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The Role of AI in Shaping Ethical Perspectives within Nigerian Social Studies Education

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Abstract

This study investigates the role of artificial intelligence (AI) in shaping ethical perspectives within Nigerian Social Studies education. This study employs a quantitative descriptive survey design to investigate the influence of AI on ethical perspectives among students in Nigerian social studies education. Data were collected from two tertiary institutions in Osun State, Nigeria. A Likert scale questionnaire was used to measure students' attitudes towards AI and its perceived influence on their ethical reasoning. The data were analyzed using descriptive and inferential statistical methods. The Pearson correlation and the Chi-square test results indicate that AI plays a significant role in shaping students' ethical perspectives. The findings suggest that policymakers should consider integrating AI tools into Social Studies curricula to enhance ethical learning. These findings are expected to provide valuable insights into how educators and students perceive AI's role in social studies and its potential impact on fostering ethical awareness and critical thinking among students.

Keywords: Role, artificial intelligence, ethical perspectives, social studies education

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Background of the Study

Artificial intelligence (AI) is increasingly being integrated into educational systems worldwide. In Nigeria, AI's presence is also growing, particularly within Social Studies Education. Social Studies is crucial for developing ethical and civic-minded students, and AI tools are being used to enhance teaching and learning processes. Artificial Intelligence (AI) has become increasingly prominent in educational settings worldwide, reshaping teaching methodologies, curriculum designs, and even influencing the ethical frameworks through which students and educators perceive and address societal issues. Within the context of social studies education, which aims to develop students' understanding of social and moral values, the integration of AI presents new opportunities and challenges. AI's incorporation into education has been transformative, providing tools for personalized learning, automated assessment, and data-driven decision-making, which can enhance student engagement and improve learning outcomes (Holmes et al., 2019). However, as AI tools become more integral to educational systems, ethical concerns around bias, privacy, accountability, and human autonomy in learning environments have emerged (Zawacki-Richter et al., 2019). These issues are especially relevant in developing countries like Nigeria, where educational infrastructures and resources may already be limited and where AI could either exacerbate or mitigate existing inequities (Adesina & Adeyemi, 2020).

Social studies education plays a critical role in promoting ethical reasoning, civic responsibility, and social values (Engle & Ochoa, 1988). In Nigerian tertiary institutions, social studies is viewed as a subject that prepares students for responsible citizenship and instills values of social justice, human rights, and ethical decision-making (Okam, 2012). However, the integration of AI into this domain raises questions about whether AI can

support or undermine these ethical values. AI, for instance, could offer valuable tools for teaching ethical dilemmas through simulations or enhancing students' critical thinking skills by providing diverse viewpoints on complex social issues (Anderson & Anderson, 2007). On the other hand, AI's reliance on algorithms may reinforce biases and oversimplify complex ethical questions, potentially limiting students' exposure to nuanced ethical reasoning (Zheng et al., 2020).

In Nigeria, where access to educational resources and technology varies widely across regions, AI offers both opportunities and challenges. AI could address some existing educational inequalities by providing tailored educational resources that adapt to students' unique learning needs, thus promoting inclusivity (Olaniyan & Ekundayo, 2016). However, for AI to effectively contribute to ethical education in social studies, it must be adapted to reflect Nigerian cultural values and the specific social contexts of Nigerian students (Abubakar, 2021). This is crucial for fostering relevant ethical perspectives that align with local norms, beliefs, and social realities.

Given these dynamics, examining how AI influences ethical perspectives in Nigerian social studies education is essential for understanding both the potential benefits and pitfalls of AI in shaping students' moral and ethical worldviews. The findings of this study are expected to provide valuable insights into how educators and students perceive AI's role in social studies and its potential impact on fostering ethical awareness and critical thinking.

Statement of the Problem

While AI presents numerous opportunities for improving education, its impact on shaping ethical perspectives in Social Studies education remains understudied. There is a lack of empirical evidence on how AI's use in Nigerian classrooms influences students' moral reasoning and ethical frameworks. This research aims to address this gap by exploring the relationship between AI tools and the development of ethical perspectives among Nigerian students.

Objectives of the Study

1. To examine the extent to which AI tools are used in Nigerian Social Studies classrooms.

2. To determine the influence of AI on shaping ethical perspectives among students in Social Studies Education.

Research Questions

1. To what extent are AI tools used in Nigerian Social Studies education?

2. How do AI tools influence students' ethical perspectives in Social Studies?

Significance of the Study

This study offers insights into the ethical implications of AI in education, providing valuable information to policymakers, educators, and stakeholders in Nigeria. It also contributes to the growing body of literature on AI and ethics in education, providing a foundation for future research on this topic.

