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## GENERATIVE ARTIFICIAL INTELLIGENCE (AI) NEW VALUE PROPOSITION IN COLLEGE

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### Abstract

**Background.** Learning technology has changed drastically. Lecturers who were previously a source of knowledge changed their role to become mentors for students. **Aims.** Such rapid development of AI has replaced human functions with limited memory. AI stores data indefinitely. All university lecturers and students need to know this progress, so there is a socialization event regarding the new value proposition of generative artificial intelligence on campus. **Method.** The method used is a presentation from the students, by students, and for students whom lecturers accompany. **Result.** In this presentation, it was highlighted the meaning of Gen AI, the potential of Gen AI in learning, the use of Gen AI, policies in the use of Gen AI, how the change in the educational landscape caused by the AI gene, how education is organized in the integration of AI genes, how are the applicable academic regulations in the context of the use of Gen AI, whether the use of Gen Ai will streamline the implementation of education, how to maintain the latest learning quality when utilizing AI. The use of AI in learning brings a new value proposition for learning and a new role for lecturers as education actors. Learning that utilizes AI gives students the freedom to learn anyone and anywhere across time and space. **Conclusion** AI supports a more personalized learning experience according to each student's needs. The presence of lecturers online and offline in the form of learning managers, student companions (cognitive presence), and student guides in interaction (social presence) provides new value to lecturers' existence in learning.

**Keywords:** Gen AI, college, preposition, learning, technology

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## INTRODUCTION

The world has begun to live in the era of artificial intelligence (AI). Artificial intelligence (AI) has played a crucial role in various areas of life. AI and its impact on society have received significant attention and have affected individuals globally, and many industries have also continued to experience disruption as a result. AI has resulted in testing new learning and teaching solutions in various educational settings. In addition to its impact on education, AI significantly impacts the labor market, industry, agriculture, value chain, and workplace (Kelly, 2021). Higher education is one of the industries that has been severely affected. AI is widely used in the form of virtual intelligence by education systems around the world, especially by higher education institutions during the pandemic (Senel & Can, 2021). Many institutions have begun accelerating their adoption across various disciplines to cope with market shifts. Recent technological advances have great potential to create and expand personalized learning for students, optimize strategies for learning outcomes, and improve access for a more diverse population. AI requires a description of the skills universities must teach students to prepare them for future AI jobs (Grace Ufuk, 2020). It is clear that Artificial Intelligence/AI affects higher education (HE), which can impact the quality of education, the learning and teaching process, assessment, and future careers (Slimi, 2021).

The aforementioned argument is placed within the framework of generative artificial intelligence (GenAI), a subset of artificial intelligence that uses deep learning techniques to find patterns in large amounts of data. Based on the prompts it receives, GenAI can produce new or novel outputs in the form of text, images, audio, or videos (Chan & Colloton, 2024; IBM, 2024). One example of generative AI is big language models, which use patterns discovered in their training data to generate writing that resembles that of a human. Since the introduction of ChatGPT in 2022, GenAI has captured the interest of the public. Applications of GenAI (such as ChatGPT, Gemini, and DALL-E) allow for smooth communication in human languages (i.e., social nature) and are capable of handling cognitive tasks that have historically required human intervention, in contrast to early AI models that worked via computational language.

This study discusses the integration of artificial intelligence (AI) in higher education to improve teaching and learning and innovation in implementing AI-based learning. AI

technology has great potential to change the way higher education works with its ability to think and learn like a human, understand human feelings, make complex decisions, and others. However, the application of AI in higher education is still in its infancy, especially in developing countries. This study uses qualitative methods and collects data from various academic articles on the impact of AI on higher education. With the support of AI, higher education can improve learning outcomes by providing richer learning experiences, improving operational efficiency, and monitoring student performance in real time. However, although progress in the application of AI has been seen, there are still some challenges and shortcomings, including the limitations of AI research in fields beyond STEM (Science, Technology, Engineering, and Mathematic), the lack of AI theories and models in education, and resistance in adopting AI in teaching and learning. Higher education institutions need to integrate more AI in the learning process and provide training to academic staff and students to optimize the education system in the future (Kennedy, 2023).

