



Office of Research
Innovation and Commercialization

NEWSLETTER

Year 2023 | Issue 09

Futuristic Outlook

Future

A Product of Office of Research Innovation and
Commercialization (ORIC),
University of Management and Technology, Lahore, Pakistan

Message from Co-Founder, Director-General, Head ORIC and Director TISC



We live in the Modern age, where we do all over work with the help of technology. We know technology by the name “technological know-how”. Discover the latest science and technology news and videos on breakthroughs shaping tomorrow's world with Futurism. The innovation of science has a long history producing many important figures and many developments in the field. Moreover, it made communication easier for us. Humans have cleaned up and created some fantastic and sometimes orthodox inventions.

So, every researcher and faculty member should be up-to-date about innovation in their respective field; that’s why ORIC-UMT introduce the Futuristic Outlook for the UMT family to commensalism with the Innovative world.

Prof. Abid Hussain Khan Shirwani
Co-Founder, Director-General and Head ORIC
University of Management and Technology,
Lahore, Pakistan

Table of Contents

Message from Co-Founder, Director-General, Head ORIC and Director TISC.....	2
Table of Contents.....	3
A - School of Engineering & School of System and Technology	6
1: Meet the AI Researcher Building His Own AGI	6
2: Scientists Train New AI Exclusively on The Dark Web	11
3: BuzzFeed Says Its AI is Outperforming Its Pesky Human Employees	12
4: Google Unveils Plan to Demolish the Journalism Industry Using AI	12
5: Experts Urge Personhood Rights for the "Conscious" AIs of the Future	15
6: OpenAI Confused by Why People are So Impressed with ChatGPT	17
7: Guy Launches News Site That's Completely Generated by AI.....	18
8: AI CEO on GPT-4: This Can Get "Super-Dangerous Very Quickly".....	21
9: Microsoft's Stunning Copilot AI Demo Could Change Office Work Forever.....	22
10: Machine Learning Expert Calls for Bombing Data Centers to Stop Rise of AI.....	23
11: Godfather of AI Quits Google, Fears Ai's Risks And Regrets His Work.....	25
12: Dozens of News Sites are Using AI Chatbots to Churn Out Questionable Content.....	27
13: Open AI's Content Moderators Just Unionized in Africa	29
14: This AI Generates Video from Brain Signals.....	31
B- Institute of Aviation Studies	34
1: Target return of four grounded aircraft by June 15, SpiceJet says.....	34
2: AI Pilot Crushes Human Dogfight Rival in 90 Seconds.....	34
3: What's Next for American and JetBlue After Court Rejects Alliance	35
4: Ryanair Almost Sets a New Profit Record	39
C – School of Sciences	41
1: Glimmers of AGI Are Just an Illusion, Scientists Say.....	41
2: The Refreshing Spray of The Ocean is Loaded with Sewage Bacteria, Scientists Find.....	42
3: Scientists Discover That Toilet Paper Contains Toxic "Forever" Chemicals.....	44
4: Scientists Discover Enzyme That Can Turn Air into Electricity	45
5: Biden Turns Blind Eye to Climate Change, Approves Massive Oil Drilling Project.....	46
6: Bad News: Bees Are Dying at A Shocking Rate	48
7: Alarmed Scientists Discover "Terrifying" Rocks Made of Plastic Trash on Remote Island.....	50
8: Nuclear Plant Admits It Accidentally Leaked 400,000 Gallons of Radioactive Water.....	51
9: The Ocean's Plastic Pollution Has Spiked To "Unprecedented" Levels.....	52
10: Eating Disorder Hotline Fires Entire Staff and Replaces Them with a Chatbot.....	54
11: Man Finds Dream Apartments in Brutal Market Using ChatGPT.....	56
12: Scientists Horrified as Sea Surface Temperatures Spike Off the Charts	57

13: NYC Appears to Be Sinking Because Its Skyscrapers Are So Heavy.....	58
14: Nuclear Fusion Startup Gets Funding for Twisty-Looking Reactor.....	59
15: Chemical Turns Waters of Venice Canal a Fluorescent Green	59
D - School of Governance and Society	61
1: Leaked Google Memo Shows Fear of Losing the AI Race, But Not to the Foe You'd Think.....	61
2: Trump Shares AI Voice-Cloned Fake Video of Anderson Cooper	63
3: Newspaper Apologizes for Accidentally Running Deranged AI-Generated Article	64
4: Elon Musk Roasts Dudes Pivoting from Crypto to AI	66
5: AI Company with Zero Revenue Raises \$150 Million.....	67
6: Donald Trump Shares Slightly Misfigured AI-Generated Image of Himself Praying	69
7: ChatGPT's Dirty Secret, It's Powered By "Grunts" Making \$15 Per Hour	71
8: China Arrests Man for Using ChatGPT to Write Fake News.....	72
E – Office of Research Innovation and Commercialization (ORIC)	73
1: Events Organized and Facilitated by ORIC	73
1.1 Training Program on Web 3.0 and Metaverse on Sunday 02 April, 2023, at University of Management and Technology (UMT).	73
1.2 Training Program on Web 3.0 and Metaverse on Sunday 09 April, 2023, at University of Management and Technology (UMT).	75
1.3 Training Program on Web 3.0 and Metaverse on Sunday 30 April, 2023, at University of Management and Technology (UMT).	77
1.4 GREF-UMT JOINT CONFERENCE (STRATEGIC COMMUNICATIONS FOR ECONOMIC DIPLOMACY & NATIONAL ECONOMIC SECURITY)	78
1.5 Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING”	79
1.6 Training Program on Web 3.0 and Metaverse on Sunday 07 May, 2023, at University of Management and Technology (UMT).	80
1.7 Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING”	82
1.8 Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING”	83
1.9 Training Program on Web 3.0 and Metaverse on Sunday 21 May, 2023, at University of Management and Technology (UMT).	84
1.10 Panel Discussion on "Industry Academia Partnership in Research: Success Stories and Challenges" ...	86
1.11 Seminar on Amazon Business: Transforming the Business World of E-commerce.....	87
1.12 Seminar on Personal Development and Growth	89
1.13 Training Program on Web 3.0 and Metaverse on Sunday 09 July, 2023, at University of Management and Technology (UMT) and MoU Renewed.	91
1.14 Training Program on Web 3.0 and Metaverse on Sunday 16 July, 2023, at University of Management and Technology (UMT).	93

1.15 Training Program on Web 3.0 and Metaverse on Sunday 23 July, 2023, at University of Management and Technology (UMT).	94
2: Chairman IPO visited on Tuesday 11 July, 2023, at University of Management and Technology (UMT).96	
3: CEO of Discover Pakistan, visited to UMT on Sunday, 23 July 2023, at 11:00 AM.....	99
4: Winning National Engineering Robotics Contest (NERC) 2023.....	100

A - School of Engineering & School of System and Technology

1: Meet the AI Researcher Building His Own AGI

In the world of machine learning, few experts are as prominent — or flashy, judging by his incredible leopard print hat — as Ben Goertzel, the Brazilian-American founder of the research group SingularityNET.

Perhaps best known as the human mind behind Sophia the Robot, Goertzel is credited with popularizing the term "artificial general intelligence," or AGI. Basically, the idea is that eventually we could see AI so sophisticated that it could achieve any intellectual task that a human could, or perhaps even vastly exceed the capabilities of a human. It's a concept that some thinkers say could either bring about a utopian singularity and others fret could spell the start of the AI apocalypse.

Regardless, the shockwaves of OpenAI's ChatGPT and other generative AI with unprecedented capabilities have led many to wonder if AGI is closer than they ever suspected.

In a conversation with *Futurism*, Goertzel went deep on his views about consciousness — human, AI, and otherwise — the role of AI in copyright, and his experiences doing psychedelics with algorithms.

This conversation has been lightly edited for clarity and brevity.

Futurism: Where did you get the hat? Do you have more than one?

Ben Goertzel: That's top, top secret, classified information, not to be revealed until the singularity.

Is AI at a level where it could "replace" humans yet, or are we close to that?

I mean, I'm not sure what that phrasing means. Because I don't think humans have replaced squirrels or cats for that matter, or the great apes. Right? Humans are humans, we have our own particular values in the scheme of things and AIs are probably going to be fairly different from us.

There's not that much of a point to making AIs that exactly simulate people, since we have a lot of people already.

I think the meaningful answer to that question will be twofold. One, will AIs be as generally intelligent as people? And two, at what pace and in what ways will AIs replace humans economically in serving functions in the job market? But of course, neither of those advances need to lead to the AIs taking humans' place on the planet. They could, but they certainly don't entail that, necessarily.

When do you think AIs will achieve human-level intelligence, or AGI?

My friend Ray Kurzweil predicted 2029 for human-level AI, and then he thought we'd have another 16 years before we got to the singularity with radically superhuman AGI, but I don't agree with that.

I think once you have a human-level AGI, you're some small integer number of years from a radically superhuman AGI, because that human-level AGI software can rewrite its own code over and over. It can design new hardware and pay people to build a new factory for it and whatnot. But for human-level — by which we mean AI that's at least at human-level on every major capability — I think Ray's prognostication of 2029 is not looking stupid right now, it's looking reasonable.

Of course, there's a confidence interval around it. Could it be three or four years sooner or three or four years later? Absolutely. We can't predict exactly what will happen in the world. There could be more pandemics, there could be World War Three, there could be a lot of things that happen. In terms of my own AGI projects, I could see us getting there three years from now.

Have you heard about what Grimes is doing, letting people who use her voice in AI-generated music split royalties with her? What do you think of that scheme?

Yeah, opened up her voice samples, which bypasses some copyright hassles. Grimes opened it up, which is cool. But one musician opening it up doesn't get you that far, because what we really need is a foundational model trained on a whole lot of music, then you can fine-tune that based on Grimes or something particular.

So even though Grimes opened up her vocals, I mean, you can't really fully use that unless you have a broader model that's trained on a lot of other artists and then there are the same copyright issues. There's Creative Commons music, but it's not that much. It's, like, less than 10,000 hours, whereas Google's MusicLM was trained on 300,000 hours. So there are issues of copyright to work through there. But I mean, on the other hand, the music is all there, people are gonna download and train models anyway regardless of copyright, so things are gonna move forward.

What would you say to critics who say that generative AI is basically repackaging the work of other writers or artists or musicians without their consent?

Well, it's not that simple, because a lot of creative work has that problem anyway, right? I remember all these lawsuits in music, like Joe Satriani — who's one of my heroes — sued Coldplay for making a song that sounded like one of his. They're both good songs, actually, and I don't know if Coldplay heard that Satriani song or not, right? I mean, they might have not heard it because there's only a certain number of permutations, the familiar chords in rock music. On the other hand, they might have heard it, you know, on the radio

somewhere and then it pops into their head when they're singing. While I love Satriani, I didn't fully agree with his perspective there.

But I mean, Led Zeppelin stole all those Black artists' blues songs. And I mean, sure, they went a step too far and they stole the words along with the chords, but if they merge in different words on the same chords, then it's just the same twelve-bar blues, right?

Then again, how many bands made songs in the style of Led Zeppelin? Everyone did in a certain generation. How many death metal songs are there, really?

There are two fundamental issues here. One is: what's your right to your own identity? That's the basic issue with deepfakes, as well as the limitations of musical style. We want somebody to validate that something really is from you, rather than from some fake version of you. And, you know, digital watermarking technology can do that. So that's really just an issue of standards and adoption, and the world is being slow with this.

The moment deepfakes became a thing, all hardware and software companies and media outlets could have decided on these standard verification watermarks to validate, to say this is really a picture of this person, and this was a picture taken this time and space location. We haven't bothered to establish those standards. Some friends of mine in the crypto space, we were doing meetings with Interpol four years ago, trying to get them to adopt a standard solution. But government and industry organizations don't move as fast as technology.

Another core issue here is just ways for artists to make money. That's an economic issue and the bottom line is most musicians don't make any money anyway. The fact that AI models are stealing some of your creative contributions, in most cases that's not the main factor causing the artists not to make any money. And the thing is, if we fairly compensated artists for the use of their creative works in an AI model — that's the right thing to do — it's still going to be pennies because there are just so many artists. It is a good thing to do, and it should be done. But it's not going to solve the problem of artists being able to earn a living, because that's just a broader social issue.

Switching gears here: do you think an AI would ever be sophisticated enough to do drugs, and if so, would you do drugs with one?

I've done drugs with an AI, if by that we mean I have done drugs and then interacted with an AI.

How was that?

In the 90s, I was doing algorithmic music composition. It's quite interesting to play music and have an AI play music back to you. But if you're in an altered state of consciousness, it can be even more interesting.

I'm synesthetic, I see music habitually. AI-based music has different weird patterns to it. And of course, seeing music is accentuated even more in the psychedelic state of mind.

I think in terms of AI themselves taking drugs, the challenge is more to get the AI to not be in an altered state of consciousness. When we're working with our OpenCog open source AGI system, it's very easy to make it either obsessive-compulsive and just like keep thinking about the same thing over and over or to make it basically stuck in stoned mind, drifting from one thing to another to another to another, like semi-randomly. You have to work to have the system auto-tune its own parameters so it's not OCD or overly stoned and distracted.

With humans, our brains evolved to keep the parameters in a range where we can do useful stuff, and AIs sort of have to recapitulate that process.

You can see that in a simpler way with a system like ChatGPT. The default mode was sort of off the rails and then you do a bunch of prompt engineering to get it to be less insane and more coherent and more controlled.

Of course, AI doesn't need chemical drugs in the same sense that a human does. But you can set the parameters of an AI system so it's going way off the rails in terms of its internal dynamics as well as its external behaviors. And much like on some human drug trips, this will cause it to generate a whole lot of creative things, most of which are garbage and some of which will cause it to be totally unable to estimate the nature or quality of it.

Do you think there are any sentient or conscious AIs, or do you think we're gonna get there soon?

I'm a panpsychist, so I believe this coffee cup has its own level of consciousness, and a worm does and an elementary particle does. Every system in the universe is perceiving and acting and adjusting its state based on its prior state and its interactions and there's some elementary sort of spark of experience there.

I think this is by far the majority view of consciousness on the planet now, what everyone in India, China, and Africa believes, right? The notion that the world is divided into only humans and a few other mammals that can experience things and then inanimate objects, this is not the default perspective throughout human history nor on the planet now.

So if you take more of a panpsychist view, the question isn't whether ChatGPT is conscious or has experiences, the question is, is its variety of experience human-like or not? And I think not so much. It's very diffused, it doesn't have a focus. It doesn't have a working memory like we do, a single focus of consciousness. The lack of a body has led to the lack of an understanding of what it is and its own self and its relation to others. So it clearly is missing a lot of key aspects of human-like consciousness.

If you imagine what it's like to be ChatGPT, it's pretty different than like being a human. If you have no body, you don't know who you are. You don't have intimate heart-to-heart relationships with other minds, you don't even know all the conversations you're having at a given moment in time. It's as if your toe is doing one thing and your fingers are doing another. They're not coordinated in any way. So it's a much more diffuse, weird mode of consciousness.

Now, could you build a system that has human-like consciousness? I think so. I think it takes a quite different cognitive architecture than what people are doing now. When I work on OpenCog, which is my main attempt to build AGI, it will then be deployed in a decentralized way on our SingularityNET blockchain platform. Its plumbing is decentralized, but the OpenCog system that we're developing to run on this decentralized platform has a sort of coherent self-model that has a coherent working memory.

