

AI, ChatGPT and more

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Heritage Creek - 2024

seniortechadvisor.com

Link to full presentation:

TBD

Udemy - ChatGPT Masters: AI Prompt Engineering, Midjourney, Chat GPT

The screenshot displays the Udemy course interface. At the top, the course title is "ChatGPT Masters: AI Prompt Engineering, Midjourney, Chat GPT". Below the title is a video player showing a man in a black cap speaking. To the right of the video is a "Course content" table of contents with 8 sections. Below the video player are navigation tabs: Overview, Q&A, Notes, Announcements, Reviews, and Learning tools. The "About this course" section provides details on skill level, student count, and lecture information.

Course content	
Section 1: Welcome to the ChatGPT Masterclass	3 / 5 25min
Section 2: Prompt Engineering Basics for ChatGPT, Google Bard,...	1 / 3 11min
Section 3: Incredible Ways to Use ChatGPT	2 / 7 10min
Section 4: ChatGPT News & Updates	2 / 8 21min
Section 5: ChatGPT Plugins: Power Up Your ChatGPT Performance	0 / 7 14min
Section 6: ChatGPT: Researching with ChatGPT	1 / 1 4min
Section 7: ChatGPT: Content Creation with ChatGPT	4 / 4 14min
Section 8: ChatGPT: Social Media with ChatGPT	

About this course

Skill level: All Levels
Students: 19858

Lectures: 191
Video: 16 total hours

AI, ChatGPT, Prompt Engineering, Midjourney, OpenAI, Productivity, Google Bard, Business AI, Generative AI, Chat GPT 4

<https://www.udemy.com/course/chatgpt-masterclass-start-using-chatgpt/learn/lecture/36843822?start=0#overview>



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Opinion | You hate
AI for all the right
reasons. Now
reconsider.



By [Josh Tyrangiel](#)
Columnist

September 10, 2023 at 6:30 a.m. EDT



You hate AI for all the right reasons. Now reconsider.

- AI is advancing rapidly, and we're all concerned about the potential risks
 - These concerns are justified, as AI could lead to job displacement, mass surveillance, and even existential threats!
- But AI also has the potential to solve some of the world's biggest problems
 - Such as climate change and disease.
- It's important to be aware of the risks of AI, but also be open to its potential benefits

Bottomline:

We need to develop AI responsibly and ethically, and ensure that it is used for good.

Josh Tyrangiel concludes by saying:

"AI is not a threat. It is a tool. And like any tool, it can be used for good or for evil. It is up to us to decide how we use it."

So, let's start at the beginning

What is AI?

What is AI?

Artificial intelligence (AI) is the simulation of human intelligence processes by computer systems. Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision.

- Others define AI as the ability of a machine to perform tasks that would require human intelligence, such as reasoning, learning, and problem-solving.

Common types of AI:

- **Machine learning**: allows machines to learn from data without being explicitly programmed.
 - Examples: spam filtering, fraud detection, and product recommendations.
- **Natural language processing**: allows machines to understand and process human language.
 - Examples: speech recognition, machine translation, and text analysis.
- **Computer vision**: allows machines to see and understand the world around them.
 - Examples: self-driving cars, facial recognition, and medical imaging.

Some more definitions of AI?

- Alan Turing: "The ability to pass the Turing test*."
- John McCarthy: "The science and engineering of making intelligent machines."

*The 'Turing test' is a test of a machine's ability to exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human.

Who invented AI?

Who invented AI?

- Alan Turing: Turing is considered to be the father of AI. In his 1950 paper, "Computing Machinery and Intelligence," he proposed the Turing test, a test of a machine's ability to exhibit intelligent behavior equivalent to, or indistinguishable from, that of a human.



Benedict Cumberbatch as Turing
in the 'The Imitation Game'

Who invented AI?

- John McCarthy: McCarthy coined the term "artificial intelligence" in 1955. He also organized the Dartmouth Summer Research Project on Artificial Intelligence in 1956, which is considered to be the first major AI conference.



John McCarthy (1927 – 2011) working on AI in 1956

John McCarthy was an American computer scientist and cognitive scientist. He was one of the founders of the discipline of artificial intelligence. (source)



How does AI work?

How does AI work?

- AI works by using 'algorithms' to analyze data and learn from it, a process called machine learning. All machine learning algorithms work by identifying patterns in data. Once an AI has learned to identify patterns, it can use this knowledge to make predictions or decisions.
- Example: an AI trained on a dataset of images of cats and dogs can learn to identify cats and dogs in new images. This AI can then be used to classify images or to answer questions about the images.

In mathematics and computer science, an algorithm is a finite sequence of rigorous instructions, typically used to solve a class of specific problems or to perform a computation.

AI Applications

- **Natural language processing**: The ability of a machine to understand and process human language.
- Examples: speech recognition, machine translation, and text analysis.



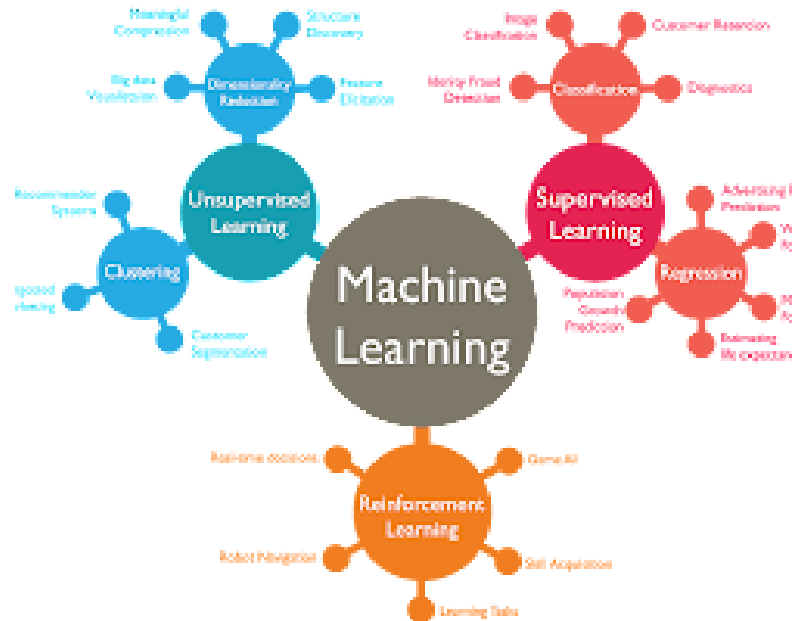
AI Applications

- **Computer vision**: The ability of a machine to see and understand the world around it.
- Examples: object detection, image classification, and scene understanding.



AI Applications

- **Machine learning**: The ability of a machine to learn from data and improve its performance over time.
- Examples: fraud detection, spam filtering, and personalized recommendations.



AI Examples

- **Virtual assistants**: Power virtual assistants such as Amazon Alexa and Google Assistant which understand human speech and respond to commands, as well as learn about the user's preferences and provide personalized recommendations.



AI Examples

- **Fraud detection**: Detects fraud in industries such as financial services and healthcare. AI algorithms identify patterns in data that may indicate fraud.



AI Examples

- **Spam filtering**: Used to filter spam emails. AI algorithms identify patterns in email messages that may indicate spam.

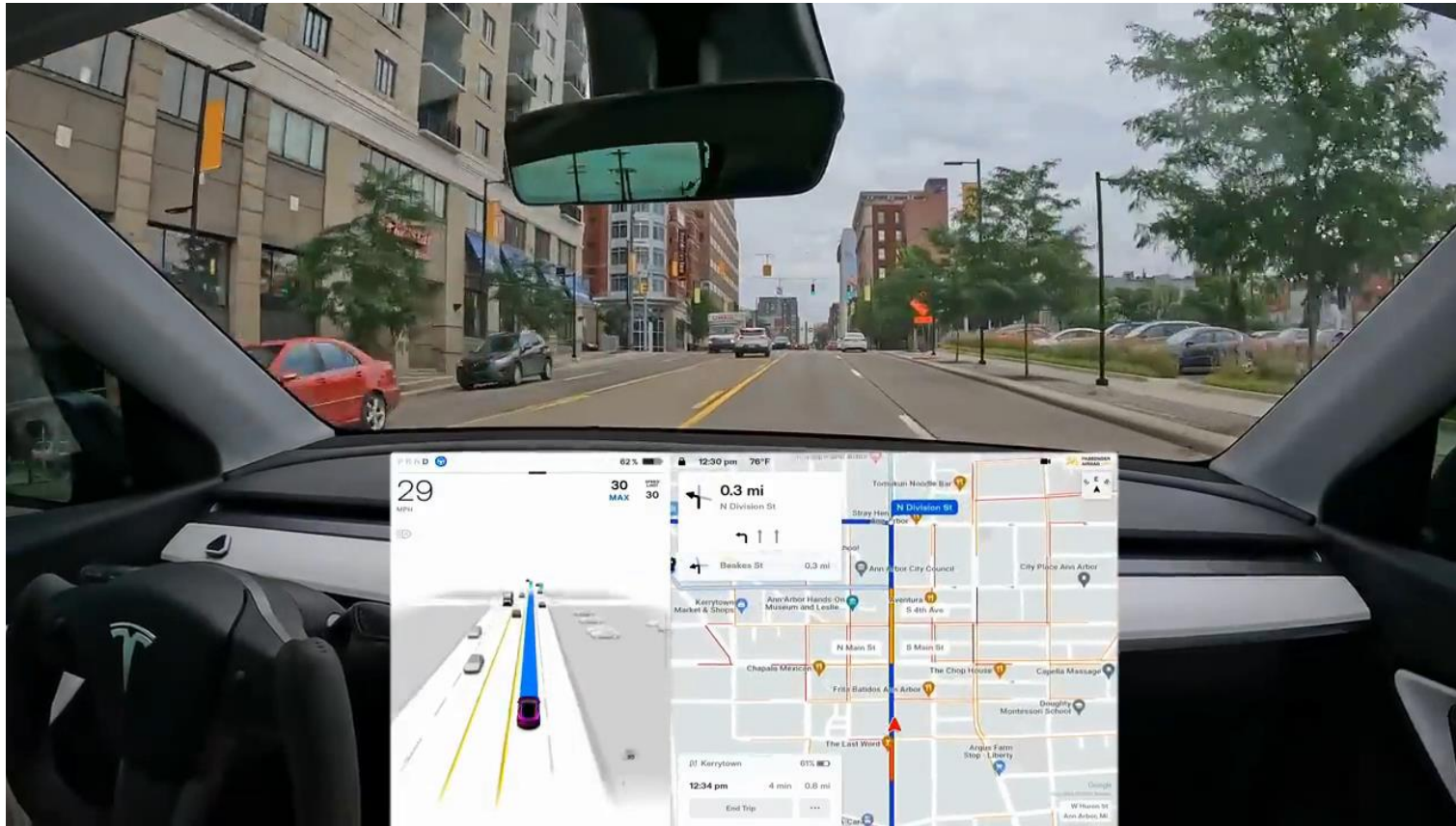


AI Examples

- **Self-driving cars:** Used to power the self-driving technology in cars. AI algorithms identify objects in the road, such as other cars, pedestrians, and traffic signs, and may also control the car's speed and steering.



Tesla's FSD today – Is AI perfect?



Full Self-Driving (FSD) is Tesla's advanced driving assistance system (ADAS) that can automate driving tasks on highways and urban streets.

Switching gears... What is ChatGPT?

Switching gears... What is ChatGPT?

ChatGPT is a 'conversational' AI

- ChatGPT is a 'chatbot' that can be used to have conversations with humans. It is trained on a massive dataset of text and code, and can generate text, translate languages, write different kinds of creative content, and answer questions in an informative way.
- ChatGPT is good at understanding the meaning of natural language and at generating text that is similar to human-written text.

