

Introducing ChatGPT

We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer followup questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.

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ChatGPT: The Exciting Possibilities and What to Watch

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Educational Technology
Learning Environments

Medical Education
Veterinary Medical Education
Language Education

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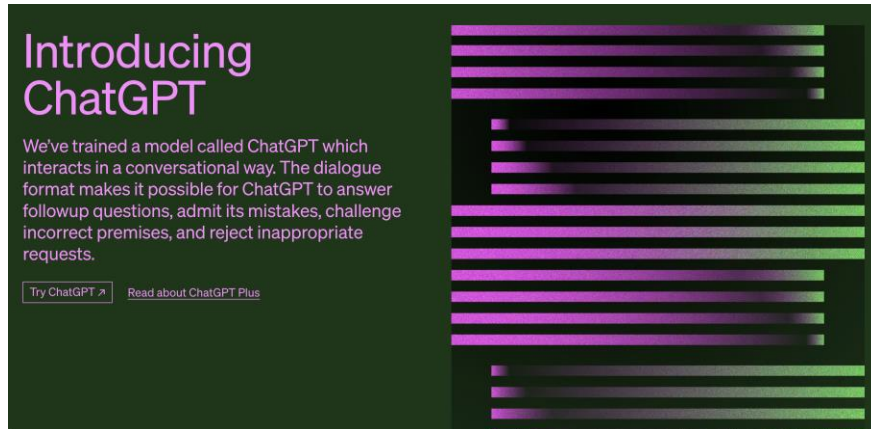
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[Read about ChatGPT Plus](#)



- What is ChatGPT?
- Why is it exciting?
- What to watch?

What is ChatGPT (Generative Pretrained Transformer)?



- Generative AI (Artificial Intelligence) platform that can
 - Answer questions in a way that mimics humans
 - Translates
 - Writes compositions
 - Debugs code.
- Launched on November 30th, 2022
- Part of Open AI started in collaboration with Elon Musk
- Leadership
 - Sam Altman (CEO)
 - Mina Murati (CTO)
 - Interview from [Good Morning America](#).
- Crossed 1 million users within first week of its launch
- 1.6 billion users
- Had 1.6 billion visits in March 2023
- Competing platforms
 - Bard AI (Google) <https://bard.google.com/>

Demand Sage(2023). 57+ ChatGPT Statistics for 2023 (New Data + GPT-4 Facts) (May 4 version) <https://www.demandsage.com/chatgpt-statistics/#:~:text=ChatGPT%20currently%20has%201.16%20billion,billion%20users%20within%20two%20months>

Gartner (2023). ChatGPT (May 4 version)

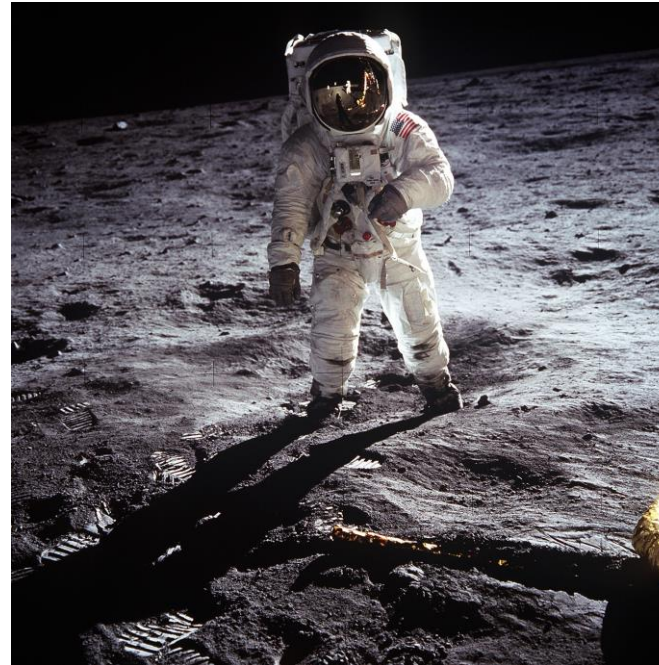
<https://en.wikipedia.org/wiki/ChatGPT#:~:text=ChatGPT%20launched%20as%20a%20prototype,identified%20as%20a%20significant%20drawback.>



Generative Artificial Intelligence (AI)

Generative AI learns about artifacts from data and generates innovative new creations that are similar to but don't repeat the original.

