ones it should, or maybe sometimes the paper doesn’t exist at all.”

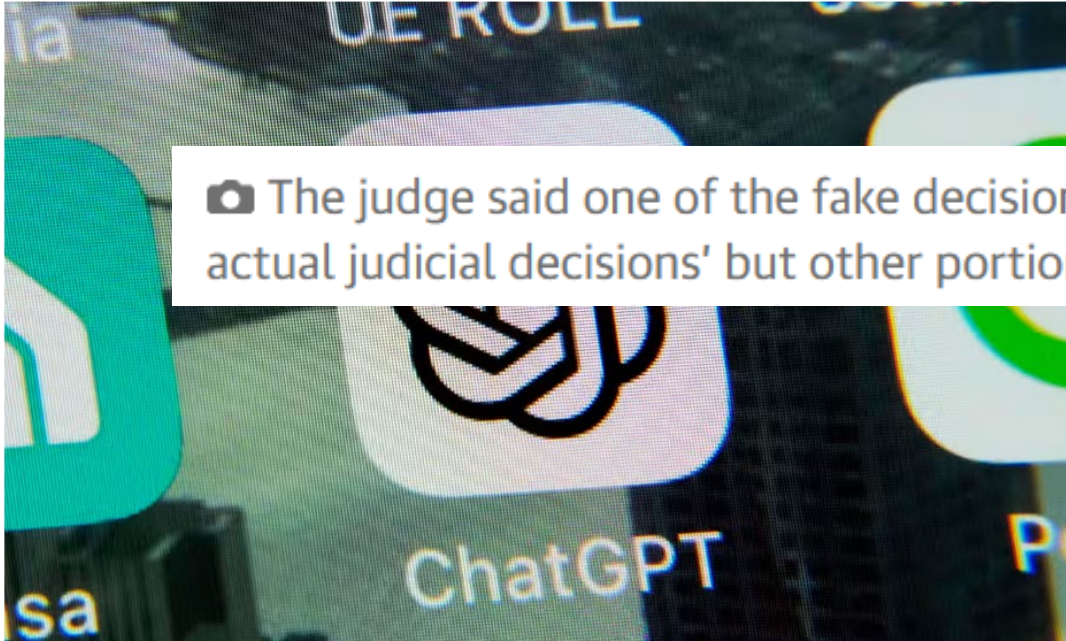
In one 2024 study, various chatbots made mistakes between about 30% and 90% of the time on references, getting at least two of the paper’s title, first author or year of publication wrong.

– *Nature*, 21 January 2025

AI Hallucinations

Two US lawyers fined for submitting fake court citations from ChatGPT

Law firm also penalised after chatbot invented six legal cases that were then used in an aviation injury claim



📷 The judge said one of the fake decisions had 'some traits that are superficially consistent with actual judicial decisions' but other portions contained 'gibberish' and were 'nonsensical'.

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Photograph: Richard Drew/AP

A US judge has fined two lawyers and a law firm \$5,000 (£3,935) after fake citations generated by [ChatGPT](#) were submitted in a court filing.

— *The Guardian, June 2023*

Truth matters

Believe in truth. To abandon facts is to abandon freedom. If nothing is true, then no one can criticize power because there is no basis upon which to do so. If nothing is true, then all is spectacle.

— Timothy Snyder,
On Tyranny: Twenty Lessons from the Twentieth Century, 2017.

Especially for business

These models were always going to peter out because they'd run out of training data, but also, there's only so much you can do with a probabilistic model...They guess the next thing coming, and they're pretty good at it, **but pretty good is actually nowhere near enough...financial services, healthcare, all of these industries, they have very low tolerance for mistakes.**

-- Ed Zitron, New York Public Radio interview, 1/29/25

Training with CI & IP data

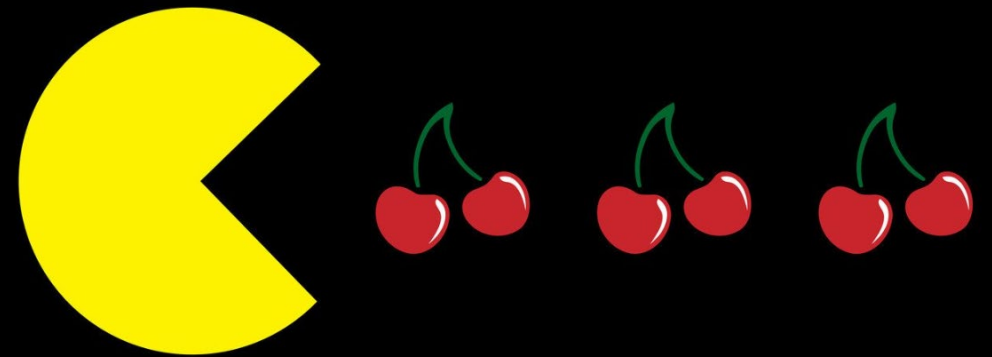
CRY ME AI RIVER

OPENAI PLEADS THAT IT CAN'T MAKE MONEY WITHOUT USING COPYRIGHTED MATERIALS FOR FREE

"IT WOULD BE IMPOSSIBLE TO TRAIN TODAY'S LEADING AI MODELS WITHOUT USING COPYRIGHTED MATERIALS."

— *The_Byte*, Jan 2025


Can generative AI ever be safe to use with proprietary data?



— *T_HQ* (techhq.com) July 2023

But it's free, right?

Sources: The Washington Post/ Commons.



AI ISN'T A BRAIN IN YOUR COMPUTER.

AI runs on real tangible technology — servers housed in thousands of data centers.

These data centers generate heat, and many of them use *water-based cooling systems*.



