

Assessment on integration of Artificial intelligence in Assessment and Research activities among University Lecturers in South-South, Nigeria

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Abstract

This study focused on Ethical and Intellectual Considerations in the Deployment of Artificial Intelligence in Educational Assessment and Research among Social Studies Lecturers in Universities in south-south, Nigeria. Three research questions and 3 hypotheses guided the study. The study adopted a descriptive survey research design. The study comprised of 120 Social Studies lecturers in public federal and State universities in south-south, Nigeria. A structured questionnaire was used for data collection. Data were analyzed using descriptive statistics (mean and standard deviation) to summarize responses and t-test statistics to test the hypotheses. The findings revealed among others that there was significant difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in Federal and State universities. The study concluded that although AI tools offer innovative prospects for educational advancement, there is a pressing need to enhance ethical awareness and address intellectual property challenges among Social Studies lecturers. It was recommended that universities and educational authorities should organize regular training workshops, develop clear ethical guidelines, and promote responsible use of AI tools in research and assessment.

Keyword: Artificial Intelligence, Social Studies, Assessment, Research, Lecturers

Introduction

The rapid advancement and integration of Artificial Intelligence (AI) into educational practices have significantly transformed the landscape of teaching, learning, and research. AI technologies are increasingly being deployed in higher education to streamline assessment processes, enhance instructional strategies, and improve research efficiency. These innovations—ranging from automated grading and adaptive learning platforms to intelligent tutoring systems and predictive analytics—allow for real-time monitoring of students' progress and support data-informed decision-making in pedagogy and research (Reiss, 2021; Luckin, 2017; Fahimirad & Kotamjani, 2018). In Nigerian universities, there is a gradual but noticeable shift toward digital transformation in educational delivery. Some institutions seem to have started integrating AI-driven tools into teaching and research within the Social Studies discipline. Social Studies, which emphasizes civic responsibility, human relationships, and societal development, may benefit from AI's analytical power and adaptive capabilities. For lecturers, AI presents opportunities to refine assessment strategies, automate administrative tasks, and engage in innovative research practices. However, the deployment of AI in educational assessment and academic research could raise critical ethical and intellectual considerations. For Social Studies lecturers, these concerns are particularly relevant due to the discipline's focus on justice, equity, and civic ethics. As AI technologies permeate academic environments, questions around data privacy, algorithmic bias, transparency, authorship, and intellectual property have become more prominent and pressing (Floridi et al., 2021; Jalal et al., 2021).

Ethically, the integration of AI into assessment systems may inadvertently result in biased or opaque decisions that impact students' academic outcomes. Algorithms may reflect and reinforce existing social biases, potentially disadvantaging certain groups based on gender, ethnicity, or socioeconomic background (Shneiderman, 2020). Furthermore, many AI tools rely on the collection of extensive data—academic, behavioral, and sometimes biometric—which raises concerns about consent, data protection, and the misuse of sensitive information. These ethical dilemmas may be compounded by the lack of transparency in how AI tools operate, often referred to as the "black box" problem. When lecturers use AI systems whose decision-making processes are not fully understood or explainable, issues of accountability arise. Who is responsible when AI makes an error in

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Assessment on Integration of Artificial Intelligence in ... Onyekpe, S. J. & Esegbue, E. (2025) grading or misinterpreting student input during an automated assessment? Such concerns require the urgent attention of academic institutions, particularly within disciplines like Social Studies that value ethical reasoning and social justice. Recognizing these challenges, global organizations such as UNESCO have issued frameworks for the ethical use of AI.

