

Chapter 15

Using ChatGPT for Student Engagement and Motivation in Dynamic Learning Environments

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ABSTRACT

ChatGPT is an extensive language model trained by Open AI with a generative pre-trained transformer 3.5 architecture. Capturing close to five million users in five days, ChatGPT has become a revolution in the artificial intelligence era. The youth today have utilised computers for everything in various ways. The integration of technology is inevitable, and should it be so, for progress in future. However, technology has also highlighted the difficulty in gaining students' attention and keeping them engaged in classrooms and learning environments. Technology-assisted solutions sought by students using ChatGPT have the potential to remain undetected even in plagiarism software. This possibility makes these solutions attractive to students further. One matter of concern is that generative AI impacts students' critical thinking skills

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and creativity, a cognitive ability of great importance. This chapter shall explore the usage of ChatGPT by undergraduate students and present the findings from a qualitative study highlighting students' sentiments regarding this AI-assisted tool.

INTRODUCTION

The onset of the information technology era has brought endless opportunities for innovation and creative thinking. At one end, technology is proving to be a boon to the education system, bringing in new content-creation methods, student-centric teaching methods and assessment techniques. At the other end, the same technology is making it easy for students to use technology for every aspect of attempting assessments, assignments, and examinations without using their mind skills but by harnessing technology efficiently. Alan Turing's path-defining work, "Computing Machinery and Intelligence", proposes that computers could be trained to think. The famous Turing test has remained a novel work in Artificial Intelligence (AI). If computers could act like humans, it would present a far-reaching impact on technology use and human ability to be better than machines. ChatGPT is another innovation in the field of AI called generative AI, meaning it could take large amounts of data from various sources, collect them, create output as per the command and generate a new outcome, a new collective response systematically put forward. The unique thing is that this output is not similar to the original input data set. GPT in ChatGPT stands for 'generative pre-trained transformer'. ChatGPT is like a chatting bot which can converse with humans most simplistically and give desired results for inputs entered in simple language. Open AI, the research firm, created ChatGPT, bringing in a revolution in November 2022 at its launch. Sam Altman, Elon Musk, and a network of researchers founded it, and investors like Microsoft have backed this innovative idea. Converting text into art forms has been made possible by its counterpart, Dall-E, as a step to complement ChatGPT. The dynamic learning environments of this millennium shall be posed with the benefits of these innovations to keep students motivated and engaged when they can find everything faster than they could with mere search engines. Pursuing novelty shall pose challenges and bring out further innovative solutions by educators in their pursuit of effective teaching and learning.

Student Engagement in the Learning Process

Motivation is a prerequisite to student engagement, often resulting from the former being present and positively impacting student learning (Woolfolk & Margetts, 2007; Aelterman et al., 2012). Student engagement has a significant positive impact

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