

Exploring the Capabilities and Limitations of ChatGPT: A Critical Look at the Recent Development in AI and Its Implications

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The recent development and launch of ChatGPT, a 175-billion-parameter natural language processing model, by OpenAI has caused a lot of excitement, but also raises some concerns. This AI-powered chatbot has the ability to generate conversation-style responses to user input, write essays and articles, summarize the literature, debug computer code, write songs, and even draft Congressional floor speeches [1]. Its growing popularity is evidenced by the fact that it has already hit 100 million users [1].

One of the main areas of concern is the potential for biased medical content. A recent study found that biased internet medical content, which ChatGPT is trained on, is sufficient to pass a medical examination [2]. This is a concerning observation, as these biases stem from research performed in high-income countries and textbooks that describe studies of patients which may not be representative of the global population [2]. This raises questions about the validity and accuracy of medical information generated by ChatGPT and other AI language models.

In addition, there are also implications for the use of ChatGPT in medical education and knowledge assessment [3]. The ability of the chatbot to pass a medical licensing examination in the United States raises the question of whether large language models like ChatGPT should be relied upon for medical education and knowledge assessment [3].

ChatGPT is also having an impact on the market research industry, with the further advancement of Conversational AI as a key methodology [4]. The AI capabilities of ChatGPT and other language models have reached a point where they can now be used effectively in market research [4]. This has resulted in a surge in AI token prices, with DeepBrain

Chain (DBC) posting the most gains with a 76.7% jump in token price within a week of ChatGPT being launched [5].

However, despite the exciting potential applications of ChatGPT, it is important to consider the limitations and challenges of using AI in education and market research. The Drexel University Libraries has compiled a list of resources to raise awareness and foster further exploration and discussion about the use of chatbots and AI in education and our everyday lives [6]. Additionally, there have been instances where AI algorithms have made mistakes, such as in the case of Google flagging a father as a criminal for taking photos of his naked toddler for the doctor [7].

ChatGPT is a fascinating development in the field of AI, but it is important to approach it with a critical eye and consider both its potential benefits and limitations. It is a valuable tool, but it should not be relied upon solely, especially in areas such as medical education and knowledge assessment, where accuracy is of the utmost importance. The use of ChatGPT should be accompanied by ongoing discussion and exploration of its capabilities and limitations, as well as the ethical implications of AI in education and market research.

References

- 1. Can We Trust ChatGPT and Artificial Intelligence to Do Humans' Work? [Internet]. Boston University. [cited 2023 Feb 13]. Available from: https://www.bu.edu/articles/2023/can-we-trust-chatgpt-and-artificial-intelligence/
- 2. Mbakwe AB, Lourentzou I, Celi LA, Mechanic OJ, Dagan A. ChatGPT passing USMLE shines a spotlight on the flaws of medical education. Hochheiser H, editor. PLOS Digital Health. 2023 Feb 9;2(2):e0000205. Available from: http://dx.doi.org/10.1371/journal.pdig.0000205

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- 3. Gilson A, Safranek CW, Huang T, Socrates V, Chi L, Taylor RA, et al. How does CHATGPT perform on the United States Medical Licensing Examination? the implications of large language models for medical education and knowledge assessment. JMIR Medical Education. 2023;9.
- 4. ChatGPT and Implications for Market Research | GreenBook [Internet]. www.greenbook.org. 2023 [cited 2023 Feb 13]. Available from: https://www.greenbook.org/mr/market-research-technology/chatgpt-and-implications-for-market-research/
- 5. How has ChatGPT impacted cryptocurrencies? [Internet]. CoinGecko. [cited 2023 Feb 22]. Available

- from: https://www.coingecko.com/research/publications/chatgpt-impact-ai-tokens
- 6. Hot topic reading list: ChatGPT & artificial intelligence systems [Internet]. Drexel University Libraries. 2023 [cited 2023 Feb 13]. Available from: https://www.library.drexel.edu/news-and-events/news/libraries-news/2023/February/ChatGPT-Reading_List/
- 7. Hill K. A Dad Took Photos of His Naked Toddler for the Doctor. Google Flagged Him as a Criminal. The New York Times [Internet]. 2022 Aug 21; Available from: https://www.nytimes.com/2022/08/21/technology/google-surveillance-toddler-photo.html