Basic AI: Classifier



This is an astronaut.

Generative AI: New Creation



This is an astronaut on a horse.

ChatGPT: Where to start

1. Go to:

<https://openai.com/blog/chatgpt>

2. Click on

Try ChatGPT ↗

3. Create an account

4. Type in a prompt or question

ChatGPT



Examples

"Explain quantum computing in simple terms" →

"Got any creative ideas for a 10 year old's birthday?" →

"How do I make an HTTP request in Javascript?" →



Capabilities

Remembers what user said earlier in the conversation

Allows user to provide follow-up corrections

Trained to decline inappropriate requests



Limitations

May occasionally generate incorrect information

May occasionally produce harmful instructions or biased content

Limited knowledge of world and events after 2021

I want to give a presentation on ChatGPT|



Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT May 3 Version](#)

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Why is it exciting?

How is it used?: ChatGPT

- Answering Questions
- Writing Composition and Correction
- Language Translation, Assistance, and Learning
- Checking and Debugging Code

Answering: Questions



Answering questions

- Answer questions on topics of interest in a way a human might.
- Use Case: Virtual Counselor (Career, Academic, Mental Health)
 - Video: Therapy by chatbot?: NPR Shots Health News From NPR
 - [Learn more here](#)

Answering: Questions

Excitement:

- Jumpstart learning
- Accelerate research on a topic.

J

What is ChatGPT?



ChatGPT is an artificial intelligence language model developed by OpenAI, a research organization focused on developing and promoting AI in a safe and beneficial way. It is based on the GPT-3.5 architecture and is designed to generate natural language text based on a given input.



ChatGPT works by using a deep neural network to analyze and understand natural language. It has been trained on massive amounts of text data, allowing it to generate contextually relevant and grammatically correct responses. When a user inputs text into ChatGPT, the system uses its knowledge of language to generate a response that closely matches the input's context.

ChatGPT can be used in a variety of applications, including chatbots, language translation, content creation, and even poetry writing. It has the potential to revolutionize the way we communicate with machines and could be used to enhance customer service experiences, language learning, and much more.

However, it is important to note that while ChatGPT is an impressive technology, it is not without its limitations. It can sometimes produce responses that are nonsensical or offensive, as it has learned from a vast amount of data, including some that may contain inappropriate language or biases. Additionally, it may not always be able to understand the

Regenerate response

Send a message.



Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT May 3 Version](#)



Answering: Virtual Counselor (Chatbot)

Excitement:

- Just in time counseling
- Just in time assistance

J

I have been feeling down with all this work I need to do at school. What can I do?



It's understandable to feel overwhelmed and stressed with a lot of work to do at school. Here are a few things you can try to help you feel better:



1. Take breaks: It's important to take regular breaks to avoid burnout. Take a few minutes every hour to stretch, walk around, or do something you enjoy to help you relax.
2. Prioritize tasks: Make a list of all the tasks you need to do and prioritize them by importance and deadline. This can help you stay organized and focused.
3. Ask for help: Don't be afraid to ask for help from teachers, tutors, or classmates if you're struggling with a particular subject or assignment.
4. Practice self-care: Take care of your physical and mental health by getting enough sleep, eating well, and exercising. Engage in activities that you enjoy and help you relax, such as reading, listening to music, or spending time with friends and family.
5. Break tasks into smaller steps: If a task seems too daunting, break it into smaller, more manageable steps. This can help you feel more in control and make it easier to get started.

Remember, it's important to take care of yourself and seek help if you need it. Don't hesitate to talk to a trusted adult or a mental health professional if you're feeling overwhelmed or stressed for an extended period.

