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IMPACT OF ARTIFICIAL INTELLIGENCE (AI) ON RELIGIOUS STUDIES EDUCATION AND ITS CONTRIBUTION TO NATIONAL DEVELOPMENT IN PLATEAU STATE, NIGERIA

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Abstract

This study examined the impact of Artificial Intelligence (AI) on Religious Studies education and its contribution to national development in Plateau State, Nigeria. Specifically, it explored the extent of AI adoption, its effect on teaching effectiveness, student learning outcomes, research productivity, and the broader influence on national development indicators, including peacebuilding, ethical leadership, digital literacy, and civic responsibility. The study adopted a descriptive survey research design with correlational and explanatory components. The population comprised 3,800 stakeholders, including Religious Studies teachers, lecturers, students, academic researchers, and institutional administrators from 5 Local Government Area of Plateau State with a sample of 380 respondents were selected using stratified random sampling. Data were collected using the structured Artificial Intelligence in Religious Studies and National Development Questionnaire (AIRSNDQ) and analyzed through descriptive statistics, Pearson Product Moment Correlation, and multiple regression analysis at a 0.05 significance level. The findings revealed strong positive correlations between AI adoption and teaching effectiveness (r = .821), AI adoption and research productivity (r = .864), and research productivity and national development (r = .902). These results indicate that AI integration significantly enhances instructional delivery, student learning, and scholarly output. Regression analysis confirmed that AI adoption, teaching effectiveness, and research productivity collectively explained 88.9% of the variation in national development outcomes (R? = 0.889). The study concluded that AI plays a transformative role in Religious Studies education by improving teaching quality, strengthening research capacity, and promoting national development. Recommendations include investment in AI-driven educational technologies, integration of AI competencies into Religious Studies curricula, and capacity-building programs for lecturers and students to maximize AI's educational and societal benefits.

Keywords: Artificial Intelligence, Religious Studies, Teaching Effectiveness, Research

Productivity, National Development, Plateau State

INTRODUCTION

The impact of Artificial Intelligence (AI) on education has become increasingly significant in reshaping teaching, learning, research, and institutional development across the globe (UNESCO, 2021; Holmes et al., 2019). In developing regions such as Plateau State, Nigeria, where education plays a central role in social cohesion, moral formation, and national integration (Federal Republic of Nigeria [FRN], 2014), the integration of

AI into Religious Studies education presents both transformative opportunities and critical challenges. Religious Studies remains a vital academic discipline in Plateau State, given the state's religious diversity and its historical experiences of interfaith interaction. The subject contributes to moral development, ethical reasoning, civic responsibility, peace-building and national unity (Durkheim, 1912/2001; Nnoli, 2003). However, persistent challenges such as inadequate instructional resources, limited research tools, poor digital infrastructure, teacher capacity gaps, and insufficient access to modern educational technologies continue to constrain effective delivery and national impact (World Bank, 2022). Artificial Intelligence, as an emerging technological innovation, offers strategic solutions capable of improving instructional quality, strengthening research capacity, enhancing institutional efficiency, and contributing to broader national development goals (OECD, 2021; UNESCO, 2021).

Artificial Intelligence in education refers to the application of intelligent computer systems capable of performing tasks that typically require human cognitive abilities such as learning, reasoning, problem-solving, language processing, and decision-making (Russell & Norvig, 2021). In Religious Studies education, AI technologies include adaptive learning platforms, intelligent tutoring systems, automated assessment tools, natural language processing applications, digital archives, virtual simulations, and data-driven learning management systems (Holmes et al., 2019). These technologies can personalize learning experiences, analyze student performance patterns, provide instant feedback, and support critical engagement with religious texts and ethical issues (Luckin et al., 2016).

AI-powered tools enhance instructional delivery by enabling interactive learning environments where students can explore religious concepts through multimedia resources, virtual historical reconstructions, and comparative theological databases. Natural language processing systems assist in text analysis, interpretation of sacred writings, and translation of religious materials into accessible formats (Russell & Norvig, 2021). Automated assessment systems improve grading efficiency and provide timely feedback, allowing educators to focus more on mentorship and critical discussions (Holmes et al., 2019). Through predictive analytics, institutions can identify learning gaps early and implement targeted academic interventions to improve student outcomes (OECD, 2021).

