

Chatbots in Education: The Pedagogy of Critical Reflection

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Abstract

The increasing use of artificial intelligence (AI) in education, particularly through large-scale language models such as ChatGPT and Bing, offers both challenges and opportunities. These models facilitate interaction in conversations and can perform tasks that require natural language processing, from answering questions to solving problems. However, their integration into education raises concerns about the credibility and reliability of information and emphasizes the need for guided use in educational environments. This article contributes to the discourse from the perspective of educational sociology, focusing on the role of chatbots in analyzing texts within social sciences and humanities. Our pilot study reveals that while chatbots can optimize the creation of summaries and the provision of basic information, their reliance on sources such as Wikipedia calls into question the depth and impartiality of the content. In addition, students have criticized chatbots for providing biased or inaccurate outputs. A significant part of our research has compared the epistemological and methodological approaches of chatbots with traditional, independent literature analysis and found notable differences in learning outcomes. However, a hybrid approach that combines AI tools with conventional methods offers a promising way to improve learning and teaching strategies and could enhance the critical analytical skills that are crucial for future pedagogies.

Keywords: chatbots, hybrid approach, reflection, sociology of education, text analyses.