

# BEYOND BOOKS: AI LITERACY AND THE FUTURE OF ACADEMIC LIBRARIES

Amira Idayu Mohd Shukry <sup>1\*</sup>  
Mohamad Rahimi Mohamad Rosman <sup>2</sup>  
Roziya Abu <sup>3</sup>

<sup>1</sup> Faculty of Information Science, Universiti Teknologi MARA Kelantan Branch, 18500 Machang, Malaysia; (Email: [amira1220@uitm.edu.my](mailto:amira1220@uitm.edu.my))

<sup>2</sup> Faculty of Information Science, Universiti Teknologi MARA Kelantan Branch, 18500 Machang, Malaysia; (Email: [rahimimr@uitm.edu.my](mailto:rahimimr@uitm.edu.my))

<sup>3</sup> Faculty of Information Science, Universiti Teknologi MARA Puncak Perdana Branch, 40450, Shah Alam, Selangor Darul Ehsan, Malaysia; (Email: [roziya307@uitm.edu.my](mailto:roziya307@uitm.edu.my))

\*Corresponding author: [amira1220@uitm.edu.my](mailto:amira1220@uitm.edu.my)

## Article history

Received date : 9-3-2026

Revised date : 10-3-2026

Accepted date : 24-3-2026

Published date : 15-4-2026

## To cite this document:

Mohd Shukry, A. I., Mohamad Rosman, M. R., & Abu, R. (2026). *Beyond books: AI literacy and the future of academic librarie. International Journal of Accounting, Finance and Business (IJAFB)*, 11 (64), 231-241.

---

**Abstract:** *With the fast emergence of Artificial Intelligence (AI), especially generative AI technologies, the process of creating, accessing, and utilizing knowledge in higher education is changing. These technologies are becoming more and more influential in academic libraries where students and researchers use AI tools to search for information, summarize scholarly materials, and assist them in writing their academic works. Although AI enhances efficiency and access to information, the use of AI also creates issues of information reliability, academic integrity, ethical use, and the evolving role of a librarian in assisting the users in the digital realm of knowledge. This conceptual paper discusses the significance of AI literacy in librarians and its impact on their productivity and how it affects the future of academic libraries. Method that been used is a literature review approach through the analysis of recent academic papers on AI in libraries and AI literacy. As indicated in the analysis, AI literacy is an urgent skill that allows librarians to assess the AI-generated information, direct users on responsible AI usage, and revise library service according to the shifts in technologies. The discussion indicates that by increasing AI literacy among librarians, the level of professional relevance, productivity, and facilitating the evolution of academic libraries to trusted digital knowledge centres in the AI era can be achieved.*

**Keywords:** *Artificial Intelligence (AI), AI Literacy, Academic Libraries, Librarian Roles, Higher Education, Digital Transformation, Information Literacy.*

---

## Introduction

Academic libraries are the heart of any academic institution, where they manage and keep information and knowledge. The creation of generative Artificial Intelligence (AI) applications that can generate human-like text, summarize information, and support academic writing has had a profound impact on academic practices in recent years (Sanz-Tejeda et al., 2025; Thaper, 2025). The universities have also not been left behind in deploying AI technologies to support teaching, learning, research, and institutional management. Today, with the rapid adoption of AI technologies in the domains of education and knowledge, library operations have transformed from passive knowledge repositories to active environments for knowledge creation. AI is changing a lot of things, and libraries are not an exception since they are implementing AI to enhance their services, increase their efficiency, and get in touch with the rapidly expanding digital society (Gruenhagen et al., 2024; Thaper, 2025). At this point, libraries are experiencing a drastic technological shift, no longer relying on the use of traditional digital tools but rather implementing advanced AI systems to improve the user experience and automate the process of routines (Adigun et al., 2024; Narendra et al., 2025; Okoroma, 2024). OpenAI, Google, and Microsoft are technology firms that have hastened the uptake of AI generative systems, in which research writing, data analytics, content creation, and information retrieval functions are now embedded. Students are turning to AI chatbots to work on their academic problems, whereas researchers are using the resources of machine learning to study data and synthesize literature (Archana et al., 2025; Dinçer, 2024; Gruenhagen et al., 2024; Thuy & Tien, 2025). This transformation shows a greater change in how knowledge is created, discovered, and evaluated. AI is already changing access, engagement, and service delivery trends without necessarily eliminating the need for libraries (Ekka, 2025; Okeyo & Rutere, 2025). In order not to be replaced, libraries have to integrate AI as a revolution that is becoming a digitally empowered learning institution (Gotora et al., 2025).