MOST PEOPLE SEEM UNAWARE OF AI'S CLIMATE IMPACT.

Each time someone asks Chat GPT-4 to write a 100 word email, they unknowingly are "pouring out" a bottle of water.

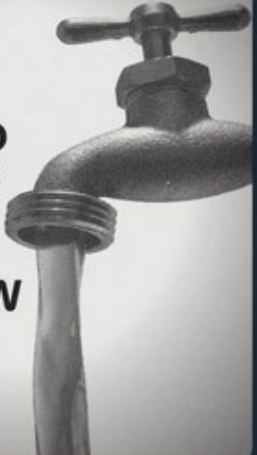
Today, lots of regular people are using AI to replace a regular search engine or to entertain them when they're bored. But if they knew the cost, this behavior might change.



THIS IS ONLY GOING TO GET WORSE...

... if we don't make a change.

The jump in water usage from Chat GPT-3 to 4 was significant. With Chat GPT-3, researchers in 2023 found that the AI needed to "drink" a bottle of water for roughly *10-50 responses*. A year later, those same researchers found that *just one email prompt* on Chat GPT-4 consumes the same amount of water.



BY 2027, AI USAGE ALONE IS PREDICTED TO USE* AS MUCH WATER AS ALL OF NEW ZEALAND.

You want to know what the actual AI safety story is? Boiling lakes, stealing from millions of people, running and burning energy. The massive energy requirements that are damaging our power grid, that is a safety issue.
— Ed Zitron

GenAI output is boring

A review of Apple's AI text notifications -

- “When texts are fed through the AI-summarization machine, each **distinct voice is bludgeoned into monotony.**”
- “By strip-mining messages into **bland, lifeless summaries,** Apple seems to be misunderstanding what makes texting so special in the first place.”
- “...the feature appears bewilderingly eager to **falsely suggest that people are dead.**”

– *Atlantic, Nov 2024*

What's the point?



Matt Novak

@paleofuture.bsky.social

Follow

AI folks have now discovered "thinking"



Steph Smith ✓

@stephsmithio

Follow



Sometimes in the process of writing a good enough prompt for ChatGPT, I end up solving my own problem, without even needing to submit it.

2:16 PM · 7/29/24 · 1.7K Views

ALT

But what about DeepSeek?

DeepSeek's big breakthrough isn't that it built a better, or different, or more advanced AI.
...DeepSeek didn't build a better mousetrap. They figured out how to mass-produce mousetraps cheaply, while Americans were making bespoke mousetraps, painstakingly, by hand.

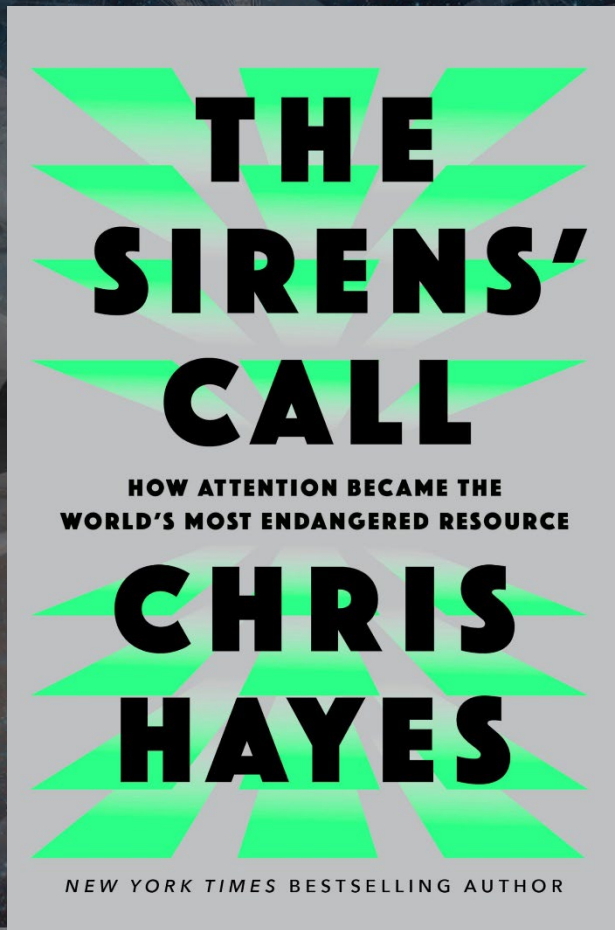
— *Jonathon V. Last, The Bulwark, 1/8/25*



Let's move on!



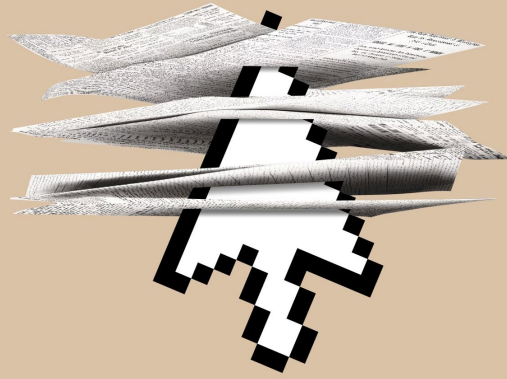
The battle for attention



“Information is the opposite of a scarce resource: it is everywhere and there is always more of it.

*...the axiom I want to drive home is that **information is infinite and attention is limited.** And value derives from scarcity, which is why attention is so valuable.”*

Back to the Future?



Perhaps in the absence of a shared reality, fighting against an opposing information ecosystem isn't as effective as **giving more people a reason to get excited about, and pay attention to, yours.**

— *Charlie Wartzel, The Atlantic, 2024*