

REGULATION OF THE USE OF CHATGPT IN THE UNIVERSITY ENVIRONMENT: A CONCEPTUAL REVIEW AND ITS SIGNIFICANCE IN MAINTAINING ACADEMIC ETHICS

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Abstract

The emergence of ChatGPT as an artificial intelligence technology has had a significant impact on academic processes in higher education, serving both as a learning tool and as a potential threat to academic integrity. One of the main issues that has arisen is the risk of plagiarism, excessive reliance on technology that may undermine critical thinking skills, and violations of other academic ethical values. This article aims to examine the concept of regulating the use of ChatGPT in higher education institutions and to analyze its significance in upholding academic ethics. This study adopts a qualitative approach through a literature review that explores policies, theories, and research related to the use of artificial intelligence in higher education. The findings indicate that comprehensive and adaptive regulations are essential to guide the responsible use of ChatGPT. Such regulations not only provide clear boundaries but also promote healthy digital literacy, ensuring that the technology can be utilized optimally without compromising academic principles. This study recommends the need for collaboration among stakeholders in the formulation of policies to ensure that the resulting regulations are relevant and applicable in the context of the current digital era.

Keywords: ChatGPT, Regulation, Academic Ethics, Higher Education, Artificial Intelligence.

INTRODUCTION

The development of artificial intelligence (AI) technology has brought significant transformations across various fields, including higher education. In the academic environment, AI not only serves as a supporting tool in the learning process but also acts as a transformative agent that greatly

influences the academic community, particularly students and lecturers, in carrying out their academic activities.

One of the AI technologies that has gained significant attention in recent years is the emergence of ChatGPT (Chat Generative Pre-trained Transformer) in social life. This language-based technology is designed to automatically generate high-quality information in response to user requests or inquiries.

Conceptually, ChatGPT is defined as a chatbot developed by OpenAI using generative language model innovations. It is designed to produce text that mimics human language patterns, both in conversation and writing. Through this technology, users can interact to obtain information, answer questions, or engage in virtual conversations with an AI-powered system.(Tantan Hadian, 2023)

Setiawan et al., as cited by Budi Susilo & Tri Widayanti in their article, state that ChatGPT is a type of artificial intelligence application developed by OpenAI. This technology has the capability to answer questions, assist in essay writing, and provide information on various topics. Its main advantage lies in its ability to generate text that closely resembles human communication, respond to inquiries, and complete various text-based tasks efficiently.(Budi Susilo, 2024)

ChatGPT has undergone rapid development since its initial introduction. In 2019, OpenAI released the ChatGPT-2 model, which offered more advanced capabilities and generated more realistic text. A year later, in 2020, OpenAI launched ChatGPT-3, a larger and more sophisticated model in natural language processing. This model was capable of answering questions, writing essays, and completing various language-processing tasks with a higher level of accuracy.(Widarto Rachbini, Tiolina Evi, 2023)

Given ChatGPT's advantages in providing access to information, its popularity has surged rapidly within a relatively short period. According to a study conducted by the World Bank Group in its report titled *"Who on Earth is Using Generative AI?"*, an analysis of 40 generative AI tools revealed that their total visits reached over 2.8 billion in March 2024. Among these, ChatGPT accounted for 82.5% or approximately 2.3 billion visits, making it the only tool to surpass 1 billion visits among the 40 tools examined. Chatbots dominated the Generative AI category, occupying the top seven rankings and contributing 95% of total visits.(Liu & Wang, 2024)

The increasing use of ChatGPT proves that its presence has had a significant impact, providing one of the easiest alternatives for various human tasks—including those in the field of education. It facilitates access to

knowledge in specific subjects or courses, assists with homework, and supports students in completing their final projects (both thesis and non-thesis). Moreover, it can aid teachers and lecturers in preparing their teaching materials. As a result, it is highly likely that in the future, AI (ChatGPT) will continue to establish itself as an integral part of the education sector.

Several studies on ChatGPT have been conducted by various researchers, demonstrating its significant impact on the field of education. First, ChatGPT assists students in analyzing economic data, market trends, and consumer behavior, making it easier to make data-driven strategic decisions. Additionally, it serves as a valuable tool for marketing guidance, enhancing online visibility, and promoting products in an innovative manner.(Sugiarto, 2023). Second, ChatGPT helps students solve problems and formulate discussion questions. It is not merely a source of information but also functions as an AI-powered digital assistant. With its capabilities, ChatGPT provides flexibility and valuable outcomes in the learning process(Puad Fatoni, 2024). Third, ChatGPT is recognized as a technology that has a significant positive impact on the quality of education while also serving as a fast and informative interactive learning resource through chatbot interactions. These benefits can be maximized when ChatGPT is used appropriately and wisely.(M Husnaini, 2024).

Based on the three research findings above, it can be concluded that ChatGPT has a significant impact on facilitating tasks both within and beyond the field of education. Furthermore, this technology is not only limited to accelerating work processes or task completion but is also seen as capable of providing creative solutions that were previously difficult to achieve through conventional methods. In fact, based on our assumptions as researchers, it is highly likely that in the future, this technology will bring a remarkable transformation in the way humans learn and work.

