

ChatGPT

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ChatGPT is a prototype [artificial intelligence chatbot](#) focused on [usability](#) and [dialog](#). Developed by [OpenAI](#), it uses a [large language 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.^[4] 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 Optimization](#) algorithms.^[5] 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 [Christopher Columbus](#) came to the US in 2015" as truthful, ChatGPT uses its knowledge of Columbus' [voyages](#) 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.^[5] ChatGPT's training data includes man pages and knowledge of Internet phenomena and programming languages, such as [bulletin board systems](#) and the [Python](#) programming language.^[8]

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 [Goodhart's law](#).^[9] In training, reviewers preferred longer answers, irrespective of actual comprehension or factual content.^[5] Training data may also suffer from [algorithmic bias](#); prompts including vague descriptors of people, such as CEO, could generate a response that assumes such a person is a white male.^[10]

Reception

ChatGPT has been met with generally positive reviews. Samantha Lock *The Guardian* noted that it was able to generate "impressively detailed" and "human-like" text.^[11] Technology writer [Dan Gillmor](#) 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 *Mashable* tested ChatGPT with multiple questions, including the largest country in [Central America](#) that isn't [Mexico](#). ChatGPT responded with [Guatemala](#), when the answer is instead [Honduras](#). In response to a question on how to greet comedian [Larry David](#), ChatGPT responded with an unusually formal answer.^[12] In December 2022, the question and answer website [Stack Overflow](#) banned the use of ChatGPT for generating answers to questions, citing the factually ambiguous nature of ChatGPT's responses.^[13]

References

1. Ahmed, Zohaib (December 2, 2022). "What is ChatGPT, the AI chatbot that everyone is talking about" (<https://indianexpress.com/article/technology/tech-news-technology/what-is-chatgpt-the-ai-taking-the-web-by-storm-8302375/>). *The*

- Indian Express*. Retrieved December 5, 2022.
2. Kantrowitz, Alex (December 2, 2022). "Finally, an A.I. Chatbot That Reliably Passes "the Nazi Test" " (<https://slate.com/technology/2022/12/chatgpt-openai-artificial-intelligence-chatbot-whoa.html>). *Slate*. Retrieved December 5, 2022.
 3. Hern, Alex (December 4, 2022). "AI bot ChatGPT stuns academics with essay-writing skills and usability" (<https://www.theguardian.com/technology/2022/dec/04/ai-bot-chatgpt-stuns-academics-with-essay-writing-skills-and-usability>). *The Guardian*. Retrieved December 5, 2022.
 4. Knox, W. Bradley; Stone, Peter. *Augmenting Reinforcement Learning with Human Feedback* (https://www.cs.utexas.edu/~pstone/Papers/bib2html-links/ICML_IL11-knox.pdf) (PDF). University of Texas at Austin. Retrieved December 5, 2022.
 5. OpenAI (November 30, 2022). "ChatGPT: Optimizing Language Models for Dialogue" (<https://openai.com/blog/chatgpt/>). Retrieved December 5, 2022.
 6. Schulman, John; Wolski, Filip; Dhariwal, Prafulla; Radford, Alec; Klimov, Oleg (2017). "Proximal Policy Optimization Algorithms". *arXiv:1707.06347* (<https://arxiv.org/abs/1707.06347>).
 7. van Heeswijk, Wouter (November 29, 2022). "Proximal Policy Optimization (PPO) Explained" (<https://towardsdatascience.com/proximal-policy-optimization-ppo-explained-abed1952457b>). *Towards Data Science*. Retrieved December 5, 2022.
 8. Edwards, Benj (December 5, 2022). "No Linux? No problem. Just get AI to hallucinate it for you" (<https://arstechnica.com/information-technology/2022/12/openais-new-chatbot-can-hallucinate-a-linux-shell-or-calling-a-bbs/>). *Ars Technica*. Retrieved December 5, 2022.
 9. Gao, Leo; Schulman; Hilton, Jacob (2022). "Scaling Laws for Reward Model Overoptimization". *arXiv:2210.10760* (<https://arxiv.org/abs/2210.10760>).
 10. Murphy Kelly, Samantha (December 5, 2022). "This AI chatbot is dominating social media with its frighteningly good essays" (<https://www.cnn.com/2022/12/05/tech/chatgpt-trnd/index.html>). *CNN*. Retrieved December 5, 2022.
 11. Lock, Samantha (December 5, 2022). "What is AI chatbot phenomenon ChatGPT and could it replace humans?" (<https://www.theguardian.com/technology/2022/dec/05/what-is-ai-chatbot-phenomenon-chatgpt-and-could-it-replace-humans>). *The Guardian*. Retrieved December 5, 2022.
 12. Pearl, Mike (December 3, 2022). "The ChatGPT chatbot from OpenAI is amazing, creative, and totally wrong" (<https://mashable.com/article/chatgpt-amazing-wrong>). *Mashable*. Retrieved December 5, 2022.
 13. Vincent, James (December 5, 2022). "AI-generated answers temporarily banned on coding Q&A site Stack Overflow" (<https://www.theverge.com/2022/12/5/23493932/chatgpt-ai-generated-answers-temporarily-banned-stack-overflow-llms-dangers>). *The Verge*. Retrieved December 5, 2022.

External links

- [Official website](http://chat.openai.com/chat) (<http://chat.openai.com/chat>)
-  [Conversational bots](#) at Wikibooks

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