

ARTIFICIAL INTELLIGENCE IN SCHOOL SECURITY: OPPORTUNITY AND CHALLENGES

By

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Abstract

This study investigates artificial intelligence in school security: opportunity and challenges. Drawing insights from a comprehensive review of existing literature and framed within the context of Self-determination Theory (SDT), the research explores the multifaceted contributions of AI across various stages of curriculum development and execution. The study reveals that AI technologies, including machine learning and natural language processing, play a pivotal role in enhancing educational practices. Notably, AI facilitates personalized learning experiences, automates assessments, and optimizes curriculum design by analyzing extensive datasets on student performance. The findings underscore the potential of AI to address scalability issues in education, offering a dynamic approach to curriculum development that considers individual learner needs and ensures the delivery of high-quality educational content. Moreover, the study identifies future prospects for AI in education, envisioning advancements in adaptive learning systems, intelligent tutoring, and expanded applications of AI-driven virtual assistants. Despite the positive impacts, the research acknowledges challenges, such as ethical concerns and the imperative for workforce re-skilling.

Keywords: Artificial intelligence, School, Security, Opportunities, Challenges, Education

Introduction

In the modern world, technology has not just played out brilliantly in scientific fiction movies but has also paved way for things that were once thought impossible. From getting driving directions from Google Maps to Amazon giving recommendations based on previously purchased online services, technology has now seeped into many aspects of humans lives across all strata. With the recent rise in technology acceptance throughout the globe, it is now normal

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for different industries to adopt technology for use in their respective professions. Similar to

other domains, the field of education is also going through a paradigm shift through the use of advanced technologies. The fourth educational revolution, known as Education 4.0, was inspired by the demand for advanced technologies. Presently, education is now defunct to merely instruction of written text or just needing the student to cram textbooks as educators have begun to recognize how classroom and non-classroom-related tasks may be simplified and completed effectively. Teaching activities, both within and outside class premises, has now become a process of provable objectives and outcomes. Due to improvement in technology, pedagogics in educational settings are now a dynamic component of put in and harvest of the knowledge development (Nafea, 2018).

One of the technological improvements in the field education is artificial intelligence. Artificial intelligence, or simply called AI, is a sub-domain of computer scientific field that deals with the study of mimicking human's cognitive abilities when performing complex, automated processing tasks. AI guides humans to a modernity free of limiting boundaries (Lombardi, 2022). It combines computer programming with dataset in order to create software or machines capable of problem-solving. Therefore, artificial intelligence-driven technologies are systems programmed to mimic humans while solving complex problems without being manually instructed. Ensuing from fairly modest, general-purpose plexus in the 1960s, artificial intelligence at the moment, generally encompasses more definite-purpose structure that specifically carry out duties relating to interpretation of statistical data via a phone or computer interface (Baker, 2021).

Due to its enormous potential to expand and improve teaching and learning, the introduction of

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artificial intelligence might be seen as a turning point in higher education. AI is well positioned to solve issues with education that are caused by both the inadequacies of conventional methods of educating pupils in the 21st century and the complexity of the educational system itself (Ahmad, et al., 2020). AI does not get tired, does not experience emotions or mood swings, and does not have a life outside of education. Artificial intelligence in higher education is used by students, teachers and university management and envisioned on reducing time spent on tedious administrative, teaching and learning tasks and processes. With a history of more than 70 years (Yufeia, Saleh, Jiahui, & Abdullah, 2020), much of the early projects in artificial intelligence in education utilized intelligent tutoring systems. nonetheless, the topic has grown through time to encompass all different kinds of educational systems (Baker, 2021).

Applications of artificial intelligence in higher education are now on the increase and have gained momentum in recent years. According to several worldwide publications, one of the burgeoning technological areas in the education space is AI in higher education, from which a great deal of research is being done to assist educational processes (Nunez & Lantada, 2020). For instance, the yearly Horizon Report publication from 2020 lists artificial intelligence as one of six technologies having the potential to have a significant influence on higher education (Brown, McCormack, Reeves, Brooks, & Grajek, 2020). The AI education industry, according to Global Market Insights Inc., may be worth \$20 billion by 2027. (PR Newswire, 2021).

