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INTEGRATING ARTIFICIAL INTELLIGENCE IN SPECIAL NEEDS EDUCATION FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

Education among learners with special needs is being transformed by the rapid evolution of Artificial Intelligence (AI) all over the world. This opinion paper talks about the relationship between special education, AI and sustainable development, and how students with disabilities can be prepared to fit into the demands of the upcoming work force. This opinion argument presents how AI-enhanced tools like intelligent tutoring systems, speech-to-text, and adaptive learning platforms could be used to increase accessibility, create personalized learning experiences, and provide learners with employable skills applicable to the digital economy. Meanwhile, the paper highlights the ethical and practical issues that come with the adoption of AI, such as equity-related concerns, affordability, and the possibility of an algorithmic bias that could only deepen existing gaps. This argument has been put forward within the concept of sustainable development where inclusive education is seen as a human rights obligation as well as a driver to the generation of a strong and future based workforce. Through reflection on policy, pedagogy, and technology, the paper advances the view that, in a responsible manner, AI can have a transformative capacity to close the gap between classroom learning and labor-market involvement among learners in special education. It ends with a plea to the higher-order forms of policies, intersectional cooperation, and culturally relevant innovations to see that nobody is left-behind in the new digital economy.

Keywords: Artificial Intelligence, Special Education, Sustainable Development, Inclusive Education, Workforce Readiness.

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INTRODUCTION

The twenty-first century labour market is rapidly evolving as a result of technology, globalization, and the demand to possess higher order skills. To train learners to work in this workforce, education systems must ensure that education extends beyond traditional academic education and includes employability skills like problem solving, communication, flexibility, and technology literacy. In the case of learners with disabilities, nevertheless, the problem is doubled: they have to overcome the obstacles of access to good education and the injustices of entering a labor market which usually does not accept them. Research indicates that disabled individuals in Nigeria are disproportionately unemployed not simply because they cannot work but because

there is not a strong correlation between their educational backgrounds and what they actually need to know in the workplace (Adebisi, 2023; Okafor & Ajayi, 2024). It is this fact that makes it necessary to reconsider the way in which special education could be redesigned to achieve sustainable employability.

The current generation of learners needs to be equipped with skills to meet the needs of the future to become the most pressing issue of the education system in the world, particularly in the context of the Sustainable Development Goals. In the case of learners with disabilities, the problem is more urgent because they not only struggle to obtain a fair education but also to enter into productive work. In Nigeria, researchers find that most special schools continue to rely on old-fashioned remedial education with little, or no, use of vocational or employability training (Adebisi, 2023). In the meantime, the workplace is becoming more digital, problem-solving, flexible, and collaborative. It is where Artificial Intelligence (AI) has developed as a potential solution to these needs to match education. The ability to personalize the learning experience and offer real-time accessibility supports can help AI fill in the gaps that decades of traditional solutions have failed to solve. Nevertheless, little has been researched on the use of AI in special education to enable sustainable workforce preparedness particularly in sub-Saharan Africa. This paper positions AI not just as a technological tool but as a critical enabler of employability and sustainability for learners with special needs.

Special needs education involves special instructional practices, rehabilitative education and adaptive learning environments that have been designed to support the different educational needs of disabled children in a physical, sensory, intellectual, and socio-emotional manner. Such practices, in many countries, among which Nigeria is one, have a significant divergence in the traditional one-size-fits-all schooling, focusing on tailored education plans (IEPs), assistive technologies (e.g. speech-to-text, screen readers, sign language interpreters), and differentiated instruction as mean to overcome learning barriers (Okafor & Ajayi, 2024; Olaleye, 2023). Special needs children often face challenges that transcend their academic experiences: the lack of proper infrastructure and trained special education teachers, the presence of negative stigma in the society, all contribute to poor academic results, low self-esteem, and low school dropout rates (Ibrahim, 2022; Ogunleye and Musa, 2024). These issues do not only affect the schooling but also affect the overall development of the child such as social, emotional and cognitive development, which impairs their capacity to enjoy the full learning opportunities.

In spite of this, the special needs education has been striding forward in the form of inclusive and creative pedagogies that uphold equity and autonomy among learners. Emerging evidence indicates that schools using inclusive classroom designs that incorporate children with and without disabilities learning together with appropriate supports would lead to improved learning outcomes and social inclusion that would facilitate academic success and emotional well-being (Adebisi, 2023; Yekinni, 2024). The use of technological tools, in particular, AI, is increasingly used to provide customized content, simulations, adaptive feedback, and allow children with disabilities to learn at their own pace and match what they learn with the demands of the world around them (Okafor and Ajayi, 2024). In addition, the inclusion of such supports in curricula has a potential to enhance self-efficacy, motivation, and preparedness to join the adult world, such as employability, and hence Sustainable Development Goals linked to inclusive and quality education (SDG 4) and inequalities that are less (SDG 10) (Federal Ministry of Education, 2023).