The integration of AI in academic libraries is a paradigm shift that goes much further than the new technological solutions. With the increased influence of generative AI tools in changing the process of producing, accessing, and legitimizing knowledge, academic libraries are confronted with an important need to transform into not information brokers but more important mediators of AI literacy (Ru & Tang, 2025; N. Sousa, 2025). These technological advances are changing the manner in which students and researchers access and communicate with information. Traditional information access and retrieval systems based on databases, online repositories, and search engines are increasingly accompanied by systems powered by AI, which are able to synthesize a response to a complex query. Although they provide a lot of efficiency and productivity, these tools also create certain issues related to the reliability of information, academic integrity, and ethical application (Patterson, 2025; N. M. T. Sousa, 2025). A librarian is the person who guides and helps library users use the library collection and services; they also play an important role in showing students and researchers how to find, evaluate, and use information effectively. Nevertheless, the advent of AI-generated information takes away the role of libraries as mediators. There is a possibility that users will tend to use AI systems instead of libraries and professional advice. Because of this situation, librarians must play their roles in educating library users on how to use AI tools. These changes are not simply concerned with educating the users how to use AI tools, but with the development of the ability to perceive, judge, and ethically interact with the algorithmic infrastructures that are rapidly coming to lead academic communication and the discovery of information (Petricini, 2025; N. M. T. Sousa, 2025).

Libraries need to develop profound competencies in their own ranks prior to be able to efficiently inform their users about the complexities of generative AI. AI Literacy is the human proficiency to understand, critically evaluate, and ethically apply AI technologies across personal, educational, and professional contexts (Pinski & Benlian, 2024; Stolpe & Hallström, 2024). It is a prior requirement that needs to be developed among librarians to keep them relevant in handling users' needs. Librarians must operate within technological innovation and ethical responsibility, even as these converge. The sustainability of academic libraries in the role of a trustworthy source of knowledge in an AI-enhanced environment relies on their capacity to create a workforce that is not only competency-related but also ethically conscious and informed about AI (Monyela & Tella, 2024; N. Sousa, 2025).

Academic libraries have traditionally been significant hubs for managing and delivering academic information. As the concept of AI grows, they are transforming, not going away. The research conducted recently indicates that AI can automate such tedious activities as catalogue and collection management (Bifakhlina, 2024). This allows the librarians to work more on the analytical, creative, and strategic work. Likewise, Mahmud (2024) states that the application of AI in the cataloguing process necessitates the redefinition of the conventional librarian roles. Notably, studies have shown that the developments are associated with professional development and not job displacement. Bifakhlina (2024) concludes that librarians are not going to be irrelevant provided that they enhance their information technology and data analysis skills. Besides that, Mallikarjuna (2024) underlines the need to invest in digital infrastructure and ongoing employee training and set ethical principles that would promote responsible and efficient AI adoption. Generally, AI cannot be considered a threat to the profession of the librarian. Rather, it can facilitate the development and change of the profession. Thus, librarians should become well-trained AI literate so that they can utilize AI tools to their advantage. Prompt quality, in its turn, is directly affected by AI literacy and leads to incorrect or hallucinated answers (Knoth et al., 2024; Nsirim, 2025). Thus, the purpose of the paper is to discuss the influence of AI literacy among librarians on their productivity and the ways it will shape the future of academic libraries.

Throughout this conceptual paper, the connection between AI literacy and the role of librarians in an academic library is examined. The paper presents a review of the current literature on AI in learning and higher education and addresses how AI literacy can influence the future librarian roles in research and learning.