## **METHOD**

Counseling on Gen AI was carried out for students in the seventh semester before the final thesis preparation project. Presentations were made by student groups with the concept of students, by students, and for students who were accompanied by lecturers as resource persons. Presentations used PowerPoint to help clarify understanding.

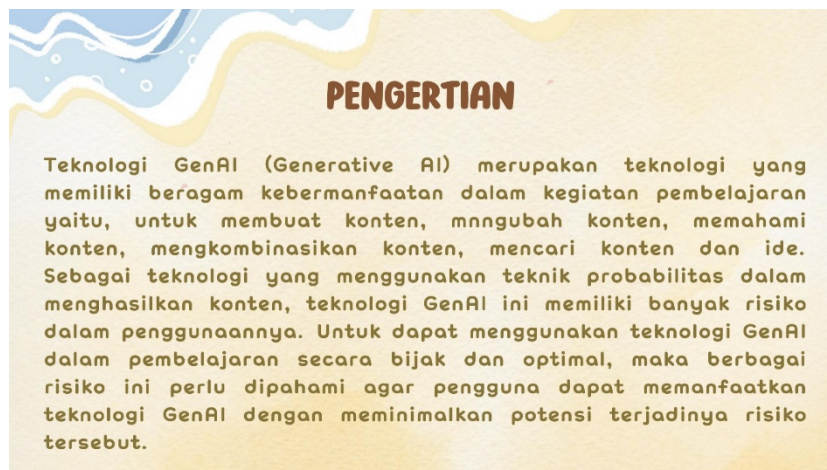
## **RESULTS AND DISCUSSION**

Socialization activities on the use of Gen AI in higher education are carried out by students, from students, and for students whom lecturers accompany. The material presented included the definition of Gen AI, the potential of Gen AI in learning, the use of Gen AI, policies in the use of Gen AI, how Gen AI causes changes in the educational landscape, how education is organized in the integration of Gen AI, how are the applicable academic regulations in the context of the use of Gen AI, whether the use of Gen Ai will streamline the implementation of education, .How to keep learning quality up-to-date when utilizing AI

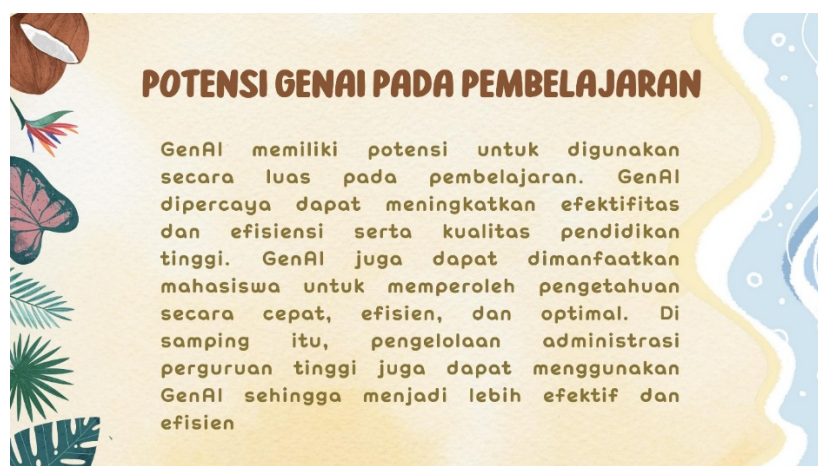
### **Definition of Gen AI**

Generative AI (Generative AI) technology is a technology that has various benefits in learning activities, namely, creating content, searching for content, understanding the

content, combining content, and search for content and ideas. As a technology that uses probability techniques in producing content, Gen AI technology has many risks in its use. To use Gen AI technology in learning wisely and optimally, these various risks need to be understood so that users can take advantage of Gen AI technology by minimizing the potential for these risks.