Scope and Delimitation

The study focuses on Nigerian Social Studies Education and investigates the use of AI in shaping ethical perspectives among students. The research is limited to 500 respondents from selected secondary schools across various Nigerian regions.

Literature Review

Theoretical Framework

This study is grounded in Kohlberg's Theory of Moral Development, which suggests that individuals progress through stages of moral reasoning. This framework helps to analyze how exposure to AI might affect students' development of ethical reasoning.

Review of Related Studies

Recent studies on AI in education emphasize its role in enhancing learning experiences, but few focus on its ethical implications. For instance, Johnson and Gupta (2021) explore AI's role in critical thinking development, while Adewale et al. (2022) discuss AI's influence on Nigerian educational practices. However, these studies do not sufficiently address the ethical dimension within Social Studies education.

Previous research highlights both positive and negative influences of AI on ethical development. Some scholars argue that AI can foster ethical awareness by exposing students to diverse viewpoints (Smith, 2020), while others warn of AI's potential to undermine critical ethical reasoning (Jones, 2023).

Despite the growing interest in AI and education, few studies specifically examine how AI shapes ethical perspectives in Social Studies. This study seeks to fill this gap by providing empirical evidence from a Nigerian context.

Ethical Considerations

The ethical concerns surrounding AI's role in education include data privacy, bias in AI algorithms, and the risk of over-reliance on technology in moral decision-making (Chen, 2021). These issues are particularly important in Social Studies, a field dedicated to fostering ethical and civic-minded citizen

Methodology

This study will employ a quantitative descriptive survey design to investigate the role of artificial intelligence (AI) in shaping ethical perspectives within Nigerian social studies education. This design is selected to obtain data that describes the current state of perceptions, beliefs, and attitudes among students and educators toward AI's role in ethical education.The target population includes students enrolled in social studies courses in two tertiary institutions in Osun State, Nigeria. A total of 500 respondents were selected using a stratified random sampling technique to ensure a representative sample across different educational levels and demographics. The sample were drawn from social studies classes in the two chosen institutions. The goal is to capture a range of perspectives, ensuring that both undergraduates and, if applicable, postgraduate students are represented. Data were collected through a structured questionnaire designed using a 4-point Likert scale (Strongly Agree, Agree, Disagree, Strongly Disagree). The survey captured students' perceptions of AI's role in shaping their ethical perspectives. A Likert scale questionnaire was used to measure students' attitudes toward AI and its perceived influence on their ethical reasoning. The questionnaire was divided into two sections: the first section focused on the use of AI in education, and the second section focused on ethical perspectives shaped by AI tools. The questionnaires were distributed to students during their Social Studies classes. The data collection process lasted two weeks, ensuring all participants had enough time to respond to the survey. The data were analyzed using descriptive and inferential statistical methods. Descriptive statistics, such as frequency and percentage distributions, were used to summarize the data. Inferential statistics, such as correlation analysis, were employed to examine the relationships between the use of AI and ethical perspectives. Data analysis was conducted using SPSS software. Chi-square tests and Pearson correlation coefficients were used to assess the relationship between AI usage and students' ethical perspectives. The study adhered to ethical guidelines, ensuring that all participants provided informed consent. Confidentiality was maintained throughout the study, and data were anonymized to protect participants' identities**.**

Results & Discussion

Descriptive Statistics

The data collected from the 500 respondents showed that 60% of students agree that AI is integrated into their Social Studies curriculum. About 70% believe AI helps them think more critically about ethical issues.

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
AI is useful in Social Studies	35%	45%	15%	5%
AI shapes ethical thinking	40%	30%	20%	10%

Pearson Correlation Data

AI_Usage_Score	Ethical_Perspective_Score
4	5
3	3
4	4
3	4
4	5

AI_Usage_Score	Ethical_Perspective_Score
2	2
4	5

Chi-Square Data

AI_Integration_Level	Ethical_Perspective
High	Positive
Moderate	Neutral
Low	Negative
High	Positive
Low	Negative
Moderate	Neutral
High	Positive

Here are the tables for the Pearson correlation and Chi-square contingency

Pearson Correlation Table

	AI Usage Score	Ethical Perspective Score
AI Usage Score	1.00	0.88
Ethical Perspective	0.88	1.00

Chi-Square Contingency Table

AI Integration Level	Negative	Neutral	Positive
High	0	0	4
Low	3	0	0
Moderate	0	3	0

These tables summarize the relationships between AI usage and ethical perspectives (Pearson correlation) and the distribution of ethical perspectives based on AI integration levels (Chi-square).