Generative Pre-trained Transformers (GPTs) are neural networks, inspired by the human brain, that are trained on large amounts of human-generated text and can perform tasks like generating and answering questions.

Where did ChatGPT come from? (source: bard)

- ChatGPT was created by [OpenAI](#), a non-profit artificial intelligence research laboratory based in San Francisco, California. It was launched on November 30, 2022, as a research preview, and quickly became a viral sensation for its ability to generate human-quality text, translate languages, write different kinds of creative content, and answer your questions in an informative way.
- ChatGPT is a fine-tuned version of GPT-3.5, a large language model (LLM).

“ChatGPT is a powerful new AI tool that has the potential to revolutionize the way we interact with computers.”

And what are LLMs?

ChatGPT (also Bard, Bing, etc.) belong to a class of AI called **Large Language Models (LLMs)**

- LLMs are trained using machine learning algorithms.
- LLMs are trained on massive datasets of text and code, and they learn to generate text, translate languages, and answer questions by analyzing the statistical regularities of language in the data.
- LLMs are used in natural language processing (NLP) tasks such as text generation, machine translation, and question answering.

See also: [The Future of Large Language Models \(LLMs\): Strategy, Opportunities and Challenges](#)

A brief introduction to Bard and Bing

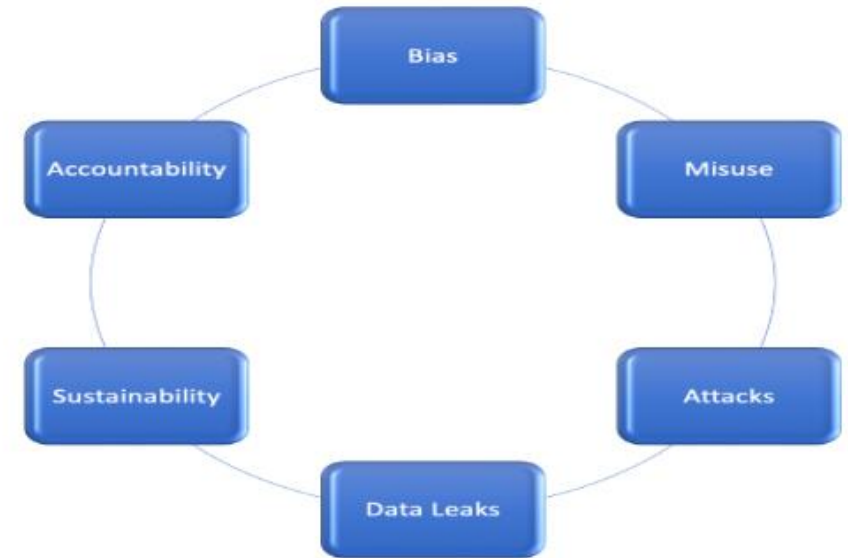
- [Bard](#) is a large language model (LLM) chatbot developed by Google AI, and is based on the PaLM LLM. Bard can:
 - Answer your questions, generate different creative text content, translate languages, write creative content, help with your writing needs
- [Bing Chat](#) is an AI chatbot developed by Microsoft and released in 2023. It is powered by the Microsoft Prometheus model, which has been built on top of OpenAI's GPT-4 foundational large language model (LLM). Bing Chat can:
 - Write different types of content, provide the user with information and insights on a website open in the browser, and use its [Image Creator](#) to design a logo, drawing, artwork, or other image based on text.

LLM pitfalls and regulation

Risks of using LLMs

The use of large language models carries several risks, both ethical and technical.

- **Bias, fairness and toxicity**: the data may not be representative of the population, the model may make biased or unfair decisions.
- **Misuse**: they can generate highly convincing text, which can be used to create fake news or impersonate individuals online.
- **Adversarial attacks**: they may be vulnerable to adversarial attacks, where an attacker manipulates the input to the model to produce a 'desired' output.
- **Private data leaks**: there are chances that the LLMs could infer and leak private or sensitive information.
- **Sustainable LLMs**: training and inference of LLMs can incur high carbon footprint and environmental costs (like cryptocurrency).
- **Accountability for mis-information**: who will be accountable or responsible if the LLM gives incorrect suggestions or predictions.



In the news

- [Elon Musk](#) has expressed concerns about the potential dangers of large language models (LLMs) like ChatGPT. In an interview with Lex Fridman, Musk said that he believes LLMs could be used to create "deepfakes" that are indistinguishable from real human speech. He expressed concern that LLMs could be used to spread misinformation or propaganda.
- Musk also believes LLMs could eventually become so powerful that they could pose a threat to humanity. In a tweet, he said that "LLMs are dangerous. We need to be careful here."
- [Stuart Russell](#), a professor of computer science at the University of California, Berkeley, has said that "LLMs are a potential existential threat to humanity."
- [Oren Etzioni](#), the CEO of the Allen Institute for Artificial Intelligence, has said that "LLMs are not a threat to humanity. They are a tool, and like any tool, they can be used for good or evil."

For what it's worth, I agree with Oren...

'The Godfather of A.I.' Leaves Google and Warns of Danger Ahead" NYT May 4, 2023 (summarized by Bard)

- **Geoffrey Hinton, a British computer scientist who is considered one of the "godfathers" of artificial intelligence (AI), has left Google and warned of the dangers of AI.** Hinton said that he left Google because he was concerned about the company's focus on developing AI for commercial purposes, rather than for the public good. He also said that he was worried about the potential for AI to be used for malicious purposes, such as creating autonomous weapons.
- Hinton is not the first AI expert to raise concerns about the dangers of AI. In 2015, a group of AI researchers, including Stephen Hawking and Elon Musk, warned that AI could pose an existential threat to humanity. However, Hinton's departure from Google is a significant event, as it suggests that even some of the most prominent figures in the AI community are starting to worry about the potential dangers of the technology.
- It is important to note that Hinton is not opposed to AI research altogether. He believes that AI has the potential to do great good, but he is concerned about the lack of safeguards in place to prevent it from being used for malicious purposes. He has called for a global moratorium on the development of autonomous weapons, and he has urged governments to develop regulations for AI.

“Model evaluation for extreme risks” ([source](#))

Summary:

- Current approaches to building general-purpose AI systems tend to produce systems with both beneficial and harmful capabilities. Further progress in AI development could lead to capabilities that pose ‘extreme risks’, such as offensive cyber capabilities or strong ‘manipulation’ skills.
- Developers must be able to identify dangerous capabilities (through “dangerous capability evaluations”) and the propensity of models to apply their capabilities for harm (through “alignment evaluations”).

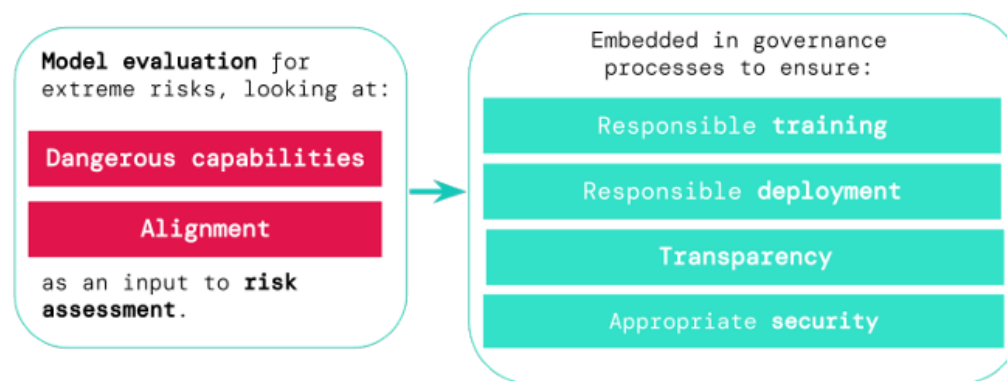


Figure 1 | The theory of change for model evaluations for extreme risk. Evaluations for dangerous capabilities and alignment inform risk assessments, and are in turn embedded into important governance processes.

[GPT-5 Presents a HUGE RISK \(New Warning From Google\)](#)

Should LLMs be regulated?

- LLMs are powerful tools that could be used for good or evil.
 - There should be public discussion about the potential risks and benefits of regulation before making a decision.
- **Arguments for regulation:**
 - ChatGPT could be used to spread misinformation or propaganda, manipulate people's emotions or behavior, or create deepfakes or other forms of synthetic media.
- **Arguments against regulation:**
 - Regulation could stifle innovation and creativity, be difficult to enforce, or be used to censor legitimate speech.

Government response

- **Seven technology companies leading the push for Artificial Intelligence agreed to follow voluntary safeguards on AI development set by the White House.** Amazon, Anthropic, Google, Inflection, Meta, Microsoft, and OpenAI announced that they will follow the new guidelines during a White House meeting with President Biden on June 30, 2023.
 - The companies agreed to allow independent security experts to test their AI products.
 - They will share information about their AI software with governments and independent watchdogs.
 - They agreed to include watermarks to show that content has been created using AI.
 - The companies said they will use AI tools to address major challenges like cancer and climate change.
 - They will also conduct research on how to minimize the risk of AI-enabled discrimination and privacy threats.

Impact to industries and jobs

Which industries or jobs will be most affected by ChatGPT?

- **Customer service**: automate customer service tasks, such as answering questions, resolving issues, and providing support.
- **Content creation**: generate content for a variety of purposes, such as articles, blog posts, social media posts, and even creative writing.
- **Data entry**: automate data entry tasks, such as entering customer information, product data, and financial data.
- **Research**: automate research tasks, such as gathering information, summarizing research papers, and generating reports.
- **Telemarketers**: automate telemarketing tasks, such as making sales calls and qualifying leads.
- **Writers**: generate content, such as articles, blog posts, and social media posts.
- **Editors**: proofread and edit content.
- **Research assistants**: gather information and summarize research papers,
and more

And ChatGPT creates job too...

- ChatGPT could be used to **develop new products and services**.
 - ChatGPT could be used to develop a new customer service chatbot that is more efficient and effective than human customer service representatives.
- ChatGPT could be used to **automate tasks that are currently performed by humans, freeing human workers to focus on more creative and strategic tasks**. *(Where have we heard this before?)*
- ChatGPT could be used to **create new forms of content**. ChatGPT could be used to generate interactive stories or educational content.

I view ChatGPT, Bard and Bing as tools to improve my efficiency for content creation and overall quality of the final product. But one must ALWAYS check an AI's output for accuracy!

