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Generative AI in higher education: The need to develop or revise academic integrity policies to ensure the ethical use of AI in Cambodia

Sok Sarin* & Heng Kimkong, PhD**

Abstract

This article aims to discuss an important topic related to the need for developing academic integrity policies to address the rising concerns about the unethical use or misuse of artificial intelligence (AI) in higher education. With specific emphasis on a Cambodian higher education setting, the article provides a summary of various concerns associated with the unethical use of AI-powered tools or applications in higher education. Drawing on secondary sources and the authors' experience in conducting research on AI use in higher education, the article discussed the need to develop academic integrity policies or revise existing policies to address the growing concerns regarding the misuse of AI for education and research in higher education contexts. The article concludes by calling for action from relevant higher education stakeholders to tackle the emerging and increasing issues concerning the use of AI in higher education. Implications for future research on AI use in higher education in Cambodia are also discussed.

Keywords: Artificial Intelligence (AI); higher education; academic integrity policies; ethical use of AI; Cambodia

Introduction

Given the emerging and rapid development of artificial intelligence (AI), universities across the globe have either developed new academic integrity policies and guidelines or revised their existing policies to prevent students from irresponsible or unethical use of AI-powered tools or applications, particularly regarding plagiarism and cheating, in academic settings (Luo, 2024; Plata et al., 2023; Russell Group, 2023). Plagiarism

is not a new phenomenon in the academic context (see Ahmadi, 2014; Crawford et al., 2023). However, with the emergence of large language models (LLMs), like Chat Generative Pre-Trained Transformer (ChatGPT) and other multimodal LLMs, such as Google's Gemini and Microsoft's Copilot, this form of academic misconduct has become a highly complex phenomenon, causing challenges to university lecturers and concerned stakeholders when distinguishing whether the

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submitted work from students is generated by AI or written by the students themselves (Bergström et al., 2024; Bobula, 2024). Due to this growing complexity, the use of AI has been increasingly discussed by researchers and practitioners, particularly concerning the irresponsible and unethical use of AI by students and academics, leading to the rise of academic misconduct (Bozkurt, 2024; Livberber & Ayvaz, 2023; Nguyen & Goto, 2024; Sullivan et al., 2023).

Recently, with the advent of OpenAI's ChatGPT, there have been a number of research studies exploring the utilization of AI for various purposes in higher education, including English language education (Darwin et al., 2024; Ho & Nguyen, 2024; Sol et al., 2024), academic writing (Sol & Heng, 2024), academic integrity (Cong-Lem et al., 2024; Cotton et al., 2024; Moya et al., 2023; Sullivan et al., 2023), assessment policies of AI use (Chan, 2023; Luo, 2024), and potential benefits and shortcomings of the adoption of AI (Chan & Hu, 2023; Sok & Heng, 2024; Yusuf et al., 2024), among others. In particular, a review of 52 articles by Sok and Heng (2024) found that while LLMs, like ChatGPT, offered a range of benefits in higher education, numerous concerns had been reported. The article, thus, called for an urgent need for higher education institutions (HEIs) and concerned stakeholders to develop new academic integrity policies and/or revise the existing policies to navigate the increasing issues associated with the use of AI (Sok & Heng, 2024).

In the Cambodian context, given that ChatGPT was made freely available in November 2023 (Sol et al., 2024), the specific policies and guidelines related to the use of AI-powered tools or applications have not been widely discussed. In light of this, the present article aims to bring this issue to the foreground by critically examining the concerns associated with the unethical use or misuse of AI in higher education from a general perspective before zooming in on the overview of AI use in Cambodian higher education. The article then discusses the

need to develop AI-related academic integrity policies or revise the existing ones to encourage the effective and responsible utilization of AI in higher education, particularly in Cambodia. The article concludes with a call for action to tackle the emerging issues concerning AI use, with implications for future research on AI in higher education.

