

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. $\frac{[4]}{4}$ 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

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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</u>. [9] In training, reviewers preferred longer answers, irrespective of actual comprehension or factual content. [5]

Reception

According to <u>The Guardian</u> it is able to generate "impressively detailed human-like written text." After using the bot on a student assignment <u>Dan Gillmor</u> considered the output to be on par with what a good student would deliver and opined that "academia has some very serious issues to confront". [3]

In December 2022, 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. [11]

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-t aking-the-web-by-storm-8302375/). *The Indian Express*. Retrieved December 5, 2022.
- 2. Kantrowitz, Alex (December 2, 2022). <u>"Finally, an A.I. Chatbot That Reliably Passes "the Nazi Test"</u> (https://slate.com/technology/2022/12/chatgpt-openai-artificial-intelligence-chatbot-whoa.ht ml). *Slate*. Retrieved December 5, 2022.
- 3. Hern, Alex (December 4, 2022). "Al 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. <u>Augmenting Reinforcement Learning with Human Feedback</u> (http s://www.cs.utexas.edu/~pstone/Papers/bib2html-links/ICML_IL11-knox.pdf) (PDF). <u>University of Texas at Austin</u>. 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.
- Gao, Leo; Schulman; Hilton, Jacob (2022). "Scaling Laws for Reward Model Overoptimization". arXiv:2210.10760 (https://arxiv.org/abs/2210.10760).
- 10. 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.
- 11. Vincent, James (December 5, 2022). "Al-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)
- M Conversational bots at Wikibooks

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