

Bridging Traditional Literacy and AI: Lessons Learned from Telkom University Open Library

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ABSTRACT

This study investigates how Telkom University Open Library mediates traditional literacy practices and artificial intelligence (AI) in contemporary academic environments. Despite Indonesia's high adult literacy rates, academic reading proficiency remains uneven, while the rapid diffusion of AI continues to reshape learning behaviors and knowledge access. Employing a mixed-methods concurrent design, the study surveyed 1,080 library users and conducted semi-structured interviews with two students, two librarians, and two lecturers. Quantitative findings demonstrate strong preferences for printed books (87%) and handwritten notetaking (79%), contrasted with limited engagement in printed academic journals (94%). Simultaneously, 91% of respondents reported frequent AI use, and all agreed that AI should complement rather than replace conventional literacies. Qualitative evidence corroborates these results, with students emphasizing focus and accessibility in print, librarians advocating balanced service models, and lecturers expressing concern about screen fatigue and overreliance on AI. The findings position Telkom University Open Library as a critical institutional bridge that integrates AI while sustaining print-based literacy cultures essential for comprehension, critical thinking, and student well-being.

Keywords : Traditional Literacy; Academic Library; Artificial Intelligence

ABSTRAK

Penelitian ini mengkaji bagaimana Telkom University Open Library memediasi literasi tradisional dan kecerdasan buatan (AI) dalam lingkungan akademik. Meskipun tingkat literasi orang dewasa di Indonesia relatif tinggi, kecakapan membaca akademik masih belum merata, sementara penggunaan AI terus membentuk praktik belajar. Dengan desain metode campuran simultan, penelitian ini mensurvei 1.080 pengguna dan mewawancarai dua mahasiswa, dua pustakawan, serta dua dosen. Temuan menunjukkan preferensi kuat terhadap buku cetak (87%) dan pencatatan tangan (79%), disertai rendahnya keterlibatan terhadap jurnal cetak (94%). Pada saat yang sama, 91% responden melaporkan penggunaan AI secara intensif, dan seluruh responden menyatakan AI sebaiknya melengkapi, bukan menggantikan literasi konvensional. Data kualitatif memperkuat hasil tersebut melalui penekanan mahasiswa pada fokus membaca, dorongan pustakawan terhadap layanan hibrida, serta kekhawatiran dosen mengenai kelelahan layar dan ketergantungan pada AI. Studi ini menyimpulkan bahwa Open Library berperan penting sebagai jembatan institusional dengan mengintegrasikan AI secara bertanggung jawab sambil mempertahankan budaya literasi cetak yang mendukung pemahaman, berpikir kritis, dan kesejahteraan mahasiswa.

Kata Kunci : Literasi Tradisional; Perpustakaan Perguruan Tinggi; Akal Imitasi



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Introduction

Official development databases show that Indonesia's adult literacy (people age 15+ who can read and write) lies in the mid-90s percentile and at the same time, many Indonesian adolescents struggle to reach minimum proficiency in reading (OECD, 2023; World Bank, 2025). These situations indicate a disparity between basic adult literacy coverage and the advanced reading skills required for academic achievement and lifelong learning, underscoring the necessity to enhance traditional literacy.

Additionally, the emergence of artificial intelligence (AI) has profoundly transformed the landscape of knowledge creation, access, and collaboration in higher education. University libraries are now confronted with a dual responsibility to embrace AI innovations while simultaneously reinforcing conventional reading and writing literacies that remain foundational to intellectual life (Fradana & Suwarta, 2025; Mcharazi & Kasulwa, 2014; Santosa, 2025). The rise of digital media and AI has further complicated this, as screen-based reading reduces comprehension and stamina while AI tools, though efficient, risk weakening independent writing and creativity (Budiyono, Marzuki, Pudjaningsih, Prastio, & Maulidina, 2025; Clinton, 2019; Rahmatillah & Parlindungan, 2023). While hybrid literacy models acknowledge the coexistence of print, digital, and AI (Nguyen & Le, 2022), the endurance needed for critical academic engagement is increasingly at risk. This underscores the urgent role of university libraries in mediating between innovation and tradition to ensure that AI strengthens, rather than erodes, traditional literacy practices.