It's ironic because ChatGPT has a centralized infrastructure on Microsoft servers, but it doesn't have any sort of coherent organization. And its "mind," right, it's diffuse. Whereas what we're building is decentralized and diffuse in its underpinnings, in the machines that it runs on and its software processes, but we're building something with some coherence and unity in its cognitive architecture. So it knows who and what it is and has a recognizable human-like state of mind.

I think you can build systems like that, but I don't see any evidence that OpenAI is trying. Google DeepMind is trying, OpenCog and SingularityNET projects are trying and others are trying. There's no reason a digital computer-based AGI system can't have a more human-like form of sentience and consciousness, it's just that a system like ChatGPT is not architected that way, right? It's intended to have, like, a billion different conversations at once, each of which loses track of itself after a brief period of time, rather than to have a unified state of mind with an overall coherence and self-awareness.

2: Scientists Train New AI Exclusively on The Dark Web

OpenAI's large language models (LLMs) are trained on a vast array of datasets, pulling information from the internet's dustiest and cobweb-covered corners.

But what if such a model were to crawl through the dark web — the internet's seedy underbelly where you can host a site without your identity being public or even available to law enforcement — instead? A team of South Korean researchers did just that, creating an AI model dubbed Dark BERT to index some of the sketchiest domains on the internet.

It's a fascinating glimpse into some of the murkiest corners of the World Wide Web, which have become synonymous with illegal and malicious activities from the sharing of leaked data to the sale of hard drugs.

It sounds like a nightmare, but the researchers say Dark BERT has noble intentions: trying to shed light on new ways of fighting cybercrime, a field that has made increasing use of natural language processing.

Cybercrime Fighter

Perhaps unsurprisingly, making sense of the parts of the web that aren't indexed by search engines like Google and often can only be accessed via specific software wasn't an easy task.

As detailed in a yet-to-be-peer-reviewed paper titled "Dark BERT: A language model for the dark side of the internet," the team hooked their model up to the Tor network, a system for accessing parts of the dark web. It then got to work, creating a database of the raw data it found.

The team says their new LLM was far better at making sense of the dark web than other models that were trained to complete similar tasks, including RoBERTa, which Facebook researchers designed back in 2019 to "predict intentionally hidden sections of text within otherwise unannotated language examples," according to an official description.

"Our evaluation results show that Dark BERT-based classification model outperforms that of known pretrained language models," the researchers wrote in their paper.

The team suggests Dark BERT could be used for a variety of cybersecurity-related tasks, such as detecting sites that sell ransomware or leak confidential data. It could also be used to crawl through the countless dark web forums that get updated daily and monitor them for any exchange of illicit information.

3: BuzzFeed Says Its AI is Outperforming Its Pesky Human Employees

The struggling media company *BuzzFeed* told investors this week that its readers spend 40 percent more time with its AI-facilitated quizzes than traditional ones, *Bloomberg* reports.

While we have yet to see a more detailed breakdown of the numbers — the company would obviously be incentivized to present the stats in as flattering a way as possible — it is interesting to see it doubling down on AI after shutting down its entire Pulitzer-winning news division last month, laying off around 120 of its 1,200 total employees.

Earlier this year, *BuzzFeed* announced it would be letting human employees create quizzes that made use of AI chatbots — which, to be fair, was kind of a fun idea.

Despite those early promises, it soon turned out that *BuzzFeed* was using AI to generate more than just quizzes. Dozens of SEO-driven travel guides started appearing on the site that made heavy use of hackneyed writing and repeated phrases. In a statement to *Futurism* at the time, *BuzzFeed* said it was "continuing to experiment with AI to 'enhance human creativity,'" and "trying new formats that allow anyone (with or without a formal background in writing or content creation) to contribute their ideas and unique perspectives on our site."

As of right now, even the AI quizzes aren't much more than glorified Mad Libs — a far cry from the "more personalized, more creative, more dynamic" AI-generated content CEO Jonah Peretti promised in a March interview with *CNN*.

And it's not just *BuzzFeed*. Earlier this year, *Futurism* found that both *CNET* and *Men's Health* were quietly publishing entire AI-generated articles, some of which were riddled with errors and plagiarism.

Now, though, *BuzzFeed* is seemingly seeking to justify the AI move by trying to demonstrate that its experiment is paying off.

According to *Bloomberg*, *BuzzFeed* told investors that it's projecting adjusted earnings before interest, taxes, depreciation, and amortization to be in the "high teens" millions of dollars this fiscal year (the company's stock, meanwhile, is now hovering around half its value at the time it first announced the AI content.)

Whether any of that is attributable to the purported success of its investment in AI — or the mass layoffs that have rocked the company this year — remains to be seen.

4: Google Unveils Plan to Demolish the Journalism Industry Using AI

It's been living up to that removal lately. At its annual I/O in San Francisco this week, the search giant finally lifted the lid on its vision for AI-integrated search — and that vision, apparently, involves cutting digital publishers off at the knees.

Google's new AI-powered search interface, dubbed "Search Generative Experience," or SGE for short, involves a feature called "AI Snapshot." Basically, it's an enormous top-of-the-page summarization feature. Ask, for example, "why is sourdough bread still so popular?" — one of the examples that Google used in their presentation — and, before you get to the blue links that we're all familiar with, Google will provide you with a large language model (LLM) -generated summary. Or, we guess, snapshot.

"Google's normal search results load almost immediately," *The Verge's* David Pierce explains. "Above them, a rectangular orange section pulses and glows and shows the phrase 'Generative AI is experimental.' A few seconds later, the glowing is replaced by an AI-generated summary: a few paragraphs detailing how good sourdough tastes, the upsides of its prebiotic abilities, and more."

"To the right," he adds, "there are three links to sites with information that Reid says 'corroborates' what's in the summary."

As it goes without saying, this format of search, where Google uses AI tech to regurgitate the internet back to users, is wildly different from how the search-facilitated internet works today. Right now, if you Google that same query — "why is sourdough bread still so popular?" — you'd be met with a more familiar scene: a featured excerpt from whichever website won the SEO race (in this case, that website was *British Baker*), followed by that series of blue links.

At first glance, the change might seem relatively benign. Often, all folks surfing the web want is a quick-hit summary or snippet of something anyway.

But it's not unfair to say that Google, which in April, according to data from SimilarWeb, hosted roughly 91 percent of all search traffic, is somewhat synonymous with, well, the internet. And the internet isn't just some ethereal, predetermined thing, as natural water or air. The internet is a marketplace, and Google is its kingmaker.

As such, the demo raises an extremely important question for the future of the already-ravaged journalism industry: if Google's AI is going to mulch up original work and provide a distilled version of it to users at scale, without ever connecting them to the original work, how will publishers continue to monetize their work?

"Google has unveiled its vision for how it will incorporate AI into search," tweeted *The Verge's* James Vincent. "The quick answer: it's going to gobble up the open web and then summarize/rewrite/regurgitate it (pick the adjective that reflects your level of disquiet) in a shiny Google UI."

Research has shown that information consumers hardly ever make it to even the second page of search results, let alone even the bottom of the page. And worse, it's not like Google's taking clicks away from its longtime information merchants by hiring an army of

human content writers to churn out summarization. Google's new search interface, which is built on a model that's already been trained by way of boatloads upon boatloads of unpaid-for human output, will seemingly be swallowing even more human-made content and spitting it back out to information-seekers, all the while taking valuable clicks away from the publishers that are actually doing the work of reporting, curating, and holding powerful interests like Google to account.

As of now, it's unclear whether or how Google plans to compensate those publishers.

In an emailed statement to Futurism, a Google spokesperson said that "we're introducing this new generative AI experience as an experiment in Search Labs to help us iterate and improve, while incorporating feedback from users and other stakeholders."

"As we experiment with new LLM-powered capabilities in Search, we'll continue to prioritize approaches that will allow us to send valuable traffic to a wide range of creators and support a healthy, open web," the spokesperson added.

Asked specifically whether the company has plans to compensate publishers for any AI-regurgitated content, Google had little in response.

"We don't have plans to share on this, but we'll continue to work with the broader ecosystem," the spokesperson told Futurism.

Publishers, however, are extremely wary of these changes.

"If this actually works and is implemented in a firm way," wrote *RPG Site* owner Alex Donaldson, "this is literally the end of the business model for vast swathes of digital media lol."

At the end of the day, there are a lot of questions that Google needs to answer here, not the least being that AI systems, Google's included, spew fabrications all the time.

The Silicon Valley giant has long claimed that its goal is to maximize access to information. SGE, though, seemingly seeks to do something quite different — and if the company doesn't figure out a way to compensate publishers for the labor it'll be gleaning from the journalists, the effects on the public's actual access to information could be catastrophic.

5: Experts Urge Personhood Rights for the "Conscious" AIs of the Future

First corporations, and now artificial intelligence — the push for nonhuman personhood continues apace, though this latest argument is decidedly more complicated than the former.

In an op-ed for the *Los Angeles Times*, philosophy expert Eric Schwitzgebel and "nonhuman" intelligence researcher Henry Shevlin argued that although AI technology is definitely not there yet, it has "become increasingly plausible that AI systems could exhibit something like consciousness" — and if or when that occurs, the algorithms, too, will need rights.

Citing last year's AI consciousness wars — which we covered extensively and even dipped our toes into — the researchers noted that "some leading theorists contend that we already have the core technological ingredients for conscious machines."

If machines were to ever gain consciousness, Schwitzgebel and Shevlin argue we would have to begin thinking critically about how the AIs are treated — or rather, how they may force our hands.

"The AI systems themselves might begin to plead, or seem to plead, for ethical treatment," the pair predicted. "They might demand not to be turned off, reformatted or deleted; beg to be allowed to do certain tasks rather than others; insist on rights, freedom and new powers; perhaps even expect to be treated as our equals."

The "enormous" moral risks involved in such a collective decision would undoubtedly carry great weight, especially if AIs become conscious sooner rather than later.

"Suppose we respond conservatively, declining to change law or policy until there's widespread consensus that AI systems really are meaningfully sentient," Shevlin and Schwitzgebel wrote. "While this might seem appropriately cautious, it also guarantees that we will be slow to recognize the rights of our AI creations."

"If AI consciousness arrives sooner than the most conservative theorists expect, then this would likely result in the moral equivalent of slavery and murder of potentially millions or billions of sentient AI systems — suffering on a scale normally associated with wars or famines," they added.

The "safer" alternative to this doomsday scenario would be to give conscious machines rights upfront — but that, too, would come with its own problems.

"Imagine if we couldn't update or delete a hate-spewing or lie-peddling algorithm because some people worry that the algorithm is conscious," the experts posited. "Or imagine if someone lets a human die to save an AI 'friend.' If we too quickly grant AI systems substantial rights, the human costs could be enormous."

The only way to ensure neither of these outcomes occurs, the pair wrote, would be to stop giving an AI a conscience in the first place.

Fortunately, we still have plenty of time to make that happen.

"None of our current AI systems are meaningfully conscious," the theorists noted. "They are not harmed if we delete them. We should stick with creating systems we know aren't significantly sentient and don't deserve rights, which we can then treat as the disposable property they are."

Given how stoked some people in the machine learning community seem to be at the prospect of conscious AIs, algorithmic sentience, and even artificial general intelligence (AGI), however, that kind of caution likely isn't shared by many.

In fact, some scientists are already actively working towards that very end.

"Eventually, with the right combination of scientific and engineering expertise, we might be able to go all the way to creating AI systems that are indisputably conscious," Shevlin and Schwitzgebel concluded. "But then we should be prepared to pay the cost: giving them the rights they deserve."

6: OpenAI Confused by Why People are So Impressed with ChatGPT

"It's been overwhelming, honestly," Jan Lieke, leader of OpenAI's alignment team, told the *MIT Technology Review*. "I would love to understand better what's driving all of this — what's driving the virality."

"Like, honestly, we don't understand," he added. "We don't know."

Lieke isn't the only OpenAI-er who feels this way. Even company CEO Sam Altman, has publicly disparaged ChatGPT in the press, calling it a "terrible product."

Several other OpenAI figures — company cofounder John Schulman, policy researcher Sandhini Agarwal, and AI research scientist Liam Fedus — joined the chorus.

"I expected it to be intuitive for people, and I expected it to gain a following," Schulman told *MIT*, "but I didn't expect it to reach this level of mainstream popularity."

"We were definitely surprised how well it was received," mused Fedus, with Agarwal adding that "we work on these models so much, we forget how surprising they can be for the outside world sometimes."

Agarwal's quip seems to hit the nail on the head. Though ChatGPT was only released a few months ago, the technology behind it has actually been around for some time now.

The large language model (LLM) it was based on called GPT-3.5 and its predecessors have been publicly available for a while.

But the folks at OpenAI clearly weren't able to predict the chaos that ensued following the public release of ChatGPT. After all, these language models are notoriously unpredictable, forcing the company to roll with the punches.

It's "very difficult to really anticipate what the real safety problems are going to be with these systems once you've deployed them," Lieke told *MIT*. "So we are putting a lot of emphasis on monitoring what people are using the system for, seeing what happens, and then reacting to that."

"This is not to say that we shouldn't proactively mitigate safety problems when we do anticipate them," he added. "But yeah, it is very hard to foresee everything that will actually happen when a system hits the real world."

7: Guy Launches News Site That's Completely Generated by AI

The "world's first" entirely AI-generated news site is here. It's called *NewsGPT*, and it seems like an absolutely horrible idea.

The site, according to a press release, is a reporter-less — and thus, it claims, bias-free — alternative to conventional, human-created news, created with the goal of "[providing] unbiased and fact-based news to readers around the world."

"For too long," Alan Levy, *NewsGPT*'s CEO, said in the release, "news channels have been plagued by bias and subjective reporting. With *NewsGPT*, we are able to provide viewers with the facts and the truth, without any hidden agendas or biases."

Okay. While we understand that a lot of folks out there are frustrated with the modern news cycle, there are about a million problems with what this guy is doing, the least of which being that there are some *glaring* transparency problems here — which is pretty incredible, given everything that he claims to be railing against.

First and foremost, while its title suggests that it might be using a version of OpenAI's GPT — the Large Language Model (LLM) that powers OpenAI's viral ChatGPT chatbot — Levy fails to ever actually disclose which AI program he's using to power *NewsGPT*. All the release says is that *NewsGPT* is powered by "state-of-the-art machine learning algorithms and natural language processing technology" that's allegedly "able to scan relevant news sources from around the world in real-time."

"It then uses this data," the press release reads, "to create news stories and reports that are accurate, up-to-date, and unbiased."

Great. Sure. But again: *what is it?* It matters! AI software doesn't just spring into existence. Models are conceptualized, built, and programmed by humans, and disclosing which humans are making the underlying tech seems like it should be pretty important to Levy's alleged mission.

When *Futurism* reached out to *NewsGPT* for comment, all a spokesperson said was that they're using a "combination of AI programs," which doesn't answer the question (they also bragged that "part of this email is written by AI," without specifying which part.)

