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THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON ACADEMIC INTEGRITY AMONG FINAL YEAR STUDENTS OF LIBRARY AND INFORMATION SCIENCE OF BENUE STATE UNIVERSITY, MAKURDI.

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Abstract
This study investigates the influence of Artificial Intelligence (AI) on academic integrity among final-yearstudents of Library and Information Science (LIS) Benue State University, Makurdi, Nigeria. The research explores students' awareness and usage of AI tools, the impact of AI-generated content on academic integrity, strategies employed to avoid detection, and the effectiveness of faculty detection methods. Using a survey-based quantitative approach, data was collected from respondents through structured questionnaires from 117 students and 8 faculty members. Findings reveal that students frequently use AI tools for academic tasks, primarily motivated by time constraints, difficulty understanding concepts, and the desire for better grades. While AI tools enhance productivity, they also pose ethical challenges, with students employing strategies such as manual editing and paraphrasing to avoid detection. Faculty members, though aware of AI-generated work, exhibit limited confidence in detecting it. The study concludes with recommendations for institutional policies, faculty training, and student education to promote ethical AI usage and uphold academic integrity.

Keywords: *Artificial Intelligence, Academic Integrity, AI Detection*

Introduction

The integration of Artificial Intelligence (AI) into education has transformed academic practices, offering both opportunities and challenges. In the field of Library and Information Science (LIS), AI-powered tools such as ChatGPT, Grammarly, and Turnitin have become increasingly prevalent, aiding students in research, academic writing, and data analysis. They enable writers to focus on the critical and innovative aspects of their research (Golan et al., 2023). However, Smith et al. (2020) highlights that the use of AI-generated content raises significant concerns about academic integrity, particularly in terms of plagiarism, authorship, and the authenticity of student work. As AI becomes more advanced, it has the potential to both enhance and challenge academic integrity. Universities globally are grappling with the implications of AI on assessments, originality verification, and ethical scholarship. This study investigates the extent to which AI influences academic honesty

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among final-year students of Library and Information Science at Benue State University, Makurdi, Nigeria. The research addresses four key questions:

1. What is the awareness of AI tools among LIS students?
2. How does AI-generated content impact academic integrity?
3. What strategies do students use to avoid detection of AI-generated work?
4. How effective are faculty strategies in detecting AI-generated content?

Literature Review

The Concept of Artificial Intelligence

The concept of artificial intelligence (AI) as we know it today dates back to the mid-20th century, with its origins often attributed to the Dartmouth Conference organized by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon in 1956. The term "artificial intelligence" itself was coined by John McCarthy, a prominent computer scientist, at this conference, and this was widely considered as the birth of AI as a field of research (Russell &Norvig, 2010).Artificial intelligence refers to simulation of human intelligence in machines that are programmed to think and learn like humans. The term can also be applied to any machine that exhibit traits associated with human mind such as learning and problem solving. Artificial Intelligence (AI) as defined by Duggal (2024) refers to the simulation of human intelligence in machines programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind, such as learning and problem-solving. AI combines large amounts of data with fast, iterative processing and intelligent algorithms, allowing the software to learn automatically from patterns or features in the data.

The following types of AI intelligence were enunciated by Khan (2021)

Interactive AI: Interactive AI is the interactive communication system that predicts the needs of users. It can interact with humans as naturally as humans example Chat bots, smart personal assistants.

Text AI: Text AI is the present form of artificial intelligence that can process text. Example text recognition, speech to text conversion. Google, Amazon, Apple, and almost all the big organizations have text AI services.

Visual AI: Visual AI is the analysis and process of images, videos, and direct observations. In the manufacturing industry, we can see the Visual AI service. Example of Visual AI are Face recognition solutions and the application for automated inspections including AI Computer vision and augmented reality.

Analytic AI: Analytic AI is used for data-driven decision-making. It includes advanced-level deep learning and machine learning. Moreover, Analytic AI collects tons of data, processes and recommends the ultimate business insight. Example of Analytic AI include Sentiment analysis, supplier risk assessment, inventory optimization, and demand forecasting.

