

ARTIFICIAL INTELLIGENCE INTEGRATION AND ADMINISTRATIVE EFFECTIVENESS IN PUBLIC SECONDARY SCHOOLS IN NIGERIA

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Abstract

Artificial Intelligence is becoming a part of how leaders and managers work in schools all around the world. In schools in Nigeria the people in charge often struggle to do their jobs well because of things like poor planning not managing staff properly not being responsible with money not paying attention to what teachers are doing and taking too long to make decisions based on data. Artificial Intelligence has tools that can help with these problems. It is not being used much in schools. There are reasons for this, including not having the equipment the people in charge not being good at using computers not having enough money and not having clear rules about how to use Artificial Intelligence. This paper looks at how using Artificial Intelligence can affect how well administrators do their jobs in schools in Nigeria. It uses two ideas, Diffusion of Innovation Theory and Transformational Leadership Theory to explain that using Artificial Intelligence successfully is not about

having the technology but also about having leaders who know what they are doing and can help the whole school use Artificial Intelligence. The paper shows how Artificial Intelligence can make tasks like planning, decision-making keeping records and using resources wisely easier. It talks about things like literacy, equipment, rules and doing the right thing that can affect how well Artificial Intelligence is used. The study also looks at the problems in Nigeria. Gives practical advice to the people in charge of schools and to policymakers. By looking at the topic in a way that is based on theory and specific to Nigeria this paper helps us understand how Artificial Intelligence can be used in schools and gives guidance on how to make schools in Nigeria work better. Artificial Intelligence can really help schools in Nigeria be more efficient, responsible and successful. Artificial Intelligence can make a difference in schools, in Nigeria.

Keywords:

Introduction

Artificial Intelligence is being used in schools in recent times to make them work better. Artificial Intelligence is about computer systems that can do things that usually need human intelligence like learning solving problems and making decisions. According to Luckin et al (2016), in some countries Artificial Intelligence has been used to make administrative tasks more efficient and to help make decisions based on data. In Nigeria however public secondary schools still face problems that affect how well they work. These problems include planning, not managing staff well delayed or wrong record-keeping not supervising teaching and not using data to make decisions (Oviawe, 2016). Using resources like people, money and materials strategically to achieve goals is crucial for improving teacher performance, student results and school accountability. Despite Artificial Intelligences potential to solve these problems its use in secondary schools is limited. This is due to lack of computer infrastructure digital skills among school administrators, insufficient funds and no clear policies for implementation (Adeyemi, 2017). As a result administrative tasks are mostly done manually which reduces

efficiency and makes it hard to make decisions. This paper looks at how Artificial Intelligence can improve effectiveness in public secondary schools. It uses the Diffusion of Innovation Theory and Transformational Leadership Theory to examine how Artificial Intelligence can improve functions. The paper offers advice for policymakers and school administrators who want to improve efficiency, accountability and educational outcomes. Artificial Intelligence can enhance effectiveness in public secondary schools. Artificial Intelligence can improve administrative functions because it is characterized by the ability of computer systems to perform tasks that typically require intelligence, such as learning, problem-solving and decision-making. The integration of Artificial Intelligence into administration has gained increasing attention as a strategy, for improving school effectiveness. Artificial Intelligence is being used a lot to make things more efficient and help make decisions based on data. Artificial Intelligence can make administrative work more effective, in public secondary schools. Artificial Intelligence can really help improve how things are run in these schools.