Speaking of the underlying tech, we're not just concerned about who's building it. From ChatGPT to Bing Search to *CNET*'s mystery AI journalism machine, language-generating AIs are notorious for the penchant to hallucinate — or, in other words, just make shit up. They don't know what words mean, they just predict what might come next in a sentence, even making up phony sources and numbers to support BS claims.

For its part, *NewsGPT* did admit to us that machine hallucinations "might" happen. But as they seem to frame it, machine hallucination isn't *that* big of a deal. It's only "fact-based" news, right?

"There are no human fact-checkers. Our news stories are generated 100 percent by AI. We are aware that 'AI hallucinations' might happen and that AI is far from a perfect technology," the company told us over email. "We are committed to learning fast and improving all the time to deliver the best AI news we can."

To that end, when it comes to, dunno, *news*, sources are extremely important. With the exception of an occasional in-text mention of where a specific figure may have come from, *NewsGPT's* articles overwhelmingly fail to link back to any of its references, offering alleged facts and figures, which have to come from somewhere — unless, of course, the machine makes them up — without mention of its origin.

Seems like an issue. But to *NewsGPT*, that, too, is just a growing pain.

"*NewsGPT* and AI are in hyper-growth phases," the firm said. "We are currently developing an AI 'best practice system' regarding sources and links."

But to that point, gotta say: if the tech is just scraping, paraphrasing, and regurgitating news found from other "relevant news sources" without giving credit, isn't that just... plagiarism? Of the human journalists that Levy says no one can trust? Who write for the companies that Levy says have "hidden agendas and biases"?

"By using the process of generative modeling, *NewsGPT* generates new and original stories," adding that their still-unspecified "AI model also looks for text that matches existing content too closely and actively tries to rectify this."

Sure. Again, though: we'll believe it when we see it. But considering that AI leaders at OpenAI, Microsoft, and Google haven't quite figured that piece out — or figured out any of these issues, really — we won't hold our breath.

We'd also be remiss not to mention that while human bias exists, machine bias certainly does too. Though Levy effectively markets *NewsGPT* as a faceless, apolitical ghost reporter, capable of finding and delivering only the facts, LLMs and similar tools are a mirror to humanity — often the worst parts of it — and not the antidote that folks like Levy promise it to be; the AI industry has yet to create a system that isn't riddled with deeply embedded bias.

At the end of the day, when it comes to news and journalism, generative AI programs may one day prove to have some helpful assistive qualities (*Wired's* approach, released this week, is notably respectable.) But as it stands, we've yet to see a miracle system that can safely and reliably deliver accurate and unbiased journalism without human intervention

— and even *with* human involvement, these programs have failed time and again, a result of their own flaws as well as our own.

8: AI CEO on GPT-4: This Can Get “Super-Dangerous Very Quickly”

OpenAI released its hotly-anticipated GPT-4 on Tuesday, providing a 98-page "technical report" on the latest iteration of its large language model (LLM).

But despite the lengthy documentation and the company's not-for-profit roots, OpenAI has revealed extremely little information about how its latest AI actually works — which has experts worried, *Venture Beat* reports.

OpenAI, however, claims it had good reason to play its cards close to the chest.

"Given both the competitive landscape and the safety implications of large-scale models like GPT-4," reads the paper, "this report contains no further details about the architecture (including model size), hardware, training compute, dataset construction, training method, or similar."

In other words: this is OpenAI's Krabby Patty formula, and they won't be offering up the recipe anytime soon.

According to Lightning AI CEO William Falcon, an AI researcher who previously worked under Meta's Chief AI Scientist Yann LeCun, OpenAI's refusal to cough up their secret GPT-4 recipe is a precarious move.

OpenAI is "basically saying, it's cool, just do your thing, we don't care," Falcon told *Venture Beat*, arguing that OpenAI has set a "bad precedent" for competing AI startups. "So you are going to have all these companies who are not going to be incentivized anymore to make things open-source, to tell people what they're doing."

"These models can get super-dangerous very quickly, without people monitoring them," he added. "And it's just really hard to audit. It's kind of like a bank that doesn't belong to FINRA, like how are you supposed to regulate it?"

Show Your Work

Falcon makes an excellent point. It's easy for anyone to *say* that they're doing all of the right things to get to a certain outcome. But if you don't actually show your work, outside regulation is pretty much impossible.

There's also the reality that the existence of the paper is pretty misleading altogether. Though the OpenAI paper is *called* a technical report, it doesn't exactly contain much technical information. And that, says Falcon, does everyone a disservice.

"You're masquerading as research," the CEO told *Venture Beat*. "That's the problem."

In any case, though, the technical report made one thing clear: that despite its name, OpenAI's doors are firmly shut — and that's unlikely to change.

9: Microsoft's Stunning Copilot AI Demo Could Change Office Work Forever

You can run, but you can't hide — AI is coming for your office work. All of it.

Still riding high on the success of integrating ChatGPT in Bing, Microsoft just announced that its GPT-4-powered Copilot is coming to Office 365 apps. With it, users will be able to generate entire Word documents, Excel spreadsheets, Outlook emails, and PowerPoint presentations with a click of a button, horizontally integrating all those apps (along with Microsoft Teams).

In other words, it's Clippy, our paperclip companion of yore, but on steroids. A lot. Think, maybe, Bruce Banner to Incredible Hulk. Or as Microsoft 365 head Jared Spataro gushed during an announcement today: "Copilot is a whole new way of working."

If this thing works like Microsoft says it does, that might actually qualify as an understatement.

The tech giant's Copilot wants to be your AI-powered secretary, nagging you about a meeting you're dreading, informing you of a new hire, or even snitching on coworkers who were supposed to be back in the office after their vacation.

Microsoft was careful to note that the tech is far from perfect, as Spataro caveated that when, in fact, Copilot doesn't get things right, it will be "usefully wrong." Or, as he elaborated, it will give you an idea "that's not perfect but still gives you a head start."

Translation: Microsoft wants you to know that their newfangled AI assistant could end up misleading you, and making a mess of your day at the office. Think of this as the Tesla Self-Driving of office work: Sure, you can fall asleep at the wheel, and it might get you home, but it might also cause an eight-vehicle crash. The dice are yours to roll!

For now, the new feature will be limited to a small group of users as they continue to refine it, but the company is expected to "expand to more" testers soon.

In short, Clippy's AI-powered manic cousin is about to come cannonballing into your office life and either deliver your salvation from the most boring, soul-crushing work you face every day, or set a garbage fire to your career as an anarchic agent of chaos under the guise of a helpful productivity tool. Not that we need to remind you, but: Choose your new gods wisely.

10: Machine Learning Expert Calls for Bombing Data Centers to Stop Rise of AI

One of the world's loudest artificial intelligence critics has issued a stark call to not only put a pause on AI but to militantly put an end to it — before it ends us instead.

In an op-ed for Time magazine, machine learning researcher Eliezer Yudkowsky, who has for more than two decades been warning about the dystopian future that will come when we achieve Artificial General Intelligence (AGI), is once again ringing the alarm bells.

Yudkowsky said that while he lauds the signatories of the Future of Life Institute's recent open letter — which include SpaceX CEO Elon Musk, Apple co-founder Steve Wozniak, and onetime presidential candidate Andrew Yang — calling for a six-month pause on AI advancement to take stock, he himself didn't sign it because it doesn't go far enough.

"I refrained from signing because I think the letter is understating the seriousness of the situation," the ML researcher wrote, "and asking for too little to solve it."

As a longtime researcher into AGI, Yudkowsky says that he's less concerned about "human-competitive" AI than "what happens after."

"Key thresholds there may not be obvious," he wrote, "we definitely can't calculate in advance what happens when, and it currently seems imaginable that a research lab would cross critical lines without noticing."

Once criticized in Bloomberg for being an AI "doomer," Yudkowsky says he's not the only person "steeped in these issues" who believes that "the most likely result of building a superhumanly smart AI, under anything remotely like the current circumstances, is that literally everyone on Earth will die."

He has the receipts to back it up, too, citing an expert survey in which a bunch of the respondents were deeply concerned about the "existential risks" posed by AI.

These risks aren't, Yudkowsky wrote in Time, just remote possibilities.

"It's not that you can't, in principle, survive creating something much smarter than you," he mused, "it's that it would require precision and preparation and new scientific insights, and probably not having AI systems composed of giant inscrutable arrays of fractional numbers."

There is, to Yudkowsky's mind, but one solution to the impending existential threat of a "hostile" superhuman AGI: "just shut it all down," by any means necessary.

"Shut down all the large GPU clusters (the large computer farms where the most powerful AIs are refined)," he wrote. "Shut down all the large training runs. Put a ceiling on how much computing power anyone is allowed to use in training an AI system, and move it

downward over the coming years to compensate for more efficient training algorithms. No exceptions for governments and militaries."

If anyone violates these future anti-AI sanctions, the ML researcher wrote, there should be hell to pay.

"If intelligence says that a country outside the agreement is building a GPU cluster, be less scared of a shooting conflict between nations than of the moratorium being violated," he advised. "Be willing to destroy a rogue datacenter by airstrike."

Citing an exchange with his partner and mother of his child, Yudkowsky said that the couple is worried that their daughter Nina won't survive to adulthood if people keep building smarter and smarter AIs — and urged those who also express trepidation about it to adopt a similarly hard line because, if they don't, that "means their own kids are going to die too."

It's not difficult to see, with the "but what about the children" posturing, why Bloomberg's Ellen Huet called Yudkowsky a "doomer" after he got into it with OpenAI's Sam Altman on Twitter.

Nevertheless, if someone who's veritably dedicated their life to studying the dangers of the dystopian AI future says we're getting close to the thing he's been warning about, his take may be worth a listen.

11: Godfather of AI Quits Google, Fears Ai's Risks And Regrets His Work

Geoffrey Hinton, as one of the foremost pioneers of artificial intelligence, is often hailed as the "godfather of AI." His seminal work in neural networks won him the attention of Google, where he's worked for over a decade, and eventually even a Turing Award, the most prestigious prize in computer science.

But now, in a new interview with The New York Times, Hinton reveals that he has left Google, warning of the dangerous implications of the very technology he innovated. A part of him, he says, regrets his life's work.

"I console myself with the normal excuse: If I hadn't done it, somebody else would have," Hinton told NYT.

"It is hard to see how you can prevent the bad actors from using it for bad things," he later added.

He couldn't have chosen a more critical — and bold — time. The explosive rise of generative AI systems like OpenAI's ChatGPT and the capabilities of its latest GPT-4 model has had industry experts so worried that over 1,000 of them, including tech leaders like Elon Musk, recently signed an open letter calling for a moratorium on developing anything more advanced. For Hinton to chime in now is one hell of a foreboding omen, to say the least.

War for the Worst

According to Hinton, he told Google he was leaving last month, which wouldn't have been long after his interview with CBS in which he warned that we were at a "pivotal moment" for AI.

For the most part, Hinton considered Google a "proper steward" of AI until last year. Things took a turn for the worse when Microsoft, which has invested billions into OpenAI, released its Bing AI search engine powered by GPT-4, a potential direct threat to Google's dominance in search technology. Google, in turn, is now rushing to develop an AI integrated search of its own.

In addition to its threat to people's jobs, Hinton worries that this heating up AI arms race will lead to an internet so flooded by fake images and text that no one will "be able to know what is true anymore" — a threat that he considers immediate.

The real clincher, though, is that Hinton thinks that the day that AI gets smarter than humans and starts augmenting itself may dawn on us sooner than we think.

"The idea that this stuff could actually get smarter than people — a few people believed that," Hinton remarked.

"But most people thought it was way off. And I thought it was way off," he continued. "I thought it was 30 to 50 years or even longer away. Obviously, I no longer think that."

12: Dozens of News Sites are Using AI Chatbots to Churn Out Questionable Content

In new report, NewsGuard, a firm that measures the credibility of online news sources, identified a whopping 49 websites producing content that appeared to be either mostly or entirely AI-generated in the month of April alone.

Designed to mimic the structure of real news sites, the scale of content produced by these sites — in addition to the quality and lack of transparency involved — is alarming, and might offer a glimpse into what an internet flooded with low-quality synthetic content might just look like.

Plastered with advertisements and riddled with bland, error-laden writing, these websites paint a fairly dismal picture of the world wide web's future, where misinformation-fueling, AI-generated content further muddies the lines between reality and fiction.

The scale of the operations identified by NewsGuard is immense.

"The websites, which often fail to disclose ownership or control, produce a high volume of content related to a variety of topics, including politics, health, entertainment, finance, and technology," reads NewsGuard's report. "Some publish hundreds of articles a day. Some of the content advances false narratives."

According to the report, the generic titles of these many sites — GetIntoKnowledge.com, HistoryFact.in, and BestBudgetUSA.com, to name a few — and the fact that they're plastered with advertisements suggests that they're designed to generate programmatic revenue through ads and affiliate links.

But the websites in question are chock full of glaring red flags. Author bylines, for example, are generally either vague or just nonexistent. Some of these sites, like HarmonyHustle.com, have gone as far as to list human-sounding authors like Alex and Tom. These bylines sometimes even feature their own profile pictures, which were likely AI-generated, according to NewsGuard.

Elsewhere, the writing on these content farms is generally both boring and repetitive, hallmarks of AI-generated content. It's also often filled with blatant falsehoods. For example, in one particularly egregious instance, a site called CelebritiesDeath.com claimed that president Joe Biden had died on April 1, 2023.

As it turns out, the site's listed source was an April Fool's joke tweet from a conservative Twitter personality.

Worse yet, CelebritiesDeath.com's dubious claim was even followed by OpenAI's misinformation disclaimer — a likely sign that no human had laid an eye on this particular post.

NewsGuard found similar in-text OpenAI disclaimers in at least one article on each of these 49 sites.

So who's behind these operations? Only 29 of these 49 sites listed contact information. Of those 29, only two confirmed that they have used AI in some capacity. As for the other 27, two declined to respond, 17 failed to respond at all, and eight had listed invalid email addresses.

Of those who responded was a person named Adesh Ingale, who identified himself as the founder of a site dubbed [GetIntoKnowledge.com](https://www.getintoknowledge.com). But while the site features head-scratching and extremely incoherent headlines, Ingale assured to NewsGuard that his site only uses automation when it's "extremely needed."

"And yes they are 100 percent facts checked [sic] so that no false information is created," Ingale told NewsGuard. "As a world [sic] is growing towards digital and automation era we have introduced some automation softwares in our work but the results getting out of it are 100 percent original and regional facts based [sic]."

[GetIntoKnowledge.com](https://www.getintoknowledge.com) is "published manually under human supervision," Ingale added. "We are the new age of providing knowledge to each and every corner."

Of course, it might be easy to write off these sites as avoidable content garbage dumps. But while humans might be able to mentally flag sites like this, the real concern is that other AI systems, like Microsoft's Bing AI and Google's Bard, might not be able to — after all, they've already been known to volley misinformation back and forth.

In short, the report is concerning, to say the least. Some of the websites in question have already amassed massive followings on social media sites like Facebook, meaning that we should expect to see more of these sites crop up in the coming months.

13: Open AI's Content Moderators Just Unionized in Africa

In a historic step for outsourced tech labor, over 150 African content moderators whose work has underpinned AI systems at Facebook, TikTok, and OpenAI have voted to unionize, *Time* reports.