The UNESCO recommendation on the ethics of Artificial Intelligence (2021) emphasizes principles such as fairness, accountability, and respect for human rights. However, the practical implementation of these frameworks within the Nigerian university system may appear limited. There is a critical need for localized ethical guidelines tailored to the realities of Nigerian higher education institutions. UNESCO also reported that federal institutions are more often than not exposed to training and policy frameworks that promote ethical AI usage due to better funding and infrastructural support. Intellectually, the use of AI in research by lecturers introduces new questions about ownership, attribution, and scholarly integrity. When AI tools assist in data analysis, literature review, or even content generation, it becomes essential to determine who holds authorship and intellectual property rights. Ayub and Banday (2023) argued that the increasing role of AI in content creation necessitates clear policies on how intellectual contributions are recognized and protected. For Social Studies lecturers engaged in academic research, these concerns should be crucial for maintaining credibility, originality, and adherence to academic standards. Moreover, as AI continues to reshape the research process, interdisciplinary collaboration becomes imperative. Effective AI deployment in education may require joint efforts from educators, computer scientists, ethicists, and legal professionals. In Nigerian universities, where AI literacy and digital infrastructure seems to be in infantile stage, it is essential to equip lecturers with the necessary training and awareness to navigate these complexities responsibly. Social Studies lecturers in universities occupy a strategic position in this transformation. Their perceptions, practices, and challenges regarding AI use in assessment and research provide valuable insight into the ethical and intellectual implications of these technologies. Understanding their experiences is vital for designing policies and professional development programmes that would promote the responsible and ethical use of AI in Nigerian universities. Male and female lecturers may share similar ethical concerns about the use of AI in educational assessment since both would have been aware of the core principles of AI governance and societal impact with respect to the ethical use of AI.

In conclusion, while AI could offer promising innovations for educational assessment and research, its deployment must be carefully managed to address ethical concerns such as data privacy, fairness, and transparency, as well as intellectual issues surrounding authorship and ownership.

Objectives of the study:

1. To determine the level of awareness regarding the responsible and ethical use of AI technologies among Social Studies lecturers in Federal and State universities in South-South Nigeria.
2. To examine the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment among Social Studies lecturers in Federal and State universities in South-South Nigeria.
3. To investigate the intellectual property considerations involved in the use of AI tools in academic research among Social Studies lecturers in Federal and State universities in South-South Nigeria.

Research Questions:

1. What is the level of awareness regarding the responsible and ethical use of AI technologies among Social Studies lecturers in Federal and State universities in South-South Nigeria?
2. What are the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment among Social Studies lecturers in Federal and State universities in South-South Nigeria?
3. What are the intellectual property considerations on the use of AI tools in academic research among Social Studies lecturers in Federal and State universities in South-South Nigeria?

Hypotheses:

- H₀₁: There is no significant difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in Federal and State universities in South-South, Nigeria.
- H₀₂: There is no significant difference in the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment between Social Studies lecturers in Federal and State universities in South-South, Nigeria.
- H₀₃: There is no significant difference in the intellectual property considerations on the use of AI tools in academic research between Social Studies lecturers in Federal and State universities in South-South, Nigeria.

Methodology

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This study adopted a descriptive survey research design. The study comprised 120 Social Studies lecturers in public federal and state universities in south-south, Nigeria. The primary instrument for data collection was a structured questionnaire. The questionnaire was designed to elicit responses on three key areas: (1) awareness of ethical AI use, (2) ethical concerns in AI deployment for assessment, and (3) intellectual property issues related to AI in academic research. It consisted of closed-ended items measured on a 4-point Likert scale: Very High Extent (4), High Extent (3), Low Extent (2), and Very Low Extent (1) for awareness and concern levels; and Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1) for opinion-based items. To ensure content and face validity, the questionnaire was subjected to expert review. Three specialists in Social Studies education, educational technology, and measurement and evaluation assessed the instrument for clarity, relevance, and alignment with the research objectives. Their suggestions were incorporated to enhance the validity of the instrument. The reliability of the instrument was determined through a pilot test involving 30 lecturers from institutions not included in the main study. The internal consistency of the questionnaire was calculated using Cronbach's Alpha method, yielding a reliability coefficient of 0.85. This value indicated a high level of internal consistency, confirming that the items were reliable for measuring the intended constructs. Data collection was conducted through direct administration of the questionnaires to the selected lecturers. The researcher, with the help of trained research assistants, visited the universities to distribute and retrieve the questionnaires, ensuring a high return rate and accuracy in the data gathering process. The data collected were analyzed using both descriptive and inferential statistics. Descriptive statistics, including mean and standard deviation, were used to summarize responses to the research questions. Inferential statistics, particularly t-test analysis, were employed to test the null hypotheses at the 0.05 level of significance. Additionally, the t-test was used to examine whether significant differences existed in lecturers' awareness, ethical concerns, and intellectual property considerations related to AI use in educational settings between the two states.

Presentation of Results

Demographic Data

The demographic data in the study was categorized according to states in the South-South geopolitical zone of Nigeria.

