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TRANSFORMING OF EDUCATION IN THE ERA OF AL: BETWEEN ETHICS, TECHNOLOGY, AND GLOBAL COMPETENCE

Enita Oktavia Harahap[1], Winda Wahyu Pratama[2], Kustanto Widyatmoko[3], Fatmi Azzahra[4]
[1234]Universitas Islam Syekh Yusuf Tangerang

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Abstract

The development of Artificial Intelligence (AI) has had a significant impact on the world of education, encompassing teaching methods, curriculum design, and evaluation systems. This study aims to analyze the transformation of education in the AI era by emphasizing the interrelationships between ethical aspects, technology utilization, and strengthening global competencies. The research method uses a descriptive qualitative approach through a literature review sourced from scientific journals, policy documents, and relevant international reports. The results show that AI plays a strategic role in enhancing personalized learning, providing a more efficient evaluation system, and expanding access to education, particularly in remote areas. However, its implementation also presents ethical challenges, such as data privacy issues, potential algorithm bias, and the risk of unequal access due to the digital divide. In facing these dynamics, the younger generation is required to master global competencies, including digital literacy, critical thinking skills, cross-cultural communication, and collaborative skills to adapt to the rapid changes in the digital era. This study confirms that AI-based educational transformation can only be optimal if there is a balanced integration of technology, ethics, and global competencies in the curriculum, as well as the support of adaptive, inclusive, and sustainable national policies, especially in developing countries.

Keywords: *artificial intelligence, educational transformation, digital ethics, global competence*

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Corresponding Author:
Enita Oktavia Harahap
pps@unis.ac.id

1. Introduction

The development of Artificial Intelligence (AI) is increasingly rapid and has a significant impact on the world of education, not only on teaching methods that are becoming more interactive and adaptive, but also on the personalization of learning that allows each student to gain a learning experience according to their needs, abilities, and learning style (Oktavianus et al., 2023). Furthermore, the evaluation system has undergone a transformation with the advent of AI technology, which provides instant feedback, real-time learning data analysis, and more objective and comprehensive assessments. The implementation of AI in education also opens up opportunities for the creation of more flexible hybrid learning models, the integration of technology into the curriculum, and increased access to quality education in various regions, including remote areas. However, this development also raises new challenges, such as ethical issues regarding data use, the digital divide, and the readiness of educators to adapt to this advanced technology (Guerrero-Quiñonez et al., 2023).

Artificial Intelligence (AI) presents a huge opportunity to increase the effectiveness of education through optimizing the teaching-learning process, providing more relevant learning materials (Fauzi et al., 2025), and providing fast and accurate feedback to students. This technology can support personalized learning, help educators analyze student progress more deeply, and expand access to global educational resources. However, behind these

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opportunities, AI also poses ethical challenges that cannot be ignored, such as the issue of student data privacy that is vulnerable to misuse, the potential for algorithmic bias that can create discrimination in the evaluation process and learning recommendations, and inequality in technology access that has the potential to widen the gap between groups in society that have digital resources and those that do not. Therefore, the use of AI in education requires clear regulations, strong ethical governance, and collaborative efforts between governments, educational institutions, and communities to ensure that this digital transformation is inclusive, equitable, and sustainable (Kudriani et al., 2023).

Globalization demands that students have global competencies that are not only limited to mastery of academic knowledge, but also 21st century skills that are relevant to the dynamics of international society (Nuriyati & Chanifudin, 2020). These competencies include digital literacy, which enables them to utilize technology effectively and responsibly, critical thinking to analyze information and make informed decisions in complex situations, cross-cultural collaboration skills to work with individuals from diverse backgrounds, and the ability to adapt to rapidly evolving technology. In this context, education is required to integrate a global citizenship-based curriculum, broadening students' horizons on international issues, while instilling the values of tolerance, empathy, and ethical awareness in the use of technology. Thus, students are not only prepared to face local challenges but also able to compete, contribute, and play an active role in an increasingly connected global society (Wulandari et al., 2024).