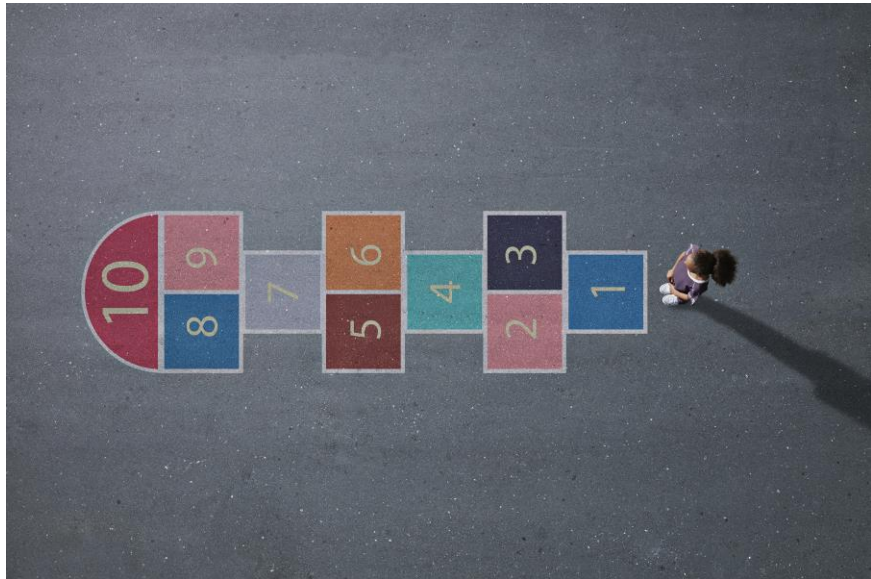
↻ Regenerate response

Send a message.



Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT May 3 Version](#)

Writing Composition and Correction



Writing

- Composition
 - Use Case: ChatGPT: Grading artificial intelligence's writing
 - Demonstration of writing composition
 - CBS Morning News
 - Key Insight: Jane Rosenweig,
Director of Writing Center, Harvard
 - [Learn more here](#)
- Correction
 - Use Case: How to Use ChatGPT for Text Correction
 - [Learn more here](#)

Writing: Creating an Outline

Excitement:

- Provides structure and pre planning to support writing and presentations



What is a good outline for a presentation on ChatGPT?



Here is a possible outline for a presentation on ChatGPT:



I. Introduction

- Definition of ChatGPT
- Importance of natural language processing in AI

II. How ChatGPT works

- Explanation of neural networks and deep learning
- Overview of GPT-3.5 architecture
- Training process for ChatGPT

III. Applications of ChatGPT

- Chatbots and customer service
- Language translation
- Content creation
- Poetry and creative writing
- Other potential applications

Regenerate response

Send a message.



Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT May 3 Version](#)



Language Translation, Assistance, and Learning



Language Translation, Assistance, and Learning

- Translation
 - Use Case: How to Use ChatGPT for Language Translation (How to Translate Languages with Chat GPT)
 - [Learn more here](#)
- Assistance
 - Use Case: Yokosuka becomes Japan's first city to use ChatGPT for administrative tasks
 - Japanese to English, English to Japanese Assistance
 - [Learn more here](#)
- Learning
 - Use Case: How does ChatGPT influence language learning?
 - Dartmouth
 - [Learn more here](#)

Language: Translation, Assistance, and Learning

Excitement:

- Just in time translation services.
- Language learning through translation.



In Japanese: What is ChatGPT?



ChatGPTとは何ですか？



ChatGPTは、OpenAIが開発した人工知能の言語モデルで、GPT-3.5アーキテクチャを基にしています。与えられた入力に基づいて自然言語のテキストを生成することができます。

ChatGPTは、チャットボット、言語翻訳、コンテンツ作成、詩の自動生成など、様々なアプリケーションで使用されます。

🔄 Regenerate response

Send a message.



Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT May 3 Version](#)

Language: Translation, Assistance, and Learning

Excitement:

- Just in time translation services to support a wide range of language needs
- Fast localization of content.



In Japanese: What is a good outline for a presentation on ChatGPT?



ChatGPTに関するプレゼンテーションの良いアウトラインには、以下のような内容が含まれます。



I. イントロダクション

- ChatGPTの定義
- AIにおける自然言語処理の重要性

II. ChatGPTの仕組み

- ニューラルネットワークとディープラーニングの説明
- GPT-3.5アーキテクチャの概要
- ChatGPTのトレーニングプロセス

III. ChatGPTの応用分野

- チャットボットとカスタマーサービス
- 言語翻訳
- コンテンツ作成
- 詩や創作作品の自動生成

🔄 Regenerate response

Send a message.



