

In a year of continued A.I. progress, “founder mode” drama and a Trump election win, a few tech projects stood out for their clear benefits to humanity.



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By Kevin Roose

Reporting from San Francisco

Dec. 30, 2024

In the tech industry, 2024 was a year of fast change and shifting winds.

Tech companies continued to make breakneck progress in artificial intelligence, with A.I. products like OpenAI’s ChatGPT, Google’s Gemini and Anthropic’s Claude all getting big updates during the year, and billions being spent on the creation of even more powerful models. (And the researchers behind Google’s AlphaFold, an A.I. project on proteins that I gave a Good Tech Award three years ago, got a slightly more prestigious award this year — the Nobel Prize in Chemistry.)

But A.I. was not the only thing happening in Silicon Valley. This year, tech companies fought bitterly with regulators and clashed with governments, and a revanchist “founder mode” movement led some tech chief executives to embrace micromanagement. In the fall, as the election gripped the nation, an ascendant “tech right” lined up behind Donald J. Trump. After his win, many tech leaders began sucking up to the president-elect in hopes of an easier second term.

Every year in this column, I try to shine the spotlight on a few tech projects that I think contributed positively to humanity. As always, my criteria for what constitutes “good tech” are vague and arbitrary, but it has become an important exercise for me. One reason is that it helps me offset any subconscious negativity bias I have during the year. Another is that I’ve heard from previous recipients that getting an award for their work (even one that consists purely of a mention in a newspaper column, and has no prize attached) has inspired them to keep going. I think technologists should use their powers for the public good, and I hope everyone on this year’s list will be similarly encouraged.

So with no further ado, here are this year’s Good Tech Awards:

To Epoch AI, for giving us reliable data on the A.I. boom

Few groups this year were more widely praised among A.I. insiders than Epoch AI, a small nonprofit research organization whose work has helped lawmakers, academics and the public at large understand what's happening in A.I.

Epoch AI was started in 2022 and is run today by Jaime Sevilla, a 28-year-old Spanish A.I. researcher who believes that the industry needs better data about its own trends and trajectories. The firm maintains public databases of A.I. models and A.I. hardware, and publishes research on A.I. trends, including an influential report this year about whether A.I. models can continue to grow at their current pace. (Epoch AI concluded they most likely could until 2030.) It also develops its own tests to gauge the capabilities of leading A.I. models, such as the FrontierMath benchmark, which tests advanced mathematical skill.

To make good decisions about A.I., we need an accurate picture of the technology's progress, and Epoch AI's work has brought much-needed rigor and empiricism to an industry that often runs on hype and vibes.

To Andres Freund, and every open-source software maintainer saving us from doom

The most fun column I wrote this year was about a Microsoft database engineer, Andres Freund, who got some odd errors while doing routine maintenance on an obscure open-source software package called xz Utils. While investigating, Mr. Freund inadvertently discovered a huge security vulnerability in the Linux operating system, which could have allowed a hacker to take control of hundreds of millions of computers and bring the world to its knees.

It turns out that much of our digital infrastructure rests on similar acts of nerdy heroism. After writing about Mr. Freund's discovery, I received tips about other near disasters involving open-source software projects, many of which were averted by sharp-eyed volunteers catching bugs and fixing critical code just in time to foil the bad guys.

I could not write about them all, but this award is to say: I see you, open-source maintainers, and I thank you for your service.

To the Arc Institute, the Lichtman Lab and SyntheMol, for pushing A.I. science forward

As regular readers of this column will know, the thing that makes me most optimistic about A.I. is how it's being used to improve health care, identify new drugs and treatments for debilitating diseases and accelerate important scientific research.



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There were too many A.I.-related scientific breakthroughs this year to write about them all, but three in particular caught my eye:

- The Arc Institute, a nonprofit research organization in Palo Alto, Calif., released Evo. The A.I. model can predict and generate genomic sequences, using technology similar to the kind that allows systems like ChatGPT to predict the next words in a sequence.
- In May, a Harvard lab led by Dr. Jeffrey Lichtman, working with researchers from Google, announced the most detailed map of a human brain sample ever created. The team used A.I. to map more than 150 million synapses in a tiny sample of brain tissue at nanometer-level resolution, discovering never-before-seen connections between brain cells. Maps of larger samples are in the works, and could eventually yield important insights about the inner workings of the brain.
- And researchers at Stanford and McMaster Universities developed SyntheMol, a generative A.I. model that can design new antibiotics from scratch. The researchers credited the program with generating six new potential compounds that showed antibiotic activity against a particularly nasty germ called *Acinetobacter baumannii*, a common drug-resistant bacteria.

To the NASA Jet Propulsion Laboratory, for keeping our oldest space traveler alive

One of my favorite podcast interviews of 2024 was with Todd Barber, an engineer at the NASA Jet Propulsion Laboratory who, along with his colleagues, helped pull off what might have been the greatest long-distance tech support mission in history.

A major glitch was imperiling Voyager 1, the 47-year-old spacecraft that is currently more than 15 billion miles away and gathering valuable data about interstellar space. It also contains one of the two “golden records” sent in 1977 as a sonic capsule of life on Earth. Using long-distance radio waves, the team sent a clever patch to Voyager’s ancient onboard computer, and brought the geriatric probe back online.

To Bluesky, for making my social media feeds interesting again

I pulled back a bit from social media this year, after growing exhausted with Elon Musk’s antics and bored by Instagram’s blandness. But I got a partial reprieve with Bluesky, a text-based social network that showed me it was still possible to have a good time online.

Bluesky has not reached the scale or cultural cachet of old Twitter yet. And like any fledgling social network, it still has some issues. But I'm optimistic about Bluesky, partly because it does not seem to throttle links the way other platforms do, and because the decentralized technology it runs on — something called the AT Protocol — could point toward a new way of building social networks that are less vulnerable to meddling by their owners, because they are not centrally controlled. It also has a fun, slightly manic culture that could attract more than just liberal Musk discontents.

To NotebookLM and Coloring Book Hero, for enriching my commute and entertaining my kid

I'll end with two A.I. products I got a lot of use out of this year.

The first, Google's NotebookLM, is a research and note-taking tool that allows you to upload your own sources, such as PDF files or web links, and turn them into briefing documents, study guides or even A.I.-generated podcasts. The podcast feature, called "Audio Overviews," is NotebookLM's killer app, and I often use it on my commute to listen to A.I. hosts break down a new research paper I'm curious about or a Wikipedia page I've never gotten around to reading. It's a great way to turn complex information into something more accessible, and I've grown fond of the chatty A.I. hosts, even though I'm sure they'll put me out of a job someday.

The second is Coloring Book Hero, a ChatGPT plug-in that lets you generate blank coloring book pages from text prompts. My 2-year-old son is obsessed with dinosaurs and construction vehicles, and while I'm guessing there are not many coloring books featuring images of pterodactyls driving concrete mixers, I routinely use Coloring Book Hero to generate silly images like these and print them out for him to color.

(The New York Times has sued OpenAI and Microsoft for copyright infringement of news content related to A.I. systems. OpenAI and Microsoft have denied those claims.)

It's not the highest use of generative A.I. I can imagine, but it has saved a few rainy afternoons in my house, which is more than I can say for most technology.

And with that, congratulations to the honorees, and happy new year!

Kevin Roose is a Times technology columnist and a host of the podcast "Hard Fork." More about Kevin Roose

A version of this article appears in print on , Section B, Page 1 of the New York edition with the headline: Good Tech Awards Of 2024