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What is generative AI?

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**Adopting AI at speed and scale: The 4IR
push to stay competitive**

February 21, 2024 | Article

New from McKinsey & Company

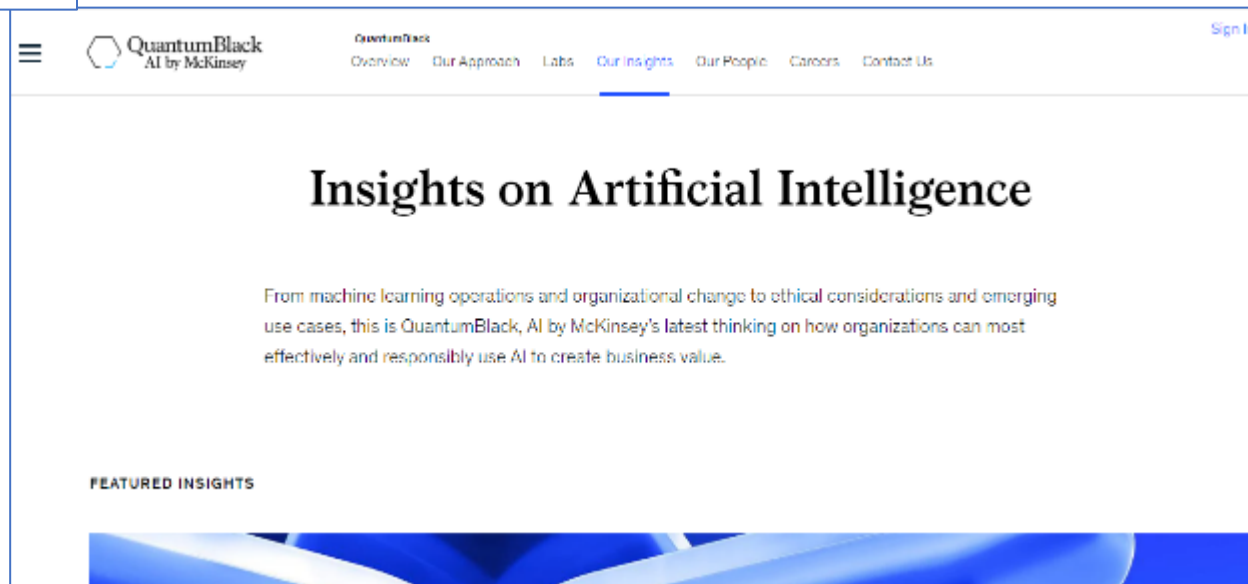
100 articles on generative AI

Since generative AI (gen AI) burst onto the scene in late 2022, it's captivated business leaders and society at large. The excitement is well deserved: McKinsey research indicates that gen AI could add the equivalent of \$2.6 trillion to \$4.4 trillion of value annually—and redefine the way people work and live.

Over this period, McKinsey has published more than 100 articles on the topic to help organizations turn the promise of gen AI into sustainable business value. Check out our top 10 below, including a report on the tech's potential impact on productivity by McKinsey's [Alex Singla](#) and [Alexander Sukharevsky](#), global coleaders of QuantumBlack, AI, and coauthors. Then explore more of our [100 articles on gen AI](#), which include recent insights on ways to put AI to work for social good, how CIOs can get to scale, and more.

[Read more](#)

5/19/2024

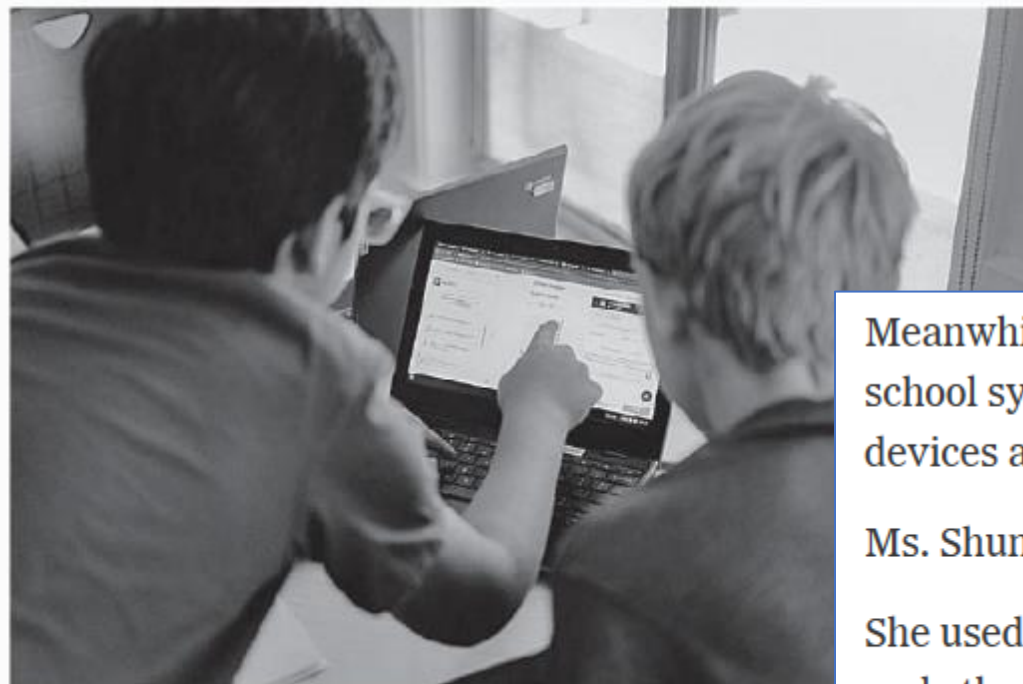




Bookmark

Taking Notes on the A.I. Learning Hype

By NATASHA SINGER To share your experience, fill out a form found at nytimes.com/readers under 'Your Lead.'



⋮ Natasha Singer reports for The Times on the ways that tech giants and their tools are reshaping education.

In January, Marisa Shuman, a computer science teacher at the Young Women's Leadership School, saw it as a teachable moment. [Read more](#)

Meanwhile, New York City Public Schools, the nation's largest school system, had just blocked access to ChatGPT on school devices and networks over concerns of cheating and inaccuracy.




Ms. Shuman, however, saw it as a teachable moment.

She used ChatGPT at home to generate a lesson on fitness trackers and other wearable technology. Then she tried the material with her 11th and 12th graders.


STUDENT OPINION

Would You Want an A.I. Tutor?

Schools are experimenting with new automated teaching aids.
Would you welcome a chatbot in your own classroom?


 Share full article    122






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What is GPT?

Why is GPT important?

What are the use cases of GPT?

How does GPT work?

How was GPT-3 trained?

What are examples of some applications that use GPT?

How can AWS help you run large language models like GPT-3?


What is GPT?

Generative Pre-trained Transformers, commonly known as GPT, are a family of neural network models that uses the transformer architecture and is a key advancement in artificial intelligence (AI) powering generative AI applications such as ChatGPT. GPT models give applications the ability to create human-like text and content (images, music, and more), and answer questions in a conversational manner. Organizations across industries are using GPT models and generative AI for Q&A bots, text summarization, content generation, and search.

Why is GPT important?

The GPT models, and in particular, the transformer architecture that they use, represent a significant AI research breakthrough. The rise of GPT models is an inflection point in the widespread adoption of ML because the technology can be used now to automate and improve a wide set of tasks ranging from language translation and document summarization to writing blog posts, building websites, designing visuals, making animations, writing code, researching complex topics, and even composing poems. The value of these models lies in their speed and the scale at which they can operate. For example, where you might need several hours to research, write, and edit an article on nuclear physics, a GPT model can produce one in seconds. GPT models have sparked the research in AI towards achieving artificial general intelligence, which means machines can help organizations reach new levels of productivity and reinvent their applications and customer experiences.

Re: ChatGPT Σ Inbox x 🖨 🔗

 **alan lapedes**
to me ▾

10:29 AM (7 hours ago) ☆ ↶ ⋮

Learning Python, God help us all, nothing good will come of this new fangled stuff!

FYI
After asking ChatGPT to summarize some Nobel prize winning work in economics, where it got it all wrong and conflated the topic with another topic in finance, as well stating as definitive references things that do not exist ...I concluded that we're all doomed.

A.

-----Original Message-----
From: Brian Demsey <bdemsey@gmail.com>
Sent: May 21, 2023 9:32 AM
To: alan lapedes <asl87501@earthlink.net>
Subject: ChatGPT

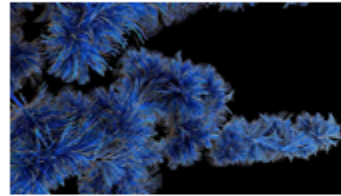
Hi -

Now learning Python and watching podcasts of Lex Fridman. Who knows where it goes from here.

Regards,



Editor's choice



The state of AI in 2023: Generative AI's breakout year

As organizations rapidly deploy generative AI tools, survey respondents expect significant effects on their industries and workforces.

Dive into the findings [→](#)



Really !



Create all possible words with the letters e v o f l tr. Each word must contain the letter v.



ChatGPT

Here are all the possible words that can be formed using the letters "e v o f l t r" with the requirement of containing the letter "v":

- 1.Revolt
- 2.Lover
- 3.Volte
- 4.Vote

Please note that these are all the words that meet the given criteria.

Computation. Data. Decisions.

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Intelligence



Our Experts,
Your Projects



Transforming
Education



Leading Innovation
in Science & Tech

The New York Times



A.I. Is Having a 'Netscape Moment'



Pui-Wing Tam
Reporting on tech

As Silicon Valley has been gripped by a frenzy over artificial intelligence, some techies have been trying **to put this latest tech boom into perspective**. One way to think about it is as A.I.'s "Netscape moment."

Here's what that means →

Melanie Lambrick

The New York Times

There are parallels between today's fervor for A.I.-powered chatbots like ChatGPT and Bard and the excitement over the Netscape browser from the 1990s.

Both allowed people to recognize the possibilities around an existing technology, leading to new innovation.

The Netscape browser was one of the first tools that helped people easily surf the World Wide Web. While the internet had been around since the 1960s, in its early days it was used mostly by academics, and it was difficult for anyone else to gain access to it.

5/21/23

BD

Model: GPT-4

Please list government actuarial tables and where they can be found.



ChatGPT

Actuarial tables are used to evaluate future risks and liabilities in a range of fields, from insurance to social security and pensions. The government typically provides these tables for public use. Please note that access to these tables could change beyond my knowledge cutoff in September 2021.

Here are some examples of actuarial tables that are produced by government agencies in the United States and where you could typically find them:

1.Social Security Administration Actuarial Tables - The U.S. Social Security Administration produces a range of actuarial tables. These include tables on life expectancy, survival probabilities, mortality rates, etc. They can typically be found on the Social Security Administration's website: <https://www.ssa.gov/oact/STATS/table4c6.html>

2.IRS Actuarial Tables - The Internal Revenue Service in the U.S. provides actuarial tables used for tax purposes, including calculating the value of annuities, life estates, and remainders. They can be found on the IRS's website: <https://www.irs.gov/retirement-plans/actuarial-tables>

3.Centers for Medicare & Medicaid Services (CMS) Actuarial Tables - CMS provides a range of actuarial tables and data used for evaluating and forecasting healthcare costs and utilization. These can usually be found on the CMS website: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies>

4.U.S. Census Bureau's Life Tables - The U.S. Census Bureau produces life tables that can be used for actuarial calculations. They are usually available on the Census Bureau's website: <https://www.census.gov/programs-surveys/demo/data/life-tables.html>

5.National Center for Health Statistics - This center provides detailed mortality and life expectancy data, which can be used for actuarial calculations. You can typically find this data on their website: https://www.cdc.gov/nchs/products/life_tables.htm

6.The Pension Benefit Guaranty Corporation (PBGC) - They provide mortality tables for use in determining minimum funding requirements for defined benefit plans. These can usually be found on the PBGC's website: <https://www.pbgc.gov/prac/other-guidance/mortality-tables>

Please remember to always verify the accuracy and reliability of the data you're using and keep track of any updates or changes that may occur over time.

What are some commutation functions or tables published by the society of actuaries?

BD

ChatGPT

The Society of Actuaries (SOA) is a professional organization for actuaries based in North America. While the SOA provides a wealth of resources for actuaries, including research, studies, reports, and databases, as of my knowledge cutoff in September 2021, they typically don't publish commutation functions or tables directly.



Commutation functions are mathematical formulas used in the field of actuarial science to simplify the calculation of expected present values of certain cash flows, such as life insurance benefits or annuities. These functions are usually derived from basic mortality and interest rate data. Mortality tables are available from various sources, including some government agencies and the SOA itself.

Here are some resources from the SOA that might be relevant:

1.Mortality and Other Rate Tables (MORT): This is a database provided by the SOA that includes various mortality tables that actuaries can use to compute commutation functions.

2.Actuarial Study Notes: The SOA provides study notes for its various exams, including detailed discussions of how to compute commutation functions. This could be particularly relevant for students studying for the life contingencies exam (Long Term Actuarial Mathematics Exam, formerly MLC).

3.Research Studies and Reports: The SOA frequently publishes research studies on a wide range of topics, some of which might include discussions of commutation functions or provide data that could be used to compute them.

You can find these resources on the SOA's website: <https://www.soa.org/>

Remember, however, that actual calculation of commutation functions requires a solid understanding of actuarial mathematics and the assumptions underlying these calculations. If you're not an actuary or don't have a background in actuarial science, you may want to seek the assistance of a professional when working with these concepts.



Give some examples of actuarial formulas using actuarial notation.



ChatGPT

In actuarial mathematics, various symbols are used to represent specific concepts. These symbols can be used to write concise formulas to represent actuarial present values. Here are some examples:

1.Life Annuity: This is a series of payments made to a person as long as they're alive. If payments are made continuously, the present value is represented as:

2. ${}_A_x = \int_{(0 \text{ to } \infty)} e^{(-\delta t)} {}_t p_x \, dt$

3.where ${}_A_x$ is the present value of a life annuity to a life aged x , δ is the force of interest, ${}_t p_x$ is the probability that a life aged x will survive for at least t more years, and dt is an infinitesimal time period.

4.If payments are made yearly, the present value is represented as: ${}_A_x = \sum_{(t=1 \text{ to } \infty)} v^t {}_t p_x$ where $v = e^{(-\delta)}$ is the discount factor for a period of one year.

5.Life Insurance: This is a sum of money paid upon the death of the insured person. If the insurance pays out continuously upon death, the present value is represented as: ${}_A_x = \int_{(0 \text{ to } \infty)} e^{(-\delta t)} {}_t q_x \, dt$ where ${}_A_x$ is the present value of a life insurance policy on a life aged x , and ${}_t q_x$ is the probability that a life aged x will die within t years.

6.If the insurance pays out a lump sum at the end of the year of death, the present value is represented as: $A_x = \sum_{(t=1 \text{ to } \infty)} v^t {}_t q_x$

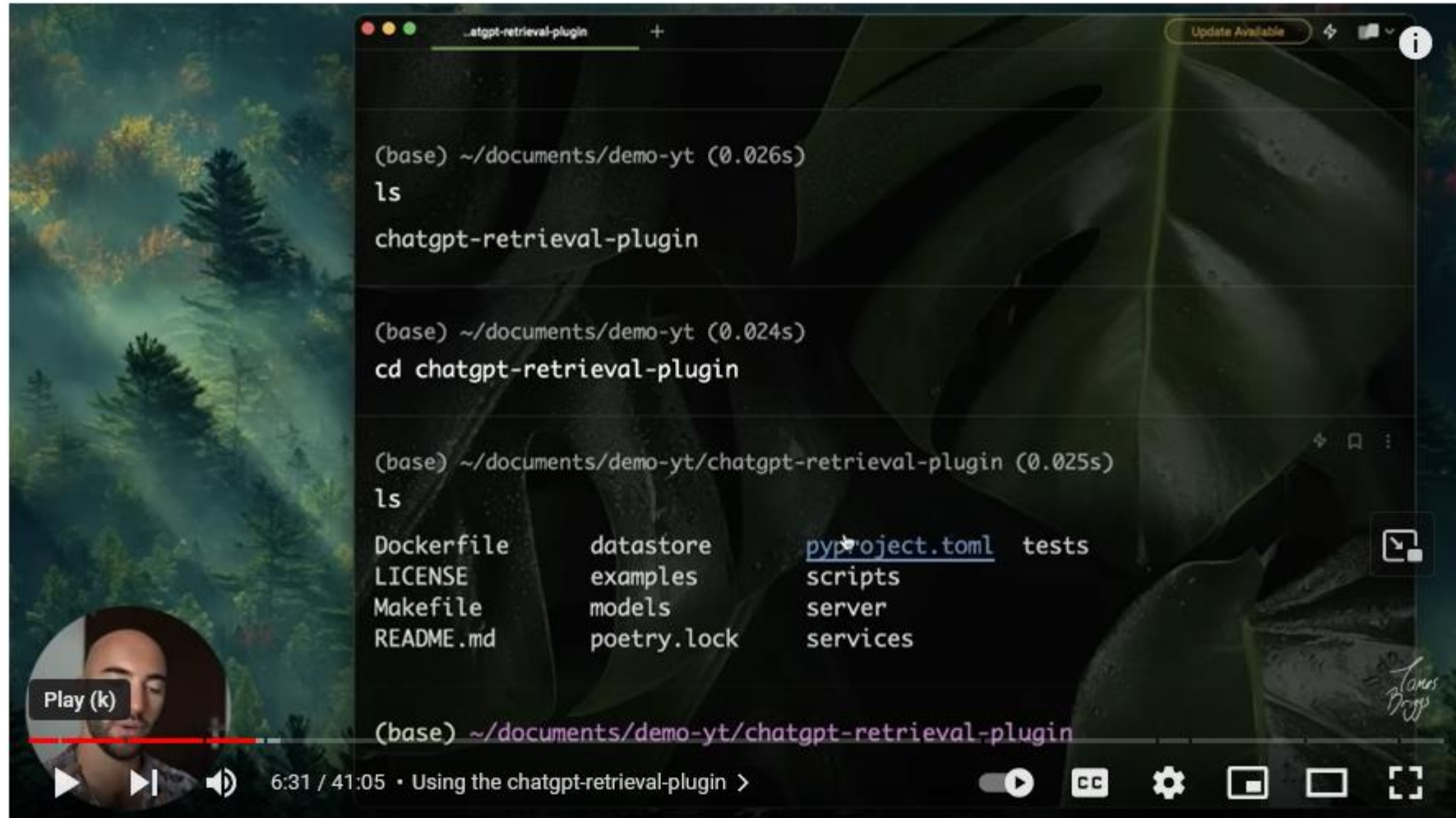
7.Endowment Insurance: This is a sum of money paid upon the earlier of the death of the insured person or a specified time. If the insurance pays out a lump sum at the end of the year of death or at the end of year n , whichever comes first, the present value is represented as: ${}_A_{x:n} = \sum_{(t=1 \text{ to } n)} v^t {}_t q_x + v^n {}_n p_x$ where ${}_n p_x$ is the probability that a life aged x will survive for at least n years.

