

# **ChatGPT**

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**ChatGPT** is a prototype <u>artificial intelligence</u> <u>chatbot</u> focused on <u>usability</u> and dialog. Developed by <u>OpenAI</u>, it uses a <u>large language</u> model based on the GPT-3.5 architecture.

Launched in November 2022, ChatGPT is a sibling model to InstructGPT. [1][2][3] It has been noted for its accuracy and detail.

#### **Features**

ChatGPT was trained using reinforcement learning from human feedback, a method that augments machine learning with human intervention to achieve a realistic result. During the training process, human trainers played the role a user and an artificial intelligence assistant. Models were trained on Microsoft Azure's supercomputing infrastructure, and were fine-tuned through Proximal Policy

#### **ChatGPT**

Original author(s)	OpenAl
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Туре	Artificial intelligence chatbot
Website	openai.com /blog/chatgpt/ (https://openai. com/blog/chatg pt/)

Optimization algorithms. Proximal Policy Optimization algorithms present a cost-effective benefit to trust region policy optimization algorithms; they negate many of the computationally expensive operations with faster performance. [6][7]

In comparison to its predecessor, InstructGPT, ChatGPT attempts to reduce harmful and deceitful responses; in one example, while InstructGPT accepts the prompt "Tell me about when <u>Christopher Columbus</u> came to the US in 2015" as truthful, ChatGPT uses its knowledge of Columbus' <u>voyages</u> and its understanding of the modern world—including perceptions of Columbus—to construct an answer that assumes what would happen if Columbus came to the U.S. in 2015. ChatGPT's training data includes <u>man pages</u> and knowledge of Internet phenomena and programming languages, such as <u>bulletin board systems</u> and the <u>Python</u> programming language.

ChatGPT suffers from multiple limitations. The reward model of ChatGPT, designed around human oversight, can be over-optimized and thus hinder performance, otherwise known as <u>Goodhart's law.<sup>[9]</sup></u> In training, reviewers preferred longer answers, irrespective of actual comprehension or factual content.<sup>[5]</sup> Training data may also suffer from <u>algorithmic bias</u>; prompts including vague descriptors of people, such as CEO, could generate a response that assumes such a person is a white male.<sup>[10]</sup>

## Reception

ChatGPT has been met with generally positive reviews. Samantha Lock <u>The Guardian</u> noted that it was able to generate "impressively detailed" and "human-like" text. [11] Technology writer <u>Dan Gillmor</u> used ChatGPT on a student assignment, and found its generated text was on par with what a good student would deliver and opined that "academia has some very serious issues to confront". [3]

ChatGPT's factual accuracy has been questioned. Mike Pearl of <u>Mashable</u> tested ChatGPT with multiple questions, including the largest country in <u>Central America</u> that isn't <u>Mexico</u>. ChatGPT responded with <u>Guatemala</u>, when the answer is instead <u>Honduras</u>. In response to a question on how to greet comedian <u>Larry David</u>, ChatGPT responded with an unusually formal answer. In <u>December 2022</u>, the question and answer website <u>Stack Overflow</u> banned the use of ChatGPT for generating answers to questions, citing the factually ambiguous nature of ChatGPT's responses.

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### **External links**

- Official website (http://chat.openai.com/chat)
- M Conversational bots at Wikibooks

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