Overreliance on AI can weaken critical reading habits and diminish writing depth, both of which are essential for higher education and cultural continuity (Hasanah & Degeng, 2025; Shi, Liu, & Hu, 2025). Even though AI in libraries is a global trend, a gap emerges on how libraries mediate the intersection of human literacy and machine intelligence especially in non-Western contexts (Molaudzi & Ngulube, 2025; Santosa, 2025). While works such as Adigun, Ajani, and Enakrire (2024) and Carlsson (2025) emphasize innovation for sustainable knowledge systems, they do not directly address how AI can coexist with conventional literacy practices in specific institutional settings. Recent findings have demonstrated the accelerating integration of AI in libraries and education. Studies highlight its use in research recommendation systems, learning analytics, and knowledge management to enhance scholarly collaboration (Lo, 2024; Xi, Hussin, & Diyana Kamarudin, 2025). Libraries are increasingly deploying AI to automate indexing, improve service personalization, and support information literacy instruction (Ajwa, Patel, & Moseley, 2024; Ismiatun & Sukartini, 2024).

In the Indonesian context, Telkom University Open Library provides a valuable site of reflection, not only as a repository of academic resources but also as a facilitator of literacy, collaboration, innovation, and digital transformation. In 2025, the library is planning to strengthen students' traditional literacy by promoting the reading of printed materials and embedding writing practices and storytelling within the academic environment through traditional literacy class as shown on table 1.

Table 1. Traditional Literacy Class of Open Library

Traditional Literacy Class	Activities
Reading & Storytelling	Reading Book Club (printed materials)
	Deep reading & silent reading
	Book Discussion
	Book Review Storytelling Challenges
	Marathon Book Review Series
Writing & Storytelling	Handwriting Journaling
	Novel writing competition

Unlike existing research that primarily explores technological adoption, this study examines the coexistence of traditional and digital literacies, highlighting that libraries can act as bridges that integrate

human-centered literacy. This positioning contributes a fresh perspective to global debates within the International Federation of Library Associations and Institutions (IFLA) on how libraries empower communities through both literacy and innovation (DeHart, Abas, Mora, & Dibbons Pyles, 2025).

Although recent studies have increasingly examined AI adoption in libraries and higher education, much of this discussion remains centered on technological efficiency, automation, digital access, and service innovation. Less attention has been given to how academic libraries can preserve traditional literacy practices such as printed reading, handwriting, deep reading, and reflective writing, while simultaneously guiding students to use AI responsibly. This gap is significant because the rapid normalization of AI in academic work may improve access to information and writing support, but it may also weaken students' reading stamina, independent writing habits, critical evaluation, and reflective engagement with texts if not institutionally mediated. Therefore, academic libraries need to be examined not only as providers of digital infrastructure, but also as literacy institutions that can balance innovation with human-centered learning. In this context, Telkom University Open Library offers a relevant case for understanding how an academic library can bridge print-based literacy and AI-supported learning through collections, reading spaces, writing programs, storytelling activities, and responsible AI literacy initiatives.

The central problem addressed in this study concerns the imbalance between the rapid adoption of AI and the weakening of traditional literacy practices among academic communities. This study aims to elaborate on how Telkom University Open Library act as bridge that simultaneously leverage AI and strengthen traditional literacies.

Methods

This study employed a mixed method specifically the concurrent procedures strategy, in which qualitative and quantitative data were collected during the same phase of research, analyzed separately, and then integrated for interpretation (Creswell & Creswell, 2018). Such a design was selected to obtain a comprehensive understanding of how Telkom University Open Library bridges traditional literacy practices with emerging applications of artificial intelligence in academic collaboration and community engagement. The research population comprised approximately 48,000 students at the Telkom University Open Library undergraduate and graduate students based on registered database of PDDIKTI.

