


Chapter 14

Navigating the Future of Education in Critical Thinking and AI in Digital Citizenship

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ABSTRACT

Despite the benefits of AI in teaching and learning, issues in assessing critical thinking have gradually emerged and shifted the discussions on whether AI should be integrated into the assessment due to problems related to it. This chapter addresses the ethical gap in assessing writing by offering an analysis of AI's role and proposing suggestions to fully integrate AI into assessment to prepare students as digital citizens. It also explores the implications of AI in critical thinking in writing assessments, focusing on issues such as plagiarism, AI-detection bypass, and accuracy of content. It examines how digital citizens in educational institutions prepare for more robust AI integration in writing assessments and curricula, exploring AI affordances and constraints that may be used to improve current educational policy in assessment. This chapter explores how digital citizens can maintain academic integrity through an ethical framework, contributing to a more informed approach to digital citizenship.

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INTRODUCTION

Artificial intelligence (AI) 's impact has shaken educational institutions' foundations by storm, creating a temporary division in its role in education worldwide. However, its recent use has substantially influenced educational institutions among educators and students. In particular, AI has been leveraged to improve student learning, for instance, by providing human-machine conversations through chatbots that permit students to engage dialogically (Kim et al., 2021; Vasquez-Cano et al.,2021). Educators have used AI in teaching through automatic marking in assessment, which provides fast and accurate outcomes (Fu et al.,2020; Kumar & Boulanger,2020). For most university undergraduate students, the most accessible type of AI is Generative AI (GenAI), which is broadly defined as a technological tool that takes advantage of deep learning models that produce words and images that resemble those created by humans (Michel-Villarreal et al.,2023). Due to its advanced generative skills, many students and educators develop their learning and teaching to heights that have never happened before. One example study by Rafida *et al.* (2024) is that of twenty EFL students from Indonesia and Taiwan who were introduced an AI-assisted system in their academic writing. According to the report, 80% responded positively to utilizing AI in their writing, and the majority notes that they use AI to enhance their grammar skills, including formulating sentences and rephrasing words.

As artificial intelligence continues to revolutionize the landscape of academic writing, one question lingers in the air: can AI truly uphold the values of originality, creativity, and intellectual integrity? While AI promises unprecedented efficiency and convenience, it also introduces unsettling possibilities, challenging long-held conceptions of what academic work should be. The tension between innovation and tradition grows, and the answer may determine the future of education itself. Will this technological leap be embraced or will it compromise the principles that underpin academic excellence?

Despite the overwhelming potential for innovations and improvements, concerns about accuracy, plagiarism, misinformation, misrepresentation and reliability have gradually emerged in academic discussions. Chatterjee and Dethlefs (2023) urged GenAI developers and academic researchers to elevate their engagement with it to ensure integrity and uphold ethics against the malicious use of artificial intelligence. Due to this mounting uneasiness, some school districts in the US have banned GenAI entirely (Park,2023). Even UNESCO (2023) found the potential harm to human development and appealed for action to ensure AI is regulated in schools. These concerns are warranted because the bedrock of education is now, perhaps, questioned for its relevance; also, degrees are now challenged as essential educational

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