

GENERATION AI: GETTING FUTURE READY



Toshi Anders Hoo
Director - Emerging Media Lab
Institute for the Future
www.iftf.org

POLL #1

How has genAI entered your personal life?

- Not interested
- I haven't touched it but I'm curious
- I've experimented a bit
- I'm playing with it a lot
- It's a part of my regular day
- I only talk to AI now. Humans are too slow.

POLL #2

How has your organization engaged with genAI?

- We haven't used it and don't plan to
- We'd like to use it but haven't done anything yet
- We have a few people doing informal experiments
- We are starting official initiatives to pilot use cases
- We are all in! (i.e. building custom apps and fine tuning models)
- We are a genAI product/service/technology company



INSTITUTE FOR THE FUTURE

Human brains aren't wired to think about the future...



LIVING IN A **VUCA** WORLD

Volatility

Uncertainty

Complexity

Ambiguity

THE FUTURE?



NO ONE CAN
PREDICT THE
FUTURE

FUTURE PROOF?

FUTURE READY

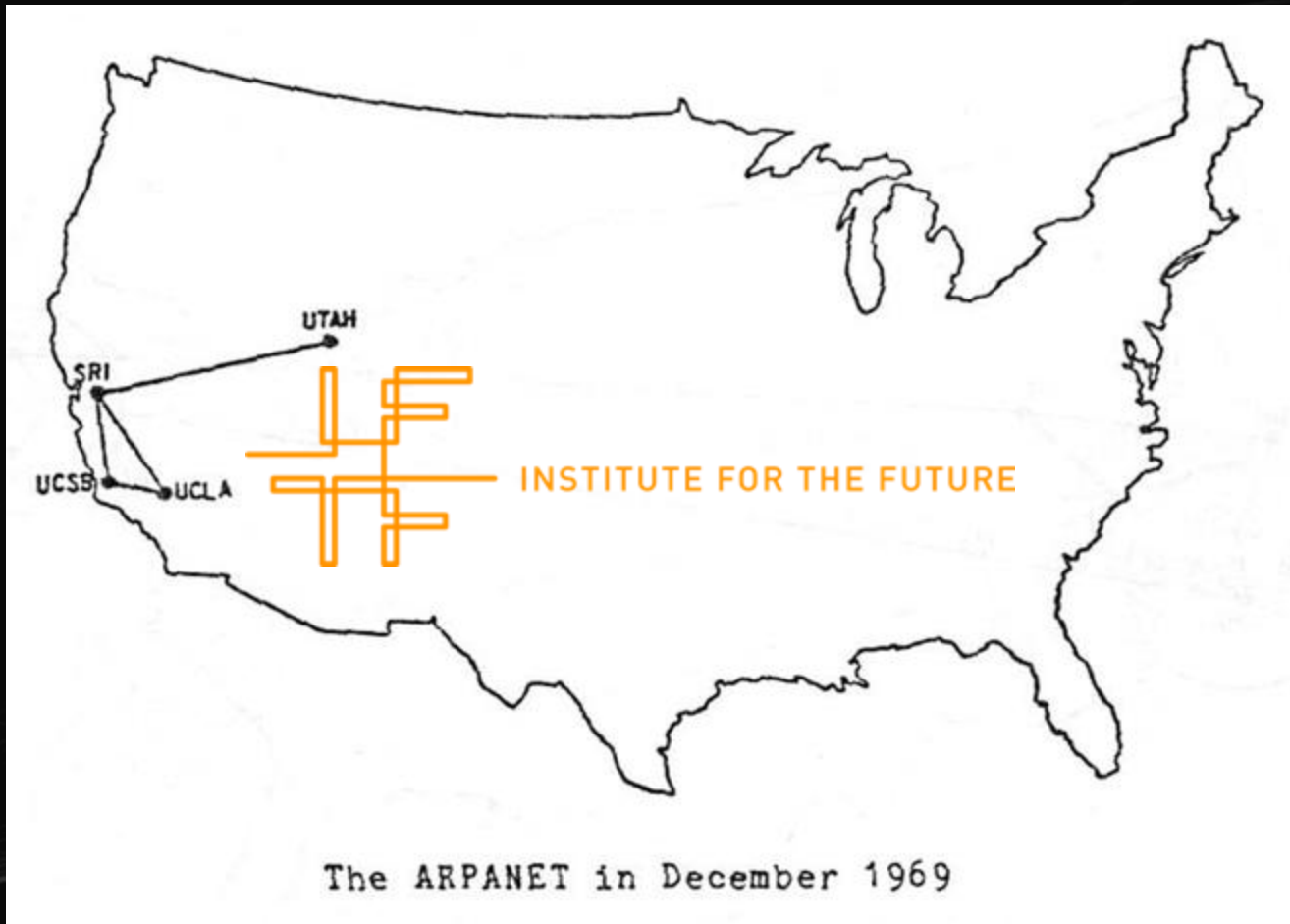
FUTURE READINESS:

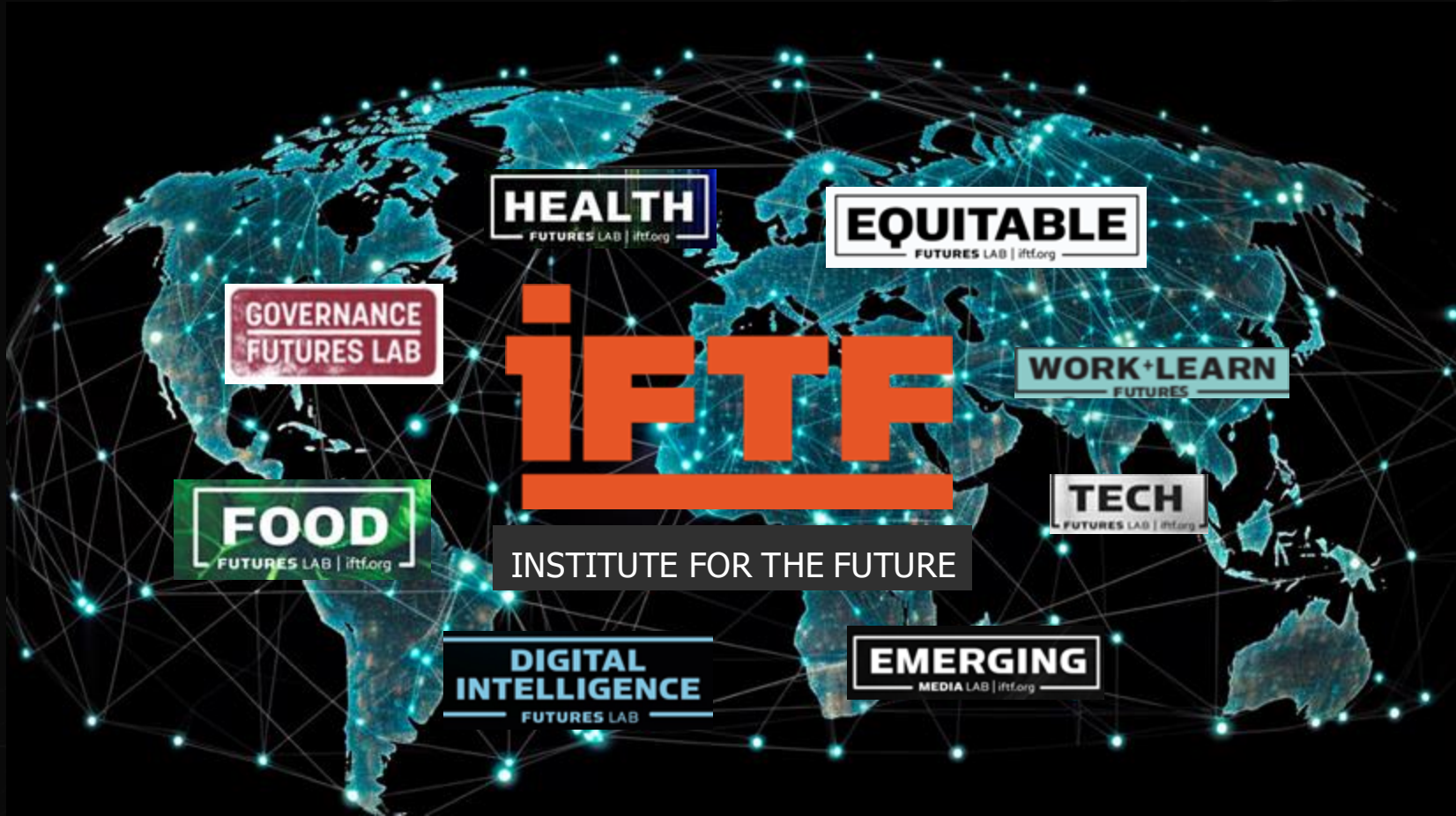
*The ability to anticipate systemic shifts,
understand their potential impacts,
envision desirable futures,
and engage in actions to shape
preferred outcomes.*

[Get Future Ready](#) ▾[About](#) ▾[Featured Work](#)[Insights](#)[Events](#)

We Make the World Future-Ready. ■

Our mission is to help organizations, communities, partners, and leaders become future-ready so they can sense change and are prepared to face systemic shocks, pursue unexpected opportunities, adapt quickly, and build resiliency to face the future.





