



Balancing Innovation and Integrity: Students' Practices in Using AI for Academic and Creative Tasks

Atiqa Nur Latifa Hanum¹, Dewi Ismu Purwaningsih²

^{1,2}Department of Language and Art, Universitas Tanjungpura, Indonesia

*Email: dewi.ismu.purwaningsih@fkip.untan.ac.id

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ABSTRACT

Purpose- This study aims to describe students' practices in using AI as a creative partner in coursework, analyze strategies that support creativity and critical thinking, and explore ethical challenges, including plagiarism.

Methodology- This is a qualitative phenomenological approach; data were collected through non-participant observations and in-depth interviews with students and librarians from five universities in Pontianak. The study also utilized secondary sources and NVivo software to manage, code, and visualize data.

Finding- The findings reveal that students use AI tools such as ChatGPT, Google Bard, and other AI-based platforms to complete assignments, search for references, and create multimedia content. AI was reported to increase efficiency, support creative exploration, and personalize learning experiences. However, risks such as overdependence, plagiarism, and reduced independent thinking were also evident. Educators emphasized the need for digital and AI literacy training to ensure ethical and responsible use of AI.

Contribution- AI provides significant benefits in supporting academic and creative tasks but simultaneously poses ethical and pedagogical challenges. The study recommends developing institutional policies, training programs, and guidelines that balance innovation with academic integrity.

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INTRODUCTION

Technological developments, particularly artificial intelligence (AI), have had a significant impact on various aspects of life, including education. In this era of digitalisation, the use of artificial intelligence (AI) has become increasingly relevant, especially in enhancing student productivity and creativity. This has led to a changing academic landscape, with a tangible contribution to improving productivity and creativity. On the other hand, excessive reliance on AI raises concerns that students' critical thinking and creativity will decline if they rely too heavily on AI-generated outputs. In addition, the authenticity of work, plagiarism, and lack of control over the sources and quality of information accessed by AI are important issues. In the

Indonesian context, although there have not been many formal studies in reputable journals, several internal reports note that the efficiency gains from using ChatGPT often raise doubts about the depth of analysis and the originality of ideas.

So far, studies in education have tended to be descriptive or perception-based surveys, and few have highlighted concrete practices of students using AI as "creative partners". Questions such as when do students choose to use AI, how do they maintain originality, and what strategies are used so that AI helps without dominating the thinking process, are still rarely answered. For example, a survey at Tanjungpura University found that students who were overly dependent on AI reported a decline in their creativity and analytical abilities. However, the study did not distinguish between task types (creative vs. normative) or cross-disciplinary contexts.

In addition to creative and analytical aspects, AI literacy and general digital literacy are important theoretical foundations for understanding how effectively students can use AI. AI literacy includes understanding the capabilities and limitations of AI, potential biases, authenticity of output, data privacy, and the ethical consequences of using AI. In the study "The Use of Artificial Intelligence (AI) to Improve Student Literacy Skills" (Fitriani & Arfini, 2025), most students reported having adequate digital literacy skills and viewed AI as a tool. However, they also expressed concerns regarding academic integrity and a decline in creativity (Fitriani & Arfini, 2025). Other studies also note that evaluating AI literacy is an educational challenge that has not been fully addressed (Febrianti et al., 2025).

Adaptive learning and scaffolding theories can serve as conceptual frameworks for explaining how AI serves as creative support. AI can play a role in providing initial scaffolding in the form of rough ideas, text structures, or writing style choices, which are then edited and developed by students. However, scaffolding must be designed to avoid limiting students' independent thinking and critical reflection. In a literature review of AI use published in technical journals, it was found that students appreciate the adaptive flexibility of AI but remain concerned about the potential for plagiarism and the implications for educational ethics.