Using the Yamane (1967) formula with a margin of error of 0.03, the sample size was calculated as below:

$$n = \frac{N}{N(d)^2 + 1}$$

n = sample size

N = Total Population

d = Margin of Error (3% or 97% precision level)

The sample size based on the Yamane formula is 1,080 respondents, ensuring adequate statistical precision. Random sampling was applied for the generalizability of the descriptive findings with the criteria: 1) students of Telkom University and user of Open Library; 2) have joined Open Library Traditional Literacy Class activities. The questionnaire was distributed online (social media and library channels) and offline at Open Library. The quantitative component of the study used a structured questionnaire designed to capture 1) reading behavior, 2) writing behavior, 3) reading-writing behavior, and 4) perceptions of the role of AI in supporting literacy. The instrument employed four-point Likert scales to minimize central tendency bias and was distributed both online and offline to improve reach and response as shown on table 2.

Table 2. Indicators of Reading Writing Behaviors & AI

No	Indicators	Operationalization Statement	Likert Scale			
			1	2	3	4
1	Reading behavior	I regularly read printed books.				
		I regularly read printed academic journals.				

		I prefer printed reading materials over digital formats.
2	Writing behavior	I take notes by hand to support my understanding of texts. I write essays, assignments, or personal reflections without relying on digital tools.
3	Reading & writing behaviors	Reading and writing in traditional formats improve my critical thinking.
4	Perceptions of the Role of AI in Supporting Traditional Literacy	I use AI tools (e.g., ChatGPT, Grammarly) to support academic writing. I rely on AI tools when I encounter difficulties in understanding complex texts. AI supports my ability to read and write more effectively. AI risks weakening traditional literacy skills such as deep reading and handwriting. AI should complement, not replace, traditional reading and writing practices. Academic libraries should integrate AI services to strengthen literacy
Description:		
1: Strongly disagree		3: Agree
2: Disagree		4: Strongly agree

Quantitative data were processed using descriptive statistical techniques, including percentages. Parallel to the survey, the qualitative method in this study followed an instrumental case study approach with Telkom University Open Library serving as the focal case. Data consisted of semi-structured interviews with approximately 6 key informants of 2 librarians, 2 lecturers, and 2 active students and observations of literacy and AI-related library activities.

The qualitative informants were selected purposively to represent the main actors involved in academic literacy practices at Telkom University Open Library. Two active students were selected because they directly experienced the use of printed collections, writing practices, digital resources, and AI tools in their academic activities and participated in Traditional Literacy Class. Two librarians were involved because they had practical knowledge of library services, literacy programs, user behaviours. Two lecturers were selected because they could provide academic perspectives on students' reading habits, writing competence, critical thinking, and the impact of AI on learning processes. The interview data were analyzed thematically by identifying recurring patterns related to print literacy, handwriting, academic writing, AI use, and the mediating role of the library. The emerging themes were then compared with the quantitative survey results to explain, support, and contextualize the statistical findings through cross-method triangulation.

For qualitative instruments, data validation was ensured through member checking and cross-method triangulation. Once both data sets were analyzed, the results were compared and merged to support the discussion. Ethical considerations were observed at all stages of the research. Participation was voluntary, informed consent was obtained, confidentiality and anonymity were guaranteed, and data were stored securely for research purposes only. The data gathering for all methods was conducted from January to July August 2025.

For quantitative instruments, to ensure the validity and reliability of the survey instrument, the questionnaire was tested and conducted with 30 initial respondents before the main data collection. The initial data were processed using SPSS to examine the validity of each questionnaire item. An item was considered valid when the calculated correlation coefficient was higher than the r-table value. The validity test results showed that all questionnaire items met the validity criteria and were therefore considered valid.