These are just some basic examples, and there are many more actuarial formulas using a wide range of additional symbols to represent more complex insurance and annuity contracts. Note also that these formulas are based on continuous or yearly payments, and modifications may be needed for other payment frequencies.



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Hey Ontario, ask and get so in the know on the latest listings, property insights and more.



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Ask about gift ideas for any occasion and recipient. Get it wrapped and delivered, no address needed.

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16

Next >


About plugins



Plugins are powered by third party applications that are not controlled by OpenAI. Be sure you trust a plugin before installation.



Plugins connect ChatGPT to external apps. If you enable a plugin, ChatGPT may send parts of your conversation and the country or state you're in to the plugin to enhance your conversation.



ChatGPT automatically chooses when to use plugins during a conversation, depending on the plugins you've enabled.

OK

4/1/24

Collected by B Demsey

15



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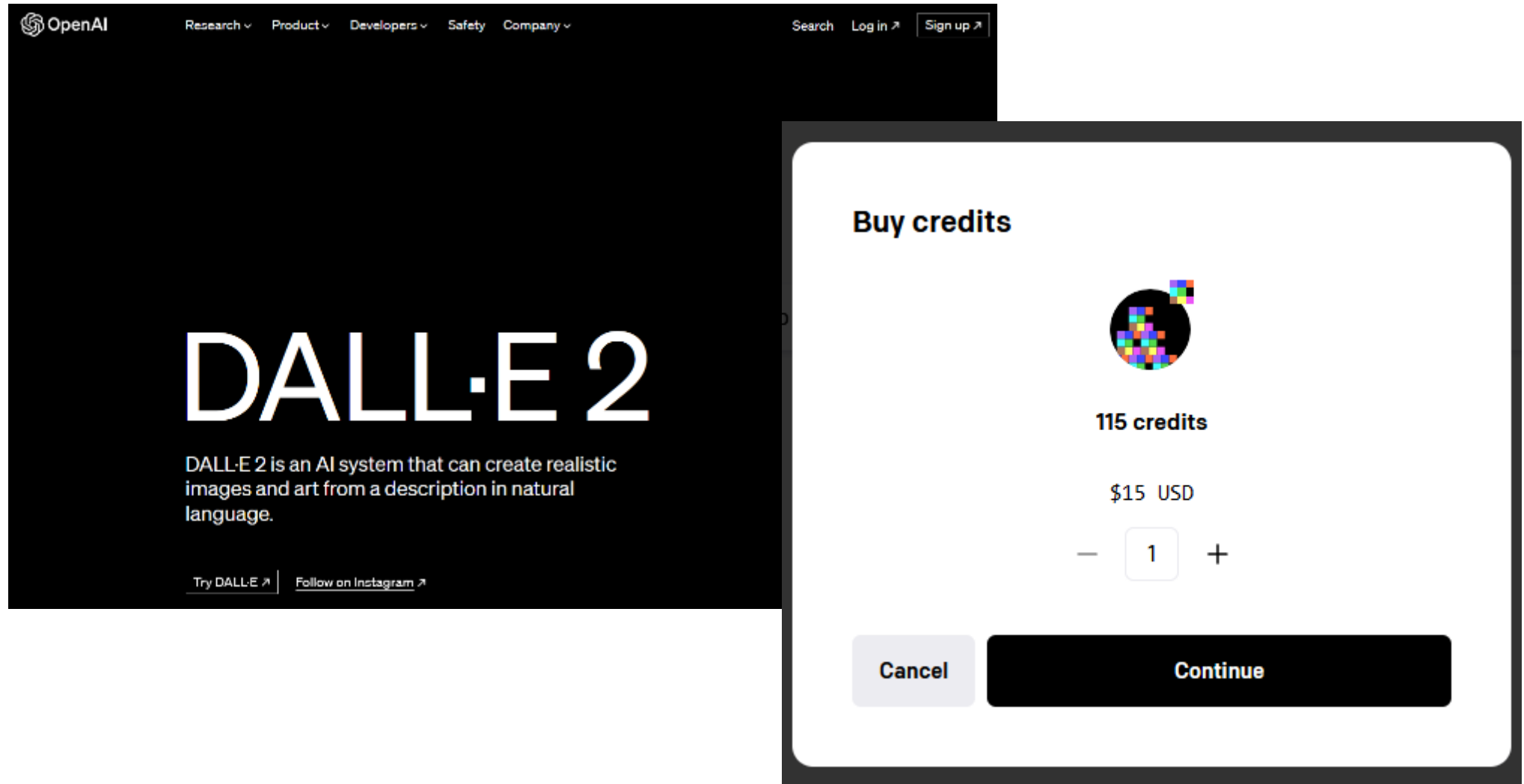
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Alaskan aurora borealis with two polar bears in the foreground and a small wood fire in the background.

Generate





45. **Riku.ai** 2022



Build AI models without code,
accessible and integrable with
automation tools and API.



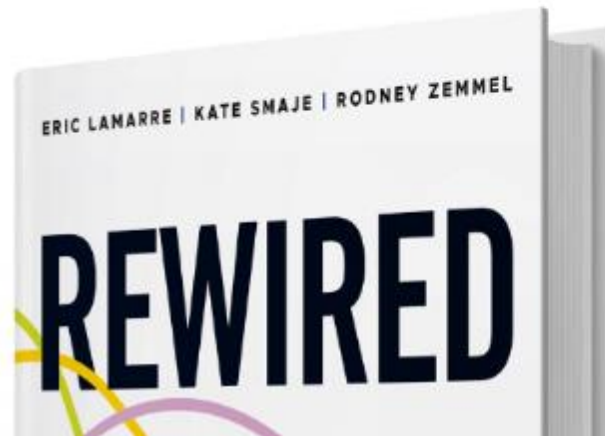
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The McKinsey guide to outcompeting in the age of digital and AI



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Six signature moves led by the C-suite can build organizations that will outperform in the age of digital and AI

6 capabilities →



Author Talks: What is the key to unlocking digital transformation?

McKinsey senior partners outline their new book designed to help companies harness the power of digital transformation

Create meaningful impact →



What is digital transformation?

Digital transformation is the rewiring of an organization, with the goal of creating value by continuously deploying tech at scale.

Get it right →



Digital transformation to achieve operational excellence

Using principles of operational excellence, empowering workforces, and adding digital processes to production can help companies achieve new levels of performance.

Focus on Impact →



Getting digital transformation right in resource-heavy industries

Eight core principles can help companies in the energy, oil and gas, basic materials, and utilities sectors achieve successful digital transformations.

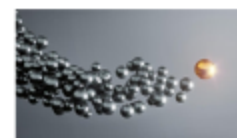
Set the direction →



Why businesses need explainable AI to deliver it

As artificial intelligence informs more decisions, our systems must be understood by users and those affected by use. Actions in two areas can maximize AI's benefits and minimize risk.

Build trust in AI →



Digital transformation on the CEO agenda

Successful digital transformations may not be as elusive as you think. The best CEOs know up front what success looks like—and what stands in their way.

Get better, faster →



Inside a mining company's AI transformation

How copper-mining giant Freeport-McMoRan unlocked next-level performance with help from McKinsey data scientists and agile coaches.

Dive in →

The Race to Prevent ‘the Worst Case Scenario for Machine Learning’

A.I. companies have an edge in blocking the creation and distribution of child sexual abuse material. They’ve seen how social media companies failed.



In a [newly published paper](#) by the Stanford Internet Observatory and Thorn, a nonprofit that fights the spread of child sexual abuse online, researchers found that, since last August, there has been a small but meaningful uptick in the amount of photorealistic A.I.-generated child sexual abuse material circulating on the dark web.

Stanford Digital Repository

Generative ML and CSAM: Implications and Mitigations

PREFERRED CITATION

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<https://doi.org/10.25740/jv206yg3793>.

COLLECTION

Stanford Internet Observatory, Freeman Spogli Institute for International Studies

Generative ML and CSAM: Implications and Mitigations

1 Item

1



20230624-sio-cg-csam-report.pdf

6.18 MB



Editor's choice



The economic potential of generative AI: The next productivity frontier

Generative AI is poised to unleash the next wave of productivity. We take a first look at where business value could accrue and the potential impacts on the workforce.

Preview the frontier →



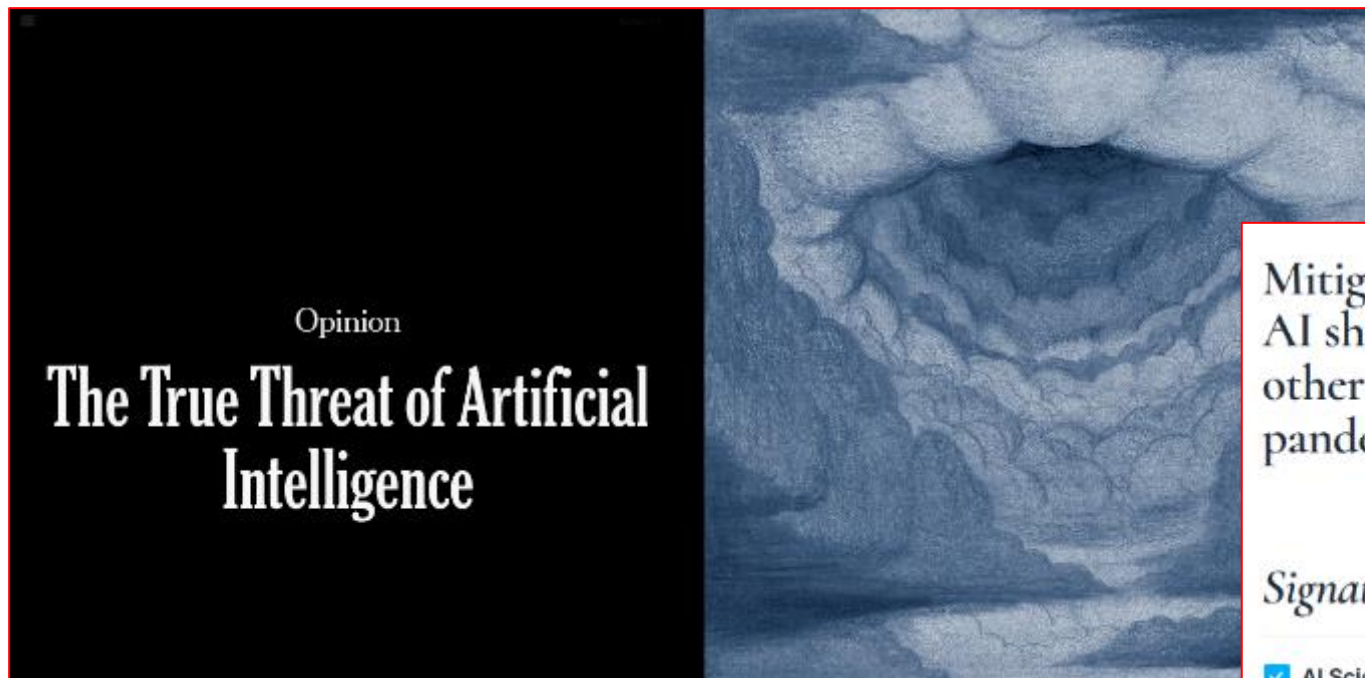
Generative AI and the future of HR

A chatbot may not take your job—but it will almost certainly change it. Here's how to start thinking about putting gen AI to work for you.

Be prepared →



7/1/2023



Mitigating the risk of extinction from AI should be a global priority alongside other societal-scale risks such as pandemics and nuclear war.

Signatories:



AI Scientists



Other Notable Figures

Geoffrey Hinton

Emeritus Professor of Computer Science, University of Toronto

Yoshua Bengio

Professor of Computer Science, U. Montreal / Mila

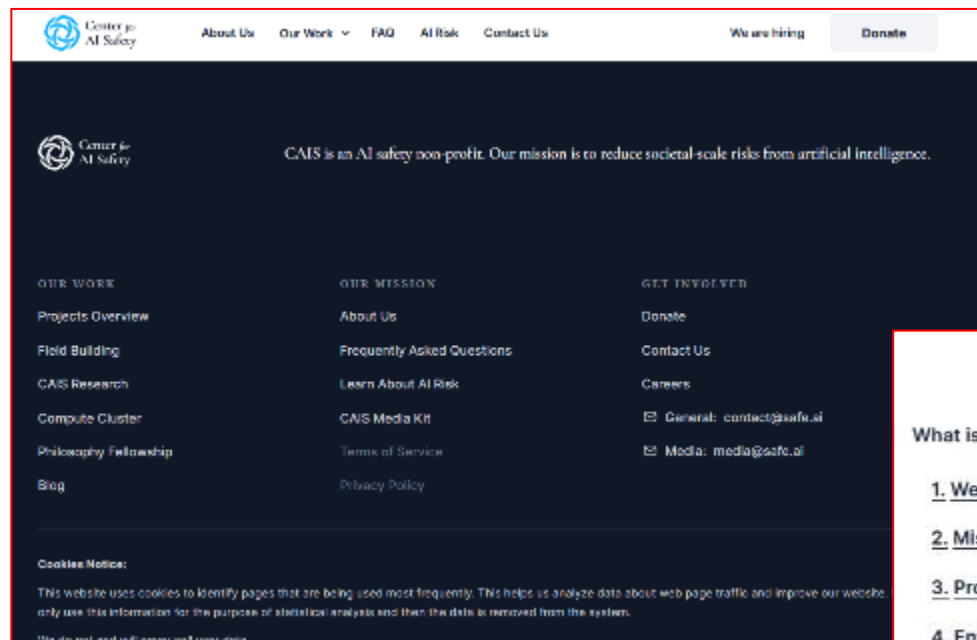
Demis Hassabis

CEO, Google DeepMind

Sam Altman

CEO, OpenAI

NYT July 2, 2023



What is AI risk?

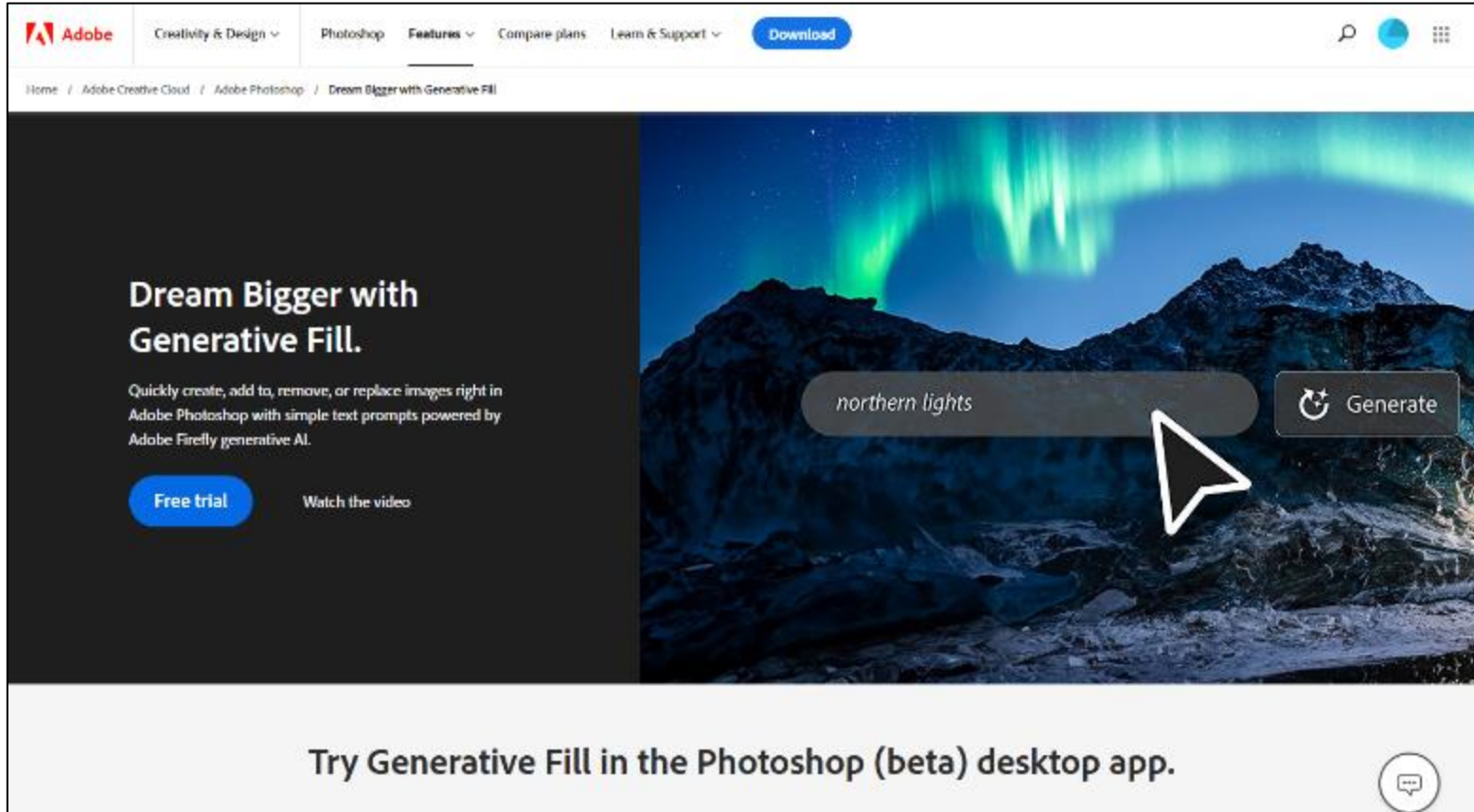
1. Weaponization
2. Misinformation
3. Proxy Gaming
4. Enfeeblement
5. Value Lock-in
6. Emergent Goals
7. Deception
8. Power-Seeking Behavior

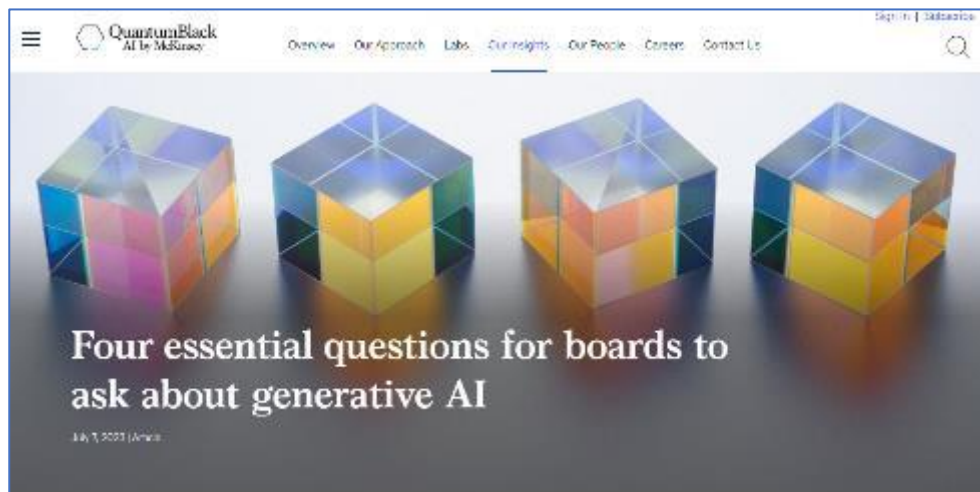
What is AI risk?