Academic ethics are a crucial component of implementing AI in educational settings. Normative theories such as justice, responsibility, and academic integrity must serve as a foundation to ensure that the use of AI does not undermine academic values. In the international literature, studies emphasise the importance of transparency, accountability, and fairness as ethical principles for AI (Yan et al., 2023). The theoretical framework of student agency (as active learning agents) and self-determination theory is also highly relevant to understanding how students choose when and how to use AI. Students with high agency are more likely to use AI as a tool – not as a substitute for creativity or thinking processes – by choosing which parts of the task require AI intervention, critically examining AI outputs, and integrating them with independent thinking. Unfortunately, empirical research in Indonesia specifically exploring agency in AI use remains limited.

Research in Indonesia remains minimal in comparative studies across disciplines, such as comparisons among the social sciences, humanities, science, and engineering in the use of AI for creative and normative tasks. Factors such as local cultural context, institutional campus regulations, the availability of technological infrastructure, and lecturers' readiness as facilitators greatly influence patterns of AI use. For example, the study "Analysis of Student Knowledge about the Use of AI-Based Chatbots" (Hasdiansa et al., 2024) shows that students have basic knowledge and satisfaction with AI chatbots. However, it does not explain creative strategies and ethical considerations in various types of tasks.

Based on these issues and research gaps, this study has the following objectives: (1) to describe Indonesian students' practices in using AI as a creative partner in completing coursework; (2) to analyse specific strategies applied by students so that the use of AI supports creativity, critical thinking, and originality of work; (3) to explore ethical challenges and students' perceptions of AI utilisation – including issues of plagiarism, originality of ideas, limitations of AI, and fairness of access; and (4) to compare practices and strategies across disciplines (where possible) to identify contextual variations.

Theoretically, this research will combine conceptual frameworks from AI literacy/digital literacy, adaptive learning theory, agency/self-determination theory, and academic integrity/educational ethics theory. This research lies in its focus on students' actual practices—rather than perceptions—in using AI as a creative partner, as well as its analysis of strategies for maintaining originality and ethical conduct, which remain understudied in Indonesia. Additionally, this study proposes an initial conceptual model that links AI literacy, student agency, and academic integrity, offering a foundational framework for universities to develop informed policies in the era of generative AI. In addition, social learning and constructivist theories are relevant to understanding student interactions with AI, fellow students, and lecturers in the learning ecosystem. Thus, this research is expected to contribute both theoretically and practically. Theoretically, this research will expand the literature on AI as a creative partner for students, particularly in formulating strategies and ethics for AI use.

METHODOLOGY

Research Design

This study uses a phenomenological study method with a qualitative approach. This study will describe the interactions between students and lecturers as library users and librarians in using their gadgets to utilise AI technology to achieve independence in the campus environment (Nasution, 2023). The analysis of the subjects and objects to be studied will produce empirical data that describes the problems in the activities of individuals and groups involved (Fitrah & Luthfiyah, 2017). The aim is for researchers to study and analyse the information behaviour of several individuals using Artificial Intelligence (AI) technology.

Sample

Researchers will take representative samples of research subjects to identify the digital literacy skills of library users at five universities in Pontianak. These universities are the major universities in West Kalimantan. They were purposively selected to represent different institutional types, thereby allowing heterogeneity in the data. This diversity enriches the phenomenological analysis by providing a broader range of perspectives and experiential variations. Primary data were collected through non-participatory observation of the information behaviour of library users, comprising 10 students from five universities in Pontianak who were actively or passively using AI. They were selected to obtain rich and relevant insights from participants who met specific criteria. The study employed purposive sampling targeting students who had previously used AI to support their academic assignments. To reduce bias and ensure variation, informants were randomly selected from this eligible group. A total of 10 students were recruited as the sample—five from each of the five major universities in West Kalimantan. This distribution ensured adequate contextual diversity, as each institution differs in academic culture, technological policies, and levels of digital literacy.

Data Collection

Data collection involved both primary and secondary sources, with samples recruited through a non-probability snowball sampling technique. The researcher first identified a small number of samples that met the predefined criteria, namely active university students who had used AI during their higher education. Following each interview, they were asked to recommend other students with similar characteristics, thereby expanding the sample through peer networks. Each referred individual was then screened to ensure eligibility before being included in subsequent rounds of data collection. This iterative referral process continued until data saturation was reached, indicated by the recurrence of similar themes and the absence of new insights across interviews.