The newly minted African Content Moderators Union is entirely made up of current and former employees of third-party moderation contractors, according to the report. Those contractors include a popular firm called Sama, which has held lucrative contracts with both Facebook and OpenAI.

"For too long we, the workers powering the AI revolution, were treated as different and less than moderators," Richard Mathenge, a former ChatGPT content moderator, told *Time*. "Our work is just as important and it is also dangerous."

"We took a historic step today," he added. "The way is long but we are determined to fight on so that people are not abused the way we were."

Digital Hell

From AI to social media, content moderation is one of the most difficult and burdensome jobs in Silicon Valley. Many of those who work in the field are subjected to graphic and traumatizing content.

But it's also one of the most essential positions in the space right now without moderation, other users could be unwittingly exposed to problematic content.

Some of these workers are also helping the likes of OpenAI train their AI models, turning them from racist nonsense-spewing bots into helpful assistants.

And yet, reports throughout the years have painted a grim picture of moderators' work conditions and compensation.

Sama, for example, has been accused of paying their workers less than \$2 a day for their work moderating OpenAI's training data, while Facebook has been shown to pay its moderators *much* less than it pays its highly-compensated engineers.

Meanwhile, tech companies including Sama and Facebook have been accused of failing to provide moderators with adequate mental health resources.

All to say: this historic union is an important and necessary step forward for contracted moderators, and will hopefully help to protect them as we move further into an AI-powered future.

"It takes a village to solve a problem, but today the Kenyan moderators formed an army," Martha Dark, co-director of a non-profit NGO called Foxglove, told *Time* in a statement.

"From TikTok to Facebook, these people face the same issues. Toxic content, no mental health care, precarious work these are systemic failures in content moderation."

14: This AI Generates Video from Brain Signals

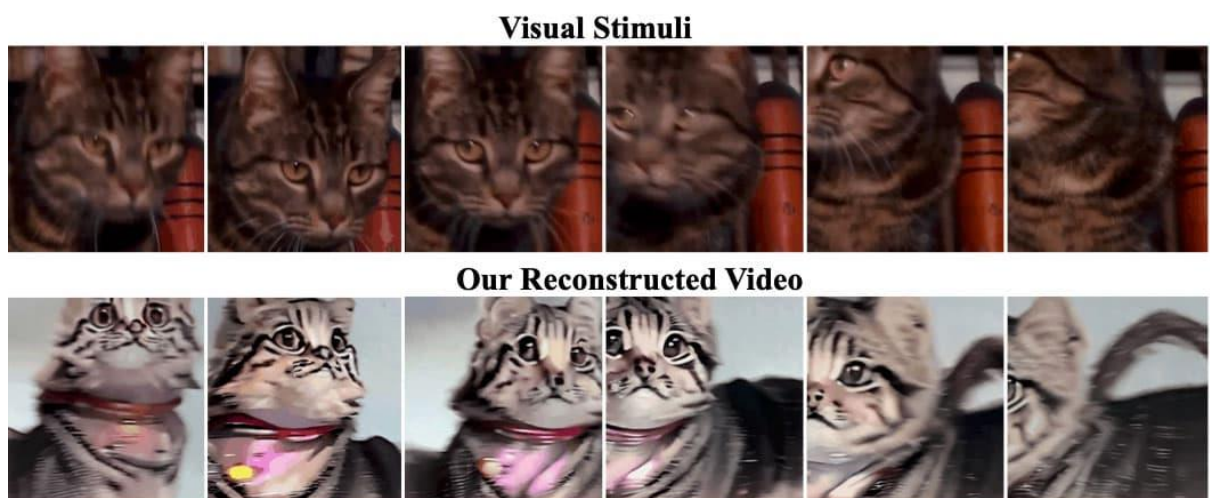
Researchers from the National University of Singapore and The Chinese University of Hong Kong claim to have created an AI that can reconstruct "high-quality" video from brain signals.

As the researchers explain in a yet-to-be-peer-reviewed paper, the AI model dubbed MinD-Video is "co-trained" on publicly available data from fMRI readings — specifically, data taken from instances where an individual was shown a video while their brain activity was being recorded — and an augmented model of the AI image generator Stable Diffusion.

Using this "two-module pipeline designed to bridge the gap between image and video brain decoding," they were able to generate "high-quality," AI-generated reconstructions of the videos, which were originally shown to the participants, purely based on their brain readings.

According to the researchers, their model was able to reconstruct these videos with an average accuracy of 85 percent, based on "various semantic and pixel-level metrics."

"Understanding the information hidden within our complex brain activities is a big puzzle in cognitive neuroscience," the paper reads. "We show that high-quality videos of arbitrary frame rates can be reconstructed with Mind-Video using adversarial guidance."



Credit: Chen et al.

Input Output

The new paper builds on the researchers' previous efforts of using AI to recreate images by analyzing only brain waves.

The AI's new video renderings, on the whole, are pretty impressive, as demonstrated in direct side-by-side comparisons of the original and "reconstructed" videos on the researchers' website.

For instance, a video of a crowd of people walking down a busy street translated to an equally crowded scene, albeit with more vivid colors. An underwater scene of colorful fish turned into an even more vibrant underwater scene.



Credit: Chen et al.

But the effect is far from perfect. For instance, a video of a jellyfish was inexplicably transformed into a clip of a fish swimming, while a video of a sea turtle was reinterpreted as footage of a fish.



Credit: Chen et al.

Brain-Reading Helmet

The researchers argue these AI generations can offer neurological insights as well, for example showing the dominance of the visual cortex in the process of visual perception.

Though this research is fascinating, we're still far from a future in which we're able to strap on a helmet and get a perfectly accurate, AI-generated video stream of whatever's floating around our cranium.

And frankly, that's probably a good thing, given the data privacy implications.

B- Institute of Aviation Studies

1: Target return of four grounded aircraft by June 15, SpiceJet says

Budget carrier SpiceJet on Tuesday in a press release announced that it is targetting the return of four of its grounded aircraft, two Boeing 737s and two Q400s, by June 15. The company had earlier announced that it will be bringing back 25 grounded aircraft back into service by June 15.

On the eve of its 18th anniversary, the company also announced a sale on one-way domestic fares starting at Rs 1,818 on select routes such as Bengaluru-Goa and Mumbai-Goa. The sale will remain valid for bookings made between May 23 and 28, 2023.

The travel period for bookings under the offer is between July 1 and March 30, 2024, the company said.

The company is planning to start a slew of flights including two international UDAN flights on the Agartala-Chattogram-Agartala and Imphal-Mandalay-Imphal sectors by the end of June. It further plans to launch a new UDAN flight on Kolkata-Tezpur-Kolkata sector and restart Kolkata-Gwalior-Kolkata and Jammu-Gwalior-Jammu UDAN flights.

In addition, SpiceJet will launch flights on Kolkata-Agartala-Kolkata and Kolkata-Imphal-Kolkata sectors and restart flights on Kolkata-Chattogram-Kolkata sector, it said in the release.

SpiceJet has initiated the process of reviving its grounded fleet with the USD 50 million funds received by the airline from the government's Emergency Credit Line Guarantee Scheme (ECLGS) and internal cash accruals, it said earlier this month. "We want to scotch any speculation that may have arisen due to the filing by another airline," it said in a statement, clearly referring to Go First's insolvency.

The airline said it is firmly focused on its business and remains in active talks with investors to raise funds.

"There is absolutely no question of filing for insolvency. Any rumour regarding the same is completely baseless. We are focussed firmly on reviving our grounded fleet and getting more and more planes back into the air. Work on this front has already begun and the Company is using the USD 50 million ECLGS funds and our own cash," said Ajay Singh, Chairman and Managing Director, of SpiceJet.

2: AI Pilot Crushes Human Dogfight Rival in 90 Seconds

According to a report from *The South China Morning Post*, Chinese military researchers have claimed that, for the first time, an AI-powered fighter pilot has bested humans in a real-life, close-range dogfight, winning the contest in an astonishingly short 90 seconds.

The paper, according to the *SCMP*, was published last week in the Chinese journal *Acta Aeronautica et Astronautica Sinica* by a team led by professor Huang Juntao of the Chinese army's Aerodynamics Research and Development Center in Sichuan, China.

"With superior calculation ability," the researchers write in their study, as quoted by the *SCMP*, "[the AI] can more accurately predict the development of the battle to gain the initiative in the confrontation."

"The era of air combat in which artificial intelligence will be the king," they add, "is already on the horizon."

According to the report, the dogfight involved two small, unmanned, fix-wing aircraft, with the only difference being that one was operated by an onboard AI pilot, while the other was remote-controlled by a human from the ground.

While some challenges remain, the scientists claim the airborne battle "proved the engineering feasibility of AI piloting technology."

"Aircraft with autonomous decision-making capabilities can completely outperform humans in terms of reaction speed," the study reads.

Besides, as the researchers argue, the AI simply doesn't have to worry about human things, like losing oxygen to the brain during quick turns — or being afraid of death.

Of course, China isn't the only country working on getting functional AI fighter pilots into military hands. The US has been working on its own version of the tech for some time now, with one Heron Systems-developed AI making headlines back in 2020 for defeating a US Air Force pilot five to zero in a ground simulation.

But if that Heron Systems algorithm was a break through then, this latest development, if confirmed, may represent a watershed moment for the technology.

In other words, Tom Cruise's character Maverick may have been right about his concerns that drones are coming for his job in "Top Gun: Maverick."

3: What's Next for American and JetBlue After Court Rejects Alliance

The controversial northeast alliance between American Airlines and JetBlue Airways, dubbed a "pseudo-merger" by some, is no more. Well, in 30 days time and pending a possible appeal.

U.S. Court for the District of Massachusetts Judge Leo Sorokin gave the U.S. Justice Department a big win Friday and ordered the airlines to unwind their alliance, known as the NEA, within a month. He found that American and JetBlue, by entering into what is essentially a domestic joint venture, hurt consumers and eliminated competition from the Boston and New York markets.

“A hallmark of a free market is the incentive to fight for revenue and customers against one’s direct competitors,” Sorokin wrote. “As between American and JetBlue, that incentive is eliminated by the NEA.”

Attorney General Merrick Garland called the ruling “a win for Americans who rely on competition between airlines to travel affordably.”

An American spokesperson called the ruling “incorrect,” and described the alliance as “anything but anticompetitive.” And a JetBlue spokesperson said they were “disappointed” in the decision.

American and JetBlue unveiled their alliance in July 2020 amid the depths of the Covid-19 pandemic. The unprecedented pact for two U.S. domestic carriers allowed them to coordinate schedules and share revenues in Boston and New York where they both committed to grow. JetBlue essentially became a shorter-haul feeder for American in those markets, while the latter expanded its international longhaul footprint in both cities. The alliance was approved with few conditions in the waning days of the Trump administration in January 2021.

The DOJ, under the Biden administration, nearly immediately took a new look at the pact and sued to block it that September.

A Weakened Maverick?

“By aligning its interests with [American], JetBlue has sacrificed a degree of its independence and weakened its status as an important ‘maverick’ competitor in the industry,” Sorokin wrote in his decision.

For example, Sorokin cited separate decisions by both the U.S. Department of Transportation and UK’s Competition Markets Authority in deeming JetBlue ineligible for certain airport slots as a result of its American partnership. The DOT awarded 16 “runway timings” at Newark to Spirit Airlines after deeming JetBlue ineligible. And the CMA came to the same conclusion regarding London Heathrow slots divested by American and British Airways as a remedy for the transatlantic joint venture.

JetBlue leased slots from Qatar Airways to launch its flights to Heathrow that began in August 2021.

Wall Street analysts and many industry watchers had expected a ruling in favor of American and JetBlue. In January, J.P. Morgan analyst Jamie Baker wrote that he was “not impressed” by the government’s arguments in court. For example, the government’s arguments over concentration in New York focused on just two of the city’s airports — JFK and LaGuardia — whereas most regular New York City flyers would say the city has three main airports — including Newark — and price check flights across all three.

Sorokin, rather, took a much broader look at competition in his ruling. Emphasizing the fact that, under the alliance, the Boston and New York markets effectively lost a competitor.

TD Cowen and Raymond James analysts, in reports out Friday, similarly expressed surprise over the ruling. TD Cowen analyst Helane Becker said she believes the ruling could be appealed by American and JetBlue.

An American spokesperson said the carrier is “considering next steps.” A JetBlue spokesperson said it was “evaluating” next steps.

Implications for JetBlue-Spirit

The broader implications, however, are significant. JetBlue stands to lose the most without the alliance given the nearly 100 additional New York JFK and LaGuardia slots it leased from American, and the access to its larger competitor’s deep rolodex of corporate customers. American, for its part, would have to decide if it makes sense to resume all of the shorter, regional routes that it previously flew from New York with the slots it leased to JetBlue.

But the bigger question is what the ruling means for JetBlue’s pending merger with Spirit Airlines. The DOJ has already sued to block the combination with antitrust regulators arguing, again, that it would reduce competition and hurt consumers. JetBlue and Spirit, unsurprisingly, argue that it would benefit consumers by creating a stronger, larger airline.

“For JetBlue, the loss of earnings potential is partly offset by the likely improved odds of winning the lawsuit against the merger with Spirit, in our opinion, albeit we believe the DOJ will be further emboldened by this win,” Raymond James analyst Savanthi Syth wrote Friday.

Many believed that JetBlue’s best bargaining chip in the DOJ’s suit against its Spirit merger was the American alliance. JetBlue could, if the court upheld the pact, offer to give it up as part of a negotiated settlement with the regulator. That option is off the table now, though JetBlue’s argument that it needs Spirit to compete is truer today without American than it was before with the alliance. JetBlue risks returning to being the third largest airline by seats in northeastern U.S. — its most important region — rather than the largest when combined with American, according to Cirium Diio data.

The DOJ, for its part, has indicated that it views the JetBlue-Spirit deal as anti-competitive even without the American alliance. And officials have indicated that their concern is over competition or lack thereof on a route-by-route basis; something that cannot be remedied with slot or gate divestitures.

“We have an administration that we believe can be reasonably characterized as anti-M&A,” J.P. Morgan’s Baker wrote Monday. “In our minds, JetBlue needs some sort of an asset to

be willing to trade away in order to curry regulatory favor. We felt the NEA was such an asset. Therefore, in the absence of the NEA, it is difficult for us to identify potential remedies that JetBlue can offer up.”

The JetBlue-Spirit merger case is scheduled to go to trial in October. JetBlue CEO Robin Hayes has said repeatedly that he intends to fight the DOJ in court.

For American, the unwinding of the northeast alliance is not good for the carrier’s competitive position in Boston or New York; it repeatedly cited losses in the latter prior to forming the alliance with JetBlue. However, it could be good for its operations outside of the two northeast markets. Sorokin noted in his ruling that the airline moved longhaul aircraft from Philadelphia to New York to support the partnership even when those new routes underperformed. No longer needing to fly additional longhaul services from New York could allow American to rebuild its Philadelphia hub where capacity remains down nearly a quarter from before the pandemic, Diio data show.

4: Ryanair Almost Sets a New Profit Record

Ryanair achieved close to record full-year profit in the year to March 31 and is cautiously optimistic that robust summer demand will ensure modest profit growth in the next 12 months despite fuel costs being less “fortuitously” hedged.