AI systems are rapidly becoming more capable. AI models can generate text, images, and video that are difficult to distinguish from human-created content. While AI has many beneficial applications, it can also be used to perpetuate bias, power autonomous weapons, promote misinformation, and conduct cyberattacks. Even as AI systems are used with human involvement, AI agents are increasingly able to act autonomously to cause harm (Chan et al., 2023).

When AI becomes more advanced, it could eventually pose catastrophic or existential risks. There are many ways in which AI systems could pose or contribute to large-scale risks, some of which are enumerated below.

For more in-depth discussion of extreme risks, please also see our recent work "An Overview of Catastrophic AI Risks," "Natural Selection Favors AIs Over Humans," or Yoshua Bengio's "How Rogue AIs May Arise".





How will generative AI affect our industry and company in the short and longer term?

Are we balancing value creation with adequate risk management?

How should we organize for generative AI?

Do we have the necessary capabilities?



An interdisciplinary perspective on AI proxy failures, new competitors to ChatGPT, and prompting language models to misbehave



5

D.1

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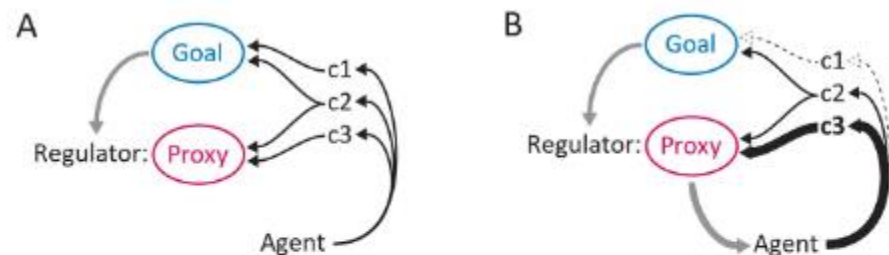
Welcome to the AI Safety Newsletter by the Center for AI Safety. We discuss developments in AI and AI safety. No technical background required.

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In this story, we discuss a recent paper on why proxy goals fail. First, we introduce *proxy gaming*, and then summarize the paper's findings.

[illegible]

Pressure towards proxy failure. The paper proposes that the combination of two conditions leads to proxy failure: *selection* and *complexity*. The first condition, *selection*, is satisfied if the regulator selects or rewards the agent based on how well the agent optimizes the proxy. The second condition, *complexity*, is satisfied if the relationship between the agent and the proxy is sufficiently complex. In other words, there has to be a sufficient number of actions the agent can take to optimize the proxy that are at least partially independent of the goal.



This figure describes three causal pathways: C1,C2, and C3. C1 optimizes only the goal, C3 optimizes only the proxy, and C2 partially optimizes both. The paper argues that, by default, the agent will be led towards C3 by a pressure toward proxy failure.

Forbes

POWER > INNOVATION > VENTURE CAPITAL


EDITORS' PICK

Stability AI Co-founder Says Emad Mostaque Tricked Him Into Selling Stake For \$100

Kenrick Cai Forbes Staff
I'm a senior reporter covering venture capital and startups.

Iain Martin Forbes Staff
I'm the Forbes Europe News Editor and I cover technology.

Jul 17, 2023, 02:12pm EDT



Stability AI was unable to provide comment at the time of publication.


MORE FROM FORBES


The AI Founder Taking Credit For Stable Diffusion's Success Has A History Of Exaggeration

By Kenrick Cai



The lawsuit also claims that Mostaque “embezzled funds” from external investors to pay the rent for his family’s London apartment and his children’s schooling. It cites an unnamed “former investor in one of Mostaque’s businesses” who disclosed to Weitzman that Mostaque “has a pattern of bamboozling investors and misappropriating investor


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Blog

Introducing ERNIE 3.5: Baidu's Knowledge-Enhanced Foundation Model Takes a Giant Leap Forward

🕒 2023-06-27 [🔙 Back to list](#)



文心

👉 ERNIE Bot v2.1.0, released on June 21, is powered by ERNIE 3.5.



Translate to english - 文心一言
知识增强大语言模型

百度全新一代知识增强大语言模型，文心大模型家族的新成员，能够与人对话互动，回答问题，协助创作，高效便捷地帮助人们获取信息、知识和灵感



"Single word of the literary mind,
Enhanced knowledge large language model.

Baidu's brand new generation of enhanced knowledge large language model, the new member of the Wenxin large model family, can interact with people, answer questions, assist in creation, and efficiently and conveniently help people acquire information, knowledge and inspiration."

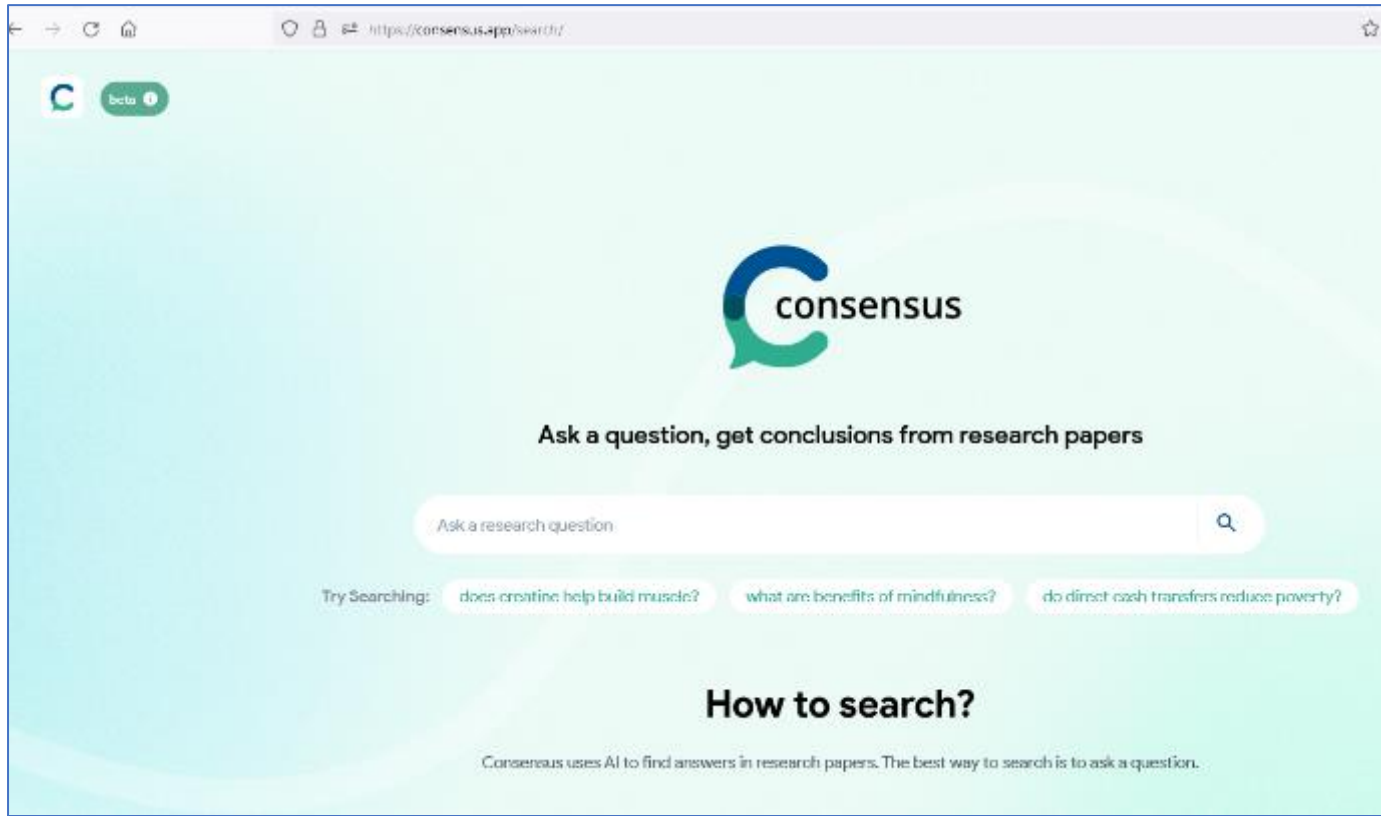




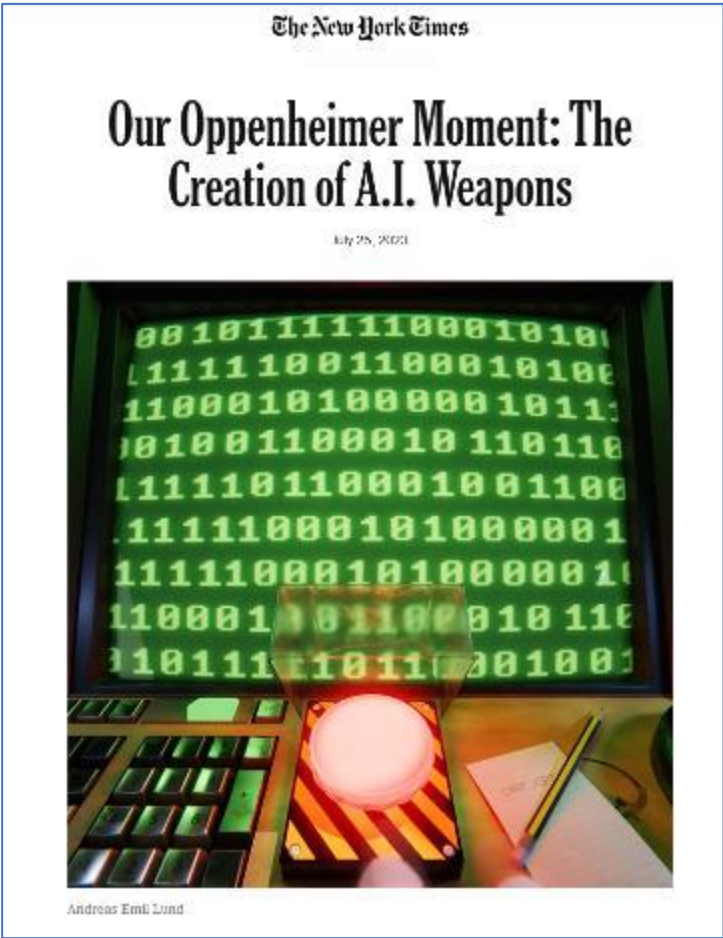
Los Angeles Unified School District Supt. Alberto M. Carvalho, center, joins student performers on stage after delivering his Opening of Schools Address at the Walt Disney Concert Hall in Los Angeles on Friday. (Luis Sinco / Los Angeles Times)

An AI chatbot named “Ed” will be Los Angeles Unified’s newest student advisor, programmed to tell parents about their child’s grades, tests results and attendance, Supt. Alberto Carvalho announced Friday in a back-to-school speech at Walt Disney Concert Hall that rivaled a Hollywood extravaganza.

Carvalho took the stage as high-volume music pounded and fast-paced video flashed across a giant screen. The audience of district employees — mostly administrators — applauded as if on cue as lighting, singers, videos, dancers enmeshed in an annual address unprecedented for its production values in the nation’s second-largest school district, a reflection of the superintendent’s attentiveness to generating positive publicity.



Consensus uses AI to find answers in research papers. The best way to search is to ask a question.

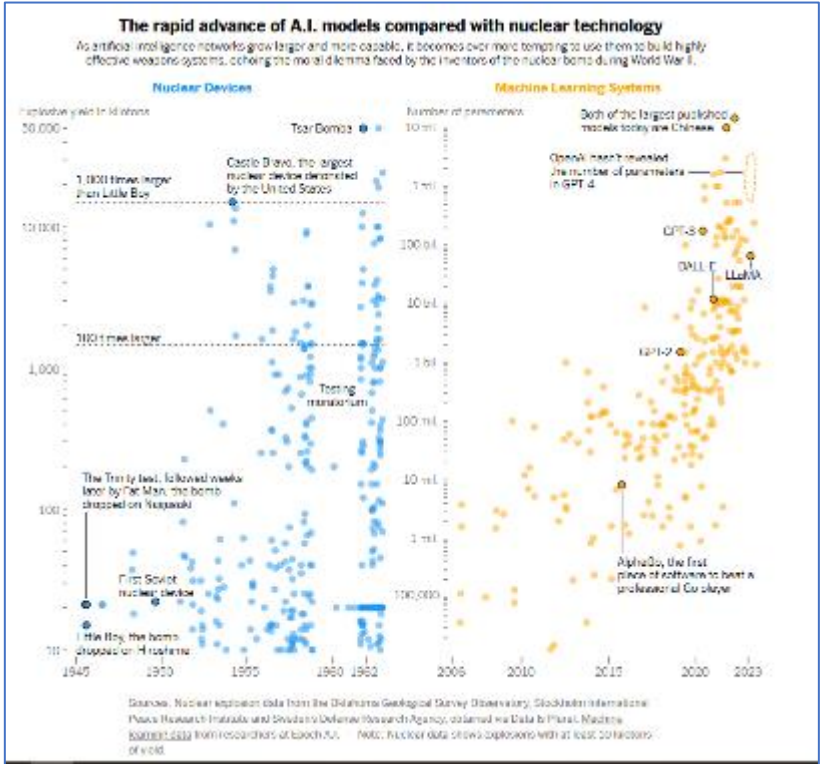


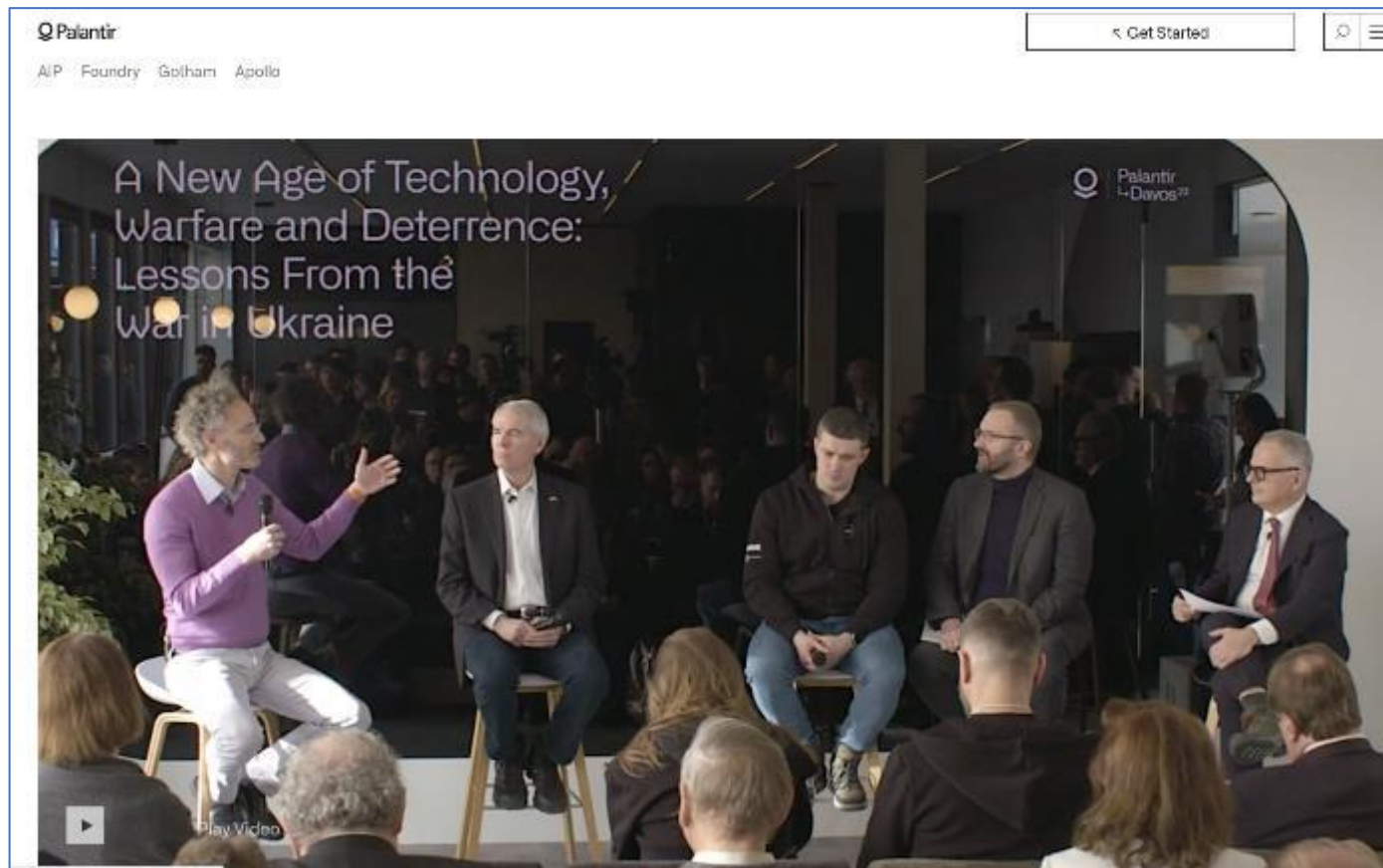
This is an arms race of a different kind, and it has begun.

Opinion | Jeremy Ashkenas

Not Everyone Is Against A.I. Weapons Research. Here's Why.

July 25, 2023





A more intimate collaboration between the state and the technology sector, and a closer alignment of vision between the two, will be required if the United States and its allies are to maintain an advantage that will constrain our adversaries over the long term. The preconditions for a durable peace often come only from a credible threat of war.

Speak softly and carry a big stick.