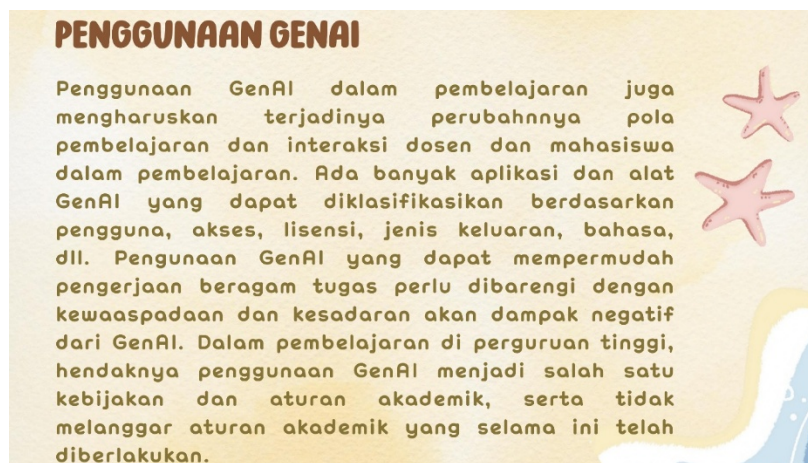


Advances in Generative Artificial Intelligence (Gen AI) technology have significantly transformed higher education. With the ability to generate creative content such as text, images, audio, and video, Gen AI offers an excellent opportunity to improve the effectiveness and efficiency of the learning process. Technology ii opens up space for innovation in the implementation of learning, helping to create a more dynamic, personalized, and interactive learning experience. With the various conveniences offered, using Gen AI in learning is necessary.



## The use of GenAI

*GenAI* has the potential to be widely used in learning. *GenAI* is believed to be able to improve the effectiveness, efficiency, and quality of higher education. *Students can also use GenAI* to acquire knowledge quickly, efficiently, and optimally. In addition, university administration management can also use *GenAI* to become more effective and efficient. The use of *GenAI* in learning also requires changes in learning patterns and interactions between lecturers and students in learning. Many *GenAI* applications and tools can be classified based on users, access, licenses, types of outputs, languages, etc. The use of *GenAI*, which can make it easier to work on various tasks, must be accompanied by vigilance and awareness of the negative impact of *GenAI*. In learning in higher education, the use of *GenAI* should be one of the academic policies and rules and not violate the academic rules that have been enforced so far.



The goal of artificial intelligence (AI), a broad field in computer science, is to enable computer systems to generate intelligent machines that can think, learn, and act like humans (Dwivedi et al., 2021; Sarker, 2022). Since its inception in the 1950s, artificial intelligence (AI) has evolved due to scientific breakthroughs, advances in processing capacity, and new technologies (Kar et al., 2023). AI includes some methods, such as deep learning (DL), which simulates the capabilities of the human brain, such as image recognition using artificial neural networks, and machine learning, which finds patterns in new data and applies inferences to it (Kar & Kushwaha, 2023; Verma et al., 2021).

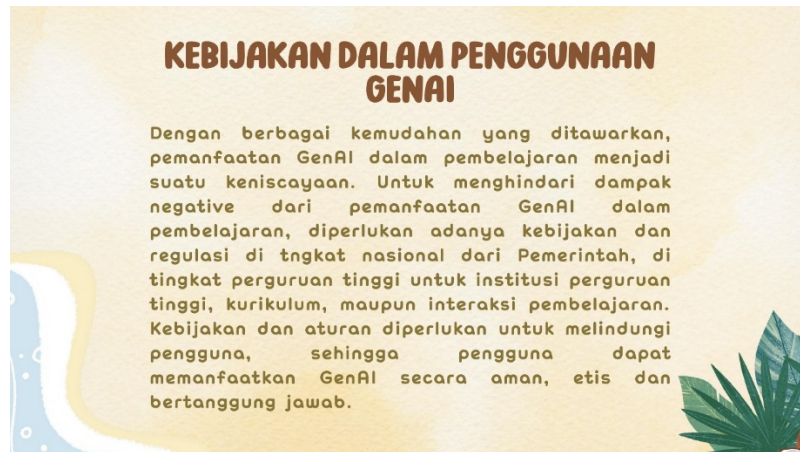
With the various conveniences offered, using *GenAI* in learning is necessary. To avoid the negative impact of using *GenAI* in learning, policies, and regulations are needed at the national level from the government and the university level for higher education institutions, curriculum, and learning interactions. Policies and rules are necessary to protect

users so that they can utilize GenAI safely, ethically, and responsibly. In mitigating the risk of using *GenAI*, the learning process needs to transform, and lecturers must prioritize the reasoning process and interaction with students through various learning strategies while always maintaining academic integrity. Many things need to be considered so that *GenAI* can be used safely, ethically, and responsibly, including security and safety in the use of *AI*, including data privacy issues; equality, transparency, and accountability in the use of GenAI that is fair and without bias; and environmental impacts in the use of GenAI.