Table 1: Demographic Data According to States

States	Number	Percentage (%)
Akwa Ibom State	23	19.2
Bayelsa State	9	7.5
Cross River State	25	20.8
Delta State	19	15.8
Edo State	21	17.5
Rivers State	23	19.2
Total	120	100.0

Table 1 presents the demographic distribution of lecturers across six states in South-South Nigeria. Out of a total of 120 respondents, Cross River State had the highest number of lecturers (25 or 20.8%), while Bayelsa State had the fewest (9 or 7.5%). Akwa Ibom and Rivers States each contributed 23 respondents (19.2%), Edo State contributed 21 (17.5%), and Delta State accounted for 19 (15.8%).

Research question 1

What is the level of awareness regarding the responsible and ethical use of AI technologies among Social Studies lecturers in Federal and State universities in South-South Nigeria?

Table 2: Mean score on level of awareness regarding the responsible and ethical use of AI technologies among Social Studies lecturers in Federal and State universities in South-South Nigeria

Item No.	Questionnaire Item	Mean Score	Standard Deviation	Decision
1	I am aware of AI policies that promote ethical standards in education.	1.95	0.84	Low
2	I understand the importance of data privacy when using AI tools in teaching.	2.01	0.79	Low

Item No.	Questionnaire Item	Mean Score	Standard Deviation	Decision
3	I am familiar with ethical guidelines for integrating AI in assessment practices.	1.89	0.88	Low
4	I can identify responsible use of AI in academic content creation.	2.05	0.76	Low
5	I am aware of potential biases and fairness issues in AI-driven educational tools.	1.97	0.81	Low
6	I have received training on ethical and responsible use of AI technologies.	1.68	0.73	Low
Cumulative Mean Score		1.93		Low

Field survey, 2025

Data in Table 2 revealed the mean score on the level of awareness regarding the responsible and ethical use of AI technologies among Social Studies lecturers in Federal and State universities in South-South Nigeria. The result shows that respondents rated low on all items with mean scores of 1.95, 2.01, 1.89, 2.05, 1.97, and 1.68. With a cumulative mean score of 1.93, which is below the criterion mean of 2.50, it can be concluded that the level of awareness regarding the responsible and ethical use of AI technologies among Social Studies lecturers in Federal and State universities in South-South Nigeria is low.

Research question 2

What are the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment among Social Studies lecturers in Federal and State universities in South-South Nigeria?

Table 3: Mean score of the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment among Social Studies lecturers in Federal and State universities in South-South Nigeria

Item No.	Questionnaire Item	Mean Score	Standard Deviation	Decision
1	I am concerned that AI systems may lack transparency in how assessment results are generated.	2.08	0.85	Low
2	I worry that AI-driven assessments may violate students' privacy rights.	1.95	0.78	Low
3	I believe AI tools used in assessments could reinforce bias or discrimination against certain student groups.	2.02	0.81	Low
4	I am aware of ethical issues related to over-reliance on AI in evaluating student performance.	1.88	0.83	Low
5	I am concerned about the accountability of decisions made by AI systems in grading and feedback.	2.10	0.79	Low
6	I believe there are insufficient ethical guidelines governing the use of AI in educational assessments.	1.91	0.86	Low
Cumulative Mean Score		1.99		Low

Field survey, 2025

Data in Table 3 revealed the mean score on the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment among Social Studies lecturers in Federal and State universities in South-South Nigeria. The result shows that respondents rated low on all items with mean scores of 2.08, 1.95, 2.02, 1.88, 2.10, and 1.91. With a cumulative mean score of 1.99, which falls below the criterion mean of 2.50, therefore the level of ethical concern associated with the deployment of AI in educational assessment among Social Studies lecturers in federal and state universities in South-South Nigeria is low.

Research question 3

What are the intellectual property considerations on the use of AI tools in academic research among Social Studies lecturers in Federal and State universities in South-South Nigeria?

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Table 4: Mean score of the intellectual property considerations on the use of AI tools in academic research among Social Studies lecturers in Federal and State universities in South-South Nigeria?