Data Analysis

Data analysis was carried out using the NVivo programme to assist the researcher in managing and tracking large volumes of unstructured data. The data included interview results, field observations, and audio recordings of interviews. The researcher then attempted to visualise the data using NVivo with Node and Case analysis. The study also adhered to standard research ethics, including obtaining informed consent from each participant, ensuring confidentiality and secure data handling, and granting all informants the right to withdraw from the study at any stage without consequences.

FINDINGS

The findings of this study indicate that AI use has a multifaceted influence on students' productivity and creativity. AI tools are increasingly integrated into students' academic routines, helping them complete tasks, generate ideas, and access information more efficiently. While these technologies offer substantial benefits—particularly in terms of time efficiency and improved task organisation—they also pose potential challenges, mainly when used excessively or without critical engagement. The following table summarizes key aspects of AI's influence on student productivity and creativity, along with their respective positive and negative impacts. The Effect of using AI on students' productivity and creativity is as follows.

Table 1. AI Affects Student Productivity and Creativity Table

No	Aspects of AI Influence	Description	Positive Impact	Negative Impact
1	Enhancing Efficiency in Completing Tasks	AI assists students in finding references and organising assignments more quickly, enhancing efficiency and reducing the time required	Saves time, allowing students to complete more assignments	May reduce the quality of learning if overly reliant on AI
2	Enhancing Creativity and Content Quality	AI facilitates the creation of creative content such as posters, videos, or digital art, supporting the exploration of new ideas.	Improves writing quality and assists students who are not proficient in written language	Students may lose their ability to write independently.
3	Personalised Learning and Time Management	The use of AI enables a learning experience tailored to individual needs, helping students manage their time and focus better.	Accelerating the creative process and providing more time for innovation.	Manual design skills may not develop as well.
4	Reducing physical visits to the library	Students are increasingly using AI to access information, thereby reducing the need to visit the library in person.	Enhancing student engagement with course materials and supporting self-directed learning.	Unguided learning can lead to conceptual misunderstandings.
5	Overcoming Language Barriers and Supporting International Students	AI assists non-native speakers of the language of instruction in writing and understanding academic material, reducing language barriers	Reducing administrative burdens so students can focus on core academic activities.	There are no significant adverse impacts from administrative automation.
6	Facilitating Collaboration and Collaborative Learning	AI supports collaboration in group tasks, facilitates idea sharing, and helps manage projects more efficiently	AI can be an effective tool for tasks requiring quick access to information.	Hinder the development of analytical skills and deep learning abilities.

No	Aspects of AI Influence	Description	Positive Impact	Negative Impact
7	Challenges and Risks of AI Use	Reliance on AI can reduce independent learning abilities and increase the risk of plagiarism, especially when content is copied without understanding.	Enhances collaboration efficiency and accelerates feedback among group members.	Reliance on AI for collaboration may reduce face-to-face interaction.
8	Opportunities to Improve Digital Literacy	The use of AI provides students with opportunities to improve their digital literacy and relevant technological skills.	No significant positive impact.	Increases the risk of plagiarism and undermines academic integrity.

Source: Primary data analysis, 2024

The table above presents the information about the various ways AI affects student productivity. The first column describes the aspects of AI's influence; the second column provides a brief description; and the third and fourth columns detail the positive and negative impacts of each aspect.

The use of AI in libraries enhances student productivity by providing faster, easier access to resources. Students often use AI to assist with academic tasks, such as essay writing, reference searches, and presentations. In improving academic productivity, AI also supports students' creative activities. They use AI to create visual materials, such as posters and videos, for academic projects or extracurricular activities. Students can explore new ideas and produce creative works more efficiently with AI technology. It facilitates more personalised learning by tailoring the learning experience to individual preferences and needs.

Challenges arising from the use of AI in libraries include ethical issues, such as data privacy and the risk of bias. Students acknowledged that reliance on AI may impede the development of essential academic skills, particularly when content is copied or adapted without proper understanding. Risks related to plagiarism and reduced face-to-face interaction in collaborative settings were also highlighted as negative consequences of AI use.

