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INFLUENCE OF ARTIFICIAL INTELLIGENCE ON HISTORY PEDAGOGY IN THE 21ST CENTURY SECONDARY SCHOOLS EDUCATION IN PLATEAU STATE, NIGERIA

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ABSTRACT

This paper examines the influence of Artificial Intelligence (AI) in the teaching and learning of History in the senior secondary schools in the 21st century in Plateau State, Nigeria. The new AI technologies of internet and multimedia which have led to positive impact in the field of education in most developed countries are still at infancy or not used at all in the classroom instruction in the developing countries. AI is a potential powerful enabling tool for effective teaching and learning. The paper argues that the central role of AI is to provide additional strategies that can be used to address major educational challenges being faced by teachers and students of History in the 21st century. The study also looked at some of the envisaged challenges ethical considerations of usage of AI for History pedagogy. It also viewed the future of History subject with the advent of AI. The paper therefore concludes that the appropriate use of AI can influence and change traditional methods of teaching and learning of History thereby ensuring quality education. Some recommendations were also highlighted such as AI technology should be use in all History classes to enhance History students' interest in the subject and AI should be use in historical pedagogical instruction in order to make the students active participants and not passive ones as it used to be.

Key words: Artificial Intelligence, History, Pedagogy, Education, Century

INTRODUCTION

Education is the foundation of national development, economic growth, and social progress, equipping individuals with the skills and knowledge essential for productivity and innovation. Education remains humanity's most powerful weapon for change, shaping critical and intelligent thinkers capable of building strong character and societal advancement. Over time, nations have continually sought to strengthen educational systems to meet global demands, particularly through Information and Communication Technology (ICT), which has redefined how knowledge is created and shared.

With the rise of microcomputers in the 1970s and the subsequent digital revolution, technology became deeply integrated into global education. The fourth industrial revolution ushered in Artificial Intelligence (AI), robotics, and digital tools that are transforming the educational landscape (Chen, 2020; Wordi & Wodi, 2024). Today, AI plays a vital role in modernizing classrooms, enhancing learning efficiency, and providing new strategies for teachers and students to overcome traditional barriers in education.

AI's impact extends to all facets of life, including communication, economy, health, and education. While its influence is widely discussed across disciplines, little attention has been paid to its role in History education, especially in Nigeria. Historically, History teaching in Nigerian secondary schools relied on rote memorization, students recited facts, dates, and events without critical engagement. This approach, combined with limited instructional resources, made History abstract and unappealing to students (Ahmad, Iqbal, El-Hassan, Qadir, Benhaddou, Ayyash & Al-Fuqaha, 2023). The subject's temporary removal from the national curriculum in 1979 further weakened its standing.

Technological advancements now offer new possibilities for revitalizing History teaching. AI's core purpose is to replicate human cognition for solving problems and facilitating learning which makes it a powerful educational tool. Through adaptive learning systems and machine learning algorithms, AI can personalize instruction, improve engagement, and help students grasp historical concepts more meaningfully (Sohrablo, 2020; Mallillin, Mendoza, Felix, & Lipayon, 2020). These innovations can transform History classrooms from passive, teacher-centered spaces into dynamic, interactive learning environments.

The COVID-19 pandemic of 2019 further emphasized the urgency of integrating technology into education. Traditional teacher-centered approaches became inadequate when in-person learning was restricted. Modern AI driven tools such as chatbots, intelligent tutoring systems, and data analytics provide teachers with real time insights into students' performance and enable more flexible instructional planning. As a result, History educators now face the challenge of adapting their pedagogy to align with these digital transformations.

It is within this context that the present study investigates the influence of Artificial Intelligence on History pedagogy in senior secondary schools in Plateau State, Nigeria. The study explores how AI can enhance students' interest and achievement in History, examine the challenges and ethical implications of AI use in education, and suggest strategies for effective integration in the classroom.

CONCEPTUALIZING OF EDUCATION, HISTORY EDUCATION AND ARTIFICIAL INTELLIGENCE

Education: Education is said to be the activities that are planned by the teacher or the teacher with the aim of making learning easier and flows between the teacher and one or more students in the form of a reciprocal action (Sadeghi, 2017). Education is neither an institution nor a course, but education is a set of activities that are in the service of education and training, usually the activities that the teacher does alone or with the help of educational materials are called education. He defines education in the following way: education is any pre-planned activity or arrangement whose goal is to create learning in students (Seif, 2011).

History Education: One of the important lessons in the education system of every country, including Afghanistan, is history. The history of any nation is a symbol of that nation's identity, which plays a major role in the formation of the personality and identity of its youth. The country of Afghanistan also has a very long history and the age of its civilization reaches several thousand years. The historical traces of this glorious civilization are very diverse and abundant. Knowing this vast historical world requires continuous and deep education and training (Khirandish, 2000).

