Use of Conversational Artificial Intelligence tools in Higher Education: Perception of Science Undergraduates

M.A. Lankathilake[1], Anuja Silva[2], Sajeewanie D. Somaratna[1]

[1]*Library, Faculty of Science, University of Colombo, Sri Lanka*
[2]*Library, University of Colombo, Sri Lanka*

Conversational Artificial Intelligence (AI) tools have been significantly incorporated into Higher Education sector all over the world. However, there is a gap in research in the Sri Lankan context. Therefore, this study aims to identify the types and purposes of using AI tools; determine undergraduate perception; and find out the relationships between user context and perception of the use of AI tools. Data were purposively collected from 137 undergraduates in the Faculty of Science, University of Colombo who are using AI tools for academic activities. Data were analysed by SPSS Version 22. Most respondents are between 20 and 25 years of age (98%), whereas 54% are females. Most respondents are in Levels I and II (*n*=78; 57%). Respondents use 12 different AI tools. The majority of respondents use ChatGPT (n= 135; 99%) as the key AI tool. Nearly half of the respondents (*n*= 64; 47%) use AI tools 2-3 times per week, while 37% (*n*= 51) use AI tools daily. Information retrieval (72%) is the main purpose of using AI tools, whereas concept identification (46%), assignment writing (34%), and creative work (34%) are the other key purposes. They use AI tools mainly due to ease of use and to minimize the time taken to obtain a holistic view of user queries. Most believe that AI tools will make their studies easy as they respond quickly, solve problems, and explain learning theories. Undergraduates prefer to continue to use AI tools for educational aspects and would like to recommend the tools to others. A significant relationship exists between two variables used to determine user perception and the level of study. A significant relationship exists between user perception (comfortable to use; *p*= 0.009, customizability; *p*= 0.011) and level of study. Furthermore, significant relationships were observed between the subject streams and undergraduates' perceptions. This study concludes that undergraduates of the Faculty of Science use different AI tools for academic activities. Further studies could be recommended to investigate undergraduates' awareness on ethical use of AI tools for educational purposes.

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