The Influence of Artificial Intelligence (AI) on Library Patronage among College Students

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ABSTRACT

This study examines the influence of AI tools on library patronage in higher education institutions. It explores students' AI usage patterns, the factors influencing their tool preferences, their frequency of library resource utilization, and their perceptions of both AI and library resources. Using a descriptive quantitative research design, data was collected through structured surveys distributed to students from four public state universities in Region I, Philippines, focusing on AI usage patterns, library resource utilization, and perceptions of both resources.

The results show that students moderately use AI tools, primarily for resource discovery and study material recommendations. Key factors driving students' AI preference include faster information retrieval, 24/7 availability, and enhanced learning experiences. Despite the convenience of AI, students continue to rely on library resources, particularly for accessing online databases and conducting in-depth research. While AI tools are seen as efficient and convenient, students acknowledge the critical role of libraries in supporting comprehensive academic work.

The findings highlight that AI tools complement, rather than replace, traditional library services, fostering a hybrid approach to resource utilization. To maximize this synergy, educational institutions and libraries are encouraged to adopt integrated systems that combine AI capabilities with traditional resources. Recommendations include implementing digital literacy programs, creating hybrid library service models, and establishing clear policies for ethical AI usage.

Keywords: Artificial Intelligence, Library Patronage, Academic Resources, Educational Technology, Hybrid Resource Utilization

INTRODUCTION

Libraries are continuously confronted with the challenges of managing extensive information resources, delivering timely and effective services, and enhancing user experience. The incorporation of automation and advanced information technologies has significantly reshaped traditional library systems [29]. One such transformative technology is Artificial Intelligence (AI), which has a powerful tool with the potential to revolutionize library functions and services by improving resource organization, user interaction, and decision-making processes [4].

The rapid advancement of AI technologies has profoundly influenced multiple sectors, notably education and academic libraries. Increasingly, academic libraries are adapting AI to streamline service delivery, enhance information retrieval processes, and enrich the user experience. Through automating routine tasks, the provision of tailored content recommendations, and providing real-time virtual assistance, AI is reshaping how students engage with library services. As libraries adopt these innovations, there is a growing need to explore the impact of AI on students' library usage patterns, their perceptions of service quality, and overall satisfaction [3].

In higher education institutions (HEIs), libraries play a central role in supporting research, learning, and access to information. However, the digital age has brought about a shift in how students engage with these resources, with many now favoring online databases and automated tools over traditional, in-person library visits [15]. AI-driven services such as intelligent search engines, chatbots, and automated resource recommendations have emerged as valuable tools for students, offering convenience, speed, and enhanced access to information [2], [18]. These technologies allow libraries to offer more tailored services, which in turn can potentially boost student engagement and increase the frequency of library use [15].

Despite the growing integration of AI in academic libraries, empirical studies examining its direct impact on student library usage remain limited. Understanding this influence is crucial for academic institutions aiming to optimize library services and align them with the evolving needs of their users [30], [32]. Previous studies indicate that AI significantly enhances library operations and user experiences [11]. For instance, a study conducted by Fabunmi and Akinyemi [10] found that AI applications have a substantial positive effect on library services and user satisfaction, highlighting the importance of incorporating AI to improve service delivery. Moreover, the adoption of AI in libraries has been associated with changes in students' information-seeking behaviors, emphasizing the need to assess how these technologies influence library patronage patterns [31] [34].

As students increasingly rely on AI-driven tools for academic needs, there is a noticeable shift away from traditional library usage. This shift raises concerns about the future relevance of traditional libraries and underscores the importance of evaluating how AI integration affects students' perceptions and engagement with library services.

RESEARCH METHODS

Research Design

This study utilized a descriptive quantitative methodology to examine the influence of AI on library patronage among college students. This approach was chosen to gather numerical data about students' AI usage and library resource utilization through a structured survey questionnaire. The survey instrument included rating scales to measure students' AI usage patterns, factors affecting their AI tool preferences, frequency of library visits, and their perceptions about AI tools versus library resources. The research design maintained a focused scope on descriptive analysis of these specified variables, as examining correlations between demographic factors and usage patterns or conducting qualitative analysis were not part of the initial research objectives.

The descriptive quantitative design was appropriate for this study as it helped collect measurable data that could be analyzed using basic statistical methods such as frequencies, percentages, and means. This methodology effectively captured the current situation regarding how students used AI tools and library resources, providing clear, objective evidence that could be used to understand students' behaviors and preferences in their academic activities. While the research design effectively served the study's original purposes of establishing baseline data on students' AI usage and library resource utilization patterns, it maintained methodological consistency with the study's primary aims of examining current usage patterns and perceptions rather than exploring causal relationships or in-depth qualitative insights.