Free Research Preview. ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT May 3 Version](#)



Checking and Debugging Code



Checking and Debugging Code

- Debug Code
 - Use Case: Write and Debug Code with OpenAI's ChatGPT
 - [Learn more here](#)

Checking and Debugging: Code

Excitement:




- Decrease troubleshooting time with supporting code.



```
public class Test {  
  
    private static void printLength(String str) {  
        System.out.println(str.length());  
    }  
  
    public static void main(String []args){  
  
        String myString = null;  
        printLength(myString);  
    }  
}
```

The above code is not running. Could you tell me what the problem might be?



The issue with the code is that the `printLength` method is attempting to call the `length` method on a `null` object, which will result in a `NullPointerException`.   

In the `main` method, the `myString` variable is initialized to `null`. When `printLength(myString)` is called, `myString` is passed as an argument to the `printLength` method. Within the `printLength` method, `str` is the parameter that receives the value of

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What to Watch

What to Watch: ChatGPT

Answering Questions: “While ChatGPT can write credible scientific essays, the data it generates is a mix of true and completely fabricated ones. This raises concerns about the integrity and accuracy of using large language models in academic writing, such as ChatGPT.”



Artificial Hallucinations in ChatGPT: Implications in Scientific Writing
Source: NIH National Library of Medicine

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9939079/>

Writing Composition: College Essay "Having read thousands of essays over the years, I can confidently say that it would be extremely unlikely to ascertain with the naked eye that these essays were AI-generated."

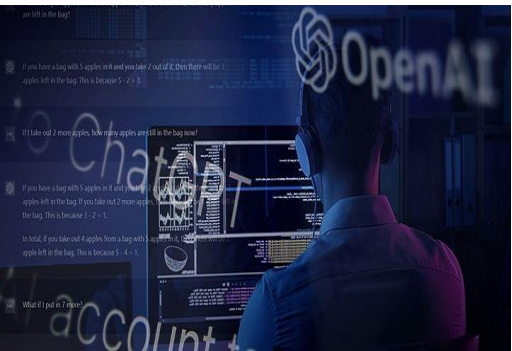


I asked ChatGPT to write college entrance essays.
Source: The Insider

<https://www.businessinsider.com/chatgpt-openai-college-application-essay-admissions-professionals-2023-2>

What to Watch: ChatGPT

Language: Translation



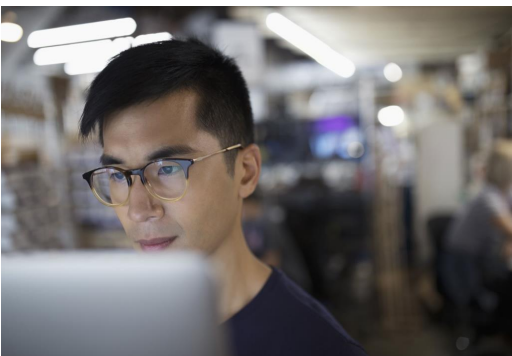
“ChatGPT, like any machine learning model, is not inherently culturally sensitive. Its cultural sensitivity is based on the data it has been trained on. The model may produce appropriate translations if the training data is diverse and culturally sensitive. But if the training data is not culturally sensitive, the model may produce translations that perpetuate stereotypes or inaccuracies.”

The Ethics of Using ChatGPT in Translation and Localization

Source: Tomedes.com

<https://www.tomedes.com/translator-hub/ethics-of-using-chatgpt-in-translation-and-localization>

Checking and Debugging Code



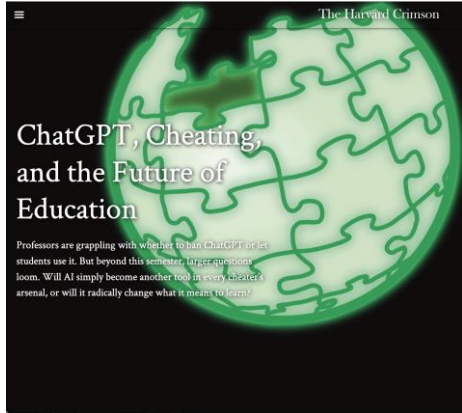
“Overall, because the average rate of getting correct answers from ChatGPT is too low, the posting of answers created by ChatGPT is substantially harmful to the site and to users who are asking or looking for correct answers,”