Functional AI: Functional AI is similar to Analytic AI. It collects tons of data, processes and does not recommend it. Instead of recommendation, it goes for action. Example of Functional AI are11/13IoT Cloud can be connected with Functional AI and take adequate action whenever it needs and robots.

Artificial Intelligence in Education

AI tools have become integral to modern education, offering personalized learning,

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automated feedback, and efficient research assistance (Siemens &Gasevic, 2017). However, concerns persist about AI's role in education as their misuse can lead to academic dishonesty, including unauthorized content generation and paraphrasing (Cotton et al., 2020), particularly in the form of plagiarism and contract cheating (Eaton, 2023). Studies indicate that while plagiarism detection tools exist, AI-generated text can sometimes bypass traditional detection methods (Foltýnek et al., 2019).

In LIS education, where research and writing are central, the ethical use of AI which requires clear policies, awareness campaigns, and robust detection mechanisms is crucial to maintaining academic standards (McCabe &Treviño, 2017). Hence, institutions that embrace AI must find a balance between technological innovation and maintaining academic integrity, ensuring students and faculty are well-versed in ethical AI usage.

Academic Integrity

Academic integrity encompasses honesty, trust, fairness, and responsibility in scholarly work. The rise of AI tools has complicated these principles, as students can now generate essays, reports, and even code with minimal effort. This has led to debates about the ethical implications of AI in education and the need for updated policies to address these challenges (Cotton et al., 2020).

According to the International Center for Academic Integrity (ICAI), academic integrity is built on six fundamental values: honesty, trust, fairness, respect, responsibility, and courage (ICAI, 2021). These values are increasingly challenged by the ease with which AI tools can produce high-quality academic work, often without proper attribution or originality (Eaton, 2023). The ethical use of AI in education in general and among library and information science final year students in particular requires a robust framework that balances technological innovation with the preservation of academic honesty (Huang & Sakamoto, 2022). Academic integrity is upheld through various institutional policies, codes of conduct, and academic regulations that outline expectations for student behaviour and consequences for academic misconduct (Bertram-Gallant, 2008).

However, maintaining academic integrity in the digital age presents new challenges and complexities. The widespread availability of online resources, digital technologies, and collaborative tools has made it easier for students generally and final year LIS students to engage in academic dishonesty, such as plagiarism, cheating, and unauthorized collaboration (Bowers, 1964; Cole & Kiss, 2000). Moreover, the pressure to excel academically, coupled with the perceived leniency of consequences for misconduct, can contribute to a culture of cheating and undermine the principles of academic integrity (Hart, 2007). Hence, by fostering a culture of honesty, trust, and responsibility, educators and institutions can uphold the principles of academic integrity and promote ethical conduct among students, scholars, and researchers.

Strategies for Detecting AI-Generated Work

Faculty members face challenges in identifying AI-generated content, as students employ various strategies to avoid detection, such as manual editing, paraphrasing, and combining multiple sources. Advanced plagiarism detection tools and AI content verification systems are essential for maintaining academic integrity, but their effectiveness depends on faculty training and institutional support (Foltynek et al., 2019). Tools like Turnitin and GPT Zero have been developed to detect AI-generated text, but their accuracy is still evolving, and

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they often struggle with sophisticated evasion techniques (Dawson, 2020). Faculty members must also rely on manual assessment and familiarity with students' writing styles to identify inconsistencies that may indicate AI use (Balash et al., 2020).

Avoidance Strategies for AI-generated Content

Students employ various strategies to conceal AI-generated content. These include extensive manual paraphrasing, strategic use of multiple AI tools to modify output, and blending AI-generated text with original work.. Some students also use advanced AI rewriters that produce human-like text, making detection more difficult. Awareness of AI detection mechanisms among students has led to more sophisticated tactics for bypassing academic integrity policies (Holden et al., 2017). Faculty members, on the other hand, face challenges in keeping up with rapidly evolving AI tools and often lack training in the latest AI-detection techniques (Miller et al., 2023). The use of AI to generate academic work has created an "arms race" between students and educators, with students constantly adapting their strategies to avoid detection (Sotiriadou et al., 2020).