Artificial Intelligence: Artificial intelligence is a type of powerful machine that simulate humans in many areas: from problem-solving to emotion interpreting. According to Capin, artificial intelligence is the ability of machines to adapt to new situations, deal with emerging situations, solve problems, answer questions, machine maps, and perform various other functions. It needs a level of normal human intelligence. Artificial intelligence is the pinnacle of computers, computer-related technologies, machines, and innovations and advances in information communication technology that gives computers the ability to perform close or human-like functions. We can describe artificial intelligence as the use of technology to automate tasks that "usually require human intelligence" (Nozad, 2019). In modern terms, artificial general intelligence refers to the ability of a machine to establish communication, reasoning and independent action in familiar and new scenarios in a similar way to a human (Kazemi, 2020). Artificial intelligence systems can often produce useful and intelligent results without intelligence. In general, artificial intelligence is defined in four categories: Systems that think like humans. Systems that think rationally. The distinction between human and rational behavior is from the point of view that human beings are not necessarily perfect and are subject to errors in reasoning (Nekuifar, 2020). (AI), as a machine-based technique with algorithmic power for predictions, diagnoses, recommendations and decision-making, in the educational community due to its potential to support learning in various contexts over the years. Artificial intelligence is useful for teaching. Since teachers cannot always be available and students need a teacher along with them, working with an AI tutor can help students who have social or academic anxiety (Bertram, 2021).

ROLE OF ARTIFICIAL INTELLIGENCE IN TEACHING AND LEARNING OF HISTORY IN SECONDARY SCHOOLS IN THE 21ST CENTURY NIGERIA

Throughout history, due to technological development and the gradual emancipation of thoughts, the ways History is being taught in Nigerian secondary schools changed drastically within this 21st century. In the seventies, many History teachers tended to teach students for a whole 40 minutes of class without any teaching material except for a poor visual aid: words written on a chalkboard. The teaching materials were organized in clear, fixed structures. For instance, if a teacher was going to talk about World War II, he or she would divide the event into cause, course, and results. During the teaching, he would also introduce several important historical figures which students are required to remember. Besides that, there were no more extensions on the topic. In fact, in the seventies, students with a good memory stood out on History tests, because reciting is a skill being greatly emphasized. However today, some aspects of History class have changed dramatically. For example, the use of PPTs and videos as visual aids makes the class more engaging. Furthermore, the class becomes more interactive as teachers analyze historical events together with their students instead of pressing conclusions into their minds. The emergence of the internet and AI plays a huge role in such transformation: 5G speeds up the flow of information while big data matching expands one's range of knowledge in a short time (Thomas, 2023).

Artificial intelligence is significantly influencing History teaching in schools by offering tools for personalized learning, enhanced engagement, and accessibility. AI powered systems can adapt to individual History student’s needs, provide interactive simulations of historical events, and translate historical texts, breaking down language barriers and making learning more inclusive. AI provides feedback and recommendations, increases efficiency, enhances the teaching experience, personalized and customized historical learning, minimizes error, saves time, automates fundamental and routine tasks, is adaptable to History students’ needs, monitors students’ progress and modifies the History teachers’ role as facilitators (Chen, 2022).

AI systems can identify the emotional state of History students and help the History teachers determine the optimal content delivery, teaching methods, and communication strategies when multimodal sensor data is been used (Chen., 2022). The goal of special teaching systems is to recommend educational content and provide assignments that are suitable for different educational needs. AI technologies are used to help History teachers manage their classroom teaching. AI technologies support teaching in History as a subject by uploading, assigning and distributing tasks and by expressing problems based on the text used. These programmes have greatly improved the efficiency of classroom management for History teachers (Thomas, 2023). AI technologies have been used not only to support education, but also to support teachers' professional development. For example, the use of intelligent teaching evaluation models that are made from the data of the History teachers' own teaching in comparison with human and objective evaluations makes the teachers less offended by criticism and encouraged to talk about the methods (Thomas, 2023).

Generative AI can mimic some of the work done by historians and history educators. This should not be mistaken for teaching or for learning. Far from rendering the discipline

obsolete, generative AI may increase the demand for historians' specific skills as societies and workplaces navigate an increasingly complex information landscape. The ability to act as subject matter experts, undertake extensive research, synthesize complex secondary literature, and look for biases, inaccuracies, and limitations are invaluable in an age of generative AI. AI develop in the History students critical thinking skill which is a disciplinary commitment to accuracy, complexity, and nuance, which remains at the center of historical training. While we cannot predict the future, generative AI is already reshaping many disciplines and professions. As has been the case with other technologies, historians will find distinctive ways to work with generative AI. In the light of this, the need for history and history education will not disappear (Kazemi, 2020).