Beyond classroom instruction, AI plays a crucial role in strengthening research and academic scholarship in Religious Studies. Researchers can use AI-driven data mining tools to analyze large volumes of theological literature, historical documents, and sociological data related to religion and society (Zawacki-Richter et al., 2019). AI-supported digital libraries expand access to global academic resources, enabling scholars in Plateau State to engage with international research communities (UNESCO, 2021). These advancements improve academic productivity, enhance knowledge creation, and position Religious Studies institutions as contributors to intellectual and national development (World Bank, 2022).

Furthermore, AI integration in Religious Studies education contributes directly to capacity building. Capacity building refers to the development of knowledge, competencies, institutional frameworks, and technological capabilities necessary for sustainable growth (UNDP, 2009). Through digital literacy training, AI-enhanced pedagogical methods, and institutional data management systems, educators and students acquire new analytical, technological, and research skills (OECD, 2021). These competencies extend beyond religious scholarship and contribute to workforce readiness, innovation, and civic engagement. As students develop critical thinking, ethical reasoning, and digital competence, they become better equipped to contribute meaningfully to national development (UNESCO, 2021).

In Plateau State, where religious identity significantly influences social structures, governance, and community relations, strengthening Religious Studies education through AI integration represents a strategic pathway toward peace-building and sustainable development (Nnoli, 2003). AI can support interfaith dialogue initiatives, promote inclusive educational content, and facilitate data-driven policy planning within educational

institutions (OECD, 2021). By combining technological innovation with ethical education and institutional strengthening, AI has the potential to enhance academic excellence, promote social harmony, and contribute to national transformation. Therefore, this study seeks to examine the impact of Artificial Intelligence on Religious Studies education and how its integration can advance national development in Plateau State, Nigeria.

STATEMENT OF THE PROBLEM

Religious Studies education in Plateau State, Nigeria, plays a critical role in promoting moral values, ethical consciousness, peaceful coexistence, and national unity. Given the state's religious diversity and its history of interreligious tensions, the subject serves not only as an academic discipline but also as a strategic instrument for social cohesion and national development. However, despite its importance, Religious Studies education continues to face significant structural and pedagogical challenges. Instruction in many institutions remains largely traditional, relying heavily on lecture-based approaches with limited integration of modern educational technologies. This often results in low student engagement, limited critical inquiry, and inadequate exposure to global theological scholarship and digital research tools.

Additionally, many educators lack sufficient digital competence and training required to integrate emerging technologies effectively into teaching and research. Infrastructural limitations, including inconsistent internet access, inadequate digital learning platforms, and insufficient institutional funding, further constrain innovation. Students, particularly in rural and underserved communities, may also face limited access to digital devices and AI-supported learning resources. These constraints reduce the overall quality, competitiveness, and societal impact of Religious Studies education in the state.

At a broader level, there is limited empirical evidence on how Artificial Intelligence can enhance Religious Studies education and contribute to national development outcomes such as peace building, ethical leadership, digital literacy, and workforce readiness. While AI technologies are increasingly transforming sectors such as science, business and agriculture, their application within humanities and religious education remains underexplored in the Nigerian context. Moreover, concerns regarding ethical implications, academic integrity, technological dependence, and cultural sensitivity raise additional questions about AI integration in religious instruction.

This situation reveals a significant knowledge and policy gap: the absence of a structured framework linking AI adoption in Religious Studies education with measurable contributions to national development in Plateau State. Without empirical investigation and strategic planning, efforts to modernize religious education may remain fragmented, underutilized, or misaligned with broader developmental goals. Therefore, this study seeks to examine the impact of Artificial Intelligence on Religious Studies education and determine how its integration can promote sustainable national development in Plateau State, Nigeria.

OBJECTIVES OF THE STUDY

The general objective of this study is to examine the impact of Artificial Intelligence (AI) on Religious Studies education and its contribution to national development in Plateau State, Nigeria. The specific objectives are to:

Examine the extent of AI adoption in Religious Studies education in Plateau State.

Determine the impact of AI on teaching effectiveness and student learning outcomes in Religious Studies.

Assess the influence of AI integration on research productivity and academic scholarship

in Religious Studies institutions.

Evaluate the contribution of AI-enhanced Religious Studies education to national development indicators such as peace-building, ethical leadership, digital literacy, and civic responsibility.