Nevertheless, as a product of human intellect and creativity, ChatGPT is not without its shortcomings, requiring users to remain vigilant in anticipating potential risks and challenges. One of the primary concerns regarding its application in education is its impact on academic writing, including the risk of violating academic rules and ethics, the potential for plagiarism, and its possible negative effects on critical and creative thinking skills.(Supriyadi, 2024). Second, concerns include the potential for inaccurate information, the risk of plagiarism, limitations in the scope of information, and a lack of deep understanding of the subject matter.(Muhammad Tarmizi, 2024). Third, negative impacts such as plagiarism, violations of academic

ethics, and a decline in critical and creative thinking skills necessitate that lecturers and teachers establish clear regulations to ensure the proper use of ChatGPT. This way, students can leverage this technology positively for academic and knowledge development.(Muhammad Jafar Maulana, 2023).

These concerns must be anticipated collectively, along with strategic measures to minimize the occurrence of similar cases. Although researchers have not yet found any widely documented and publicly reported cases of academic ethics violations in higher education caused by the use of ChatGPT—based on reviews of various journals, books, and news sources—it is undeniable that the potential for technological misuse, particularly within the academic environment, remains a possibility.

Therefore, in response to the concerns mentioned above, researchers consider it crucial to establish strategic alternatives in the form of regulations or technical policies within higher education institutions. These regulations would define boundaries and guidelines for the use of ChatGPT as an integral part of contemporary education. The presence of such policies is expected to serve as both a control mechanism and a safeguard for users—both students and lecturers—ensuring that this technology supports the integrity and quality of higher education without compromising academic ethical values.

The objectives of this study are, first, to examine the concept of ChatGPT usage regulations in higher education as a response to the lack of institutional policies governing its application in academic settings. Second, to analyze its significance in preserving academic ethics. With the right regulations, higher education institutions can ensure that this technology supports the implementation of the tridharma of higher education—particularly in teaching and learning—while also upholding fundamental educational values such as honesty, originality, and academic integrity

METHOD

The study on the regulation of ChatGPT usage in higher education institutions is conducted using the library research method. This involves a series of activities, including literature collection, reading, note-taking, and processing information as the foundation of the research.(Zed, 2014). In short, this method focuses on collecting data from various relevant literary sources, such as journal articles, books, e-books, and other research reports related to the title of this study.

In the data analysis process, the researcher follows the steps developed by Miles & Huberman (1984), which begin with data reduction, followed by data display, and conclude with drawing conclusions or verifying the previously discussed data (conclusion drawing/verification).(Zuchri

Abdussamad, 2021). The results of this study are expected to provide concrete recommendations for higher education institutions in formulating regulations that support the responsible use of AI while maintaining academic quality and preventing the misuse of technology.

FINDINGS AND DISCUSSION

A Conceptual Study on the Regulation of ChatGPT Usage in Higher Education

As mentioned in the previous introduction, ChatGPT, as a generative artificial intelligence, has brought significant changes across various sectors, including higher education. Its ability to generate human-like text opens new opportunities in academic activities.

However, the presence of ChatGPT is like two sides of a coin, inevitably carrying both benefits and challenges. Given its advantages and limitations, efforts are needed to optimize its strengths while minimizing its drawbacks.

Therefore, as part of this optimization and minimization effort in the field of education, it is crucial to establish regulations that guide the academic community in using ChatGPT appropriately, particularly in completing academic assignments while ensuring adherence to ethical and academic integrity standards.

In general, regulation is often understood as a set of rules or guidelines established to govern specific activities or processes in accordance with their needs or interests. In this context, regulations can be formulated by individual institutions, tailored to their specific requirements and interests, or established by authoritative bodies, such as the Ministry of Higher Education, which oversees these institutions.

In the realm of higher education, regulating the use of ChatGPT has become an urgent necessity to ensure that academic ethical values are upheld. As previously mentioned, clear regulations regarding the use of this technology remain relatively limited, particularly in Indonesia. However, based on the researcher's findings, at least two universities have begun formulating policies related to the use of AI-based tools: Universitas Gadjah Mada (UGM) and Universitas Indonesia (UI). In its formulation, UGM emphasizes the need for an agreement among the academic community on whether the use of ChatGPT is considered a violation of academic ethics or permitted under certain conditions. It also considers the extent to which AI-based tools can be used in academic work. (Muhammad Rizky, 2023). Meanwhile, UI, through the Faculty of Economics and Business (FEB), has introduced several specific policy options regarding the use of ChatGPT within the faculty. These policies aim to ensure that the technology is used

ethically and responsibly while emphasizing a greater role for lecturers in overseeing its implementation(KusumastutiI, 2023).