Curricula and education systems in many countries, including Indonesia, still focus on traditional cognitive aspects that emphasize memorization, mastery of theory, and academic achievement alone, while 21st-century skills such as digital literacy, creativity, collaboration, and adaptability to technological developments have not been fully integrated into the learning process. This condition indicates that the world of education still faces a significant gap in preparing the younger generation to face the AI era, which demands flexibility, critical thinking, and multidisciplinary competencies (Chandra Wijaya, 2024).

In Indonesia, despite reform efforts through the Merdeka Belajar program, school digitalization, and competency-based curriculum development, its implementation still faces various obstacles, such as limited technological infrastructure, educator readiness, and disparities in access to education between urban and rural areas.(Setiyadi et al., 2025)As a result, the education system has not fully utilized AI's potential as a tool for learning, classroom management, and educational evaluation. Therefore, strategic steps are needed, including curriculum updates that are responsive to technological developments, intensive training for educators, and inclusive policies that ensure every student has an equal opportunity to acquire relevant skills in the digital and artificial intelligence era.

There is a significant gap between the rapid advancement of technology and the readiness of educational institutions to integrate ethical aspects and global competencies into the educational transformation process (Ul Hassan et al., 2025). On the one hand, technological developments such as Artificial Intelligence (AI), big data, and the Internet of Things (IoT) have opened up significant opportunities to accelerate the digitalization of learning, create more adaptive education systems, and provide broader access to global knowledge resources. However, on the other hand, many educational institutions still focus solely on mastering technical aspects and have not optimally instilled ethical values in the use of technology, such as digital responsibility, data privacy, and awareness of potential algorithmic bias.

Furthermore, the integration of global competencies such as digital literacy, cross-cultural collaboration skills, and readiness to face global challenges is still being implemented partially and has not yet become a full part of the curriculum. This gap risks producing a generation that is technically proficient but lacks ethical sensitivity and global understanding, both of which are crucial for building an inclusive, sustainable, and relevant education ecosystem to meet the demands of the 21st century (Nisa et al., 2024). Therefore, educational institutions need to undertake fundamental reforms by strengthening multidisciplinary curricula that combine technology, ethics, and global competencies, while

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also preparing educators to be facilitators of educational transformation that balances technical aspects and human values.

Many previous studies have focused solely on the use of AI technology in education without comprehensively linking it to issues of ethics and global competency. Studies on the ethical aspects of AI-based education are also limited, generally focusing only on data privacy issues, while the moral, social, and cultural dimensions have not been widely explored. Furthermore, research specifically addressing the integration of AI, ethics, and global competency into educational curricula is still rare, especially in the context of developing countries like Indonesia, which face challenges in infrastructure, the digital divide, and human resource readiness (Schiff, 2022).

The novelty of this research lies in its attempt to present a multidisciplinary perspective by connecting three important aspects simultaneously: ethics, technology, and global competencies in the context of educational transformation in the AI era. This research does not only view AI as a technological instrument, but also offers a new conceptual framework on how AI can be implemented in the education system without neglecting ethical values, such as fairness, privacy, and social responsibility, while remaining aligned with the demands of global competencies that include digital literacy, cross-cultural collaboration, and adaptability. Thus, this research makes a significant contribution to the education literature through a holistic approach that integrates technology, ethics, and global skills, a perspective that is still rarely addressed in previous studies, especially in developing countries.

The purpose of this research is to analyze how the development of Artificial Intelligence (AI) is transforming the education system, both in terms of teaching methods, curriculum design, and learning management, so that we can understand the extent to which this technology affects the educational process as a whole. This research also aims to evaluate various ethical challenges that arise in the application of AI in education, including issues of data privacy, algorithmic bias, access equity, and its implications for moral and social values. In addition, this research seeks to identify global competencies needed by the younger generation, such as digital literacy, critical thinking, cross-cultural collaboration, and technological adaptability, so that they are ready to face the dynamics of the AI-based digital era. Ultimately, this research is directed at formulating a conceptual model of educational transformation in the AI era that balances technological innovation, ethical integrity, and the development of global competencies, so that it can serve as a reference for policymakers, educators, and educational institutions in designing relevant, inclusive, and sustainable educational strategies.