## Literature Review

### Introduction to AI

AI has emerged as one of the most influential technologies across industries such as education, research, and information management. AI refers to computer systems that are expected to perform functions that human minds would usually perform with their own intelligence (Kulkarni, 2024). AI can be defined as the science of intelligent agents, meaning systems that can perceive their environment and make decisions to achieve specific objectives (Garg, 2025). Improvements in machine learning, big data, and computing power have led to the rapid development of AI technologies. One of the key aspects of AI is machine learning, through which a computer system can acquire new knowledge by learning patterns from large volumes of data and enhancing its performance over time without being explicitly programmed (Solanki & Jain, 2020). All these advances have led to the development of a number of AI applications capable of performing complex tasks, such as language translation, image recognition,

predictive analysis, and content generation. Generative AI technologies have received a lot of interest in recent years, as it generates human-like text, pictures, and other kinds of digital content (Cao et al., 2023; Wahid et al., 2023). For example, AI tools such as ChatGPT by OpenAI can be shown as a demonstration of how AI can be used to produce answers, help in writing assignments, and facilitate the information search process

AI is transforming the access and utilization of information in the education sector by students, educators, and researchers. The tools powered by AI can be used to assist students in searching for information, summarizing scholarly materials, creating ideas, and facilitating learning (Hutapea et al., 2024). These technologies are also useful in teaching, assessment, and scholarly research on the part of educators. AI tools are gaining popularity in universities and other educational institutions as they are more easily accessible to facilitate the process of teaching and learning. They have an impact on the generation, consumption, and dissemination of knowledge between learners and educators as artificial intelligence continues to develop (Thuy & Tien, 2025). The implication of the increasing role of AI in knowledge spaces also applies to libraries and information institutions (Gajbhiye, 2024). Traditionally, academic libraries were the main institutions that dealt with the administration of scholarly resources and assisted with information access. Nevertheless, the adoption of AI tools is transforming the way information is searched and accessed by users (Chowdhury & Chowdhury, 2024). These tools have allowed users to access quick responses and summaries as opposed to just using the traditional library search systems. Due to this, libraries and librarians need to understand the basic concept of AI so that they can adjust their services and keep up with the digital knowledge environment (Okoroma, 2024; Oladokun & Umar, 2026).

### AI in Academic Libraries

Academic libraries are also highly influenced by the development of AI (Ayinde et al., 2026). As universities adopt digital technologies in teaching, learning, and research, libraries are also looking at ways AI can enhance their work and services. Libraries can use AI technologies to handle a lot of information, enhance search engines, and support students and researchers studying and conducting research (Shamsitdinova et al., 2024). The AI-based systems can interpret the behaviour of the users and give more relevant search results, since this is more helpful in facilitating users to find books, journal articles, and other academic materials with less effort and time (Narendra et al., 2025; Sihaloho et al., 2025).

The role of librarians is highlighted in assisting users in accessing reliable information and in developing information literacy. Nonetheless, the fast evolution of AI technologies is altering the search and interaction mode of users with the information (Schuetzler et al., 2024). The use of AI tools to provide fast answers and create knowledge has become a dependency for many users (Klingbeil et al., 2024). Daily operations of libraries are also supported by AI. AI could be used in cataloguing, metadata generation, and digital collection organisation. All these activities are usually time-consuming in a manual fashion, but AI can be used to accomplish them at a faster rate, thus enabling the librarians to give more attention to the users' research and information needs (Pinski & Benlian, 2024). A chatbot is one of the AI tools that can respond to frequently asked user queries, such as how to enter databases, locate books, or what the library's opening hours are. Such systems can assist at any time, including when librarians are away, thus enhancing access to library services.

Nonetheless, AI implementation in academic libraries also came with challenges. The use of AI tools is not always reliable or correct and can also provide incorrect or misleading information (Gotoman et al., 2025). If the user does not know how to prompt correctly, they

will receive incorrect and hallucinated answers. Due to this, the librarians still have a significant role in directing users through the process of evaluating and verifying the information they acquire. Librarians should also learn about the working principle of AI to guide its users to be responsible in using such technologies (N. Sousa, 2025). On the whole, AI offers numerous possibilities to academic libraries to enhance their services and be relevant in the digital space. Meanwhile, librarians must acquire new skills and digital competencies to make sure that the AI technologies are applied to the academic libraries on an efficient and ethical basis.

### **Concept of AI Literacy**

AI Literacy refers to individual skills, knowledge, and necessary ethical understanding to navigate the complexities of AI technology (UNESCO, 2024). It also includes the ability to identify how AI tools work, how they produce information, and how they can be utilized in other situations. Hossain (2025) points out that AI literacy encompasses the knowledge of the basic concepts of AI, the basic knowledge of what AI is capable of and what it cannot do, and the critical consideration of the results of the AI systems.