Methodology

This study employed a quantitative research design to collect data from final-year LIS students and faculty members at Benue State University, Makurdi. Purposive sampling was used to select 117 students and 8 faculty members, ensuring representation across key demographics. Data collection was done through structured questionnaires, administered online to students and in-person to faculty members. The questionnaire assessed students' familiarity with AI tools, their usage patterns, and strategies for avoiding detection, while faculty members were asked about their experiences with AI-generated work and detection methods. Data was processed using SPSS version 21, employing descriptive statistics such as frequency counts and percentage analysis, with results presented in frequency tables and charts. The reliability of the questionnaire was confirmed using Cronbach's Alpha, which yielded a coefficient of 0.83, indicating high internal consistency.

Findings and Discussion

The findings from this study are presented according to the research questions as follows:

Awareness and Usage of AI Tools

The responses of the study's participants with respect to the awareness and usage of AI tools is presented in Table 1 below:

Table 1: Awareness and Usage of AI Tools

Question	Response Option	Frequency	Percentage (%)
How frequently do you use AI tools to assist with your academic work?	Always	77	65.8
	Often	26	22.2
	Rarely	10	8.5
	Never	4	3.5
	Total	**117**	**100**

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For what purposes do you use AI tools?	Writing essays and assignments	**49**	**41.7**
	Research assistance	**35**	**29.8**
	Generating ideas	**21**	**18.0**
	Solving technical problems	**12**	**10.5**
	Total	**117**	**100**
Which AI tools do you commonly use for generating your academic work?	**Open AI's ChatGPT**	**66**	**56.0**
	AI Chatbot (e.g. Llama, Pi Ai)	**24**	**20.5**
	Google Gemini	**15**	**13.0**
	Other AI Tools	**12**	**10.5**
	Total	**117**	**100**
What motivates you to use AI-generated content?	Time constraints	42	35.7
	Difficulty understanding particular concepts and topic	39	33.3
	Desire to improve grades	36	31.0
	Total	**117**	**100**

As can be seen in Table 1, majority of students (65.8%) reported being regular users of AI tools for academic tasks, with ChatGPT being the most commonly used tool (56%), followed by AI Chatbot (e.g. Llama, Pi Ai) (20.5%), Google Gemini (13%), and Other AI tools (10.5%). Students primarily indicated using AI for essay writing (41.7%), research assistance (29.8%), and generating ideas (18%). Motivations for AI usage included time constraints (35.7%), difficulty understanding concepts (33.3%), and the desire for better grades (31.0%).

These findings align with previous studies that highlight the growing reliance on AI tools for academic productivity, particularly among students facing tight deadlines or struggling with complex concepts (Liu et al., 2018). However, the widespread use of AI tools also raises concerns about the potential for academic misconduct, as students may rely too heavily on AI-generated content without fully engaging with the material (Eaton, 2023).

Impact on Academic Integrity

Tabulation of the above results on the impact of AI on academic integrity is shown below:

Table 2: Impact of AI on Academic Integrity

Question	Response Option	Frequency	Percentage (%)
To what extent do you think AI use enhances or diminishes academic integrity?	Significantly enhances	35	29.9
	Slightly Enhances	19	16.2
	Neutral	24	20.5
	Slightly Diminishes	22	18.8
	Strongly Diminishes	17	14.5
	Total	**117**	**100**

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What consequences have you faced for using AI-generated work in your academic assignments?	Academic sanctions	61	52.4
	Disciplinary actions	28	23.9
	Damaged reputation	17	14.5
	Legal ramification	0	0.0
	No consequence	11	9.2
	Total	117	100

As presented in Table 2, while 29.9% of students believe AI enhances academic integrity, 20.5% are undecided. Similarly, 18.8% feel AI slightly diminishes academic integrity, while 14.5% believe it strongly diminishes academic integrity. Concerns about plagiarism and the authenticity of work were prevalent, with 52.4% of students reporting academic sanctions for using AI-generated content, 23.9% affirming to facing disciplinary actions, 14.5% attesting to damaged reputation while 9.2% reported not facing any consequences.