Additionally, computer vision enables computer systems to identify persons, objects, and settings as well as analyze and comprehend photos and movies (Dwivedi et al., 2021). Furthermore, AI may be defined as a system's ability to efficiently draw conclusions from outside inputs and use learned information to accomplish specific goals and activities. Usually, they may be divided into three categories: unsupervised, semi-supervised, and supervised algorithms (Haenlein & Kaplan, 2019). Applications of AI include medication research, medical diagnosis, new product development, self-driving vehicles, drones, intelligent transportation systems, industrial process optimization, and higher productivity (Hemmati & Rahmani, 2022). Additionally, technology makes it possible for businesses to create responsive entities and intelligent robots to increase productivity (such as chatbots) (Verma et al., 2021).



**Figure 1. Presentation of the Potential Utilization of AI Genes in College**



Ethical and legal issues in using *GenAI* include inaccuracies and misinformation, bias in training data, and data privacy and security issues. Effective mitigation strategies include improving *AI Literacy* and *Reskilling* through periodic training, training on the use of prompt engineering techniques for better interaction, and the application of *Retrieval-Augmented Generation (RAG)* methods to improve the accuracy of answers. Prevention strategies should include strict policies regarding using GenAI, integrating GenAI Literacy in higher education curricula, and implementing clear ethical guidelines. The learning process needs to be transformed along with the development of *GenAI technology*. *Universities* and lecturers need to prepare and adopt *GenAI* in learning with clear rules and provisions and innovate with various learning and assessment strategies that accommodate the use of *GenAI* while maintaining academic integrity in higher education. Active stakeholder engagement and ongoing education are essential to ensure *GenAI's responsible and safe use*.



**Figure 2. Discussion of the Potential Utilization of AI Genes in College**

Moving forward, education actors – lecturers, students, and policymakers will go hand in hand with *GenAI* which is growing very quickly. In general:



The changes in the educational landscape caused by *GenAI* tend to be gradual rather than radical or total changes all at once. The success of using *GenAI* responsibly and ethically in learning is one of the milestones and a mirror of this change.

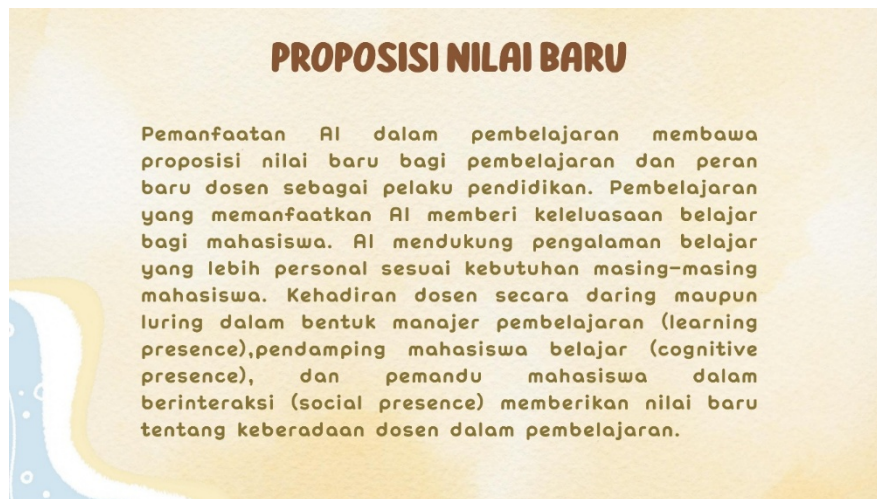
The implementation of education, especially learning that integrates *AI*, will run collaboratively between various parties, using the principles of "*crowdsourcing*" and "*I store my knowledge with my friend.*" *Collaboration is carried out through various ways and media for various purposes, including obtaining various forms of learning resources and enriching the learning process, which ultimately improves the quality of education.*