AI literacy issues are gaining popularity due to the widespread use of AI tools in learning and research, as well as in daily information processes. Most students, researchers, and professionals have turned to the use of AI systems like ChatGPT to find information, create content, and assist learning (Cao et al., 2023). Nevertheless, AI tools do not always generate correct and valid information. Hence, AI literacy skill is required of users to evaluate AI-generated data, determine the potential mistakes, and act on the information (Galagala & Bacarrisas, 2025). Because of this situation, in the academic library, AI literacy is important for librarians to make them aware of the functionality of AI technologies and to provide users with advice on how to apply these tools to achieve positive and ethical results.

AI literacy assists librarians in incorporating AI technologies in the library services and assists users in acquiring critical skills in dealing with AI-generated information (Hossain, 2025). With the increased significance of AI, there is a need to equip librarians and information professionals with AI literacy in order to facilitate the educational and research processes in the digital realm.

### **Role of Academic Libraries in Promoting AI Literacy**

Academic libraries make a significant contribution to AI literacy rates in students, researchers, and academic staff (Shamsitdinova et al., 2024). Traditionally, libraries have supported information literacy among users by teaching them how to seek information, determine its quality, and use it in a meaningful manner. As AI tools continue to grow in education and research, libraries have now extended this use to AI literacy. This implies the need to enable users to learn the functionality of AI tools, how AI-generated information is produced, and how to use such information responsibly.

Training sessions, workshops, and instructional programs are among the methods academic libraries can use to enhance AI literacy among their users. Librarians have an opportunity to teach and guide users about AI tools and demonstrate their advantages and disadvantages (Ayinde et al., 2026). The librarians can also inform the users on how to make the most out of these tools, such as creating the right prompts, validating AI-generated information, and how to avoiding inaccurate content (Lo, 2024).

Besides this, academic libraries become trustworthy sources of information that encourage responsible use of technology and critical thinking. Librarians can work towards educating the users to acquire skills of analysing AI-generated information and be sensitive to the problems of bias, accuracy, and ethical AI applications (Ekka, 2025). The integration of AI literacy into information literacy curricula can help academic libraries assist students and researchers in overcoming the information landscape of the fast-evolving environment (Gajbhiye, 2024). This role is necessary to make sure that AI tools are utilized wisely and efficiently in the field of academic learning and research.

### **AI Literacy and the Transformation of Academic Libraries**

The integration of AI is changing the way academic libraries deliver services and assist their users. Higher education is shifting to AI technologies that change the creation, access, and utilization of information. AI tools have become popular among students and researchers to search for information and summarize academic material, as well as help them in their research efforts (Khalifa & Albadawy, 2024; Thuy & Tien, 2025). Consequently, academic libraries are faced with the challenge in changing with these technological shifts and adjusting their services to be in line with these changes in the online learning environment (Hamad et al., 2024). Libraries have transformed their traditional roles from book repositories to significant contributors to digital fluency (Rahmanova, 2025). In this new role, librarians not only train students and faculty to learn how to use generative AI tools but also to assess the results of their work in terms of its accuracy and bias (Hamad et al., 2024). The proactive practice will make sure that the university community can learn to handle the challenges of automated information systems without compromising the standards of critical thinking (Deschenes & McMahon, 2024).

In this transformation process, AI literacy is now a significant skill that librarians need to acquire. Librarians should know the functioning of AI technologies and the ways of their application in academic environments (Ali & Richardson, 2025). Librarians will be able to serve people who learn and do research with the help of AI tools. The AI-literate librarians will be able to inform the users about what to do with these tools to be responsible users and how to check the information generated by AI systems (Ali & Richardson, 2025; Pinski & Benlian, 2024).

Furthermore, AI literacy will assist academic libraries in designing new services that do not ignore the evolving information environment. Training programs, workshops, and guidance materials can be designed by librarians to educate users on how to use AI tools in an ethical and effective manner (Pinski & Benlian, 2024). Through AI literacy, academic libraries can enhance their position as reliable sources of information and assist their users in becoming effective critical thinkers when working with AI-generated information (Ekka, 2025). This change underscores the rising significance of AI literacy in the quest to make sure that the academic libraries remain applicable to support teaching, learning, and research in the AI age (Tanuri et al., 2025).