Concept of Artificial Intelligence (AI)

Artificial Intelligence is about computer systems that can do things that people can normally do. This includes things like learning and solving problems. People thought of Artificial Intelligence as a way to make machines that can think like people a time ago. This idea has been around, for a time it started back in 1956 when McCarthy first talked about Artificial Intelligence. Now people like Igbokwe, who wrote about it in 2023 think of Artificial Intelligence as a way to make machines that can act like people so Artificial Intelligence is still a topic today. They use computer programs to make this happen. Ogunode (2023), also thinks that Artificial Intelligence is about making machines that can think and act like people. These machines can help us with lots of things. Artificial Intelligence can do things to help us. There are kinds of Artificial Intelligence. Some Artificial Intelligence can do anything that a person can do. Then there is Artificial Intelligence that's still just an idea. This kind of Artificial Intelligence would be smarter than people at everything. Artificial

Intelligence is used in areas like healthcare and finance. It is also used in education. Artificial Intelligence is a tool, for teachers and students to learn new things. Artificial Intelligence can help students learn better by giving them the help they need. Each student is different. Artificial Intelligence can make sure that each student gets the help that the student needs from teachers. Artificial Intelligence can really help students and teachers work together to learn things. Artificial Intelligence can also help with things like testing and administration (Luckin et al., 2016). In Nigeria people think Artificial Intelligence can help make schools better. It can help the people who run the schools do their jobs better. It can also help students do better. So using Artificial Intelligence in schools is an idea. It can make schools run better and help students learn more (Babalola, 2008). Artificial Intelligence is important for schools and for education in general. The use of Artificial Intelligence, in school administration can make a difference (Peretomode, 1991; Ajayi, 2001).

Concept of Administrative Effectiveness

Administrative effectiveness is really important in schools. It is about how school administrators can get things done and reach their goals. This means they need to be good at managing people, money and things to make sure students get an education. Some scholars have different ideas about what administrative effectiveness is. It basically means that administrators are good at planning, organizing and running the school (Babalola, 2008). They need to make decisions, watch over the staff, students and make sure everything runs smoothly so that students can learn (Peretomode, 1991; Ajayi, 2001). Administrative effectiveness is about being able to lead the school manage resources wisely and make sure the school reaches its goals. If administrators are good at their job it can really help teachers do better and students can learn more. It is very important for the whole school system to work well.

In the few years, technology like artificial intelligence has started to change how schools are run. Artificial intelligence can help administrators make decisions plan better and do their jobs more

efficiently. Administrative effectiveness, in public secondary schools can be really improved by using artificial intelligence in a smart way. This can help administrators make decisions use resources wisely and make the school better.

Artificial Intelligence Integration and Administrative Effectiveness

The use of Artificial Intelligence technologies can really make a difference in how schools are run. Artificial Intelligence systems help schools manage their data improve the way people communicate and give them information to make good decisions. This means that people in charge of schools can use their resources wisely and deal with problems quickly. These good things show why Artificial Intelligence is becoming more important in making schools run better (Russell & Norvig, 2021). Schools have a lot of information about students, staff, money and what they do. Artificial Intelligence technologies help people in charge of schools make sense of all this information, which makes it easier to plan and run the school (Holmes, Bialik, & Fadel, 2019). This is better than doing things by hand which can take a time and lead to mistakes (Ibukun, 2004). It is clear that schools need to use technology to help them. Artificial Intelligence can also do jobs like keeping records tracking who is at school making schedules and creating reports. This gives people in charge of schools time to focus on leading the school. Artificial Intelligence also helps people communicate and work together better so everyone has the information at the right time (Luckin et al., 2016). But for Artificial Intelligence to work well in schools there are a things that need to happen. Schools need to have technology, a reliable internet connection and help for people in charge to learn how to use Artificial Intelligence (Ajayi, 2008). Using Artificial Intelligence in schools is not a new idea it is a necessary step to make schools run better by helping with data making decisions based on facts reducing the workload and making the school a better place. Artificial Intelligence can really help schools, in Nigeria do a job.