Locale of the Study

This study was conducted in the Ilocos Region of the Philippines, also known as Region I. Located in the northwestern part of Luzon, the region comprises four provinces: Ilocos Norte, Ilocos Sur, La Union, and Pangasinan. The research focused on the public state universities in the region, which serve as the primary providers of higher education to a diverse population of students. Specifically, the study involved four major state universities: Don Mariano Marcos Memorial State University (DMMMSU), Mariano Marcos State University (MMSU), Pangasinan State University (PSU) and University of Northern Philippines (UNP).

DMMMSU is based in La Union, with its main campus in Bacnotan and other campuses in Agoo and San Fernando. MMSU is located in Ilocos Norte, with its main campus in Batac City and additional campuses in Laoag City and Currimao. PSU is based in Pangasinan, with its main campus in Lingayen and several other campuses in Alaminos City, Asingan, Bayambang, Binmaley, Infanta, San Carlos City, Sta. Maria, and Urdaneta City. Lastly, UNP, the oldest state university in the region, is situated in Vigan City, Ilocos Sur.

These universities were selected as the research locale because they are the leading public higher education institutions in the region, catering to a wide range of students from different socio-economic backgrounds. Each university maintains its own libraries and learning resource centers, which play a critical role in supporting the academic needs of students and faculty. At the same time, these universities are adapting to modern technological advancements, including the integration of AI tools for academic purposes.

All four universities hold Level IV accreditation status, which signifies high-quality education, strong contributions to higher education, and significant roles in community development. This combination of traditional library resources and modern technological integration makes these institutions ideal for exploring the relationship between AI tools and library resources in higher education.

Population and Sampling Procedures

The population of this study consisted of college students enrolled in the four public state universities of Region I during the academic year 2024-2025.

The study employed a convenience sampling method, as the data collection process relied on online distribution and voluntary participation. This method was chosen due to the lack of prior data on enrollment numbers and the constraints of reaching a large, geographically dispersed population. While convenience sampling allows for easy access to respondents, the researchers acknowledge its limitations, including potential biases in representation and generalizability.

Any student who had mobile technologies with internet access, was enrolled during the second semester, and belonged to one of the four universities was eligible to participate, provided they were willing to do so. The researchers did not impose additional criteria, as the goal was to include a diverse range of students who actively used AI tools and library resources in their academic activities.

The sample size was determined based on the number of respondents who voluntarily participated in the study, resulting in 800 respondents. While efforts were made to reach students from all four universities, the final sample may not be proportionally representative of the total student population in each institution.

Table 1 presents the demographic profile of 800 respondents from four public state universities in Region I. The majority of respondents were aged 18-20 years old (51%), predominantly first-year (28%) and second-year students (31%). The distribution among universities was fairly balanced, with University A having the highest representation at 29% of respondents. In terms of academic programs, Arts and Sciences students comprised the largest group (21%), followed by Business (20%) and Education (19%) programs, indicating a diverse representation across different fields of study.

Table I Demographic Profile of the Respondents from Four Public State Universities

Demographic Profile	**f**	**%**
Age		
18-20	410	51
21-23	285	36
24-26	75	9
27 and above	30	4
Total	**800**	**100**
Year Level		
First Year	225	28
Second Year	250	31
Third Year	185	23
Fourth Year	125	16
Fifth Year	15	2
Total	**800**	**100**

University		
University A	230	29
University B	210	26
University C	185	23
University D	175	22
Total	**800**	**100**
Program		
Arts and Sciences	170	21
Business	160	20
Education	150	19
Engineering	145	18
Information Tech	120	15
Others	55	7
Total	**800**	**100**

Research Instrument

The study employed a researcher-made survey questionnaire as the primary data gathering instrument, which was developed based on extensive literature review and structured into four main parts.

Part I focused on the Demographic Profile, gathering basic information about the respondents including their age, gender, year level, course/program, and university affiliation using a checklist format where respondents selected their appropriate responses from the given options. Part II measured the Level of AI Usage for Academic Purposes using a 4-point Likert scale (4 - Strongly Agree, 3 - Agree, 2 - Disagree, 1 - Strongly Disagree). Part III assessed the Library Resource Utilization through a 5-point scale (5 - Always, 4 - Often, 3 - Sometimes, 2 - Rarely, 1 - Never). Part IV examined the Perceptions on AI Tools versus Library Resources using a 5-point Likert scale (5 - Strongly Agree, 4 - Agree, 3 - Neutral, 2 - Disagree, 1 - Strongly Disagree).