Furthermore, the reliability of the instrument was examined using the internal consistency reliability method with Cronbach's Alpha to determine the consistency and strength of the relationship among items within the instrument. The reliability test results indicated that all questionnaire items were reliable. These procedures ensured that the questionnaire was appropriate, consistent, and statistically acceptable for measuring students' reading behavior, writing behavior, reading-writing practices, and perceptions of AI in supporting traditional literacy.

Results and Discussions

The quantitative and qualitative findings reveal a complex relationship between traditional literacy behaviors and the adoption of artificial intelligence tools among Telkom University Open Library. The result proportion is as shown on table 3.

Table 3. Proportion of the respondents

No	Program	Respondents
1	Undergraduate students	1042
2	Master's students	34
3	Doctoral students	4
Total		1080

Furthermore, the quantitative result is as shown on table 4.

Table 4. Quantitative Result

Variables	Indicators	Likert Scale				Percentage			
		1	2	3	4	1	2	3	4
Reading behavior	I regularly read printed books.	84	49	208	739	8%	5%	19%	68%
	I regularly read printed academic journals.	643	369	25	43	60%	34%	2%	4%
	I prefer printed reading materials over digital formats.	145	219	459	257	13%	20%	43%	24%
Writing behavior	I take notes by hand to support my understanding of texts.	36	189	634	221	3%	18%	59%	20%
	I write essays, assignments, or personal reflections without relying on digital tools.	652	123	239	66	60%	11%	22%	6%
Reading & writing behaviors	Reading and writing in traditional formats improve my critical thinking.	30	98	759	193	3%	9%	70%	18%
Perceptions of the Role of AI in Supporting Traditional Literacy	I use AI tools (e.g., ChatGPT, Grammarly) to support academic writing.	16	76	865	123	1%	7%	80%	11%
	I rely on AI tools when I encounter difficulties in understanding complex texts.	33	23	592	432	3%	2%	55%	40%
	AI supports my ability to read and write more	8	19	252	801	1%	2%	23%	74%

effectively.									
AI risks weakening traditional literacy skills such as deep reading and handwriting.	58	30	729	263	5%	3%	68%	24%	
AI should complement, not replace, traditional reading and writing practices.	0	0	884	196	0%	0%	82%	18%	
Academic libraries should integrate AI services to strengthen literacy	0	0	253	827	0%	0%	23%	77%	

Reading Behavior

The analysis of reading behavior shows that a clear majority of respondents favor printed books, with 208 individuals (19%) selecting scale 3 and as many as 739 individuals (68%) selecting scale 4. This finding highlights Indonesia's enduring reliance on conventional reading formats, echoing earlier reports on the persistent cultural significance of print materials (UNESCO, 2022; World Bank, 2021). In sharp contrast, engagement with printed academic journals remains low, as 643 respondents (60%) placed themselves at scale 1 and 369 respondents (34%) at scale 2, together representing 1,012 individuals (94%). This pattern confirms previous studies noting that Indonesian university students often struggle with consistent academic literacy engagement (Anggia & Habók, 2025; Dardjito, Rolls, Setiawan, & Sumekto, 2023; Rahmatillah & Parlindungan, 2023; Wiranatha & Santosa, 2024). When comparing preferences between printed and digital materials more broadly, 459 respondents (43%) selected scale 3 and 257 respondents (24%) selected scale 4, indicating a moderate inclination toward print. This aligns with regional studies that describe a "hybrid reading culture," where traditional print and digital modalities coexist, though students continue to demonstrate stronger attachment to printed materials (Nguyen & Le, 2022).

The qualitative interviews highlight why students remain strongly attached to printed books despite the increasing availability of digital resources. Informants 1 and 2 highlighted that library-provided printed copies are more accessible, as not every student owns a comfortable device for extended digital reading. They also emphasized that reading on phones or laptops during class is impractical due to small screen sizes, reinforcing a preference for print. This is consistent with evidence showing that reading comprehension often suffers on digital devices compared with paper, particularly when screen size and ergonomics are limiting factors (Clinton, 2019).