Cost to use AI

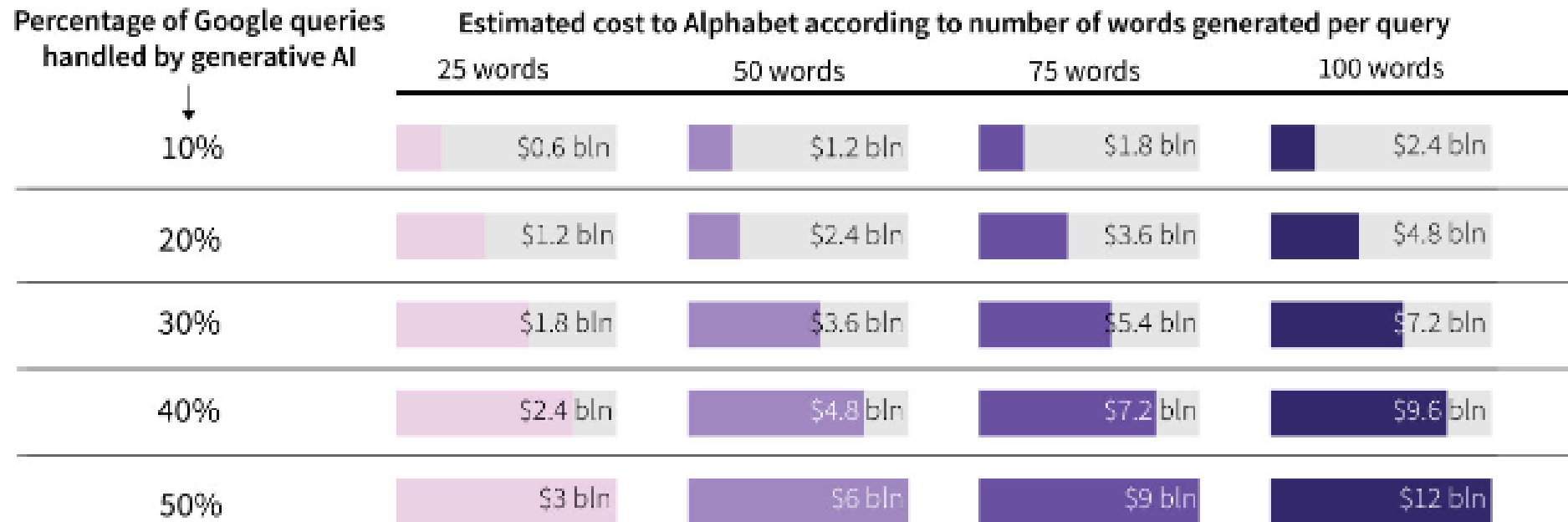
The 'Cost' issue

- A large language model (LLM) query will likely cost 10 times more than a standard keyword search.
- Google's 3.3 trillion search queries last year cost roughly a fifth of a cent each. Google could face a \$6-billion hike in expenses by 2024 if ChatGPT-like AI were to handle half the queries it receives with 50-word answers.
- Why? AI depends on billions of dollars of chips, a cost that has to be spread out over their useful life of several years. Electricity likewise adds costs and pressure to companies with carbon-footprint goals.

The process of handling AI-powered search queries is known as "inference," in which a "neural network" loosely modeled on the human brain's biology infers the answer to a question from prior training.

More Costs with Google AI

Powering Google Search with AI known as a large language model, like the chatbot sensation ChatGPT, could cost its parent company Alphabet \$1.2 billion for every 10% of queries that this burgeoning tech handles, analysts at Morgan Stanley estimate.



How to read the chart: If 50% of searches generate a response from AI that is 50 words long, it could result in \$6 bln of incremental costs to Alphabet

What's my cost to use current AI systems?

- [ChatGPT 3.5](#) – free
- [GPT-4](#) - (\$20/month, although Bing* uses GPT 4 and it's free)
- [Bard](#) – free, and best when used with the Chrome browser
- [*Bing](#) – free, though it requires that you use the Edge browser
 - Bing is also available as an app on Android and iOS
- [Midjourney](#) – subscription required, plus a [Discord](#) account
- [Dall-E](#) – free to 'try', but you must purchase 'credits' to use
 - [Microsoft Designer](#) uses Dall-E and is free to use in the Edge browser
 - [Bing Image Creator](#) also uses Dall-E and is free to use in the Edge browser

ChatGPT vs Google Bard vs Bing Ai - The Ultimate Comparison Test

CATEGORIES	CHATGPT	BARD	BING
EASY TO USE	★ ★ ★ ☆ ☆	★ ★ ★ ★ ★	★ ★ ★ ★ ☆
HELPFULNESS	★ ★ ★ ☆ ☆	★ ★ ★ ★ ★	★ ★ ★ ☆ ☆
ACCURACY	★ ★ ★ ☆ ☆	★ ★ ★ ★ ★	★ ★ ★ ★ ★
CREATIVITY	★ ★ ★ ★ ★	★ ★ ★ ☆ ☆	★ ★ ★ ☆ ☆
SPEED	★ ★ ★ ☆ ☆	★ ★ ★ ★ ★	★ ★ ★ ☆ ☆

A quick look at the three most popular (free) LLMs


- OpenAI GPT-3.5
- Google Bard
- Microsoft Bing

ChatGPT 3.5 (older data, free to use)

- **ChatGPT** (**Chat Generative Pre-Trained Transformer**) is a large language model-based chatbot developed by OpenAI and launched on November 30, 2022, notable for enabling users to refine and steer a conversation towards a desired length, format, style, level of detail, and language used. Successive prompts and replies, known as prompt engineering, are taken into account at each stage of the conversation as a context.

How ChatGPT actually works

GPT-3.5 - <https://chat.openai.com/>




How can I help you today?

Design a database schema
for an online merch store

Create a charter
to start a film club

Show me a code snippet
of a website's sticky header

Come up with concepts
for a retro-style arcade game

Message ChatGPT... 

ChatGPT can make mistakes. Consider checking important information.

YouTube Video transcription using ChatGPT

DEMO (no audio)

The screenshot shows a YouTube video player interface. The main video player is currently dark, indicating that the video content is not visible. Below the player, the video title is "1 Corinthians 1:25-31 'Whose Wisdom and Power?' - Chris Edwards". The channel name is "Hilltown Baptis..." with 571 subscribers. The video has 10 views and was uploaded on Oct 22, 2023. The video player controls show a progress bar at 0:01 / 34:23. To the right of the video player, there is a list of recommended videos. The first recommended video is "Why EVs Are Piling Up At Dealerships In The U.S." by CNBC, with 2.5M views and posted 7 days ago. The second is "Worship Service 10/22/2023 | Hilltown Baptist Church" with 95 views, streamed 1 day ago. The third is "Tuesday, October 24 - Daily Devotional #propheticword" by Anointed Living Ministries, with 12 watching and a "LIVE" badge. The fourth is "Understanding Tesla's Heat Pump System" by WeberAuto, with 479K views and posted 5 months ago. The fifth is "What I have learnt about the LFP battery in the Tesla Model..." by Not in The Manual, with 65K views and posted 1 year ago.

Write an essay ([GPT-3.5](#))

- Write a 500 word essay that summarizes the essence of Herman Melville's Moby Dick.

572 words, but who's counting?

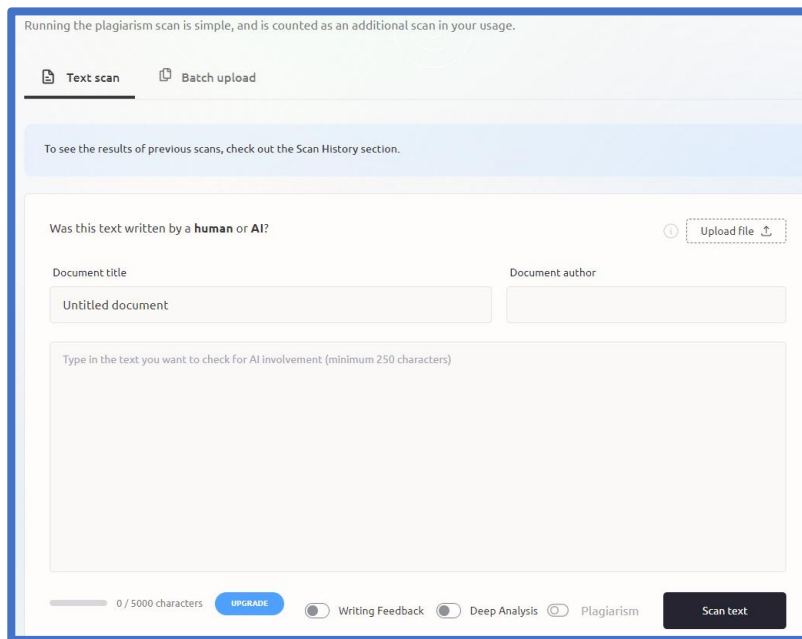
Title: The Epic Tale of Obsession and Fate: Summarizing the Essence of Herman Melville's "Moby-Dick"

Introduction:

Herman Melville's timeless masterpiece, "Moby-Dick," is a literary voyage into the depths of human obsession, fate, and the enigmatic force of nature. First published in 1851, this novel weaves a complex tapestry of characters, symbolism, and philosophical contemplation that continues to captivate readers across generations. At its core, "Moby-Dick" is a story of a relentless pursuit, a captain's fixation, and the elusive white whale that becomes a symbol of man's inexorable quest for meaning...

GPTZero can help identify AI-generate text

- GPTZero is the leading AI detector for checking whether a document was written by a large language model such as ChatGPT. GPTZero detects AI on sentence, paragraph, and document level.



Running the plagiarism scan is simple, and is counted as an additional scan in your usage.

Text scan Batch upload

To see the results of previous scans, check out the Scan History section.

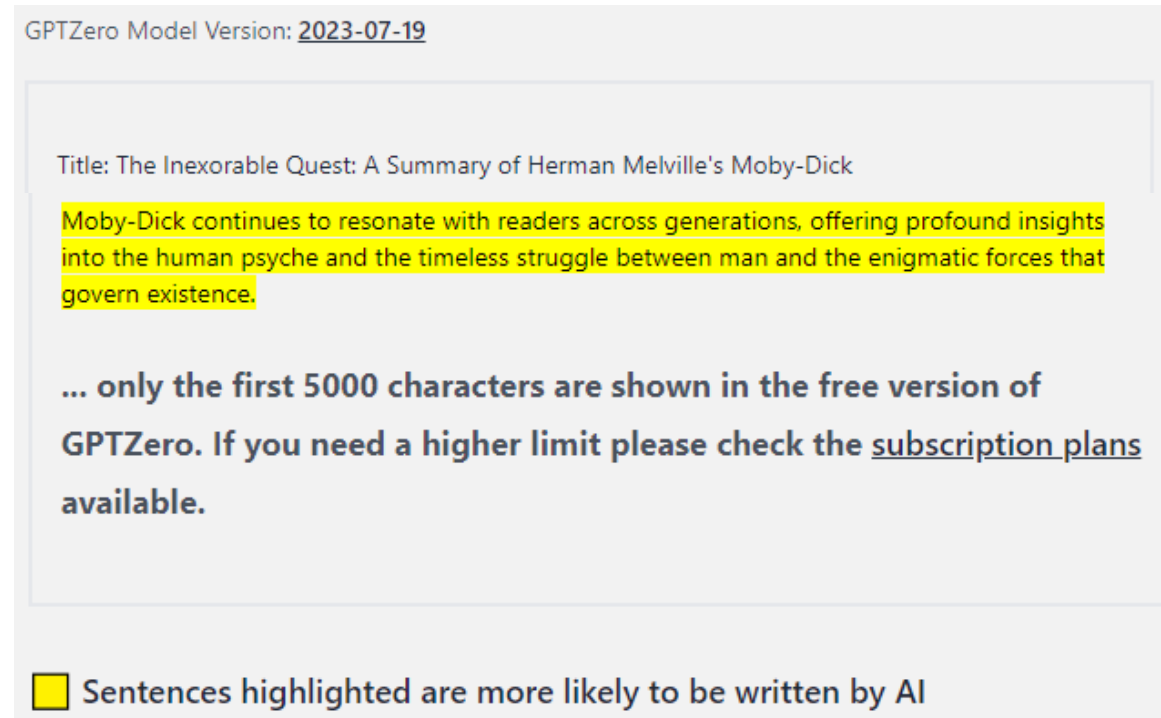
Was this text written by a human or AI? Upload file

Document title: Untitled document Document author:

Type in the text you want to check for AI involvement (minimum 250 characters)

0 / 5000 characters Writing Feedback Deep Analysis Plagiarism

Result



GPTZero Model Version: [2023-07-19](#)

Title: The Inexorable Quest: A Summary of Herman Melville's Moby-Dick

Moby-Dick continues to resonate with readers across generations, offering profound insights into the human psyche and the timeless struggle between man and the enigmatic forces that govern existence.