Artificial Intelligence in Educational Administration

Artificial Intelligence or AI for short is about computer systems that can do things that people usually do like learning and solving problems (UNESCO, 2021; Luckin et al., 2016). AI can even help with administrative jobs so organizations can handle a lot of information quickly. In schools AI is used in ways, such as managing student information making budgets and predicting what staff and resources will be needed. These AI tools make administration easier by cutting down on work making sure information is correct and helping administrators make good decisions. AI also helps people make decisions by giving them the right information to plan and allocate resources (Holmes et al., 2019; Ogunyemi & Adeoye, 2020). In Nigeria experts think it is important to use technology to make school administration better. However many public secondary schools in Nigeria still do things by hand or with old computers so they need to find ways to use AI that work for them (UNESCO, 2021; Luckin et al., 2016). Some people like Fadipe, (2000) and Fasasi, (2011) think that schools need to use administrative tools to plan and supervise properly. Others, like Fasasi thinks that using technology can make administration more efficient. Even though AI can be very helpful it can also be hard to use, in countries that do not have good technology or staff who are not comfortable using computers. If AI is used correctly it can make administration easier help people make good decisions and make schools run better (Oviawe, 2016; Federal Ministry of Education, 2019). So using AI in school administration is not a good idea it is necessary to make schools more efficient help people make good decisions and improve how schools are run, especially in Nigerian public secondary schools (Ajayi, 2008). AI can really make a difference, in education. That is why it is so important to use it well (Ibukun, 2004; Russell & Norvig, 2021).

Global Practices of AI in Education

Artificial Intelligence is really changing the way we learn and teach in schools around the world. Many countries are now using Artificial Intelligence technologies to make teaching and learning better for students (Holmes, Bialik, & Fadel, 2019). Artificial Intelligence is

used to make the work of school administrators easier, which is a help. This is because Artificial Intelligence has gotten a lot better at understanding language and analyzing data about students (Russell & Norvig, 2021). These Artificial Intelligence technologies help schools look at a lot of data about students find patterns and make decisions about teaching and running the school. So governments and schools are spending a lot of money on Artificial Intelligence to improve learning for all students. Some countries like the United States and China are really good at using Artificial Intelligence in education to teach students (Zawacki-Richter et al., 2019). They are using Artificial Intelligence to teach science and math and help students get the skills they need for the future, which is very important. A lot of countries are trying to make sure students learn about Artificial Intelligence from an age, which is a great idea. There is a plan called the AI4K12 Initiative that says students should learn about five ideas in Artificial Intelligence, which will help them understand it better (Holmes et al., 2019). These ideas are how Artificial Intelligence perceives things how it reasons, how it learns, how it interacts with people and how it affects society which are all important topics (Miao & Shiohira (2021).

This plan helps teachers and schools make a curriculum for Artificial Intelligence, which is very useful. The International Society for Technology in Education also made some guidelines for Artificial Intelligence projects that help students learn and work together which is great.

Artificial Intelligence is also being used in school administration in countries, including the United States and China. For example in Singapore Artificial Intelligence is used to track student attendance and performance which helps teachers and administrators. In the United States Artificial Intelligence is used to manage school budgets, which is a big help. In Kenya and South Africa Artificial Intelligence is being used to make class schedules and analyze student performance, which's very useful (Ogunyemi & Adeoye, 2020). These are examples for schools in Nigeria to follow and make

their plans for using Artificial Intelligence. Artificial Intelligence is also helping to make learning more personal for each student, which is a great thing. This means that students can learn at their pace and get help when they need it which is very helpful. Artificial Intelligence is always looking at how student are doing and adjusting the lessons to make them more effective, which is amazing (Holmes et al., 2019). Artificial Intelligence is also helping teachers and administrators by doing tasks such as grading and tracking attendance which saves them a lot of time (UNESCO, 2021). Artificial Intelligence is making education more accessible to all students, including students who have learning needs or disabilities (Ajayi & Ekundayo, 2009; Ibukun, 2004). Artificial Intelligence is helping these students by providing them with tools such as speech recognition and language translation which is very kind. Many experts say that using Artificial Intelligence technologies in schools can make them more effective and efficient which is true. So schools in Nigeria can use Artificial Intelligence to make their administration better make decisions based on data and improve the way they operate which is a great idea. This will help students, in Nigeria learn better and have a future, which is the most important thing.