## Method

This study uses a literature review approach to investigate the connection between AI literacy and the role of librarians in academic libraries. This study aims to examine the available academic literature on AI, AI literacy, and the use of AI in academic libraries. The literature review will examine the current discussion, the main concepts, and explain the significance of AI literacy in the evolving academic landscape of librarianship. The appropriate articles, books, and conference papers were gathered in the academic databases of Emerald, IEEE, Scopus, Web of Science, and Google Scholar. Keywords that were searched included AI in libraries, AI literacy, academic libraries, and the role of the librarian in the AI era. The emphasis was put on the new publications to make sure that the discussion is based on the recent tendencies in AI technologies and their changes in library services. The literature that was chosen was analysed in terms of the theme to determine frequent ideas, challenges, and opportunities of the adoption of AI in academic libraries. The analysis also aimed at exploring the ways in which AI literacy may increase the productivity of librarians, their professional growth, and their capacity to assist students and researchers in the proper use of AI tools.

## Future Roles of Librarians in the AI Era

The fast evolution of AI is changing the activities of academic library librarians. Previously, librarians were primarily focused on managing library collections, organizing information resources, and assisting users in locating the materials they needed. Nevertheless, as the application of AI tools in education and research continues to grow, nowadays, the librarian is expected to acquire new roles, which include assisting the users in the digital and AI-based information world (Ekka, 2025). A librarian should be AI-literate to be able to perform these new roles successfully (Lo, 2024). A librarian with AI literacy can help users use AI tools more responsibly and ethically. They are also able to work with users to learn about how to write better prompts, assess information generated by AI, and not fall into using faulty or illusory information (Mahmud, 2024).

Librarians will play the role of digital educators and guides to technology in the future, besides being information managers. They can take part in educating AI literacy, coming up with AI responsible usage guidelines, and assisting researchers who utilize AI tools in their activities (Hossain, 2025). Considering that strong AI literacy skills allow the librarian to remain significant in assisting the students and the researchers to access trusted information and operate AI technologies to their advantage in academic learning and research, the librarian can still be relevant.

## Conclusion

The debate over AI in the scholarly community is no longer about how it will transform the field of teaching, learning, and research, but about how quickly it will do so and what consequences this will produce. This development poses challenges, as well as opportunities to academic libraries (N. Sousa, 2025). The dilemma is that libraries can become the laggards if they fail to establish the internal capacity to use AI critically and responsibly (N. M. T. Sousa, 2025). In the event that this occurs, the roles played by libraries may be taken over by other departments within universities. Nevertheless, this is also a significant chance of libraries to consolidate their position. Libraries can become significant contributors to the academic community in the process of understanding and managing the use of AI technologies by developing AI literacy among library staff.

This conceptual paper argues that the transformational beginning of this change must be internal to the library itself. The librarians need to acquire these skills and knowledge before they can impart them to students and researchers through libraries. Librarians require a common language and mutual understanding of AI to engage in productive discussions on campus. Moreover, with the continued trend of AI impacting information services, librarians should acquire new skills that would enable them to modify library services to meet this new environment (Ekka, 2025).

Academic libraries have now come up with a choice to make. The libraries can wait and hope that librarians will discover AI on their own. But this strategy can also lead to inconsistent knowledge, disjointed practice, and the slow irrelevance of libraries. Alternatively, libraries may be proactive and invest in employees' AI literacy. This plan will assist libraries to be assured, competent, and useful in the academic community. Finally, AI will not end the future of academic libraries, but the reaction of librarians to it. Regardless of what Gotora et al. (2025) proposed that libraries must look at AI as an opportunity that can transform them into digital and learning centres instead of looking at it as a threat that will force them out of the market.

### Acknowledgement

The researcher would like to thank Universiti Teknologi MARA Puncak Perdana Branch for research support and assistance.