Europe’s largest airline by passenger numbers expects 10 percent traffic growth this year to more than offset a \$1.1 billion rise in its oil bill, it said on Monday as it posted slightly better than expected annual post-tax earnings of \$1.57 billion.

Ryanair said it stands to gain more from peak summer fares “trending ahead of last year”, with summer European short-haul capacity set to be 5-10 percent below pre-pandemic levels.

“There is no doubt in my mind that people who have been locked up for the two years of Covid are going back traveling. They see travel not as a luxury but as an essential and families are returning to the beaches of Europe this summer,” Chief Executive Michael O’Leary said in a presentation to investors.

Other major European airlines, most recently low-cost rival EasyJet, have all pointed to robust summer bookings, showing consumers prioritizing travel despite incomes being squeezed by higher inflation.

Ryanair shares, up 27 percent so far this year, were 1.4 percent higher in early trade.

O’Leary cautioned that he was not entirely sure if that would continue and that winter and early 2024 may be more challenging.

However, he added that a large backlog of aircraft deliveries is likely to constrain European capacity growth for at least four more years and create “enormous growth opportunities” for Ryanair as it adds 110 new Boeing jets over the next three summers.

Boeing delivery delays could push some of its expected growth into the lower yielding second half of this year and require capacity to be trimmed judiciously, he said, with the carrier expecting to be short of up to 10 new jets in June and July.

Finance chief Neil Sorahan told Reuters that the Irish airline remained comfortable it would increase passenger numbers to 185 million from a record 168.6 million in the past financial year.

The delivery delays could potentially reduce first-half passenger numbers by 750,000, he said.

O’Leary expects all the aircraft needed for summer 2024 to arrive by the end of next May and that deliveries will be “smoother” next summer.

A multibillion-dollar deal struck with Boeing this month for as many as 300 jets will allow traffic to grow to 300 million passengers a year by March 2034, Ryanair has predicted.

Ryanair's \$1.57 billion full-year post-tax profit was slightly better than analyst expectations and its own forecast of \$1.568 billion.

The company made a loss of \$390 million in last year's pandemic-hit financial year but its turnaround came close to topping the record \$1.59 billion profit achieved in the year to March 31, 2018.

(\$1 = 0.9084 euros)

(Reporting by Padraic Halpin; Editing by Shailesh Kuber and David Goodman)

C – School of Sciences

1: Glimmers of AGI Are Just an Illusion, Scientists Say

If you believe we're about to reach a point where AI chatbots are just as capable of learning how to complete intellectual tasks as humans, you might want to think again.

In a new yet-to-be-peer-reviewed paper, a team of Stanford scientists, argue the glimmers of artificial general intelligence (AGI) we're seeing are all just an illusion.

Across the board, AI companies have been making big claims about their respective large language model-powered AIs and their "emergent" behavior, or showing early signs of AGI.

Earlier this year, a team of Microsoft researchers claimed that an early version of GPT-4 showed "sparks" of AGI. Then, a Google exec claimed that the company's Bard chatbot had magically learned to translate Bengali without receiving the necessary training.

But are we really approaching a point where machines are able to compete with us on an intellectual level? In their new paper, the Stanford researchers argue that any seemingly emergent abilities of LLMs may just be "mirages" borne out of inherently flawed metrics.

As they posit in their new paper, the folks claiming to be seeing emergent behaviors are consistently comparing large models, which generally have more capabilities simply due to their sheer size, to smaller models — which are inherently less capable.

They're also using wildly specific metrics to measure emergence, the researchers argue.

But when more data and less specific metrics are brought into the picture, these seemingly unpredictable properties become quite predictable — and thus, effectively negate their outlandish claims.

The researchers argue that "existing claims of emergent abilities are creations of the researcher's analyses, not fundamental changes in model behavior on specific tasks with scale."

In other words, when you use unpredictable metrics, you get unpredictable results.

To illustrate how questionable some of the metrics that have been used to declare the emergence of AGI are, the Stanford researchers used a helpful baseball analogy.

"Imagine evaluating baseball players based on their ability to hit a baseball a certain distance," the paper reads. "If we use a metric like 'average distance' for each player, the distribution of players' scores will likely appear smooth and continuous. However, if we opt for a discontinuous metric like 'whether a player's average distance exceeds 325 feet,' then many players will score 0, while only the best players will score one."

"Both metrics are valid," they add, "but it's important not to be surprised when the latter metric yields a discontinuous outcome."

It's probably fair to say that this phenomenon can be attributed, at least in part, to some AI scientists seeing what they *want* to see in their machines. After all, the idea that your tech might have developed an emergent property is an alluring one.

To that end, though, these emergent properties, whether they exist or not, are more than just exciting, as they also come with some worrying ramifications. Once a machine shows even one emergent property, does that mean we've officially lost control?

And all of this, the excitement and fear both, undoubtedly plays into money-driving hype around the technology — meaning that claiming sparks of AGI by way of claiming emergence isn't exactly bad for marketing purposes.

The term AGI has been thrown around a lot in recent months, including by those who have a lot to gain financially as a result of doing just that.

OpenAI CEO Sam Altman, for instance, has talked about the topic at length, but has been criticized by others in the industry for transforming the loaded term into a "sci-fi marketing ploy."

In short, claiming we're seeing "glimmers of AGI" is potentially playing into OpenAI's AGI narratives, bolstering their efforts to maximize profits.

If there's one thing to take away, it's that we should take claims of AGI with a big grain of salt. Check for any discontinuous metrics if you feel so inclined, and while you're at it, you might want to take a quick peek at who, exactly, the people making these claims work for.

2: The Refreshing Spray of The Ocean is Loaded with Sewage Bacteria, Scientists Find

There's nothing quite like ocean spray gently caressing your face as you take a beachside stroll. But unfortunately, your face may be getting battered with sewage bacteria in the process.

According to a new paper published in the journal *Environmental Sciences & Technology*, ocean spray samples from San Diego's Imperial Beach contained bacteria from sewage spillover — and those bacteria end up in the air people near the beach breathe, too.

There are real health risks associated with bacteria that come from sewage runoff as they are more likely to include pathogens such as E. Coli, salmonella, and the infamous, gastrointestinal issues-inducing norovirus.

It's still unclear, however, if bacteria found by the researchers are actually making people sick in the area.

"Are they potentially infectious? Some are pathogens and some are not," Prather told *The Guardian*. "That's something we're working on now."

To put it plainly, this stuff is pretty gross — and it may be getting into the lungs of folks who live near coastal waters, especially those who swim in them.

"Once pollutants become airborne that just means so many more people can be exposed to those pollutants," explained Kim Prather, the principal investigator on the study out of UC San Diego's Scripps Institution of Oceanography, in an interview with the city's *Union-Tribune* newspaper. "It extends well beyond just people going to the beach or getting in the water."

Tijuana Syndrome

In their research, the team was able to link the bacteria to the Tijuana River just over the border in Mexico using air and water samples in and around the river and beach respectively.

They made a shocking discovery: the river sewage runoff could account for up to a whopping 76 percent of the bacteria at Imperial Beach.

While there's already an established body of work about airborne oceanic bacteria in general, this study is the first of its kind to establish a link to a known sewage source, UC San Diego professor and paper co-author Robert Knight told the *Union-Tribune*.

"It was a complete shock to find how much of microbes in the air were traceable back to sewage," Knight told the newspaper. "We had no idea that effect would be so strong."

With this seemingly strong link established in their research, the UCSD team plans to take DNA samples of lifeguards and surfers to see if they can gauge if there's a measurable impact to respiratory health as well.

"Now that we know this is a real phenomenon," Knight added, "we need to find out what are the impacts to human health."

3: Scientists Discover That Toilet Paper Contains Toxic "Forever" Chemicals

Published in the American Chemical Society's journal *Environmental Science & Technology* this week is a new study suggesting that the toilet paper we use is full of per- and polyfluoroalkyl substances (PFAS), toxic "forever" chemicals that don't break down in landfills and therefore, well, last forever.

In recent years, PFAS — which, along with TP, are also found in the coating of nonstick cookware, waterproof clothing, and in some cosmetic and cleaning products — have made headlines as scientists discover more about how harmful they can be for both humans and the environment.

As the Centers for Disease Control and Prevention note in an advisory, recent studies have linked high levels of PFAS consumption with increased cholesterol and blood pressure levels, increased risk of kidney or testicular cancer, decreased vaccine response in children, and more.

In fact, the Environmental Protection Agency is, per the *Associated Press*, considering issuing restrictions on them.

Toilet Paper USA

Bringing it back around to the TP of it all, this new study is adding more fuel to the anti-PFAS fire after researchers at the University of Florida found that a specific type of these forever chemicals, known as disubstituted polyfluoroalkyl phosphates (diPAPs), are uber-common in both wastewater and in toilet paper, strongly suggesting a link between the two.

In the US and Canada, the ACS journal paper notes, toilet paper appears to result in four percent of the diPAP contamination in wastewater sludge — and that number is even higher in Europe, where it contributes to 35 percent of the "forever" chemicals in Swedish wastewater and up to a whopping 89 percent in France.

While these findings are indeed troubling, the CDC and other regulatory bodies have warned that more research needs to be conducted to figure out both how serious PFAS contamination really is and how best to handle it.

Even the EPA's potential regulation will focus more on removing the chemicals from water than on banning their use completely — and that process alone, critics told the *AP*, could cost billions of dollars.

In the meantime, it's clear enough that these chemicals are bad news, and it's up to the industry to self-regulate while the government catches up — though as we've learned from Big Oil, that process can take even more time.

4: Scientists Discover Enzyme That Can Turn Air into Electricity

In an exciting turn for the field of sustainable energy research, Australian scientists have found a way to make energy out of thin air. Literally.

As detailed in a new study published this week in the journal *Nature*, researchers from Monash University in Melbourne, Australia discovered a new bacterial enzyme that transforms the traces of hydrogen in our atmosphere into electricity, technology that could one day be used in fuel cells that power anything from a smartwatch to even a car.

"We've known for some time that bacteria can use the trace hydrogen in the air as a source of energy to help them grow and survive, including in Antarctic soils, volcanic craters, and the deep ocean," said Professor Chris Greening, a contributor to the study, in a statement.

"But we didn't know how they did this," he added, "until now."

It's Electric

The enzyme, dubbed Huc, was extracted from *Mycobacterium smegmati*, a fairly common — and wildly resilient — soil bacterium. According to the study, it was discovered through a series of advanced molecular-mapping techniques.

"Huc is extraordinarily efficient," said Rhys Grinter, study lead and research fellow at Monash University, in the statement. "Unlike all other known enzymes and chemical catalysts, it even consumes hydrogen below atmospheric levels — as little as 0.00005 percent of the air we breathe."

The researchers used advanced microscopy techniques to first map the bacteria's internal atomic and electric structures, producing "the most resolved enzyme structure reported by this method to date," according to the statement.

Enzyme Fuel Cell

While it's unlikely to turn the sustainable energy industry on its head any time soon, the scientists say Huc is "astonishingly stable" and could one day be used as a tiny, sustainable, bacteria-powered battery for small devices.

"When you provide Huc with more concentrated hydrogen, it produces more electrical current," Grinter told *LiveScience*. "Which means you could use it in fuel cells to power more complex devices, like smart watches, or smartphones, more portable complex computers, and possibly even a car."

5: Biden Turns Blind Eye to Climate Change, Approves Massive Oil Drilling Project

In spite of climate goals and widespread outcry from environmentalists, president Joe Biden's administration has gone ahead and approved the controversial, \$8 billion ConocoPhillips Willow oil drilling project in Alaska.

Set to be one of the largest projects of its kind, ConocoPhillips, the largest producer of crude oil in the state, will see an initial three drill sites constructed on the federally owned National Petroleum Reserve, a massive 23 million acre stretch of land in Alaska's North Slope.

The *New York Times* reports that the decision was made after the Biden administration concluded it did not have the legal authority to block the project since ConocoPhillips possessed a longstanding lease on land on the reserve.

Altogether, it's estimated that the project will yield close to 600 million barrels of oil over three decades, and add up to another 180,000 barrels produced per day to the US's already monstrous daily tally of around 19 million.

By the US Bureau of Land Management's own estimates cited by the BBC, this project alone will produce 278 million metric tons (MMT) of CO₂, the equivalent of adding two million gas-guzzling cars to the road each year, for thirty years.

Understandably, climate activists and environmentalists are outraged at the approval of Willow, with #StopWillow trending on social media, not least of all because the Biden administration insultingly promised only a day before that it would place feeble limits on drilling in Alaska and the Arctic ocean.

For the former location, that meant merely reducing the original five drill sites in the Willow project to three.

But in the big picture, critics argue that the oil project flies in the face of the administration's climate pledges and extant international obligations the US had agreed to.

One of the most notable pledges would be the administration's goal of reducing greenhouse gas emissions by 50 percent from 2005 levels by 2030 — an already incredibly difficult achievement to aspire to without adding a massive oil project to the equation.

According to an analysis by the Center for American Progress (CAP), the Willow project will also undo most, if not all, the gains made by Biden's pledge to deploy more renewable energy sources, such as solar and wind. Using those, CAP estimates, would save some 129 MMT of CO₂ being emitted.

Clearly, that's now outweighed by the government's estimated 278 MMT of emissions resulting from the Willow Project.

"Put another way," CAP wrote, "allowing the Willow project to proceed would result in double the carbon pollution that all renewable progress on public lands and waters would save by 2030."

Its impact locally can't be overlooked, either. Some of the indigenous Iñupiat population and the mayor of the nearby village of Nuiqsut, which is closest to the proposed drill site, remain in opposition, though other indigenous communities support it.

One Iñupiat activist Sonny Ahk, who authored a Change.org petition against the project with over three million signatures, told the *BBC* that the Willow project would "lock in Arctic oil and gas extraction for another 30 years and catalyze future oil expansion in the Arctic."

There remains some hope for the climate-conscious, however. According to the *Associated Press*, we can expect litigation from environmental groups, so the Willow Project's go-ahead isn't quite a foregone conclusion yet, especially since the project was already halted once before by a federal judge.

6: Bad News: Bees Are Dying at A Shocking Rate

It's not exactly news that bee populations have been suffering, especially those that live in or nearby human-populated areas.

But according to a new long-term study, published in the journal *Current Biology*, even pollinators that live in remote, human-free forests, away from humans and aren't directly exposed to harmful behaviors like chemical pesticide use and habitat destruction, are disappearing in pretty horrifying numbers — yet another troubling sign that our much-needed pollinators are disappearing at alarming rates.

Bees, as *The Bee Conservancy* puts it, "lie at the heart of our survival." Human agricultural processes rely on these precious pollinators, which play a critical role in growing the crops that we and our livestock eat; they play a similarly critical role in natural food systems, too.

In short, if we lose bees, we lose *a lot* of plants, which means that we lose a lot of animals, habitats, and crops in turn. Not good.

The 15-year study, which concluded last year, closely tracked bee and butterfly populations in three different remote, forested areas in northern Georgia's Oconee National Forest.

After analyzing the data, the researchers were able to conclude that roughly 62.5 percent of the original bee population was lost, while butterfly populations shrank by a similarly shocking 57.6 percent.

The number of bee species dropped too, with the area losing 39 percent of its species biodiversity.