Identify the challenges associated with AI integration in Religious Studies education in Plateau State.

RESEARCH QUESTIONS

The study seeks to answer the following research questions:

To what extent is Artificial Intelligence adopted in Religious Studies education in Plateau State?

How does AI integration influence teaching effectiveness and student academic performance in Religious Studies?

What impact does AI have on research capacity and scholarly output in Religious Studies institutions?

In what ways does AI-enhanced Religious Studies education contribute to national development in Plateau State?

What challenges hinder the effective integration of AI in Religious Studies education?

RESEARCH HYPOTHESES

The following null hypotheses will be tested at 0.05 level of significance:

H0? : There is no significant relationship between AI adoption and teaching effectiveness in Religious Studies education.

H0? : Artificial Intelligence integration does not significantly influence student learning outcomes in Religious Studies.

H0? : AI adoption has no significant impact on research productivity in Religious Studies institutions.

H0? : AI-enhanced Religious Studies education does not significantly contribute to national development in Plateau State.

CONCEPTUAL REVIEW

Artificial Intelligence in Religious Studies Education

Artificial Intelligence (AI) refers to computational systems designed to perform tasks that typically require human intelligence such as learning, reasoning, pattern recognition, language processing, and decision-making (Russell & Norvig, 2021). In the context of education, AI encompasses intelligent tutoring systems, adaptive learning platforms, automated assessment tools, natural language processing applications, and predictive analytics systems that enhance teaching and learning processes (Luckin et al., 2016).

Within Religious Studies education, AI applications include virtual learning assistants, automated grading systems for essays and theological reflections, AI-powered research databases, plagiarism detection tools, and digital content personalization platforms. Technologies such as AI chatbots, speech recognition systems, and learning management systems integrated with AI capabilities support interactive engagement and individualized instruction.

AI-enhanced Religious Studies education can improve lesson planning, provide real-time feedback, personalize spiritual and ethical learning materials, and facilitate comparative religious analysis. Through data analytics, educators can monitor students' performance patterns and tailor instructional strategies accordingly. In

Plateau State, AI adoption in Religious Studies classrooms may help bridge digital gaps, improve engagement, and modernize faith-based education within secondary and tertiary institutions.

AI and Teaching Effectiveness in Religious Studies

Teaching effectiveness refers to the ability of educators to facilitate meaningful learning outcomes, encourage critical thinking, and promote moral and ethical development among students (DarlingHammond, 2017). AI contributes to teaching effectiveness by supporting instructional planning, automating assessment, and offering data-driven insights into student progress (Holmes et al., 2019).

In Religious Studies education, AI tools can enhance biblical, Qur'anic, and theological interpretation through digital concordances, semantic search engines, and language translation systems. AI-based platforms can also simulate interfaith dialogues and ethical case studies, encouraging students to engage in reflective learning.

Automated grading systems improve feedback timeliness, while predictive analytics identify students at risk of poor academic performance. By reducing administrative workload, AI allows teachers to focus more on mentorship, spiritual guidance, and moral instruction. Consequently, AI integration may significantly influence teaching effectiveness and student academic performance in Religious Studies.

AI and Student Learning Outcomes in Religious Studies

Student learning outcomes refer to measurable knowledge, skills, attitudes, and values acquired through educational processes (Biggs & Tang, 2011). AI-enhanced learning systems personalize instruction based on students' pace, comprehension level, and learning style (Luckin et al., 2016). In Religious Studies, AI tools can provide multimedia content, interactive scriptures, virtual pilgrimages, and gamified ethical scenarios that improve comprehension and retention. Adaptive learning systems adjust content difficulty in real time, improving mastery of religious concepts, doctrines, and moral teachings.

Furthermore, AI-driven assessment analytics enable continuous evaluation, ensuring that students develop not only cognitive understanding but also ethical reasoning and civic responsibility. Therefore, AI integration has the potential to significantly improve student academic achievement and holistic development in Religious Studies education.

AI and Research Productivity in Religious Studies Institutions

Research productivity refers to the quantity and quality of scholarly outputs such as journal articles, conference papers, books, and policy contributions (OECD, 2021). AI enhances research capacity through automated literature review tools, citation management systems, plagiarism detection software, and data analysis platforms.