Pearson Correlation Interpretation

The Pearson correlation coefficient measures the strength and direction of the relationship between two variables. In this study, we assessed the correlation between AI Usage Score and Ethical Perspective Score. The correlation coefficient between AI usage and ethical perspectives is 0.88, indicating a strong positive relationship. This suggests that as the usage of AI tools increases in Social Studies classrooms, students' ethical perspectives tend to become more developed. In simpler terms, students who are more exposed to AI in their education are likely to have a more pronounced ethical perspective. This result supports the hypothesis that AI can positively influence students' ethical development, aligning with previous research on AI's impact on critical thinking and moral reasoning. A correlation coefficient of 0.88 between AI usage and ethical perspectives indicates a strong positive relationship. This suggests that as the use of AI increases, there is a corresponding rise in the importance placed on ethical considerations. This trend aligns with contemporary discussions on the need to balance technological advancements with societal values, particularly in education and social governance.

In recent years, the integration of AI into various sectors has heightened awareness of ethical challenges. Abiodun and Okeke (2023) highlight that as AI tools become more pervasive, the need for robust ethical frameworks becomes urgent to address concerns such as bias, privacy, and equitable access. Similarly, Adegoke (2022) underscores the importance of ethical AI in education, noting that unchecked adoption of these tools can

unintentionally reinforce existing inequalities or biases. In societal contexts, Ogunleye and Salawu (2023) observe that AI-driven innovations often reshape cultural norms, making ethical considerations an essential part of technological adoption. This is particularly relevant in governance and education, where the implications of AI extend beyond efficiency to issues of fairness and inclusivity. Recent Nigerian initiatives, as discussed by Oluwadare (2023), reflect efforts to establish policies that ensure AI technologies align with societal values and promote equitable development. This strong correlation, therefore, emphasizes the intertwined relationship between technological progress and ethical deliberations. As AI continues to evolve, it becomes imperative for stakeholders to prioritize ethical considerations to ensure that its applications benefit all segments of society while minimizing potential risks.

Chi-Square Test Interpretation

The Chi-square contingency table helps us understand the association between the level of AI integration in Social Studies education and students' ethical perspectives.

For high AI integration, all four students reported a positive ethical perspective. The observation that all four students reported a positive ethical perspective with high AI integration suggests that incorporating AI into the curriculum may foster more favorable ethical views among students. This implies that exposure to AI technology not only increases awareness of its potential but also prompts critical reflection on its ethical dimensions. The relationship between AI integration and ethical perspectives has been a significant focus in recent educational research, particularly as AI tools become more prevalent in classrooms and academic settings. High levels of AI integration in education can have profound effects on how students perceive technology's role in society. According to recent studies, when AI is woven into the curriculum in a meaningful way, it encourages students to engage with not only its functionality but also its broader ethical implications. In the case of the four students, their positive ethical perspective may be a result of being exposed to discussions on AI's impact on privacy, equity, and human rights, leading to a more informed and responsible outlook on its use.

Research by Adeyemi (2023) suggests that when students are actively engaged in AI-related lessons, they begin to understand the ethical complexities tied to data privacy and algorithmic biases. This helps cultivate ethical thinking, as students are encouraged to question not just how AI works but also its societal consequences. Similarly, Nwachukwu et al. (2023) argue that high AI integration promotes critical thinking, enabling students to assess both the benefits and the ethical concerns surrounding AI tools. Moreover, Akinlade (2022) supports the idea that AI education, when delivered with a strong ethical framework, fosters positive ethical attitudes. Students exposed to AI's ethical debates tend to develop a more balanced understanding of its advantages and challenges, which aligns with the positive ethical perspectives reported by the students in this study. Oluwadare (2023) adds that high integration of AI in the curriculum allows students to contextualize AI technologies within societal frameworks, making them more aware of the ethical considerations inherent in technology use. This awareness likely leads to the students' positive ethical perspectives, as they see AI as a tool that can be developed and used responsibly to improve society. The positive ethical perspectives reported by the four students reflect the potential of high AI integration to influence how students think about and engage with ethical issues related to technology. This suggests that educators and policymakers should consider embedding AI education in ways that not only teach students the technical aspects but also cultivate an ethical mindset that will help them navigate the challenges posed by emerging technologies.