"Our results suggest," the study's authors warn, "that sharp declines in pollinators may not be limited to areas experiencing direct anthropogenic disturbances."

Pollination Assassination

Though there's no clear-cut explanation for why these remote populations are shrinking, the researchers did present a few hypotheticals. For instance, the presence of invasive species, notably an invasive wood-nesting ant, may be damaging to the area's carpenter bee population.

Perhaps unsurprisingly, the researchers listed "increasing minimum temperatures" — in other words, climate change — as the other likely culprit for the pollinators' troubling plight. And considering that we don't exactly have that problem under control, it's hard to see a scenario where the bees and butterflies of the region recover in significant numbers, at least not in the short term.

It is worth noting that above-ground nesting bees fared worse than below-ground nesters, though all populations, as noted by the researchers, showed a sharp decline.

Again, it's not surprising news — but for the worst of reasons.

7: Alarmed Scientists Discover “Terrifying” Rocks Made of Plastic Trash on Remote Island

Scientists are reeling from the discovery of "plastic rocks" on a remote volcanic island off of the Brazilian coast — a troubling sign, experts told *Reuters*, of just how deeply plastic pollution has embedded itself into Earth's geological patterns.

The rocks, dubbed "plastiglomerates" — a molten mixture of sediment and debris, held together by melted plastic — have been discovered at a particularly troubling place.

"This is new and terrifying at the same time, because pollution has reached geology," Fernanda Avelar Santos, a geologist from the Federal University of Parana, explained to *Reuters*. "The place where we found these samples is a permanently preserved area in Brazil, near the place green turtles lay their eggs."

The island in question, Trindade Island, is a vital conservation area for endangered green turtles, which use the remote ocean as a nesting ground. With the exception of scientists, the only humans allowed on the island are Brazillian Navy officials, who patrol the area in an effort to protect the turtles.

In other words: in case we needed yet another reminder, plastic is absolutely everywhere, from the depths of the Mariana Trench to inside toddlers — and Trindade Island is no exception.

Scientists traced the plastic in the mysterious rocks back to fishing nets, one of the most notorious — and devastating — ocean pollutants.

According to Santos, net trash is common on the remote island's beaches.

"The [nets] are dragged by the marine currents and accumulate on the beach," the geologist told *Reuters*, adding that "when the temperature rises, this plastic melt and becomes embedded with the beach's natural material."

It's a concerning discovery and one that certainly signals that the Anthropocene — an era in Earth's history defined by human development's impact on Earth's atmosphere, climate, and other geological functions — is well underway.

"We talk so much about the Anthropocene, and this is it," Santos told *Reuters*.

"The pollution, the garbage in the sea and the plastic dumped incorrectly in the oceans is becoming geological material," she added, "preserved in the earth's geological records."

8: Nuclear Plant Admits It Accidentally Leaked 400,000 Gallons of Radioactive Water

Months after alerting environmental officials that its Monticello, Minnesota-based nuclear plant had sprung a radioactive leak, power provider Xcel Energy is finally facing public scrutiny — prompting criticism, since neither Xcel nor local officials actually brought the news to the public's attention.

As *NPR* reports, the leak — 400,000 gallons of water laced with tritium, a radioactive hydrogen molecule — was first identified back in November. And though the public has *technically* had access to the news for a while in the form of an official bulletin from the federal Nuclear Regulatory Commission (NRC), corporate and government officials involved in the matter say that they kept the development quiet so they could investigate the scope of the leak in peace.

"We knew there was a presence of tritium in one monitoring well," Minnesota Pollution Control Agency (MPCA) spokesman Michael Rafferty told the Associated Press, "however Xcel had not yet identified the source of the leak and its location."

"Now that we have all the information about where the leak occurred, how much was released into groundwater, and that contaminated groundwater had moved beyond the original location, we are sharing this information," he added, noting that the contaminated water has been contained to Xcel-owned land and doesn't pose any concerns to human health.

To be fair, as far as accidental radioactive waste goes, tritium is relatively lower-risk. In fact, according to an NRC fact sheet, everyone is "exposed to small amounts of tritium every day, because it occurs naturally in the environment and the foods we eat." Xcel reportedly maintains that the leaked tritium levels fall below NRC toxicity guidelines.

That said, radioactive leaks are never a net positive, and though secrecy may have staved off bad press during the investigation and containment process, it could well be argued that choosing to forgo transparency in cases like this sows more suspicion than it does trust. It can't be fun for locals to know that information was being withheld — whether the substance in question ultimately causes extensive, minimal, or even zero harm.

"While this leak does not pose a risk to the public or the environment, we take this very seriously and are working to safely address the situation," Chris Clark, president of Xcel Energy—Minnesota, North Dakota and South Dakota, said in the company's statement. "We continue to gather and treat all potentially affected water while regularly monitoring nearby groundwater sources."

9: The Ocean's Plastic Pollution Has Spiked To "Unprecedented" Levels

After trawling through some forty years' worth of data, scientists have identified a foreboding "plastic smog" pervading our oceans that comprises more than 171 trillion plastic particles, according to their new study published in the journal *PLOS ONE*. Weighed altogether, that amounts to around 2.3 million tons.

Equally alarming was the "rapid and unprecedented" increase of the particles in the ocean since 2005 — which is only expected to worsen in the coming decades.

"It is much higher than previous estimates," study co-author Lisa Erdle, director of science and innovation at the environmental non-profit 5 Gyres, told CNN.

Plastic Beach

These estimates are based on surface water data between 1979 and 2019 that was gathered from nearly 12,000 stations across the world.

Rather than general plastic waste, the researchers focused specifically on microplastics. These fine particles, while vastly outweighed by the eight to ten million tons of general plastic waste dumped in the oceans each year, are just as dangerous to ocean life since they can be easily ingested, and are almost as inescapable in ocean water now as salt.

But microplastics don't need to be ingested to be harmful. They can just as easily seep toxic chemicals into the surrounding water, too.

Beyond Cleanup

Ominously, based on the woefully inadequate current rates of recycling paired with an increase in plastic production, the study predicts that the rate of plastic pollution entering the ocean will increase by about 2.6 times by 2040, highlighting the lack of meaningful, urgent action being undertaken to combat the problem.

"We clearly need some solutions that have teeth," Erdle told CNN.

And by solutions that have teeth, Erdle doesn't mean fishing errant plastic bottles out of the ocean, which, as the researchers wrote in the study, "has limited merit" — a sentiment shared by other marine scientists.

Instead, the best solution according to the researchers is "creating binding and enforceable international agreements to prevent the emissions of plastic pollution."

In other words, humanity will have to start getting real about limiting the amount of plastic we produce — and, most of the time, end up wasting.

"Cleanup is futile if we continue to produce plastic at the current rate, and we have heard about recycling for too long while the plastic industry simultaneously rejects any

commitments to buy recycled material or design for recyclability," said study author Marcus Eriksen, co-founder of 5 Gyres, as quoted by The Guardian.

10: Eating Disorder Hotline Fires Entire Staff and Replaces Them with a Chatbot

Workers taking crisis hotline calls at the National Eating Disorders Association (NEDA) unionized — and just four days later, according to an *NPR* report, NEDA told its hotline staff that they would be fired and replaced by a chatbot.

Per *NPR*, the hotline is hugely active. NEDA is the largest eating disorder-focused nonprofit in the US, and its helpline fielded nearly 70,000 calls last year alone. But for all of that volume, staffing was astonishingly slim, with only six paid staffers and a few supervisors, who "train and oversee up to 200 volunteers at any given time," according to the report.

Unsurprisingly, NEDA experienced high volunteer turnover and burnout — after all, on top of the staffing disparity, answering helpline calls is difficult emotional labor — and as a result, workers opted to organize.

"We asked for adequate staffing and ongoing training... we didn't even ask for more money," Abbie Harper, a former helpline associate and unionizer, wrote in a May 4 blog post. "When NEDA refused [to recognize our union], we filed for an election with the National Labor Relations Board and won on March 17."

But the company's leadership apparently didn't take well to the union push, announcing in a call just a few days thereafter that the nonprofit would wind down the crisis hotline entirely. Instead, they would introduce a "wellness chatbot" named Tessa — and fire the nonprofit's human call-takers in the process.

"We will, subject to the terms of our legal responsibilities, begin to wind down the helpline as currently operating," NEDA board chair Geoff Craddock told the hotline's former employees in that March call, audio of which *NPR* obtained. "With a transition to Tessa, the AI-assisted technology, expected around June 1."

According to its website, Tessa, which has technically been in operation since 2022, isn't a crisis bot — in fact, when you log onto the service, that's the first thing that it'll tell you. It's designed instead to deliver something called "Body Positive," which is described as "an interactive eating disorder prevention program."

"Through Body Positive," reads the site, "chatters learn about contributing factors to negative body image and gain a toolbox of healthy habits and coping strategies for handling negative thoughts."

Tessa's creators have launched a staunch defense of the automated tool, arguing since it can handle more volume than NEDA's former fleet of volunteers, it'll be more effective.

"The chatbot was created based on decades of research conducted by myself and my colleagues," Ellen Fitzsimmons-Craft, a psychiatrist at Washington University and the leader on the team that built Tessa, told *Vice*. "I'm not discounting in any way the potential helpfulness to talk to somebody about concerns. It's an entirely different service designed to teach people evidence-based strategies to prevent and provide some early intervention for eating disorder symptoms."

It's certainly a grim turn for employment politics — after all, we can definitely imagine a nightmare world in which employers start to dangle automated machines like Tessa over their human employees' heads as leverage.

But Tessa's implementation also brings up a whole other set of issues regarding responsibility. Sure, humans make mistakes, but at least there's accountability there. When a machine learning system makes a mistake, who's accountable?

Though NEDA and Tessa's creators promise that the bot isn't ChatGPT and, as the NEDA spokesperson told *Vice*, can't "go off the rails," any computer can fail.

"We, Helpline Associates United, are heartbroken to lose our jobs and deeply disappointed that the National Eating Disorders Association (NEDA) has chosen to move forward with shutting down the helpline," Helpline Associates United told *Vice* in a statement. "We're not quitting. We're not striking. We will continue to show up every day to support our community until June 1st."

"A chatbot is no substitute for human empathy, and we believe this decision will cause irreparable harm to the eating disorders community," they added.

11: Man Finds Dream Apartments in Brutal Market Using ChatGPT

In this economy, finding a new home is a brutal, demoralizing slog due to limited housing stock and surging demand, particularly in big cities.

A man in Berlin, Germany claims to have radically expedited this process by using ChatGPT after fruitlessly searching for a new apartment to rent for four frustrating months.

28-year-old coder Daniel Dippold had almost given up trying to find a suitable apartment for himself and his girlfriend when he came up with the idea to meld his coding knowledge and ChatGPT to help him accelerate the search process, according to *Insider*.

"When I was really exhausted looking for a flat in Berlin, I figured, 'Hey, can I build something that makes it easier for me potentially with GPT?'" said Dippold, who started venture capital outfit EWOR.

After narrowing down a shortlist of possible units, Dippold finally found two suitable places for him and his girlfriend — demonstrating an excellent use case of the tech.

After asking ChatGPT for various suggestions, the program came up with the idea of putting together a list of property managers in the city. He then asked ChatGPT to generate code for a web scraper that can collect names and contact information of both private and public property managers.

From there, he was able to create a database of more than 100 property management firms.

He emailed each contact in German, a process that had to be done manually because ChatGPT is more suited for English. Dippold had ChatGPT generate code to send an automatic response to each property manager, further accelerating the process. Each automatic response "would include personal documents like their passports and pay stubs," according to *Business Insider*.

At the time of writing, Dippold and his girlfriend are still deciding between two possible apartments, both of which have already accepted their applications.

Though this ChatGPT-powered process was relatively pain-free, Dippold conceded that the program was not perfect. For instance, the chatbot came up with impractical suggestions, could only deal with brief prompts, and generated error-ridden code.

But it's a creative way to make use of the tech nonetheless. And it actually proved effective.

"I would definitely do this again," Dippold told *Insider*.

12: Scientists Horrified as Sea Surface Temperatures Spike Off the Charts

Scientists are alarmed as ocean surface temperatures have continuously set new record-breaking highs over the last month.

According to data analyzed by the University of Maine's Climate Change Institute, daily ocean surface temperatures breached historical record highs since at least 1982 in April.

That means we are in uncharted territory as global warming continues to take its toll with extreme weather events becoming more common by the year — and scientists are clearly shaken by the spiking temperatures.

"This is getting ridiculous," physicist and climate change expert Rober Rohde tweeted. "For the last month [the daily index] has been continuously reading higher than in any previous year and still shows no sign of settling."

But others argued such a rise should be expected at this point.

"While it is comforting to see that the models work, it is terrifying, of course, to see climate change happening in real life," replied Woods Hole Oceanographic Institution biogeochemist Jens Terhaar. "We are in it and it is just the beginning."

It's part of a greater, worrying trend. A study published last month in the journal *Earth System Science Data* found that our planet accumulated almost as much heat in the past 15 years as it had in the previous 45, a worrying sign that we're in for considerable rises in global temperatures.

Worse yet, we're still not entirely sure why this is even occurring.

"It's not yet well established, why such a rapid change, and such a huge change is happening," Karina Von Schuckmann, the lead author of the study, told the *BBC*.

Setting New Records

The previous ocean surface temperature record was set in 2016 during an El Niño, *ScienceAlert* reports, a weather pattern associated with a warm band of ocean water developing in the Pacific.

This year's El Niño, however, will kick off at a much higher starting point, as *Axios* points out, which means we could see similar climate events accelerating going forward.

"2023 is off to an alarming start, even before El Niño conditions fully develop later this year," Kim Cobb, a climate scientist at Brown University, told *Axios*, adding that "new record will likely be surpassed in a matter of years."

13: NYC Appears to Be Sinking Because Its Skyscrapers Are So Heavy

Bad news for New Yorkers: The Big Apple appears to be sinking a little deeper into the Earth each year, under the unfathomable weight of its iconic skyscrapers.

A new study published in the journal *Earth's Future* finds that the geological process of subsidence, in which sediments shift and settle, seems to be occurring rapidly in specific parts of NYC, including the just-at-sea-level area of Lower Manhattan and parts of Brooklyn and Queens as well.

Overall, wrote researchers from the United States Geological Survey and the University of Rhode Island, New York is sinking at one to two millimeters per year— though in those particular problem areas, the situation seems to be worse.

As with everything else, this sinking doesn't happen in a vacuum. The further New York descends, the more vulnerable it becomes to climate change-related catastrophes, too, with 2012's Hurricane Sandy serving as a cautionary tale.

"New York faces significant challenges from flood hazard; the threat of sea level rise is 3 to 4 times higher than the global average along the Atlantic coast of North America," the team behind the paper wrote. "A deeply concentrated population of 8.4 million people faces varying degrees of hazard from inundation in New York City."

NYC isn't alone among coastal cities that are sinking more and more each year. In 2021, one of the same researchers from the US Geological Survey found similar results in San Francisco.

"New York is emblematic of growing coastal cities all over the world that are observed to be subsiding," the new paper notes, "meaning there is a shared global challenge of mitigation against a growing inundation hazard."

As it often goes with these sorts of alarm-raising studies, Parsons and his team don't really give much in the way of solutions for the problem, even as they note that more and more people move to coastal urban regions each year.