2. Method

This research method uses a descriptive qualitative approach to understand the phenomenon of educational transformation in the AI era with a focus on multidisciplinary studies involving ethical, technological, and global competency perspectives (Nasir & Sunardi, 2025). The type of research used is a literature review of scientific journals, books, research reports, and educational policies related to the implementation of AI, and can be strengthened by case studies in educational institutions. Data sources come from both international and national academic literature, educational policy documents such as national regulations on AI, digital-based curricula, global competency standards, and reports from international organizations such as UNESCO, OECD, and the World Economic Forum. Data collection techniques were carried out through literature searches in scientific databases (Google Scholar, Scopus, Web of Science), government policy documentation, international institution reports, and optionally in-depth interviews with educators, students, or experts in AI in education. Data analysis was carried out using content analysis to identify key themes related to ethics, technology, and global competencies. Then, key issues were categorized into opportunities, challenges, and implications for the application of AI in education. The literature findings were synthesized to formulate a conceptual model of educational transformation in the AI era. The research location is non-field-based because it is literature-based with a global scope, while the research time was August 2025.

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3. Results and Discussion

Research shows that Artificial Intelligence (AI) in education has played a significant role in supporting personalized learning, evaluation automation, and learning material recommendation systems. AI-based learning platforms have been shown to improve the efficiency of the learning process, although their effectiveness is highly dependent on the readiness of educators to integrate technology. However, the use of AI also raises ethical challenges, such as issues of student data privacy, information security, and the potential for algorithmic bias that can impact learning equity. In addition, the risk of diminishing the role of teachers if not balanced with a humanistic approach. On the other hand, the younger generation is required to master global competencies in the form of digital literacy, cross-cultural communication, critical thinking skills, and problem-solving, with AI-based education emphasizing the importance of lifelong learning so that students are more adaptive to technological changes. However, there is a significant implementation gap, where schools and universities in developed countries are relatively more prepared to adopt AI, while developing countries like Indonesia still face obstacles such as limited technological infrastructure, suboptimal policies, and low digital literacy.

Table 1. Research Results on Educational Transformation in the AI Era

Main Aspects	Research Findings	Implications
The Role of AI	AI is used for personalization of learning, automation of evaluation, and recommendation systems.	Improving learning efficiency, however, requires educator readiness to prevent inequality.
Ethical Challenges	Data privacy, information security, and algorithmic bias are key issues.	Regulation and ethical literacy are needed so that the use of AI does not harm students.
Global Competence	The younger generation is required to master digital literacy, critical thinking, and cross-cultural communication.	AI should be directed towards strengthening soft skills that support global competitiveness.
The gap	Developing countries still face limitations in digital infrastructure and literacy.	Affirmative policies are needed to reduce the digital divide in the education system.
Policy Implications	The curriculum has not yet fully incorporated the integration of AI, ethics, and global competencies.	The government needs to design a national curriculum framework that is holistic and adaptive to technology.

Source: 2025 data processing results

The table above summarizes the main research findings on educational transformation in the AI era. Regarding the role of AI, this technology has been shown to improve learning efficiency through personalization and automation, but it still requires educator preparedness to prevent new gaps. From an ethical perspective, issues of privacy and algorithmic bias have emerged, potentially harming students if not addressed through regulations and digital literacy. The aspect of global competence suggests that education

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must be directed not only at mastering technology but also at strengthening soft skills relevant to global challenges. Meanwhile, significant gaps remain between developed and developing countries in AI adoption due to limited infrastructure. Finally, from a policy perspective, curriculum reform that comprehensively integrates technology, ethics, and global competence is needed to ensure a truly positive educational transformation.