Since AI in education is gaining ground, it is important to study recent research in the area to provide educators a current understanding of the subject and to help them be ready for any changes that may come. This chapter's remaining sections focus on how AI-driven technology

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have been used to carry out various tasks for students, instructors, and school administration.

Literature Review

Overview of Artificial Intelligence

Artificial intelligence (AI) stands as an advanced technological frontier, simulating human intelligence through machine learning algorithms, neural networks, and natural language processing (NLP). Its transformative impact extends across diverse industries, encompassing healthcare, finance, and manufacturing. In recent years, AI has emerged as a potent force in educational management, revolutionizing the learning landscape. It contributes to enhancing the learning process, elevating student outcomes, and streamlining administrative tasks. Positioned at the forefront of the fourth educational revolution, AI represents a key driver of technological progress, reshaping societies and economies globally. The study of intelligent machines and software capable of reasoning, learning, knowledge acquisition, communication, manipulation, and perception defines the realm of Artificial Intelligence (Verma, 2018). Rooted in computer science, AI focuses on designing intelligent systems that emulate human behaviors associated with reasoning, language processing, perception, vision recognition, and spatial processing (Ocana et al., 2019). As Strusani and Hounghonon (2019) emphasize, AI involves harnessing vast data volumes and computing power to simulate diverse human intellectual abilities, marking a pivotal era in technological evolution. The integration of AI into education signifies a paradigm shift, presenting opportunities for unprecedented advancements in the learning process and administrative efficiency. As AI becomes integral to educational systems, the implications for student engagement, personalized learning, and resource optimization are substantial, promising a future where technology plays a central role in shaping a more adaptive and effective

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Key Artificial Intelligence Technologies in Education

Artificial Intelligence (AI) has unequivocally emerged as a transformative force, permeating various facets of human life, with educational management standing as a notable beneficiary. Scholars and researchers have extensively explored the applications of AI in education, highlighting its multifaceted impact. Among the major AI technologies instrumental in reshaping educational practices are machine vision, expert systems, machine learning, natural language processing, deep learning, and robotics.

Machine Vision (MV): Machine vision, synonymous with computer vision, stands as a pivotal technology within the realm of Artificial Intelligence. Richter, Marín, Bond, & Gouverneur (2019) describe machine vision as a capability that empowers software to recognize patterns, make predictions, and adapt discovered patterns to unforeseen situations. Operating with high speed, precision, and accuracy, machine vision replicates human visual perception, utilizing cameras and computers for functions such as recognition, tracking, object measurement, and image processing. This technology finds applications in video surveillance, facial recognition, biometric face scanning, autonomous driving, medical image analysis, and archaeology (Chen, 2019). In the educational context, machine vision proves invaluable for tasks like attendance recording, monitoring students' facial expressions, and detecting signs of confusion in learners. However, the incorporation of machine vision into education holds immense promise for improving attendance tracking, enhancing classroom dynamics through facial expression monitoring, and providing targeted support for students facing challenges in comprehension.

Automated Facial Recognition (FR): Machine vision seamlessly integrates with Automated

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Facial Recognition (FR) for attendance marking in educational settings (Richter et al., 2019).

The FR system streamlines the attendance process, optimizing class time for both teachers and students while eliminating the need for manual crosschecking. Cameras embedded with machine vision track movements and monitor students' facial expressions during classes and examinations, adding a layer of intelligent surveillance to the educational environment (Chen, 2019). The utilization of Automated Facial Recognition, coupled with machine vision, not only streamlines administrative tasks but also contributes to a more efficient use of instructional time, fostering an environment conducive to focused and productive learning

Expert System (ES): Expert systems (ES) represent a pivotal facet of Artificial Intelligence (AI), embodying the capacity of computer software to replicate human expertise within a specific domain, facilitating problem-solving through a meticulously organized knowledge base. Nwigbo and Madhu (2016) underscore the utilization of expert systems in education, particularly within the Intelligent Tutoring System (ITS). These systems function as adept tutors, delivering personalized learning experiences by considering students' prior knowledge and abilities. Notably, AI-driven career coaches embedded with expert systems provide individualized advice to students, incorporating historical data, experiences, locational preferences, skills, and career requirements (Khare et al., 2018). The integration of expert systems into educational frameworks holds

significant implications for personalized learning and career guidance. By replicating human expertise, these systems contribute to a tailored and adaptive educational experience, aligning with the diverse needs and aspirations of students.