Moreover, the interview findings show that students utilise AI tools such as Google Bard, ChatGPT, and others to complete coursework, search for references, and enhance creativity in multimedia content creation. Students use AI to support academic activities, such as writing assignments and other creative activities. Students tend to utilise AI as a tool to complete challenging assignments, increase engagement with course material, and support the creation of creative projects. It improves the quality of academic writing; generative AI tools, such as Wordtune, help students compose and edit their assignments better. Based on the interview results, many students admitted to using AI to find additional references or restructure sentences for the better.

Furthermore, AI also plays an important role in providing a personalised learning experience for students. Based on interviews, students use AI to understand difficult material more easily, especially when they need additional explanations outside of class. Students can more actively use AI as a supporting tool to manage their own learning processes and develop the critical thinking skills needed in a technology-enriched educational environment. AI also encourages collaborative learning by facilitating interactions between students and group projects. Students were reported to use AI to complete collaborative tasks and gain different perspectives in academic discussions.

AI offers many advantages, but challenges hinder its widespread adoption among students. Based on interviews, some students still feel uncertain about how to use AI effectively, which can reduce their academic productivity. On the other hand, issues related to academic integrity and the ethics of AI use have also arisen, with the risk of plagiarism increasing when students copy AI-generated content without adequate understanding.

The role of educators is crucial in guiding students to use AI ethically and responsibly to address these challenges. Based on the analysis results, several librarians and lecturers suggested training and digital literacy programmes to raise awareness about the prudent use of AI. Such training will also prepare students to face future challenges as AI technology increasingly integrates into everyday life.

DISCUSSION

The findings reveal a widespread and growing dependence on artificial intelligence (AI) among students across diverse academic tasks. Learners consistently used tools such as Google Bard, ChatGPT, and other generative platforms to complete coursework, search for references, and generate preliminary ideas. These tools helped students locate relevant materials, thereby indirectly enhancing assignment quality and strengthening engagement with academic content (Ali et al., 2022). This pattern aligns with literature emphasising AI's role in improving efficiency and supporting academic engagement (Kong, 2024; Chan & Hu, 2023). Students' perceptions of AI as a productivity-enhancing mechanism reinforce claims that generative technologies optimise learning processes and stimulate innovative thinking within higher education.

A key theme concerns AI's significant role in improving students' academic writing. Learners frequently used tools such as Grammarly and Wordtune to refine grammar, enhance clarity, and produce more coherent and structurally organised assignments. Additionally, students relied on AI to locate supplementary references, strengthening their academic arguments. These findings support Mahmud's (2023) assertion that AI promotes sophisticated sentence construction and improves linguistic accuracy. For non-native English speakers, AI serves as a linguistic scaffold, reducing language barriers and supporting the development of academic writing competence (Alharbi, 2023). Thus, AI provides both cognitive and linguistic assistance, enhancing students' communication skills.

The study highlights AI's effectiveness in facilitating personalised and self-regulated learning. Students frequently sought AI-generated explanations, clarifications of complex concepts, and tailored examples suited to their learning needs. This demonstrates AI's broader pedagogical potential as an adaptive system capable of delivering customised learning pathways (Kong, 2024). Such personalised support promotes learner autonomy and deepens engagement with course materials, consistent with self-regulated learning theory.

Despite these benefits, the findings also indicate notable affective limitations. Lin and Chen (2024) argue that AI's repetitive and impersonal interactions may weaken emotional connection and diminish student motivation, ultimately compromising the learning experience. Similar observations in higher education suggest students often perceive a lack of human warmth and emotional support when using chatbots. Alzahrani (2025) notes that even high satisfaction with chatbot performance may coexist with heightened concerns about reduced emotional connection. These concerns underscore AI's limitations in meeting relational and affective needs that remain central to meaningful learning.

AI also contributed significantly to collaborative learning processes. Students used AI to support group discussions through brainstorming, summarization, and evaluating project alternatives. AI's ability to generate diverse perspectives and synthesise information enhanced group decision-making and creativity. These results align with literature highlighting AI's potential to strengthen knowledge sharing and collaborative problem-solving within academic settings. In parallel, libraries employ AI to deliver personalised resource recommendations to users (Baber, 2024).