AI as a catalyst for educational transformation

AI is not just a tool to assist in the educational process, but rather a driver for the birth of a new paradigm that prioritizes data-based learning and personalization (Nadya et al., 2025). Through big data analysis, AI can more accurately map the needs, abilities, and learning styles of each student, allowing for individualized and more effective learning experiences. This new paradigm shifts the role of education from a uniform approach to a more flexible, adaptive, and learner-centered model. Thus, AI not only improves the efficiency of the teaching and learning process but also opens up space for the creation of pedagogical innovations that are more relevant to the demands of the 21st century.

However, without clear regulations and strong ethical oversight, the use of AI in education has the potential to create inequities within the education system. This inequity can manifest itself in various forms, such as discrimination due to algorithmic bias that results in non-objective learning recommendations, privacy violations due to weak student data protection, and disparities in access between schools with adequate technological infrastructure and those without (Kasman et al., 2025). If left unchecked, this will not only widen the digital divide between regions and social groups, but it could also diminish the role of teachers as educators who instill humanistic values in the learning process. Therefore, comprehensive policies, transparent technology governance, and an ethical framework that supports social justice are needed so that the use of AI can truly become an inclusive instrument for improving the quality of education, rather than deepening inequality (Hassen, 2025).

Ethics as the main foundation

The implementation of AI in education must be accompanied by comprehensive regulations oriented toward protecting student interests, particularly regarding privacy, algorithm transparency, and fair access. Privacy is crucial because AI use relies heavily on students' personal data, necessitating strict security standards to prevent misuse of information (Shamsuddinova et al., 2024). Algorithmic transparency is also crucial so that AI decision-making processes, such as material recommendations or learning evaluations, can be understood, monitored, and accounted for, thereby reducing the risk of bias or discrimination. Furthermore, equitable access must be ensured so that AI technology is enjoyed not only by schools and students in urban areas with adequate digital infrastructure, but also reaches remote, often marginalized areas. With clear regulations, AI implementation can be inclusive, fair, and ethical, and truly become a means of sustainable educational transformation (Baharuddin et al., 2025).

Digital ethics needs to be taught as a basic competency in the education system, because the success of technological literacy is not only measured by students' ability to master digital devices, but also by the extent to which they are able to use technology wisely, safely, and responsibly (Sugiarto & Farid, 2023). With an understanding of digital ethics, students can be more critical in responding to the flow of information, maintain the privacy of personal data, avoid plagiarism and the spread of hoaxes, and respect the digital rights of others. Furthermore, instilling digital ethics from an early age also helps shape the character of a younger generation who are aware of the social and moral impacts of their online activities, so that technology is not only interpreted as a practical tool, but also as a medium of interaction that must be carried out with the principles of responsibility, empathy, and integrity. Thus, the integration of digital ethics into the curriculum is a strategic step in preparing students who are not only technologically literate but also have an ethical awareness in its use in the era of AI and globalization (Biagini, 2025).

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Global competence as a goal of 21st century education

AI should be used as a tool to strengthen global competencies, not simply viewed as a technology that replaces humans in education. The use of AI can be directed to support digital literacy, expand access to knowledge across borders, and encourage international collaboration that enriches students' learning experiences (Jamilah et al., 2024). Through AI, students can practice critical thinking by analyzing data more deeply, communicating and collaborating with individuals from diverse cultural backgrounds, and developing the ability to adapt to rapid technological change. In this way, AI not only improves learning efficiency but also serves as a catalyst for developing global skills relevant to the demands of the 21st century. The focus of education should not be on completely replacing teachers or traditional processes, but rather on leveraging AI as a strategic partner that helps students build global competencies in an inclusive, ethical, and sustainable manner.

Education in the AI era must emphasize the development of soft skills such as collaboration, empathy, and communication, as these are aspects of humanity that cannot be fully replaced by technology. While AI can automate various aspects of learning, provide data analysis, and tailor materials to individual needs, it lacks the emotional capacity or social sensitivity necessary to build relationships between people. Soft skills are a crucial foundation for students facing the increasingly complex world of work and social life, where the ability to collaborate across cultures, understand others' perspectives, and effectively convey ideas is essential. By balancing the use of AI with the strengthening of soft skills, education can produce a generation that is not only intellectually intelligent and technologically literate, but also has character, empathy, and is able to interact humanely in a global society (Alkhajar et al., 2025).