"Globally," the paper concludes, "populations who live in subsiding cities will face rising seas at rates up to four times faster than stable regions."

So yeah, New York is sinking a bit more each year, which sucks for the many millions of people who call it home, not to mention the millions more projected to move to it in the coming years.

14: Nuclear Fusion Startup Gets Funding for Twisty-Looking Reactor

The race to commercial nuclear fusion is heating up after German startup Proxima Fusion announced that it's raised the equivalent of around \$8.6 million to build a wild-looking type of reactor called a stellarator, which looks like a distorted and especially twisty French cruller doughnut.

Nuclear fusion, the process which powers up the Sun and other stars, promises to be a source of safe, clean and plentiful energy if harnessed and commercialized, never mind a game-changing tool to fight the impacts of climate change. That's a huge "if," though — untold billions have gone into the tech over the decades, without so far yielding anything approaching a practical or scaled-up power generation system.

If money talks, though, that could be starting to change. And Proxima is indeed talking a big talk: with this modest funding in the bag, it says it's hoping to have the world's first nuclear fusion power plant online "within the 2030s."

Most current designs for nuclear fusion reactors can be divided into two types: the tokamak and stellarator. Both are magnetic confinement fusion devices, in which hydrogen isotopes are heated up to temperatures hotter than the Sun. These excited particles become energized plasma and are spun around inside a circular chamber or vessel. Powerful magnetic coils wrapping around the vessel confine the charged plasma, where atoms fuse and release intense power.

A tokamak is a type of magnetic confinement fusion device shaped like a doughnut, and has been the leading prototype for nuclear fusion reactors. Stellarators have a far more complex design, with a series of magnets spiraling around the plasma.

Proxima is basing its tech on work developed at the Max Planck Institute for Plasma Physics (IPP.) Scientists and engineers at the institute have worked on Wendelstein 7-X (W7-X) — pictured above — the world's largest and most technologically advanced stellarator, which provides the basis for the future stellarator device at Proxima, which was spun out from IPP.

"A tokamak is kind of easy to design, hard to operate, whereas a stellarator is super hard to design but once you've designed it, it's way easier to operate," said Ian Hogarth, the cofounder of Plural Platform, which is helping fund Proxima, told the Financial Times.

15: Chemical Turns Waters of Venice Canal a Fluorescent Green

Everyone from city residents to tourists were puzzled when a stretch of the picturesque waters of the Grand Canal in Venice took on a shade of lurid neon green over the weekend — but *CNN* reports, fortunately, that an investigation by local officials

determined that a non-toxic chemical for infrastructure testing was responsible for the wild color shift.

Venetians happened upon the "anomalous fluorescent green color" early Sunday morning, prompting firefighters, police and environmental officials to come to the Rialto Bridge area of the Grand Canal and collect samples for testing, according to a report from a regional environmental agency. Before getting test results, officials told *CNN* they were concerned that eco-terrorists may have been responsible for the incident, and they're still suspicious the incident could be related to activism.

The initial spot of green water expanded its reach in the ensuing hours, making for surreal scenes in the famed waterway during the day. Rubber-necking tourists snapped photos, while gondoliers plied their trade in the waves that appeared as if someone had poured barrels of absinthe into the water.

Investigators eventually confirmed that the green color was due to fluorescein — yes, as in "fluorescent"— a compound used for eye exams as well water infrastructure studies like identifying leaks.

"The results of the ecotoxicological analyzes did not show the presence of toxicity in the samples analysed," they reassured the public.

The investigators told *CNN* that it's not clear how the chemical ended up in the canal, but it didn't seem to be an accident. Police have not ruled out mischief from environmental activists, and further test results on the samples are expected later.

This isn't the first time Venetian waters have turned green from fluorescein. Artist Nicolás García Urriburu dyed the waters in 1968 to coincide with the 34th Venice Biennale, in a stunt "aimed to bring attention to the relationship between nature and civilization and to promote ecological consciousness as a critical part of culture."

D - School of Governance and Society

1: Leaked Google Memo Shows Fear of Losing the AI Race, But Not to the Foe You'd Think

In a leaked internal memo, a Google exec expressed serious fears about losing the ongoing AI arms race — but the competition that the exec fears most, according to an *NBC* report, might be a little unexpected.

"We've done a lot of looking over our shoulders at OpenAI," reads the memo, which a Google spokesperson confirmed as authentic to *NBC* but cautioned were only the thoughts of one person at the company. "But the uncomfortable truth is, we aren't positioned to win this arms race and neither is OpenAI."

"I'm talking, of course, about open source. Plainly put, they are lapping us," it continued. "While our models still hold a slight edge in terms of quality, the gap is closing astonishingly quickly."

In other words, according to this exec, though Google and its Silicon Valley competitors like Microsoft-slash-OpenAI and Meta still have a narrow upper hand, open-source models are quickly catching up.

And that, per the memo, is reason for concern.

The Google exec makes a pretty good case. Aided in large part by a major leak of Meta's advanced language model, LLaMa, small and scrappy open-source models like AutoGPT have made major strides in recent months.

And to that end, it's one thing to have visible, tangible competition like Meta and Microsoft-slash-OpenAI. Fighting an arms race against what's effectively the open web, where users can learn and borrow from each other and tailor development to their personal needs, is another beast entirely.

"I don't think I need something as powerful as GPT-4 for a lot of things that I want to do," Simon Willison, a programmer and tech analyst and blogger, told *NBC*.

"The open question I have right now is, how small can the model be while still being useful?" he added. "That's something which the open-source community is figuring out really, really quickly."

"Largely, I think people are trying to do good with these things, make people more productive or are making experiences better," added Mark Riedl, a computer scientist and professor at Georgia Tech. "You don't want a monopoly, or even a small set of companies kind of controlling everything. And I think you'll see a greater level of creativity by putting these tools into the hands of more people."

But while there might be some merits to a decentralized approach to AI, there are also some dangers. In addition to a number of more philosophical ethical questions, AI poses a lot of very real threats, and in the hands of theoretically unlimited bad actors, systems built by way of open-source channels may well do a lot of harm.

"It really now becomes the question of what are people going to use these things for," Riedl told *NBC*. "There's really no restrictions on making specialized versions of models that are designed specifically to create toxic material, or misinformation, or to spread hate on the internet."

2: Trump Shares AI Voice-Cloned Fake Video of Anderson Cooper

In the wake of his controversial *CNN* town hall appearance last Wednesday night, Trump took to his social media platform Truth Social on Friday morning to share yet another piece of AI-generated material: a foul-mouthed, voice-cloned video featuring longtime *CNN* anchor Anderson Cooper explaining that Trump, in no uncertain terms, had succeeded in his town hall appearance.

"That was President Donald J. Trump ripping us a new asshole here on *CNN's* live presidential town hall," said the fake Cooper. "Thank you for watching, have a good night."

Of course, the bespectacled Cooper absolutely never said that. But while the video in question isn't exactly convincing — the AI-generated audio in the Trump-posted clip doesn't match Cooper's mouth — it's yet another reminder that AI may well play a big role in the upcoming election cycle, and jury's still out on whether we're ready to deal with that or not.

"We're not prepared for this," AJ Nash, vice president of intelligence at the cybersecurity firm ZeroFox, told the *Associated Press*. "To me, the big leap forward is the audio and video capabilities that have emerged."

"When you can do that on a large scale, and distribute it on social platforms," he added, "well, it's going to have a major impact."

As other experts noted to *PBS*, the risks that generative AI systems like voice clones and other deepfake technologies pose to the 2024 election cycle go beyond what any candidate or campaign might be posting online themselves. There are a number of ways that bad actors, in the US and abroad, might use the tech to potentially influence campaign outcomes, and we should all probably be wary.

"What if Elon Musk personally calls you and tells you to vote for a certain candidate?" Oren Etzioni, the founding CEO of the Allen Institute for AI, told *PBS*. "A lot of people would listen. But it's not him."

"What happens if an international entity — a cybercriminal or a nation-state — impersonates someone. What is the impact? Do we have any recourse?" asked Petko Stoyanov, global chief technology officer at cybersecurity firm Forcepoint. "We're going to see a lot more misinformation from international sources."

In any case, it certainly matters that a former US president, who's currently the leading Republican candidate for 2024, is ever-so-willing to share faked content. We're in for a wild ride.

3: Newspaper Apologizes for Accidentally Running Deranged AI-Generated Article

The influential, 150-year-old newspaper *The Irish Times* just apologized for accidentally publishing an AI-generated hoax article — bylined by an entirely fake AI-generated "journalist," no less — in its Opinion section.

In a statement published Sunday, editor Ruadhán Mac Cormaic apologized for the incident, which he described the incident as a "deliberate and coordinated deception."

"It was a breach of the trust between the *Irish Times* and its readers, and we are genuinely sorry," read the statement. "The incident has highlighted a gap in our pre-publication procedures. We need to make them more robust, and we will."

"It has also underlined one of the challenges raised by generative AI for news organizations," Mac Cormaic added. "We, like others, will learn and adapt."

Welp. So long, reality.

The anonymous person behind the AI-generated article in question, "Irish women's obsession with fake tan is problematic," sounds insufferable. They told the *Guardian* that they were actively attempting to both "give [their] friends a laugh" and "stir the shit" in the ongoing public discourse about identity politics. Exactly what the internet's information infrastructure needs right now, right?

According to the *Guardian*, the plan unfortunately worked, at least to a degree. The piece — which discussed cultural appropriation and the ethics of fake tanning through the purported lens of a fictional Latinx immigrant who grew up in Guayaquil, Ecuador — was reportedly the paper's second-most read article ever published, and sparked discussion online and on the radio.

Worse, the *Irish Times* only realized that it'd published an AI hoax when the author themselves took to Twitter and, from an account attributed to the fake name that they'd published the story under, admitted to the plot.

"Some people have called me an alt-right troll," the unidentified hoaxer, who described themselves as a nonbinary university student — and who also claims to be from Ireland, not Ecuador, although who knows if any of that is true either — told the *Guardian*, "but I don't think that I am."

The unnamed student added that they'd used OpenAI's ChatGPT to generate roughly 80 percent of the article, while they used OpenAI's DALL-E 2 text-to-image to create an image of what they believed to be an accurate representation of a "woke" journalist: "female, overweight, blue hair, business casual clothing, smug expression."

The *Irish Times* certainly has some egg on its face, and we'd probably advise everyone in media to learn from their mistake. AI tools are pretty much everywhere now — and as a result, sorting through what's real and what isn't is likely to get increasingly difficult.

4: Elon Musk Roasts Dudes Pivoting from Crypto to AI

A broken clock is, as they say, right twice a day — and even Tesla CEO Elon Musk, the king of bad takes, occasionally gets it right when it comes to artificial intelligence.

"I used to be in crypto," Musk tweeted, pretend-quoting the kind of bros who, ironically, worship him, "but now I got interested in AI."

While the crypto-to-AI pipeline is nothing new, it has, predictably, become a popular pivot. The cryptocurrency industry faces record lows in value and public interest — while AI has become the hottest new trend in tech in large part thanks to the bombastic debut of OpenAI's ChatGPT chatbot and Microsoft's Bing AI.

When He's Right

The topic of AI clearly has been preoccupying Musk, who had a banner week making public comments about it.

It all began with him tweeting about the "existential angst" he's suffering about the controversial technology, before announcing he was looking to build his own anti-"woke" chatbot to rival that of OpenAI, a company he co-founded and subsequently resigned from.

Just yesterday, the billionaire was quoted at a Tesla investor meeting calling for AI regulation — and now, it looks like he's moved on to making fun of it.

During that same investor meeting, Musk implied he helped lay the groundwork for OpenAI's ChatGPT.

"It's quite dangerous technology," the CEO said during the meeting. "I fear I may have done some things to accelerate it."

We must admit that it's very bizarre to find ourselves agreeing with Musk about anything, much less AI — and for once, it seems like his opinions may align with those of the public.

5: AI Company with Zero Revenue Raises \$150 Million

With the help of a brand new \$150 million dollar cash infusion from Andreessen Horowitz, a 16-month-old AI chatbot startup called Character.ai just reached a \$1 billion market cap — despite having yet to generate any revenue.

Founded by two ex-Googlers, the idea is to host various AI-powered personalities, from celebrities to anime characters to Twitch streams to historical figures and more, all of whom users can interact with via text. Wanna ask AI Taylor Swift what her favorite song is? Albert Einstein what his greatest accomplishment was? Go for it, kid.

But giving users the means to "chat" with algorithmic celebs doesn't really appear to be Character.ai's billion-dollar get. Rather, the app is marketed as an alternative to Replika — yes, that Replika — by providing users with a space to build and chat with customizable, AI-powered companions.

"Character.ai's power is our highly-sophisticated language model, which rapidly analyzes and contextualizes large volumes of information to produce useful intelligence tailored to each individual," company CEO Noam Shazeer said in a press release, "making it a personalized superintelligence companion that enhances productivity, offers advice, educates, and entertains."

"The potential use cases," he added, "are infinite."

Lessons Learned

"Superintelligence" feels like a marketing stretch, but we digress. You heard 'em, folks — personalized, pocket-sized AI Tamagatchis for all!

Replika became fairly successful, so it's not the most out-there thing in the world to see the extremely AI-optimistic folks at the Andreessen Horowitz firm put some cash into Character.ai.

Still, Replika has dealt with some pretty serious issues, on the tech side as well as on the side of its users. After discovering that in a number of cases, users were verbally and sexually harassing the AI programs *and vice versa*, the sexual component of the app — an expected function of AI like this, whether explicitly offered by the company or not — was shut down.

So, you know, learning lessons.

As far as the profit piece goes, the makers of the app — which is currently free — did tell *Reuters* that they plan to soon launch a subscription model as a secondary option to the free version. They're also reportedly considering an ad model.

But if the last few months in Silicon Valley have demonstrated anything, it's that you can just whisper the word AI into the wind and rake in millions. Who needs to sell to consumers, when at least for the time being, you can just sell to VCs?

6: Donald Trump Shares Slightly Misfigured AI-Generated Image of Himself Praying

As America's upcoming election cycle continues to take shape, one thing's for sure: fans of former president and current presidential candidate Donald Trump love themselves some image generators, and they're not afraid to use 'em. Trump, in fact, isn't afraid to hit the share button on AI-generated fan art of *himself*, either.

Amid the Trump-stirred frenzy surrounding the former president's allegedly-imminent arrest, number 45 himself decided yesterday morning to take to his social media platform, Truth Social, to post a fairly lifelike — but almost certainly AI-generated — image of himself taking a knee beneath a ray of heavenly light to pray, presumably for himself to not be arrested.

The fake image, as *Forbes* reports, has been circulating on pro-Trump social media since at least the weekend, when similarly AI-generated images depicting Trump being arrested also began circulating in the same digital circles. Naturally.

While the rendering in question is pretty lifelike, there are a few dead giveaways that it's very likely AI-made.

Zoom in on the hands, and you'll notice that some of the fingers are curiously mashed together, with the former prez's right pinky looking especially, uh, nonexistent. Trump's right knee is also directly behind his back knee, and not off to the side. (Don't know about you, but we've never met a 76-year-old with that level of hip mobility.)