### References

- Adigun, G. O., Ajani, Y. A., & Enakrire, R. T. (2024). The intelligent libraries: Innovation for a sustainable knowledge system in the fifth (5th) industrial revolution. *Libri*, 74(3), 211-223. <https://doi.org/https://doi.org/10.1515/libri-2023-0111>
- Ali, M. Y., & Richardson, J. (2025). AI literacy guidelines and policies for academic libraries: A scoping review. *IFLA Journal*, 51(3), 588-599. <https://doi.org/10.1177/03400352251321192>
- Archana, S., Renjith, V., Padmakumar, P., C, S., & Aboobaker, N. (2025). AI assisted learning and research: an exploratory study among university students and scholars. *Discover Education*, 4(1), 390. <https://doi.org/https://doi.org/10.1007/s44217-025-00814-x>
- Ayinde, L., Ebiefung, R., & Oladokun, B. D. (2026). Adoption of artificial intelligence in academic libraries: A systematic review of current practices, challenges, and research opportunities. *The Journal of Academic Librarianship*, 52(1), 103185. <https://doi.org/https://doi.org/10.1016/j.acalib.2025.103185>
- Bifakhlina, F. (2024). Dampak Penerapan AI terhadap Peran Pustakawan di Era Digital. *Jurnal Al-Ma'arif: Ilmu Perpustakaan dan Informasi Islam*, 4(2), 194-206. <https://doi.org/https://doi.org/10.37108/almaarif.v4i2.1841>
- Cao, Y., Li, S., Liu, Y., Yan, Z., Dai, Y., Yu, P. S., & Sun, L. (2023). A comprehensive survey of ai-generated content (aigc): A history of generative ai from gan to chatgpt. *arXiv preprint arXiv:2303.04226*. <https://doi.org/https://doi.org/10.48550/arXiv.2303.04226>
- Chowdhury, G., & Chowdhury, S. (2024). AI- and LLM-driven search tools: A paradigm shift in information access for education and research. *Journal of Information Science*, 01655515241284046. <https://doi.org/10.1177/01655515241284046>
- Deschenes, A., & McMahon, M. (2024). A survey on student use of generative AI chatbots for academic research. *Evidence based library and information practice*, 19(2), 2-22. <https://doi.org/https://doi.org/10.18438/ebliip30512>
- Dinçer, S. (2024). The use and ethical implications of artificial intelligence in scientific research and academic writing. *Educational Research & Implementation*, 1(2), 139-144.

- <https://doi.org/https://doi.org/10.14527/edure.2024.10>
- Ekka, A. K. (2025). Evolving Role of Libraries in the Age of Artificial Intelligence. *International Scientific Journal of Engineering and Management*, 4(3), 1-6. <https://doi.org/https://doi.org/10.55041/isjem02363>
- Gajbhiye, C. K. (2024). Impact of artificial intelligence (AI) in library services. *International Journal For Multidisciplinary Research*, 6(3), 1-13. <https://doi.org/https://doi.org/10.36948/ijfmr.2024.v06i03.22452>
- Galagala, M. R. G., & Bacarrisas, H. P. (2025). Higher education students' information literacy skills in engaging with AI-generated content. 12, 12, 1-8. <https://doi.org/https://doi.org/10.21833/ijaas.2025.12.001>
- Garg, V. (2025). Designing the mind: How agentic frameworks are shaping the future of AI behavior. *Journal of Computer Science and Technology Studies*, 7(5), 182-193. <https://doi.org/https://doi.org/10.32996/jcsts.2025.7.5.24>
- Gotoman, J. E. J., Luna, H. L. T., Sangria, J. C. S., Santiago Jr, C. S., & Barbuco, D. D. (2025). Accuracy and Reliability of AI-Generated Text Detection Tools: A Literature Review. *American Journal of IR 4.0 and Beyond*, 4(1), 1-9. <https://doi.org/10.54536/ajirb.v4i1.3795>
- Gotora, G. M., Mfula, E., Zulu, G. B., & Mutelo, I. (2025). The Microcosmic Analogue of Research Libraries in The Context of Artificial Intelligence and Emerging Technologies in Higher and Tertiary Education in The Global South. *Research and Analysis Journal*, 8(9), 1-7. <https://doi.org/https://doi.org/10.18535/raj.v8i09.566>
- Gruenhagen, J. H., Sinclair, P. M., Carroll, J.-A., Baker, P. R. A., Wilson, A., & Demant, D. (2024). The rapid rise of generative AI and its implications for academic integrity: Students' perceptions and use of chatbots for assistance with assessments. *Computers and Education: Artificial Intelligence*, 7, 100273. <https://doi.org/https://doi.org/10.1016/j.caeai.2024.100273>
- Hamad, F., Al-Fadel, M., & Shehata, A. M. K. (2024). The level of digital competencies for the provision of smart information service at academic libraries in Jordan. *Global Knowledge, Memory and Communication*, 73(4-5), 614-633. <https://doi.org/https://doi.org/10.1108/gkmc-06-2022-0131>
- Hossain, Z. (2025). Integrating AI literacy into library and information science education and practice: a human-centered approach. *Library Hi Tech News*. <https://doi.org/10.1108/lhtn-05-2025-0089>
- Hutapea, E., Hutabalian, R., & Hartati, R. (2024). Summarizing AI application on student learning efficiency in understanding academic reading materials. *Indonesian Journal of Education and Development Research*, 3(1), 737-745. <https://doi.org/https://doi.org/10.57235/ijedr.v3i1.4878>
- Khalifa, M., & Albadawy, M. (2024). Using artificial intelligence in academic writing and research: An essential productivity tool. *Computer Methods and Programs in Biomedicine Update*, 5, 100145. <https://doi.org/https://doi.org/10.1016/j.cmpbup.2024.100145>
- Klingbeil, A., Grützner, C., & Schreck, P. (2024). Trust and reliance on AI — An experimental study on the extent and costs of overreliance on AI. *Computers in Human Behavior*, 160, 108352. <https://doi.org/https://doi.org/10.1016/j.chb.2024.108352>
- Knoth, N., Tolzin, A., Janson, A., & Leimeister, J. M. (2024). AI literacy and its implications for prompt engineering strategies. *Computers and Education: Artificial Intelligence*, 6, 100225. <https://doi.org/https://doi.org/10.1016/j.caeai.2024.100225>
- Kulkarni, C. (2024). Transformation of Agriculture through Artificial Intelligence: A Comprehensive Review. *Journal of Scientific Research and Reports*, 30(12), 798-803. <https://doi.org/https://doi.org/10.9734/jsrr/2024/v30i122722>
- Lo, L. S. (2024). Evaluating AI literacy in academic libraries: A survey study with a focus on