Concerns associated with the unethical use or misuse of AI in higher education

Although AI-powered tools or applications have increasingly played an essential role in education, particularly higher education, owing to their significant benefits, many concerns have been discussed in the literature (Prajapati et al., 2024; Rudolph et al., 2024; Sol et al., 2024; Sullivan et al., 2023; Yusuf et al., 2024). These concerns are mainly associated with breaches of academic integrity such as plagiarism and cheating among students (Cotton et al., 2024; Rudolph et al., 2024; Sok & Heng, 2024; Sullivan et al., 2023), unfair academic assessment (Cassinadri, 2024; Luo, 2024; Sok & Heng, 2024), issues with privacy and security (Chan & Hu, 2023; Prajapati et al., 2024), reduced criticality and creativity owing to over-reliance on AI (Isiaku et al., 2024; Sok, 2023; Sok & Heng, 2024), and inaccurate outputs produced by AI (Bobula, 2024; Chan & Hu, 2023; Kumar, 2023). In particular, a survey study by Chan and Hu (2023) with 399 university students in Hong Kong found that despite many benefits offered by AI tools, like ChatGPT, numerous potential concerns were raised. These concerns were related to the accuracy of AI-powered outputs, ethical issues, privacy, and the effect of AI-powered tools or applications on future employment, societal values, and personal development. Likewise, Kumar (2023) found that although AI-powered outputs were found to be mainly original and pertinent to the topics being prompted, there were unsuitable or misleading references and limited personal opinions.

Given the growing concerns mentioned above, the use of AI-powered applications or tools has been

prohibited by several HEIs (Luo, 2024; Zhou & Schofield, 2024). The University of Hong Kong, for instance, prohibited the utilization of ChatGPT or other AI-powered tools or applications among its students for a period of time (Yau & Chan, 2023). However, this university later permitted its students to utilize these AI-powered tools, as they did not want to police their students' use of AI applications and wished to train them to use AI effectively rather than banning it (Hong Kong Free Press, 2023). Similarly, according to University World News (2023), some top universities (e.g., the University of Cambridge and the University of Oxford) in the United Kingdom also announced the banning of students from utilizing AI tools, given the fears of plagiarism. Of the 24 universities in the Russell Group (an association of public research universities in the United Kingdom), eight universities, including but not limited to, the University of Bristol, the University of Edinburgh, and the University of Manchester, announced to all their students that the use of AI chatbots for any type of assignment would be considered an academic misconduct (University World News, 2023).

Overview of the use of AI in Cambodian higher education

While a plethora of studies on AI-related topics have been conducted globally, research on AI use is underexplored in the Cambodian context. A survey study by Sol et al. (2024) appeared to be the first to explore the perceptions, experiences, and attitudes of English-majored university students regarding the use of AI-powered tools in higher education. Based on the responses to an online questionnaire from 328 university students, the study revealed that most of the Cambodian students (about 90%) experienced using AI-powered tools, such as Grammarly, QuillBot, Google Translate, and ChatGPT; however, a majority of them (around 70%) did not have prior training on AI use. It was also found that the level of their readiness to use AI for their English language learning was generally moderate (44.51%), with less than 30% of them

feeling very ready (23.48%) or extremely ready (5.49%) for using AI tools to enhance their English language learning. The study also found that Cambodian English-majored university students tended to use AI to help them complete class assignments and research projects, improve learning gains in general, and learn English through language translation tools like Google Translate. Despite the benefits of AI, the students expressed concerns about several issues related to the reliability and accuracy of outputs or answers produced by AI, a lack of human interactions, a potential decrease in problem-solving and critical thinking skills driven by overdependence on AI, and potential risks associated with unethical and improper use of AI. Nevertheless, it was reported that data privacy and security were the most significant concerns raised by the students (Sol et al., 2024). Similarly, Heng (2023) conducted a survey with Cambodian lecturers ($n = 104$) and university students ($n = 354$) and found that most of the lecturers (88.7%) believed that AI should be allowed for use in higher education to assist students in searching for information or feedback and completing assignments. However, they were concerned about the rise of academic misconduct and the possibility of making students lazy when it comes to studying. Almost half (48.58%) of the students who participated in the survey also expressed concerns about the potential loss of critical thinking capacity, as AI tools like ChatGPT only provided direct answers and did not allow them to think.

Given the rise of AI and the lack of academic integrity policies, particularly in the Cambodian context, there have been calls for developing such policies to address pressing issues concerning the use of AI in higher education, such as cheating and plagiarism, biased assessment, and excessive dependence on AI (Chum, 2024; Sok, 2023; Sok & Heng, 2023).