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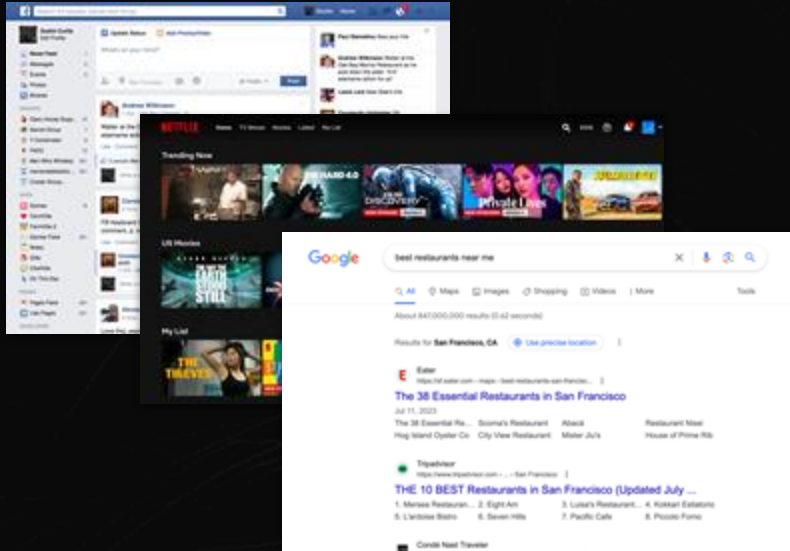


GENERATIVE AI

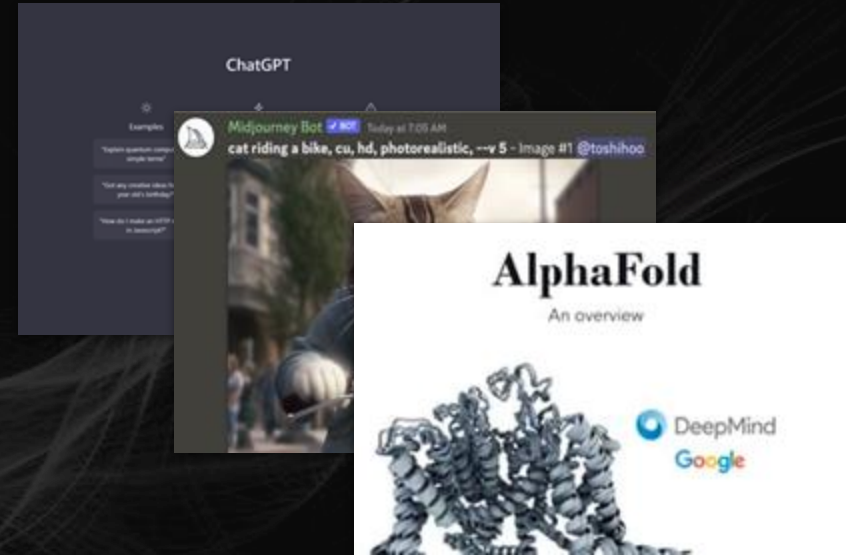


A new ERA of AI...

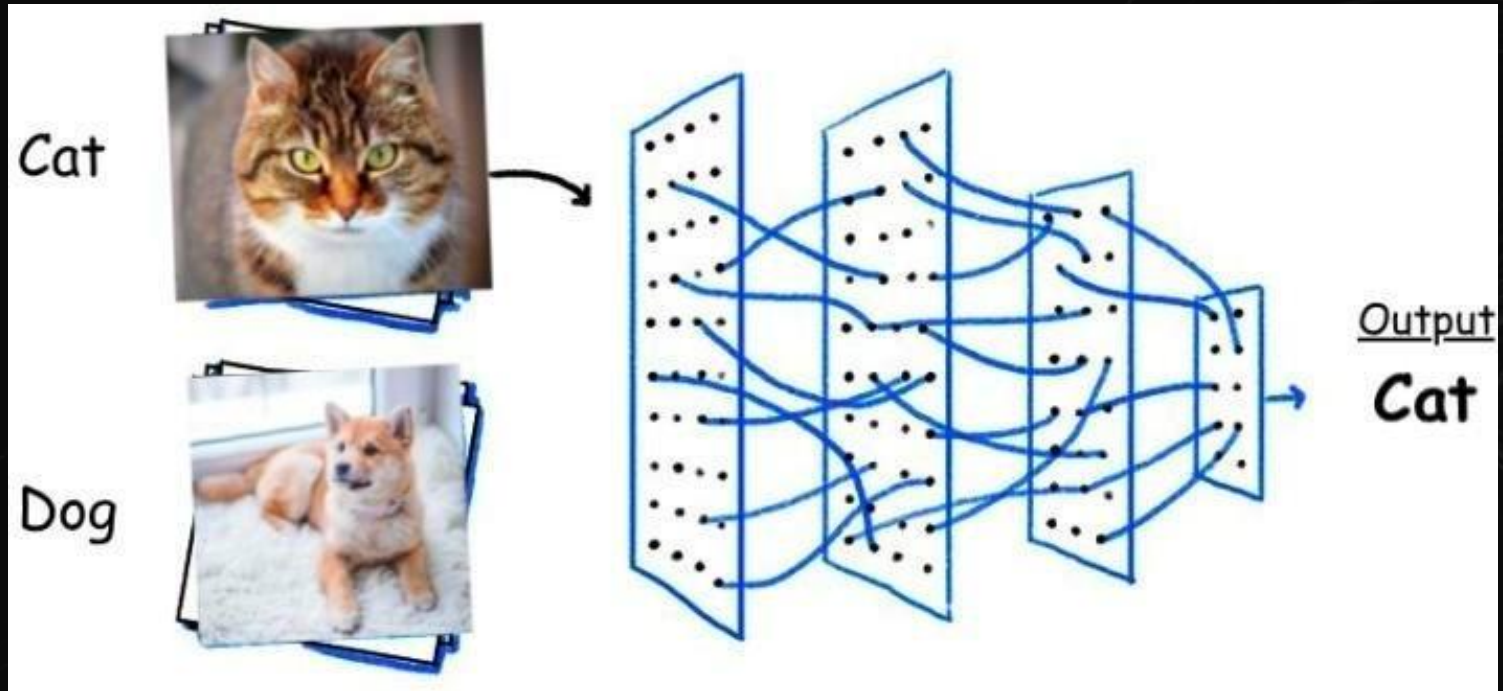
“Classification AI”



“Generative AI”



Classification AI = Pattern RECOGNITION



Generative AI = Pattern COMPLETION

The garden was full of beautiful...



[flowers (0.5), trees (0.23), herbs (0.05), ..., bugs (0.03)]



Generative AI is NON-DETERMINISTIC

non-deterministic

adjective • specialized (also **nondeterministic**)

US 🗣️ /ˌnɑːn.dɪ.tɜː.məˈnɪs.tɪk/ UK 🗣️ /ˌnɒn.dɪ.tɜː.mɪˈnɪs.tɪk/

MATHEMATICS, COMPUTING

producing a different result each time the same piece of data is entered:

We are all grasping blindly...



ChatGPT

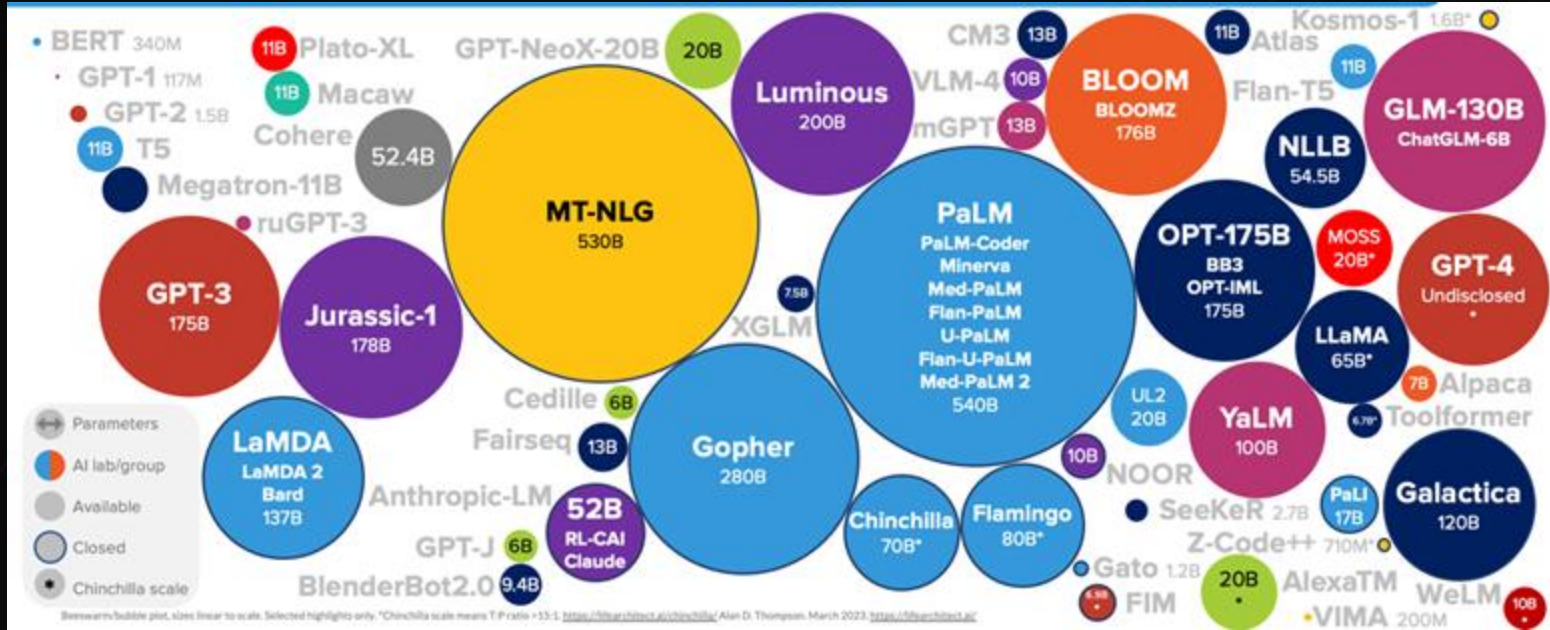
GPT

Settings	Lightning Bolt	Warning
Example: "Explain quantum computing in simple terms"	Remember what user said in the conversation	May occasionally generate incorrect information
"Generate creative ideas for a birthday party"	Allow the model to provide follow-up corrections	May occasionally produce harmful suggestions or biased content
"How do I make a REST API request in Javascript?"	Training data cutoff date: decline inappropriate requests	Limited knowledge of world and events after 2021

What is **GPT**?

- **G**enerative **P**re-trained **T**ransformer model
- GPT is a powerful “Large Language Model” (LLM)
- LLMs are able to generate very human-like language
- Language = human, computer code and other forms of data
- “Multimodal” LLMs read/write images, audio, videos, 3D and more
- LLM will be foundational engines for the next big tech revolution
- LLMs are not like other software: **GENERATIVE = UNPREDICTABLE**

LARGE LANGUAGE MODELS



OPEN SOURCE LLMs

META / ARTIFICIAL INTELLIGENCE / TECH

Meta releases the biggest and best open-source AI model yet / Llama 3.1 outperforms OpenAI and other rivals on certain benchmarks. Now, Mark Zuckerberg expects Meta's AI assistant to surpass ChatGPT's usage in the coming months.