- US employees. *College & Research Libraries*, 85(5), 635-695.  
<https://doi.org/10.5860/crl.85.5.635>
- Mahmud, M. R. (2024). AI in automating library cataloging and classification. *Library Hi Tech News*. <https://doi.org/10.1108/lhtn-07-2024-0114>
- Mallikarjuna, C. (2024). An Analysis of Integrating Artificial Intelligence in Academic Libraries. *SSRN Electronic Journal*, 44(2), 124-129.  
<https://doi.org/https://doi.org/10.2139/ssrn.4898532>
- Monyela, M., & Tella, A. (2024). Leveraging artificial intelligence for sustainable knowledge organisation in academic libraries. *South African Journal of Libraries and Information Science*, 90(2), 1-11. <https://doi.org/https://doi.org/10.7553/90-2-2396>
- Narendra, A. P., Dewi, C., Gunawan, L. S., & Ardi, A. S. (2025). Artificial Intelligence Implementation in Library Information Systems: Current Trends and Future Studies. *Vietnam Journal of Computer Science*, 12(03), 209-233.  
<https://doi.org/10.1142/s2196888824300023>
- Nsirim, O. (2025). Hallucinations in Artificial Intelligence and Human Misinformation: Librarians' Perspectives on Implications for Scholarly Publication. *Folia Toruniensia*, 25(1), 79-98. <https://doi.org/https://doi.org/10.12775/ft.2025.004>
- Okeyo, S., & Rutere, J. (2025). Redefining library user engagement through AI-enabled virtual assistants : a systematic review. *KLISC Journal of Information Science & Knowledge Management*, 3(1), 1-10. <https://doi.org/10.61735/yyzbj77>
- Okoroma, F. N. (2024). Artificial intelligence and libraries: Import, risks and prospects. *J. ICT Dev. Appl. Res.*, 6(2), 30-40. <https://doi.org/https://doi.org/10.47524/jictdar.v6i2.31>
- Oladokun, B. D., & Umar, L. (2026). Artificial intelligence skills and competencies among librarians in 5IR libraries: Systematic review. *Information Services and Use*, 18758789261418488. <https://doi.org/10.1177/18758789261418488>
- Patterson, B. (2025). Can AI Help with that? The Limitations of AI Tools for Information Discovery, Search and Reviews. *Journal of Electronic Resources in Medical Libraries*, 22(1-2), 56-59. <https://doi.org/10.1080/15424065.2025.2496622>
- Petricini, T. (2025). The freedom to think otherwise: dialogue with and about artificial intelligence in higher education. *The Journal of Dialogic Ethics*, 4(1), 28-46.  
<https://doi.org/https://doi.org/10.5840/jde2025413>
- Pinski, M., & Benlian, A. (2024). AI literacy for users – A comprehensive review and future research directions of learning methods, components, and effects. *Computers in Human Behavior: Artificial Humans*, 2(1), 100062.  
<https://doi.org/https://doi.org/10.1016/j.chbah.2024.100062>
- Rahmanova, A. (2025). Evolution of libraries in the digital era: Redefining access, education, and cultural preservation. *Kütüphane Arşiv ve Müze Araştırmaları Dergisi*, 6(1), 23-38.  
<https://doi.org/https://doi.org/10.59116/lamre.1540033>
- Ru, K. C., & Tang, R. (2025). Promoting AI literacy through US academic libraries: an analysis of LibGuides from ARL and Oberlin group libraries using the EDUCAUSE AI literacy framework. *Information Research an international electronic journal*, 30(iConf), 847-865.  
<https://doi.org/https://doi.org/10.47989/ir30iconf47182>
- Sanz-Tejeda, A., Domínguez-Oller, J. C., Baldaquí-Escandell, J. M., Gómez-Díaz, R., & García-Rodríguez, A. (2025). The impact of generative AI on academic reading and writing: a synthesis of recent evidence (2023–2025). *Frontiers in Education*,
- Schuetzler, R., Giboney, J., Wells, T., Richardson, B., Meservy, T., Sutton, C., Posey, C., Steffen, J., & Hughes, A. (2024). Student interaction with generative AI: An exploration of an emergent information-search process.
- Shamsitdinova, M., Khashimova, D., Niyazova, N., Nasirova, U., & Khikmatov, N. (2024).