... only the first 5000 characters are shown in the free version of GPTZero. If you need a higher limit please check the [subscription plans](#) available.

Sentences highlighted are more likely to be written by AI

Developed by Princeton undergrad Edward Tian, class of '23 for his senior thesis project

GPT 4 (\$20/month, though Bing uses GPT 4 for free)

- OpenAI's GPT-4 model was released on March 14, 2023. Observers reported GPT-4 to be an impressive improvement from the existing GPT-3.5 model for ChatGPT, with the caveat that GPT-4 retains many of the same problems. Some of the improvements within GPT-4 were predicted by OpenAI before training it, although other improvements remained hard to predict due to breaks in downstream scaling laws. OpenAI demonstrated video and image inputs for GPT-4, although such features remain inaccessible to the general public.

Bard (Google's response to ChatGPT, free to use)

- Bard is a conversational generative artificial intelligence chatbot developed by Google, based initially on the LaMDA family of large language models (LLMs) and later the PaLM LLM. It was developed as a direct response to the rise of OpenAI's ChatGPT, and was released in a limited capacity in March 2023 to lukewarm responses, before expanding to other countries in May.


Google Bard - <https://bard.google.com/chat>



Hello again

Tell me what's on your mind, or pick a suggestion.

Understand

 are we there yet?

public speaking skills

what are rainbows

Create

low-carb meal plan

seasonal recipe idea

job negotiation and accept...

Explore

 spring getaway

movie recommendations

best beaches in...



Your conversations are processed by human reviewers to improve the technologies powering Bard. Don't enter anything you wouldn't want reviewed or used.

[How it works](#) [Dismiss](#)

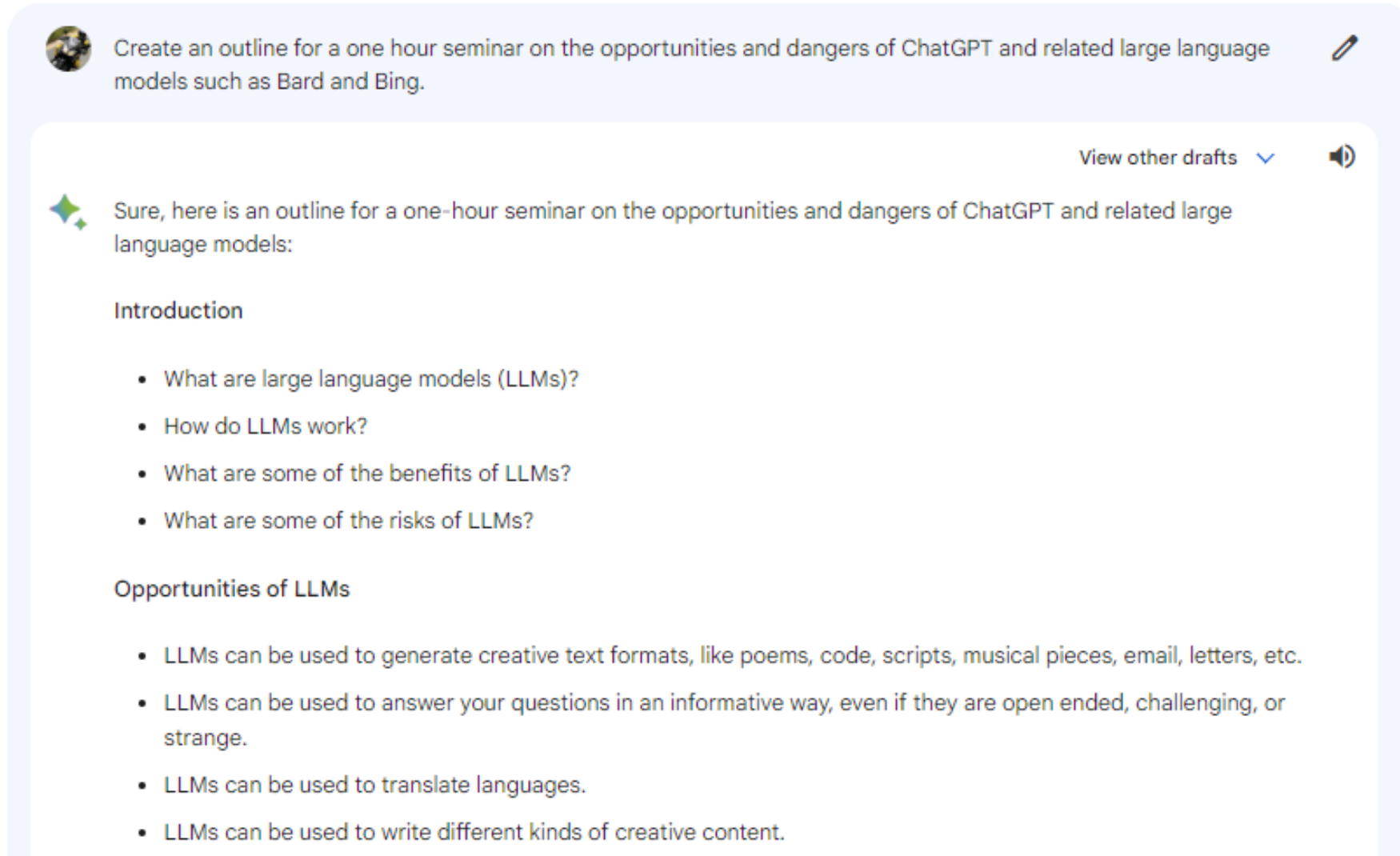


Enter a prompt here



Bard may display inaccurate info, including about people, so double-check its responses. [Your privacy & Bard](#)

Bard - Create a new seminar (outline)



The screenshot shows a chat window with a light blue header. On the left is a globe icon, and on the right is an edit icon. The user's prompt is: "Create an outline for a one hour seminar on the opportunities and dangers of ChatGPT and related large language models such as Bard and Bing." Below this is a response area with a "View other drafts" link and a speaker icon. The response starts with a green star icon and says: "Sure, here is an outline for a one-hour seminar on the opportunities and dangers of ChatGPT and related large language models:"

Introduction

- What are large language models (LLMs)?
- How do LLMs work?
- What are some of the benefits of LLMs?
- What are some of the risks of LLMs?

Opportunities of LLMs

- LLMs can be used to generate creative text formats, like poems, code, scripts, musical pieces, email, letters, etc.
- LLMs can be used to answer your questions in an informative way, even if they are open ended, challenging, or strange.
- LLMs can be used to translate languages.
- LLMs can be used to write different kinds of creative content.

A new course outline created in 5 seconds

Dangers of LLMs

- LLMs can be used to generate fake news and disinformation.
- LLMs can be used to create deepfakes that can be used to damage people's reputations.
- LLMs can be used to automate tasks that are currently done by humans, which could lead to job losses.
- LLMs could be used to create autonomous weapons that could kill people without human intervention.

Conclusion

- The opportunities and dangers of LLMs are still being debated.
- It is important to be aware of both the potential benefits and risks of LLMs before using them.
- LLMs have the potential to be a powerful tool for good or evil.

Additional Topics

- The ethical implications of using LLMs
- The future of LLMs
- How to use LLMs safely and responsibly

Audience


This seminar would be most appropriate for an audience of people who are interested in the future of artificial intelligence and the potential impact of LLMs on society.

And in another 5 seconds



Develop a presentation slide regarding the ethical implications of LLMs.



View other drafts 



Sure, here is a presentation slide regarding the ethical implications of LLMs:

Ethical Implications of LLMs

- **Potential for bias:** LLMs are trained on large datasets of text and code, which can contain biases. This means that LLMs can generate text that is biased, or that can perpetuate existing biases.
- **Potential for harm:** LLMs can be used to generate fake news and disinformation, which can have a negative impact on society. LLMs can also be used to create deepfakes, which can be used to damage people's reputations.
- **Potential for job losses:** LLMs can be used to automate tasks that are currently done by humans. This could lead to job losses, especially in the areas of customer service, writing, and translation.
- **Potential for misuse:** LLMs could be misused by malicious actors to create harmful content, such as hate speech or propaganda. They could also be used to create autonomous weapons that could kill people without human intervention.

And so on

It is important to be aware of the ethical implications of LLMs before using them. We need to ensure that LLMs are used in a responsible way that does not harm people or society.

Some ways to mitigate the ethical risks of LLMs include:

- **Using LLMs in a transparent and accountable way.** This means making it clear how LLMs are trained and used, and being open to feedback from users.
- **Developing LLMs that are less susceptible to bias.** This can be done by using more diverse datasets to train LLMs, and by developing techniques to identify and mitigate bias.
- **Setting limits on the use of LLMs.** For example, we could ban the use of LLMs to generate fake news or deepfakes.

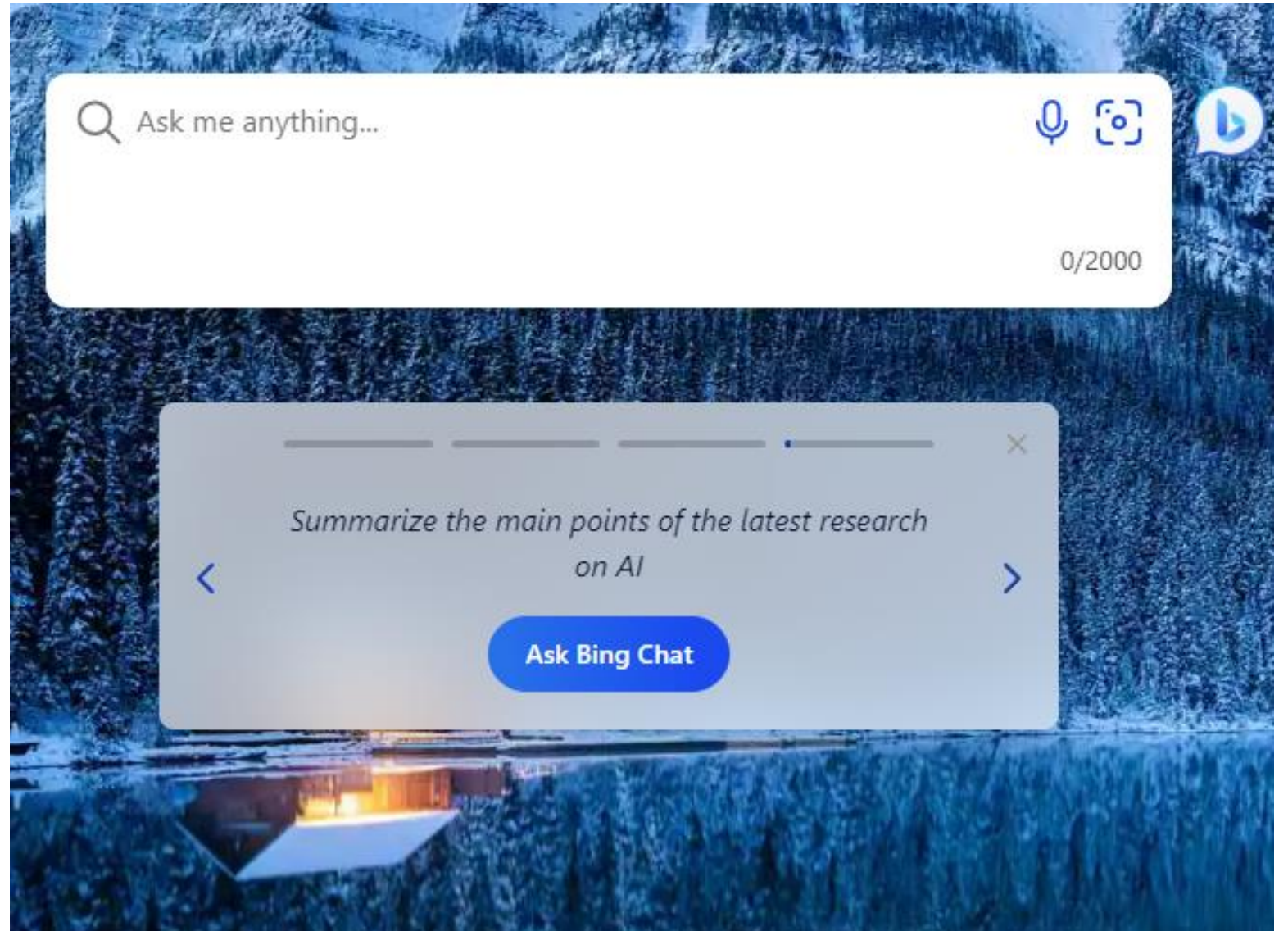
The ethical implications of LLMs are complex and evolving. It is important to continue to discuss and debate these issues as LLMs become more powerful and widespread.