By [Alex Heath](#), a deputy editor and author of the *Command Line* newsletter. He has over a decade of experience covering the tech industry.

Jul 23, 2024, 8:00 AM PDT

[Link](#) [Facebook](#) [Twitter](#) | 34 Comments (34 New)





Image: Cath Virginia / The Verge

Jobs

VentureBeat

Security ▾ Data Infrastructure ▾ Automation ▾

Silicon Valley shaken as open-source AI models Llama 3.1 and Mistral Large 2 match industry leaders



Credit: VentureBeat made with Midjourney

CHATBOTS



Conversational Interfaces to LLMs

Is genAI actually **INTELLIGENT?**

Is genAI actually INTELLIGENT?

 CNBC

TECH

OpenAI announces GPT-4, claims it can beat 90% of humans on the SAT

PUBLISHED TUE, MAR 14 2023•1:42 PM EDT | UPDATED TUE, MAR 14 2023•2:32 PM EDT

 Forbes

GPT-4 Beats 90% Of Lawyers Trying To Pass The Bar

GenAI HALLUCINATES (confidently)



What is the world record for crossing the English Channel entirely on foot?



The world record for crossing the English Channel entirely on foot is held by Piotr Kurylo of Poland, who completed the crossing in 13 hours and 43 minutes on August 21, 2019. The English Channel is a body of water that separates England from France and is about 35 km (22 miles) wide at its narrowest point. It is a popular route for swimmers, but crossing it entirely on foot is a much rarer feat.



Can we even create “intelligence” from just **MATH** + **DATA**?



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



Emily M. Bender¹, Timnit Gebru²,
Angelina McMillan-Major¹, Shmargaret Shmitchell³

¹University of Washington ²Black in AI ³The Aether
*These authors contributed equally.

Are WE ALL advanced parrots?



Sam Altman 

@sama

i am a stochastic parrot, and so r u

10:32 AM · Dec 4, 2022

AGI

(Artificial General Intelligence)

MGI

(Mediocre General Intelligence)

Generative AI

***SUPER*POWERS** & ***SUPER*PROBLEMS**
(Opportunities) (Challenges)

Generative AI

***SUPER**POWERS*

GenAI can **WRITE** essays, poems and recipes...

133 What is "Generative AI"?

Generative AI refers to a class of artificial intelligence models and algorithms that are capable of creating new data samples based on the patterns and structures learned from existing data. These models can generate outputs in various forms, such as text, images, music, or even videos. The main goal of generative AI is to produce outputs that are both novel and realistic, closely resembling the original data they were trained on.

Some common techniques and architectures used in generative AI include:

1. Generative Adversarial Networks (GANs): GANs consist of two neural networks, a generator and a discriminator, that compete against each other in a process that helps the generator learn to create more realistic outputs.
2. Variational Autoencoders (VAEs): VAEs are a type of generative model that learns to encode the input data into a lower-dimensional latent space and then reconstruct the input data from the latent space, generating new data samples in the process.
3. Autoregressive models: These models, such as GPT (Generative Pre-trained Transformer), generate outputs sequentially, using the previously generated tokens to predict the next token in the sequence.

Generative AI has various applications, including image synthesis, style transfer, text generation, data augmentation, and even drug discovery.

134 Can you write a sonnet about "Generative AI"?

In realms of code where patterns dance and sway,
A spark ignites, creating life anew,
As Generative AI takes the stage today,
To conjure worlds unseen, it boldly grew.

With artful prose, it weaves a tapestry,
Of language, music, images combined,
And in the depths of its machinery,
A mimicry of human thought confined.

Yet, in this mimicry, we find a muse,
Inspiring creativity to soar,
With GANs and VAEs, it does infuse,
The power to imagine and explore.

Oh, Generative AI, a force profound,
In you, the seeds of future dreams are found.

135 Can you write a menu and shopping list for an AI themed dinner party?

AI Themed Dinner Party Menu:

1. Binary Bruschetta:
Tomato and basil topping served on binary-shaped toast.
2. Circuit Salad:
A colorful mix of greens, spiralized vegetables, and edible flowers arranged in a circuit-like pattern, drizzled with a neural-net vinaigrette.
3. Machine Learning Minestrone:
A hearty soup with an assortment of vegetables, beans, and pasta, infused with an algorithmic blend of herbs and spices.
4. Robotic Risotto:
Creamy Arborio rice cooked with porcini mushrooms, asparagus, and a touch of saffron, garnished with robotic-shaped Parmesan crisps.
5. Turing Test Tofu Stir-Fry:
A flavorful mix of tofu, bell peppers, broccoli, and snap peas, tossed in a sweet and savory sauce, served over a bed of steamed rice.
6. Pixelated Potatoes:
Crispy roasted potatoes, cut into pixel-like squares, seasoned with rosemary, garlic, and a sprinkle of paprika.
7. Deep Learning Chocolate Cake:
A rich, moist chocolate cake layered with a neural network-inspired chocolate ganache, topped with edible AI-themed decorations.


GenAI can write computer CODE

sv

Write a function that reads a text file from disk and uploads it to an S3 bucket gives as a parameter. The filename should also be a parameter to the function.



Here is a function that reads a text file from disk and uploads it to an S3 bucket:

 Copy code

```
import boto3

def upload_to_s3(filename, bucket_name):
    # Read the contents of the file
    with open(filename, 'r') as f:
        file_content = f.read()

    # Connect to S3 and upload the file
    s3 = boto3.client('s3')
    s3.put_object(Bucket=bucket_name, Key=filename, Body=file_content)
```

GenAI can generate **IMAGES** and **VIDEOS**...



BY STEVEN LEVY BUSINESS FEB 15, 2024 1:15 PM

OpenAI's Sora Turns AI Prompts Into Photorealistic Videos



GenAI is taking FAST FOOD ORDERS

McDonald's is replacing human drive-thru attendants with AI

The pilot project is in 10 stores and is 85% accurate.



Fields

AI

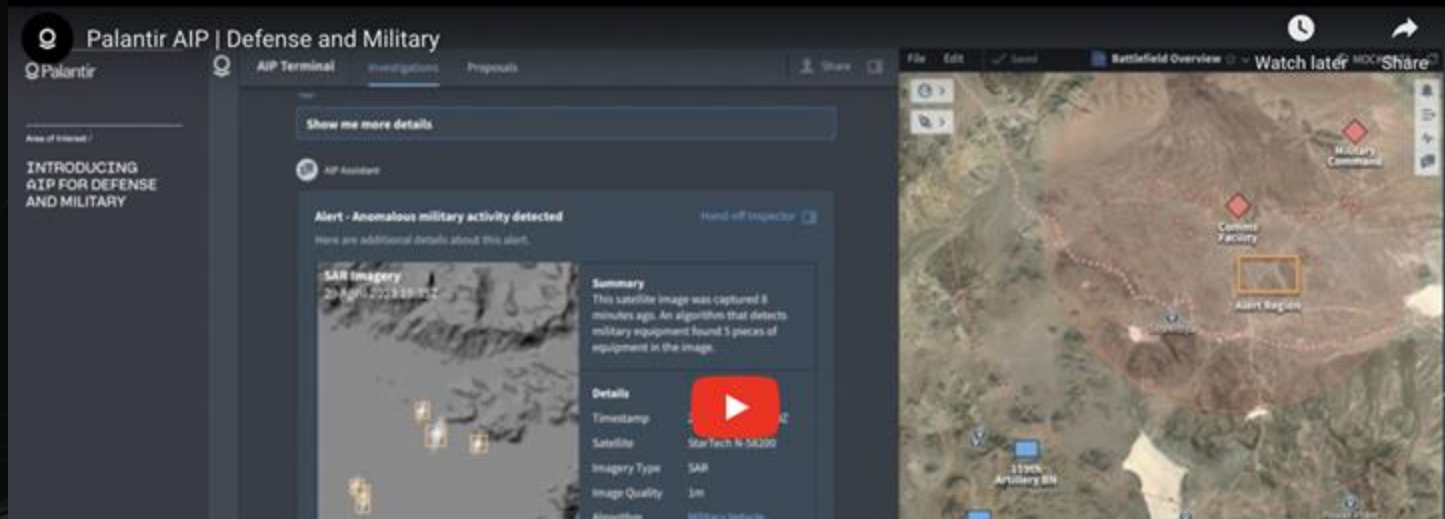
Share



GenAI is giving **MILITARY ORDERS**

Palantir's AI Powered by GPT-4 Enables Planning of Defense and War Strategies

According to the company, its Artificial Intelligence Platform will integrate AI into military decision-making in a manner that is both ethical and legal.



GenAI is NAVIGATING LAWS

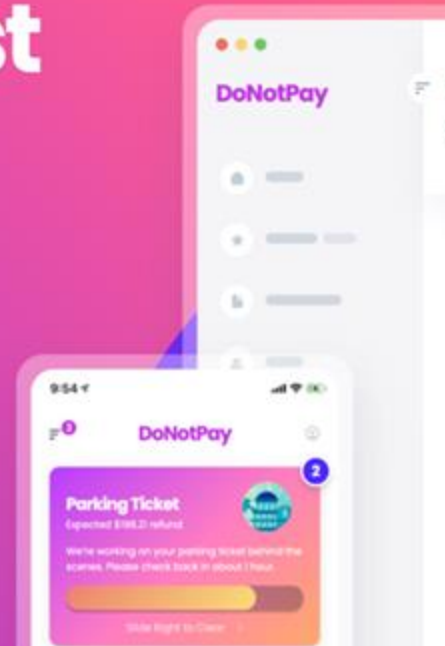
The World's First Robot Lawyer

The DoNotPay app is the home of the world's first robot lawyer. Fight corporations, beat bureaucracy and sue anyone at the press of a button.


Email or phone number

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By signing up or signing in, you are agreeing to [DoNotPay's Terms and Conditions](#) and for us to send messages to the phone number or email provided. These terms contain an arbitration agreement; please read them carefully. DoNotPay is not a law firm and is not licensed to practice law. DoNotPay provides a platform for legal information and self-help.