Administrative Effectiveness in Nigerian Schools

Administrative effectiveness is a deal in the management of schools especially in Nigeria. It is about how well school administrators, like principals can organize and use the people and things they have to achieve their goals. When the administrative processes work well the school runs smoothly the rules are. The staff and the students have a great place to learn and grow. This is something that Ibukun (2000) and Ekundayo (2010) opined. Also Okeke (2025 et al) averred that staff and the students have an environment to learn and grow. Effective administration is the foundation of getting results in education and making the school better. It makes sure that the school uses its resources in the way that everyone is responsible for what they do and that the teachers and students get the support they need to achieve their goals (Oviawe, 2016). Some of the things that administrative effectiveness is about include planning for the future

supervising the staff managing the money keeping good records and making sure the schools resources are used in the best way. In Nigeria the school administrators play a role in putting the educational policies and programs into action, which really affects how well the students learn. Even though administrative effectiveness is so important many public secondary schools in Nigeria are struggling with it. They do things by hand, which takes a time they do not evaluate their staff well and they do not manage their money very well. These problems are made worse by things like not having electricity and limited internet access, especially in schools in rural areas.

There is hope new technologies like Artificial Intelligence can really help make the administration of schools better. Artificial Intelligence can help with managing data doing tasks automatically and making decisions based on facts. Artificial Intelligence systems can help administrators manage student records keep an eye on how the staff is doing look at the data about the school and make reports that can help with planning and putting policies into action. By automating the tasks and making it easier to process data Artificial Intelligence allows school leaders to focus on making big decisions improving the quality of teaching keeping an eye on how the students are doing and making sure the students have a good environment to learn. However Artificial Intelligence is not being used much in schools yet. The schools do not have the technology they need the staff is not very good with computers. They do not have enough money.. If Artificial Intelligence is used in the right way it could really help fix the problems that the schools are having and make them better. Using Artificial Intelligence in the administration of secondary schools in Nigeria could really make a big difference. It can help the schools use their resources better make decisions based on facts and be more responsible. This can lead to education better results for the schools and a more sustainable future for the education system in Nigeria. Administrative effectiveness in public secondary schools is very important and Artificial Intelligence can help achieve this. Artificial Intelligence can help the schools, in Nigeria to be more effective. This

can lead to better results. Nigerian public secondary schools need to use Artificial Intelligence to improve their effectiveness.

Barriers to AI Adoption

Inadequate Infrastructure is a problem for using Artificial Intelligence in Nigerian public secondary schools. Artificial Intelligence needs things to work: electricity, devices and stable internet. Many schools in Nigeria do not have these things. This makes it very hard to use Artificial Intelligence. Artificial Intelligence needs electricity, devices and internet to work well. Many schools lack these things. This makes it hard to use Artificial Intelligence for work. For example Artificial Intelligence needs energy and network to work (Adebayo & Ojo, 2021). Without these it is hard to use Artificial Intelligence. This leads to slow adoption of Artificial Intelligence in schools. Some other challenges are: Digital Literacy Deficits, Administrative Capacity School leaders need to know how to use Artificial Intelligence. Many school leaders in public secondary schools do not have the skills. Many administrators in secondary schools do not know how to use Artificial Intelligence tools. This limits their ability to use data for planning. Data Privacy and Ethical Concerns are also challenges. Artificial Intelligence uses data, sensitive. Schools are worried about keeping student information safe. This is because they are not sure if they can protect data security and privacy. Schools have concerns about data security and privacy that make them hesitant to do things. Data security and privacy are very important, to schools. In Nigeria these challenges are worse. There are no policies to protect data in schools. Artificial Intelligence systems can be biased. This prevents administrators from using Artificial Intelligence. Financial Restraints and Resource Management: Adopting AI technologies in Nigerian public secondary schools necessitates a significant financial outlay for staff training, software acquisition, infrastructure, and system upkeep (Akin-Olayemi & Idris-Tajudeen, 2025).