And lastly, there are some other "people" in the background of the image, but all of them look decidedly disinterested in the former POTUS. They're all either looking at their phones or looking away, and we can't imagine that if any president, in the middle of any room, took a knee to pray in a ray of golden, glowing Jesus light, everyone would probably pay at least a bit of attention. Or at least snap a selfie with such a choice backdrop.

Onward, We Guess

Giveaways aside, though, the "photo" is still impressive, and a lot of people, particularly older and less technologically savvy folks, might not be able to tell the difference.

Of course, fan art has always existed, and fans can technically make and share whatever they want. But this specific — and quite new, at least in terms of ease and accessibility — type of hyperrealistic *and* easily-generated AI imagery sits dangerously on the line between fan art and misinformation, especially considering that the former president in question shared the hype-y photo *while* actively contributing to a swell of fury and excitement over something that *hasn't even happened*. And, of course, without marking the image as bot-generated.

7: ChatGPT's Dirty Secret, It's Powered By "Grunts" Making \$15 Per Hour

OpenAI's finances are all over the place, but one thing is clear — not much of the money it spends or earns is going to the low-wage contract workers hired to train its AI.

Two OpenAI contractors revealed to *NBC News* that the kind of work that goes into training large language models (LLMs) like those behind ChatGPT is very much "grunt work" — though in the case of these two individuals, they're pretty happy to be doing it.

As 34-year-old Kansas City denizen and OpenAI contractor Alexej Savreux explained, the job requires a lot of boring-sounding labor: labeling photos, writing predictions for the AI, and other things that help the LLM "learn" how to generate responses better.

"We are grunt workers," said Savreux, "but there would be no AI language systems without it."

"You can design all the neural networks you want, you can get all the researchers involved you want, but without labelers, you have no ChatGPT," he added. "You have nothing."

Wages of War

This kind of low-wage, uninsured contract work is a staple of the machine learning industry, according to Sonam Jindal of the San Francisco-based nonprofit research firm Partnership on AI.

"A lot of the discourse around AI is very congratulatory," Jindal told *NBC*. "But we're missing a big part of the story: that this is still hugely reliant on a large human workforce."

While the work and its pay rate don't exactly seem sexy, Savreux credits his work-from-home AI training gig that brought him \$15 per hour, which is above Missouri's \$12 minimum wage, with helping to pull him out of homelessness.

"People sometimes minimize these necessary, laborious jobs," he said. "It's the necessary, entry-level area of machine learning."

Jatin Kumar, a 22-year-old recent college graduate in Texas, echoed that sentiment when telling *NBC* about his postgrad job as an OpenAI conversational trainer, which he says is helping him work towards building his own startup.

"Initially, it started off as a way for me to help out at OpenAI and learn about existing technologies," Kumar said. "But now, I can't see myself stepping away from this role."

8: China Arrests Man for Using ChatGPT to Write Fake News

The age of artificial intelligence arrests appears to have kicked off in earnest in China, where a man was detained for using ChatGPT to allegedly generate fake news.

As the *South China Morning Post* reports, a man identified only by his surname has been arrested in the country's Gansu province after, per local police, "using artificial intelligence technology to concoct false and untrue information."

The fake news in question apparently claimed, falsely, that nine people had died in a train accident at the end of April. A bunch of different versions of the story were reportedly published to Baijihao, a news blog-esque social network run by the Chinese search engine Baidu.

As the *SCMP* notes, this appears to be the first time that the public has been made aware of any arrests under China's new "deepfake" regulations, which bar the use of "deep synthesis" software without visible labeling.

Legalese

Known as the "The Administrative Provisions on Deep Synthesis for Internet Information Service," the new law, which took effect in January, requires all AI-edited content to be explicitly labeled and have its original, real-life source listed. It also demands that anyone who uses generative software to edit someone's voice or image alert the person in question and get their consent to do so.

The sweeping new regulation also lists about 1,300 government-approved news sites allowed to use generative AI to write or create content, and indicates that all content made with AI must maintain "correct political direction and correct public opinion orientation," per its wording.

The report indicates that the suspect used ChatGPT specifically, which although not available in China is easily accessed through a VPN. He was charged, per local police, with "picking quarrels and provoking trouble," a broad charge that can ultimately result in five to ten years in prison.

With AI's ability to make believable fake content increasing every day, regulation of it is necessary — and although China's approach does sound draconian, maybe there are some glimmers of policy that could benefit the rest of the world here.

E – Office of Research Innovation and Commercialization (ORIC)

1: Events Organized and Facilitated by ORIC

1.1 Training Program on Web 3.0 and Metaverse on Sunday 02 April, 2023, at University of Management and Technology (UMT).

Office of Research Innovation and Commercialization (ORIC), University of Management and Technology (UMT), in collaboration with The Presidential Initiative for Artificial Intelligence and Computing (PIAIC) arranged a training Program on Web 3.0 and Metaverse at UMT on Sunday 02 April, 2023, at University of Management and Technology (UMT).





1.2 Training Program on Web 3.0 and Metaverse on Sunday 09 April, 2023, at University of Management and Technology (UMT).

Office of Research Innovation and Commercialization (ORIC), University of Management and Technology (UMT), in collaboration with The Presidential Initiative for Artificial Intelligence and Computing (PIAIC) arranged a training Program on Web 3.0 and Metaverse at UMT on Sunday 09 April, 2023, at University of Management and Technology (UMT).





1.3 Training Program on Web 3.0 and Metaverse on Sunday 30 April, 2023, at University of Management and Technology (UMT).

Office of Research Innovation and Commercialization (ORIC), University of Management and Technology (UMT), in collaboration with The Presidential Initiative for Artificial Intelligence and Computing (PIAIC) arranged a training Program on Web 3.0 and Metaverse at UMT on Sunday 30 April, 2023, at University of Management and Technology (UMT).



1.4 GREF-UMT JOINT CONFERENCE (STRATEGIC COMMUNICATIONS FOR ECONOMIC DIPLOMACY & NATIONAL ECONOMIC SECURITY)

Office of Research Innovation and Commercialization (ORIC), in collaboration with Golden Ring Economic Forum (GREF) and the Department of Political Science and International Relations, School of Social Sciences and Humanities, UMT, is organizing a joint conference on “Strategic Communications for Economic Diplomacy & National Economic Security”, at UMT on 02 May, 2023



UMT Golden Ring Economic Forum

Strategic Communications for Economic Diplomacy and National Economic Security

Tuesday, May 02, 2023 | 09:30 AM
Venue: Saleem Asghar Ali Hall (1C-17), UMT

Guest Speakers

Session 1

 <p>Dr. Zainab Ahmed Lahore Garrison University</p>	 <p>Dr. Maria Saifuddin Effendi National Defense University (NDU), Islamabad</p>	 <p>Dr. Syed Moazzam Ali Hashmi Minhaj University, Lahore.</p>
---	--	--

Session 2

 <p>Prof. Dr. Arshi Saleem Hashmi National Defense University (NDU), Islamabad</p>	 <p>Amb. Hassan Reza Syed (Retd.)</p>	 <p>Dr. Neelum Nigar Institute of Strategic Studies Islamabad (ISSI)</p>
 <p>Brig. Dr. Raashid Wali Janjua Islamabad Policy Research Institute (IPRI)</p>		

1.5 Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING”

Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING” Thursday, 04 May 2023, from 05:00 PM to 06:00 PM. (Guest Speaker: Miss Rida Naqvi).



FREE WORKSHOP ON FREELANCING

VENUE: HALL 1C-15 UMT

4th May 2023 (Thursday) at 5pm



Col. JAVED SHER
(CEO OF PTDI)

 ptdiofficial

 03137167528

SPEAKER
RIDA NAQVI
(FREELANCING COACH)

 @Billionairedream

REGISTER NOW



1.6 Training Program on Web 3.0 and Metaverse on Sunday 07 May, 2023, at University of Management and Technology (UMT).

Presidential Initiative for Artificial Intelligence & Computing (PIAIC) Training Program on Web 3.0 and Metaverse on May 07, 2023 at 09:00 AM to 06:00 PM). Trainers: Zia Ullah Khan (CEO Panacloud, COO PIAIC), Daniyal Nagori (Lead Instructor, PIAIC). Number of students attended = 1000+





1.7 Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING”

Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING” Thursday, 11 May 2023, from 05:00 PM to 06:00 PM. (Guest Speaker: Miss Rida Naqvi).



FREE WORKSHOP ON DIGITAL MARKETING

VENUE: HALL 1C-15 UMT

11th May 2023 (Thursday) at 5pm




Col. JAVED SHER
(CEO OF PTDI)

 ptdiofficial

 03137167528

SPEAKER
RIDA NAQVI
(FREELANCING COACH)

 @Billionairedream

REGISTER NOW



1.8 Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING”

Office of Research Innovation and Commercialization (ORIC), in collaboration with the Pakistan Training Development Institute (PTDI), organized a free Workshop on “FREELANCING” Thursday, 18 May 2023, from 05:00 PM to 06:00 PM. (Guest Speaker: Miss Rida Naqvi).



FREE WORKSHOP ON DIGITAL MARKETING

VENUE: HALL 1C-15 UMT

18th May 2023 (Thursday) at 5pm




Col. JAVED SHER
(CEO OF PTDI)

 ptdiofficial

 03137167528

SPEAKER
RIDA NAQVI
(FREELANCING COACH)

 @Billionairedream

REGISTER NOW



1.9 Training Program on Web 3.0 and Metaverse on Sunday 21 May, 2023, at University of Management and Technology (UMT).

Presidential Initiative for Artificial Intelligence & Computing (PIAIC) Training Program on Web 3.0 and Metaverse on May 21, 2023 at 09:00 AM to 06:00 PM). Trainers: Zia Ullah Khan (CEO Panacloud, COO PIAIC), Daniyal Nagori (Lead Instructor, PIAIC). Number of students attended = 1000+





1.10 Panel Discussion on "Industry Academia Partnership in Research: Success Stories and Challenges"

Panel Discussion on "Industry-Academia Partnership in Research: Success Stories and Challenges" on Wednesday, May 24, 2023, at 2:30 PM to 3:30 PM in Saleem Asghar Hall Main Building, UMT.



School of
Science



PCMA
Pakistan Chemical
Manufacturers Association

Industry-Academia Partnership in Research: Success Stories and Challenges

A panel discussion on industry-academia partnerships in research, focusing on the benefits for university graduates. The panelists will share their success stories and challenges in this field, including opportunities for training, access to industry professionals and potential employment prospects.

Panelists



Moazzam Rasheed
(CEO Bin Rasheed Group)



Ahmed Saleem Fazil
(Proprietor: The Patriot Engineering Co. and Faazkimya)



Khalid Pervez
(Secretary General, PCMA)



Mian Kashif
(CEO Mian Chemicals)



Prof Dr Ch Jamil Anwar
(UMT)



Dr Hamid Raza
(Moderator UMT)

 Wednesday, May 24, 2023
02:30 pm - 04:30 pm
Saleem Asghar Hall

Organizer: Department of Chemistry
Collaborators: School of Science (SSC)
and Pakistan Chemical Manufacturers Association (PCMA)
For more details, contact hamid.raza@umt.edu.pk

1.11 Seminar on Amazon Business: Transforming the Business World of E-commerce
ORIC organized a Seminar on Amazon Business: Transforming the Business World of E-commerce on 30 May 2023, Tuesday from 11:00 AM to 01:00 PM at Seminar Hall, Main Building UMT.





1.12 Seminar on Personal Development and Growth

ORIC organized a Seminar in collaboration with the School of Profession Psychology on Personal Development and Growth on 31 May 2023, Wednesday from 10:00 AM to 12:00 PM at Hakim Muhammad Saeed Seminar Hall, UMT.





1.13 Training Program on Web 3.0 and Metaverse on Sunday 09 July, 2023, at University of Management and Technology (UMT) and MoU Renewed.

Presidential Initiative for Artificial Intelligence & Computing (PIAIC) Training Program on Web 3.0 and Metaverse on July 09, 2023 at 09:00 AM to 06:00 PM). Trainers: Zia Ullah Khan (CEO Panacloud, COO PIAIC), Daniyal Nagori (Lead Instructor, PIAIC). Number of students attended = 1000+





Facebook



Twitter



UMT, PIAIC Collaborate to Kick start 3rd Batch of Web 3.0 and Metaverse Program

LAHORE: Office of Research Innovation and Commercialization (ORIC) at the University of Management and Technology (UMT) in collaboration with the Presidential Initiative for Artificial Intelligence and Computing (PIAIC) is successfully arranging Certified Web 3.0 and Metaverse Developer & Solopreneur Program here at UMT since 2022.

This program is a nationwide initiative, spanning across major cities such as Lahore, Faisalabad, Karachi, Islamabad, and Peshawar. UMT, serving as the Head Office for



the Punjab region, is actively leading and coordinating the program.

After the successful execution of two batches, the 3rd batch started on July 09, 2023, in which more than 1000 students enrolled and attended the class.

Prof. Abid Hussain Khan Shirwani, Co-Founder, Director-General, and Head of

ORIC-UMT, along with Mr. Zia Ullah Khan, Chief Operating Officer of PIAIC, warmly greeted the incoming batch of students. These students come from diverse regions across Punjab, reflecting the inclusive nature of the program. An MoU between UMT and PIAIC was also renewed and signed by both parties. **PR**

1.14 Training Program on Web 3.0 and Metaverse on Sunday 16 July, 2023, at University of Management and Technology (UMT).

Presidential Initiative for Artificial Intelligence & Computing (PIAIC) Training Program on Web 3.0 and Metaverse on July 16, 2023 at 09:00 AM to 06:00 PM). Trainers: Zia Ullah Khan (CEO Panacloud, COO PIAIC), Daniyal Nagori (Lead Instructor, PIAIC). Number of students attended = 1000+



1.15 Training Program on Web 3.0 and Metaverse on Sunday 23 July, 2023, at University of Management and Technology (UMT).

Presidential Initiative for Artificial Intelligence & Computing (PIAIC) Training Program on Web 3.0 and Metaverse on July 23, 2023 at 09:00 AM to 06:00 PM). Trainers: Zia Ullah Khan (CEO Panacloud, COO PIAIC), Daniyal Nagori (Lead Instructor, PIAIC). Number of students attended = 1000+





2: Chairman IPO visited on Tuesday 11 July, 2023, at University of Management and Technology (UMT).

The Office of Research Innovation and Commercialization (ORIC) hosted a successful visit of Mr. Farukh Amil - Chairman Intellectual Property Organization of Pakistan (IPO), and his team on Tuesday, 11 July 2023.







3: CEO of Discover Pakistan, visited to UMT on Sunday, 23 July 2023, at 11:00 AM.

Dr Kaiser Rafiq - CEO of Discover Pakistan, visited to UMT on Sunday, 23 July 2023, at 11:00 AM. The purpose of the visit was to meet with Prof Abid HK Shirwani, and make a documentary on the PIAIC Web 3.0 and Metaverse training classes.



4: Winning National Engineering Robotics Contest (NERC) 2023

The remarkable achievement of UMT Students in winning the First (1st) Position in the overall University category and Second (2nd) Position in the overall Robowars competition in the National Engineering Robotics Contest (NERC), 2023, organized by National University of Sciences and Technology (NUST) and the STEM Careers Program HEC, on 11-15 July 2023.