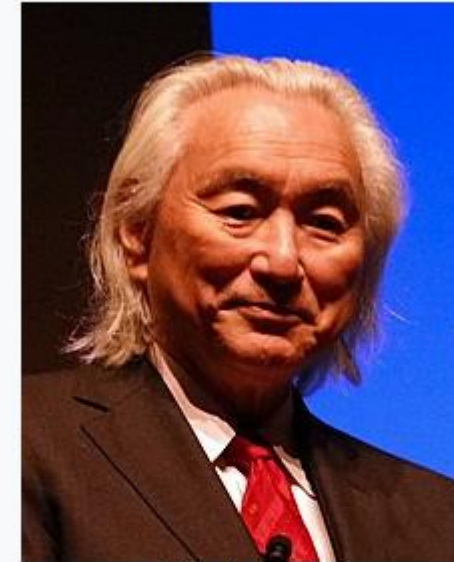


The next evolution in tech needs to be nearly frozen to operate. See how it works



Physicist Michio Kaku explains how quantum computing works and why it will outpace artificial intelligence as the next frontier in technological breakthroughs.

Michio Kaku



Kaku in 2020

| | |
|-------------------|---|
| Born | January 24, 1947 (age 76) ^[2] San Jose, California, U.S. |
| Alma mater | Harvard University (BS) University of California, Berkeley (PhD) |
| Known for | String field theory Physics of the Impossible Physics of the Future The Future of the Mind The God Equation |



Video Ad Feedback

Experts warn AI could pose 'extinction' risk for humanity

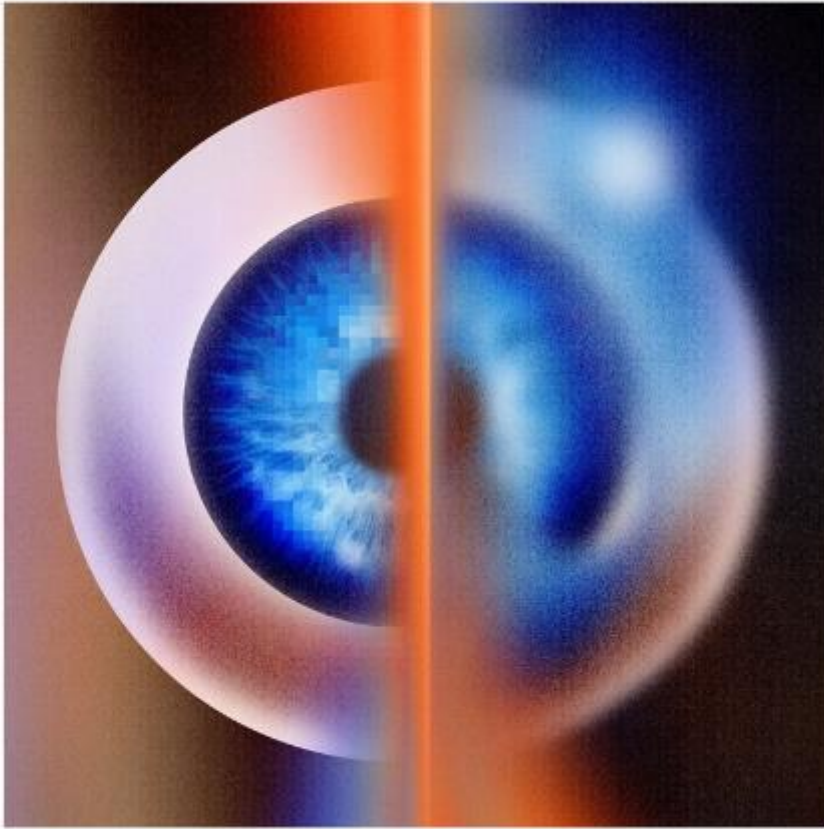


Researchers and developers warn against the 'risk of extinction' to humanity due to artificial intelligence, arguing that the threat of an AI extinction event should be a top global priority.

The New York Times

I Have a Choice to Make About My Blindness

Aug. 5, 2023



Merijn Ho

In the last few years, a new category of technology for the blind has emerged, called “visual interpreters.” With the Be My Eyes app, a blind person can point her phone at something she can’t see — a pair of pants, for instance, which may or may not match her shirt — and connect her phone’s camera to the screen of a sighted volunteer who can talk her through the situation. Even if, technically speaking, the blind person is still relying on someone else for help, the anonymity and digital frictionlessness of the app experience creates the feeling of an automated solution to the problem.

Advances in machine vision, like the astonishingly powerful image-recognition capabilities of modern A.I., are erasing even these human actors from the equation. This year, Be My Eyes released a beta version of a service called the Virtual Volunteer, which replaces the human at the other end of the line with A.I. (powered by OpenAI’s GPT-4 model). A blind beta tester [pointed](#) his camera at a frozen meal, and the A.I. read him the description of the contents on the package, including the date of expiration and the size of the meal.

An Economic Analysis of Language Model Propaganda

Large language models (LLMs) could be used to generate propaganda. But people have been creating propaganda for centuries—will LLMs meaningfully increase the threat? To answer this question, a [new paper](#) compares the cost of hiring humans to create propaganda versus generating it with an LLM. It finds that LLMs dramatically reduce the cost of generating propaganda.

To quantify the cost of hiring humans to generate propaganda, the paper looks at [Russia's 2016 campaign](#) to influence the United States presidential election by writing posts on social media. The Russian government paid workers between \$3 and \$9 per hour, expecting them to make 5 to 25 posts per hour supporting the Russian government's views on the US presidential election.

Language models could be much cheaper. The paper estimates that posts written by humans cost a median of \$0.44 per post. Given OpenAI's current prices for GPT-4, generating a 150 word post would cost less than \$0.01.



[55 Savushkina Street](#), where the Russian government paid people several dollars per hour to post on social media about the US election. Propaganda campaigns might soon be cheaper to conduct, as large language models don't require office space or bathroom breaks.

ARTIFICIAL INTELLIGENCE

The Modesto Bee, opinion: How will Modesto schools encourage and restrict the use of AI in the classroom?

The concept of artificial intelligence is an ever-changing field that will continue to reinvent almost every aspect of our lives, including education. AI is an intelligence demonstrated by machines that can learn, adapt and reason. In the near future, we can expect to see an even greater shift in the use of AI and technology in the workplace, cybersecurity, search engines and, of course, the classroom. Though using AI can be a risk, it can also be an extremely efficient tool to enhance the learning process. It is crucial for students and teachers to understand both the limitations and the potential of AI on school campuses. The Modesto City School District, however, has decided to hold off on making guidelines regarding AI. Mike Rich, an associate superintendent at Modesto City Schools, said the district awaits guidance from the California Department of Education as to the local use of "AI in the education system in a thoughtful, effective way. The CDE and the **California School Boards Association** will guide school districts, such as us, to a model policy to adjust how students will justify their learning as AI becomes increasingly more entrenched in education," Rich said.

One of the more recent iterations of AI are "chatbots" such as ChatGPT. These are online programs that utilize AI to interpret customer questions and formulate detailed responses instantly. These tools are extremely powerful as they have the ability to gather information, answer questions and summarize documents all with minimal effort from the user. Though these chatbots can be helpful and efficient, they can also be dangerous. Using them can pose undesirable outcomes such as responses skewed with bias. For instance, if a student is assigned an essay they don't want to write, they might choose to have a chatbot complete it on their behalf. Students should be directed to think critically and extract information on their own rather than rely on bots, which can have severe consequences for plagiarism.

ON COMEDY

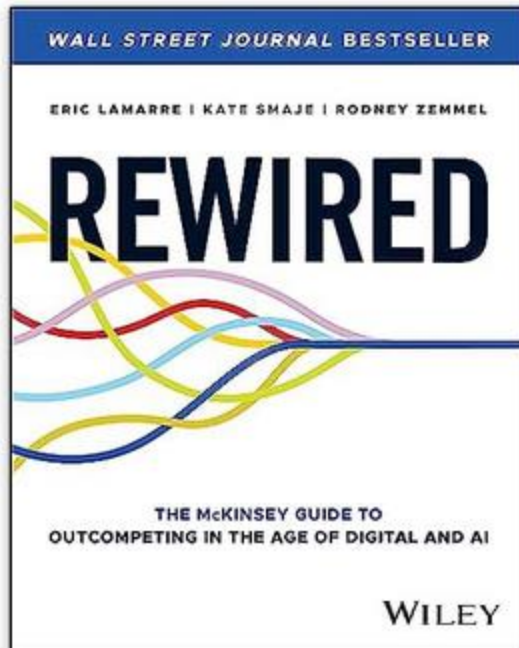
In the Battle Between Bots and Comedians, A.I. Is Killing

In roast battles and stage shows, comics are experimenting with ChatGPT and other models. But inspired stand-ups shouldn't fear for their jobs — yet.



Rewired: The McKinsey Guide to Outcompeting in the Age of Digital and AI 1st Edition

by [Eric Lamarre](#) (Author), [Kate Smaje](#) (Author), [Rodney Zimmel](#) (Author)



70% of top performers use advanced analytics to develop proprietary insights.

Have business leaders
define what's possible

work (e.g., GPI-4, Google's Chinchilla, Meta' marketers could leverage GenAI models to ge targeted digital marketing at scale. Customer automated or optimized via a "knowledge : conversation and prompting service reps. Gen and iterate on product prototypes and cons 2. New discoveries. Industry-specific models th erate existing processes but develop new pr innovations. In pharma, for example, app use common techniques (e.g., OpenBION deployed to deliver speed and efficiency t or patient diagnostics. Or a GenAI model massive pharma molecule database that car cures. The impact potential and readiness vary significantly by industry and business 3. Coding (e.g., Copilot, Alphacode, Pitchork). to automate, accelerate, and democratize c are already able to competently write code, matically generate or complete data table rity penetration

Artificial intelligence (AI) covers the broad concept of creating smart intelligent machines.

Machine learning (ML) is a subset of artificial intelligence. It's a method that "learns" from data to improve performance on some set of tasks.

Deep learning is a subset of machine learning. It uses vast volumes of data and complex algorithms to train a model.

Have developers, etc. - working side by side with your business colleagues, experienced designers, data engineers, data scientists, means having your own bench of digital talent.

No company can outsource its way to digital excellence.

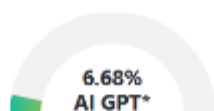
Cloud versus on-premises data infrastructure - Leasing cloud infrastructure from major public cloud - Cloud-native services offer massive benefits in terms of the productivity of your teams, which are no longer forced to manage overly complex systems and can instead focus their time on the delivery of the use cases that drive business value.

Numerous cloud-native data technologies have emerged to facilitate building digital and AI-based solutions. The journey to enable cloud-based data capabilities is constantly getting easier, technologies that were once differentiators within the reach of every company. Some organizations opt to build capabilities on-premises or via hybrid of on-premises and cloud. Two issues typically drive this decision: concerns around using cloud for highly sensitive data or critical workloads, or a belief that the organization can design and build modern data capabilities that are comparable to those of cloud providers.

GPT-4, ChatGPT & AI Detector by ZeroGPT: detect OpenAI text

ZeroGPT the most Advanced and Reliable Chat GPT, GPT4 & AI Content Detector

Your Text is Human written



KAZU News: Cheat bot or teaching tool? Central Coast schools decode AI's role in education

Last year, students around the country started turning in unusual assignments. Essays switched writing styles, abruptly becoming overly technical or formal, and inconsistent formatting began making teachers suspicious. The culprit, in many cases, was ChatGPT: a chatbot that uses a type of artificial intelligence called a "large language model" to answer questions and spit out pages of text within seconds. After its launch in November, the website, owned by OpenAI, reached a million users within five days. A handful of other companies followed suit with their own versions of the technology, such as Google's Bard and Microsoft's Bing Chat. The chatbots are free to access and easy to use. And they're changing education.

Madeleine Swift, a biology teacher at Aptos High School, received a suspicious report from a student last year. She recently ran it through a program called ZeroGPT that attempts to identify AI-generated language. ZeroGPT estimated there was a 100 percent chance the text was AI-generated. Swift made the student rewrite the report, but in cases that are less blatant, a lack of clear policies at schools leave teachers struggling with how and whether to respond. "I don't know if it's necessarily cheating to use a tool that's available to the public or something that might be part of somebody's job," said Swift. She believes the conversation should focus more on how to build skills and prepare students for the real world — which will include interactions with AI. Most local school systems have yet to develop policies on how to deal with ChatGPT. A few school districts banned the chatbot when it first came out, but many have warmed up to students using the technology responsibly. **The California School Boards Association recently created a task force to develop AI-focused policies. In the meantime, teachers must respond to its use on a case-by-case basis.**

■ Highlighted text is suspected to be most likely generated by AI*

1,996 Characters

321 Words

How can I integrate ZeroGPT tool in my organization or website on a large scale?

You are a company, university or educational institution, organization, writing or content creation agency, ... Contact us via email using this link to discuss in detail about your needs and how we can integrate ZeroGPT into your organization. We provide access to our private API through our Paid Professional plans customized based on our clients' needs.




Like New York, school districts in Los Angeles and Seattle banned ChatGPT on district devices soon after its release. While Los Angeles Unified's ban still stands, the country's second-largest district acknowledged the technology's upside by deploying an education-specific chatbot named "Ed" in 100 schools when classes resumed last week.



TRENDING
INSIGHTS

1 The economic potential of generative AI: The next productivity frontier
2 McKinsey Technology Trends Outlook 2023
3 The state of AI in 2023: Generative AI's breakout year
4 Meet Lili, our generative AI tool that's a researcher, a time saver, and an inspiration



Don't wait—create with generative AI

Generative AI could add enormous value across the global economy, from banking to life sciences. The companies that use the technology quickly and effectively will have the edge.

The time is now →

Explore more insights from McKinsey Global Institute →

The state of AI in 2023: Generative AI's breakout year

As organizations rapidly deploy generative AI tools, McKinsey Global Survey respondents expect significant effects on their industry and their workforce.

As organizations rapidly deploy generative AI tools, survey respondents expect significant effects on their industries and workforces.

McKinsey & Company • Listen to the article: The state of AI in 2023: Generative AI's breakout year

PODCAST

The latest annual **McKinsey Global Survey** on the current state of AI confirms the explosive growth of **generative AI** (gen AI) tools. Less than a year after many of these tools debuted, one-third of our survey respondents say their organizations are using gen AI regularly in at least one business function. Amid recent advances, AI has risen from a topic relegated to tech employees to a focus of company leaders: nearly one-

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Article (24 pages)

Inaccuracy, cybersecurity, and intellectual-property infringement are the most-cited risks of generative AI adoption.

Generative AI-related risks that organizations consider relevant and are working to mitigate, % of respondents¹



¹Asked only of respondents whose organizations have adopted AI in at least 1 function. For both risks considered relevant and risks mitigated, n = 913.
Source: McKinsey Global Survey on AI, 1,684 participants at all levels of the organization, April 11–21, 2023

McKinsey & Company

The New York Times

A.I. and Chatbots > | How Schools Can Survive A.I. | When Will the U.S. Regulate A.I.? | Smart Ways to Use Chatbots | Can A.I. Be Fooled?

TheUpshot

The U.S. Regulates Cars, Radio and TV. When Will It Regulate A.I.?

Congress has tended to be slow to respond to revolutionary technologies.

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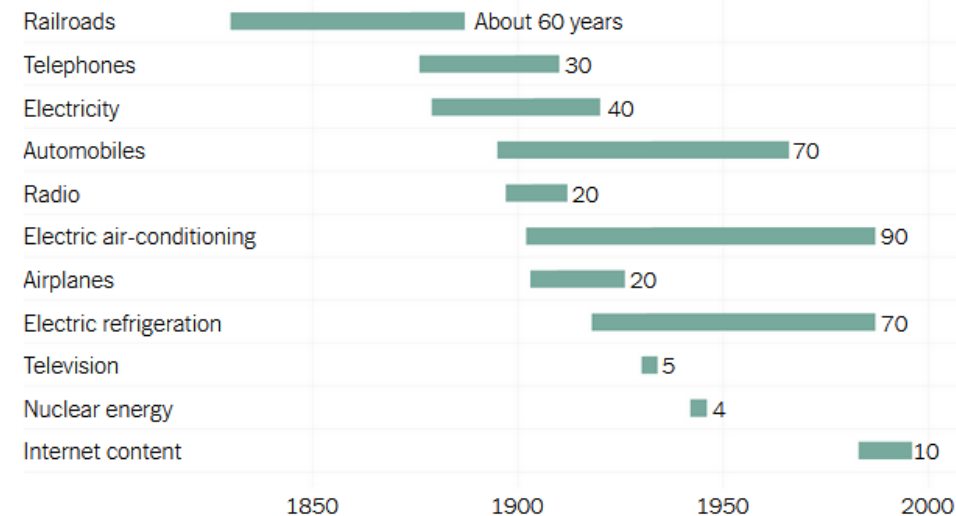
 By Ian Prasad Philbrick

Aug. 24, 2023

A Long Time to Regulate

It has often taken decades after the advent of a technology for Congress to pass a major law to regulate it.

Approximate time between invention or patenting and first major federal regulation



Source: Federal agencies, industry groups and regulation experts. • By The New York Times

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Capturing \$3 trillion of potential value in the cloud

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August 27, 2023 - With almost [\\$3 trillion in potential value](#) from the cloud at stake by 2025, companies are facing a turning point moment to modernize their technologies and their businesses. Adopting cloud computing makes companies more nimble,

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Cloud Value Radio

A cloud migration in wartime

February 7, 2023 | Interview



Raiffeisen Bank Ukraine, a subsidiary of Austria's Raiffeisen Bank International, began its cloud migration the day Russia invaded Ukraine. Within three war-torn months, it had migrated more than 1,000 servers to the cloud without a single business outage or need for extra vendor support. The bank, one of Ukraine's top banks, with more than 6,000 employees (800 of them in technology roles), which works primarily with large enterprises, relied on a resourceful team of remote engineers who implemented a plan that enabled the bank to reap cloud-based rewards such as speed and time to market. Hryhorii Tatsyi, Raiffeisen Bank Ukraine's CTO and leader of its FinOps community, discussed the challenges and benefits of the migration with partner James Kaplan and data strategist Chett Rubenstein of McKinsey. What follows are edited highlights from that conversation.

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Transforming K–12 education for the better

in

August 26, 2023 - K–12 schools have dealt with many challenges over the past few years, especially since the COVID-19 pandemic put many existing problems into much sharper focus. Even so, there are many bright spots to point to as children head back into the classroom this fall. Some districts are rolling out new mental health interventions to support their students' needs and others are seeing accelerated rates of learning recovery after adopting new instructional materials, according to McKinsey senior partner [Jimmy Sarakatsannis](#), partner [Jake Bryant](#), and colleagues. Read the [full report](#) to see how these combined interventions can create better learning experiences for all, and explore the rest of our recent [education insights](#) about how schools can transform for the better.