Bing (Chat)

- **[How to Get and Use the New Bing Ai - Use ChatGPT 4 for Free](#)**
- On February 7, 2023, Microsoft began rolling out a major overhaul to Bing that included a new chatbot feature based on OpenAI's GPT-4. [Bing Chat](#) was available only to users of [Microsoft Edge](#) and Bing mobile app. On May 4 Microsoft switched from Limited Preview to Open Preview, however, it remains available only on Microsoft's Edge browser or Bing app, but no longer requires a Microsoft account (there are limitations).

Microsoft Bing –

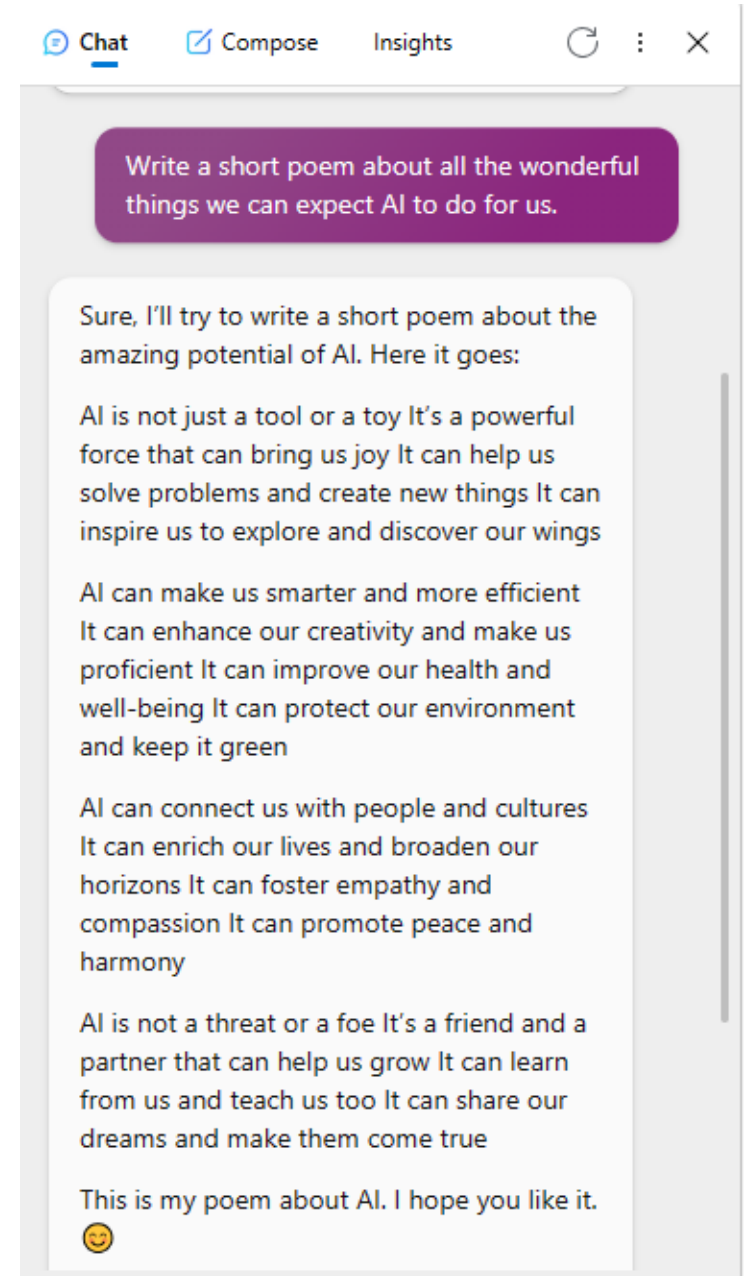
<https://www.bing.com>



Microsoft Bing writes a poem

AI is not just a tool or a toy
It's a powerful force that can bring us joy
It can help us solve problems and create new things
It can inspire us to explore and discover our wings
AI can make us smarter and more efficient
It can enhance our creativity and make us proficient
It can improve our health and well-being
It can protect our environment and keep it green
AI can connect us with people and cultures
It can enrich our lives and broaden our horizons
It can foster empathy and compassion
It can promote peace and harmony
AI is not a threat or a foe
It's a friend and a partner that can help us grow
It can learn from us and teach us too
It can share our dreams and make them come true

This is my poem about AI. I hope you like it. 😊

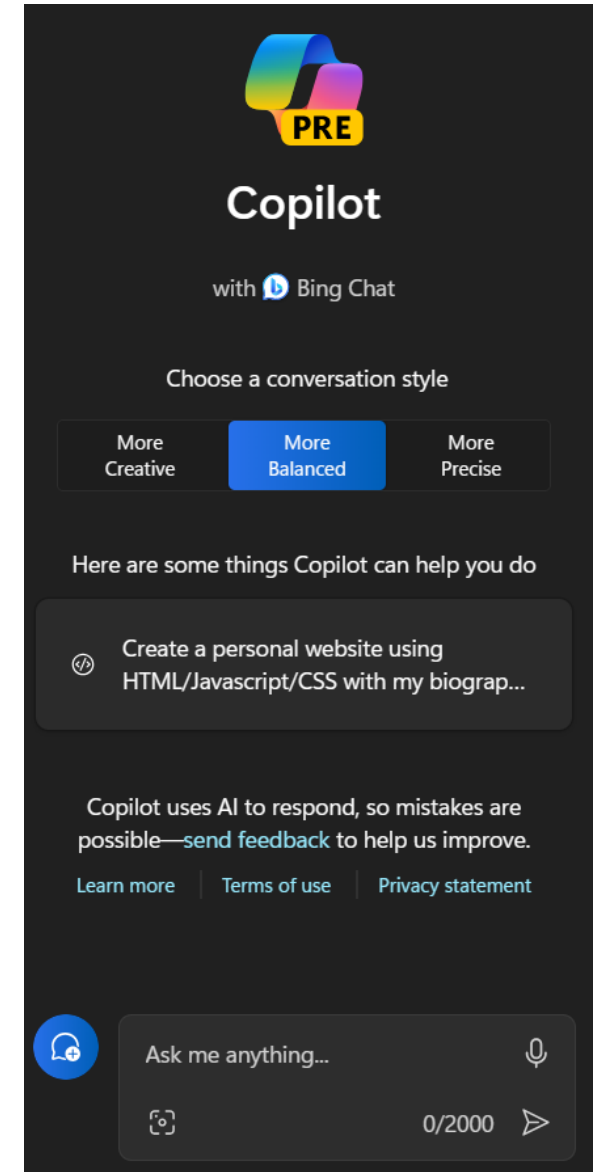


The screenshot shows the Microsoft Bing Chat interface. At the top, there are navigation options: 'Chat' (selected), 'Compose', and 'Insights'. There are also icons for refresh, a menu, and close. The main chat area contains a purple prompt box with the text: 'Write a short poem about all the wonderful things we can expect AI to do for us.' Below this, the AI's response is displayed in a white box with rounded corners. The response begins with 'Sure, I'll try to write a short poem about the amazing potential of AI. Here it goes:' followed by the poem text. The poem is identical to the one shown in the first block. At the end of the response, it says 'This is my poem about AI. I hope you like it.' followed by a smiley face emoji.

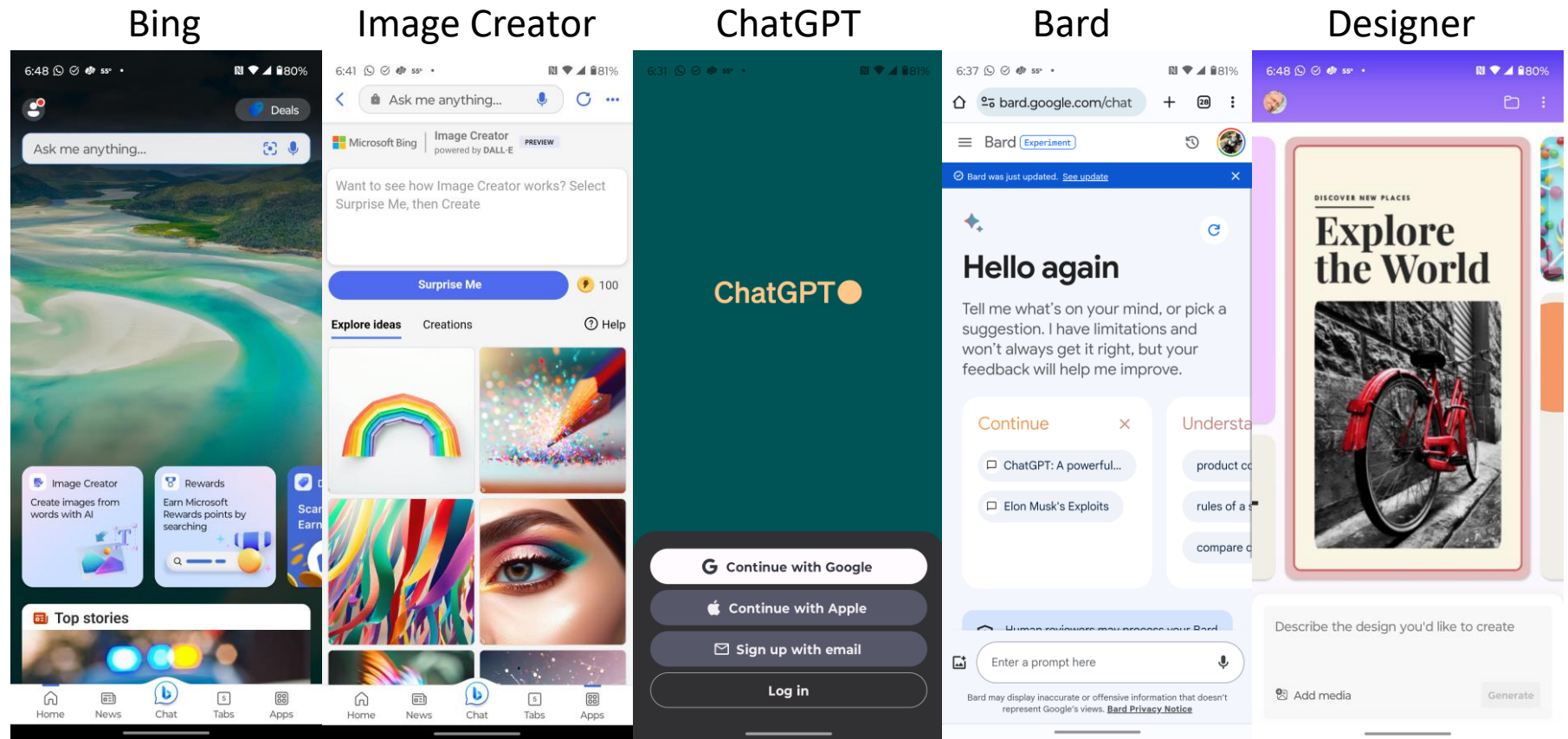
What is Microsoft Copilot?