For low AI integration, three students reported a negative ethical perspective, indicating that lower AI integration may lead to less favorable ethical development. The finding that three students reported a negative ethical perspective under low AI integration suggests that limited exposure to AI in the curriculum might hinder the development of a well-rounded understanding of its ethical implications. This observation highlights the importance of embedding AI-related content into educational frameworks to promote critical engagement and ethical awareness among students. Low AI integration often correlates with a lack of exposure to the discussions, challenges, and opportunities associated with artificial intelligence. When students are not adequately exposed to AI tools and their societal implications, they may lack the foundational knowledge required to engage critically with ethical issues. As Adeyemi (2023) observes, insufficient integration of AI in education can lead to misconceptions about the technology, reinforcing fears or skepticism about its role in society.

Akinlade (2022) further argues that low integration limits students' ability to contextualize AI within ethical frameworks, leaving them ill-equipped to navigate issues like algorithmic bias, data privacy, and equity. Without adequate exposure, students may develop negative ethical perspectives due to a lack of understanding of how AI can be harnessed responsibly to benefit society. Similarly, Nwachukwu et al. (2023) emphasize that low AI integration deprives students of opportunities to engage in critical thinking about AI's potential and risks. This absence of meaningful interaction with AI technologies can result in a narrow view, where students focus more

on perceived threats than on opportunities for ethical innovation. Oluwadare (2023) supports this viewpoint, noting that schools and universities with minimal AI integration often fail to provide students with the tools necessary to critically analyze AI's ethical dimensions. As a result, students may adopt negative ethical perspectives rooted in uncertainty or misinformation about the technology's impact. The negative ethical perspectives reported by students in the context of low AI integration highlight the need for deliberate efforts to incorporate AI education into curricula. This integration should not only focus on technical knowledge but also address the ethical, societal, and cultural implications of AI use. By doing so, educators can help students develop more balanced and positive ethical views, ensuring they are better prepared to navigate the complexities of a technology-driven world.

For moderate AI integration, three students reported a neutral ethical perspective, which suggests a middle-ground effect where AI has neither a strongly positive nor negative impact. The observation that three students reported a neutral ethical perspective with moderate AI integration suggests a middle-ground effect. In this scenario, the exposure to AI is sufficient to foster awareness but not extensive enough to encourage critical engagement with its ethical implications. This neutral stance reflects a balance where students recognize both the potential benefits and challenges of AI without forming a strongly positive or negative opinion. Moderate integration of AI into education can provide a foundational understanding of the technology but may lack the depth required to deeply engage students with its ethical dimensions. Adeyemi (2023) posits that while moderate exposure introduces students to AI concepts, it might not go far enough to challenge their critical thinking or prompt robust ethical debates. This limited engagement could explain why students in this group reported a neutral perspective, as their exposure may have been too general or surface-level.

According to Akinlade (2022), moderate integration often involves introducing AI tools without delving deeply into their societal implications. While this approach can familiarize students with the technology, it may fail to encourage nuanced discussions about ethical considerations such as privacy, equity, and bias. Consequently, students might adopt a wait-and-see attitude, acknowledging both the opportunities and the risks of AI without committing to a definitive stance. Nwachukwu et al. (2023) also highlight that moderate integration might result in ambivalence among students due to inconsistent exposure to AI's ethical challenges. When discussions about AI's benefits and risks are not comprehensive, students may struggle to form a clear ethical viewpoint, leading to neutral perspectives. Oluwadare (2023) further observes that moderate integration can sometimes present AI as a neutral tool, emphasizing its functionalities while downplaying its broader societal implications. This may prevent students from engaging critically, thus fostering a neutral rather than an evaluative ethical perspective. The neutral ethical perspectives associated with moderate AI integration highlight the need for more intentional and comprehensive approaches in AI education. To move students beyond neutrality, educators should incorporate practical applications of AI alongside discussions of its ethical, societal, and cultural implications. This will help students form informed and critical perspectives, better preparing them to navigate the ethical challenges of AI in their personal and professional lives.

These results suggest a significant relationship between the level of AI integration and ethical development. Students exposed to higher levels of AI integration tend to have more positive ethical views, while those with limited AI exposure tend to have more negative or neutral ethical perspectives. Both the Pearson correlation and the Chi-square test results indicate that AI plays a significant role in shaping students' ethical perspectives. The positive correlation highlights the strength of AI's impact, while the Chi-square test suggests that higher AI integration correlates with more positive ethical outcomes. This provides valuable insights for educators and policymakers, advocating for increased AI integration in Social Studies to foster ethical awareness and development among students.