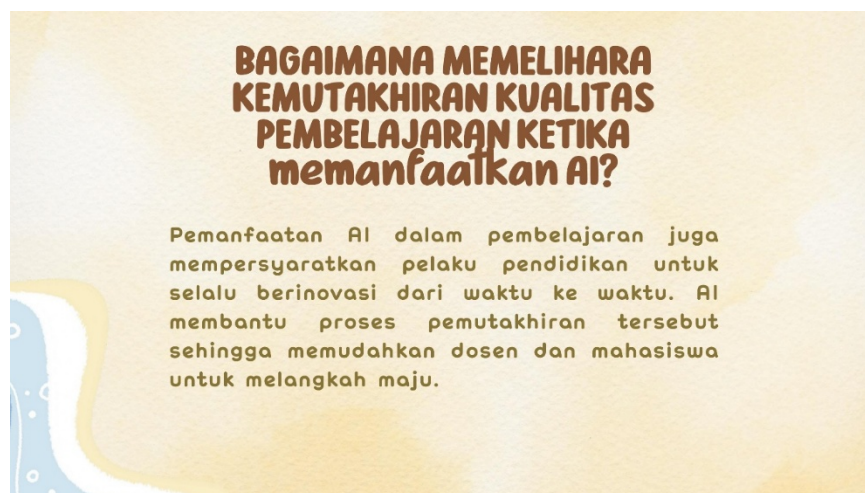
The use of *GenAI* in learning requires different academic regulations for flexible learning. The principles of participation (joint ownership), *fairness* (fairness), *transparency* (transparency), *responsiveness* (speed of response), *equity* (equity/equality), *accountability* (responsibility), *credibility* (credible), and *integrity* (integrity) are the principles of academic implementation that are challenges in the utilization of *GenAI*.

Implementing education using *GenAI* requires the allocation of funds with different priorities than the implementation of conventional education. In the long term, accompanied by careful prioritization, the use of *GenAI* will make higher education more efficient.

Without priority policies, coupled with the tendency to use *GenAI* unsystematically, it will cause inefficiencies in higher education.



The use of *AI* in learning brings a new value proposition for learning and a new role for lecturers as education actors. Learning that utilizes *AI* gives students the freedom to learn anyone and anywhere across time and space. *AI* supports a more personalized learning experience according to each student's needs. The presence of lecturers online and offline in the form of learning managers, student companions (*cognitive presence*), and student guides in interaction (*social presence*) provides new value to lecturers' existence in learning.



The use of *AI* in learning also requires education actors to continuously innovate from time to time. *AI* helps the upgrade process, making it easier for lecturers and students to move forward. The creation of interactive and innovative *AI*-based learning materials, the development of learning strategies that inspire student engagement, the development of more

contextual knowledge, and the diversity of forms of assessment of learning outcomes will make the learning process enjoyable, inspiring, meaningful, and relevant.

## CONCLUSION

With the presence of *GenAI* in higher education, there is an urgent need to develop ethical guidelines to ensure these technologies are used ethically and responsibly. The guide will assist universities in utilizing *GenAI* to improve the quality of learning while addressing ethical challenges that may arise. This guide is a guide and reference for universities in developing policies and rules of learning practices that utilize *GenAI* ethically and responsibly while maintaining a dynamic, creative, and innovative academic atmosphere based on academic integrity. Through this guide, it is hoped that colleges can prepare students with technical knowledge and a deep understanding of the ethical implications of the technology they use.