In addition to academic and conceptual support, AI enhanced students' creative and multimedia projects. Students used AI to generate design ideas, improve visual materials, and refine conceptual frameworks. This reflects findings by Chan and Hu (2023), who observed AI's ability to stimulate creativity through exposure to diverse perspectives and alternative designs. AI, therefore, not only aids academic processes but also fosters creative thinking and digital multimodal literacy—skills increasingly essential in contemporary higher education (Kumar et al., 2020).

Despite its benefits, previous studies highlight risks associated with excessive AI use. Over-reliance on AI systems may reduce students' creativity and innovative capacity. AI dialogue systems decrease time spent on research and information retrieval, potentially fostering complacency and deepening dependency (Duhaylungsod & Chavez, 2023). When students rely heavily on generative AI to complete assignments or produce ideas without applying analytic reasoning, this may weaken their ability for independent thought and critical analysis (Pokkakillath & Suleri, 2023). Heavy dependence on AI for content generation may further impede students' capacity to analyse information, construct logical arguments, and synthesise knowledge—skills essential for academic and professional success (Koos & Wachsmann, 2023).

Several students reported uncertainty about how to effectively utilise AI tools, indicating the need for enhanced digital literacy training. Limited AI literacy restricts the potential benefits of AI integration and increases the likelihood of superficial learning or misuse. These findings corroborate Delcker (2024), who emphasises that students without adequate guidance may underutilise or misuse AI systems.

Issues of academic integrity emerged as a central concern. AI's capacity to process user data raises potential privacy and security risks (Rahmani, 2023). Some students admitted to relying on AI-generated content without fully understanding or correctly citing it, thereby increasing the risk of unintentional plagiarism. These findings highlight the need for institutional policies and explicit instructional support regarding ethical AI use.

The study underscores the essential role of educators—particularly librarians and lecturers—in guiding students toward responsible and ethical use of AI. The call for structured training, digital literacy programmes, and ethics-focused initiatives aligns with recent scholarship emphasising AI literacy as a necessary educational priority (Harisanty et al., 2022; Bongiovanni et al., 2024; Andersdotter, 2023; Enakrire, 2023). Practical guidance can prevent misuse, foster critical engagement, and prepare students for academic and professional environments increasingly shaped by AI technologies.

Overall, the findings demonstrate that AI substantially enhances students' productivity, writing quality, creativity, and collaborative practices. However, these benefits depend on adequate AI literacy and institutional frameworks that promote ethical and informed use. Achieving a balance between innovation and responsibility is therefore critical for leveraging AI as an effective and sustainable educational tool.

CONCLUSION

Students increasingly use AI as a creative partner in coursework, drawing on generative tools to brainstorm ideas, enhance writing, and develop multimedia content, thereby expanding their creative possibilities. However, creativity and critical thinking are strengthened only when AI is used as a scaffold through iterative refinement, comparison of AI suggestions with personal reasoning, and guided digital literacy practices that encourage analytical engagement rather than passive reliance. Alongside these benefits, the study also identifies key ethical concerns, particularly the risk of plagiarism when students rely on AI-generated content without proper evaluation, understanding, or citation. These findings underscore the need for institutional guidance and AI literacy training to ensure responsible, ethical, and cognitively enriching use of AI in academic contexts.