Natural Language Processing (NLP): Natural Language Processing (NLP) stands at the

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intersection of AI and linguistic communication, focusing on emulating human natural language patterns. This technology facilitates interaction with intelligent systems using natural languages, both written and spoken. Kolodny (2017) emphasizes the integration of NLP into various applications, such as talking calculators, enabling oral dictation of numbers and signs. Furthermore, NLP broadens access to information for individuals with visual impairments, hearing difficulties, and motor challenges, fostering independent conversations. Common services like Google Translate and chatbots exemplify the practical applications of NLP, providing multilingual access to information. The incorporation of Natural Language Processing into educational contexts offers avenues for enhanced language learning, spelling and grammatical corrections, and multilingual support. AI-driven writing assistants based on NLP and Machine Learning present opportunities to augment the writing process, providing corrective feedback and recommendations for improvement

Machine Learning (ML): Machine learning (ML) stands as the forefront of Artificial Intelligence, encompassing the design, training, and deployment of models to applications, processes, and other machines. Chen (2019) delineates ML's core components, including algorithms, Application Programming Interfaces (APIs), development and training toolkits, data, and computing power. Goksel and Bozkurt (2019) emphasize ML's dynamic application, utilizing existing data for predictive analysis. In education, ML plays a pivotal role in optimizing course material selection through content providers, employing feedback and scoring systems for assignment grading, plagiarism detection, and student progress assessment. Integration with Natural Language Processing enhances applications like text-to-speech and language translation, exemplified by Google Translate. ML transforms information retrieval by automating

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suggestions and recommendations based on geographic location, search history, and user preferences, providing students and lecturers' access to a wealth of internet knowledge. The integration of Machine Learning into educational practices not only streamlines administrative tasks but also enhances the learning experience, offering personalized content recommendations and revolutionizing information retrieval for academic purposes.

Deep Learning (DL): Deep Learning (DL), synonymous with deep neural networks, represents a sophisticated facet of machine learning primarily utilized in pattern recognition and classification applications with substantial datasets. Chen (2019) highlights DL's capacity to enable virtual assistants to detect and comprehend speech, images, sound, and videos. In the realm of education, DL significantly augments online learning efficiency, as adaptive educational software tailors content to meet individual student needs. This fosters personalized learning experiences, providing avenues for students to receive additional assistance from tutors, thereby enriching the overall learning process. The incorporation of Deep Learning into online learning platforms presents a transformative potential, offering personalized learning experiences and reinforcing the role of technology in addressing individual learning needs.

Robotics: Robotics, encompassing the design, construction, operation, and application of robots, represents a multifaceted science and technology domain. The Robot Institute of America's definition underscores the reprogrammable, multifunctional nature of robots, capable of executing various tasks through programmed motions. Odoh (2018) emphasizes that robots are equipped with sensory capabilities akin to human environmental perception. In the educational context, robots offer synchronous lessons to absent students, exemplified by Avatarion's technology connected to Microsoft Azure IoT Hub. This facilitates full video and audio

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connections for students in hospitals or homes, allowing them to actively participate in the learning process through a tablet-controlled robot. This innovative approach bridges the gap for physically absent students, transforming traditional learning dynamics. The integration of robotics into education holds significant implications for inclusivity, enabling absent students to engage actively in the learning process. This technological advancement fosters a more accessible and participatory educational environment

AI in Curriculum Development. Artificial Intelligence (AI) has become a focal point in Nigeria's educational landscape, exemplified by the establishment of the National Agency for Research in Robotics and Artificial Intelligence (NARRAI) in 2018. The government, recognizing the transformative potential of AI, entrusted NARRAI with the coordination and oversight of all AI and robotics research endeavors. Minister of Science and Technology, Dr. Ogbonnaya Onu, emphasized NARRAI's commitment to collaboration with international research bodies, partnership with tertiary institutions, and the facilitation of Nigeria's proficiency in leveraging AI technologies for economic growth (Ladeinde, 2019). This strategic initiative reflects the government's proactive stance in integrating AI into the national curriculum.