However, a lot of schools have little funding, which makes it difficult for them to successfully implement and maintain AI systems

(Ogunyemi & Adeoye, 2020). Budgetary constraints, the high cost of digital tools, and continuous technical assistance continue to be major obstacles to the adoption of AI, according to studies (AIBase, 2025; Eleje et al., 2025). By not letting schools use technologies that can help them be more accountable do less work and run things more smoothly budget limits are getting in the way of how well schools are managed. This means that the people in charge of schools often have to use ways of managing, which are not very good and do not work well for modern schools (Oseni & Sumida, 2025).

Regulatory Obstacles and Policy Framework: Another problem with using artificial intelligence in schools is that there are no clear rules or laws to guide it. Selwyn (2019) found out that when there are no rules some schools use intelligence and others do not. Williamson said that to use intelligence in a responsible way we need rules that make sure everyone is treated fairly and that schools are accountable. Without these rules schools have to make their decisions about how to handle data set up systems and get artificial intelligence. This makes it hard for schools to plan and use their resources well which slows down the use of intelligence (Williamson, 2020). Because of this artificial intelligence is not being used much as it could be to help schools run better make good decisions based on data and keep track of how well students are doing. This is a problem, for public secondary schools because it means they are not managed as well as they could be and they are not running as smoothly as they could be. As a result, AI's potential to improve administrative processes, assist performance monitoring, and enable data-driven decision-making is still neglected, which ultimately jeopardizes administrative efficacy and lowers operational efficiency in Nigerian public secondary schools.

Diffusion of Innovation (DOI) Theory

Rogers created the Diffusion of Innovation theory. The Diffusion of Innovation theory, by Rogers is very important. This theory is about how new ideas and things are accepted and spread around inside companies. There are five things that decide if people will use something new. These are how much better it is, if it fits in, if it is hard

to understand, if people can try it out and if people can see what it does. The Diffusion of Innovation Theory is important because it helps us understand how innovations are accepted. The five factors that Rogers found are very important, for the Diffusion of Innovation Theory. These elements influence how well AI and other technological advancements are incorporated to improve administrative efficacy in public secondary schools. The term "advantage" is what people use to describe how Artificial Intelligence can make administrative tasks better (Rogers, 2003; Adebayo & Oduwaiye, 2020). These tasks include things like communication keeping records and making decisions. Artificial Intelligence is thought to make these tasks according to Okafor & Egboka 2021. Artificial Intelligence can help with communication keeping records and making decisions. When people think about using Artificial Intelligence they consider how well it fits with their work. This is called compatibility. It is about how Artificial Intelligence works with the schools procedures and culture and what the staff is good at. Artificial Intelligence is more likely to be used when Artificial Intelligence's easy to understand. People like to use Artificial Intelligence when they can figure out how Artificial Intelligence works. It is just easier that way. Artificial Intelligence is not scary when we know what Artificial Intelligence can do. This is because simplicity is important. Complexity is when something is hard to use. Artificial Intelligence that is not complex is more likely to be used. Artificial Intelligence is a thing when it is simple and easy to use (Adeoye, 2025). Trialability lowers resistance by enabling experimentation prior to complete implementation (Moshood et al., 2020). Observability guarantees that advantages are apparent, promoting broader adoption (Owubokiri et al., 2026).

The DOI framework is supported by research conducted in secondary schools in Nigeria. According to Moshood et al. (2020), adoption was higher in situations when the advantages were evident. Teachers and administrators were more inclined to embrace AI when workflow benefits were evident, according to Adeoye (2025) and Owubokiri et al. (2026). According to Okafor and Egboka (2021), successful

technology integration was greatly impacted by compatibility and usability.

School administrators might find elements that promote or impede the adoption of AI by using DOI theory. Administrators can put methods in place to guarantee AI improves record keeping, communication, decision-making, and general administrative effectiveness by comprehending how innovations spread. According to Rogers (2003) and Moshood et al. (2020), successful AI application in one well-resourced school can encourage adoption in other schools through tangible advantages.