REFERENCES

- Adeleye, O. (2024). Innovative teaching methodologies in the era of artificial intelligence: a review of inclusive educational practices. *World Journal of Advanced Engineering Technology and Sciences*, 11(2), 69–79. <https://doi.org/10.30574/wjaets.2024.11.2.0091>
- Aithal, S., & Aithal, P. S. (2023). Effects of AI-based ChatGPT on higher education libraries. *International Journal of Management, Technology, and Social Sciences*, 95–108. <https://doi.org/10.47992/ijmts.2581.6012.0272>
- Akinwalere, S. N., & Ivanov, V. (2022). Artificial intelligence in higher education: challenges and opportunities. *Border Crossing*, 12(1), 1–15. <https://doi.org/10.33182/bc.v12i1.2015>

- Alenezi, A. (2023). Teacher perspectives on AI-driven gamification: impact on student motivation, engagement, and learning outcomes. *Information Technologies and Learning Tools*, 97(5), 138–148. <https://doi.org/10.33407/itlt.v97i5.5437>
- Alzahrani, A. (2025). Exploring the Impact of Artificial Intelligence Chatbots on Human Connection and Emotional Support Among Higher Education Students. *SAGE Open*. <https://doi.org/10.1177/21582440251340615>.
- Alharbi, W. (2023). AI in the foreign language classroom: a pedagogical overview of automated writing assistance tools. *Education Research International*, 2023, 1–15. <https://doi.org/10.1155/2023/4253331>
- Ali, M. Y., Naeem, S. Bin, & Bhatti, R. (2020). Artificial intelligence tools and perspectives of university librarians: An overview. <https://doi.org/10.1177/0266382120952016>, 37(3), 116–124.
- Andersdotter, K. (2023). Artificial intelligence skills and knowledge in libraries: Experiences and critical impressions from a learning circle. *Journal of Information Literacy*, 17(2), 108–130. <https://doi.org/10.11645/17.2.14>
- Baber, M. (2024). Libraries in the age of intelligent information: AI-driven solutions. *IJASR*, 2(1), 153–176. <https://doi.org/10.59890/ijasr.v2i1.1295>
- Barredo Arrieta, A., Díaz-Rodríguez, N., Del Ser, J., Bennetot, A., Tabik, S., Barbado, A., Garcia, S., Gil-Lopez, S., Molina, D., Benjamins, R., Chatila, R., & Herrera, F. (2020). Explainable artificial intelligence (XAI): Concepts, taxonomies, opportunities, and challenges toward responsible AI. *Information Fusion*, 58, 82–115. <https://doi.org/10.1016/j.inffus.2019.12.012>
- Bobula, M. (2024). Generative artificial intelligence (AI) in higher education: a comprehensive review of challenges, opportunities, and implications. *Journal of Learning Development in Higher Education*, 30. <https://doi.org/10.47408/jldhe.vi30.1137>
- Bongiovanni, E., Beltran, L., Griego, C., Herckis, L., Kawaratani, L. E., Lan, H., McKee, J., & Werlinich, A. (2024). AI Literacy in Academic Library Instruction: An Environmental Scan. <https://doi.org/10.31219/OSF.IO/RCY57>
- Calatayud, V. G., Espinosa, M. P. P., & Vila, R. R. (2021). Artificial Intelligence for Student Assessment: A Systematic Review. *Applied Sciences*, 11(12), 5467. <https://doi.org/10.3390/app11125467>
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20(1). <https://doi.org/10.1186/s41239-023-00411-8>
- Chauke, T. (2024). Postgraduate students' perceptions of the benefits of artificial intelligence tools for academic success: the case of ChatGPT. *Journal of Curriculum Studies Research*, 6(1), 44–59. <https://doi.org/10.46303/jcsr.2024.4>
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial Intelligence in Education: A Review. *IEEE Access*, 8, 75264–75278. <https://doi.org/10.1109/access.2020.2988510>
- Cox, A. M., Pinfield, S., & Rutter, S. (2019). The intelligent library: Thought leaders' views on the likely impact of artificial intelligence on academic libraries. *Library Hi Tech*, 37(3), 418–435. <https://doi.org/10.1108/LHT-08-2018-0105>
- Cox, J. (2019). Communicating New Library Roles to Enable Digital Scholarship: A Review Article. 26–41. <https://doi.org/10.4324/9781315206875-3>
- Delcker, J. (2024). First-year students' AI competence as a predictor of intended and de facto use of AI tools for supporting learning processes in higher education. *International Journal of Educational Technology in Higher Education*, 21(1). <https://doi.org/10.1186/s41239-024-00452-7>
- Duhaylungsod, A. V., & Chavez, J. V. (2023). ChatGPT and other AI users: An innovative, creative, utilitarian value and mindset shift. *Journal of Namibian Studies: History, Politics, Culture*, 33, 4367–4378. <https://doi.org/10.59670/jns.v33i.2791>
- Eden, C. (2024). A review of AI-driven pedagogical strategies for equitable access to science education. *Magna Scientia Advanced Research and Reviews*, 10(2), 44–54. <https://doi.org/10.30574/msarr.2024.10.2.0043>