Big data matching enhances the speed at which information travels in this perspective historical knowledge and extends the range of knowledge one can access, it helps students to save energy during research and enhances the sustainability of their interest in the subject. information is mainly spread in paper format. If a student wants to research on the Nigerian Civil war, he will have to flip through hundreds and thousands of books piled up in the library just to find relevant essays and reviews. Such a process of randomly pulling a book from the shelf, reading it, and then throwing it back costs not only time but also interest. Stressed about finding sources will make him more likely to quit halfway. On the contrary, in the year 2022, students can find relevant ideas about the Nigerian Civil War with a click. The machines will quickly pick out the keywords in their searching history and matches them with texts on the website. In this way, students will instead focus on analyzing materials provided by AI. This helps them to maintain their passion for the matter and allows them to dig deeper into it (Nozad, 2019).

Virtual Reality and Augmented Reality help to make History learning more acceptable for History teachers and their students. Virtual reality enables one to have an immersive experience while augmented reality allows one to interact with virtual elements. For example, in certain museums, figures in the drawing "come to life" when History students move a special lens equipped with augmented reality technology in a museum they will have a deeper understanding of the artwork by experiencing the event as depicted. In fact, the animated images help to make the ideas straightforward, and the interaction engages the History teachers and students in the process of teaching and learning (Serf, 2011).

Moreover, the impact of AI on History students' education and learning process provides experiences for personalized learning. AI assists automated learning in offering real-time feedback, enhancing teaching strategies, facilitating professional development, and promoting education inclusivity based on instructional teaching and learning (Mallillin et al, 2020). AI is a landscape for transformative teaching and learning of historical knowledge. It offers solutions and enhances innovative learning experiences and revolutionizes the comprehensive cover of AI by focusing on the impact of teaching methodologies and learning outcome design for effective learning (Mallillin et al., 2020). It adopts personalized learning experiences based on the needs of History students in learning and teaching of historical concepts. AI analyses the adaptive learning power of AI systems to create a customized learning path and performance of History students to ensure that they have the pace of

understanding level and content. It streamlines and reshapes the personalized engagement of History students' improvement and approach to their academic performance (Onesi-Ozigagun, Ololade, Eyo – Udo & Ogundipe, 2024).

Furthermore, AI assists History students in their studies to the fullest. It offers personalized learning experiences among students. It helps to analyse the data for the student's weaknesses and strengths. It is created to customize the plan and learning needs of students. It provides support and guidance to achieve the full potential of learning. It can make a difference and receive interactive help in students' learning process and the global learning approach (Mallillin et al, 2020). AI assists in providing the needed learning in various scenarios for the project output of History students. It helps in providing guidance and instructions to better meet the needs of students in the learning process. It provides potential challenges and drawbacks that address the gaps in AI in exploring the efficacy, challenges, opportunities, and ethical concerns in students' academic performance. It provides interactive response content and confidential learning experiences for the learners (Chen, 2023). On the other hand, AI assists students completely and transforms the knowledge-learning process. It is a digital transformation for learning that provides details of answering students' questions, research, and learning as centres of learning. It provides a high level of knowledge in the academic overview of the learning education process. It contextualizes the focus of the learning process of History students. It assesses the intelligence and development of tutoring systems and the potential impact of students on their academic performance. It changes the study habits of students because AI helps and guides History students in the learning process. It defines AI's evolving capability and interdisciplinary nature to achieve a particular task and intelligent behavior (Chaudhry & Kazim, 2022).

AI will help the History teacher to create differentiated instruction by analysing student progress and providing tailored content and support, addressing individual learning gaps thereby enhance personalized instruction. AI powered adaptive learning platforms adjust to each student's pace and learning style, providing customized content and support. Intelligent turtoring systems can offer individualized feedback and guidance, helping History students identify areas for improvement. For example, AI can analyse student performance data to identify knowledge gaps and suggest relevant resources or activities. Tools like Chat GPT can generate personalized responses from historical figures, increasing student interaction and engagement (Sadeghi, 2017).

AI will also help to automate administrative tasks like grading and lesson planning, reducing the History teacher's workload and allowing more time for student interaction and focus on instructional activities which will at the end lead to administrative support. AI provides real time data and analytics on student performance, giving educators insights to identify areas for improvement and adjust their teaching strategies accordingly by the History teacher. This is because AI has data driven insights. AI tools can offer teaching materials, professional development resources, and support for creating engaging lesson plans by the History teacher. This will lead to the professional development of the History teacher.

