

Chapter 1

The Use of AI–Supported Chatbot in Psychology

Kadir Uludag

 <https://orcid.org/0000-0003-3713-4670>

Shanghai Jiao Tong University, China

ABSTRACT

Artificial intelligence has allowed programmers to create human-like meaningful texts. As a result, chatbots have recently gained great attention. Many people have praised how novel chat applications can create original and human-like essays. However, few studies discuss the use of AI chatbots in psychology. The authors aimed to discuss the use of AI chatbots in the field of Psychology. Also, they summarize previous studies on ChatGPT. This chapter discusses how AI can be used in this process. They used ChatGPT to create a brief literature review to show the progress of the OpenAI ChatGPT AI application. Studies on Pubmed were searched. Overall, the authors found eight studies using the keyword of “ChatGPT.” Most studies claim that ChatGPT can write original essays, and it is hard to distinguish ChatGPT from human-like writing. They found no study discussing the impact of ChatGPT on psychology. ChatGPT can allow writing essays on various topics and be used in many fields, including psychology, medicine, engineering, philosophy, medical education, literature, and computer sciences.

1. INTRODUCTION

Artificial intelligence (AI) has allowed programmers to create original human-like texts (Uludag, 2023b). As a result, AI Chatbots have recently gained great attention (C.-C. Lin, Huang, & Yang, 2023). Chatbots have become essential aids for writing and conducting research, serving as indispensable assistants for a range

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of tasks. From a psychological standpoint, the integration of AI chatbots into writing and research represents a profound shift in how we understand creativity, writing, intellectual labor, and ethical responsibility.

To begin, we can explain what a chatbot is: To understand what ChatGPT is, we should ask him. In his own words, ChatGPT defines himself as follows:

“I am ChatGPT. I am a state-of-the-art natural language processing (NLP) and machine learning system, designed to assist with a wide range of language-based tasks” (Michael R. King, 2022).

Recent studies have investigated the use of Chatbots in academy (Bin-Nashwan, Sadallah, & Bouteraa, 2023; Else, 2023; Kim & Wong, 2023; Yu, 2023), academic libraries (Adetayo, 2023; Ehrenpreis & DeLooper, 2022; Hussain & Ahmad, 2024; Kaushal & Yadav, 2022; Mckie & Narayan, 2019), fashion (Chung, Ko, Joung, & Kim, 2020; Landim et al., 2022; Sawada, Tanabe, & Nakada, 2022; Seo, 2022; Zeng, Vignali, & Ryding, 2023), tourism (Melián-González, Gutiérrez-Taño, & Bulchand-Gidumal, 2021; Pillai & Sivathanu, 2020; Ukpabi, Aslam, & Karjaluoto, 2019), education (Jauhiainen & Guerra, 2023; Mhlanga, 2023; Okonkwo & Ade-Ibijola, 2021; Pérez, Daradoumis, & Puig, 2020), economy (Korinek, 2023; Rotman, 2023), mathematics (D. Lee & Yeo, 2022; Moral-Sánchez, Rey, & Cebrián-de-la-Serna, 2023; Wardat, Tashtoush, AlAli, & Jarrah, 2023; Wijaya, Su, Cao, Weinhandl, & Houghton, 2024), programming (Bucaioni, Ekedahl, Helander, & Nguyen, 2024; Castelveccchi, 2022; Hörnemalm, 2023; Kashefi & Mukerji, 2023), and essay writing (Graham, 2022; M. P.-C. Lin & Chang, 2020; M Pitychoutis, 2024). However, ChatGPT could potentially pose a threat to one's creative writing skills (Niloy, Akter, Sultana, Sultana, & Rahman, 2024). Moreover, another research suggested that ChatGPT could potentially exhibit greater creativity compared to humans (Cropley, 2023). The connection between creativity in writing and psychology is deep and multifaceted, involving various psychological theories, processes, and research findings that explore how creativity emerges, develops, and functions within the human mind.

Overall, previous studies collectively contribute to the growing understanding of ChatGPT's versatility and effectiveness in diverse fields such as academy, tourism, literature, and economy. More and more studies are expected to investigate its impact on various fields, such as psychology (Uludag, 2023c, 2023d). For example, chatbots can be used to help individuals to socialize. Although, the current version of the chatbot program cannot speak (2023 version). It can give comprehensive feedback about certain situations. In addition, it is unclear if Chatbots can process emotional inputs. Therefore, future studies are needed to explore the use of AI chatbots in psychology. We have compiled information from various sources on the intersection of AI and psychology.

Taken together, our chapter aimed to discuss the use of AI chatbots in psychology.

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