THREATS OF ARTIFICIAL INTELLIGENCE APPLICATIONS TO STUDENT LEARNING PROCESS

by:
Crasy A. Guevarra
Teacher III

The opportunities of Artificial Intelligence applications or AI Apps in education is immense and was globally discussed (Seo et al., 2021 ;Pujari, 2021;Shen et al., 2020;Ahmad et al., 2020;Xu et al., 2021). In the Philippines, the government had created a National AI-Roadmap and established the National Centre for AI-Research (N-CAIR) which is a commitment to embrace AI technology. Some universities, like Mariano Marcos State University and University of Northern Philippines, had started boosting information infrastructure and implementing smart classroom to strengthen the quality and access to learning resources (Estrellado & Miranda, 2023). These AI Apps, evidently, changed the trends of education and schooling by introducing personalization, speed of learning, and goals to be obtained from education (S. F. Ahmad et al., 2021). Hence, integrating AI in education is becoming a necessity rather than a luxury, universal rather than local (K. Ahmad et al., 2020).

However, AI apps poses threats to the learning process of students. Utilization of AI apps may lead to over reliance, diminished quality of learning outputs, and lower students' motivation.

Since students have easy access to information through AI apps, they may rely their learning process solely with these AI apps. A recent AI app that can be exploited is ChatGPT. This is AI-based tool developed to generate intelligent and relevant responses to the questions of users (Halaweh, 2023). Not only that this would provide answers to questions but also may construct sentences, paragraphs, essays, reflection and reaction papers. While its use revolutionizes education, we can construe that students may rely on

this app most of their assignments, learning outputs, or school activities. Given that it would provide instant outputs, students wouldn't mind thinking, preparing, structuring, analyzing, writing their own paragraphs, essays, or reflection and reaction papers. This is because this AI tool provides within a minute these needs of students with only a request in its chat box. Over reliance to this may compromised the validity and fairness of assignments and exams (Rahman & Watanobe, 2023).

The heavy reliance on AI apps may diminish the quality of students' outputs. Observing how paraphrasing tools work, such as Quillbot, Hypotenuse, Grammarly, etc., misuse of these affects the quality of students' papers. Since these apps only reconstructs sentences or paragraphs from a copied text in order to avoid plagiarism, students may exploit them by reconstructing sentences and paragraphs from any texts and making it their own. Their works may be profoundly and academically superb but it lacks coherence and meaning. Simply by acquiring answers through these apps may diminish students' critical thinking and problem-solving skills. Likewise, these AI tools decreases human interaction, emotional intelligence, creates barrier to communication, and develop laziness among students (Dubois, 2018).

Lastly, AI apps may lower students' motivation. Too much support from AI could take away students' opportunities for exploration and discovery (Seo et al., 2021). Since AI apps provides almost correct answers, students could lose opportunities to learn new skills and learn from mistakes in doing assignments or classroom activities. Hence, it is a question for a teacher to determine where does the students' work ends and where does AI apps works begin.

AI apps are technological gifts which cannot be avoided. It has influenced many sectors and education is one of them (S. F. Ahmad et al., 2021). It surely does threats but for teaching effectiveness, teachers must be aware and know how these AI apps works. In this case, teachers may develop their pedagogies on how to integrate these AI apps to

the teaching-learning process. Future education is the collaboration between human and artificial intelligence (Xu et al., 2021).

References:

Ahmad, K., Qadir, J., Al-Fuqaha, A., Iqbal, W., El-Hassan, A., Benhaddou, D., & Ayyash, M. (2020). Artificial Intelligence in Education: A Panoramic Review.

Ahmad, S. F., Rahmat, M. K., Mubarik, M. S., Alam, M. M., & Hyder, S. I. (2021). Artificial intelligence and its role in education. Sustainability (Switzerland), 13(22), 1–11. https://doi.org/10.3390/su132212902

Dubois, A. (2018). Effect of Artificial Intelligence on Education. TEDxCanadianIntlSchool, 10(10), 508–514. https://www.youtube.com/watch?v=-GECSptc9vQ

Estrellado, C. J. P., & Miranda, J. C. (2023). Artificial Intelligence in the Philippine Educational Context : Circumspection and Future Inquiries. May. https://doi.org/10.29322/IJSRP.13.04.2023.p13704

Halaweh, M. (2023). ChatGPT in education: Strategies for responsible implementation. Contemporary Educational Technology, 15(2), ep421. https://doi.org/10.30935/cedtech/13036

Pujari, V. (2021). Application in Artificial Intelligence. June.

Rahman, M. M., & Watanobe, Y. (2023). ChatGPT for Education and Research: Opportunities, Threats, and Strategies. Applied Sciences (Switzerland), 13(9). https://doi.org/10.3390/app13095783

Seo, K., Tang, J., Roll, I., Fels, S., & Yoon, D. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. International Journal of Educational Technology in Higher Education, 18(1). https://doi.org/10.1186/s41239-021-00292-9

Shen, L., Chen, I., Grey, A., & Su, A. (2020). Teaching and Learning With Artificial Intelligence. 73–98. https://doi.org/10.4018/978-1-7998-4763-2.ch005

Xu, Z., Wei, Y., & Zhang, J. (2021). AI Applications in Education. In Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, LNICST: Vol. 356 LNICST. Springer International Publishing. https://doi.org/10.1007/978-3-030-69066-3_29