

# How may ChatGPT impact medical teaching?

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On November 22, 2022, ChatGPT, a chatbot created by OpenAI, a branch of Microsoft nowadays, was released to the public. Besides the lack of mediatic attention, that date is already marked in history. ChatGPT is an AI-powered computer program that can understand and generate human-like language<sup>1</sup>. It has been trained on vast amounts of text to analyze language patterns, allowing it to provide accurate responses to a wide range of questions. So, why the buzz?

DropBox took 7 months to reach 1 million users, Spotify took 5 months, and Instagram took 2.5 months. ChatGPT reached the mark of 1 million users in only 5 days after release. The tool is so powerful that its application possibilities seem to be limitless. ChatGPT has already been proven to be an excellent doctor, in a sense. It was able to pass the US Medical Licensing Examination (USMLE), at least the multiple choice questions<sup>3</sup>. But how can we use it for the benefit of medical education?

When we asked ChatGPT that same question, here are some answers: Medical Q&A, virtual patient simulations, language translation, personalized learning, continuing medical education, and remote learning.

When we asked about the dangers of using ChatGPT in medical education, some answers were as follows: inaccurate information, overreliance on technology, privacy concerns, bias, lack of Personalization, Limited Interactivity, etc.

We agree with the presented potential benefits, partially. First, the ChatGPT database (until this letter is written) is upper-limited to 2021. So the “up-to-date information” is compromised. The GPT-3 model (used by ChatGPT) is not meant to be re-trained with specific datasets (as presented by

the developers in the paper “Language Models are Few-Shot Learners,” 2020), so the “training in large medical databases and clinical guidelines” is also compromised. While talking about the dangers, the authors also agree with ChatGPT. The risk of inaccurate information may be one of the most important, but it is also one of the most evident and easily correctable.

Nevertheless, some other issues must be taken into consideration:

1. To obtain the six items on the list of benefits, we had to regenerate the response three times. Only inaccurate information and privacy concerns were present in all three responses. That is a problem in learning: we must have consistency in the information. Otherwise, it will be very difficult to transform it into knowledge.
2. Ethical behavior is key in medical practice and must be developed throughout the formation. Although ChatGPT has mechanisms to prevent “morally unacceptable answers,” the specificity of medical ethics has not been fully assessed. The developers addressed the issue in the cited paper. This text was written with the aid of ChatGPT, and another AI performed grammar and orthographic revision.

One thing is for sure, ChatGPT is the first of many to come, and we will have to learn to work with it, not against it.

## AUTHORS' CONTRIBUTIONS

**GHYJ:** Conceptualization, Supervision, Validation, Writing – review & editing. **LMV:** Conceptualization, Validation, Writing – review & editing.

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Conflicts of interest: the authors declare there is no conflicts of interest. Funding: none.

Received on March 07, 2023. Accepted on March 16, 2023.