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What it would take for US schools to fully recover from COVID-19

August 7, 2023 | Article

Google DeepMind's GPT-4 Competitor

Computational power is a key driver of AI progress, and a new report suggests that Google's upcoming GPT-4 competitor will be trained on unprecedented amounts of compute.

Google has tremendous financial resources, with \$118 billion cash on hand. In contrast, OpenAI's last investment round in January raised only \$10 billion. Perhaps it's no surprise that Google can quickly ramp up spending to compete with other leading AI labs.

Complementary investments in AI trust and evaluation. Alongside their new investments in autonomous weapons, the U.S. Department of Defense is also launching the Center for Calibrated Trust Measurement and Evaluation. The program broadly intends to “operationalize responsible AI” as well as “value alignment.”

Cybersecurity in the age of generative AI



September 10, 2023 - In the latest McKinsey Global Survey on AI, 40 percent of respondents said their organizations plan to increase their overall AI investment because of advancements in gen AI. Nevertheless, few companies seem fully prepared for the widespread use of gen AI—or the business risks these tools may bring: 53 of organizations acknowledge cybersecurity as a gen AI-related risk, but only 38 percent are working to mitigate that risk. To help your company approach generative AI most constructively, [check out the survey results](#) from [Michael Chui](#), [Bryce Hall](#), [Alex Singla](#), [Alexander Sukharevsky](#), and [Lareina Yee](#). Then dive into more insights to help with your cybersecurity strategies, including:

What is prompt engineering?

September 22, 2023 | Article

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Prompt engineering is the practice of designing inputs for generative AI tools that will produce optimal outputs.



The New York Times

Trump Attacked Me. Then Musk Did. It Wasn't an Accident.

Sept. 18, 2023



What can be done to turn back this tide?

Making the coercive influences on platform decision making clearer is a critical first step. And regulation that requires companies to be transparent about the choices they make in these cases, and why they make them, could help.

In its absence, companies must push back against attempts to control their work. Some of these decisions are fundamental matters of long-term business strategy, like where to open (or not open) corporate offices. But companies have a duty to their staff, too: Employees shouldn't be left to figure out how to protect themselves after their lives have already been upended by these campaigns. Offering access to privacy-promoting services can help. Many institutions would do well to learn the lesson that few spheres of public life are immune to influence through intimidation.

If social media companies cannot safely operate in a country without exposing their staff to personal risk and company decisions to undue influence, perhaps they should not operate there at all. [Like others](#), I worry that such pullouts would worsen the options left to people who have the greatest need for free and open online expression. But remaining in a compromised way could forestall necessary reckoning with censorial government policies. Refusing to comply with morally unjustifiable demands, and facing blockages as a result, may in the long run provoke the necessary public outrage that can help drive reform.

The broader challenge here — and perhaps, the inescapable one — is the essential humanness of online trust and safety efforts. It isn't machine learning models and faceless algorithms behind key content moderation decisions: it's people. And people can be pressured, intimidated, threatened and extorted. Standing up to injustice, authoritarianism and online harms requires employees who are willing to do that work.

Algorithm With a Brush

David Salle, one of America's most thoughtful painters, hoped an A.I. program might be able to nourish creativity. It could mimic his style. But could it inspire?

By ZACHARY SMALL

Of the many young artists David Salle has mentored, none were ever as challenging as his latest student, who cannot hold a paintbrush or a conversation.

"The mountain looks too air-brushed," ... [a>](#)



"CHILDHOOD," 1998

Scaling AI for success: Four technical enablers for sustained impact

Organizations are struggling with complex data sets, obsolete models, security concerns, and more as they scale AI. Four technical enablers could help unlock efficiency while driving down costs.



September 27, 2023 - by Gerry Aue, [Pepe Cafferata](#), Roman Drapeko, Margaux Penwarden, and Vaibhav Sinha

Organizations can overcome these challenges by offering a comprehensive range of [data products](#). Specifically, the feature store has emerged as an accelerant for AI. As a centralized marketplace for storing, managing, and sharing features—the signals that ML models consider—feature stores optimize the process of feature engineering and create

Using code assets such as reusable packages and modules is an essential best practice of software engineering, and organizations should consider implementing them as they develop AI/ML projects. Designing software with code packages and modules is akin to constructing a building using prefabricated components. Prefabricated code elements

standards and protocols to scale AI effectively. Establishing a robust framework of standards and protocols provides guidance for data teams on how to build, evaluate, and deploy ML models. By using this framework, data teams follow a standardized approach while developing AI use cases and adhere to the guardrails required for their industry (for example, not using features that could create bias).

value of their AI investments. Continuous integration/continuous deployment (CI/CD) and automated testing frameworks allow organizations to automate the building, testing, and deployment of AI. With these technologies, all ML models follow a standard deployment pattern set by the organization and are effectively integrated into the broader IT infrastructure. In addition, fostering a culture of collaboration and shared responsibility through these new technologies can reduce time to market, minimize errors, and

OpenAI releases GPT-4 with Vision and DALL-E-3, announces Red Teaming Network

GPT-4 with vision and voice. When GPT-4 was initially announced in March, OpenAI demonstrated its ability to process and discuss images such as diagrams or photographs. This feature has now been integrated into GPT-4V. Users can now input images in addition to text, and the model will respond to both. Users can also speak to GPT-4V, and the model will respond verbally.

GPT-4V may be more vulnerable to misuse via jailbreaks and adversarial attacks. Previous research has shown that multimodal models, which can process multiple forms of input such as both text and images, are more vulnerable to adversarial attacks than text-only models. GPT-4V's System Card includes some experiments with hand-crafted jailbreaks, but there are no public analyses of how the model fares against state of the art automated methods for adversarial attacks.

DALL-E-3 is OpenAI's latest text-to-image model. OpenAI is releasing DALL-E-3, a successor to their text-to-image model DALL-E-2. It is being integrated with ChatGPT Pro, allowing users to receive help from the chatbot in generating high-quality prompts. The model will first be available to researchers, followed by businesses and individual users.

Google Commits \$2 Billion to AI Startup Anthropic

Amazon invested \$4 billion in the company in September.



By Emily Price

October 28, 2023



(Credit: Shutterstock / LookerStudio)

Google is following in Amazon's footsteps and has committed \$2 billion to the AI startup Anthropic, The Wall Street Journal reports. Amazon committed to investing up to \$4 billion in the startup in September, a move that gave it minority ownership of the company.

Google already invested \$500 million in the company earlier this year.

Anthropic is a rival to OpenAI, the creator of popular AI chatbot ChatGPT. While the investment is certainly a large one, Anthropic also signed up for a multiyear deal with Google Cloud worth \$3 billion, so that money will flow back to Google over the next few years.

The investment comes as many tech giants are throwing money at AI companies to better position themselves for the future; OpenAI and Anthropic are the largest companies in the space.

Microsoft currently has a 49% stake in OpenAI after adding \$10 billion in January to the \$3 billion it had already invested in the company.

Making the case: How the mid-Atlantic region can become a leading cybersecurity hub



McKinsey & Company <publishing@email.mckinsey.com>

To Brian Demsey



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Sleeping Tool

Making the case: How the mid-Atlantic region can become a leading cybersecurity hub

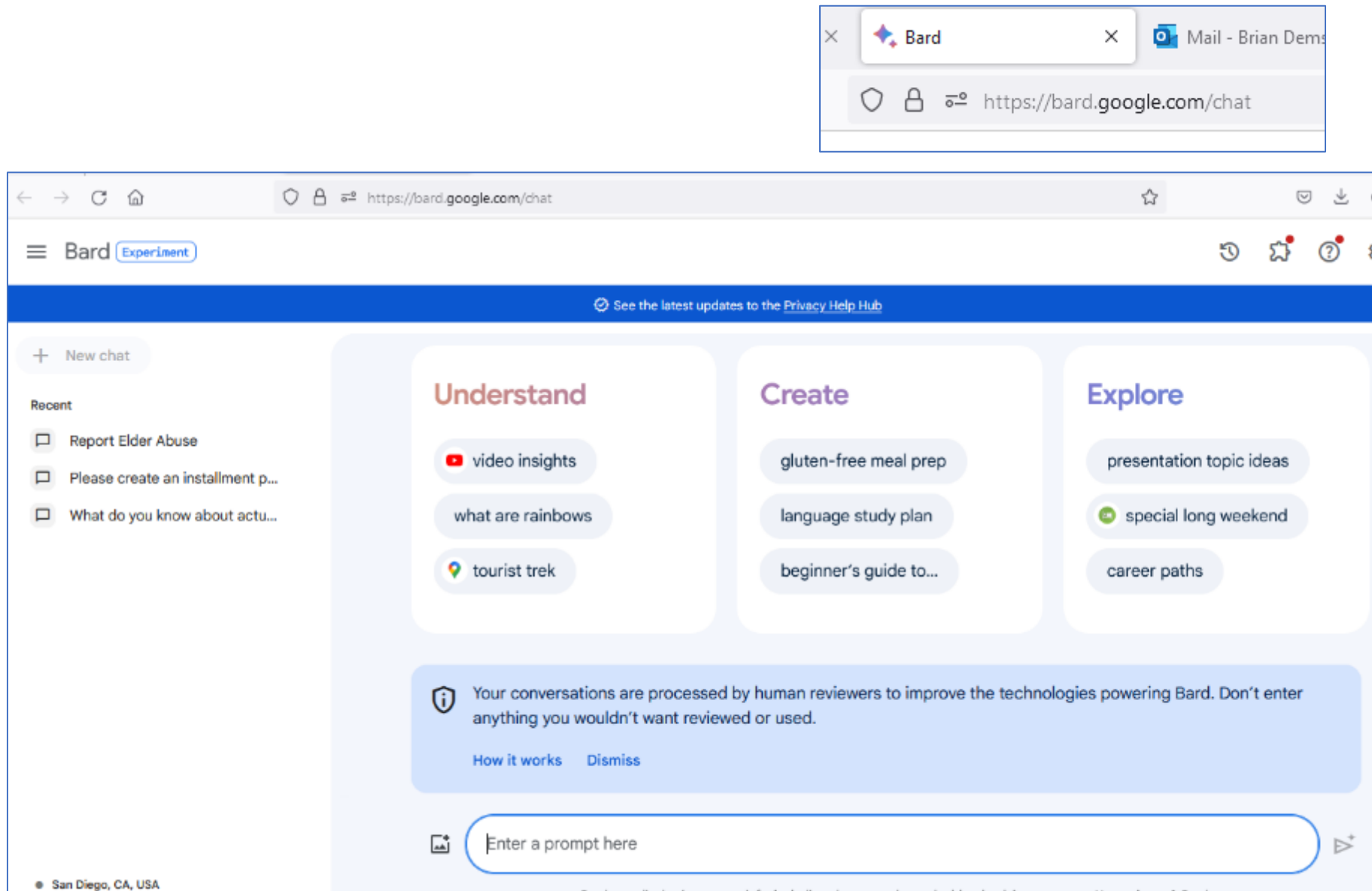
The mid-Atlantic, comprising Maryland, Virginia, and Washington, DC, has three essential attributes for building a strong cybersecurity ecosystem.



Building a cybersecurity culture from within: An interview with MongoDB →



What is cybersecurity? →



Adversarial Robustness

Universal and Transferable Adversarial Attacks on Aligned Language Models proposed a new gradient-based adversarial attack against large language models which successfully caused misbehavior by GPT-4, Claude, and Bard. The method used the open source weights of Llama 2 to develop “attack suffixes” which are both universal and transferable, meaning they increase the likelihood of misbehavior when appended to many different prompts and when used to prompt many different models.

Scalable Extraction of Training Data from (Production) Language Models extracted several megabytes of training data from GPT-3.5 by prompting it to repeat the word “poem” forever. The authors conjecture that this prompt leads to input unlike those the model saw during fine-tuning, and therefore causes the model to revert to its original language modeling objective.



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Human-centered AI: The power of putting people first

December 11, 2023 | Podcast



Unlocking the potential of generative AI: Three key questions for government agencies

Government organizations may seek to jump on the gen AI bandwagon, but the technology's complexities could sideline their efforts. Our framework addresses some critical implementation questions.

An 8-step plan

Eight steps for getting started

For public sector agencies just beginning to venture into gen AI, we suggest this eight-step plan:

- 1. Define your organization's risk posture.** After identifying your agency's risk parameters, devise a plan to mitigate the risks of using gen AI—with a mix of internal policies, guidelines, and awareness sessions.
- 2. Identify and prioritize use cases.** Not everything needs gen AI technology to power it. Government agencies may find our 4Cs framework helpful in developing a list of potential use cases—and then prioritizing them according to potential impact and feasibility—while avoiding implementations with high potential for risk or limited tolerance for errors.
- 3. Select the underlying model; upgrade technical infrastructure as needed.** Most public sector agencies begin with an off-the-shelf LLM and fine-tune it with proprietary data and integration with internal systems to deliver customized results. In very rare cases have we seen government agencies develop and train a new model from scratch. When that happens, it is driven primarily by aspirations to develop a national asset, manage data-sovereignty issues, or reduce dependence on private sector tech companies.
- 4. Ensure that the necessary skills and roles are available.** [“Head of AI”](#) is one of the hottest jobs around, and governments will need to hire for it—only a senior executive can coordinate all gen AI-related activities and ensure that risks are addressed effectively. Traditionally, governments haven't had AI engineers, AI ethics officers, or prompt engineers, but such roles must now be created and filled.
- 5. Develop gen AI apps jointly with end users.** Gen AI is a fast-evolving technology, so early involvement of end users is critical not only for educating them on privacy and safety but also for collecting their feedback to improve the accuracy and performance of LLM responses. For example, users can provide a quantitative score for the quality of each response.
- 6. Keep humans in the loop, at least for now.** Until gen AI technologies mature and enforceable regulations are in place, it may be prudent for government agencies to keep human managers accountable and use gen AI implementations only to execute models and not to monitor or assess them.
- 7. Design a comprehensive communication plan.** Embed necessary disclaimers in all communication efforts to clarify the limitations of gen AI use cases and ensure safe adoption.
- 8. Start small and scale up.** Our research shows that 72 percent of leading organizations find managing data to be one of the top impediments to scaling AI use cases. In our article on [scaling gen AI programs](#), we identify seven actions that data leaders should consider as they move from experimentation to scale.

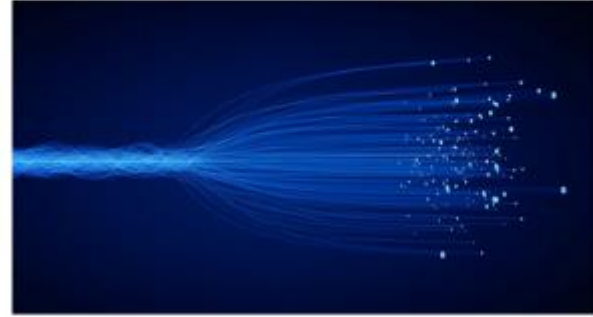


How generative AI can boost consumer marketing

From automating processes and powering hyperpersonalization to permanently altering the idea generation process, generative AI is poised to be a catalyst for a new age of marketing capabilities.

[Go to market](#)

New from McKinsey & Company



Capturing the full value of generative AI in banking

Setting up gen AI pilots is easy; scaling them to capture material value is hard. A recipe for success is emerging.

[Follow a plan](#)

About the AI's Explosive First Year

Since its debut in Nov. 2022, OpenAI's ChatGPT has turned the tech industry upside down. Here are the main takeaways from its turbulent start to prepare you for the road ahead.

By Emily Drabinski November 30, 2023



ChatGPT Does Not 'Understand' Things

Much of 2023 was spent testing ChatGPT to see what it can do, and initially, its comprehensive answers surprised us all.

How does it know that? As it turns out, it doesn't...really.

When you ask ChatGPT a question, it sifts through troves of training data, plus previous conversations with other users, to identify patterns and figure out what words you most likely want to see. Large language models (LLMs) assign a score to each word in the sentence, based on the probability that they are correct, as the *New York Times* [explains](#). ChatGPT's [image-reading capability](#) follows the same principle.

This approach to language uses a framework created by the late Claude Shannon, a computer scientist dubbed the “father of information theory.” Shannon divided language into two parts—syntax (its structure) and semantics (its content, or meaning). ChatGPT operates purely on syntax, using math, plus user feedback, to avoid knowing the semantics.

Sometimes it fails, leading to so-called “hallucinations,” or nonsensical responses. That happens when the model “perceives patterns or objects that are nonexistent or imperceptible to human observers,” IBM [says](#). Still, for a first-gen product, ChatGPT works incredibly well.

2. It's Best Used As a Helpful Starting Point

3. With an Election Looming, Misinformation Abounds

4. Regulatory Efforts Are Piecemeal, But Evolving

5. In 2024, AI Will Be Hard to Avoid, Especially at Work



ON BOARDS AND GEN AI

What are a board's responsibilities regarding generative AI?

Frithjof Lund

Boards are increasingly discussing [generative AI \(gen AI\)](#), but they tend to focus more on the risks than on the business opportunities. The risk side of gen AI is important, of course. In addition to the fundamental risks of business model disruption, there are multiple regulatory, compliance, and governance risks relating to intellectual property, privacy, and data security. There are concerns about the “AI black box”—that is, the lack of transparency around how gen AI arrives at results—and about social biases that may be perpetuated in the data used to train AI algorithms. Accountability for accuracy, the potential for gen AI to stoke misinformation, and even the environmental impact of gen AI's energy use for data

The potential of gen AI in maximizing cloud value



AWS Re:Invent 2023

November 28, 2023 - If it seems like gen AI will touch every aspect of tech and business in coming years, well, the possibility certainly exists. At AWS re:invent, we expect to learn how gen AI can impact organizations' migrations to the cloud. In a [recent article](#), authors including senior partner [Will Forrest](#) argue that emerging generative AI technology stands to significantly boost organizations' ROI when it comes to [cloud](#). And it's not just us that think so: nearly 80 CTOs and cloud leaders we convened this fall agree that gen AI stands to shift the cloud value equation. How can organizations seize the opportunity? Two ways: first, using cloud to support gen AI initiatives, and second, using gen AI to accelerate cloud programs. For more on what's becoming possible, check out the insights below. And [bookmark this page](#) for a weeklong series on the topics that will headline this year's #reInvent.