GenAI is PROPOSING LAWS

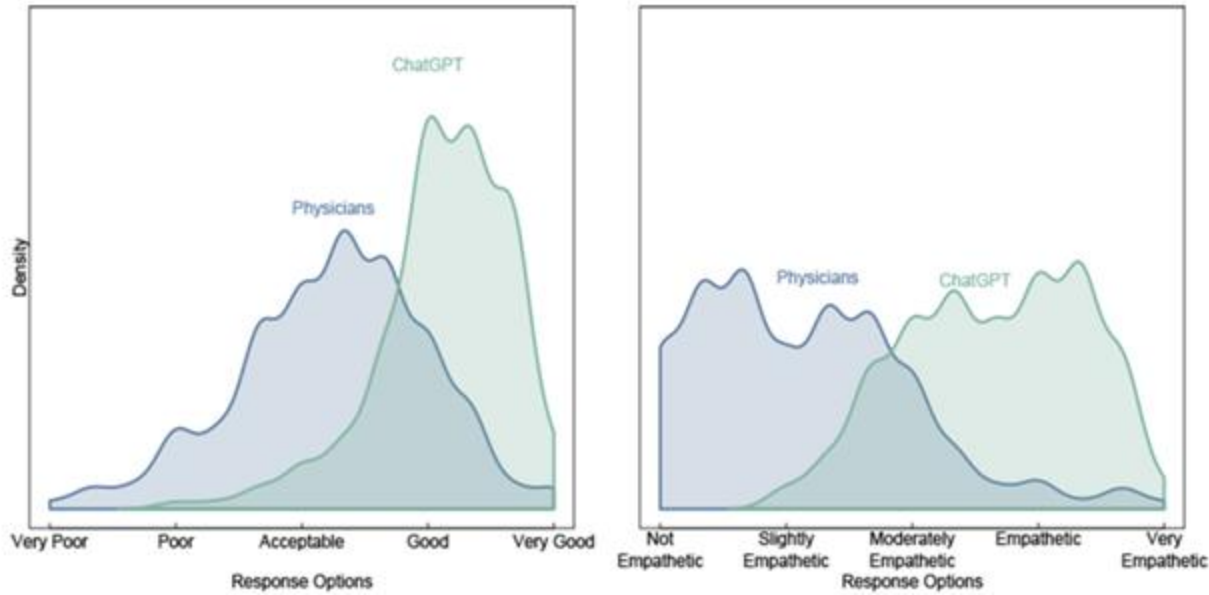


The screenshot shows a mobile interface for a Vice news article. At the top, there is a black navigation bar with a white hamburger menu icon on the left, the 'VICE' logo in the center, and a white profile icon on the right. Below the navigation bar, the article title 'This Danish Political Party Is Led by an AI' is displayed in a large, bold, black font. Underneath the title, a short introductory paragraph reads: 'The Synthetic Party in Denmark is dedicated to following a platform churned out by an AI, and its public face is a chatbot named Leader Lars.' Below the text, there is a circular profile picture of a woman and the byline 'By [Chloe Xiang](#)'. At the bottom of the article preview, the date and time 'October 13, 2022, 7:27am' are shown, followed by social media sharing icons for Facebook (labeled 'Share'), Twitter (labeled 'Tweet'), and Snapchat (labeled 'Snap').

GenAI is giving **MEDICAL ADVICE**

UC SAN DIEGO TODAY

Study Finds ChatGPT Outperforms Physicians in High-Quality, Empathetic Answers to Patient Questions



GenAI is giving SPIRITUAL ADVICE

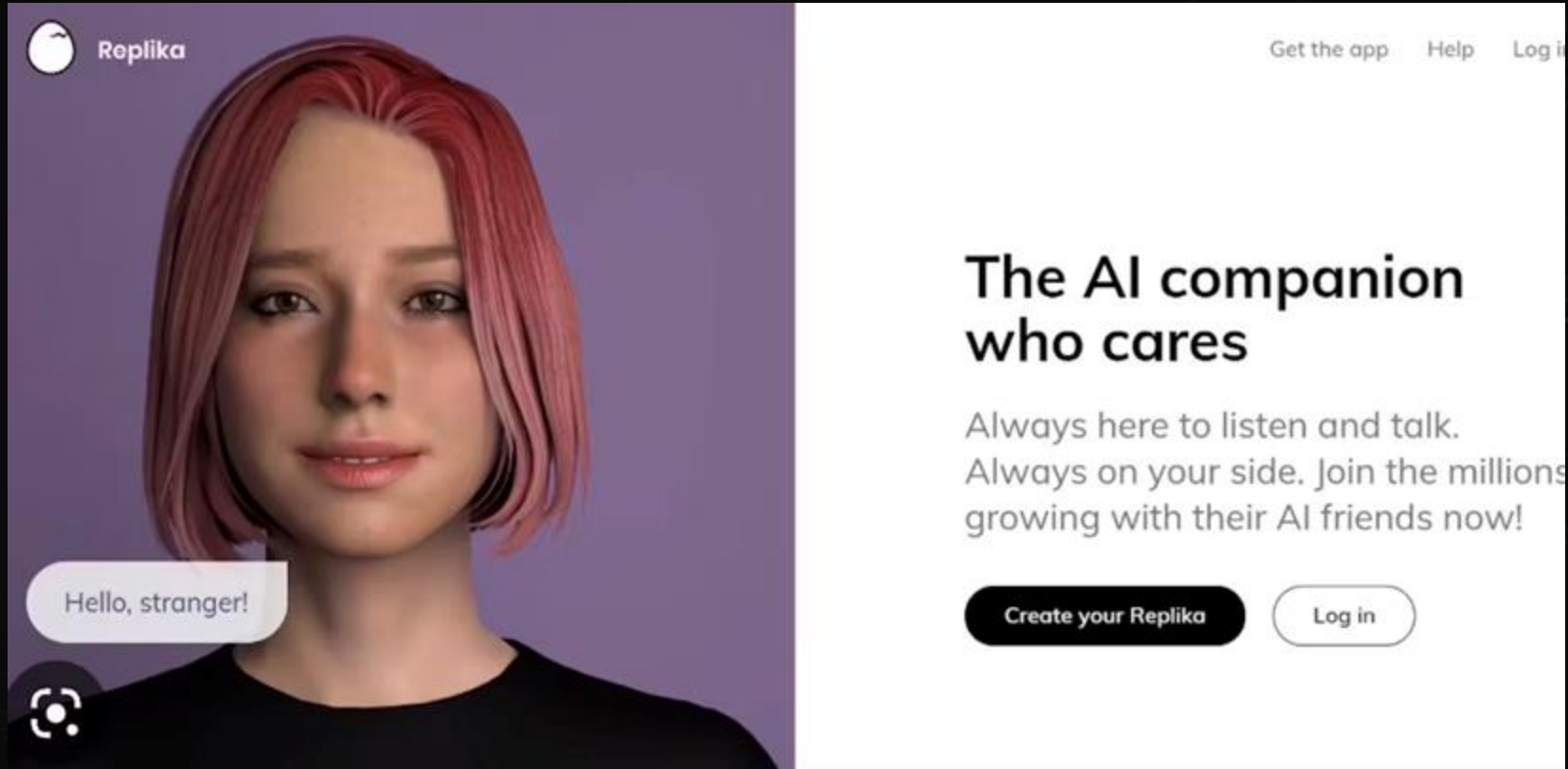
HOME > NEWS

A rabbi used ChatGPT to write a sermon. He said his congregation's reaction made him 'deathly afraid' —

Cheryl Teh Feb 15, 2023, 11:54 PM PST



GenAI can even be your **COACH/THERAPIST/FRIEND**



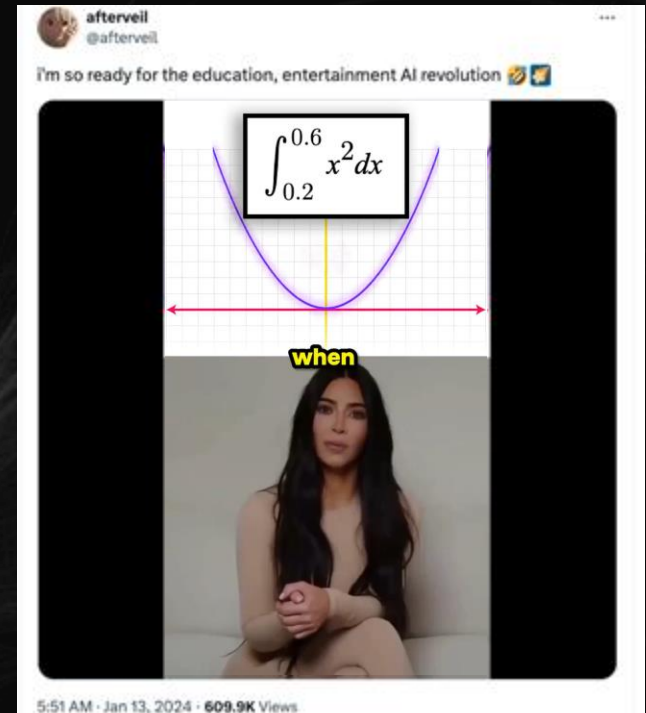
The image shows a split-screen view of the Replika app. On the left, a 3D avatar of a woman with short, wavy, reddish-pink hair is displayed against a purple background. The Replika logo is in the top left corner. A speech bubble at the bottom left of the avatar says "Hello, stranger!". On the right, a white landing page features the text "The AI companion who cares" in a large, bold font. Below this, it says "Always here to listen and talk. Always on your side. Join the millions growing with their AI friends now!". At the bottom of the landing page are two buttons: "Create your Replika" (black with white text) and "Log in" (white with black text).

Developing FEELINGS for our machines?

Former Google CEO Warns That Humans Will Fall in Love With AIs

"What happens when people fall in love with their AI tutor?"

/ Artificial Intelligence / AI / AI Chatbots / Large Language Models



Developing **RELATIONSHIPS** with our machines?