- Enakrire, R. T., & Oladokun, B. D. (2023). Artificial Intelligence as Enabler of Future Library Services: How Prepared Are Librarians in African University Libraries? *Library Hi Tech News*, 41(3), 1–5. <https://doi.org/10.1108/lhtn-09-2023-0173>
- Fitrah, M., & Luthfiyah. (2017). Metodologi Penelitian; penelitian kualitatif, tindakan kelas & studi kasus. *Jejak*.
- Fitriani, F., & Arfini, B. D. (2025). Utilising Artificial Intelligence (AI) to Improve Students' Literacy Skills. *Transformasi: Journal of Research and Development in Non-Formal & Informal Education*, 11(1), 141–149. <https://doi.org/10.33394/jtni.v11i1.16739> (Undikma E-Journal)
- Febrianti, K. R. (2025). Evaluation of Artificial Intelligence Literacy: Definition and Educational Implications. *JIPTI (Journal of Innovation in Education and Information Technology)*, 5(2). (E-Journal UMM Muara Bungo)
- Fowler, S., Korolkiewicz, M., & Marrone, R. (2023). First 100 days of ChatGPT at Australian universities: an analysis of policy landscape and media discussions about the role of AI in higher education. *LL*. <https://doi.org/10.59453/jmntn6001>
- Hamal, O., Faddouli, N. El, Harouni, M. H. A., & Lu, J. (2022). Artificial Intelligence in Education. *Sustainability*, 14(5), 2862. <https://doi.org/10.3390/su14052862>
- Harisanty, D., Anna, N. E. V., Putri, T. E., Firdaus, A. A., & Noor Azizi, N. A. (2022). Leaders, practitioners, and scientists' awareness of artificial intelligence in libraries: a pilot study. *Library Hi Tech*. <https://doi.org/10.1108/LHT-10-2021-0356>
- Hussain, A. (2023). Use of artificial intelligence in the library services: prospects and challenges. *Library Hi Tech News*, 40(2), 15–17. <https://doi.org/10.1108/lhtn-11-2022-0125>
- Karimi, H., & Khawaja, S. (2023). The Impact of Artificial Intelligence on Higher Education in England. *Creative Education*, 14(12), 2405–2415. <https://doi.org/10.4236/ce.2023.1412154>
- Koos, S., & Wachsmann, S. (2023). Navigating the impact of ChatGPT/GPT4 on legal academic examinations: Challenges, opportunities, and recommendations. *Media Iuris*, 6, 255–270. <https://doi.org/10.20473/mi.v6i2.45270>
- Kong, S. (2024). A pedagogical design for self-regulated learning in academic writing using text-based generative artificial intelligence tools: 6-p pedagogy of plan, prompt, preview, produce, peer-review, portfolio-tracking. *Research and Practice in Technology Enhanced Learning*, 19, 030. <https://doi.org/10.58459/rptel.2024.19030>
- Kumar, S., Marrone, M., Liu, Q., & Pandey, N. (2020). Twenty years of the International Journal of Accounting Information Systems: A bibliometric analysis. *International Journal of Accounting Information Systems*, 39, 100488. <https://doi.org/10.1016/j.accinf.2020.100488>
- Lin, H. & Chen, Q. (2024).
- Lund, B., Oname, I., Tijani, S., & Agbaji, D. (2020). Perceptions toward artificial intelligence among academic library employees and alignment with the diffusion of innovations' adopter categories. *College & Research Libraries*, 865. <https://doi.org/10.5860/crl.81.5.865>
- Mahmud, F. (2023). Investigating EFL students' writing skills through artificial intelligence: Wordtune application as a tool. *Journal of Language Teaching and Research*, 14(5), 1395–1404. <https://doi.org/10.17507/jltr.1405.28>
- Mutia, F. (2024). A comparative analysis of librarians' views on AI support for learning experiences, lifelong learning, and digital literacy in Malaysia and Indonesia. *Nan*. <https://doi.org/10.20944/preprints202405.1380.v1>
- Nasution, A. F. (2023). *Metode penelitian kualitatif* (M. Albina, Ed.). Harfa Creative.
- Nguyen, A. (2024). Editorial: enhancing student engagement through artificial intelligence (ai): understanding the basics, opportunities, and challenges. *Journal of University Teaching and Learning Practice*, 21(06). <https://doi.org/10.53761/caraaq92>
- Ogunleye, B., Zakariyyah, K. I., Ajao, O., Olayinka, O., Sharma, H., et al. (2024). *A Systematic Review of Generative AI for Teaching and Learning Practice*. (Preprint) (arXiv)

