Chapter 9
Exploring VR and AI Adoption With Microsoft Copilot

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ABSTRACT

This study explores how postgraduate students utilize Microsoft Copilot in a virtual reality (VR) environment. From January to February 2024, 125 students participated in the experiment, tasked with crafting assignments directly within Copilot. Using three scales for data collection, including the technology readiness index, extended reality presence scale, and AI technology adoption, the study found positive correlations between technology readiness and both extended reality presence and AI technology adoption. Linear regression analysis showed technology readiness as a

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significant predictor for both extended reality presence and AI technology adoption, explaining approximately 20.6% and 42.1% of the variability, respectively. These findings emphasize the crucial role of technology readiness in shaping student engagement with emerging technologies.

1. INTRODUCTION

Chatbots are computer programs designed to simulate conversation with human users, typically through text or voice interactions (Maher, 2020). They leverage natural language processing (NLP) and artificial intelligence (AI) algorithms to understand user queries and provide relevant responses (Hussain et al., 2019). These automated systems can be deployed across various platforms, including websites, messaging applications, and virtual assistants, to assist users in tasks such as customer support, information retrieval, and task automation (Mhatre et al., 2016). Microsoft Copilot is an advanced example of a chatbot, developed by Microsoft, which goes beyond simple question-and-answer interactions (Jadhav et al., 2022). Copilot is built on OpenAI's GPT (Generative Pre-trained Transformer) model, a powerful AI language model trained on vast amounts of text data. It operates as a code-generating assistant, capable of understanding code context and assisting developers in writing code more efficiently (Boschee, 2023). Copilot can generate code snippets, offer suggestions, and pro-vide contextually relevant code completions, thereby enhancing developers' productivity and streamlining the coding process. In educational settings, students are increasingly using chatbots like Copilot to support their learning and academic endeavours (Jungherr, 2023). These chatbots can serve as virtual tutors, providing instant assistance with homework, clarifying concepts, and offering personalized learning experiences. Stu-dents may leverage chatbots for collaborative projects, language practice, and study assistance, enhancing their educational outcomes and expanding their knowledge base (Adetayo et al., 2024). However, the use of chatbots in education also raises ethical considerations. One concern is the potential for overreliance on chatbots, which may hinder students' critical thinking skills and self-directed learning abilities. There are privacy and data security implications associated with sharing personal information or academic con-tent with chatbot systems. Moreover, there is a risk of bias in chatbot responses, as they are trained on existing datasets that may contain inherent biases, potentially perpetuating inequality or misinformation in educational contexts.

On the other hand, when used ethically, chatbots can empower students by providing accessible and personalized learning support, particularly for students with diverse learning needs or limited access to traditional educational resources. By promoting engagement, collaboration, and efficiency, chatbots like Copilot have the potential