Giving Wrong Answers: Internet’s Largest Coding Resource (Stack Overflow) Bans ChatGPT

Source: Vice News

<https://www.tomedes.com/translator-hub/ethics-of-using-chatgpt-in-translation-and-localization>

The Conversation at Harvard: ChatGPT



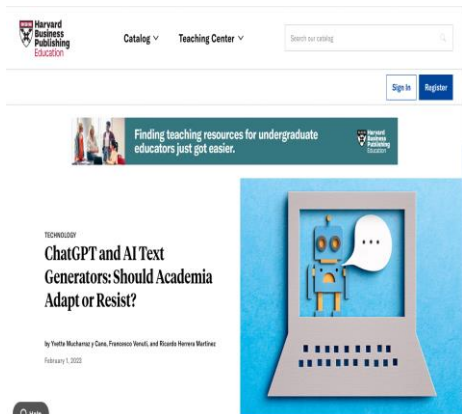
“At Harvard, ChatGPT quickly found its way onto students’ browsers. In the midst of finals week, we encountered someone whose computer screen was split between two windows: on the left, an open-internet exam for a statistics class, and on the right, ChatGPT outputting answers to his questions. He admitted that he was also bouncing ideas for a philosophy paper off the AI. Another anonymous source we talked to used the chatbot to complete his open-internet Life Sciences exam.”

ChatGPT, Cheating, and the Future of Education

Date: February 23rd, 2023

Source: The Harvard Crimson

<https://www.thecrimson.com/article/2023/2/23/chatgpt-scrut/>



“Instead of taking ChatGPT as a threat, educators and their institutions should analyze its advantages and use them in favor of the student to achieve their educational objectives.”

ChatGPT and AI Text Generators: Should Academia Adapt or Resist?

Date: February 1st, 2023

Source: Harvard Business Publishing Education

<https://hbsp.harvard.edu/inspiring-minds/chatgpt-and-ai-text-generators-should-academia-adapt-or-resist>

Faculty Guidance: ChatGPT

T.H. Chan School of Public Health

Many of you have seen and heard the buzz around ChatGPT, a large, online language model developed by OpenAI that can be used for natural language processing tasks. A key feature of ChatGPT is its ability to generate human-like text. This threatens academic integrity, as students can easily use this chatbot to create answers to test questions or essay prompts. Further, the chatbot can emulate a student's writing style, honoring requests for typos or grammatical errors, and making plagiarism harder to detect.

While this will evolve rapidly, we recommend taking these actions based on media coverage and resources we've followed:

1. Be clear in your syllabus and on your Canvas sites on your policies related to original work and academic integrity regarding AI tools/ChatGPT, and how to acknowledge (e.g. cite, reference) ChatGPT use. We suggest discussing the ethical implications of ChatGPT and forthcoming AI systems in your class. [Click here for language you can use in your syllabus](#).
2. Examine your syllabus to determine if you are pushing students to take shortcuts and adjust if necessary. We all cram too much into our courses already.
3. Reexamine your assessments to ensure they will reflect the learning you want for students and that they don't encourage the use of AI tools.

Faculty Guidance: ChatGPT

T.H. Chan School of Public Health

Below are helpful sources that discuss ChatGPT:

- [Update your course syllabus for ChatGPT](#) (Ryan Watkins, Professor of Educational Technology Leadership at GWU)
- [What might ChatGPT mean for higher education?](#) (Webinar on YouTube)
- [In Age of Advanced AI, Harvard College Dean Khurana Calls on Students to Avoid 'Shortcuts'](#) (The Crimson)
- [Teachers are on alert for inevitable cheating after release of ChatGPT](#) (Washington Post)
- [Will ChatGPT Change the Way You Teach?](#) (The Chronicle of Higher Education)

Where we could be headed: AI vs. Grandmasters to AI supporting Grandmasters



1985

Kasparov Became
World Chess
Champion

Goal: Human
beat Human

1997

Kasparov beaten by
IBM Supercomputer
Deep Blue

Shockwaves and fear
In the chess world

Goal: AI
beat Human

2017

AlphaZero AI

Developed by
DeepMind (Google)

Taught itself to win at
Grandmaster level

New approaches to
chess humans have
never used.