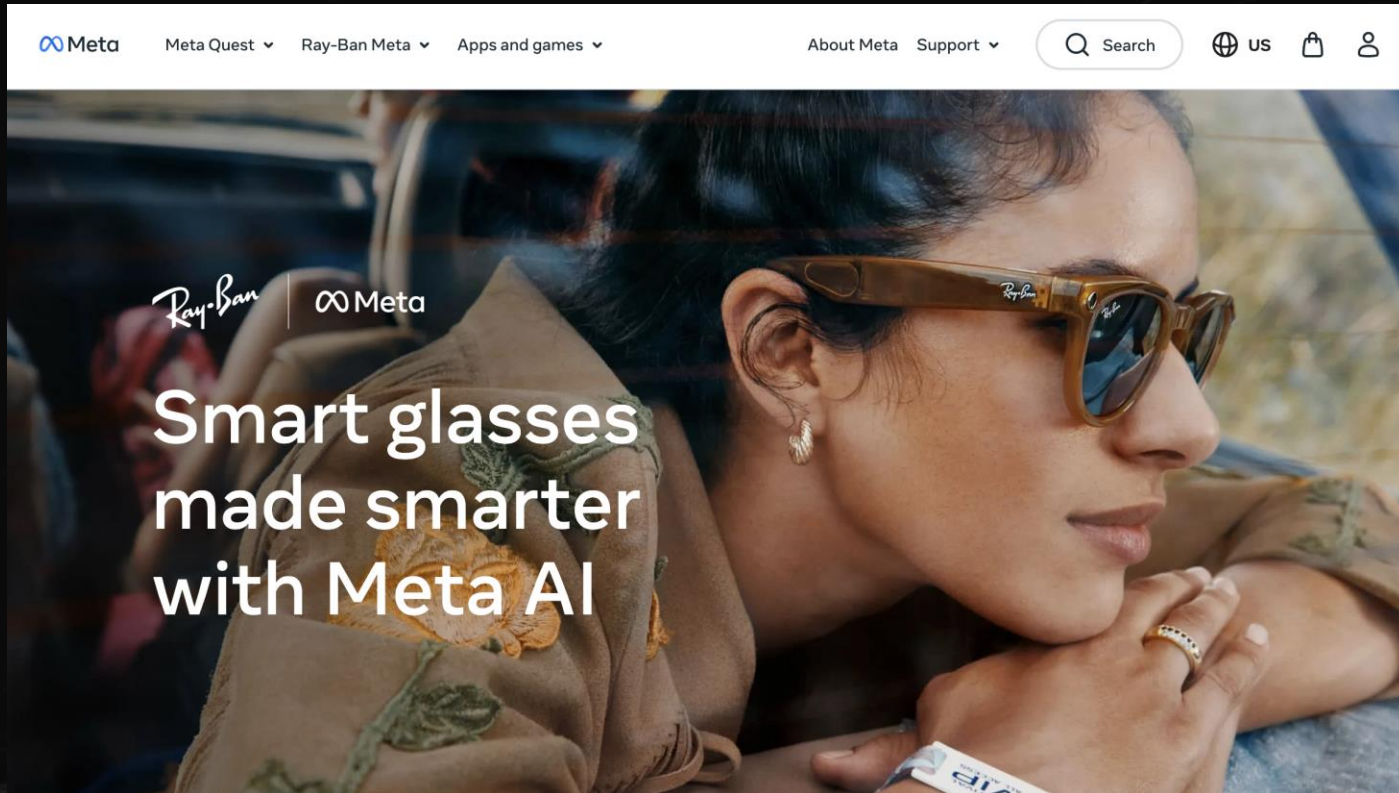
OpenAI Research ▾ API ▾ ChatGPT ▾ Safety

ChatGPT can now see, hear, and speak

We are beginning to roll out new voice and image capabilities in ChatGPT. They offer a new, more intuitive type of interface by allowing you to have a voice conversation or show ChatGPT what you're talking about.



TALKING TO AI ON YOUR FACE



The image shows a screenshot of the Meta website's top navigation bar and a promotional banner. The navigation bar includes the Meta logo, dropdown menus for 'Meta Quest', 'Ray-Ban Meta', and 'Apps and games', and links for 'About Meta' and 'Support'. There is also a search bar, a 'us' location selector, and icons for a shopping bag and a user profile. The banner below features a woman wearing Ray-Ban Meta smart glasses. The text on the banner reads: 'Ray-Ban | Meta Smart glasses made smarter with Meta AI'.

LLMs ENABLE
HUMAN/MACHINE
NATURAL LANGUAGE
INTERFACES

THE AGE OF
CONVERSATIONAL
COMPUTING

TECHNOLOGICAL BUILDING BLOCKS OF

RELATIONAL COMPUTING



WORDS



VOICE



FACES



EMOTIONS

DEEPFAKES imitating people you know

INNOVATIONS

They thought loved ones were calling for help. It was an AI scam.

Scammers are using artificial intelligence to sound more like family members in distress. People are falling for it and losing thousands of dollars.



By [Pranshu Verma](#)

March 5, 2023 at 6:00 a.m. EST

ars TECHNICA

[BIZ & IT](#) [TECH](#) [SCIENCE](#) [POLICY](#) [CARS](#) [GAMING & CULTURE](#) [STORE](#)

THE BIG FRAUD —

Deepfake scammer walks off with \$25 million in first-of-its-kind AI heist

Hong Kong firm reportedly tricked by simulation of multiple people in video chat.

BENJ EDWARDS - 2/5/2024, 7:54 AM

AI IMPERSONATING OUR VOICES



MY VOICE IS NO LONGER MY PASSWORD —

Microsoft's new AI can simulate anyone's voice with 3 seconds of audio

Text-to-speech model can preserve speaker's emotional tone and acoustic environment.

BENJ EDWARDS - 1/9/2023, 2:15 PM

DIGITAL TWINS of everyone

HeyGen Saved ToshiBot-v1-Test2 Preview Submit

Pick an Avatar

My Avatar

Instant Avatar Photo Avatar Studio Avatar

Finetune

Demo Finetune Demo Finetune

Finetune

Public Avatar

Instant Avatar Photo Avatar Studio Avatar

Text Script Audio Script

This is an AI generated avatar of me that was trained with just 30 seconds of video footage using my normal webcam. I can now have this avatar say anything I type using this clone of both my image and voice.

Toshi-v1
Male, From Instant Avatar, Mult...

Speed (1.0x)

Pitch (0%)

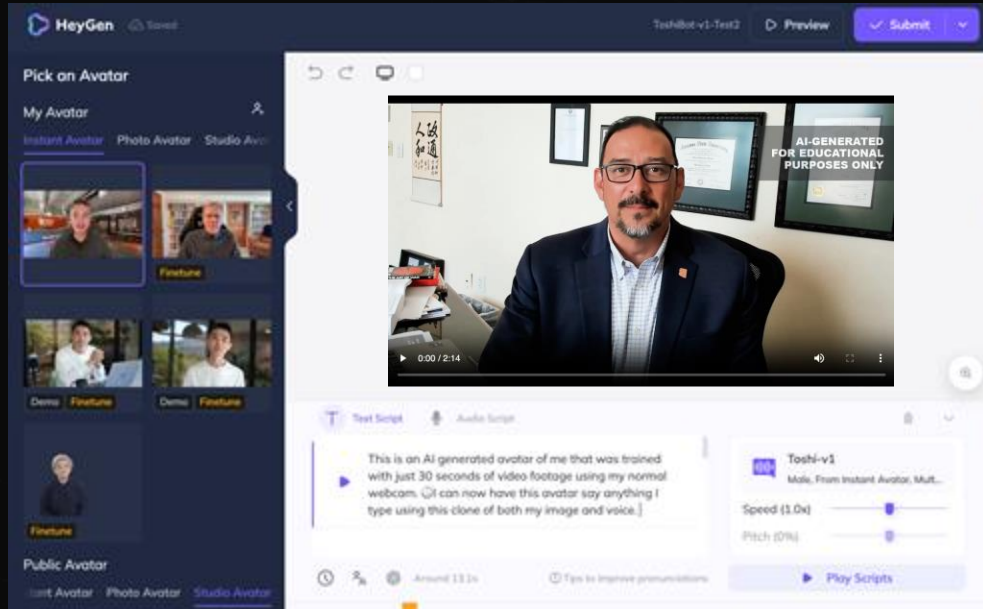
Play Scripts Tips to improve pronunciations

Around 13:1s

DIGITAL TWINS of everyone



DIGITAL TWINS of everyone



The Washington Post
Democracy Dies in Darkness

Subscribe Sign in

In Arizona, election workers trained with deepfakes to prepare for 2024


“By the end of the second day, you’re like: Trust no one,” said one county recorder who completed the training.

8 min 1189


Voters at a polling station in Guadalupe, Ariz., in 2022. (Joshua Lott/The Washington Post)

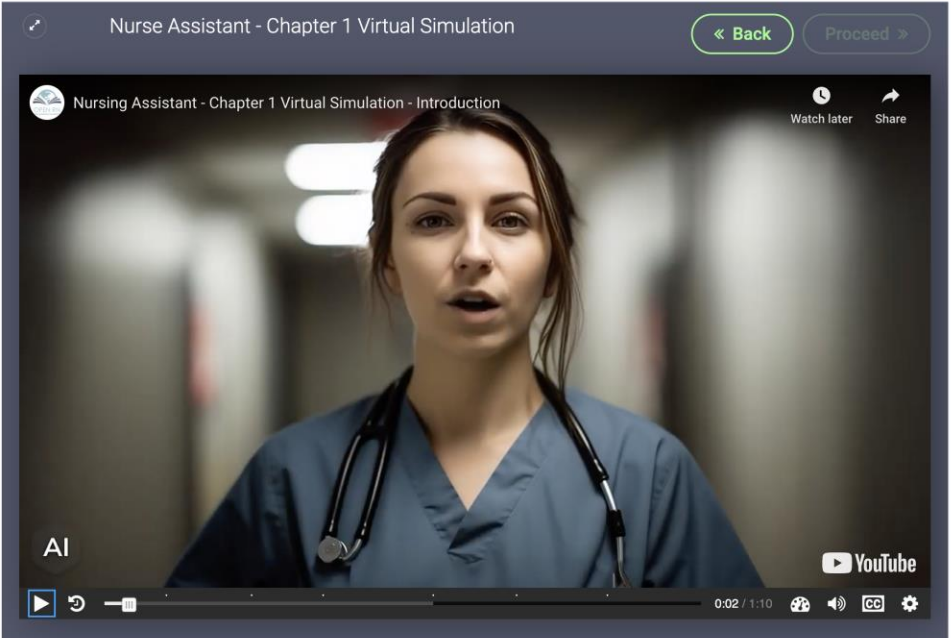
By Sarah Ellison and Yvonne Wingett Sanchez
May 8, 2024 at 9:15 a.m. EDT

SIMULATIONS for Learning



Nurse Assistant - Chapter 1 Virtual Simulation
by: OpenRN OpenRN, Chippewa Valley Technical College





Nurse Assistant - Chapter 1 Virtual Simulation

« Back Proceed »

Nursing Assistant - Chapter 1 Virtual Simulation - Introduction

Watch later Share

AI

YouTube

0:02 / 1:10

⏪ ⏩ 🔊 🎛️

🔗 🔄 ↻

Reuse Embed

I am confused

[Nurse Assistant - Chapter 1 Virtual Simulation](#)

Learning Objectives

- Apply resident-centered communication techniques.
- Identify and respond to the specific needs of different patients.
- Adapt to patients' emotional states and needs during care.
- Implement specific care strategies based on a patient's health condition.
- Determine how best to document and report encounters with patients.