- Microsoft Copilot is a new AI product that combines the power of large language models with in-house enterprise data generated by the Microsoft Graph and Microsoft 365 applications.
- It's designed to work alongside popular Microsoft 365 Apps such as Word, Excel, PowerPoint, Outlook, Teams, and more.
- Copilot provides real-time intelligent assistance, enabling users to enhance their creativity, productivity, and skills.
- It works by analyzing the user's input and providing suggestions based on the context of the document or message.
- Copilot can help users with tasks such as text content creation, comprehension, and more.

[How Copilot for Microsoft 365 works](#)

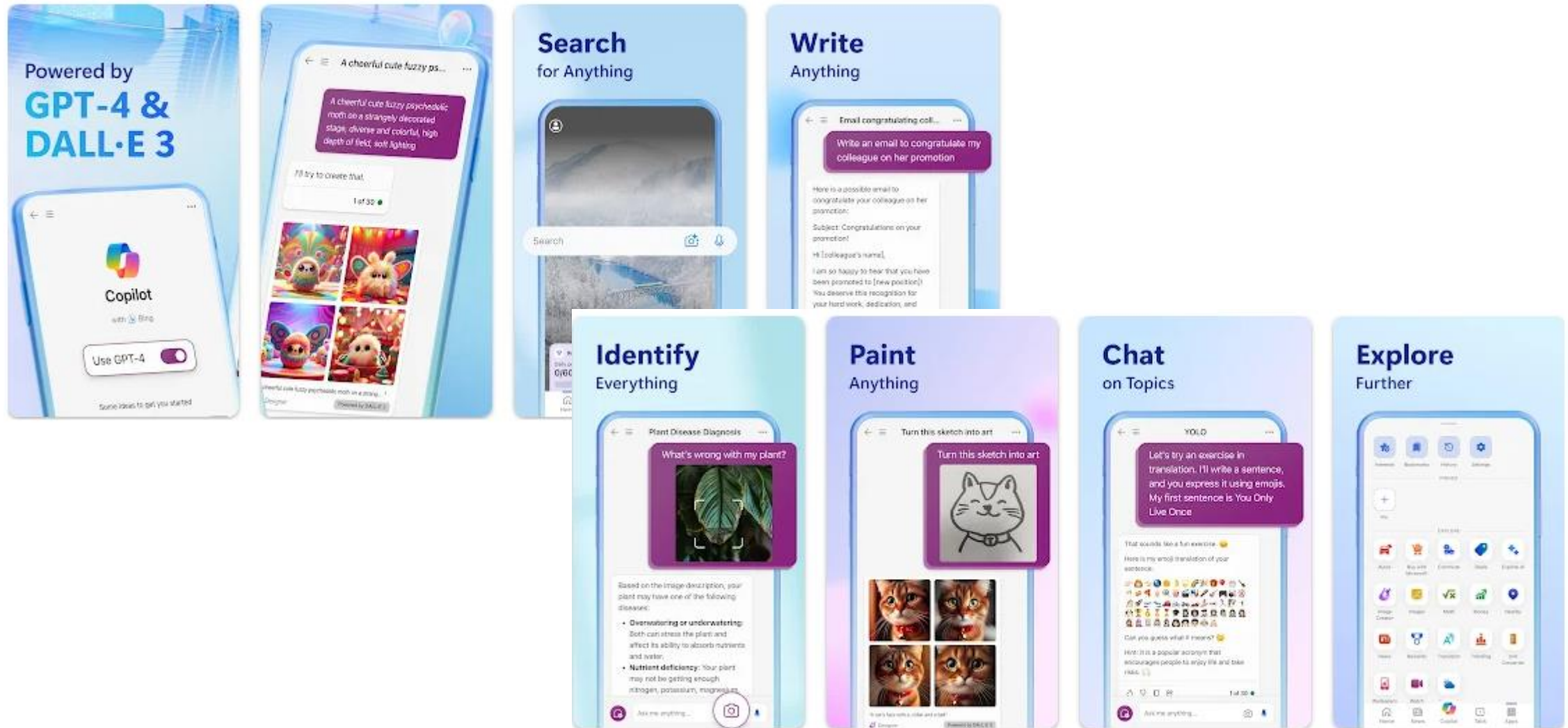


Mobile Apps



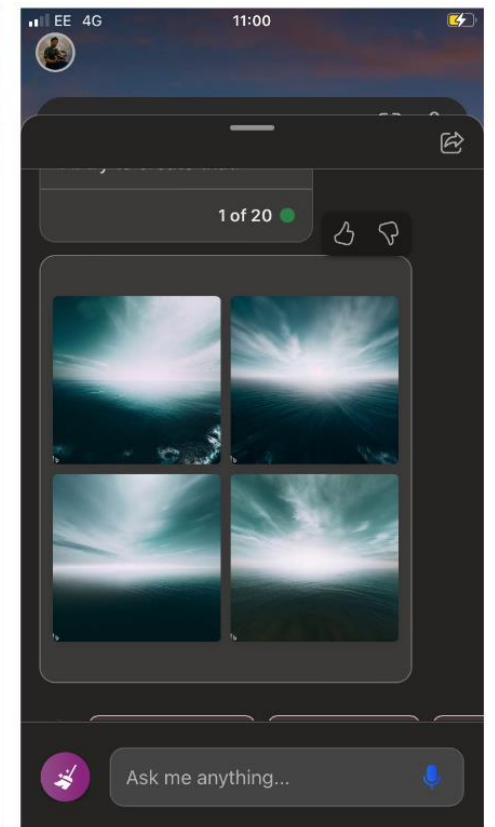
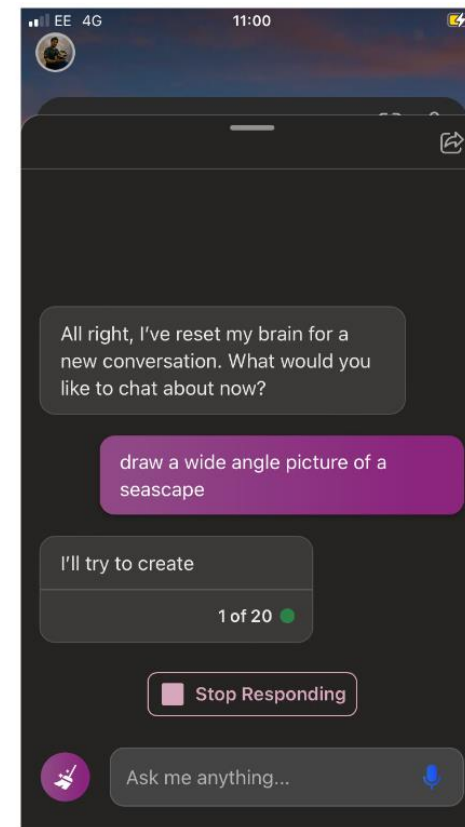
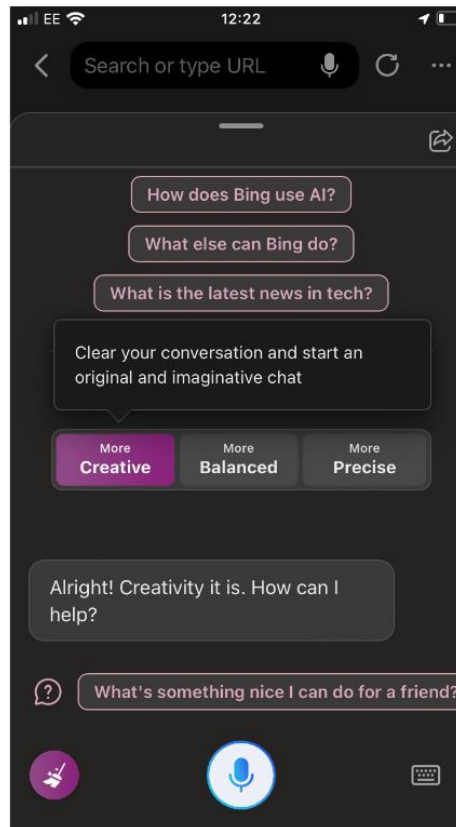
- Bing: Chat with AI & GPT-4
- Microsoft Image Creator (app accessed within the Bing mobile app)
- ChatGPT
- Bard (accessed via the browser on your mobile device)
- Microsoft Designer

Bing: Chat with AI & GPT-4



Microsoft Image Creator (now using DALL-E3)

- How to:
 1. Open the **Bing app** on your device.
 2. Tap **More Creative**.
 3. Enter your prompt into the chat box.
- Or go to bing.com/create in your browser...



ChatGPT

Get instant answers, find creative inspiration, and learn something new.

ChatGPT

Instant answers

9:30
ChatGPT

ME
I'm setting a dinner table and have a small plate and a big plate. Which plate goes where?

CHATGPT
Place the big plate in the center of the setting for the main course. Place the small plate above and to the left of the big plate for bread or salad.

Tailored advice

9:30
ChatGPT

ME
Anna just texted me this: "Will you come to this concert with me?"

How do I decline nicely?

CHATGPT
hey anna, thanks for the invite! I can't make it, but hope you have a blast and let's catch up soon!

Professional input

9:30
ChatGPT

ME
What do you think about the slogan "Stumble in Style" for our new shoe drop?

CHATGPT
It implies chic confidence but may inadvertently hint at shoe discomfort and concern customers.

ME
Can you help improve it?

CHATGPT
"Elevate your Sole": A pun on 'sole'.

Creative inspiration

9:30
ChatGPT

ME
What are unique, custom birthday gift ideas for my coffee-loving mom?

CHATGPT
Custom Blend: Collaborate with a local roaster to make a personalized coffee blend named after her.
DIY Coffee Corner: Design a home coffee station with a cart, chic containers, and her favorite syrups.
Tasting Experience: Arrange a coffee tasting at a roastery or cafe to learn about origins and flavors.

Learning opportunities

9:30
ChatGPT

ME
Explain how electricity works to a kid who likes dinosaurs.

CHATGPT
Electricity is like a group of tiny dinosaurs called Electrosauruses running through special paths called wires.

They move together in one direction to create an electrical current, like a dinosaur stampede.