Artificial Intelligence (AI) is a new technology which can impact any academic environment. The use of AI in special education may be understood as adaptive learning platforms and AI-assisted communication devices that present opportunities in bridging systemic gaps. Learners with hearing impairments can be provided with speech-to-text (or sign language) software and learning can be adjusted to the speed and ability of the specific student with AI-based tutoring

software (Ogunleye & Musa, 2024). Beyond being accessible, AI can eventually help the workforce evolve, allowing virtual simulation of workplace tasks, intelligent career guidance, and portfolio systems to develop the trainee to find a place in the actual job market. The applications are aligned to Sustainable Development Goal (SDG) 4 that aims to ensure inclusive and equitable quality education and SDG 8 that aims to ensure decent work and economic growth. The introduction of AI to special education will enable schools to provide learners with disabilities with not only academic competencies but also work-related skills that allow achieving the objectives of sustainable development.

Despite these opportunities, there are also contextual concerns related to the adoption of AI in special education, especially in Nigeria and other African countries. The scale of its implementation is a massive load because of the low level of internet connectivity, insufficient training of instructors, lack of internet infrastructure, unstable power supply, and insufficient digital infrastructure (Olaleye, 2023). Moreover, AI technologies are often quite costly, so many special schools, in particular, in the rural areas, where the level of educational inequality is already high, cannot afford it. The second issue is the training of teachers, most do not possess the necessary digital skills to apply AI tools in the classroom in any meaningful way (Yekinni, 2024). Without deliberate efforts to address these problems, AI will only widen the gap between privileged and disadvantaged students rather than narrowing it. Therefore, AI conversations within the education sector must respond to these realities ahead of time to ensure that interventions become context-specific and inclusive.

Ethics and equity are also the main focus of the discussion around AI in teaching. One cannot overlook questions about data ownership, privacy, algorithmic bias, and accessibility, particularly when it comes to vulnerable populations, including learners with disabilities. A weak AI is discriminatory or has failed to satisfy the requirements of learners, and this promotes marginalization (Ogunleye & Musa, 2024). Some actual examples of how an artificial intelligence platform developed without an inclusive scope into the Nigerian Sign Language or culturally competent context can harm Deaf students are given. The moral risks posed by over-monitoring students, or monetizing student data, also must be well-defended. Thus, regardless of the possibilities associated with AI, it should be implemented through ethical frameworks that promote fairness, transparency, and inclusiveness.

One more aspect that needs to be highlighted is the correspondence between classroom education and labor requirements. It is not very realistic in Nigeria as special education is poorly trained, as it is based on the labor market and reality (Ibrahim, 2022). The digital literacy, collaboration, versatility, and problem-solving that employers are increasingly appreciating come at the cost of rote learning and remedial teaching that continue to receive priority in many special schools. AI can help to bridge this mismatch by introducing real-life problem-solving situations, occupational simulations, and skills tests to the curriculum. Job interviews, customer services, or health-and-safety briefings can be simulated using AI chatbots, and learners are exposed to employability exercises in a simulated environment. This kind of experiential learning not only instills confidence, but also increases the likelihood of learners successfully transferring between school and work. Introducing AI into supporting workforce needs through the alignment of classroom activities is thus a necessary measure in the direction of improving employability and sustainability among learners with disabilities.

AI implementation in special education should be placed in the context of larger sustainability development agendas. The development of inclusive workforce is the key to not only SDG 4 and 8 but also SDG 10, the goal of minimizing inequalities. Providing the learner with a disability the ability to be employed is not a pedagogical challenge, but a social requirement towards social cohesion, economic prosperity, and equity. Nigeria is a developing state whose community of the

disabled is increasing, and the country is close to the challenging state, at the crossroads of which the creation of AI in the field of inclusive education can become the developmentally relevant task in the long term (Federal Ministry of Education, 2023). It will have to be done, however, with concerted effort among policymakers, educators, researchers, technology developers, and employers. Nigeria has a clear roadmap to implement AI in the special education system which can close the gap in the needs of the Nigerian people and make the future generation of the labour force inclusive, flexible and able to contribute immensely to the sustainable growth of the nation.