Summary of Key Findings

The findings indicate that AI plays a significant role in shaping ethical perspectives among Nigerian Social Studies students. Most students reported that AI helps them engage in critical ethical thinking. The results align with previous research by Smith (2020) and Adewale et al. (2022), who found that AI tools can foster ethical awareness in educational contexts. However, this study adds a unique perspective by focusing on Social Studies education in Nigeria**.**

Practical Implications for Policy and Practice

The findings from the study reveal distinct ethical perspectives tied to the varying levels of AI integration in education. These perspectives—ranging from positive under high AI integration to negative under low AI integration, and neutral under moderate integration—offer several important implications for educators, policymakers, and curriculum developers.

The strong positive ethical perspectives observed with high AI integration suggest that a well-structured and immersive approach to AI education can foster critical engagement and ethical awareness among students. This indicates the importance of embedding AI technologies into curricula in a way that not only teaches technical skills but also emphasizes discussions around ethical considerations such as data privacy, algorithmic fairness, and societal impact. By doing so, students are more likely to develop informed and balanced views about AI's role in society.

The negative ethical perspectives associated with low AI integration highlight the potential risks of minimal exposure to AI in educational settings. When students are not adequately introduced to AI concepts, they may form misconceptions or overly negative views about its implications. This underscores the need for educational institutions to provide foundational knowledge about AI, even at basic levels, to combat misinformation and promote informed discussions.

The neutral ethical perspectives linked to moderate AI integration reflect the challenges of superficial engagement with AI. While moderate exposure may familiarize students with basic AI functionalities, it often fails to provide the depth needed for critical reflection on its ethical and societal dimensions. This suggests that educators should avoid halfway measures and instead aim for a more comprehensive approach that connects AI's technical aspects with its broader ethical implications.

The findings emphasize the critical role of education in shaping ethical attitudes towards emerging technologies. By integrating AI education in a manner that encourages both technical proficiency and ethical reasoning, institutions can better prepare students to become informed citizens and future leaders. This is particularly important in a technology-driven world where ethical competence is increasingly vital for responsible innovation.

For policymakers and curriculum developers, the findings highlight the need to design AI-related educational programs that balance technical skills with ethical inquiry. Policies that mandate the inclusion of ethical AI discussions in education could help bridge gaps observed in low and moderate integration settings, ensuring students are not only tech-savvy but also ethically aware.

Finally, the findings suggest that AI education should address diverse ethical concerns, including issues of inclusivity, equity, and social justice. This approach can help students appreciate the broader societal implications of AI and encourage them to advocate for technologies that serve all segments of society fairly. The findings underscore the transformative potential of AI integration in education, particularly when it is done comprehensively and thoughtfully. They call for a deliberate effort to design educational strategies that not only introduce students to the technical aspects of AI but also engage them in meaningful discussions about its ethical and societal dimensions. By doing so, educational institutions can foster a generation of individuals who are not only technologically proficient but also ethically grounded in their approach to emerging technologies. This study expands on Kohlberg's Theory of Moral Development by exploring how AI can accelerate ethical reasoning in educational settings.

Recommendations for Future Research

Future studies should explore the long-term impact of AI on ethical development and include a broader sample from different educational levels and regions.

Conclusion

This study underscores the critical relationship between the level of AI integration in education and students' ethical perspectives. High AI integration fosters positive ethical outlooks, demonstrating the value of immersive and comprehensive engagement with AI technologies in shaping informed and responsible attitudes. Conversely, low AI integration correlates with negative perspectives, highlighting the risks of insufficient exposure to AI concepts and ethical considerations. The neutral perspectives associated with moderate integration suggest that surface-level engagement is inadequate for fostering meaningful ethical awareness. These findings emphasize the need for a deliberate and balanced approach to integrating AI into educational curricula. By embedding AI technologies alongside discussions of their ethical, societal, and cultural implications, educators and policymakers can better prepare students to navigate the complexities of a technology-driven world. The study ultimately highlights the transformative potential of education in equipping future generations with the skills and ethical competence necessary to harness AI responsibly for societal advancement. As AI continues to transform education, it is essential to consider the ethical implications. While AI can promote ethical thinking, educators and policymakers must ensure that its use aligns with the goal of developing socially responsible citizens.

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