## BIBLIOGRAPHY

- Anonymous. 2024. Guidelines for the Use of Generative Artificial Intelligence (Gen AI) in Learning in Higher Education. Director General of Belmawa. Ministry of Research, Technology and Higher Education.
- Bafadal, R., & Rosyid, F. (2025). Understanding the Learning Needs of Generation Z through Artificial Intelligence-Based Personal Assessments. *Journal of Innovation and Teacher Professionalism*, 3(1), 182-188.
- Chairunnisa, S., & Amaniar, F. (2025). AI and the Future: The Ethical Challenges of Generation Z. *Dewantara: Journal of Social Education in Humanities*, 4(1), 95-103.
- Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., et al. (2023). Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management*, 71, Article 102642. <https://doi.org/10.1016/j.ijinfomgt.2023.102642>
- Fikri, M. R. N., Muttaqien, F., & Noor, M. I. (2024). Artificial Intelligence Implementation Strategy to Strengthen Islamic Education in Generation Z in Indonesia. *Islamic Education*, 3(1), 132-144.
- Haenlein, M., & Kaplan, A. (2019). A Brief History of artificial intelligence: On the past, present, and future of artificial intelligence. *California Management Review*, 61(4), 5-14. <https://doi.org/10.1177/0008125619864925>

- Hemmati, A., & Rahmani, A. M. (2022). The internet of autonomous things applications: A taxonomy, technologies, and future directions. *Internet of Things*, 20, Article 100635. <https://doi.org/10.1016/j.iot.2022.100635>
- Kar, A. K., & Kushwaha, A. K. (2023). Facilitators and barriers of artificial intelligence adoption in business – insights from opinions using big data analytics. *Information Systems Frontiers*, 25(4), 1351–1374. <https://doi.org/10.1007/s10796-021-10219-4>
- Kar, A. K., Varsha, P. S., & Rajan, S. (2023). Unravelling the impact of generative artificial intelligence (GAI) in industrial applications: A review of scientific and grey literature. *Global Journal of Flexible Systems Management*, 24(4), 659–689. <https://doi.org/10.1007/s40171-023-00356-x>
- Kennedy, P. S. J. (2023). Digitalization of Education: Artificial Intelligence in Higher Education. In *Proceedings of the National Seminar of Abdurachman Saleh Situbondo University* (Vol. 2, No. 1, pp. 205-215). LPPM Abdurachman Saleh Situbondo University.
- Marlin, K., Tantrisna, E., Mardikawati, B., Anggraini, R., & Susilawati, E. (2023). Benefits and Challenges of Using Artificial Intelligences (AI) Chat GPT on the Ethics and Student Competency Education Process in Higher Education. *Innovative: Journal Of Social Science Research*, 3(6), 5192-5201.
- Meiriza, M. S., Sembiring, G. B., Sitorus, M., Wardana, V., & Sakinah, N. (2024). The Effect of AI Use on Learning Interest among Students: A Case Study on Generation Z. *AR-RUMMAN: Journal of Education and Learning Evaluation*, 1(2), 319-327.
- Pratiwi, R. B. A., Naufal, M., Prameswari, F. E., Faiz, F., Putri, N. D., Al Fazza, R., & Setyaputri, N. Y. (2025). The Transformation of Multicultural Counseling: The Use of Artificial Intelligence (AI) on Generation Z's Self-Confidence and Learning Motivation. *Proceedings of Nusantara Wisdom Counseling (KKN)*, 4, 943-958.
- Rochmah, T. S. (2023). Analysis builds engagement and communication of Gen Z with artificial intelligence in higher education. *NUSRA: Journal of Research and Education*, 4(3), 694-699.
- Saumantri, T., Bisri, B., & Nawawi, F. (2024). Ethics in Using Artificial Intelligence (AI) in Generation Z at the Syariful Anam Islamic Boarding School, Cirebon City. *Journal of Community Service and Empowerment of the Riau Islands (JPPM Kepri)*, 4(1), 21-29.
- Sarker, I. H. (2022). AI-based modeling: Techniques, applications and research issues towards automation, intelligent and smart systems. *SN Computer Science*, 3(2), 158. <https://doi.org/10.1007/s42979-022-01043-x>
- Subiyantoro, H., Hartono, R., Fitriati, S. W., & Faridi, A. (2023, June). The impact of artificial intelligence (AI) on English teaching in college: Challenges and opportunities. In *Proceedings of the National Postgraduate Seminar* (Vol. 6, No. 1, pp. 346-349).

Verma, S., Sharma, R., Deb, S., & Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. *International Journal of Information Management Data Insights*, 1(1), Article 100002. <https://doi.org/10.1016/j.jjime.2020.100002>