Nigerian Government's Endeavors in AI Integration

In alignment with its commitment to advancing AI, the Nigerian government has taken substantial steps, as illustrated by the formation of NARRAI. Bobai Ephraim Kato's accomplishment in developing a functional AI robot for his final year project further exemplifies the individual initiatives within the country. Kato's creation, capable of puzzle-solving, underscores the potential for AI to contribute meaningfully to problem solving in education (Ogbonnia, 2017). Initiatives like ScholarX, a Nigerian social impact start-up, are pivotal in

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Unizik Journal of Educational Management and Policy (UJOEMP), Vol 7, No. 2, April, 2026. ISSN: 2276-7630 addressing educational disparities. ScholarX focuses on providing access to quality education for young Africans from low-income backgrounds through scholarships, crowdfunding, and e-learning initiatives (Nsehe, 2019). Additionally, the AI innovation from the Obafemi Awolowo University iLab team, particularly the Remote Lab developed by Ishola Babatunde Isaac, showcases the practical integration of AI in educational settings. This system allows students to control laboratory equipment remotely, overcoming constraints of time and space for experimentation in Nigerian universities (Ogbonnia, 2017).

Furthermore, global technology giant Google's establishment of an AI research hub at the University of Lagos in June 2018 highlights the international recognition of Nigeria's potential in AI research and development (Hussain, 2018). These collective efforts, both at the governmental and individual levels, demonstrate a comprehensive approach to integrating AI into the fabric of Nigerian education, with far-reaching implications for curriculum development. The active involvement of the Nigerian government and innovative individuals in fostering AI initiatives signals a paradigm shift in curriculum development. The establishment of NARRAI and various AI applications in education imply a commitment to enhancing learning experiences, promoting problem-solving skills, and preparing students for a technologically advanced future. The synergy between government initiatives and grassroots innovations holds the promise of a curriculum that aligns with the evolving demands of the digital age.

Artificial Intelligence Based Curriculum Development

Artificial Intelligence (AI) plays a pivotal role in revolutionizing curriculum development, primarily leveraging Machine Learning and Text Mining methods (Somasundaram et al., 2020; Tavakoli et al., 2020; Molavi et al., 2020; Pattanshetti et al., 2018). Somasundaram et al. (2020)

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propose an innovative educational program model grounded in AI back-propagation concepts, tailoring curriculum elements (prerequisites, content, expected outcomes) to meet labor market demands. While the model exhibits promise, its focus remains confined to the realm of Internet of Things (IoT). Pattanshetti et al. (2018) contribute to content delivery by employing Natural Language Processing (NLP) techniques to create knowledge graphs of Open Educational Resources (OERs), enhancing targeted dissemination. However, the concentration on content level rather than higher-level learning goals limits its scope. Additional studies (Pattanshetti et al., 2021; Tavakoli et al., 2020) introduce automated quality assessment approaches for educational resources, aiding content providers in filtering out low-quality materials. Molavi et al. (2020) pioneer a method utilizing Latent Dirichlet Allocation (LDA) algorithms to extract topics from educational resources, shaping learning pathways, albeit within the context of text mining education. Despite steps in personalized educational systems (Rojas-López et al., 2022), scalability remains a significant challenge. Current approaches focus on key content domains and may compromise on the quality of educational content due to scalability issues (Tavokoli et al., 2020; Zhang et al., 2020). There is an urgent need for a scalable and dynamic curriculum development approach that caters to individual learner needs, encompasses relevant knowledge areas, integrates high-quality educational content, and requires minimal maintenance efforts (Zhang et al., 2020). The integration of AI into curriculum development heralds a new era of personalized education, aligning with individual learner needs and labor market demands. However, addressing scalability issues is imperative for sustained success, ensuring that educational systems can adapt dynamically to evolving requirements while maintaining high standards of content quality and relevance.