AI powers interactive tools such as chatbots, historical simulations, and virtual reality (VR) experiences, will allow History students to analyse and explore historical events

dynamically. AI will make History lessons to be interactive and engaging in content. AI can create immersive learning experiences through virtual field trips, interactive timelines, and simulations of historical events. AI can facilitate role playing activities with historical figures, allowing students to interact with the past in a dynamic way. AI can automate tasks like grading and feedback, freeing up History teachers' time to focus on more personalized instruction. AI powered tools can provide teachers with valuable data insights into student learning, helping them to tailor their teaching strategies. AI can also assist History teachers in crating engaging and interactive learning materials. Personalized Learning Paths – Adaptive learning platforms adjust to each student's pace, preferences, and learning styles, ensuring they receive the right level of challenge and support. AI powered translation tools can make historical documents and research accessible to students who speak different language. AI can also make historical information more accessible to History students with disabilities through features like text to – speech and screen readers. So, it increases accessibility to Historical content and dealings.

AI driven recommendation systems can direct History students to a vast array of historical resources, including primary sources and multimedia materials, fostering independent exploration which lead to easy access to resources. AI will help History students to reconstruct historical debates, analyse different perspectives, and generate contextual narratives, which can foster deeper critical thinking skills in the History students.

CHALLENGES AND ETHICAL CONSIDERATIONS FOR USAGE OF ARTIFICIAL INTELLIGENCE FOR HISTORY PEDAGOGY

While AI offers numerous benefits, there are also ethical considerations and practical challenges that need to be addressed.

1. Ethical Concerns – Issues surrounding data privacy and transparency are critical, as are concerns about the limited capabilities and potential bias of AI systems.
2. History Teacher Training – History teachers require comprehensive training to effectively integrate and utilize AI technologies in History classroom pedagogy.
3. Equity and Access – There is a need to ensure that AI democratizes education by providing resources and support to all students, including those in underserved communities, rather than widening existing gaps.
4. One of the most significant risks of using AI to impersonate historical figures is the potential for distorting historical facts. AI system rely on training data, which may unintentionally sanitize or alter critical details of events.
5. The abilities of artificial intelligence are limited in education and there are many unanswered questions about the role of artificial intelligence in managing higher education.
6. It may be difficult for parents and school administrators to trust artificial intelligence technologies that are used to influence or make decisions about student learning.
7. Potential Bias- AI algorithms can reflect existing biases, potentially leading to inaccurate or incomplete historical narratives.
8. Data Privacy – Protecting student data and ensuring responsible use of AI in education is crucial.

9. Maintaining Student Agency – AI should be used to augment, not replace, the role of teachers and students' critical thinking skill.

ARTIFICIAL INTELLIGENCE AND THE FUTURE OF HISTORY SUBJECT

Based on how the AI technology is advancing it will in the future rule the whole educational system and It will gradually transform it into something else. The ability of AI will be greatly enhanced. Since the more advanced version of this technology is more flexible, it can better adapt to an individual's needs in education. During class, the machine tracks students' attention and gives instant feedback to the teachers, who reward and warns students on time. Such a way of learning strengthens students' concentration in class, therefore enhancing their performance. If this can take a step further in the future, the strong AI can demonstrate History students current state of learning of History whether is the strength and weaknesses, overall feelings toward the History class, and formulate a unique studying plan for each History student. If under proper regulation, such technology is likely to promote a steady rise in education quality, thereby enhance students' interest in the studying of History in schools. Besides this, if AR and VR technology are utilized as a piece of supplementary teaching equipment in the History class, they will induce more energy into the History students and may have a chance to push them from passive superficial learning to active deep learning during History classes.

CONCLUSION

In conclusion, AI has the potential to revolutionize History teaching by making it more interesting, accommodating and easier to learn. personalized, engaging, and accessible. AI enhances and encourages History students to express ideas and critical thinking learning process since it measures the learning process accurately in facilitating and providing more profound insights learning process and provides learning mechanism and experiences to customize learning plans based on the needs of the History students. However, it is crucial to address the ethical and practical challenges associated with AI implementation to ensure its responsible and effective use in the teaching and learning of History in schools to specific and education in general. In the future, it may act as a guide for secondary school students in Nigeria which will encourage them to pursue advance learning History.

RECOMMENDATIONS

The following recommendations are being given –

1) AI technology should be use in all History classes to enhance History students' interest in the subject.
2) AI should be use in historical pedagogical instruction in order to make the students active participants and not passive ones as it used to be.
3) AI usage can essentially provide instructional materials which will solve the problem of abstractness in the teaching of History.
4) AI should be used in History teaching and learning to make History lessons interactive and engaging in content.

5) AI should be embedded into History instruction so that it will help in content adjustment of the already cumbersome History curriculum.
6) AI should be used in History pedagogy to help addressed individual differences and diverse learning style of History students.
7) AI should be used in History classroom to help the History teacher develop better lesson plan for his lessons.
8) History teachers should allow the students to use AI so that it will bring to the fore the moribund historical documents for students' usage.

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