To ensure data integrity and validity, the questionnaire underwent rigorous content validation by a panel of experts including four registered librarians, two IT specialists, and two research professionals. A reliability test was conducted through a pilot study with 30 students who were not part of the actual study sample, yielding a Cronbach's alpha coefficient of 0.85, indicating high reliability. The final instrument was administered in digital format using Google Forms for data collection.

Data Gathering Procedure

The researchers followed a systematic process in gathering the data for this study. The Google Forms link containing the survey questionnaire was disseminated through various social media channels: it was shared with colleagues who helped distribute it to their respective networks, and it was also posted on different social media platforms such as Facebook and Messenger for wider reach and faster dissemination of the survey. A cover letter explaining the purpose of the study and assuring the confidentiality of their responses was included in the online questionnaire. The researchers gave the respondents six months to accomplish the survey. Regular follow-ups were made through social media posts and personal messages to ensure a high response rate. After the given period, the responses were automatically recorded in Google Forms, and the data were extracted and organized in a spreadsheet format for statistical analysis.

Statistical Treatment

The data gathered underwent thorough processing, which began with data cleansing to ensure accuracy and completeness of responses. The researchers reviewed all submissions and removed incomplete responses and invalid entries from the dataset. After cleansing, the data were organized and tabulated using Microsoft Excel for initial processing, where responses were systematically arranged according to the variables under study. The organized data was then transferred to Statistical Package for Social Sciences (SPSS) version 26 for analysis, which served as the primary software for more complex statistical computations. Descriptive statistics such as frequency counts and percentages were used to analyze the demographic profile of the respondents. Mean scores

were utilized to determine the level of AI usage for academic purposes, library resource utilization, and perceptions on AI tools versus library resources. For the Level of AI Usage, the following scale was used to interpret the mean scores: 3.25 - 4.00 (Strongly Agree), 2.50 - 3.24 (Agree), 1.75 - 2.49 (Disagree), and 1.00 - 1.74 (Strongly Disagree). For Library Resource Utilization, the interpretation scale was: 4.20- 5.00 (Always), 3.40 - 4.19 (Often), 2.60 - 3.39 (Sometimes), 1.80 - 2.59 (Rarely), and 1.00 - 1.79 (Never). For Perceptions on AI Tools versus Library Resources, the mean scores were interpreted as: 3.25 - 4.00 (Strongly Agree), 2.50 - 3.24 (Agree), 1.75 - 2.49 (Disagree), and 1.00 - 1.74 (Strongly Disagree).

Ethical Consideration

The researchers upheld the highest ethical standards throughout the conduct of the study. Prior to data collection, participants were provided with a comprehensive explanation of the study's purpose, scope, and potential implications through a cover letter attached to the Google Forms survey. Informed consent was obtained from all participants, and they were assured that their participation was entirely voluntary, with the option to withdraw from the study at any time without any consequences. The confidentiality and anonymity of the respondents were strictly maintained, as no personal identifying information was collected in the survey. All data gathered were treated with utmost confidentiality and were used solely for research purposes. The researchers ensured that the survey questions were designed to be culturally sensitive and non-discriminatory. In the analysis and presentation of data, the researchers-maintained objectivity and reported findings honestly and accurately without any manipulation. The study also adhered to proper citation and referencing of sources to acknowledge intellectual property rights. After the completion of the study, all digital data were securely stored and will be properly disposed of after the required retention period. The entire research process followed the institutional research ethics guidelines and principles of research integrity.

RESULTS AND DISCUSSIONS

Level of AI Usage among students in their academic purposes

Table 1 presents the level of AI usage among students in their academic purposes, revealing an overall mean score of 2.71 (Agree). The findings show that students predominantly use AI tools to discover relevant resources for academic work (M=2.92), followed by utilizing AI tools for study material recommendations (M=2.83), interacting with AI systems for research assistance (M=2.75), using AI tools to locate digital resources and planning academic tasks (both M=2.71), improving overall academic performance (M=2.70), relying on AI chatbots for inquiries (M=2.66), using AI tools to optimize study time (M=2.63), employing AI tools for citation generation (M=2.62), and seeking feedback from AI tools on research projects (M=2.58). While all items received ratings within the "Agree" range, there is a noticeable pattern showing stronger agreement with AI usage for resource discovery and recommendations compared to more specialized tasks like citation generation and research feedback.