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Self-determination Theory (SDT)

The Self-determination Theory (SDT) is a valuable framework for understanding educators' motivations and psychological needs when adopting educational innovation in Nigerian educational environments when looking at the integration of AI into curriculum creation. Based on the work of Ryan and Deci (2000), SDT proposes that individuals have three fundamental psychological needs: autonomy, relatedness, and competence. These needs play a crucial role in driving educators' intrinsic motivation to participate in curriculum development processes (Niemic & Ryan, 2009). In the context of AI integration, autonomy refers to educators' sense of control and freedom to innovate with AI technologies in curriculum design. Relatedness emphasizes the importance of fostering a sense of community and shared purpose among educators as they collaborate on AI-driven curriculum initiatives. Additionally, competence reflects educators' confidence in their ability to effectively utilize AI tools to enhance teaching and learning experiences. By addressing these psychological needs, educational institutions in Nigeria can create an environment that promotes educators' intrinsic motivation, thereby facilitating the successful integration of AI into curriculum development. Furthermore, applying SDT within the Nigerian educational landscape has implications for the effective utilization of AI in curriculum development. By prioritizing educators' autonomy, relatedness, and competence, educational stakeholders can empower teachers to embrace AI technologies as tools for innovative pedagogy.

This approach not only enhances educators' motivation and engagement but also fosters a culture of continuous improvement and adaptation in response to evolving educational needs. Moreover,

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by aligning curriculum development efforts with educators' intrinsic motivations, educational institutions can enhance the quality and relevance of educational offerings, ultimately contributing to the advancement of the Nigerian educational system in the era of AI integration. The implications of SDT for introducing innovations suggest that school leaders should adopt autonomy-supportive strategies instead of controlling ones (Ryan & Deci, 2000). In an autonomy-supportive environment, leaders should prioritize teachers' perspectives, provide them with choices in planning, and reduce unnecessary stress. This allows teachers to exercise autonomy in making curriculum decisions based on their self-efficacy, fostering a sense of empowerment (Chiu & Churchill, 2016; Patrick & Canevello, 2011). Schools can further support competence by providing professional training and granting teachers freedom in their professional development (Chiu & Churchill, 2016; Ryan & Deci, 2000). For example, schools may allow and encourage teachers to pursue relevant courses during school hours. Relatedness, although less extensively studied, is crucial and often manifests in mentorship and collaborative learning experiences (Sparks et al., 2016). However, current research primarily focuses on self-oriented benefits rather than other-oriented community contributions, indicating an area for further exploration within SDT and education literature. Overall, empowering teachers to internalize their curriculum planning experiences is key to sustaining curriculum development efforts, complementing the importance of understanding teachers' motivations alongside curriculum planning approaches.

Empirical Evidence of AI Impact in Curriculum Development

The impact of Artificial Intelligence (AI) on curriculum development is substantiated by empirical evidence across various educational domains. Intelligent tutoring systems, employing