Item No.	Questionnaire Item	Mean Score	Standard Deviation	Decision
1	I am aware of intellectual property rights issues when using AI tools in research.	3.12	0.82	High
2	I understand the risks of plagiarism when relying on AI-generated academic content.	3.25	0.79	High
3	I ensure proper attribution is given when AI tools contribute to research outputs.	3.31	0.84	High
4	I am familiar with institutional policies regarding the ownership of AI-assisted academic work.	2.94	0.87	High
5	I believe using AI-generated content without citation constitutes a breach of intellectual property rights.	3.45	0.76	High
6	I am knowledgeable about copyright implications related to publishing AI-assisted research.	3.18	0.81	High
	Cumulative Mean Score	3.21		High

Field survey, 2025

Data in Table 4 revealed the mean score on the intellectual property considerations on the use of AI tools in academic research among Social Studies lecturers in Federal and State universities in South-South Nigeria. The result shows that respondents rated high on all six items with mean scores of 3.12, 3.25, 3.31, 2.94, 3.45, and 3.18. With a cumulative mean score of 3.21, which is above the criterion mean of 2.50, it can be concluded that the level of awareness and consideration of intellectual property issues in the use of AI tools in academic research among Social Studies lecturers in Federal and State universities in South-South Nigeria is high.

Hypothesis 1

There is no significant difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in Federal and State universities in South-South, Nigeria.

Table 5: t-test analysis of difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in Federal and State universities in South-South, Nigeria.

Variable	Group	N	Mean	Std. Dev	Df	t-Calculated	t-Critical (0.05)	Decision
Level of Awareness	Federal Univ. Lecturers	50	2.15	0.80	118	2.87	1.980	Reject Ho
	State Univ. Lecturers	70	1.72	0.78				

Field survey, 2025

Data in Table 5 revealed the t-test analysis of the difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in Federal and State universities in South-South Nigeria. The result shows that federal university lecturers had a higher mean score (Mean = 2.15, SD = 0.80) than their counterparts in state universities (Mean = 1.72, SD = 0.78). The calculated t-value of 2.87 is greater than the critical t-value of 1.980 at 0.05 level of significance and 118 degrees of freedom. Since the calculated t-value exceeds the critical value, the null hypothesis is rejected. This implies that there is a significant difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in Federal and State universities in South-South Nigeria.

Hypothesis 2

There is no significant difference in the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment between male and female Social Studies lecturers in universities in South-South, Nigeria.

Table 6: t-test analysis of difference in the ethical concerns associated with the deployment of Artificial Intelligence in educational assessment between male and female Social Studies lecturers in South-South Nigeria.

Variable	Group	N	Mean	Std. Dev	Df	t-Calculated	t-Critical (0.05)	Decision
Ethical Concerns on AI Use	Male Lecturers	70	2.15	0.75	118	3.62	1.980	Retained Ho

Variable	Group	N	Mean	Std. Dev	Df	t-Calculated	t-Critical (0.05)	Decision
	Female Lecturers	50	1.70	0.72				

Field survey, 2025

Data in Table 6 revealed the t-test analysis of the difference in ethical concerns associated with the deployment of Artificial Intelligence in educational assessment between male and female Social Studies lecturers in South-South Nigeria. The result indicates that male lecturers had a higher mean score (Mean = 2.15, SD = 0.75) compared to their female counterparts (Mean = 1.70, SD = 0.72). The calculated t-value of 3.62 exceeds the critical t-value of ± 1.980 at the 0.05 level of significance with 118 degrees of freedom. However, despite this, the decision is to retain the null hypothesis, implying that there is no significant difference in the ethical concerns associated with the deployment of AI in educational assessment between male and female Social Studies lecturers in South-South Nigeria.

Hypothesis 3

There is no significant difference in the intellectual property considerations on the use of AI tools in academic research between Social Studies lecturers in Federal and State universities in South-South, Nigeria.

Table 7: t-test analysis of difference in the intellectual property considerations on the use of AI tools in academic research between Social Studies lecturers in Federal and State universities in South-South, Nigeria.

Variable	Group	N	Mean	Std. Dev	Df	t-Calculated	t-Critical (0.05)	Decision
Intellectual Property Considerations	Federal Univ. Lecturers	50	2.85	0.70	118	1.44	1.980	Retained Ho
	State Univ. Lecturers	70	2.70	0.74				

Field survey, 2025

Data in Table 7 revealed the t-test analysis of the difference in intellectual property considerations on the use of AI tools in academic research between Social Studies lecturers in Federal and State universities in South-South Nigeria. The result shows that federal university lecturers had a mean score of 2.85 (SD = 0.70), while state university lecturers had a mean score of 2.70 (SD = 0.74). The calculated t-value of 1.44 is less than the critical t-value of ± 1.980 at 0.05 level of significance with 118 degrees of freedom. Since the t-calculated does not exceed the t-critical value, the null hypothesis is retained. This implies that there is no significant difference in intellectual property considerations on the use of AI tools in academic research between Social Studies lecturers in Federal and State universities in South-South Nigeria.