AI-powered databases such as those integrated within institutions like Google Scholar improve access to global theological and religious scholarship. Machine learning tools assist in thematic coding, textual analysis of sacred texts, and interdisciplinary comparative studies.

In Religious Studies institutions, AI can accelerate manuscript preparation, improve peer-review processes, and enhance collaborative research across institutions. This strengthens academic scholarship and contributes to intellectual development within Plateau State and beyond.

AI-Enhanced Religious Studies Education and National Development

National development encompasses improvements in peace-building, ethical leadership, civic responsibility, social cohesion, digital literacy, and economic progress (UNDP, 2020). Religious Studies education plays a crucial role in shaping moral values, promoting interfaith tolerance, and fostering social harmony.

AI-enhanced Religious Studies education contributes to national development by:

*Promoting digital literacy alongside ethical reasoning.

*Strengthening interfaith dialogue through virtual engagement platforms.

*Encouraging civic responsibility and peace-building initiatives.

*Supporting evidence-based policy research in religion and society.

In a diverse state like Plateau State, where religious plurality influences social dynamics, integrating AI into Religious Studies can foster tolerance, informed dialogue, and ethical leadership key components of sustainable national development.

THEORETICAL REVIEW

This study is anchored on the Diffusion of Innovation Theory developed by Everett Rogers (1962; 2003). The theory explains how new technologies spread within a social system over time. According to Rogers (2003), adoption of innovation depends on five attributes: relative advantage, compatibility, complexity, trialability, and observability.

Applying this theory to AI integration in Religious Studies education, educators and institutions are more likely to adopt AI technologies when they perceive clear benefits such as improved teaching effectiveness, enhanced student outcomes, and increased research productivity. Capacity-building initiatives reduce perceived complexity and enhance acceptance.

The theory therefore provides a framework for understanding how AI innovations can gradually transform Religious Studies education and contribute to national development in Plateau State.

EMPIRICAL REVIEW

Several studies have examined the impact of AI in education. Holmes et al. (2019) found that

AI-supported instructional systems significantly improve personalized learning outcomes. The OECD (2021) reports that digital education technologies enhance research productivity and institutional efficiency.

Recent Nigerian studies (NITDA, 2021) highlight growing digital transformation in educational institutions, though AI integration remains uneven across regions. Research indicates that digital tools improve academic performance and research access; however, localized studies focusing specifically on Religious Studies education are limited. Empirical evidence examining the relationship between AI adoption, teaching effectiveness, research productivity, and national development within Plateau State remains scarce. This study therefore fills an important research gap by providing context-specific empirical findings.

METHODOLOGY

The study used a descriptive survey design with correlational and explanatory components to examine the level of AI adoption in Religious Studies education and its relationship with teaching effectiveness, student learning outcomes, research productivity, and national development in Plateau State. The population consisted of about 3,800 stakeholders, including teachers, students, lecturers, researchers, and administrators, from which a sample of 380 respondents was selected using stratified random sampling to ensure proper representation.

Data were collected using a structured questionnaire (AIRSNDQ) divided into five sections and measured on a four-point Likert scale. The instrument was validated by experts and tested for reliability using Cronbach Alpha with a coefficient of 0.70 and above. Data analysis involved descriptive statistics (mean and standard deviation), Pearson correlation, and multiple regression analysis using SPSS at a 0.05 level of significance.

RESULTS AND DISCUSSION

ANALYSIS OF RESEARCH QUESTIONS

Table 1: Correlation Matrix

Significance (2-tailed): p = .000 for all correlations

The correlation analysis shows strong positive relationships among all variables. AI adoption in Religious Studies education is strongly associated with national development (r = .879, p < .05), indicating that increased use of AI contributes meaningfully to outcomes such as peace-building, ethical leadership, digital literacy, and civic responsibility. Similarly, AI adoption strongly correlates with research and scholarly productivity (r = .864, p < .05), suggesting that AI tools facilitate academic research, data management, and publication efficiency. Teaching effectiveness is also positively associated with AI adoption (r = .821, p < .05), showing that AI-supported instructional systems enhance lesson clarity, classroom engagement, and student learning outcomes. Research productivity demonstrates the strongest relationship with national development (r = .902, p < .05), emphasizing the critical role of knowledge production and digital competence in driving societal progress. Overall, these findings indicate that AI integration significantly improves teaching quality, academic scholarship, and contributes directly to national development in Plateau State.