Opportunities and challenges in Indonesia

One of the major opportunities from the application of AI in education is its ability to expand access to quality education, especially in remote areas that have faced limitations in teaching staff, facilities, and learning resources (Alkhajar et al., 2025). Through AI-based learning platforms, students in these regions can access digital learning materials comparable to those available in urban areas, complete with personalized features tailored to their abilities and needs. AI can also provide virtual tutors, automated evaluation systems, and interactive content that help increase learning engagement even without the presence of a teacher in person. This way, educational disparities due to geographic factors can be minimized, while also opening up opportunities for students in remote areas to acquire competencies relevant to global demands. However, for this opportunity to be truly realized, digital infrastructure support, inclusive policies, and mentoring programs are needed to ensure equitable access and utilization of AI technology.

The main challenges in implementing AI in education include the digital divide, the lack of educators skilled in utilizing the technology, and the lack of comprehensive national policies as a foundation for implementation. The digital divide remains a serious obstacle, particularly in developing countries, where access to internet infrastructure, technological devices, and digital literacy is uneven between urban and rural areas. Furthermore, many educators lack the skills or readiness to effectively integrate AI into the learning process, resulting in the technology often not being utilized optimally. Another challenge is the lack of comprehensive national regulations and policies regarding the use of AI in education, covering aspects of curriculum, ethics, data protection, and equitable access. Without clear policies and ongoing training support for educators, the use of AI risks only deepening educational inequalities rather than becoming a means of inclusive and sustainable transformation (Supriyatmoko et al., 2025).

Policy and practice implications

There is a need for a national curriculum framework that systematically integrates AI, ethics, and global competencies as part of a long-term education strategy. This curriculum should not only focus on mastering the technical aspects of AI but also instill an ethical understanding of data privacy, digital responsibility, and awareness of potential algorithmic

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bias. Furthermore, the curriculum should guide students to develop global competencies, such as digital literacy, cross-cultural collaboration, critical thinking, creativity, and the ability to adapt to technological change. With a comprehensive curriculum framework, education can produce a generation that is not only proficient in using AI but also possesses moral integrity and is ready to compete internationally. Furthermore, this integration will help create an education system that is more inclusive, humanistic, and relevant to the needs of the 21st century (Nature, 2023).

Improving the capacity of teachers and lecturers is key to the successful implementation of AI-based education, as they serve as the primary facilitators in connecting technology with students' learning needs. Without adequate skills, the use of AI risks becoming merely a formality or even creating new gaps in the learning process. Teachers and lecturers need to be equipped with ongoing training that encompasses a technical understanding of AI use, the ability to analyze learning data, and the integration of technology with a humanistic pedagogical approach. Furthermore, capacity building must also encompass aspects of digital ethics so that educators can guide students in using AI wisely, fairly, and responsibly. With competent teachers and lecturers, AI can be utilized not only as a tool but also as a strategic partner in creating more personalized, interactive, and relevant learning that meets the demands of the digital era.

3. Conclusions and Suggestions

AI has become a catalyst for educational transformation, opening up significant opportunities for personalized learning, automated evaluation, and increased access to education. Its effectiveness still depends heavily on educator readiness and infrastructure availability. Ethical challenges such as data privacy, information security, and the potential for algorithmic bias require strict regulations and the strengthening of ethical literacy among educators and students. On the other hand, global competencies such as digital literacy, critical thinking, cross-cultural collaboration, and other soft skills are essential for the younger generation to compete in the digital age. However, implementation gaps persist between developed and developing countries, particularly in infrastructure, digital literacy, and educational policy. Therefore, educational transformation in the AI era will only be optimal if there is a balanced integration of technology, ethics, and global competencies in the curriculum and learning practices. Policy implications emphasize the importance of designing a national curriculum that is adaptive to technological developments, grounded in ethics, and capable of equipping students with relevant global competencies.