Informants 3 and 4 reiterated the importance of balancing digital and traditional literacy, stressing that students should not only engage with online materials but also with printed copies. Informants 5 and 6 further emphasized that reducing screen time is beneficial for mental and physical well-being, echoing studies linking excessive digital exposure to eye strain, sleep disturbances, and reduced academic focus (Holmes, Bialik, & Fadel, 2019; Shi et al., 2025). These studies suggest that students view print not simply as tradition but as a medium that supports health, concentration, and equitable access. Together, the interviews confirm that while digital literacy is increasingly necessary, particularly for journals and AI-assisted tools, printed resources remain central to the learning process, underscoring the case for hybrid literacy models where both formats complement each other.

Writing Behavior

The results on writing behavior show that notetaking remains a dominant practice among students. A total of 634 respondents (59%) positioned themselves at scale 3 and another 221 respondents (20%) at scale 4, suggesting that nearly four out of five students continue to rely on handwritten methods to aid comprehension. This pattern underscores the enduring importance of handwriting in learning, a finding consistent with research showing that longhand note-taking supports memory retention and deeper processing of information (Mueller & Oppenheimer, 2014). In contrast, when asked about their ability to write essays and reflections without the support of digital tools, 71% of respondents fell into scale 2 and

3, indicating relatively weak confidence in independent writing which suggests a growing dependency on digital aids in higher education.

The interviews also suggest that notetaking remains a significant practice, although students' experiences with it vary. Informant 1 explained that writing helps with memory retention and that the habit was formed as early as elementary school, reinforcing evidence that handwriting supports deeper comprehension and recall (Mueller & Oppenheimer, 2014). In contrast, Informant 2 admitted difficulty in taking notes during lectures or while reading, describing it as a distraction rather than a support. Both students nevertheless agreed that writing enhances comprehension, though they acknowledged that the time and consistency needed to sustain this habit are often lacking. From the librarians' perspective, Informants 3 and 4 emphasized the role of the library in cultivating writing practices, even though informal activities such as journals or diaries, underscoring the library's potential to foster literacy culture beyond classroom requirements (Carlsson, 2025). Meanwhile, Informants 5 and 6 noted that writing is not always effectively integrated into classroom learning, attributing this to a fading writing habit among students in the digital era. Their reflections echo broader concerns about digital dependency in higher education, where traditional writing practices risk being overshadowed by technology-based shortcuts. Collectively, these perspectives highlight that while students, librarians, and lecturers recognize the cognitive value of writing, institutional support is needed to reestablish writing as a core habit within learning environments.

Reading and Writing Behaviors

When reading and writing are considered together, the results suggest that students overwhelmingly perceive traditional formats as valuable for higher-order thinking. A strong majority 952 individuals (88%) agreed that reading and writing in print-based formats support the development of critical thinking. Based on the interviews, all informants consistently emphasized that reading and writing through printed copies remain just as important as engaging with digital formats. Yet, they also acknowledged that in an era of rapid technological growth and artificial intelligence, the availability and use of printed books have declined significantly. Moreover, reading online often brings the risk of distraction, particularly from social media, which undermines sustained engagement with texts. These observations resonate with research that warns of reduced comprehension and attention when reading in digital environments compared with print (Clinton, 2019) and with studies on digital dependency in higher education (Amani & Bisriyah, 2025; Budiyo et al., 2025; Dangin, Dian Rahmawan, & Hary Setyawan, 2023). For this reason, the strengthening of traditional literacy is seen as essential. Printed reading and writing practices cultivate critical thinking habits, foster deeper interaction with texts, and create opportunities for collaborative literacy activities such as book clubs or journaling, which librarians and educators view as vital for sustaining reflective and community-based (Carlsson, 2025) which reinforce the continuing importance of print-based literacy for intellectual development in Indonesian higher education (Aziz, Hassan, & Aljamili, 2024; Hardianti, 2024; Nadifa & Zulvani, 2024; Nafisah, Syahrani, Parlindungan, & Khairi, 2024).