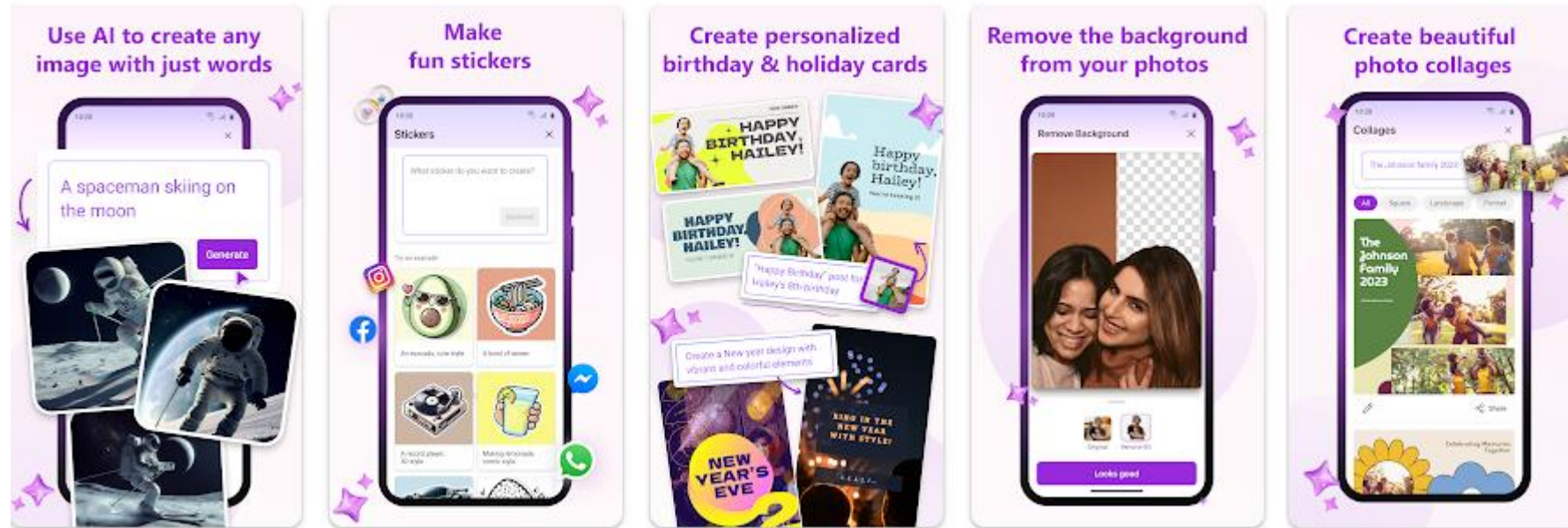
The Electrosauruses cross a bridge, called a switch, to make things like lights and toys work.

Bard

Start a conversation in Bard

1. On your Android phone or tablet, go to bard.google.com.
2. If you're not already signed in, sign in to your Google Account.
3. In the text box at the bottom, enter your question or prompt.
4. Optionally, to add a photo to your prompt, tap Upload image .
5. Tap Submit .

Microsoft Designer



Links to Apps on Apple mobile devices

- [Bing: Chat with AI & GPT-4](#) (incl. Image Creator)
- [ChatGPT](#)
- [Bard](#) (accessed via the browser on your mobile device)
- [Microsoft Designer](#)

Other interesting AI mobile apps

(most work on both Android and iOS)

1. [Grammarly](#)

AI proofreader - English grammar, spelling, punctuation, vocabulary, and fluency

2. [Otter.ai](#)

Smart note-taking app for work, meeting, interview, class, accessibility & more.

3. [Lensa AI](#)

Portraits & pictures editor. AI photo enhancer: avatar maker and selfie camera

4. [Perplexity AI](#)

The most powerful answer engine powered by AI.

5. [Socratic by Google](#)

Get unstuck. Learn better.

6. [Replika](#)

Create your personal AI companion and talk about anything that's on your mind

7. [ELSA](#)

Learn English Grammar, Vocabulary & Pronunciation On Our Language Learning App

8. [StarryAI](#)

AI Generated Image & Painting

9. [Siri](#) (iOS only)

Get everyday tasks done with just your voice.

10. [Alexa](#)

ditto

Extra Credit Generative Images

What are Diffusion Models?

Diffusion models are a type of generative AI* model that are trained on a massive dataset of images. This allows them to generate images that are both realistic and creative. Examples of diffusion models:

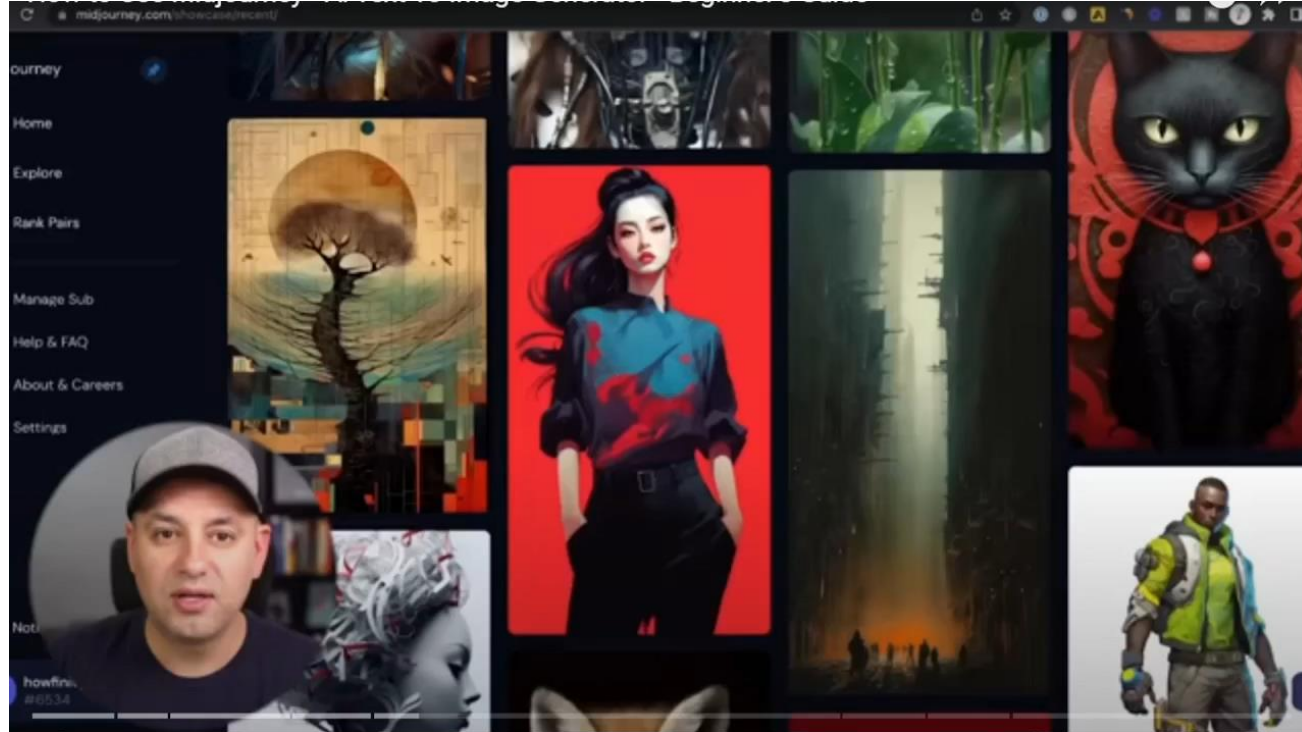
- **Midjourney** is a diffusion model developed by Nvidia. Midjourney is designed for artists, and can be used to generate images based on user-provided sketches or descriptions.
- **DALL-E 2** is a diffusion model developed by OpenAI. It is one of the most powerful diffusion models available, and it has been used to create a variety of impressive images.

Diffusion models have the potential to revolutionize the way we create and interact with images.

**Generative AI models use large language models, complex algorithms and neural networks to produce original text, audio, synthetic data, images, and more.*

Midjourney

- [How to Use Midjourney - Ai Text To Image Generator - Beginner's Guide](#)



Source



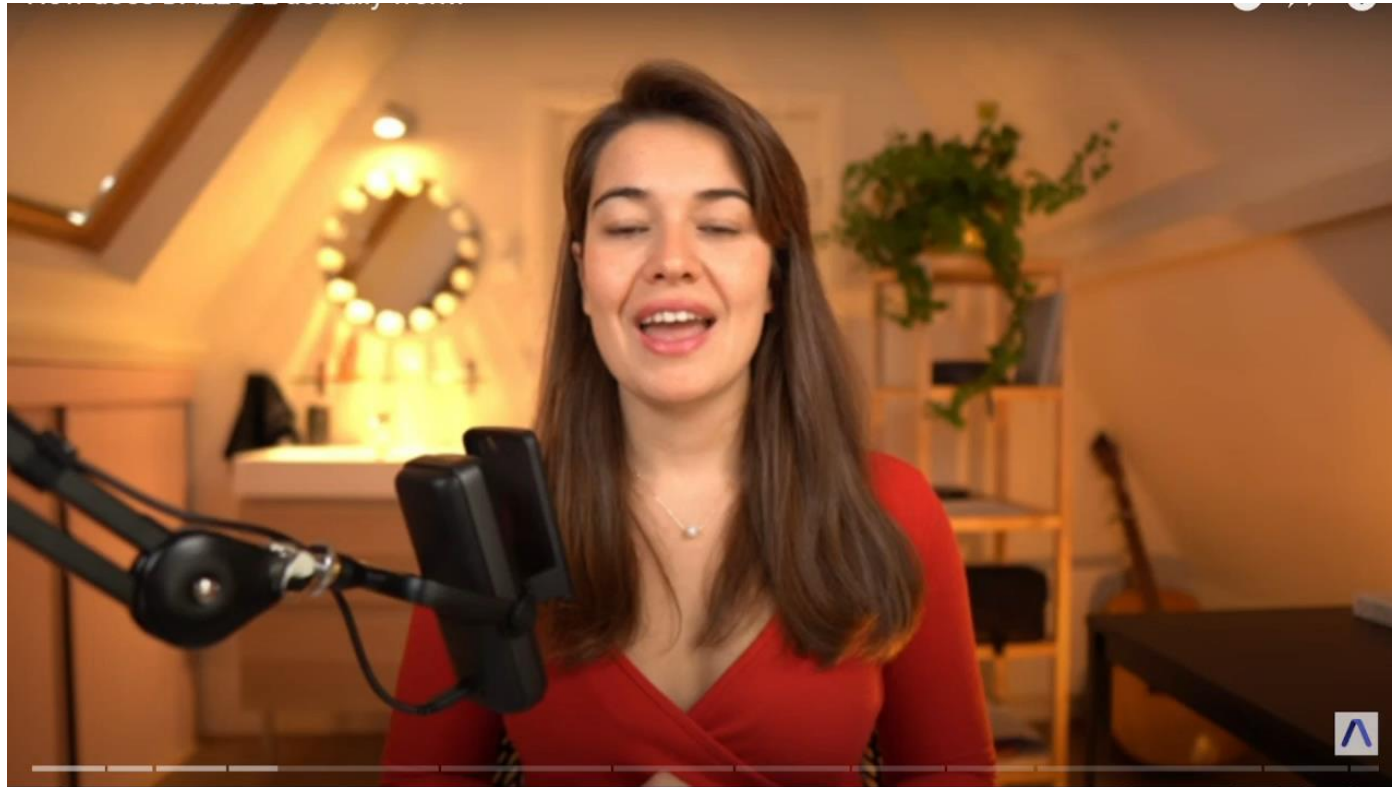
An AI-generated "synthetic photograph" of a cheeseburger generated using Midjourney v5 by Julie Wieland.

An AI-generated "synthetic photograph" of a boy and flowers generated using Midjourney v5 by Julie Wieland.