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AI, are pivotal in providing personalized instruction tailored to individual learning styles (Zhang & Li, 2021). Ecker, Langer, König, & Schmitz (2018) Ecker et al. (2018) affirm that automated grading systems, a manifestation of AI in education, exhibit accuracy comparable to human graders, contributing to time efficiency and grading consistency. AI's analytical capabilities extend to identifying at-risk students through data analysis, enabling timely and targeted interventions (Wang et al., 2020). Predictive analytics, as Wang et al. (2020) suggest, empower educators to foresee potential dropout risks or course failures, facilitating proactive measures. Personalized learning, a core outcome of AI integration, enhances overall learning outcomes and boosts student engagement (Chen, Li, Li, & Li, 2021). AI-driven systems analyze individual student strengths, weaknesses, and learning styles to craft personalized learning paths (Chen et al., 2021). In another study, Smith (2021 & 2022) outlines a spectrum of applications for Artificial Intelligence (AI) in educational management. These applications include personalized learning, where AI tailors learning paths to individual students based on their unique attributes; intelligent tutoring systems providing real-time feedback and individualized learning experiences; student performance prediction utilizing AI algorithms to analyze various data factors and intervene proactively; automated grading for multiple-choice and short-answer questions, freeing up teacher time; learning analytics aiding educators in analyzing student data for trends and patterns; AI-powered chatbots and virtual assistants offering instant answers to common queries; campus safety through AI-powered surveillance systems; recruitment and admissions with AI analyzing applicant data; financial aid and student services automation; and AI's role in informing curriculum development by analyzing job market trends and identifying future skill needs.

In the context of Nigerian higher education, the deployment of Artificial Intelligence (AI) holds significant potential for enhancing various aspects of curriculum implementation. Lecture planning and preparation, a crucial step in curriculum delivery, is streamlined through AI's ability to automate routine tasks such as lesson planning, scheduling, attendance marking, grading, and record-keeping (Ogunode, 2020). This automation not only reduces the administrative burden on academic staff but also allows educators to focus on improving educational quality. Additionally, AI tools can generate automated alerts, report cards, and communication with parents, fostering efficient communication channels. Furthermore, the preparation of instructional resources for effective lecture implementation is a responsibility often shouldered by academic staff. AI's role in this domain involves the creation of smart content, ranging from digital textbooks to instructional snippets and videos. Ogunode et al. (2021) highlight the potential for AI to facilitate personalization in education, a global trend that aligns with the future of learning. AI tools can create customized learning environments based on educational strategies and goals, including augmented reality/virtual reality (AR/VR) lessons and web-based content. Monitoring and evaluation tools powered by AI and machine learning algorithms contribute to identifying areas for curriculum improvement, ensuring that content aligns with diverse learning styles and effectively addresses areas of weakness. This adaptive approach enhances the overall quality of instructional resources and supports educators in refining their teaching methodologies.

In Nigerian higher education, the preparation of instructional resources for lecture implementation stands as a critical responsibility for academic staff. This task demands

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meticulous planning and organization, and Artificial Intelligence (AI) emerges as a valuable ally in this endeavor. Ogunode et al. (2021) assert that AI contributes to the creation of "smart content," encompassing digital textbooks, guides, instructional snippets, videos, and customized environments tailored to educational objectives. This aligns with the global trend of personalization in education, where AI tools facilitate the development of augmented reality/virtual reality (AR/VR)-based learning environments and web-based lessons. Furthermore, AI Monitoring and Evaluation tools play a pivotal role in streamlining content to accommodate diverse learning styles and pace variations, identifying areas for improvement in the curriculum. Lecture presentation, a crucial aspect of curriculum implementation, is enhanced by AI in tertiary institutions. The quality of teaching contents and methods has been improved, adapting to the needs and capabilities of colleges and universities (Ohiare et al., 2021). AI contributes to the establishment of an artificial intelligence literacy framework within the general education system, fostering students' general interest, sustainable development, and global governance. By analyzing students' learning styles and abilities, AI facilitates the creation of personalized learning experiences, allowing educators to customize teaching methods, curricula, and materials to meet individual needs. The assessment of students, a responsibility often shouldered by lecturers, sees advancements through AI, particularly in the administration of online tests. AI automates the assessment and grading process, saving time and ensuring objective evaluation (Oztok and Zingaro, 2019).

Opportunities and Challenges

Opportunities

Looking ahead, the future prospects of AI in education are promising, with implications reaching

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beyond the current capabilities outlined in the study. As AI technologies continue to evolve, the educational sector may witness advancements in adaptive learning systems that can respond dynamically to individual student progress, further enhancing the personalization of education (Rojas-López & García-Peñalvo, 2022). Additionally, the integration of AI in curriculum development may lead to the emergence of intelligent tutoring systems with enhanced capabilities to provide real-time feedback, adapt to diverse learning needs, and track student progress more effectively (Smith, 2021). The ongoing development of AI-driven chatbots and virtual assistants could play a pivotal role in providing instant support to students, potentially expanding their use to more complex problem-solving scenarios (Singh and Singh, 2021).