Bibliography

Alam, A. (2023). Developing a Curriculum for Ethical and Responsible AI: A University Course on Safety, Fairness, Privacy, and Ethics to Prepare Next Generation of AI Professionals. In G. Rajakumar, K.-L. Du, & Á. Rocha (Eds.), *Intelligent Communication Technologies and Virtual Mobile Networks* (Vol. 171, pp. 879–894). Springer Nature Singapore. https://doi.org/10.1007/978-981-99-1767-9_64

Alkhajar, E. N. S., Utari, P., Anggreni, L. S., Hermawati, T., Yudiningrum, F. R., Surwati, C. H. D., Fitri, A., & Pramana, P. (2025). Menjadi Komunikator Kritis di Era AI: Penyusunan Materi Pelatihan Human-Machine Communication (HMC) untuk Mahasiswa. *KOMUNITA: Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, *4*(2), 111–124. https://doi.org/10.60004/komunita.v4i2.152

Baharuddin, B., Sahidin, S., Kholilah, A., & Yanuar, F. A. (2025). Pendidikan Islam dalam Era Kecerdasan Buatan: Membangun Peradaban Berbasis Etika dan Teknologi di Indonesia. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *8*(4), 3782–3791. https://doi.org/10.54371/jiip.v8i4.7432

Biagini, G. (2025). Towards an AI-Literate Future: A Systematic Literature Review Exploring Education, Ethics, and Applications. *International Journal of Artificial Intelligence in Education*. https://doi.org/10.1007/s40593-025-00466-w

Chandra Wijaya, A. (2024). The Effectiveness of Traditional and Modern Memorization Techniques for Quranic Learning in Indonesia. *Edu Spectrum: Journal of*

Multidimensional Education, *1*(1), 38–47. https://doi.org/10.70063/eduspectrum.v1i1.27

Fauzi, M. R., Zahro, S. F., Bashith, A., & Hakim, M. J. M. (2025). Peluang dan Tantangan Integrasi Artificial Intelligence Dalam Evaluasi Pembelajaran Pendidikan Agama Islam. *EDUCASIA: Jurnal Pendidikan, Pengajaran, Dan Pembelajaran*, *10*(2), 217–227. https://doi.org/10.21462/educasia.v10i2.345

Guerrero-Quiñonez, A. J., Bedoya-Flores, M. C., Mosquera-Quiñonez, E. F., Ango-Ramos, E. D., & Lara-Tambaco, R. M. (2023). Hybrid Education: Current Challenges. *Ibero-American Journal of Education & Society Research*, *3*(1), 276–279. https://doi.org/10.56183/iberoeds.v3i1.629

Hassen, M. Z. (2025). Beyond the algorithm: Applying critical lenses to AI governance and societal change. *AI and Ethics*. https://doi.org/10.1007/s43681-025-00781-x

Jamilah, W. S. N., Halimah, L., & Puspita, N. T. (2024). Pemanfaatan Artificial Intelligence terhadap Kompetensi Pedagogik Guru. *IQRO: Journal of Islamic Education*, *8*(1), 388–404. https://doi.org/10.24256/iqro.v8i1.6857

Kasman, R. A., Burhan, & Abdul Munir Hb. (2025). Peran dan Tantangan Kecerdasan Buatan (AI) dalam Pendidikan Tinggi: Implementasi dan Implikasi Etis. *Jurnal Pendidikan Dan Pembelajaran*, *5*(1), 24–33. https://doi.org/10.62388/jpdp.v5i1.523

Kudriani, N., Murdana, F., & Muriati, L. (2023). Transformasi Digital dalam Pendidikan: Tantangan dan Peluang Penerapan Kecerdasan Buatan dalam Proses Pembelajaran. *Jurnal Literasi Digital*, *3*(3), 129–139. https://doi.org/10.54065/jld.3.3.2023.596