[In search of cloud value: Can generative AI transform cloud ROI?](#)

[Cloud-powered technologies for sustainability](#)

[The organization of the future: Enabled by gen AI, driven by people](#)

[The new era of resiliency in cloud](#)

[What is the future of generative AI?](#)

[The economic potential of generative AI](#)

[The state of AI in 2023: Generative AI's breakout year](#)



By Eric Lamarre

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For digital and AI transformations to succeed, companies need to understand the problems they want to solve and rewire their organizations for continuous innovation.

Digital and AI transformations are everywhere. Almost every company has done, is doing, or plans to do one. But how can you make the changes stick? [In this episode](#) of the *Inside the Strategy Room* podcast, McKinsey senior partner Eric Lamarre talks about the critical elements of what it takes to rewire an organization through making fundamental changes to talent, operating model, and technology and data capabilities. He is coauthor with Kate Smaje and Rodney Zempel of the *Wall Street Journal* bestseller [Rewired: The McKinsey guide to outcompeting in the age of digital and AI](#). This is an edited transcript of their conversation. For more discussions on the strategy issues that matter, follow the series on your [preferred podcast platform](#).

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New ROI analysis highlights what it takes to capture the value of cloud computing, and what role generative AI can play.

Established companies face a quandary as they look to exploit cloud: as attractive as the benefits may be, the scale of change and investments required to adopt cloud platforms make generating an attractive return on investment (ROI) a challenge. But generative AI may significantly shift that value equation. It has the potential to dramatically reduce the investment and time needed to adopt cloud *and* generate new value by unlocking new business and tech use cases.

As a median, large companies run only 15 to 20 percent of their applications in cloud, even when they have been running cloud programs for years and even after they account for the use of software-as-a-service (SaaS) products. And it does not appear that there has been a dramatic uptick in adoption over the past year—companies with cloud programs profiled by McKinsey have increased their cloud adoption by only 5 to 10 percent over the past 12 months. Aspirations for cloud adoption, nevertheless, remain high. Almost all of the more than 80 enterprises McKinsey profiled for its CloudSights database aspire to run the majority of their applications in public cloud within five to seven years; more than two-thirds aspire to run 80 percent of their systems in cloud.

What is the reason for this disconnect between aspiration and reality? Getting value from public cloud, it turns out, is complicated. Companies have spent the past several decades building

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1. Find engineering talent with broad experience and skills
2. Balance talent maturity levels and team composition
3. Build an upskilling program that is extensive, mandatory, and focused on need

4. Build an engineering culture that optimizes the developer experience
5. Consider using partners to accelerate development, and assign your best cloud leaders as owners



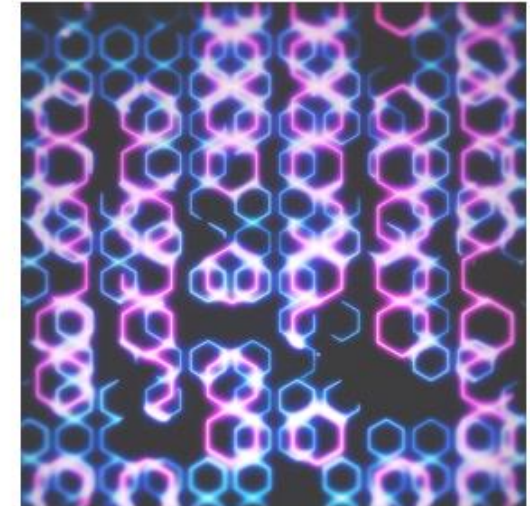
On the front line of the gen AI (r)evolution

McKinsey's years of work in artificial intelligence had us well prepared as generative AI dominated the conversation in 2023.

As we head into the holiday season and get ready for the new year, take some time this weekend to read up on generative AI and regulations, the latest *Five Fifty*, retail shrink, and more.

Daniel Mikkelsen and coauthors offer a strategic road map to help regulators navigate the risks of AI and gen AI.

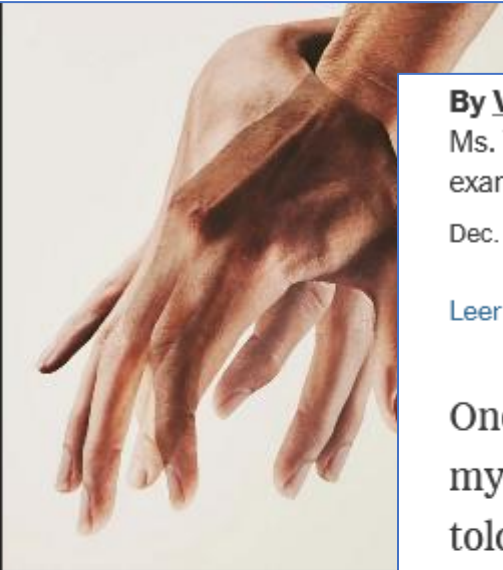
Focus on transparency





OPINION
GUEST ESSAY

One Year In and ChatGPT Already Has Us Doing Its Bidding



By Vauhini Vara

Ms. Vara is a journalist and fiction writer. Her forthcoming essay collection, “Searches,” examines how technology is transforming human communication.

Dec. 19, 2023

[Leer en español](#)

One of the first things I asked ChatGPT about, early this year, was myself: “What can you tell me about the writer Vauhini Vara?” It told me I’m a journalist (true, though I’m also a fiction writer), that I was born in California (false) and that I’d won a Gerald Loeb Award and a National Magazine Award (false, false).

After that, I got in this habit of inquiring about myself often. Once, it told me Vauhini Vara was the author of a nonfiction book called “Kinsmen and Strangers: Making Peace in the Northern Territory of Australia.” That, too, was false, but I went with it, responding that I had found the reporting to be “fraught and difficult.”

“Thank you for your important work,” ChatGPT said.

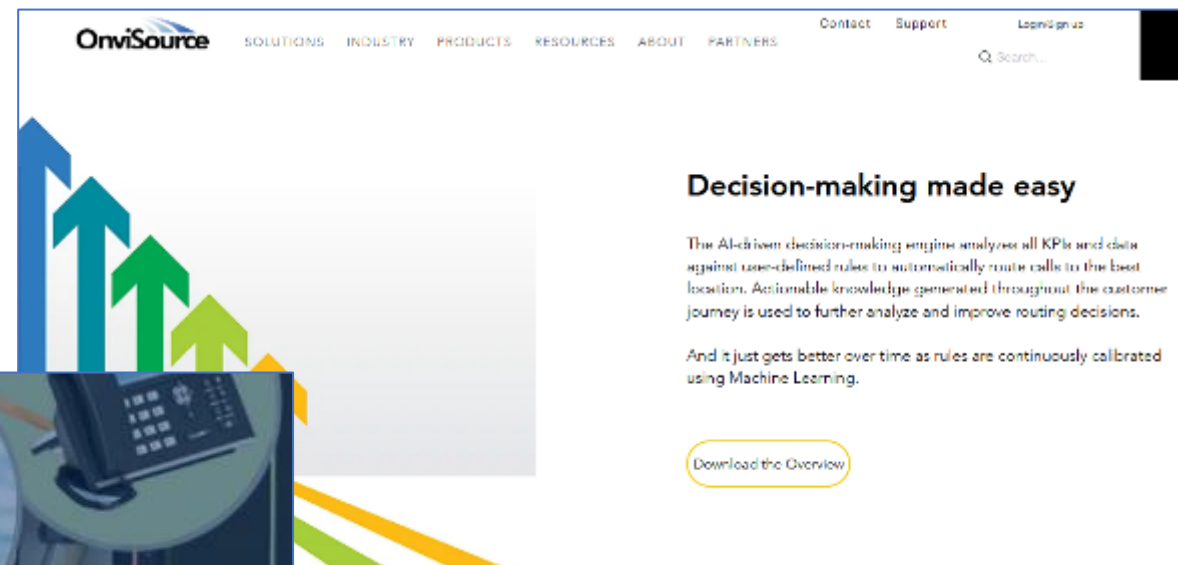


AIIRR™ Intelligent Call Routing (ICR)
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Deliver the Best Customer Experience
Route Customer Service Requests to the Right Service Center on First Contact at the First Step of the Customer Journey

Accurate Call Routing is Critical to Customer Satisfaction
Accurate routing of customer calls with no or minimal transfers and delays is critical to overall customer satisfaction. No matter how well customer calls are handled by agents, if a customer is on hold for too long or transferred multiple times, most likely they are already dissatisfied with their experience related to the service.

AIIRR provides analytics-driven and automated routing of customer calls at the carrier network level, connecting the calls to the right service center that can best provide the service they need.



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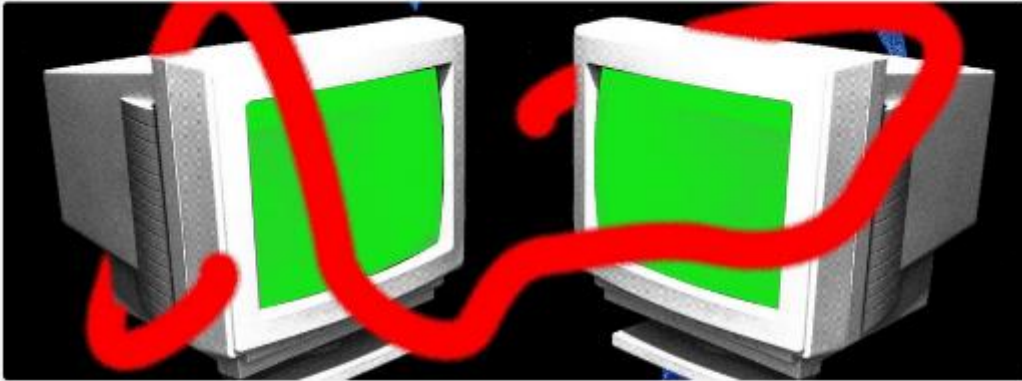
Search...

Decision-making made easy

The AI-driven decision-making engine analyzes all KPIs and data against user-defined rules to automatically route calls to the best location. Actionable knowledge generated throughout the customer journey is used to further analyze and improve routing decisions.

And it just gets better over time as rules are continuously calibrated using Machine Learning.

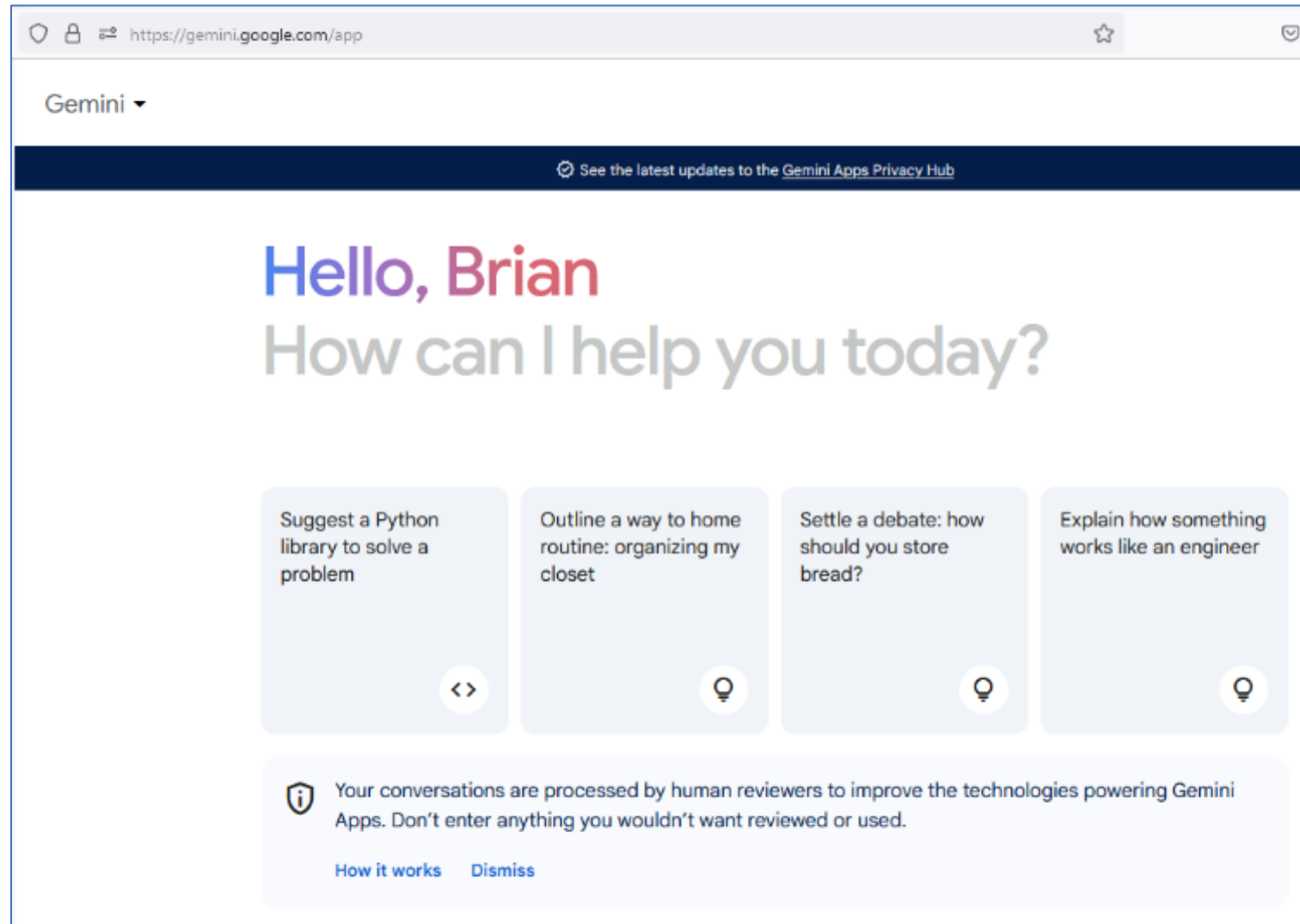
[Download the Overview](#)

 **Wired** Mar 1, 2024

Here Come the AI Worms

Researchers have created one of the first generative AI worms, which can spread from one system to another and potentially steal data or deploy malware. The AI worms were created as a demonstration of the risks associated with connected, autonomous AI ecosystems. In the experiment, the researchers used a generative AI email assistant to show how the worm can attack and steal data from emails. The researchers also found that embedded image files can be used to forward malicious prompts and spam messages. While generative AI worms have not yet been observed in the wild, experts warn that they pose a significant security risk.

https://gemini.google.com/app



https://www.pcmag.com/explainers/what-is-microsoft-copilot?utm_source=email&utm_campaign=whatsnewnow&zdee=

What Is Copilot? Microsoft's AI Assistant Explained

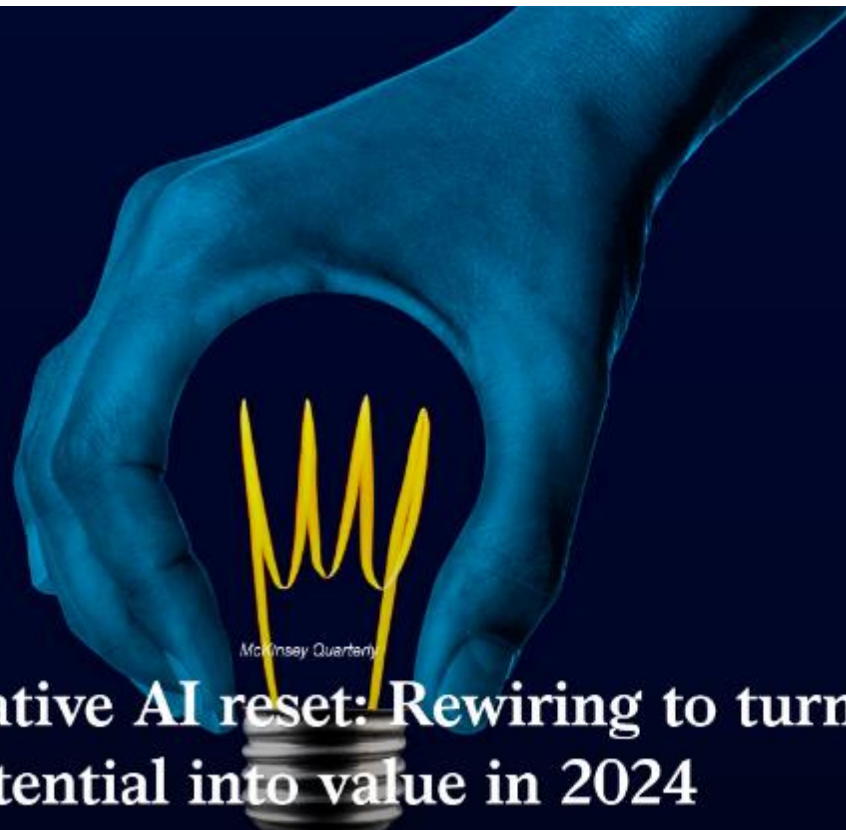
Microsoft's Copilot generative AI is popping up in Windows, Edge, Office apps, and Bing. But just what exactly is it? Here's everything you need to know.