Possibilities?

Goal: AI beat Human

2020

Maia Chess AI

Developed by a team of
researchers from U of Toronto,
Cornell, Microsoft

Make an AI that plays the human
move and not necessarily the best
move.

Goal: Making humans play more
effectively with humans

Hughes, Alex, AI has dominated chess for 25 years, but now it wants to lose, . Retrieved May 4, 2023, from <https://www.sciencefocus.com/future-technology/ai-has-dominated-chess-for-25-years-but-now-it-wants-to-lose/>

Knight, Will, Defeated Chess Champ Garry Kasparov Has Made Peace with AI, . Retrieved May 4, 2023, from <https://www.wired.com/story/defeated-chess-champ-garry-kasparov-made-peace-ai/>

Colle, Pierre and Beurtey, Tiffanie, How AI Has Advanced Chess Players, . Retrieved May 4, 2023, from <https://www.aiezan.ai/blog/how-ai-has-advanced-chess-players>

Maia Chess AI, . Retrieved May 4, 2023, from <https://maiachess.com/>

Final Thoughts: AI and Grandmaster Abilities



- Prior to AI, the highest Allot by a human player was 61.1 by Wilhelm Steinitz in 1889.
- With AI, Magnus Carlsen posted an Allot score of 72.
- The later a Grandmaster is born, the higher their best level is.
- AI is likely a key factor.
- By harnessing the power of AI tools Grandmasters can hone their skills.
- The results has been more exciting competitive chess amongst human players.

Friedel, Fredric, Ranking chess players according to the quality of their moves, . Retrieved May 10, 2023, from <https://en.chessbase.com/post/ranking-chess-players-according-to-the-quality-of-their-moves>

Colle, Pierre and Beurtey, Tiffanie, How AI Has Advanced Chess Players, . Retrieved May 4, 2023, from <https://www.alezan.ai/blog/how-ai-has-advanced-chess-players>

Resources: ChatGPT

Overview, Policies and Trends

What is ChatGPT(OpenAI)

<https://help.openai.com/en/articles/6783457-what-is-chatgpt>

The History of Artificial Intelligence (Harvard University-SITN-Science in the News)

<https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>

OECD.AI Policy Observatory (Worldwide Policy)

<https://oecd.ai/en/>

Educause QuickPoll Results: Artificial Intelligence Use in Higher Education (Educause)

<https://er.educause.edu/articles/2021/6/educause-quickpoll-results-artificial-intelligence-use-in-higher-education>

ChatGPT and Higher Education: Initial Prevalence and Areas of Interest (Educause)

<https://er.educause.edu/articles/2023/3/chatgpt-and-higher-education-initial-prevalence-and-areas-of-interest>

What to Watch in AI?

Key Technologies

Open AI

<https://openai.com/>

Bard (Google)

<https://ai.google/>

Key Conversations

In the Age of AI (full documentary) (Frontline PBS)

https://www.youtube.com/watch?v=5dZ_lvDgevk

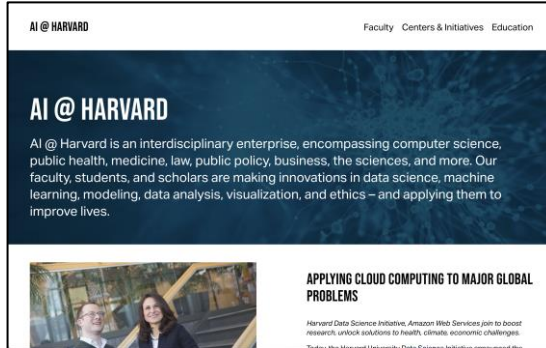
AI' godfather Geoffrey Hinton warns of dangers as he quits Google (BBC News)

<https://www.bbc.com/news/world-us-canada-65452940>

OpenAI CEO, CTO on risks and how AI will reshape society (ABC News)