Table II Level of AI Usage among Students in their Academic Purposes

Statement	Mean	DI
I use AI tools to help me discover relevant resources for my academic work.	2.92	Agree
I utilize AI tools to receive recommendations for study materials.	2.83	Agree
I rely on AI chatbots or virtual assistants to assist me with my inquiries.	2.66	Agree
I interact with AI systems to get assistance with my research queries.	2.75	Agree
I use AI tools to locate and access digital resources (e-books, articles) for my studies	2.71	Agree
I employ AI tools to generate citations for materials I use in my academic work.	2.62	Agree
I use AI applications to help me plan and organize my academic task requirements.	2.71	Agree
I seek feedback from AI tools on my research projects.	2.58	Agree
I use AI tools to optimize my study time.	2.63	Agree
I use AI tools to help improve my overall academic performance.	2.70	Agree
Overall Mean	**2.71**	**Agree**

Note: DI-Descriptive Interpretation

This implies that educational institutions should focus on structuring AI tools into academic programs where students show high engagement, particularly in resource discovery and study material recommendations. Additionally, institutions should enhance support and training for less utilized AI features, such as research feedback and citation tools. Furthermore, clear guidelines for appropriate AI usage should be established to ensure academic integrity while optimizing the benefits these tools offer to students' learning experience.

These results align with current literature on educational technology adoption, which indicates a growing trend of AI integration in academic settings. Recent studies show that 86% of students are already incorporating AI tools into their academic work [16], with significant benefits observed in personalized learning and improved academic outcomes [33]. The findings confirm that students are increasingly comfortable using AI tools for academic purposes, particularly for information gathering and resource discovery, as supported by the U.S. Department of Education's recent report [34]. The moderate agreement levels across all items reflect what recent research has termed as "balanced technology adoption," where students maintain a pragmatic approach to AI usage, neither over-relying on nor dismissing these tools. This pattern is further supported by recent data showing that while AI adoption is growing, its implementation remains measured, with only 18% of educators regularly integrating AI tools in teaching contexts [21]. This suggests a maturing relationship between students and AI technology in academic contexts, where AI serves as a complementary tool rather than a replacement for traditional academic practices [34], [33].

Factors influence students' preferences for AI tools over traditional library resources

Table III Factors Influencing AI Tool Preference Over Library Resources

Statement	Percentage	Rank
Faster information retrieval.	76%	1
Easier navigation than library catalogs.	45%	4
Tailored academic suggestions.	23%	8
Simplifies complex texts.	34%	5
Available anytime, unlike library hours.	51%	2
Precise Search Results.	21%	9
Combines various media types.	27%	7
Quick citation generation.	32%	6.5
Improve learning experiences.	48%	3
Influenced by classmates' suggestions.	32%	6.5

Table 2 presents the factors influencing students' preferences for AI tools over traditional library resources. The findings reveal that faster information retrieval dominates student preferences (76%), followed by anytime availability unlike library hours (51%), improved learning experiences (48%), and easier navigation than library catalogs (45%).

The mid-range factors include simplifying complex texts (34%), quick citation generation and classmate influence (both 32%), and combining various media types (27%). The lowest-ranked factors are tailored academic suggestions (23%) and precise search results (21%) [23], [24].

This implies that students prioritize efficiency and accessibility over specialized academic features when choosing AI tools. Educational institutions should focus on implementing AI solutions that emphasize quick information access and 24/7 availability while maintaining academic quality. Additionally, the relatively low importance placed on precision suggests a need for better awareness of search quality importance in academic work [24], [27].

These findings align with current research on educational technology adoption patterns. The Digital Education Council's global survey reveals that students are not just experimenting with AI but integrating it regularly into their academic routines [17]. This trend is supported by data showing AI's growing role in understanding learning patterns and improving student outcomes [1]. The significant disparity between college and high school adoption

rates (82% vs 58%) indicates a need for more targeted implementation strategies at different educational levels [20].

The rapid integration of AI in academic settings is further evidenced by usage patterns showing that more than half of students (54%) engage with AI tools on at least a weekly basis [6], [16], [7]. This substantial adoption rate suggests that educational institutions must develop comprehensive policies and support systems to ensure effective and ethical AI use in academic contexts [1], [20].