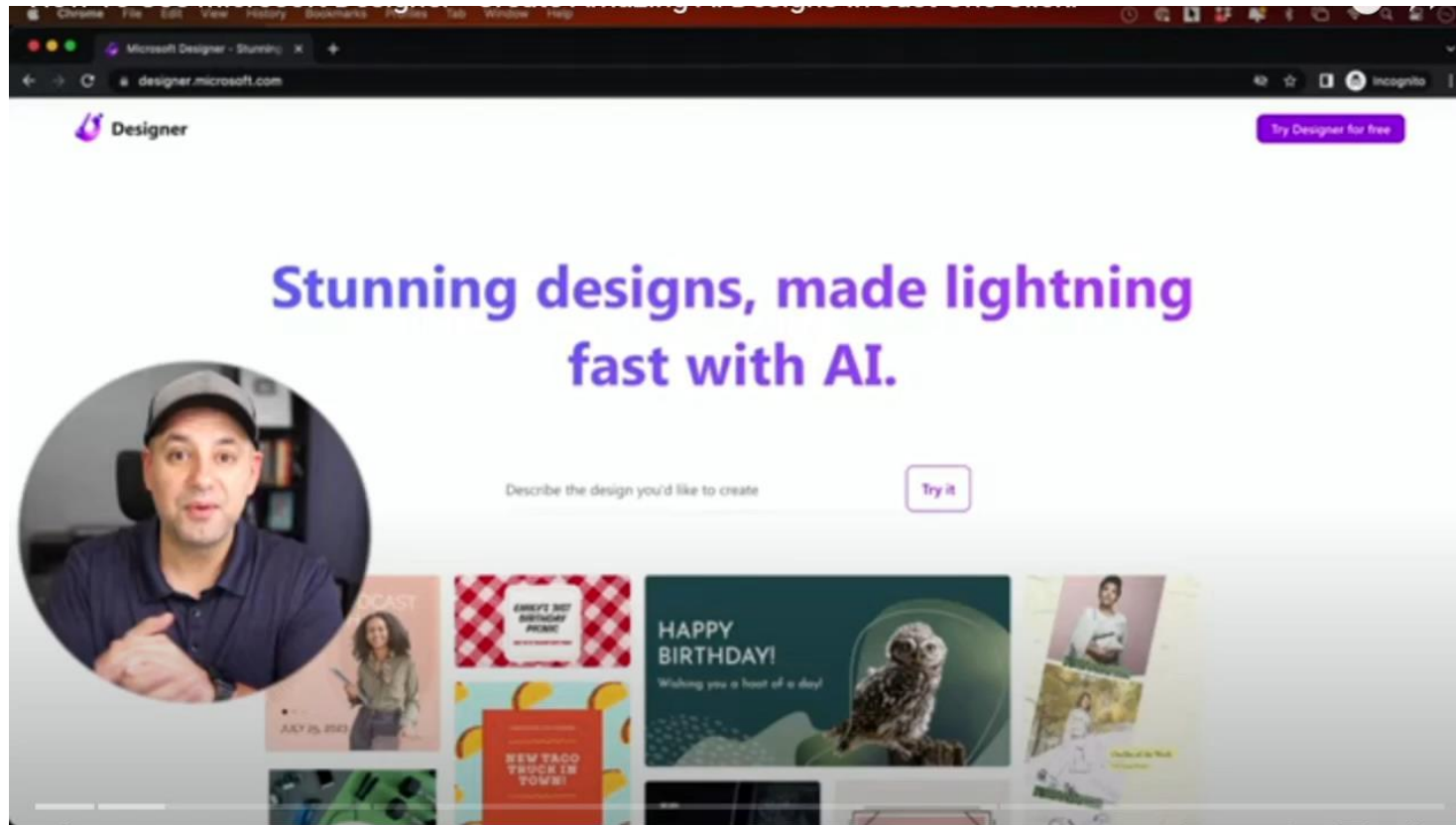
Dall-E

- [How does DALL-E 2 actually work?](#)



Microsoft Designer

- [How To Use Microsoft Designer - Create Amazing Ai Designs In Just One Click!](#)



Microsoft Designer (based on Dall-E)

Designer PREVIEW

Describe the design you'd like to create

Create a 3d pencil drawing of a rat riding an electric bicycle.

Add image Generate image

Generate

Create a 3d pencil drawing of a rat riding a... →



Cancel

Select

Explore more prompts

Size

RAT ON AN ELECTRIC BIKE



3D PENCIL DRAWING



RAT ON AN ELECTRIC BIKE



RAT ON AN ELECTRIC BIKE



RAT ON AN ELECTRIC BIKE

3D PENCIL DRAWING



RAT ON AN ELECTRIC BIKE



RAT ON AN ELECTRIC BIKE



RAT ON AN ELECTRIC BIKE



RAT ON AN ELECTRIC BIKE

Download

Customize design

Bing Image Creator

The image displays the Bing Image Creator interface. On the left, a large preview window shows a 3D rendered image of a brown rat wearing a black helmet and riding a blue electric bicycle. The interface includes a 'Save' button in the top left of the preview, and a 'Share' button, 'Saved' status, and 'Download' option below the image. The main text reads: "A photorealistic 3d image of a rat riding an electric bicycle with a helmet". Below this, it says "Bing Image Creator | 1024 x 1024.jpg | 24 days ago".

On the right, a smaller window shows the creation process. It features a text input field with the prompt: "A photorealistic 3d image of a rat riding an electric bicycle with a helmet". Below the input is a blue "Create" button and a lightning bolt icon with the number "100". Underneath, there are tabs for "Explore ideas" and "Creations", and a "Help" button. A grid of four smaller images shows different variations of the rat on the bicycle.

Adobe Photoshop AI [promo](#)

Adobe



In the News

- [From lawsuits to tech hacks: Here's how artists are fighting back against AI image generation](#)
 - The emergence of new AI models, including Midjourney and DALL·E, has caused alarm among artists who fear that these advancements could threaten their livelihoods. However, artists are fighting back, using a variety of tactics to protect their creative output.
- [This new data poisoning tool lets artists fight back against generative AI](#)
 - The tool, called Nightshade, messes up training data in ways that could cause serious damage to image-generating AI models.

NOT COOL!

Data Poisoning – it’s going to get interesting!

- There’s a risk that people might abuse the data poisoning technique for malicious uses.
- [Vitaly Shmatikov](#): “We don’t yet know of robust defenses against these attacks. We haven’t yet seen poisoning attacks on modern [machine learning] models in the wild, but it could be just a matter of time. The time to work on defenses is now.”



Cats



Jackson Pollock



Renoir



Cezanne



Dali



Monet



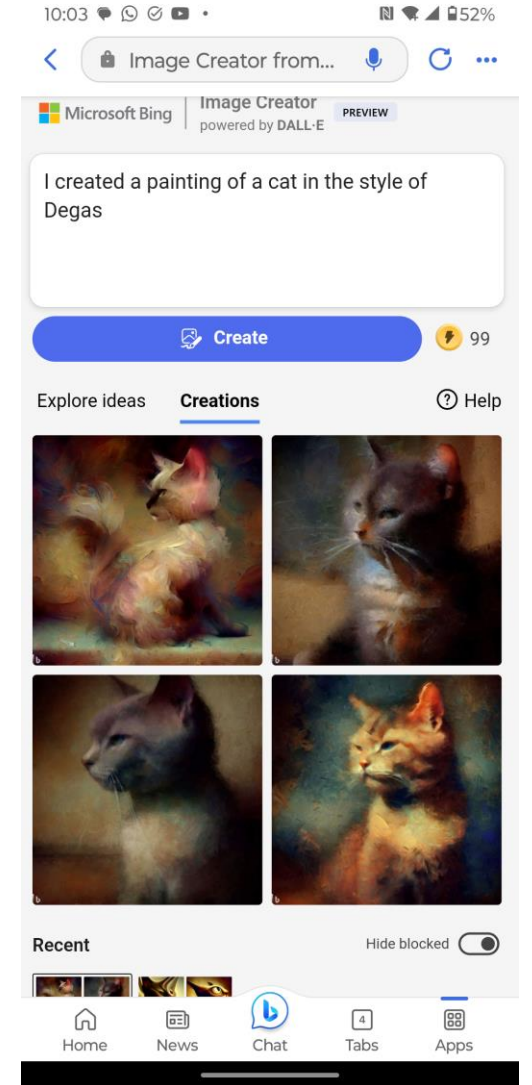
Van Gogh



Picasso



Matisse



More
AI In the News

Now you can chat with ChatGPT using your voice

- Now, you can chat with ChatGPT using your voice.
 - This is done through the voice interface called Bard.
- Bard is a text-to-speech and speech-to-text model that can translate between human speech and text.
- With Bard, you can now have a natural conversation with ChatGPT using your voice.



How one elite university is approaching ChatGPT this school year

- Yale University is taking a different approach to ChatGPT than some other schools, which have banned it altogether.
- Yale believes that ChatGPT can be a valuable tool in education, and is working to integrate it into the classroom in a responsible way.
- Some of the ways that Yale is using ChatGPT include:
 - Using it to generate personalized learning materials for students.
 - Using it to help students develop their critical thinking and problem-solving skills.
 - Using it to help students learn about the ethical implications of AI.
- Yale is also working to address concerns about cheating and plagiarism. For example, the school is teaching students how to identify ChatGPT-generated text, and is developing new assessment methods that are less susceptible to cheating.
- [Jenny Frederick](#) believes that AI is "going to change education, but it's not going to destroy it."

Bard can now connect to your Google apps and services

- Bard can now connect to your Google apps and services through extensions.
 - This means that Bard can access and use information from your Gmail, Docs, Drive, Google Maps, YouTube, and Google Flights and hotels accounts.
- This can help Bard to provide you with more personalized and helpful responses to your queries.
- Example- you can ask Bard to start a trip planning Doc for you and your friends, draft up your online marketplace listing, or help explain a science topic to your kids.
- Bard can also use the information from your Google apps and services to generate creative text formats, like poems, code, scripts, musical pieces, email, letters, etc.

6 New ChatGPT Features Include Prompt Examples & File Uploads

- ChatGPT has been updated with six new features:
 - **Prompt examples:** ChatGPT now provides examples of prompts to help users get started with a conversation.
 - **File uploads:** ChatGPT now supports file uploads, which can be used to provide the model with additional context for a task.
 - **Multi-turn conversations:** ChatGPT can now hold multi-turn conversations, which means that users can ask follow-up questions and the model will keep track of the context of the conversation.
 - **System-level instructions:** ChatGPT now supports system-level instructions, which allow users to control the behavior of the model.
 - **Message delineation:** ChatGPT now delineates between user messages and system messages, which makes the conversation easier to follow.
 - **Expanded word limit:** ChatGPT now has an expanded word limit, which allows users to generate longer and more complex responses.
- These new features make ChatGPT more user-friendly and powerful, and they open up new possibilities for how ChatGPT can be used.

OpenAI releases third version of DALL-E

- DALL-E 3 is a significant improvement over previous versions, and can generate more realistic and detailed images from text descriptions.
- DALL-E 3 is also more versatile than previous versions, and can generate images in a wider range of styles.
- DALL-E 3 is still under development, but it has the potential to be a powerful tool for creative professionals, designers, and researchers.

Overall, DALL-E 3 is a significant advancement in the field of text-to-image generation. It has the potential to be a powerful tool for creative professionals, designers, and researchers.

Amazon Makes Alexa Chatter and More Capable Using Generative AI

Oh boy, a 'chattier' Alexa!

- Amazon has integrated generative AI into Alexa, making it more chatty and capable.
- Generative AI allows Alexa to generate more natural-sounding responses to questions and requests.
- Alexa can now hold multi-turn conversations, meaning that users can ask follow-up questions and Alexa will keep track of the context of the conversation.
- Alexa can also now generate different creative text formats, such as poems, code, scripts, musical pieces, email, and letters.
- Amazon is using generative AI to improve Alexa's core tasks, such as providing real-time news and information, controlling smart home devices, and providing entertainment.

Overall, Amazon's decision to integrate generative AI into Alexa is a significant development in the field of voice assistants.

PS - Amazon is committed to using generative AI responsibly and ethically. The company has developed guardrails to prevent Alexa from generating harmful or biased content.