Nasir, M., & Sunardi, S. (2025). REORIENTASI PENDIDIKAN ISLAM DALAM ERA DIGITAL: TELAAH TEORITIS DAN STUDI LITERATUR. *Al-Rabwah*, *19*(1), 056–064. https://doi.org/10.55799/jalr.v19i1.688

Nisa, Y. N., Apriliyana, A., Nasikhin, N., & Fihris, F. (2024). Relevansi Peran Filsafat dan Teknologi terhadap Pembentukan Karakter Generasi Muda di Era Globalisasi. *Journal of Gender and Millennium Development Studies*, *1*(2), 81–92. https://doi.org/10.64420/jgmds.v1i2.157

Nuriyati, T., & Chanifudin, C. (2020). Pendidik Millenial di Era Globalisasi. *ASATIZA: Jurnal Pendidikan*, *1*(3), 361–372. https://doi.org/10.46963/asatiza.v1i3.118

Oktavianus, A. J. E., Naibaho, L., & Rantung, D. A. (2023). Pemanfaatan Artificial Intelligence pada Pembelajaran dan Asesmen di Era Digitalisasi. *JURNAL KRIDATAMA SAINS DAN TEKNOLOGI*, *5*(02), 473–486. https://doi.org/10.53863/kst.v5i02.975

Revalya Nadya, Ika Amalia, & Ichsan Fauzi Rachman. (2025). Analisis Potensi dan Tantangan dalam Penggunaan AI di Bidang Pendidikan. *Semantik : Jurnal Riset Ilmu Pendidikan, Bahasa Dan Budaya*, *3*(2), 295–309. https://doi.org/10.61132/semantik.v3i2.1705

Schiff, D. (2022). Education for AI, not AI for Education: The Role of Education and Ethics in National AI Policy Strategies. *International Journal of Artificial Intelligence in Education*, *32*(3), 527–563. https://doi.org/10.1007/s40593-021-00270-2

Setiyadi, M. W., Ardiansyah, A., Muharyati, Y., & Komalasari, L. I. (2025). Tantangan dan Upaya Penerapan Kurikulum Merdeka di Era Digital: Literatur Review. *Jurnal Ilmiah Profesi Pendidikan*, *10*(2), 1721–1735. https://doi.org/10.29303/jipp.v10i2.2912

Shamsuddinova, S., Heryani, P., & Naval, M. A. (2024). Evolution to revolution: Critical exploration of educators' perceptions of the impact of Artificial Intelligence (AI) on the teaching and learning process in the GCC region. *International Journal of Educational Research*, *125*, 102326. https://doi.org/10.1016/j.ijer.2024.102326

Sugiarto, & Farid, A. (2023). Literasi Digital Sebagai Jalan Penguatan Pendidikan Karakter Di Era Society 5.0. *Cetta: Jurnal Ilmu Pendidikan*, *6*(3), 580–597. https://doi.org/10.37329/cetta.v6i3.2603

Supriyatmoko, S., Anam, K., & Kurniawan, W. (2025). MODEL PEMBELAJARAN ADAPTIF BERBASIS KECERDASAN BUATAN: PELUANG DAN TANTANGAN DALAM MEWUJUDKAN PENDIDIKAN PERSONALISASI. *STRATEGY: Jurnal Inovasi*

Strategi Dan Model Pembelajaran, *5*(1), 36–45. https://doi.org/10.51878/strategi.v5i1.4944

Ul Hassan, M., Murtaza, A., & Rashid, K. (2025). Redefining Higher Education Institutions (HEIs) in the Era of Globalisation and Global Crises: A Proposal for Future Sustainability. *European Journal of Education*, *60*(1), e12822. https://doi.org/10.1111/ejed.12822

Wulandari, A., Alfiani, F., & Saputra, T. (2024). Pentingnya Mengintegrasikan Pendidikan Kewarganegaraan dalam Kurikulum Sekolah Melalui Perspektif Global. *Jurnal Pendidikan Guru Sekolah Dasar*, *1*(3), 11. https://doi.org/10.47134/pgsd.v1i3.511