Frequency of utilization of traditional library resources despite the availability of AI tools

Table 3 presents the frequency of students' library resource utilization despite AI tool availability, revealing an overall mean score of 2.83 (Sometimes). The findings show that students predominantly access online library databases for research purposes (M=3.02), followed by using library resources during research undertakings and perceiving AI tools as convenient (both M=2.87), referring to library resources for specific academic tasks (M=2.86), using physical library resources (M=2.84), utilizing electronic resources and borrowing printed materials (both M=2.81), weekly library visits (M=2.79), utilizing resources during orientation (M=2.75), and consulting with librarians (M=2.71). While all items received ratings within the "Sometimes" range, there is a noticeable pattern showing stronger engagement with digital library resources while maintaining moderate use of traditional library services.

Table IV Frequency of Utilization of the Traditional Library Resources Despite the Availability of AI Tools

Statements	Mean	DI
I utilized the library at least once a week for my academic needs.	2.79	Sometimes
I use physical library resources (books, journals) regularly, even with AI tools available.	2.84	Sometimes
I access online library databases frequently for research purposes.	3.02	Sometimes
I utilized library resources during the schedule orientation program only.	2.75	Sometimes
I prefer to consult with librarians and staff for assistance, regardless of AI tools.	2.71	Sometimes
I utilize library electronic resources, even when AI tools are accessible.	2.81	Sometimes
I borrow printed resources often, despite having AI options.	2.81	Sometimes
I refer to library resources for specific academic task requirements frequently.	2.86	Sometimes
I use library resources more during research undertaking periods, even with AI tools available.	2.87	Sometimes
I think using AI tools is more convenient than visiting the library for my academic needs.	2.87	Sometimes
Overall Mean	**2.83**	**Sometimes**

Note: DI-Descriptive Interpretation

This implies that academic libraries should focus on strengthening their digital infrastructure while maintaining quality traditional services. The data suggests a need for libraries to develop hybrid service models that integrate both AI capabilities and conventional resources. Additionally, libraries should enhance librarian-student engagement strategies and promote awareness of specialized library services that complement AI tools [17], [22].

These results align with current research on library utilization patterns in the AI era. Recent studies indicate that 73% of academic libraries are actively implementing hybrid service models that combine traditional and AI-enhanced services [28]. The "Sometimes" frequency across all items reflects what researchers' term as "adaptive library engagement," where students maintain a balanced approach to resource utilization [26]. This pattern is supported by recent data showing that while AI tool adoption is growing, traditional library services remain relevant, with 65% of students reporting that they value the complementary nature of both resources [19]. The moderate usage patterns across all items suggest a transformative period in academic library services, where

successful integration of AI tools alongside traditional services is crucial for meeting evolving student needs [2]. This trend aligns with current research indicating that libraries maintaining both digital and traditional services see higher student engagement and academic success rates [13].

Perceptions of Students on AI Compared to Library Resources

Table 4 presents students' perceptions of AI tools compared to library resources, revealing an overall mean score of 2.73 (Agree). The findings show that students strongly agree that library resources remain essential for in-depth research despite AI availability (M=2.94), followed by equal agreement that AI tools are easier to use than library catalogs and save more time compared to library searches (both M=2.82). Students also agree that AI tools provide more up-to-date information than library resources (M=2.72), believe AI tools offer better personalized recommendations and are more convenient than library visits (both M=2.70), and feel AI tools enhance their learning experience more than library resources (M=2.67). Lower but still positive agreement was found for AI tools being more efficient than traditional library resources (M=2.65), AI-generated information reliability (M=2.64), and AI tools providing more relevant results than library databases (M=2.62).

Table V Perceptions of Students on AI Compared to Library Resources

Statements	Mean	DI
I feel that AI tools provide more relevant results for my academic queries than library databases.	2.60	Agree
I believe AI tools are more efficient for finding information than traditional library resources.	2.64	Agree
I think AI tools are easier to use compared to navigating library catalogs.	2.80	Agree
I perceive AI tools as more up-to-date than the resources available in libraries.	2.71	Agree
I believe that AI tools enhance my learning experience more than library resources do.	2.68	Agree
I think AI tools are better at providing personalized recommendations than searching library resources.	2.92	Agree
I feel that library resources are still essential for in-depth research despite the availability of AI tools.	2.80	Agree
I perceive that AI tools save me time compared to searching for information in the library.	2.82	Agree
I believe that the quality of information from AI tools can be as reliable as that from library resources.	2.64	Agree
I think using AI tools is more convenient than visiting the library for my academic needs.	2.70	Agree
Overall Mean	**2.73**	**Agree**

Note: DI-Descriptive Interpretation

These findings suggest that while students value AI tools for their efficiency and convenience, they maintain a balanced perspective recognizing the continued importance of traditional library resources. This aligns with current trends showing that 73.6% of students use AI tools while still valuing library services for in-depth research [17]. The equal emphasis on ease of use and time savings reflects the growing integration of AI in educational settings, with 66.3% of students believing that getting assistance from AI tools for academic work is ethical [12], [17].

