

Factors Influencing Problematic AI Usage Behaviour and its Consequences: A Study of University Students in Sri Lanka

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Abstract

The rapid advancement of artificial intelligence (AI) has significantly transformed the educational landscape, offering both opportunities and challenges for university students and academia. Although AI tools assist students in the academic process, concerns are rising regarding students' overdependency on AI tools, leading to problematic learning behaviour. The research focuses on understanding how the factors; academic stress, performance expectation, academic self-efficacy, and laziness are contributing to excessive and potentially unhealthy use of AI tools in higher education by undergraduate students in Sri Lanka. The study gives special focus on undergraduate students who study ICT-related subjects as their majors. The study employed a quantitative research approach, and 337 students were chosen randomly for the study and the data were collected through a structured questionnaire. The collected data were analysed using inferential statistics, and the regression model indicates a 0.681 significant impact on problematic AI usage by the identified factors. The results indicate that the problematic AI usage was explained by 68.1% by the identified factors. The findings showed that the factors; academic stress, performance expectations, and laziness significantly contribute to the problematic AI usage among undergraduates. However, academic self-efficacy was not a significant factor. Furthermore, the problematic AI usage has a strong correlation with learning behaviour, suggesting that excessive reliance on AI tools directly influences students' academic engagement. Finally, the analysis shows that stress, expectations, and motivational factors are more likely to contribute to problematic AI usage than self-efficacy. This research is also a contribution to the expanding body of digital learning behaviour literature since it deals with the dangers of AI dependency in higher education.

Keywords: academic engagement, AI dependency, higher education, problematic AI usage