Additionally, the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) is also in the process of formulating regulations on the use of generative AI in higher education. Prof. Dr. rer. nat. Abdul Haris acknowledges that Indonesian higher education must quickly adapt to the presence of GenAI, especially since this technology can provide solutions and facilitate better learning experiences for students. However, he also emphasizes the urgent need for regulations. He recognizes that regulation remains a challenge for Indonesia, and Kemendikbudristek is still in the process of drafting policies for its use.(Kemendikbudristek *Godok Regulasi Penggunaan Generative AI Di Perguruan Tinggi.*, 2024)

Over time, the Directorate of Learning and Student Affairs, under the coordination of the Directorate General of Higher Education, Research, and Technology at the Ministry of Education, Culture, Research, and Technology, has launched the *Guidelines for the Use of Generative Artificial Intelligence in Higher Education Learning*. This book provides guidance for the academic community and higher education institutions on utilizing AI ethically and responsibly, particularly in the learning process. By integrating technological advancements while upholding academic values, norms, and ethics, it is expected to foster sustainable innovation and meaningful scholarly contributions.(Tim, 2024)

Regulations on the use of ChatGPT are not only being discussed among higher education academics in Indonesia but also by universities abroad, which have taken concrete steps in responding to the presence of ChatGPT in human life. A research study conducted by Ping Xiao from Melbourne Business School, University of Melbourne, and colleagues found that among the top 500 universities worldwide in 2022, fewer than one-third had implemented policies related to ChatGPT. Among the universities that had policies, approximately 67.4% accepted the use of ChatGPT in teaching and learning—more than twice the number of universities that prohibited it.(Chen, 2023)

Overall, regulations—whether conceptual or more technical and implementable guidelines—for higher education have become a highly complex and pressing issue that requires a comprehensive approach. Every higher education institution should begin formulating policies or guidelines that serve as an official framework for using this technology in learning and academic work without compromising ethical values in education.

The Significance of Regulation for Academic Ethics

Mohammad Nasir, former Minister of Research, Technology, and Higher Education, emphasized that the challenges of the Fourth Industrial Revolution must be addressed swiftly and effectively by higher education stakeholders to enhance Indonesia's competitiveness. Therefore, universities need to formulate strategic policies in various aspects, such as institutional development, curriculum, academic disciplines, resources, online university development, as well as research, development, and innovation (Al-Fikri, 2021)

When educational technology with the potential to revolutionize the academic world becomes widely available, educators and policymakers bear a significant responsibility in addressing the challenges that may arise from its implementation. They must also develop strategies to eliminate ineffective educational practices. For example, the case of a student in China who used a device to copy large amounts of text highlights the importance of a responsible approach to integrating technology in educational settings. (David Mhlanga, 2022)

Technological advancements, particularly in artificial intelligence like ChatGPT, have introduced significant innovations in the use of technology, especially in the education sector. ChatGPT's potential not only creates new opportunities but also presents challenges for educators in the learning process. Therefore, the implementation of technology must remain grounded in ethical and moral values that uphold academic principles. Users must exercise wisdom in assessing both the benefits and potential impacts, ensuring they do not become overly reliant on technology without applying critical thinking to the knowledge it generates. (Aiman Faiz, 2023)

The formulation of policies or regulations by higher education institutions should not only be seen as an adaptive response to the rapid advancement of technology. More importantly, these policies and regulations are designed to uphold academic integrity, which, according to Mishra et al., is defined as a commitment to honesty, trust, fairness, equity, respect, and responsibility, as well as translating these values into actions. (Mishra & Varshney, 2024)

With technological advancements, including artificial intelligence, regulations have become crucial to ensuring that their use aligns with academic ethics. For example, the use of ChatGPT in learning and research needs to be regulated to ensure that this technology does not replace human creativity or obscure individual contributions in academic work. Regulations play a vital role in positioning technology as a supportive tool that enhances

academic processes without undermining the core values upheld in the world of education.

Educators need to discuss the use and ethics of ChatGPT with students. At this early stage, if no clear external regulations are in place, it is crucial for responsible parties, group leaders, and instructors to establish guidelines for its use that promote honesty, integrity, and transparency while agreeing on specific rules of engagement. All research contributors should be reminded that they are accountable for the outcomes of their work, whether or not ChatGPT is involved. Each author must also carefully verify the accuracy of facts, texts, results, data, code, and references they use. (van Dis et al., 2023)

Ultimately, regulations contribute to the creation of an academic environment rooted in integrity. By enforcing rules consistently, higher education institutions can build a reputation as institutions that uphold ethical values. This not only benefits the institution itself but also the entire academic community, as the knowledge products generated become more reliable and have a lasting positive impact.

CONCLUSION

From the discussion above, it can be concluded that the use of ChatGPT in higher education offers significant potential to enhance learning processes and support academic productivity. However, uncontrolled use may lead to various ethical challenges, such as plagiarism, a decline in critical and creative thinking skills, and other violations of academic integrity. Therefore, the establishment of comprehensive and adaptive regulations is deemed crucial to mitigating these risks. In this context, higher education institutions must take proactive steps by formulating policies based on internal needs while strengthening academic dialogue with all stakeholders regarding the impact of AI technology, particularly ChatGPT, in higher education.

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