Recent studies in educational technology adoption support these findings, with surveys reporting that students generally show a favorable perception toward AI tools for autonomous learning while recognizing their limitations [9, 14]. This hybrid approach responds to student preferences while preserving essential academic research capabilities. The moderate agreement levels for AI tools providing up-to-date information and personalized recommendations align with current developments in library system technologies [5], [12].

The implications suggest that educational institutions should focus on developing integrated approaches that leverage both AI capabilities and traditional library services [25]. This is particularly important given that recent statistics show 51% of students use AI for literature review, and 46.3% integrate AI tools in their education process [18]. The data indicates a need for balanced implementation strategies that enhance the complementary relationship between AI tools and library resources, rather than viewing them as competing alternatives [8].

CONCLUSION

Based on the findings of this study, it can be concluded that AI has significantly influenced library patronage among college students, creating a complex dynamic between traditional library resources and AI tools. Students have readily embraced AI technology for academic purposes, particularly valuing its efficiency in resource discovery, study material recommendations, and 24/7 availability. However, this adoption has not completely displaced traditional library resources. Instead, students continue to recognize and utilize library services, especially for in-depth research and access to academic databases, highlighting the complementary relationship between AI tools and traditional library resources.

The findings reveal that students' preference for AI tools is primarily driven by practical considerations such as faster information retrieval and round-the-clock accessibility. However, the continued relevance of traditional library resources suggests that institutions should adopt a hybrid approach rather than transitioning entirely to AI-based solutions. This hybrid model would ensure that students benefit from the technological efficiency of AI tools while maintaining the academic rigor provided by traditional library services.

Moreover, the varying levels of engagement with different AI features suggest a need for targeted training programs. While students readily use AI for basic tasks like resource discovery, there is less engagement with advanced features such as citation generation and research feedback. This indicates that institutions should develop comprehensive digital literacy programs to help students maximize the potential of these tools while maintaining academic integrity standards.

The study also highlights the importance of policy development regarding AI integration in academic settings. With students increasingly using AI for literature reviews and other academic processes, institutions must establish clear guidelines for appropriate AI usage while ensuring equitable access to these resources. Additionally, the moderate agreement levels regarding the reliability of AI-generated information underscores the need for enhanced critical evaluation skills among students. Libraries and educational institutions should focus on training programs that teach students how to critically assess AI-generated content while upholding the value of traditional academic research methods.

These findings have significant implications for educational policy and practice. We recommend that institutions: (1) develop comprehensive AI integration policies that balance innovation with academic integrity; (2) implement digital literacy programs focusing on critical evaluation of AI-generated content; (3) maintain and enhance traditional library services while incorporating AI tools; and (4) ensure equitable access to both AI resources and library services. Future research directions should explore the long-term impact of AI integration on academic achievement, investigate the effectiveness of hybrid learning models, and examine how different academic disciplines adapt to AI integration. Additionally, longitudinal studies could provide insights into how student preferences and usage patterns evolve as AI technology advances.

This study makes a significant contribution to the field by providing empirical evidence of the changing dynamics between AI tools and traditional library resources in higher education. It offers a foundation for understanding how modern students navigate between digital and traditional academic resources, helping institutions develop more effective and inclusive educational strategies. The findings support a balanced approach to academic resource provision, suggesting that the future of higher education lies not in choosing between AI and traditional resources, but in thoughtfully integrating both to enhance the overall learning experience.

LIMITATIONS OF THE STUDY

The researchers acknowledge several limitations inherent in this study that warrant consideration. The research was conducted during a period of rapid AI tool evolution, potentially affecting the currency of findings. The study's reliance on self-reported data through online surveys may be subject to social desirability bias. Furthermore, the sample was limited to college students from selected universities, which may not be representative of the broader student population. The focus on quantitative data might have missed valuable qualitative insights, and the use of Google Forms for data collection could have limited participation to only those with reliable internet access. Additionally, the study's scope was confined to commonly used AI tools and

traditional library resources, potentially excluding emerging AI technologies or specialized academic databases that might be relevant to specific fields of study.

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