Drivers of AI-Based Voice Robots Adoption in Higher Education: A Perspective of Extended Unified Theory of Acceptance and Use of Technology

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Abstract

With the advancement of technologies, business services transform into more advanced forms and Artificial intelligence (AI) based robot services are one of the innovative forms that developers added to mobile devices to provide convenient user experiences. In recent years, there has been an emergence of adding AI-enabled voice robots for providing education-related services, which are gaining traction due to their ability to deliver learning content effectively to students. Yet, even though these contemporary learning systems are useful in educational platforms that meet students' requirements, students' usage is low compared to other applications such as social media, gaming etc. It has resulted in a low number of applications designed for the field of education using AI technologies. Therefore, this study explores the factors influencing/affecting users' intention to interact with AI-based voice robot services for learning purposes. A conceptual framework was developed by extending the original Unified theory of acceptance and use of technology (UTAUT) model that followed a series of hypotheses. As independent variables performance expectancy, effort expectancy, and social influence were identified from the UTAUT model and based on the literature review hedonic motivation, life quality and internet experience were identified. A self-administered questionnaire was adopted to collect data by using previously validated measuring instruments and distributed among the study population by employing a snowball sampling technique. 101 responses were gathered and analyzed. The study results found that performance expectancy (β=.488, p=.000), effort expectancy (β=.267, p=0.015), life quality (β=.507, p=.001), hedonic motivation (β=.352, p=0.027) and internet experience (β=.166, p=.040) have positive influence on users' intention to interact with AI-based voice robot services for learning purposes. This study has several implications for application developers, service providers, educational authorities and mobile technology businesses as a whole to get a greater understanding of user intention towards using particular applications for learning.

Keywords: *AI-Enabled Voice Robots, Artificial İntelligence (AI),Mobile Learning, User İntention, Unified Theory of Acceptance And Use Of Technology (UTAUT)*

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