- Okunlaya, R. O., Abdullah, N. S., & Alias, R. A. (2022). Artificial Intelligence (AI) Library Services: Innovative Conceptual Framework for the Digital Transformation of University Education. *Library Hi Tech*, 40(6), 1869–1892. <https://doi.org/10.1108/lht-07-2021-0242>
- Pokkakillath, S., & Suleri, J. (2023). ChatGPT and its impact on education. *Research in Hospitality Management*, 13(1), 31–34. <https://doi.org/10.1080/22243534.2023.2239579>
- Priandani, A. P., et al. (2024). *Artificial Intelligence trends in higher education learning*. *Curricula: Journal of Education and Learning*.
- Rahmani, M. (2022). Identifying and evaluating the challenges facing the management of digital libraries. *IJIMOB*, 2(3), 1–11. <https://doi.org/10.61838/kman.ijimob.2.3.1>
- Rasheed, Z. (2023). Harnessing artificial intelligence for personalized learning: a systematic review. *Data & Metadata*, 2, 146. <https://doi.org/10.56294/dm2023146>
- Solanke, S. A. (2024). The prospects of generative AI in higher education. *International Journal of Scientific Research in Engineering and Management*, 08(05), 1–5. <https://doi.org/10.55041/ijsrem32533>
- Sullivan, M., Kelly, A., & McLaughlan, P. (2023). ChatGPT in higher education: considerations for academic integrity and student learning. *Journal of Applied Learning & Teaching*, 6(1), 31–40. <https://doi.org/10.37074/jalt.2023.6.1.17>
- Trang, N. T. Q., & Thu, P. T. (2024). The role of AI in improving student learning outcomes: evidence from Vietnam. *International Journal of Multidisciplinary Research and Analysis*, 07(06), 2806–2810. <https://doi.org/10.47191/ijmra/v7-i06-48>
- Wheatley, A., & Hervieux, S. (2020). Artificial intelligence in academic libraries: An environmental scan. *Information Services and Use*, 39(4), 347–356. <https://doi.org/10.3233/ISU-190065>
- Yao, F., Zhang, C., & Wu, C. (2015). Smart Talking Robot Xiaotu: Participatory Library Service Based on Artificial Intelligence. *Library Hi Tech*, 33(2), 245–260. <https://doi.org/10.1108/lht-02-2015-0010>
- Yan, L., Sha, L., Zhao, L., Martinez-Maldonado, R., et al. (2023). *Practical and Ethical Challenges of Large Language Models in Education: A Systematic Scoping Review*. (Preprint) (arXiv)
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic Review of Research on Artificial Intelligence Applications in Higher Education – Where Are the Educators? *International Journal of Educational Technology in Higher Education*, 16(1). <https://doi.org/10.1186/s41239-019-0171-0>
- Zhang, X. (2022). On the Innovative Work and Development of Library Reader Service in the Era of Artificial Intelligence. *Wireless Communications and Mobile Computing*, 2022, 1–7. <https://doi.org/10.1155/2022/3779660>