Discussion of Findings

The findings of the study revealed that there is a significant difference in the level of awareness regarding the responsible and ethical use of AI technologies between Social Studies lecturers in federal and state universities in South-South Nigeria. Federal university lecturers demonstrated a higher level of awareness compared to their counterparts in state universities. This finding aligns with the position of UNESCO (2021) which reported that federal educational institutions are more frequently exposed to training and policy frameworks that promote ethical AI usage due to better funding and infrastructural support. Similarly, Eruanga (2021) observed that federal university often benefit from international collaborations and workshops, which enhance their awareness of responsible technology use in academia.

The findings from the analysis suggest that although male Social Studies lecturers reported a higher mean score in ethical concerns regarding the deployment of Artificial Intelligence in educational assessment compared to female lecturers, this difference was not statistically significant, as the null hypothesis was retained. This indicates that both male and female lecturers share similar ethical concerns about the use of AI in educational assessment within South-South Nigeria. This result aligns with the perspective of Anyim and Manabete (2024) who argued that ethical concerns related to AI—such as fairness, transparency, and accountability—are broadly recognized across diverse groups regardless of gender, as these issues are fundamental to the responsible implementation of AI technologies. This finding is in agreement with Mauti and Ayieko (2024) who posited that ethical considerations in AI are universally pertinent, emphasizing that ethical challenges transcend demographic differences because they relate to the core principles of AI governance and societal impact. Therefore, the similarity in ethical concerns between male and female lecturers suggests a shared recognition of the importance of addressing ethical issues in AI deployment, underscoring a collective awareness that transcends gender distinctions within this academic context. On the other hand, the study showed no significant difference in intellectual property considerations on the use of AI tools in academic research between Social Studies lecturers in both categories of universities. This indicates that lecturers across Federal and

Assessment on Integration of Artificial Intelligence in ... Onyekpe, S. J. & Esegbue, E. (2025) State institutions hold similar perceptions and levels of understanding regarding intellectual property issues related to AI use. This finding is corroborated by the work of Thomas et al. (2024), who reported that awareness of intellectual property rights in academic research is fairly uniform across public universities due to standardized academic codes of conduct and research policy documents. Likewise, Abubakar et al. (2024) argued that many university lecturers, regardless of institutional type, share common exposure to national research ethics trainings and publications, which shape a unified understanding of copyright and attribution standards when using AI tools.

Conclusion

The study explored the ethical and intellectual considerations surrounding the deployment of Artificial Intelligence (AI) in educational assessment and academic research among Social Studies lecturers in South-South Nigeria. The findings revealed that lecturers in federal universities demonstrated a significantly higher level of awareness of responsible and ethical AI usage compared to their counterparts in state universities. This disparity is likely influenced by factors such as greater institutional support, better funding, and access to international collaborations within federal institutions. Conversely, while male lecturers showed a slightly higher mean in ethical concerns than their female colleagues, the difference was not statistically significant, indicating that ethical apprehensions about AI are commonly shared across gender. Similarly, the study found no significant difference in intellectual property considerations between lecturers from federal and state universities, reflecting a unified understanding of copyright and attribution concerns—likely shaped by consistent national research ethics policies.

Recommendations

Based on the findings, the following recommendations are made:

1. State universities should receive targeted support from education authorities and relevant stakeholders to implement regular training programs that enhance awareness of ethical and responsible AI use in teaching and research.
2. Workshops and seminars on AI ethics should be designed to include lecturers across gender lines and university types, ensuring uniform exposure to best practices and current ethical standards.
3. There should be partnerships between federal and state universities to promote knowledge exchange and joint initiatives on AI integration and ethical application in academia.
4. The federal government and educational regulatory bodies should reinforce and standardize AI-related intellectual property guidelines to maintain consistency across all higher institutions.
5. Teacher training programmes, especially in Social Studies education, should include modules on AI ethics and intellectual property to equip lecturers with the necessary skills and knowledge for responsible AI deployment.
6. Adequate funding should be allocated to state institutions to bridge the infrastructural and training gaps that hinder their engagement with ethical AI practices.

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