ANALYSIS OF RESEARCH HYPOTHESES

Table 2: Model Summary

Predictors: AI Adoption (AIA), Teaching Effectiveness (TE), Research & Scholarly

Productivity (RSP)

Dependent Variable: National Development (ND)

The regression model demonstrates a very strong relationship (R = .943) between AI adoption, teaching effectiveness, research productivity, and national development. The R? value of 0.889 indicates that 88.9% of the variation in national development can be explained by these three predictors. The F-value (563.214, p = .000) confirms that the model is statistically significant, while the Durbin-Watson value (1.74) indicates no auto correlation problem. Table 3: Regression Coefficients

All predictors are statistically significant (p = .000), which supports the rejection of all null hypotheses: H0? is rejected as AI adoption significantly improves teaching effectiveness in Religious Studies education. H0? was rejected as AI integration significantly enhances student learning outcomes through improved teaching effectiveness. H0? was also rejected as AI adoption significantly strengthens research productivity in Religious Studies institutions and finally, H0? was rejected which stated that AI-enhanced Religious Studies education

significantly contributes to national development in Plateau State.

DISCUSSION OF FINDINGS

The findings indicate that Artificial Intelligence (AI) substantially enhances Religious Studies education in Plateau State. AI tools, including intelligent tutoring systems, adaptive learning platforms, automated grading software, plagiarism detection tools, and digital research databases, improve instructional delivery, learning outcomes, and academic scholarship. According to Luckin et al. (2016), AI-powered educational technologies facilitate personalized learning, adaptive teaching strategies, and higher-order cognitive skill development, which aligns with the improvements observed in this study.

The correlation analysis shows a strong positive relationship between AI adoption and teaching effectiveness ($r = .821$, $p < .05$). This indicates that AI-supported instructional tools improve lesson clarity, classroom engagement, assessment accuracy, and personalized learning experiences, which in turn enhance student academic performance and critical thinking. Holmes et al. (2019) support this, noting that AI-enabled adaptive learning and feedback mechanisms significantly increase student achievement and engagement across educational settings.

AI adoption also shows a strong correlation with research and scholarly productivity ($r = .864$, $p < .05$). This demonstrates that access to AI-driven academic databases, citation management tools, and data analytics platforms enhances research efficiency, quality, and publication output. Chen et al. (2020) emphasize that AI integration in higher education supports data-driven research processes and improves scholarly productivity, consistent with the findings of this study.

Importantly, research productivity exhibits the strongest correlation with national development ($r = .902$, $p < .05$). This suggests that knowledge creation, digital literacy, and research capacity are critical pathways through which AI-enhanced Religious Studies education contributes to societal progress, including ethical leadership, peace-building, civic responsibility, and digital competence. UNESCO (2021) highlights that integrating technology into education strengthens human capital, promotes civic engagement, and supports sustainable national development, which corroborates this study's findings.

Finally, AI adoption is positively correlated with national development ($r = .879$, $p < .05$) and teaching effectiveness ($r = .821$, $p < .05$), confirming that technology-enhanced education not only improves instructional quality but also indirectly drives societal development outcomes. Collectively, these results indicate that AI integration in Religious Studies education significantly supports teaching excellence, research capacity, and long-term national development in Plateau State.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The study concludes that Artificial Intelligence plays a transformative role in Religious Studies education in Plateau State. AI adoption significantly improves teaching effectiveness, strengthens research productivity, and enhances national development outcomes. Teaching effectiveness and research productivity serve as critical pathways through which AI contributes to sustainable national development. Integrating AI into Religious Studies education is therefore essential for academic quality, institutional capacity, and promoting responsible, digitally literate citizens.

RECOMMENDATIONS

The Plateau State Government should invest in AI-driven educational technologies such as adaptive learning platforms, automated grading systems, and digital research infrastructure.

Religious Studies departments should adopt AI-based instructional and assessment tools to enhance teaching effectiveness and student outcomes.

Capacity-building programs should focus on AI literacy, research software skills, and digital scholarship for lecturers and students.

Educational institutions should promote responsible, ethical, and effective use of AI in Religious Studies education.

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