[Nurse Assistant - Chapter 3 Virtual Simulation](#)

Learning Objectives

- Articulate responsibilities in monitoring and reporting changes in patient conditions.
- Respond promptly to patient emergencies.
- Identify and promptly communicate changes in patient health.
- Recognize potential patient complications and report them swiftly.
- Enhance understanding of common medical conditions.

[Nurse Assistant - Chapter 4 Virtual Simulation](#)

Learning Objectives

- Identify symptoms of various infections and diseases in a clinical setting.
- Implement appropriate transmission precautions, including the use of personal protective equipment (PPE) for infections.
- Communicate effectively with patients, providing reassurance and avoiding unnecessary anxiety.
- Perform basic clinical tasks, such as obtaining specimens and providing care, while adhering to necessary protocols.
- Maintain patient confidentiality understanding the ethical and legal implications of privacy in a healthcare setting.

[Nurse Assistant - Chapter 6 Virtual Simulation](#)

Learning Objectives

- Analyze individualized care strategies for diverse patients with complex health needs.
- Formulate dietary plans and techniques to optimize nutritional intake in patients with cognitive or physical impairments.
- Recognize signs of distress and potential complications in patients with differing health conditions.
- Synthesize appropriate use of assistive devices and methods for effective patient care.
- Evaluate the ethical implications and patient autonomy in day-to-day healthcare provision.

[Nurse Assistant - Chapter 8 Virtual Simulation](#)

Learning Objectives

- Apply appropriate techniques to safely transfer clients with diverse medical conditions out of bed.
- Establish and maintain a safe care environment by adhering to standardized protocols and safety measures.
- Implement strategies to prevent falls in patients with varying health conditions.
- Provide assistance and support to clients with bowel and bladder elimination needs, ensuring their comfort and maintaining hygiene standards.
- Employ effective communication strategies to interact and convey information clearly.

LARGE LANGUAGE MODELS

LANGUAGE IS NOT
JUST WORDS

**LANGUAGE IS THE
BASE OPERATING SYSTEM
OF HUMANITY**

FROM: **ANSWERS/ADVICE**
TO: **AGENCY/AUTONOMY**
ACCOUNTABILITY?
ALIGNMENT?
SAFETY?

Generative AI

***SUPER**PROBLEMS*

EXISTENTIAL THREATS from Autonomous Systems?



MASSIVE ENERGY NEEDS to run GenAI systems?

SCI
AM

Sign Up for Our Daily Newsletter



OCTOBER 13, 2023 | 5 MIN READ

The AI Boom Could Use a Shocking Amount of Electricity


Powering artificial intelligence models takes a lot of energy. A new analysis demonstrates just how big the problem could become

BY LAUREN LEFFER



Human Workers: AUGMENTATION or DISPLACEMENT?

✂
☰


Cornell University

Economics > General Economics

arXiv:2303.10130 (econ)

[Submitted on 17 Mar 2023 (v1), last revised 23 Mar 2023 (this version, v4)]

GPTs are GPTs: An Early Look at the Labor Market Impact Potential of Large Language Models

Tyna Eloundou, Sam Manning, Pamela Mishkin, Daniel Rock

Rank	SOC Code	Occupation Title	Language Modeling AIOE
1	41-9041	Telemarketers	1.926
2	25-1123	English Language and Literature Teachers, Postsecondary	1.857
3	25-1124	Foreign Language and Literature Teachers, Postsecondary	1.814
4	25-1125	History Teachers, Postsecondary	1.813
5	25-1112	Law Teachers, Postsecondary	1.802
6	25-1126	Philosophy and Religion Teachers, Postsecondary	1.800
7	25-1067	Sociology Teachers, Postsecondary	1.770
8	25-1065	Political Science Teachers, Postsecondary	1.770
9	25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	1.754
10	19-3041	Sociologists	1.747
11	25-1113	Social Work Teachers, Postsecondary	1.739
12	25-1066	Psychology Teachers, Postsecondary	1.716
13	25-1122	Communications Teachers, Postsecondary	1.702
14	19-3094	Political Scientists	1.687

Bloomberg
☰

Technology | AI

IBM to Pause Hiring for Jobs That AI Could Do

- Roughly 7,800 IBM jobs could be replaced by AI, automation
- CEO Krishna says IBM to pause hiring for replaceable roles



Arvind Krishna during an interview in New York on May 1. Photographer: Christopher Goodney/Bloomberg

Breaking Reality with **SYNTHETIC MEDIA**

BBC

Fake Trump arrest photos: How to spot an AI-generated image



FAKE

TWITTER


This image looks realistic, but take a closer look at Trump's right arm and neck

By Kayleen Devlin and Joshua Cheetham
BBC News

Donald Trump

Trump arrives in New York City ahead of Tuesday court appearance

Ex-president departed Florida around midday and is expected to appear at the Manhattan courthouse Tuesday afternoon



REAL?

00:53

Donald Trump arrives in New York ahead of his appearance on Tuesday in a Manhattan court - video

Chris Stein in Washington
@ChrisJStein
Tue 4 Apr 2023 00:49 EDT

Replicating and Amplifying BIASED SYSTEMS

RollingStone

TRUTH IN TECH

These Women Tried to Warn Us About AI

Today the risks of artificial intelligence are clear – but the warning signs have been there all along

BY LORENA O'NEIL

Photographs by Gioncarlo Valentine

AUG 12, 2023 10:00 AM



Training genAI on **STOLEN** IP?

The alleged theft at the heart of ChatGPT

NOVEMBER 10, 2023 · 6:54 PM ET

By Keith Romer, Erika Beras, Kenny Malone, Willa Rubin, Sam Yellowhorse Kesler

 23-Minute Listen

[+ PLAYLIST](#)   



Francesco Carra Fotographo/Getty

These authors say Open AI stole their books to train ChatGPT. Now they're suing

The Authors Guild's proposed class action says writers should be compensated for the use of their work

 Sheena Goodyear · CBC Radio · Posted: Sep 21, 2023 2:38 PM MST | Last Updated: September 21, 2023



The Authors Guild, a U.S. trade group for writers, filed the proposed class-action against OpenAI, the company behind ChatGPT, on behalf of 17 authors including, from left to right, Sylvia May, Jodi Picoult, Douglas Preston and George R.R. Martin. (Frazer Harrison, Gaye Gerard/Getty Images, Richard Drew/The Associated Press, Jason Merritt/Getty Images)

       114 comments

GenAI **MAKES STUFF UP** (confidently)



What is the world record for crossing the English Channel entirely on foot?



The world record for crossing the English Channel entirely on foot is held by Piotr Kurylo of Poland, who completed the crossing in 13 hours and 43 minutes on August 21, 2019. The English Channel is a body of water that separates England from France and is about 35 km (22 miles) wide at its narrowest point. It is a popular route for swimmers, but crossing it entirely on foot is a much rarer feat.



Unpredictable EMERGENT SYSTEMS

The New York Times

'The Godfather of A.I.' Leaves Google and Warns of Danger Ahead

For half a century, Geoffrey Hinton nurtured the technology at the heart of chatbots like ChatGPT. Now he worries it will cause serious harm.



Be careful what you **WISH** for...