- Harnessing AI for enhanced searching in digital libraries: Transforming research practices. *Indian Journal of Information Sources and Services*, 14(3), 102-109. <https://doi.org/https://doi.org/10.51983/ijiss-2024.14.3.14>
- Sihaloho, H. A., Samosir, F. T., & Valentino, R. A. (2025). The Implementation of AI-Based Information Retrieval System at the University of North Sumatera Library. *Khazanah al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, dan Kearsipan*, 13(2). <https://doi.org/https://doi.org/10.24252/v13i2a11>
- Solanki, A., & Jain, D. K. (2020). Emerging trends and applications in cognitive computing. *Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science)*, 13(5), 812-817. <https://doi.org/https://doi.org/10.2174/266625581305201028104513>
- Sousa, N. (2025). Ethical and practical implications of AI in academic library research. *IFLA Journal*, 03400352251391753. <https://doi.org/https://doi.org/10.1177/03400352251391753>
- Sousa, N. M. T. (2025). Academic libraries as hubs of artificial intelligence competency. *Discover Artificial Intelligence*, 5(1), 221. <https://doi.org/10.1007/s44163-025-00490-8>
- Stolpe, K., & Hallström, J. (2024). Artificial intelligence literacy for technology education. *Computers and Education Open*, 6, 100159. <https://doi.org/https://doi.org/10.1016/j.caeo.2024.100159>
- Tanuri, Z. A. M., Rahman, A. L. A., Arif, Z., & Khusaini, N. A. (2025). AI literacy in academic librarianship: comprehensive literature review and emerging trends. *Journal Information and Technology Management (JISTM)*, 10(40). <https://doi.org/10.35631/JISTM.1040013>
- Thaper, J. (2025). AI-Driven Libraries: Applications and Challenges. *AIJFR-Advanced International Journal for Research*, 6(6). <https://doi.org/https://doi.org/10.63363/aijfr.2025.v06i06.1999>
- Thuy, P. B., & Tien, P. D. (2025). Empowering Student Research with Artificial Intelligence: Transforming Education through AI Applications. *J. Inf. Syst. Eng. Manag.*, 10(15s), 734-741. <https://doi.org/https://doi.org/10.52783/jisem.v10i15s.2514>
- UNESCO. (2024). *Examining Media and Information Literacy Responses to Generative AI: A UNESCO Policy Brief*. Unesco.org.
- Wahid, R., Mero, J., & Ritala, P. (2023). Editorial: Written by ChatGPT, illustrated by Midjourney: generative AI for content marketing. *Asia Pacific Journal of Marketing and Logistics*, 35(8), 1813-1822. <https://doi.org/10.1108/apjml-10-2023-994>