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Letter to Editor

Artificial Intelligence Chatbots and Seeking Health Information: Opportunity or Threat?

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Dear Editor

Today, artificial intelligence (AI) technology has become one of the key tools in many fields. One of the special tools in the field of AI is AI chatbots, which have benefited from advances in deep learning, natural language processing, transformers, and large language models (LLM) (1). These chatbots based on LLMs are designed to mimic interactive conversations, whereby the user enters a potentially complex request, and the chatbot provides a human-like response. Since their inception, these chatbots have been utilized for various applications, including answering questions, creating explanations and summaries, translating between languages, and various other tasks involving natural languages (2). The first models recognized and accepted in this regard were Chat GPT, including GPT-3.5 and GPT-4 models developed by Open AI, followed by other LLM-based chatbots such as Google Bard and Meta LLaMA.

One of the significant uses of these chatbots is to facilitate access to health information. These chatbots can automatically answer users' questions and provide appropriate medical information based on their needs (3). Preliminary evaluations have shown that large language models have strong semantic and syntactic understanding in many natural languages and can perform natural language processing tasks in response to health-related questions effectively (4). However, the fundamental question is whether this technology is a valuable opportunity to improve access to health information or a threat that could pose potential problems. Studies have demonstrated that in addition to providing easy and continuous access to health information, AI chatbots can offer extensive and up-to-date information on diseases, medications, symptoms, and prevention (5). This can lead to increased public awareness and education in various health fields. Consequently, it can reduce the need for people to visit health centers, which is particularly beneficial in areas with limited access to health services.

Despite the opportunities these chatbots offer to enhance access to health information, they also present significant threats and challenges. One of the primary concerns is the privacy and security of users' information. Another issue is the potential dissemination of inappropriate and invalid information (6), as these chatbots can still provide incorrect or incomplete information in some cases, leading to medical errors and harm to patients. Additionally, it is important to note that chatbots are not human and may not be able to understand and interpret complex medical situations and the specific conditions of each patient, which can result in incorrect or inadequate advice.

Conclusion

AI chatbots provide unique opportunities for accessing health information, potentially leading to improved access, reduced costs, and increased public awareness. However, this technology also faces challenges and threats that must be carefully managed. Ensuring privacy, enhancing the accuracy and reliability of information, and increasing social acceptance are critical measures that can help optimize the use of this technology. In general, with proper management of these challenges and threats, AI chatbots can play a significant role in accessing health information and be recognized as a valuable opportunity in improving health systems.

Conflict of Interest

There are no conflicts of interest.

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