The need to develop or revise academic integrity policies

Given the increasing concerns regarding the unethical use of AI-powered tools or applications in higher education, particularly the breaches of academic integrity (Pisica et al., 2023; Van Wyk, 2024), first and foremost, it is essential for policymakers at both national and institutional levels to develop academic integrity policies that ethically and responsibly address the adoption of AI-powered tools in higher education (Lou, 2024; Sol et al., 2024). Such policies should encompass various elements, including the principles of using AI-powered tools or applications, the scope and limitations of the policy statement, the definitions of key terms associated with AI use and misuse in higher education, the consequences of academic misconduct, and the prevention as well as solutions for academic misconduct. Moreover, it is crucial to develop specific procedures and guidelines for effective implementation of such policies to ensure that all faculty members and students are well-informed and build confidence for effective and fair implementation of the policies on AI use across HEIs in Cambodia.

Second, to ensure the success of academic integrity policies, it is advisable for HEIs in Cambodia to learn from the best practices of other universities in the region and the world. Thus far, guidelines on the use of AI-powered tools or applications in education are widely available to the public (Atlas, 2023; Miao & Holmes, 2023); however, Cambodian HEIs are seen to lag behind in terms of both developing appropriate academic integrity policies for AI use and implementing any existing policies, if such policies exist at all. In this context, individuals who are responsible for developing or revising these guidelines need to consider adapting the existing guidelines on AI from the world's leading universities (see Moorhouse et al., 2023 for a review of such guidelines) and making them aligned with the Cambodian context.

Third, when the academic integrity policies on AI use in higher education are available, it is essential to develop and offer training to both teachers and students on the ethical use of AI, as AI literacy skills in higher education are of vital importance to ensure effective implementation of those policies (Cong-Lem et al., 2024; Sok & Heng, 2024). Specifically, Sok and Heng (2023) advised that rather than prohibiting the use of AI-powered tools in education, there should be "training or guidance on how to effectively use this AI tool for education and research purposes" (p. 117). This suggestion is in line with the findings reported by Heng (2023) who found that Cambodian university lecturers believed that it was essential to allow Cambodian university students to use AI rather than banning them from using it for their studies.

Finally, it is imperative that Cambodian HEIs establish an AI committee to identify and examine written texts produced by students and faculty members suspicious of being AI-generated to discourage unethical use of AI applications. This is imperative as it shows the promotion of ethical and responsible use of AI, not the avoidance of the use of AI in higher education, as long as it is ethical and responsible. However, establishing such an AI committee can be a challenge for many Cambodian HEIs, as this is a new phenomenon, requiring them to familiarize themselves with AI literacy and technologies. This is not to mention the fact that they may lack necessary knowledge and skills related to AI, machine learning, and other advanced forms of LLMs. At present, establishing an AI committee may be too ambitious for many Cambodian HEIs. Therefore, a feasible approach for the time being is to have at least one competent member of the existing academic committees to be responsible for checking the potential use of AI in students' or faculty members' academic writing to ensure the ethical use of AI and promote academic integrity. Thus, it is of paramount importance to provide training or capacity building for both administrative and academic staff to increase their AI literacy

skills as well as technology skills to ensure that they are up to date with the fast-evolving landscape of higher education in the age of AI and know how to leverage AI to help with their thinking instead of having it think for them.

Conclusion

With the emergence and rise of AI use in higher education, there are significant concerns that require close and immediate attention from relevant stakeholders, particularly policymakers and academic leaders, to develop new academic integrity policies or revise the existing policies to incorporate guidelines on AI use to ensure the responsible and ethical use of AI-powered tools or applications for education and research. While policies on AI use are significant, there is a need to ensure that well-defined and comprehensive procedures and guidelines are in place to address the irresponsible and unethical utilization of AI for academic purposes. It is also important to pay close attention to the design and development of training or professional development programs to build the capacity of key stakeholders, particularly faculty members and students, to ensure they are AI-literate and can effectively cope with the growing and changing demand of fast-evolving technology in the context of AI. Moreover, there is a need to create a committee to oversee the implementation as well as the monitoring and evaluation of the policies and procedures for AI use within HEIs.

In light of the lack of research and scholarly publications related to AI use in education in Cambodian context, we call for both researchers and practitioners to conduct research and/or engage in critical reflections on how AI can be utilized or exploited to improve teaching and learning, research, and governance in higher education. To effectively integrate AI in Cambodian higher education and maximize its use, there is a need to conduct action research to examine the effectiveness of AI use in fostering innovative pedagogical methods and assessment practices,

which are highly needed to improve teaching and learning, particularly students' learning outcomes.

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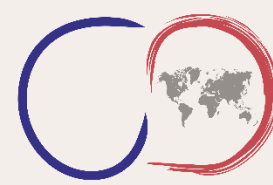
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