Challenges of Artificial Intelligence in Education

Artificial Intelligence (AI) in the Nigerian educational system faces a range of challenges that need to be addressed in order to ensure its effective integration and utilization. Some of these challenges include:

Infrastructure: The availability and quality of infrastructure, such as reliable internet access and electricity, as well as availability of computer systems are important prerequisites for implementing AI tools and technologies in education. Nigeria faces infrastructural limitations that can hinder the widespread adoption of AI in the educational system.

Funding: Adequate financial resources are essential for the development and implementation of AI initiatives. Lack of funding can impede the procurement of necessary hardware, software, and expert personnel needed to deploy AI solutions effectively in Nigerian schools and universities.

Awareness and Understanding: Creating awareness and providing a comprehensive

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understanding of AI among education stakeholders is crucial. Educators, administrators, and policymakers need to be familiar with AI concepts, its potential applications, and its limitations to make informed decisions, develop appropriate policies, and design relevant curricula

Skills Gap: There is a shortage of professionals with expertise in AI within the Nigerian educational system. The lack of qualified AI trainers, data scientists, and engineers hinders the development and deployment of AI solutions. Bridging this skill gap through targeted training and capacity-building programs is necessary to fully leverage AI in education.

Ethical Considerations: The ethical implications of AI usage, such as data privacy, security, and algorithmic bias, must be carefully addressed in the educational context. Ensuring that AI systems are transparent, fair, and unbiased is essential to build trust and prevent potential harm.

Content Localization: Many AI-powered education technologies and resources are often developed based on foreign contexts and may not be directly applicable to the Nigerian educational system. Localizing AI content, including language, cultural references, and examples, is vital for its effective integration into the Nigerian educational landscape.

Resistance to Change: Resistance to change is a common challenge when introducing new technologies like AI. Some educators and administrators may be hesitant to embrace AI due to fear of job displacement or unfamiliarity with the technology. Ensuring proper training, addressing concerns, and showcasing the benefits of AI can help to overcome this resistance

Conclusion

In conclusion, curriculum changes are prompted by evolving societal needs, cultural shifts, and responses to economic, social, and political dynamics. Technological advancements, such as the integration of artificial intelligence (AI), play a pivotal role in reshaping curriculum

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implementation within tertiary education. This paper has explored the multifaceted contributions of AI in Nigerian tertiary institutions, emphasizing its impact on lecture planning, instructional resource preparation, presentation, student assessment, script marking, assignment allocation, student preparation, and teaching method selection.

The study, relying on secondary data from diverse sources, affirms that AI has significantly enhanced various facets of curriculum implementation. The paper underscores the transformative potential of AI in streamlining administrative tasks, optimizing learning experiences, and fostering personalized education. As AI continues to revolutionize educational practices, it is crucial for governments to prioritize increased funding for tertiary institutions and ensure the effective deployment of AI technologies. Recognizing the indispensable role of AI in curriculum implementation, these recommendations aim to support the continued integration of advanced technologies, thereby contributing to the evolution and improvement of the educational landscape.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. School leaders should prioritize creating autonomy-supportive environments to empower teachers in curriculum planning. This can be achieved by considering teachers' perspectives, providing them with choices in planning, and reducing unnecessary stress and demands on teachers.
2. Government through appropriate agencies should provide professional training and freedom, granting teachers the opportunity to pursue relevant courses during school hours, to support their competence and enhance their contribution to curriculum development.

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3. There is need for continuously evaluate the effectiveness of autonomy-supportive strategies and professional development initiatives in fostering teachers' motivation and engagement and adapt approaches based on feedback and outcomes to ensure sustained commitment to curriculum development efforts.

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