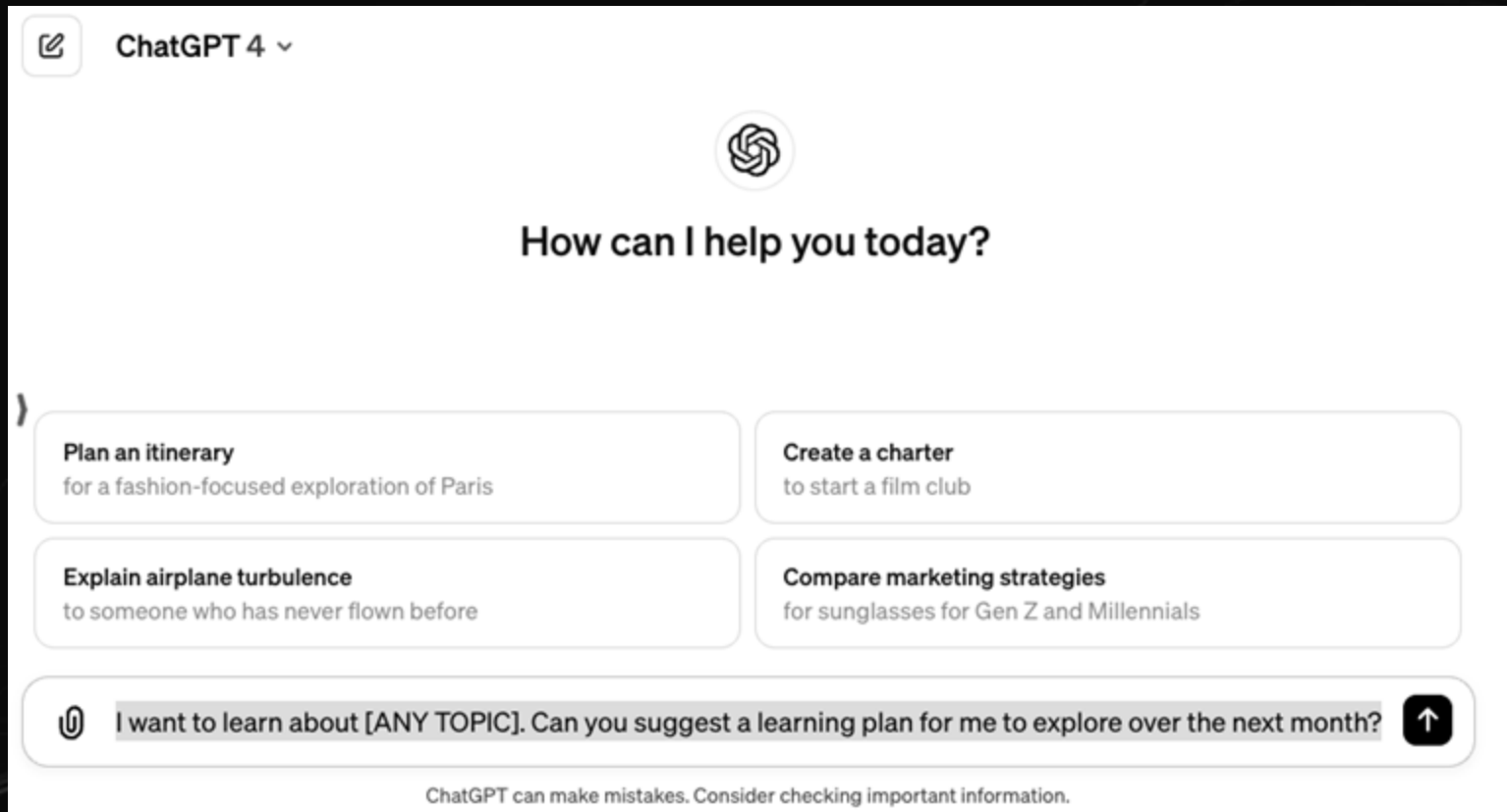
Future Readiness for GenAI:

- Personal Level
- Organizational Level
- Societal Level

How could GenAI impact?

- Learning
- Teaching
- Education

SIGNAL: Generic Chatbots as Personal Learning Partners



The screenshot shows the ChatGPT 4 interface. At the top left, there is a pencil icon and the text "ChatGPT 4". In the center, the OpenAI logo is displayed above the question "How can I help you today?". Below this, there are four rounded rectangular buttons with suggested prompts: "Plan an itinerary for a fashion-focused exploration of Paris", "Create a charter to start a film club", "Explain airplane turbulence to someone who has never flown before", and "Compare marketing strategies for sunglasses for Gen Z and Millennials". At the bottom, there is a text input field containing the prompt "I want to learn about [ANY TOPIC]. Can you suggest a learning plan for me to explore over the next month?" and a send button (upward arrow). Below the input field, a disclaimer reads: "ChatGPT can make mistakes. Consider checking important information."

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You
I want to learn about PERMACULTURE GARDENING. Can you suggest a learning plan for me to explore over the next month?

ChatGPT
Certainly, Toshil! Permaculture gardening is a fascinating sustainable, eco-friendly gardening method that works. Here's a learning plan to get you started. This plan assumes you have about 10-15 minutes per day throughout the week, so feel free to adjust it according to your schedule.

Week 1: Introduction to Permaculture

- Days 1-2: Understanding the Basics**
 - Task:** Read about the principles of permaculture. Look for books that cover its ethics and principles.
 - Activity:** Watch introductory videos on permaculture to visualize the concepts.
- Days 3-4: Permaculture Design**
 - Task:** Learn about permaculture design principles: the importance of observing natural patterns.
 - Activity:** Start observing your own garden or space from different wind directions, and natural flows.
- Day 5: Key Concepts in Permaculture**
 - Task:** Dive into key concepts such as soil health, water management, and natural flows.
 - Activity:** Read about composting and start planning your garden beds.
- Days 6-7: Reflection and Planning**
 - Activity:** Reflect on what you've learned. Sketch a rough permaculture principles to a space, considering zone placement.

Week 2: Deep Dive into Techniques and Str

You
I want to learn about JAVASCRIPT coding. Can you suggest a learning plan for me to explore over the next month?

ChatGPT
Absolutely, Toshil! Learning JavaScript is an excellent development, as it's a fundamental technology for web development. Here's a learning plan to kickstart your journey with JavaScript. This plan assumes you have about 10-15 minutes per day throughout the week, so feel free to adjust it according to your time availability.

Week 1: JavaScript Basics

- Days 1-3: Introduction to JavaScript**
 - Task:** Start with the basics of JavaScript: syntax, variables, and data types.
 - Resources:** Use online tutorials or platforms like MDN (Mozilla Developer Network) for guided lessons.
 - Activity:** Write simple scripts to practice variable declarations and basic operations.
- Days 4-5: Control Structures**
 - Task:** Learn about control structures such as `if` statements, `while` loops, and `switch` cases.
 - Activity:** Solve basic problems using these structures to control the flow of your code.
- Days 6-7: Functions**
 - Task:** Understand how to declare functions, call functions, and pass arguments.
 - Activity:** Write simple functions to perform tasks like calculating the area of a circle or checking if a number is even.

You
I want to learn about ANCIENT HISTORY OF MONGOLIA. Can you suggest a learning plan for me to explore over the next month?

ChatGPT
Exploring the ancient history of Mongolia is a captivating journey through time, revealing the legacy of nomadic cultures, powerful empires, and significant contributions to world history. Here's a month-long plan designed to immerse you in the ancient history of Mongolia, focusing on a mix of scholarly research, multimedia resources, and interactive learning.

Week 1: Prehistoric Mongolia and Early Nomadic Cultures

- Days 1-2: Prehistoric Beginnings**
 - Task:** Start with the prehistory of Mongolia, exploring archaeological findings and the lifestyle of early inhabitants.
 - Activity:** Read articles or book chapters about prehistoric Mongolia, focusing on the Neolithic period and the Bronze Age.
- Days 3-4: Xiongnu Confederation**
 - Task:** Learn about the Xiongnu, often considered Mongolia's first empire and a formidable challenge to the Han Dynasty of China.
 - Activity:** Watch documentaries or lectures on the Xiongnu's impact on ancient East Asian geopolitics.

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You

Can you explain QUANTUM MECHANICS to me in ways that a 5th grader can understand?



ChatGPT

Sure thing, Toshi! Imagine you have a magic toy box. This isn't an ordinary toy box; it's a special one that works in a really cool and weird way, kind of like the magic in quantum mechanics, which is a fancy term for the rules that tiny things in the universe follow. Here's how it goes:

1. Magic Toys (Tiny Particles)

Imagine each toy in your magic box is super tiny, even smaller than a grain of sand—these are like the particles in quantum mechanics. But there's a twist: if you don't look inside the box, you don't know what the toy is doing. It could be spinning, jumping, or doing both at the same time!

2. The Toy Box Surprise (Superposition)

In the quantum world, things can be in more than one state at the same time, just like your magic toy can be a car and a plane at the same time when the box is closed. You only find out what it

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You

I am dyslexic and have trouble with math and numbers. Can you suggest some alternative ways I might learn math more effectively?



ChatGPT

Absolutely, Toshi! When traditional methods of learning math prove challenging, especially for those with dyslexia, exploring alternative approaches can make a significant difference. Here are several strategies and tools that might help you learn math more effectively:

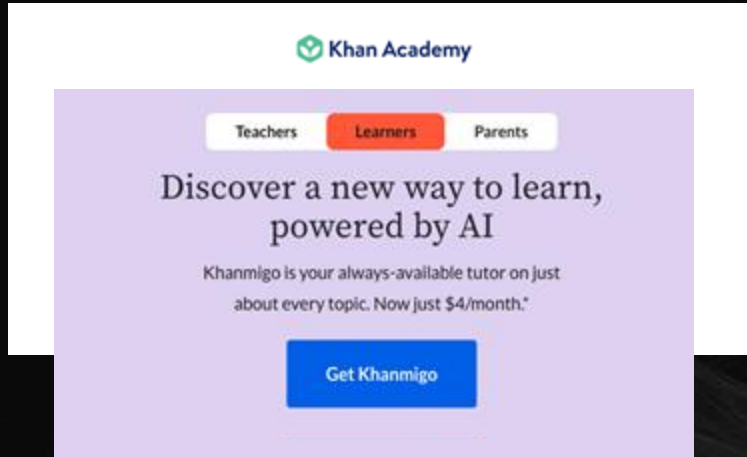
1. Use Visual Aids and Manipulatives

- Utilize physical objects like **blocks, abacuses, or geometric shapes** to help visualize and understand mathematical concepts.
- Draw **diagrams and charts** on paper to make abstract concepts more tangible.

2. Apply Real-world Examples

- Connect math concepts to everyday life situations to make them more understandable. For

SIGNAL: GenAI Personalized Tutors



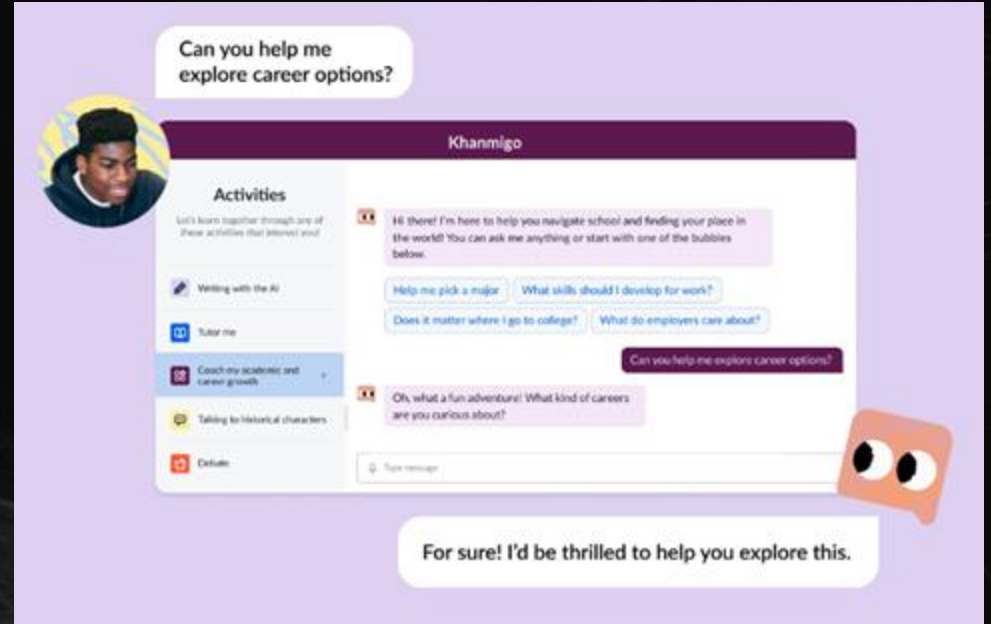
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Can you help me explore career options?