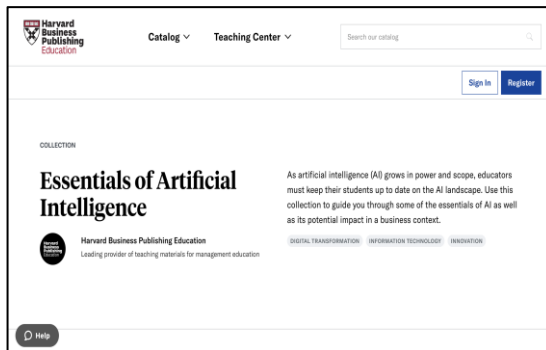
<https://www.bbc.com/news/world-us-canada-65452940>

Resources at Harvard



AI@Harvard

<https://www.ai.harvard.edu/>



Harvard Business Publishing Education Essentials of Artificial Intelligence

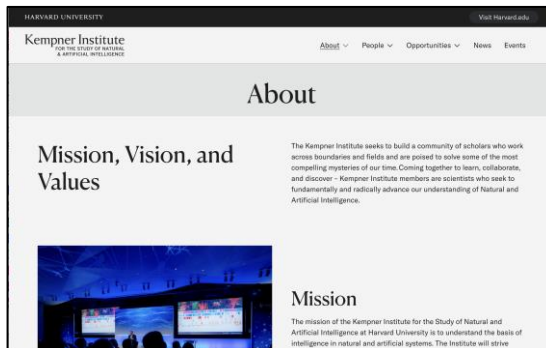
<https://hbsp.harvard.edu/catalog/collections/essentials-of-artificial-intelligence>

Resources at Harvard



Berkman Klein Center: For Internet & Society at Harvard University Ethics and Governance of AI

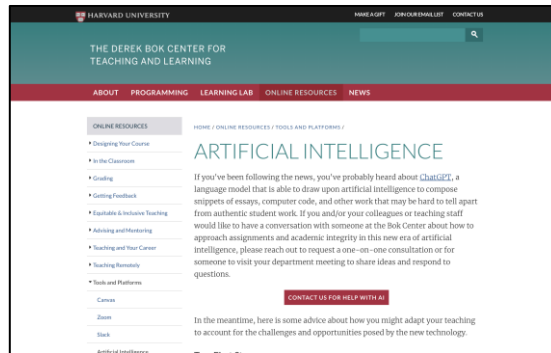
<https://cyber.harvard.edu/topics/ethics-and-governance-ai>



Kempner Institute: For the Study of Natural & Artificial Intelligence

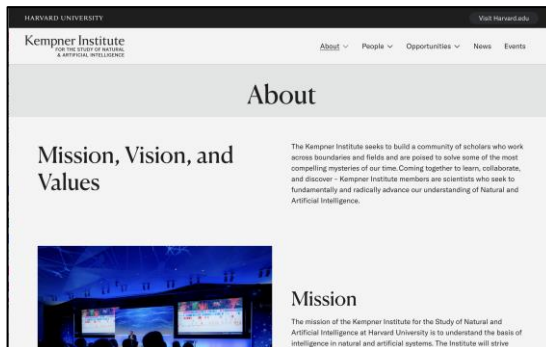
<https://www.harvard.edu/kempner-institute/about/>

Resources at Harvard



The Derek Bok Center for Teaching and Learning Artificial Intelligence

<https://bokcenter.harvard.edu/artificial-intelligence>



Kempner Institute: For the Study of Natural & Artificial Intelligence

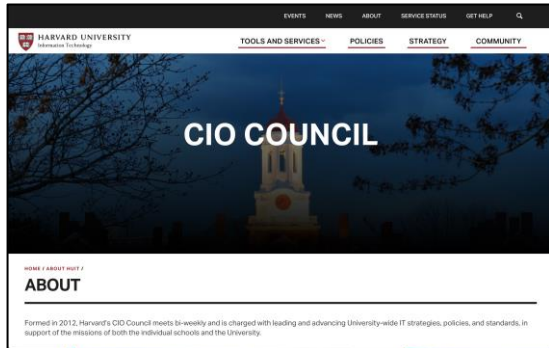
<https://www.harvard.edu/kempner-institute/about/>

Resources at Harvard



Office of the Vice Provost for Advances in Learning (VPAL)

<https://vpal.harvard.edu/>



Harvard University Information Technology (HUIT) CIO Council

<https://huit.harvard.edu/cio-council>



Thank You!