Perceptions of AI in Supporting Literacy

Students' perceptions of AI reveal both high levels of use and clear boundaries regarding its role in literacy. The data show that 988 respondents (91%) reported frequent use of AI tools, indicating that such technologies have quickly become embedded in writing support practices, consistent with the rapid rise of generative AI applications such as ChatGPT in academic contexts (Kasneci et al., 2023). Trust in AI for comprehension support is also evident, with 592 respondents (55%) at scale 3 and 432 respondents (40%) at scale 4 affirming that AI helps them clarify complex concepts. Yet despite these positive views, students drew a strong line around the role of AI relative to conventional literacies: more than 82% of respondents agreed at scale 3 and 4 that AI should support but not replace reading and writing practices. Furthermore, all respondents supported integrating AI services into academic infrastructure, reflecting a pragmatic view that AI should be institutionalized but only in a complementary role. These attitudes are consistent with emerging models of hybrid literacy that emphasize AI as a supplement to, rather than a replacement for, human-centered reading and writing practices (Holmes et al., 2019).

The interviews reveal that students use AI extensively in their academic routines, as emphasized by Informants 1 and 2 who reported engaging with AI tools on a daily basis. At the same time, they acknowledged the limitations of these technologies, particularly in verifying the credibility of sources—an issue widely highlighted in the literature, where concerns are raised about misinformation and the

reliability of AI-generated outputs (Kasneci et al., 2023; Lo, 2024). Informants 5 and 6 expressed deeper concerns about the risks of overreliance and that AI could reduce students' willingness to practice traditional reading and writing skills. They argued that clear boundaries are necessary to prevent the erosion of traditional literacy, calling for awareness programs and campaigns led by both lecturers in classrooms and libraries through literacy activities. This perspective aligns with global discussions that stress the importance of embedding AI literacy in education, not as a replacement but as a complement to human-centered learning (Ajwa et al., 2024; Holmes et al., 2019). By organizing initiatives that simultaneously promote enthusiasm for traditional literacy while fostering responsible AI use, Open Library can help students navigate the opportunities and challenges of the digital age with greater awareness and balance.

The Active Role of Open Library in Bridging Traditional Literacy and AI

The findings of this study indicate that Telkom University Open Library should not be understood merely as a physical repository of academic resources, but as an active institutional mediator between traditional literacy practices and emerging AI-supported learning. The survey results show that students continue to value printed books, handwritten notetaking, and conventional reading-writing practices, while at the same time they increasingly use AI tools to support academic tasks. This dual tendency suggests that the role of an academic library in the AI era is not to replace print-based literacy with digital technologies, but to design a balanced literacy ecosystem in which printed collections, reflective writing, digital resources, and responsible AI use reinforce one another.

The Traditional Literacy Class developed by Open Library consists of two main program clusters: Reading & Storytelling and Writing & Storytelling. The Reading & Storytelling cluster includes Reading Book Club using printed materials, deep reading and silent reading, book discussion, book review storytelling challenges, and marathon book review series. Meanwhile, the Writing & Storytelling cluster includes handwriting journaling and novel writing competitions. These programs demonstrate that Open Library does not only preserve printed collections as passive resources, but also transforms them into participatory literacy activities that encourage students to read, reflect, discuss, write, and communicate ideas.

The continued preference for printed books provides a strong basis for Open Library to maintain and strengthen its print-based collections. Although digital access and AI tools have expanded students' access to information, printed materials remain important for deep reading, sustained attention, and cognitive engagement. In this context, maintaining printed books is not a nostalgic practice, but a strategic literacy intervention. Through activities such as Reading Book Club, deep reading and silent reading, book discussion, book review storytelling challenges, and marathon book review series, Open Library provides structured opportunities for students to engage with printed texts beyond individual and fragmented reading habits. These activities help transform printed books into shared learning resources that support comprehension, interpretation, and academic dialogue.