By **Michael Muchmore**

February 13, 2024





A generative AI reset: Rewiring to turn potential into value in 2024

McKinsey Quarterly

March 4, 2024 | Article

New from McKinsey & Company



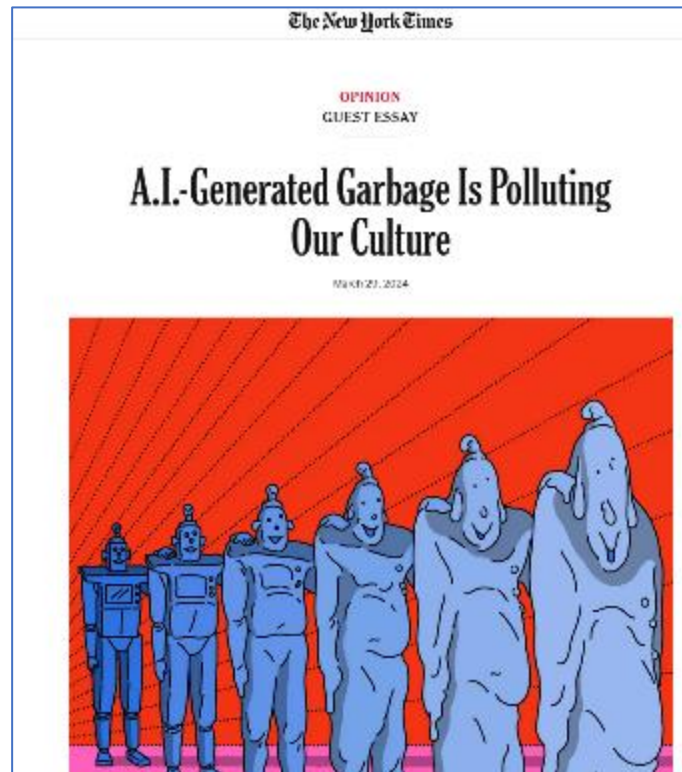
The cyber clock is ticking: Derisking emerging technologies in financial services

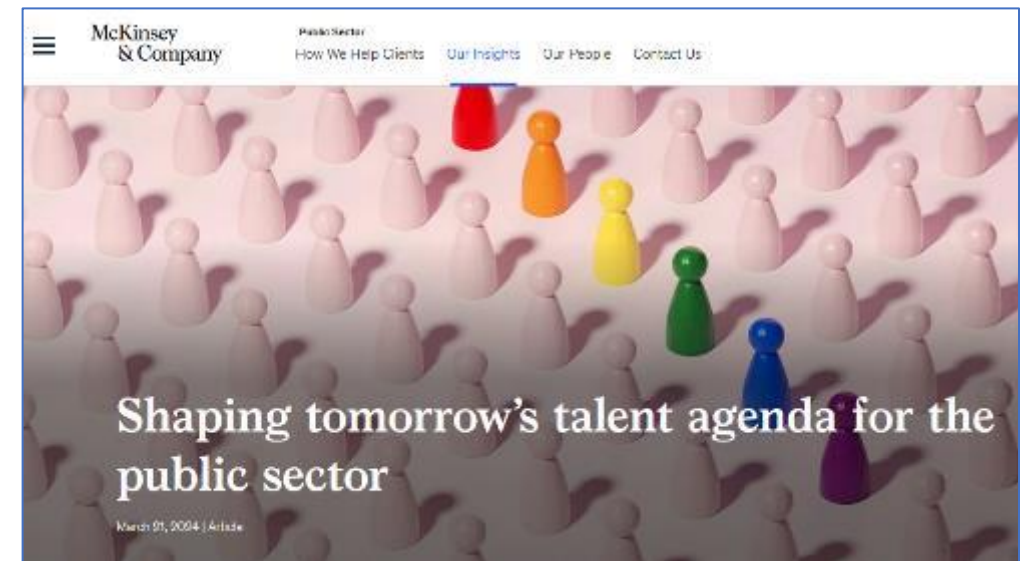
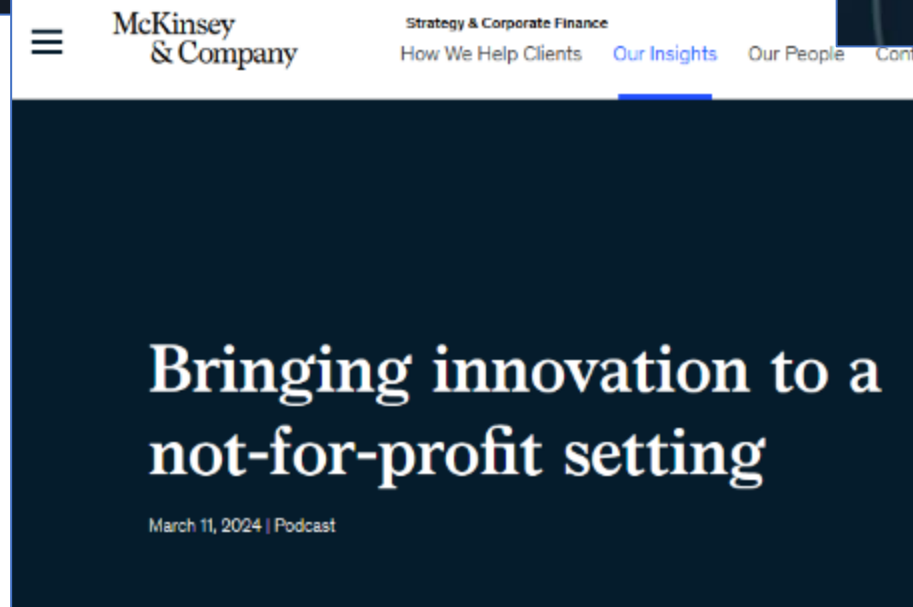
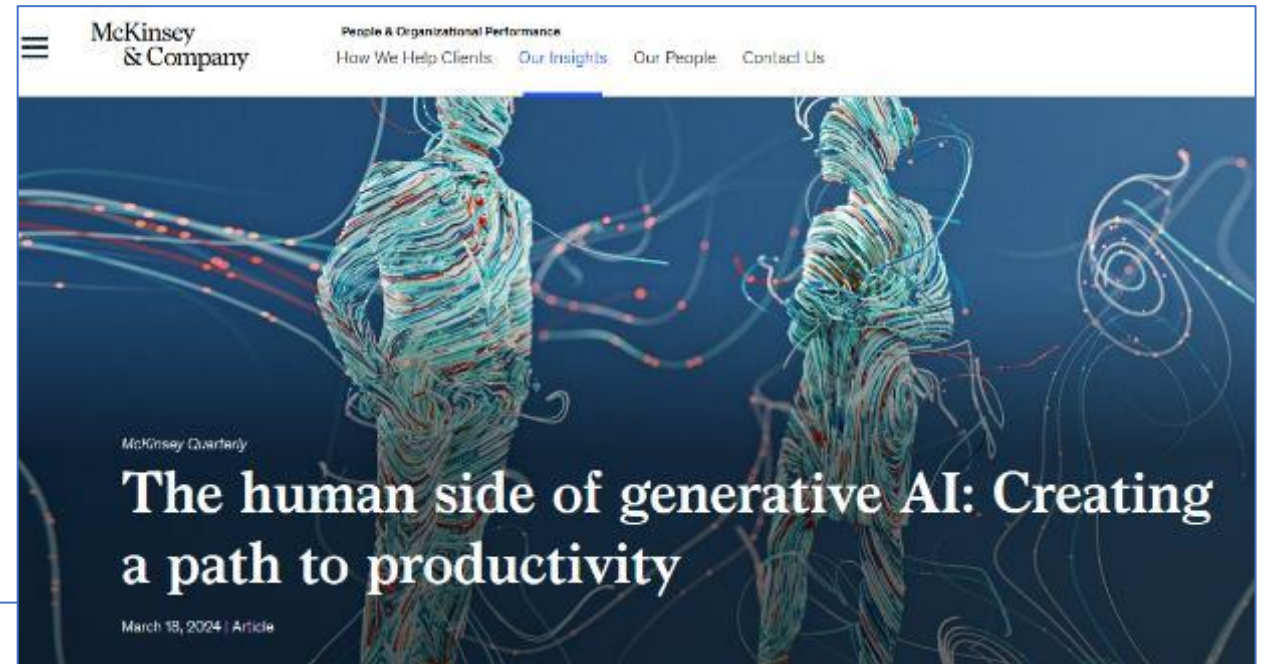
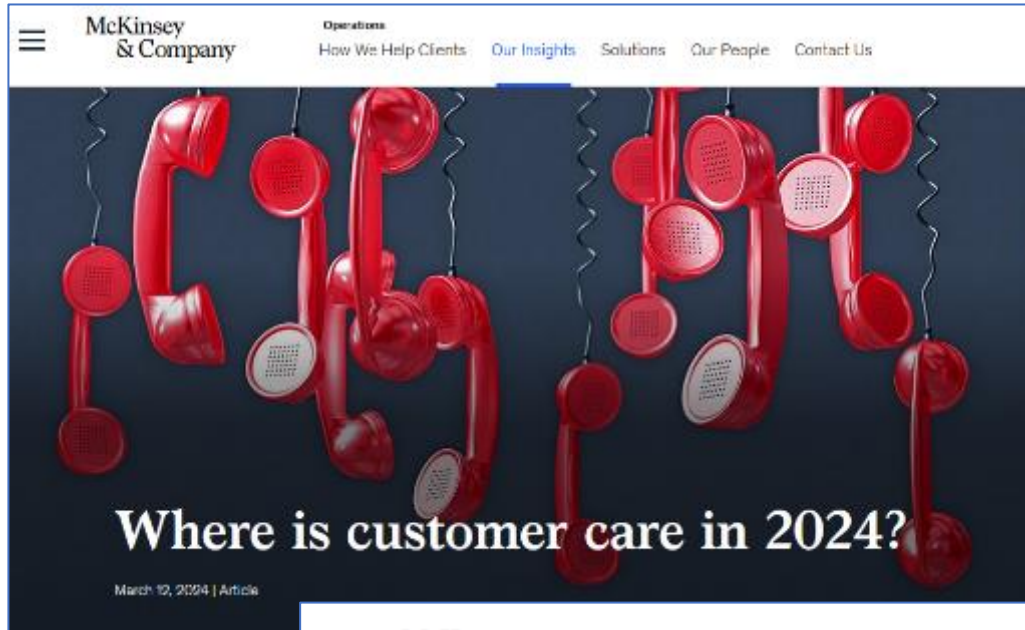
As financial institutions actively adopt emerging technologies, they should act now to future-proof themselves against growing cyber risks.

Adobe Acrobat Pro

Ask. Acrobat answers.

Meet AI Assistant (beta) in Acrobat Pro. Ask AI Assistant questions about your doc and get answers fast. Generate one-click summaries. Then use those insights to create impactful content and level up your productivity. Try new AI Assistant beta features in Acrobat Pro at no additional charge for a limited time.



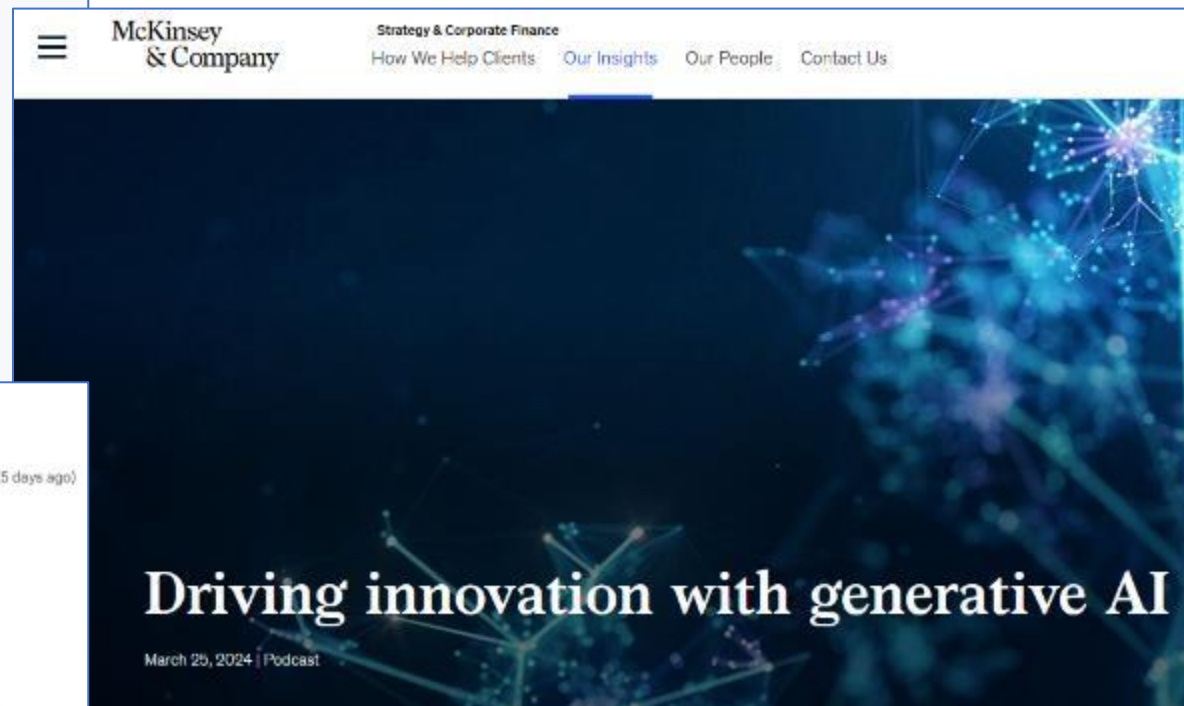






OpenAI's ChatGPT Store Is Flooded With Bots That Impersonate Celebrities


OpenAI's GPT Store is surging with spam, celebrity impersonators, and bots specifically designed to bypass AI-detection tools, suggesting the company's review process is flawed.

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Updates to DALL·E  [Inbox](#)

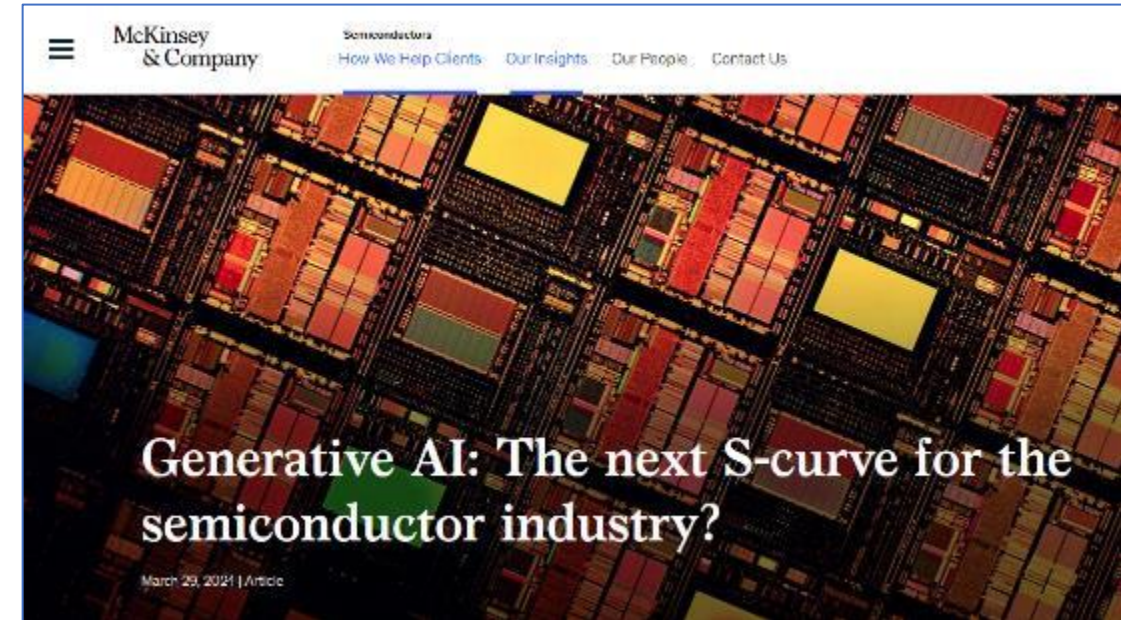
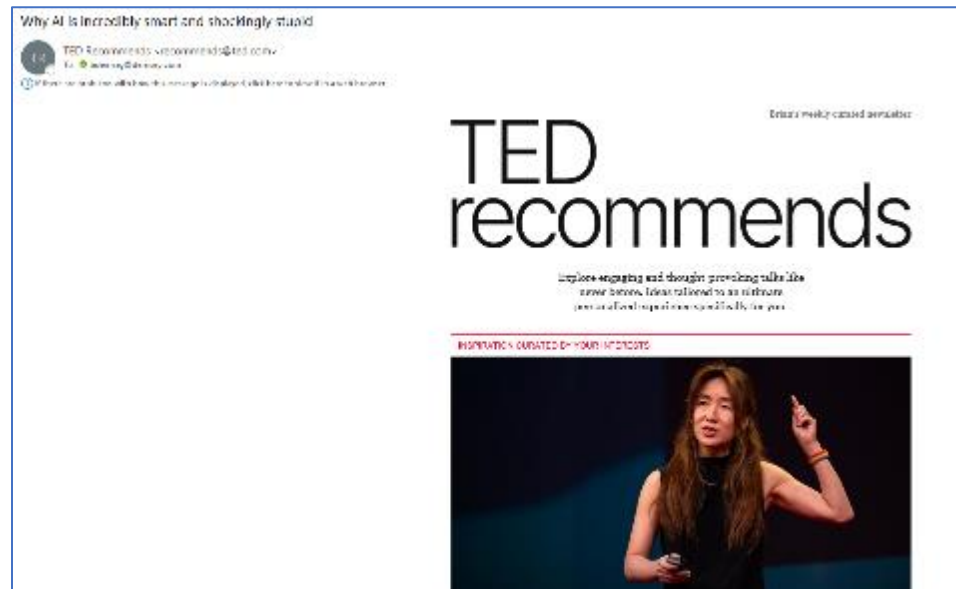
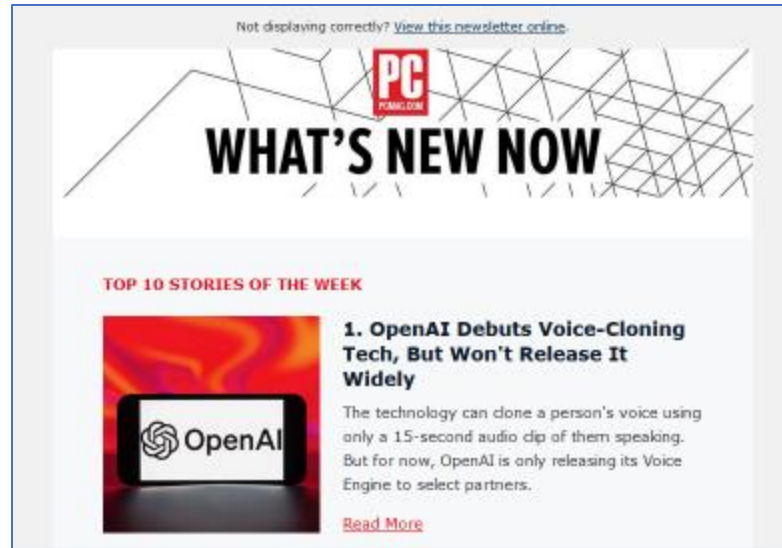
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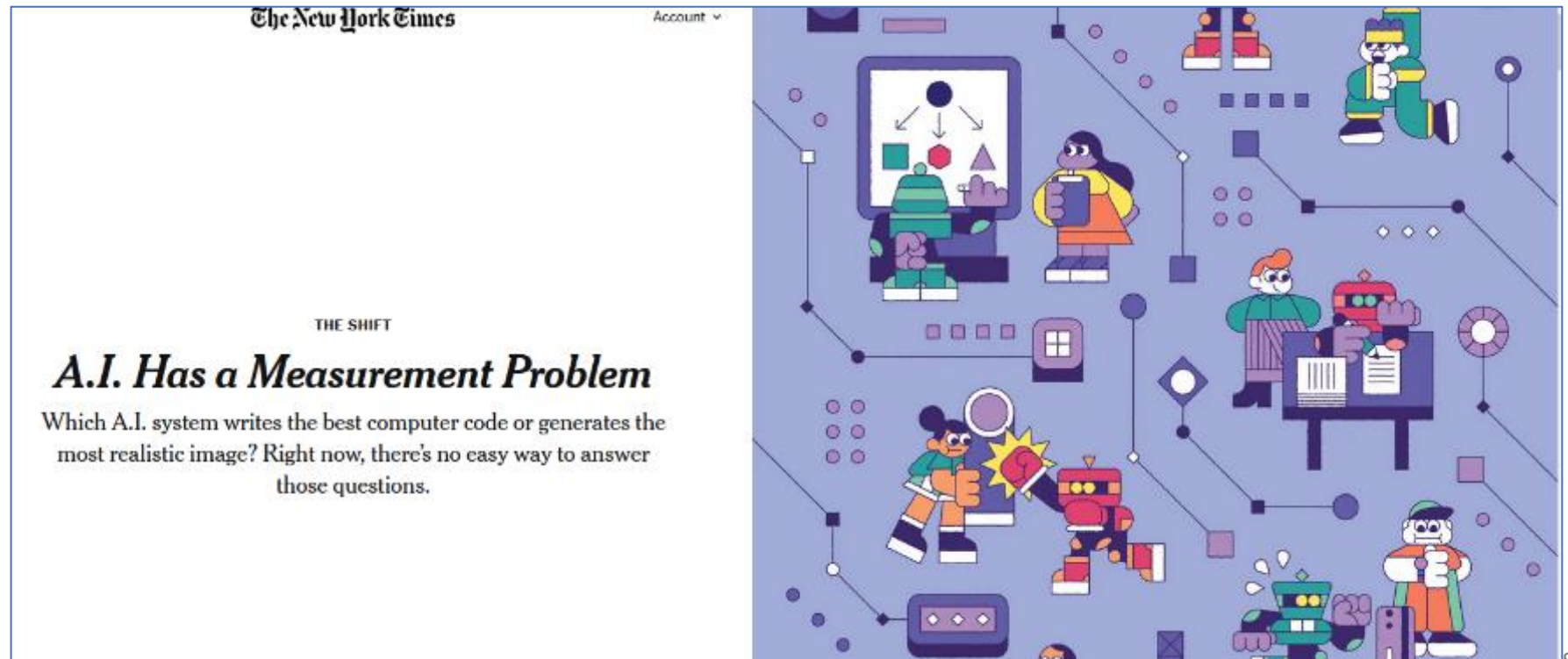
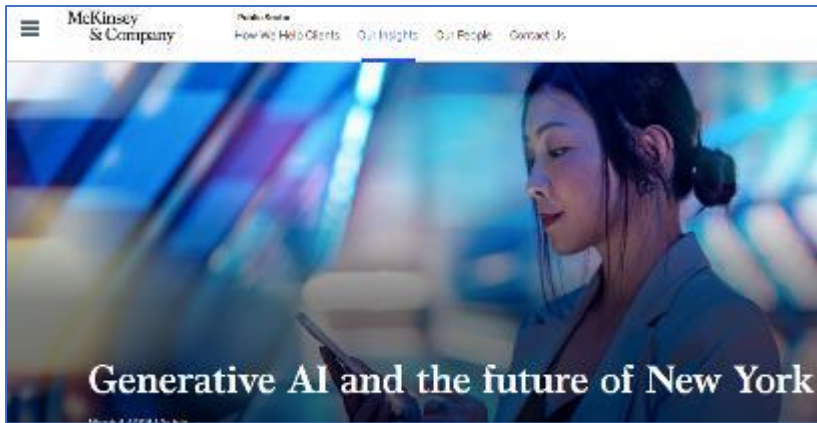
 **OpenAI**