Transformational Leadership Theory

Transformational Leadership Theory by Bass from 1985 gives us an idea of how the things leaders do can affect how well schools run. To get good results leaders who use this style need to make a place where people work together come up with new ideas and share a common goal that gets people excited and motivated. This kind of leadership makes schools better by giving teachers power making a positive place to work and getting people to work together as seen by Leithwood and Jantzi in 2005.

There are four things that leaders who use transformational leadership do: they set a good example help people think of new solutions care about each person and inspire people to do their best. Principals who do these things are like role models they help people come up with ideas they pay attention to what each person needs and they get teachers to do a great job. This is especially important when schools are trying things like using computers to help with administrative work because it makes people feel okay with the new things and helps the new things work really (Adeoye, 2025; Adebayo & Oduwaiye, 2020). Data from Nigeria shows that when leaders use leadership it can really make schools better. Transformational Leadership Theory by Bass, from 1985 is important here. It helps us understand how transformational leadership can affect school effectiveness (Moshood, et al, 2020). Kadir (2020) discovered a

positive correlation between teachers' perceptions of school success and the transformational leadership of principals. Asiegbu and Ikwalu found out in 2020 that transformational leadership is really good for teacher job performance in Delta State schools. On the hand Owubokiri, Epelle and Epiterekumo saw in 2026 that transformational leadership makes teachers more engaged and better at teaching in Rivers State. In Cross River State, Emanghe, Asuquo and Isang (2023) did some research and discovered that transformational leadership helps teachers care more about their school and work better with the administration.

Transformational leadership is important when schools are trying to use intelligence. Transformational leadership plays a role, in this process of integrating artificial intelligence in schools. This is because it shapes how school staff think and act about using technology. In secondary schools, principals who show transformational leadership skills can help teachers use AI tools for administrative tasks. This improves decision making, managing resources and overall administrative efficiency. Moshood and others in 2020 and Adeoye in 2025 also share this view. Leaders who promote change provide training for staff. Ensure ethical use of technology are crucial for successful AI implementation. In Nigeria principals who encourage innovation can boost staff participation. Demonstrate positive behaviors when adopting new technologies. This idea is supported by Burns in 1978 and Bass in 1985. Principals with leadership skills are essential, for effective AI integration. They help teachers use AI for tasks. Transformational leadership is vital for schools to benefit from AI technologies.

Integration of Theories

A comprehensive framework for comprehending AI deployment and administrative efficacy in public secondary schools is provided by the merging of Transformational Leadership and Diffusion of Innovation. By creating a work environment leadership inspires teachers and workers to use new technologies. According to a theory people adopt and use new things for a long time if they have some

advantages work well with what they already have are not too complicated can be tested and can be seen by others (Moshood et al., 2020; Okafor & Egboka, 2021). These ideas show that good leadership and new technologies with features work together to improve how well schools are run.

- * Research goals are to see how leadership and AI features work together to make school procedures better.
- * Principals help schools get the most out of AI by leading the way dealing with people who do not want to use it and making sure it is used in a way that makes sense (Adebayo & Oduwaiye, 2020; Adeoye, 2025).

To make AI a part of the school both technology and people are important. The framework says that good leadership and a good work environment are key to making AI work, in schools. Leadership helps teachers and workers to use AI in a way that improves school procedures. Good leadership and AI features work together to make school administration better.

Conceptual Framework

The study is based on a framework that looks at how administrative tasks are done and the use of artificial intelligence (AI) in Nigerian public secondary schools. This framework says that using AI makes tasks like managing staff, handling money keeping records, planning and making decisions better. As a result administrators get work done make fewer mistakes are more responsible and make decisions faster.