The findings on handwritten notetaking and traditional writing practices indicate that Open Library can play a more active role in supporting students' reflective and independent writing habits. The survey shows that a large proportion of respondents still take notes by hand to support their understanding of texts, even though independent writing without digital support appears to be weaker. This suggests that students recognize the cognitive value of writing, but they also need institutional support to sustain writing as a regular academic habit. Open Library responds to this need through handwriting journaling and novel writing competitions. These activities encourage students to transform reading experiences into written reflections, develop personal voice, practice narrative organization, and strengthen critical thinking through writing.

The high use of AI tools among students shows that AI has already become part of academic literacy practices. However, the finding that students strongly agree that AI should complement rather than replace traditional reading and writing indicates that users still expect clear boundaries in AI use. This creates an important opportunity for Open Library to introduce AI literacy in a responsible and ethical manner. Instead of treating AI only as a technical tool, the library can frame AI literacy as part of information literacy. This includes helping students understand how to verify AI-generated information, evaluate source credibility, avoid plagiarism, recognize bias, and use AI as a support for learning rather than as a substitute for reading, thinking, and writing.

The Traditional Literacy Class can also become a foundation for integrating traditional literacy and AI through hybrid literacy programs. For example, book review storytelling challenges can be combined with AI-assisted outlining while still requiring students to read printed books and produce their own interpretations. Handwriting journaling can be developed into reflective literacy sessions in which students first write manually and then use AI only as a tool for language refinement, not idea replacement. Book discussions can include AI literacy components by asking students to compare their own interpretation of a text with AI-generated summaries and critically evaluate the differences. In this way, Open Library can position AI not as a replacement for reading and writing, but as a complementary tool that supports reflection, revision, and critical evaluation.

The preference for printed books, handwritten notes, and print-based reading is not merely a matter of habit, but is closely related to students' learning comfort, access conditions, concentration, and well-being. Student informants explained that printed materials are often more comfortable for extended reading because they reduce distraction and allow deeper focus compared with reading through smartphones or laptops. They also noted that not all students have adequate devices for long digital reading sessions, making printed books a more accessible and practical option in certain learning contexts. In addition, lecturers and librarians emphasized that excessive screen exposure may contribute to fatigue, reduced attention, and weaker engagement with texts. These interview findings clarify why traditional literacy remains important for both respondents and informants: it supports sustained attention, comprehension, memory retention, reflective thinking, and healthier academic routines. Therefore, the quantitative results are strengthened by the interview data, which show that traditional literacy continues to function as a meaningful foundation for academic learning even as AI and digital tools become increasingly integrated into university life.

Based on these findings, users' literacy behavior becomes an empirical foundation for recommending a balanced academic library service model. The students' preference for printed books shows the continuing need for print-based resources and physical reading spaces. Their use of handwritten notes indicates the importance of writing-based learning support. Their frequent use of AI tools demonstrates the necessity of AI literacy services. Meanwhile, their agreement that AI should complement rather than replace conventional literacy confirms the need for an institutional model that balances innovation and tradition. Therefore, Telkom University Open Library can be positioned as a hybrid literacy mediator: an academic library that preserves print literacy, cultivates writing habits, facilitates storytelling-based literacy programs, and guides students toward responsible AI use. This model strengthens the article's central argument that academic libraries remain essential in the AI era because they can protect the depth of human-centered literacy while enabling students to benefit from technological innovation.

Conclusion

Academic libraries in the AI era should not choose between traditional literacy and digital transformation. Instead, there should be the urgency to develop a balanced literacy ecosystem that preserves print-based reading, strengthens writing habits, and introduces AI literacy responsibly. In this context, Open Library can play an active institutional role by maintaining printed collections, providing spaces for deep and silent reading, facilitating book discussions, supporting handwriting journaling, and developing storytelling-based literacy programs. Overall, this study contributes to discussions on academic libraries, traditional literacy, and AI by showing that the future of library services lies not in replacing conventional literacy practices, but in redesigning them within a hybrid literacy framework.

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