These findings suggest that while AI tools can enhance productivity, they also pose significant ethical challenges, particularly when students fail to properly attribute AI-generated content or use it to bypass the learning process (Cotton et al., 2020).

Strategies to Avoid Detection

Responses pertaining to strategies for avoiding detection of AI -generated works is shown in the table below:

Table 4.3: Strategies Used to Avoid Detection

Question	Response Option	Frequency	Percentage (%)
What strategies do you employ to ensure your AI-generated work is not detected?	Manual Editing	56	47.9
	Use of Paraphrasing Tools	23	19.7
	Mixing AI & Manual Work	20	17.1
	Citation Manipulation	12	10.3
	No Strategy Used	6	5.0
	Total	117	100
How confident are you that these strategies effectively prevent detection of AI-generated work?	Very confident	13	10.7
	Confident	37	32.2
	Somewhat confident	45	38.5
	Not confident	22	16.6
	Total	117	100

Data in Table 3 shows that students employed various strategies to avoid detection of AI-generated work, including manual editing (47.9%), use of paraphrasing tools (19.7%), mixing AI-generated content with original work (17.1%), citation manipulation (10.3%), and 5% reported using no strategy at all. When asked about their confidence in these strategies, only

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10.7% were very confident that their methods could prevent detection, while 32.2% were confident, 38.5% were somewhat confident, and 18.6% were not confident in their strategies' effectiveness.

This distribution indicates that the majority of students (57.1%) have some reservations about the effectiveness of their concealment methods, suggesting an awareness of the limitations of their approaches to avoiding detection. These findings align with previous research that highlights the growing sophistication of student strategies for avoiding detection, particularly as AI tools become more advanced (Holden et al., 2017).

Faculty Detection Methods

The responses of faculty members with respect to the use of AI detection tools is presented below:

Table 4.4: Faculty Detection Methods and Confidence

Question	Response Option	Frequency	Percentage (%)
What are the most common indicators of AI -generated work?	Sudden improvement in writing style	3	37.5
	Inconsistent logic or reasoning	1	12.5
	Lack of personal insights or references	2	25.0
	Wrong citations or referencing	2	25.0
	Total	**8**	**100**
How frequently do you use tools to detect AI-generated work?	Never	3	37.5
	Rarely	2	25.0
	Often	2	25.0
	Always	1	12.5
	Total	**8**	**100**
How confident are you at identifying AI-generated work?	Not confident	2	25.0
	Slightly confident	3	37.5
	Moderately confident	1	12.5
	Very confident	2	25.0
	Total	**8**	**100**
What methods do you rely on for detecting AI-generated work?	Plagiarism detection software	3	37.5
	AI content verification tools	2	25.0
	Manually assessment and comparison with student's previous work	2	25.0
	Familiarity with students' typical writing styles	1	12.5
	Total	**8**	**100**

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Conclusion and Recommendations

AI has become an integral part of academic work, as it plays a dual role in enhancing academic productivity while posing ethical challenges to academic integrity. To address these issues, the following recommendations are proposed:

1. **Institutional Policies:** Clear institutional guidelines and policies on the ethical use of AI tools in academic work should be developed, with specifications about the permissible and impermissible uses. Institutions should also update their academic integrity policies to address the unique challenges posed by AI.
2. **Faculty Training:** Faculty should be provided access to advanced AI detection tools and strategies, and also trained on recognizing AI-generated content and integrating AI ethics into the curricula. Workshops on AI ethics and detection techniques should be conducted regularly to ensure faculty are equipped to handle evolving challenges.
3. **Student Education:** Awareness campaigns and seminars should be conducted to educate students on the ethical use of AI and the consequences of academic misconduct. Courses on AI ethics should be integrated into the curriculum to promote responsible AI usage.
4. **Continuous Monitoring:** There is need to regularly review and update AI detection tools to keep pace with technological advancements and evolving cheating strategies. Ongoing research should be conducted to monitor changes in student behavior and adapt policies accordingly

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