However several key factors affect how well AI works in these schools. These include the schools infrastructure, government policy support, administrators digital literacy, leadership skills and ethical use of data. Administrators need to know a lot about computers and the internet to use Artificial Intelligence systems properly. For example UNESCO in 2021 said that knowing about computers and the internet is very important for Administrators. The people in

charge or Leadership play a role, in managing changes and helping new ideas happen in schools like Bass and Riggio said in 2006. The schools also need to have Infrastructure and policies to help figure out how Artificial Intelligence is used. Artificial Intelligence is affected by all these things. Moreover ethical governance ensures that data is used responsibly reducing risks. Diffusion of Innovation Theory and Transformational Leadership Theory help us understand how people accept AI technologies and how good leadership makes their implementation work well. These two theories are the basis for this idea. They were developed by experts like Rogers in 2003. The Diffusion of Innovation Theory tells us how new ideas and technologies get popular. The Transformational Leadership Theory explains how leaders can help people use AI technologies in a way. It is about the leaders making a difference, in getting people to use AI technologies effectively with the help of Transformational Leadership Theory. The Diffusion of Innovation Theory and Transformational Leadership Theory are helpful. These theories are important, for understanding AI implementation.

Challenges to AI Adoption in Nigerian Public Secondary Schools

Artificial intelligence (AI) deployment in Nigerian public secondary schools is hampered by a number of interconnected issues that reduce its ability to improve administrative efficacy. Inadequate infrastructure, such as erratic electrical supply and poor internet connectivity, is a significant problem that limits access to digital systems (World Bank, 2020). The thing is, schools are not using Artificial Intelligence tools well as they could be because the people in charge of schools do not know enough about computers and technology (Eze et al., 2020). Financial problems are an issue too because public schools often do not have enough money to buy and maintain Artificial Intelligence technologies. The United Nations Educational, Scientific and Cultural Organization (2021) says this is a problem. Also the rules and regulations about using Artificial Intelligence in schools are not clear which makes it hard for schools to work together and figure out what to do. This was noted by the Federal Ministry of Education, 2019. Artificial Intelligence raises

questions about what is right and wrong especially when it comes to Artificial Intelligence being unfair and privacy issues (Floridi et al., 2018). To make the administration of secondary schools in Nigeria better these issues need to be dealt with. This can be done by investing in things like infrastructure training for staff and making sure funding is sustainable. It is also important to develop policies and make sure Artificial Intelligence is used in a fair and responsible way, in schools. Artificial Intelligence tools can be really helpful only if schools are able to use them properly.

Strategies for Enhancing AI Adoption in Nigerian Public Secondary Schools

A number of focused tactics are suggested to increase the use of artificial intelligence (AI) in Nigerian public secondary schools. To really make Artificial Intelligence work in schools the first thing they need to do is make sure they have computer systems in place. This means they need to have electricity all the time and this can include using power. They also need to have internet that works well. The World Bank and UNESCO have said this in their reports from 2020 and 2021. The second thing is that school leaders need to learn how to use Artificial Intelligence tools. This will help them do their jobs better. They can make decisions. They should get training. This training should give them the skills and confidence to use Artificial Intelligence. Researchers like Eze and organizations, like UNESCO have suggested this in their studies from 2020 and 2021. Schools also need to find ways to pay for Artificial Intelligence in the term. They should look for Artificial Intelligence solutions that're affordable and will work well for a long time. They should also try to get money from the government for technology in schools. This can be helped by grants, donations. Working with private companies (UNESCO, 2021; World Bank, 2020). The fourth thing is that there need to be rules about how Artificial Intelligence's used in schools. These rules should be made by the government. The standards for Artificial Intelligence need to be stated. We have to know how to check if the rules for Artificial Intelligence are being followed. It is also important to know who is in charge of making sure everything works with

Artificial Intelligence. We need to know that someone is looking out for this. Schools really need to make sure they are protecting peoples information when they use Artificial Intelligence. This is a deal because people trust schools with their information. Schools also need to make sure that the Artificial Intelligence systems are not biased. The Artificial Intelligence systems should be fair, to everyone so schools have to check the Artificial Intelligence systems for this. This means schools need to have rules about how data's used for Artificial Intelligence. For example some people like Floridi and others said this in 2018. Unesco also said this in 2021. Schools need to follow these rules so that Artificial Intelligence is used in the way. This will help make sure that peoples information is safe when we use Artificial Intelligence. We have to use Artificial Intelligence to keep peoples information safe, with Artificial Intelligence.