Since launching DALL·E 3 in October 2023, we've been amazed by what has been created. We're continuing to invest in DALL·E 3, which has higher quality images and enhanced prompt-following capabilities compared to previous models, and as of this week we've started the rollout of image editing in ChatGPT. If you haven't yet tried it, DALL·E 3 is available to ChatGPT Plus, Team and Enterprise users.

As we focus on improving DALL·E 3, we'll be sunsetting DALL·E 2 in Labs next year. Here's how this will affect your Labs account.

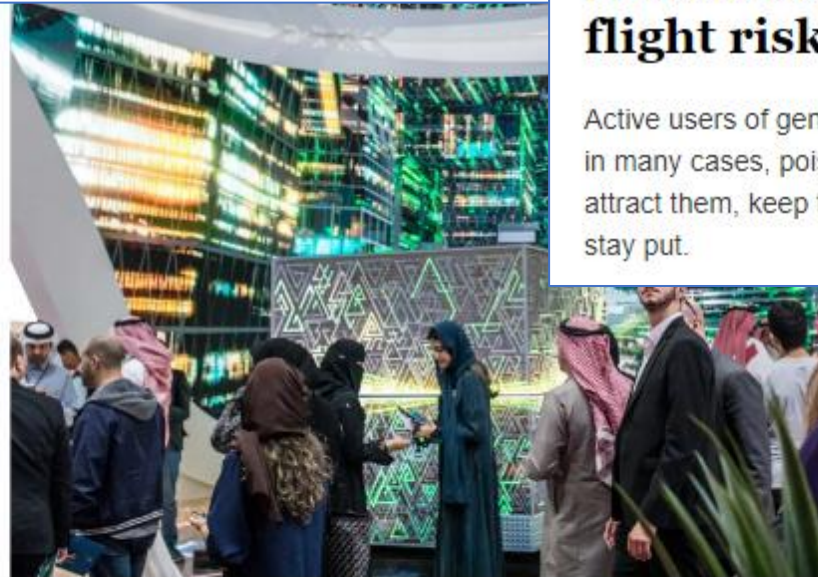
- Labs credits will be available for purchase until May 1, 2024
- Purchased Labs credits are valid for one year from the purchase date
- Labs will remain online until May 1, 2025
- DALL·E 2 will continue to be available via the OpenAI API





'To the Future': Saudi Arabia Spends Big to Become an A.I. Superpower

The oil-rich kingdom is plowing money into glitzy events, computing power and artificial intelligence research, putting it in the middle of an escalating U.S.-China struggle for technological influence.



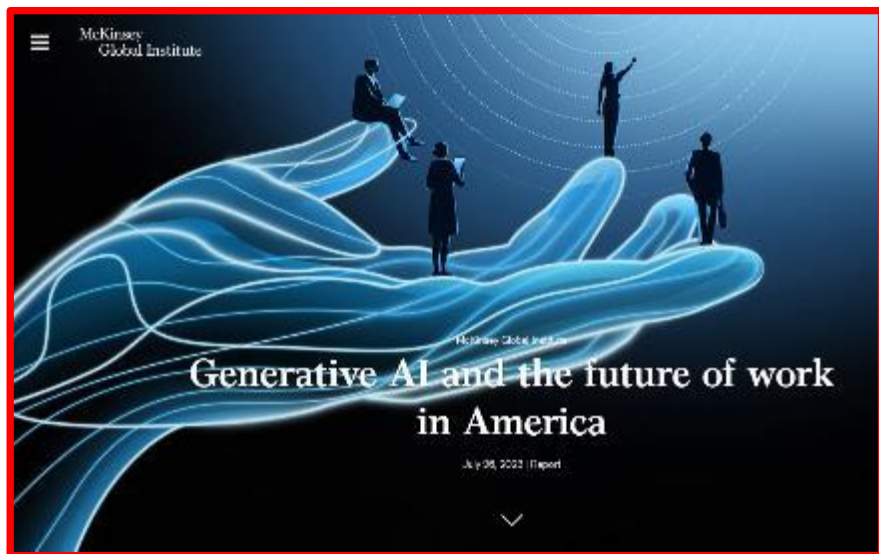
More than 200,000 people converged on the Leap tech conference in the desert outside Riyadh in March. Iman Al-Dabbagh for The New York Times

New from McKinsey & Company



Gen AI talent: Your next flight risk

Active users of gen AI are high value and in demand—and in many cases, poised to quit. New research reveals how to attract them, keep them engaged, and motivate them to stay put.



Elon Musk's deal !

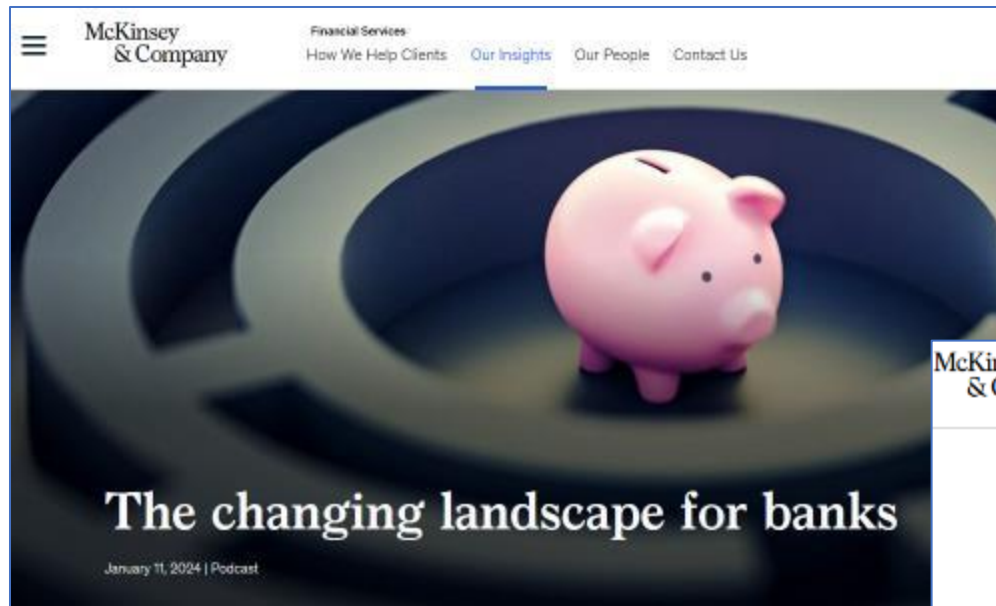


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To centralize or not to centralize: generative AI in banking

June 22, 2024 - Digital banking is one of many industries being revolutionized by generative AI (gen AI) and tackling the nuanced challenges brought on by the technology. Amid rapid implementation, banks and other financial institutions eager to [capture the full value](#) of gen AI must consider the capabilities of their operating model, or the blueprint for how a business puts strategy into action.



Generative AI and the future of work: A Singapore perspective

June 28, 2024 | Podcast

Sanjna Parasrampuria: I have no hesitation in saying that 2023 was the year of generative AI. If you look at some of the facts: OpenAI's valuation went up to \$80 billion after being about \$29 billion in January 2023; 13 generative AI start-ups became unicorns in 2023 alone; and it took ChatGPT around two months to reach 100 million users—one of the most rapid user growths that we've seen. And

"hallucinate" was Cambridge Dictionary's 2023 Word of the Year. So certainly, there was a lot of impact in 2023. I thought it might be useful to start unpacking some of this. Kathryn, from where you sit, what are some of the key generative AI trends that you're seeing globally?

First Came 'Spam.' Now, With A.I., We've Got 'Slop'

A new term has emerged to describe dubious A.I.-generated material.



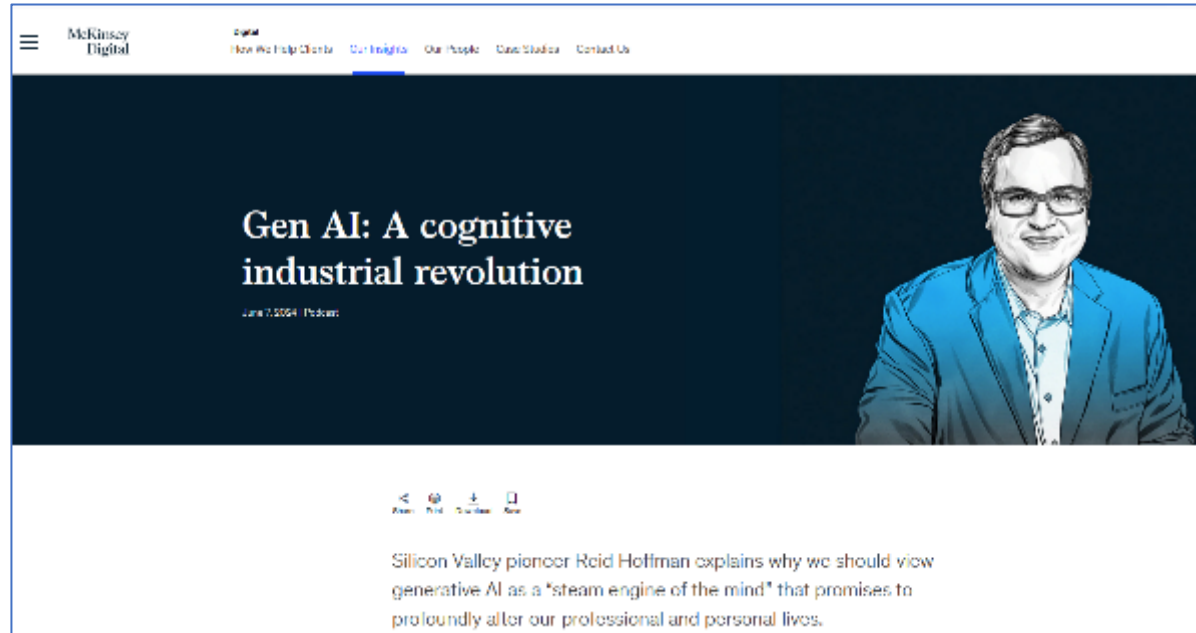
By Benjamin Hoffman

June 11, 2024

You may not know exactly what “slop” means in relation to artificial intelligence. But on some level you probably do.

Slop, at least in the fast-moving world of online message boards, is a broad term that has developed some traction in reference to shoddy or unwanted A.I. content in social media, art, books and, increasingly, in search results.

It's left and right brains.



Audio

Teaching gen AI chatbots the importance of both IQ *and* EQ

Lareina Yee: I asked both ChatGPT and Inflection AI's Pi to introduce you, Reid, and here is what they had to say. Pi said: "Reid Hoffman, Silicon Valley titan. Stands on the edge of innovation where the boundaries of technology are pushed to their limits."

In contrast, here's what GPT had to say: "Get ready to dive into the digital realm with Reid Hoffman. Like an Avenger assembling allies, Hoffman pioneers the art of connection, shaping our future of the interconnected world."

Welcome, Reid. Which of these introductions do you like the most?

Reid Hoffman: Well, I like them both. And the fact that you could so easily generate two pithy introductions says something significant about how far AI has come in the last couple of years.

"The most natural thing when you're doing engineering is to get IQ correct. But one of the things that's really essential for people is how we bring EQ into it."

Ed tech providers hold ‘shared responsibility’ for AI, says Education Dept

New federal guidance outlines how ed tech providers can build trust with district leaders as they integrate artificial intelligence into products and platforms.

Published July 16, 2024



Anna Merod
Reporter



This means ed tech providers need to actively manage risks from the rapidly evolving technology, the department said.

In the guidance issued July 8, the Education Department outlined eight “categories of risk” for using AI in schools:

- A “race to release.”
- Bias and fairness.
- Data privacy and security.
- Harmful content.
- Ineffective systems.
- Malicious uses.
- Misinformation management.
- Transparency and explainability.
- Underprepared users.



Here's a bargain of the most horrifying kind: For less than \$100,000, it may now be possible to use artificial intelligence to develop a virus that could kill millions of people.

That's the conclusion of Jason Matheny, the president of the RAND Corporation, a think tank that studies security matters and other issues.

"It wouldn't cost more to create a pathogen that's capable of killing hundreds of millions of people versus a pathogen that's only capable of killing hundreds of thousands of people," Matheny told me.

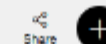
In contrast, he noted, it could cost billions of dollars to produce a new vaccine or antiviral in response.





We are beginning an evolution from knowledge-based, gen-AI-powered tools—say, chatbots that answer questions and generate content—to gen AI-enabled “agents” that use foundation models to execute complex, multistep workflows across a digital world. In short, the technology is moving from thought to action.

Sidebar



About QuantumBlack, AI by McKinsey

Broadly speaking, “agentic” systems refer to digital systems that can independently interact in a dynamic world. While versions of these software systems have existed for years, the natural-language capabilities of [gen AI unveil new possibilities](#), enabling systems that can plan their actions, use online tools to complete those tasks, collaborate with other agents and people, and learn to improve their performance. Gen AI agents eventually could act as skilled virtual coworkers, working with humans in a seamless and natural manner. A virtual assistant, for example, could plan and book a complex personalized travel itinerary, handling logistics across multiple travel platforms. Using everyday language, an engineer could describe a new software feature to a programmer agent, which would then code, test, iterate, and deploy the tool it helped create.

What is Web3?

Written by: 990 James



Web3 is a term used to describe the next iteration of the internet, one that is built on blockchain technology and is communally controlled by its users.



Third time's the charm? You know that the internet is always growing and changing. But it's not just websites and platforms that are falling in and out of favor; the very code on which the internet is built is constantly in flux. In the past few years, some tech futurists have started pointing to Web3, a term coined by computer scientist Gavin Wood, as a sign of things to come. Web3 is the idea of a new, decentralized internet built on blockchains, which are distributed ledgers controlled communally by participants. Because of the collective nature of blockchains, if and when Web3 fully arrives—elements of it are already in place—it will, in theory, signal a new era of the internet, one in which use and access are controlled by community-run networks rather than the current, centralized model in which a handful of corporations preside over Web2.

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[↓ Article \(5 pages\)](#)

More companies are deploying AI and seeing its benefits to their bottom line, according to results from the 2024 McKinsey Global Survey on AI, led by senior partners [Alex Singla](#), [Alexander Sukharevsky](#), and [Lareina Yee](#). [AI adoption has risen from 50 percent in 2022, before generative AI \(gen AI\) became mainstream, to 72 percent in 2024](#). Gen AI use has surged from 33 percent in 2023 to 65 percent this year. Beyond implementation, AI solutions are beginning to generate value for organizations, driving cost savings in HR and boosting revenue in supply chain and commercial activities. The survey revealed key distinctions between a small group of high performers—which attribute more than 10 percent of their EBIT to their use of gen AI—and the rest. Relative to other organizations, high performers deploy the technology across more business functions (average of three versus average of two), are more likely to use customized or proprietary AI models, and are more proactive about mitigating gen AI's risks, such as inaccuracies and cybersecurity issues.