

Chapter 5

ChatGPT in Education: Augmenting Learning Experience or Dehumanizing Education?

Richa Srishti

 <https://orcid.org/0000-0002-2551-9613>
Christ University, India

ABSTRACT

This chapter critically examines the potential of ChatGPT, an AI language model, to revolutionise education. It presents a comprehensive analysis of the advantages and disadvantages of using ChatGPT in education, including its ability to enhance the learning experience and the potential loss of essential skills due to over-reliance on technology. The chapter also raises ethical concerns about using ChatGPT in education, including data privacy and bias. Ultimately, the chapter concludes that ChatGPT should be used with human teachers to create a learning environment combining technology and human interaction. It highlights the importance of using ChatGPT responsibly to enhance, rather than dehumanise, education.

INTRODUCTION

In 2014, Prof. Stephen Hawking, the famous theoretical physicist, told the BBC, “The development of full artificial intelligence could spell the end of the human race.” He argued that AI could initiate self-improvement and continually evolve at an accelerating pace. But the question here is - can human beings impede its growth? Artificial Intelligence (AI) has been making remarkable strides in recent years, and its integration into various fields has been rapidly increasing. Education

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is no exception, and the potential applications of AI in education have attracted a lot of attention. As AI technologies evolve, they become increasingly integrated into various fields, including education. One such technology that has gained significant attention is ChatGPT, a language model that processes human language and generates human-like responses. While ChatGPT has been touted as a solution to many of the challenges faced by education, such as the need for personalised learning and the rising costs of education, its deployment raises ethical and pedagogical implications.

This chapter aims to explore the potential of ChatGPT in augmenting students' learning experience, as well as the risks of dehumanisation it may pose. We will examine the various ways ChatGPT can be used in education, its potential benefits, and the ethical and pedagogical implications its deployment poses. By the end of this chapter, readers will have a better understanding of the potential of ChatGPT in education, as well as the challenges that need to be addressed to ensure its effective and ethical integration.

ChatGPT IN EDUCATION

A Brief Overview of ChatGPT

The inception of ChatGPT and its predecessors can be traced back to the mid-1990s, a time when Artificial Intelligence (AI) research was gaining momentum in the technology world. The first AI chatbot, A.L.I.C.E (Artificial Linguistic Internet Computer Entity), was created by Richard Wallace at the Massachusetts Institute of Technology (MIT) and was powered by a natural language processing system that facilitated natural conversations between humans and the chatbot. IBM followed suit and created its own AI chatbot, Watson, which used a blend of AI algorithms and natural language processing to understand complex questions and provide answers in human-like conversations. These advancements in AI technology set the foundation for the development of AI chatbots that were capable of processing natural language. In 2016, tech giants Microsoft and Google launched Cortana and Allo, respectively, both of which featured AI-powered chatbot capabilities. In the following year, Apple's Siri and Facebook's M joined the ranks of AI-powered chatbots, and Chatfuel became the first commercially available AI-based chatbot platform.

The development of ChatGPT began in 2018 when OpenAI introduced its Generative Pre-trained Transformer (GPT) model, which was capable of generating human-like responses to questions and conversations as the model was trained on massive amounts of text data from the internet. This led to ChatGPT, a hybrid chatbot platform combining natural language processing with GPT technology to provide

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