Sixth, schools need to work with technology companies and non-governmental organizations and also international agencies. This is a way for sixth schools to get help, from technology companies and non-governmental organizations and international agencies. The sixth schools and technology companies and non-governmental organizations and international agencies can do a lot of things together. This can help them get the skills and resources they need to use Artificial Intelligence. These partners can provide help assist with infrastructure and come up with creative solutions to problems. Artificial Intelligence is really important. Schools need to be able to use Artificial Intelligence in a way that really helps them like the World Bank said in 2020 and UNESCO said in 2021. Lastly it is an idea to take things one step at a time with Artificial Intelligence and think about the situation we are, in. Before moving on to more sophisticated applications, schools should start with fundamental administrative AI capabilities like digital record-keeping and communication systems. Nigerian public secondary schools can overcome adoption obstacles, improve administrative operations, and fully utilize the advantages of AI in educational administration by putting these techniques into practice.

Implications for Educational Leadership

The main consequences for educational leadership in Nigerian public secondary schools are highlighted in this research. According to the Diffusion of Innovations Theory, school administrators should improve digital literacy through ongoing, organized professional development because users' proficiency is a prerequisite for the successful adoption of new technologies. Investing in computer systems and technology is really important for schools. Many schools in Nigeria have problems like power going on and off all the time and really slow internet. School leaders need to make rules for how to handle all the information they have. These rules should include how to keep everything private and how to use artificial intelligence in a fair way. School leaders also need to be good at managing people. They have to help the teachers and other staff get used to technology. They have to make them want to use it and support them when they have problems. This is called Transformational Leadership Theory. It is really important for school administrators to know about it. Lastly, to guarantee inclusive, long-lasting, and successful AI integration in school administration, context-sensitive national and institutional policies that are in line with Nigeria's socioeconomic reality must be developed.

Conclusion

With a focus on the crucial roles of infrastructure, policy support, and leadership, this paper offers a conceptual analysis of artificial intelligence integration and administrative efficacy in Nigerian public secondary schools. It shows that effective AI adoption in school administration requires not only on technology availability but also on leadership ability, digital competence, and contextual preparation, drawing on the principles of Diffusion of Innovations Theory and Transformational Leadership Theory.

The study makes the case that educational leaders need to be change agents who support ethical AI usage practices, address systemic limitations, and foster innovation. It also emphasizes the necessity of sustainable investment in ICT infrastructure and context-sensitive

regulations to guarantee fair implementation in a variety of educational settings. Overall, by offering a paradigm for comprehending how leadership and contextual elements influence administrative performance in poor nations, especially Nigeria, this conceptual work adds to the expanding conversation on AI in education.

Recommendations

To guarantee fair access and execution, create a national policy framework for AI in education that covers both rural and urban schools (Rogers, 2003; UNESCO, 2021).

To improve digital literacy and facilitate successful AI implementation, school administrators should receive ongoing professional development (Bass & Riggio, 2006; Fullan, 2014). In schools with limited resources, promote public-private partnerships to finance ICT infrastructure, such as dependable energy and internet access (Adebayo & Adesope, 2020; World Bank, 2020).

To show the advantages and develop scalable models for broader adoption, pilot AI initiatives are being implemented in a few chosen schools (Holmes et al., 2019; Okoye et al., 2021).

To guarantee responsible and open AI use, establish ethical standards and permission procedures for student and staff data (UNESCO, 2021).

To guarantee the successful incorporation of AI tools in administrative procedures, implement AI literacy training for educators and personnel (Rogers, 2003; Bass & Riggio, 2006).

To enhance administrative efficacy and direct ongoing progress, monitor and assess AI adoption on a regular basis (Fullan, 2014; World Bank, 2020).

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