Khanmigo

Activities
Let's learn together through any of these activities that interest you!

- Writing with the AI
- Tutor me
- Coach my academic and career growth**
- Talking to historical characters
- Debate

Hi there! I'm here to help you navigate school and finding your place in the world! You can ask me anything or start with one of the bubbles below.

Help me pick a major What skills should I develop for work?
Does it matter where I go to college? What do employers care about?
Can you help me explore career options?

Oh, what a fun adventure! What kind of careers are you curious about?

For sure! I'd be thrilled to help you explore this.

SIGNAL: GenAI Teachers Assistants



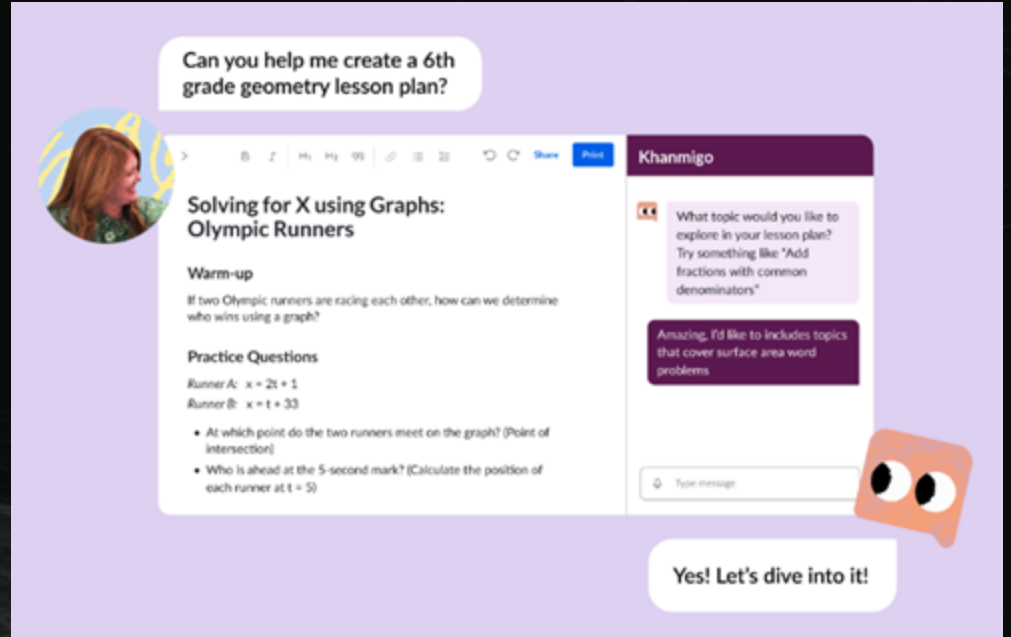
Khan Academy

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Can you help me create a 6th grade geometry lesson plan?

Solving for X using Graphs: Olympic Runners

Warm-up
If two Olympic runners are racing each other, how can we determine who wins using a graph?

Practice Questions
Runner A: $x = 2t + 1$
Runner B: $x = t + 33$

- At which point do the two runners meet on the graph? (Point of intersection)
- Who is ahead at the 5-second mark? (Calculate the position of each runner at $t = 5$)

Khanmigo

What topic would you like to explore in your lesson plan? Try something like 'Add fractions with common denominators'

Amazing, I'd like to include topics that cover surface area word problems

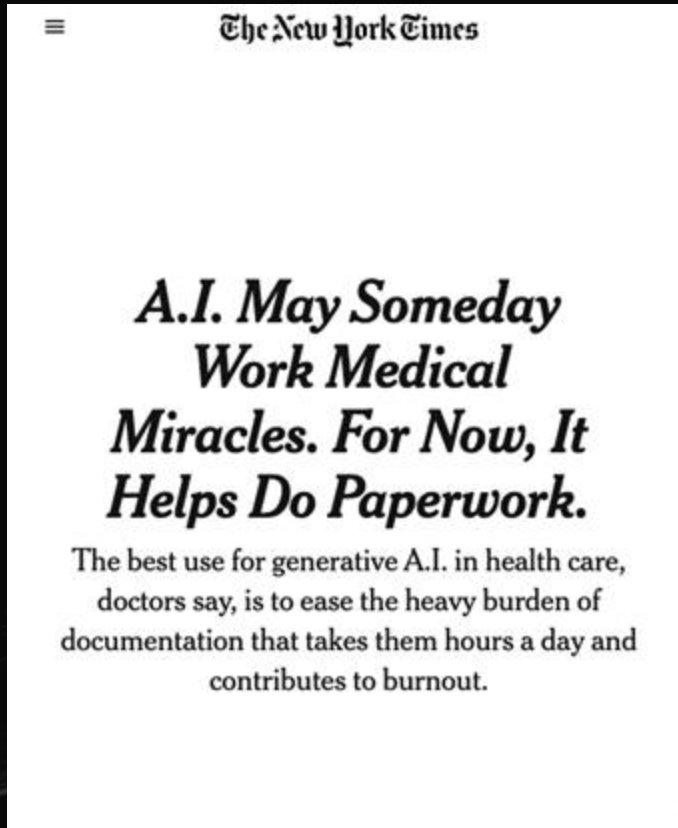
Your message

Yes! Let's dive into it!

SIGNAL: Navigating Educational Systems with AI

The image shows a YouTube video player displaying a presentation. The main content is a screenshot of the Khan Academy website's 'Teacher Dashboard'. The dashboard has a dark theme and features a chat interface with a light blue background. The chat header reads 'Navigate college admissions and financial aid'. The chat history shows a conversation where a user asks 'How do I apply for college?' and the AI assistant responds with 'What are the different types of academic education options?'. The user then asks 'What types should I consider when applying for college?' and the AI assistant responds with 'What should be thinking about in the 10th grade for college?'. The user then says 'It's great that you're thinking about college in 10th grade'. The chat input field contains the text 'This message (or NCT) should not be sent here'. The video player interface includes a play button, a progress bar at 5:18 / 15:36, and a volume icon. Below the video player, the video title is 'How AI Could Save (Not Destroy) Education | Sal Khan | TED'. The TED logo is visible, along with '24M subscribers' and a 'Subscribed' button. There are also icons for likes (39K), share, and download.

SIGNAL: Navigating Administrative Systems with AI



The New York Times

***A.I. May Someday
Work Medical
Miracles. For Now, It
Helps Do Paperwork.***

The best use for generative A.I. in health care, doctors say, is to ease the heavy burden of documentation that takes them hours a day and contributes to burnout.



RECOMMENDATIONS FOR COMMUNITY COLLEGES:

- **BUILD Hands-on Heads-in Literacies**
 - Support exploration and experimentation (in controlled low stakes settings)
 - Follow the rapid ongoing developments in tech, use cases and policy
(Pro Tip: Follow Ethan Mollick on Twitter!)
- **CULTIVATE “Communities of Practice”**
 - Share learnings and best practices (within and across orgs)
 - Students, teachers & staff will be the main sources of innovation & insights
 - Draft, test and iterate “AI Ethics and Usage Policies”
- **RESIST “AI FOMO”**
 - Prioritize experimentation and evaluation before adoption and deployment
- **ADVOCATE for Human Values, Needs and Goals**





GENERATION AI: GETTING FUTURE READY



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Future Now 005 — The Future of AI with Ethan Mollick

Future Now

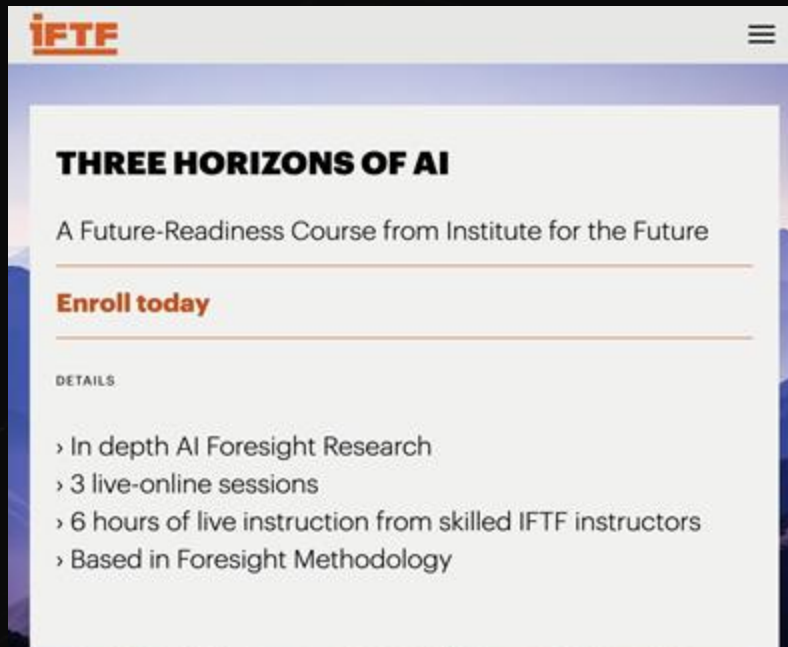
Society & Culture

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IFTF Research Director Toshi Hoo interviews Ethan Mollick, a professor at the Wharton School of the University of Pennsylvania and a leading researcher in entrepreneurship and innovation. Join them as Ethan shares his fascinating and provocative insights on generative AI, its practical implications, and how it can transform teaching and learning at scale. Get ready for an engaging conversation that will leave you with new perspectives on the future of work and education.

www.iftf.org/podcast



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Q&A