The Promise of AI in Special Education

Artificial intelligence technologies promise exceptional inclusion opportunities and learning in special education. Adaptive learning systems may adjust the instruction to the pace of individual learner, so that the student with a disability is not left behind nor under-challenged. In that sense, speech-to-text captioning and sign-language avatars are AI-aided applications that can enable Deaf students to equally receive the content of the classroom, and thereby better understand and participate (Okafor & Ajayi, 2024). In addition to providing access, it is also possible to recreate the workspace by simulating it to look like it would be in the workplace, e.g. virtual interview, customer support, or factory safety briefing, and therefore train employability skills in an appropriate setting (Ibrahim, 2022). This is very much resonant with SDG 4 (inclusive and quality education) and SDG 8 (productive employment and decent work to everyone), as well. The introduction of AI into the curriculum can help schools to create more transferable skills, such as collaboration, digital competence, and critical thinking, which are increasingly important in the global labour market. Therefore, AI is a stepping stone towards transforming the classroom learning of learners with disabilities into preparedness to work in the workforce.

Artificial Intelligence (AI) is rapidly changing the educational environment, and it is giving us an opportunity to rethink the process of teaching and learning in ways that were previously unimaginable. The promise of AI integration in the special education context is especially significant because it can eradicate centuries of barriers to inclusion and equity in learning. Special education, as it is, calls for specialized teaching, modified materials, and new support structures that are unique to diverse-needs learners. Existing AIs like predictive platforms, adaptive learning platforms, or intelligent tutoring systems have been sufficiently trained to respond to such customized actions in a manner that does not leave any learners behind (Okafor & Ajayi, 2024). Within the context of international obligations to inclusive and equitable quality education, AI is an important ally in the promotion of national and international educational objectives.

The necessity of special education innovation is emphasized by the barriers learners with disabilities experience in their access to quality education. In practically all environments, particularly those in the third world, such as Nigeria, hearing impaired, visually and/or cognitively impaired students face a systemic issue of no special educators, no teaching materials, and/or access to assistive technology (Olaleye, 2023). These barriers consistently cause reduced attendance, performance and labor readiness. AI, though, offers a unique potential to resolve such issues with the help of the learning technologies that are readily available to everyone, including speech-to-text systems, sign language recognition software, and AI-powered communication aids. The instruments can assist in overcoming the communication barrier and giving students meaningful access to instructional resources, thus, increasing their likelihood of achieving academic success.

Additionally, AI will improve individualized learning, which is essential in special education. Contrary to a conventional classroom environment where education is often delivered in a one-

size-fits-all manner, AI can be used to customize the learning process to the pace, preferences, and abilities of each specific student. In order to explain this point, the adaptive learning algorithms will be in a position to process the performance data of the learners and provide them with some feedback, in such a way that the area of weakness is rectified within the shortest time possible (Ibrahim, 2022). Likewise, AI learning environments based on gamification can provide special needs learners with interactive opportunities to become motivated, self-confident, and acquire new skills. In addition to improving the learning process, this personalization also improves the inclusiveness of the learning environments.

The next important thing about the promise of AI is that it prepares students with disabilities to be employable in the future. In the globalized world of the new millennium, where knowledge and digital literacy play a crucial role in the economic landscape, technological competence and digital literacy are important workforce qualities. AI-based training platforms can also provide students with disabilities with an opportunity to develop these competencies by providing them with vocational skills needed in the 21st-century labour market (Yekinni, 2024). Adding AI to the curriculum of the special school will help the schools to be more aligned with Sustainable Development Goals 4 (quality education) and Goal 8 (decent work and economic growth). This is because, in addition to the students with disabilities receiving academic preparation, they can also play a positive role in the workforce, which decreases inequalities and can boost sustainable development.

Artificial intelligence opportunities in special education are enormous, and not new. The high price of AI technologies, lack of infrastructures, ethical considerations, and the insufficient readiness of the teachers are all obstacles to the mass adoption of AI technologies. In Nigeria, where the case example under consideration, the digital divide is a flaming one, because most schools do not have a stable power supply, internet connection, trained specialists who could apply AI to school procedures and education (Ogunleye & Musa, 2024). Additionally, there are also ethical concerns such as data privacy, algorithm bias, and equitable access that could raise important questions regarding responsible AI use in special education. Such questions will have to be treated critically so that AI can contribute to exclusion or inequality without any aim.

Amid these opportunities and challenges, this paper will support the thesis that AI has the potential to transform special education through inclusivity, improved learning, and equipping students with disabilities with skills to contribute to the future workforce. That kind of promise, though, needs operational policies, diversified long-term investments, and multi-stakeholder alliances that place accessibility and equity first. The paper thus discusses how AI can revolutionize special education, why AI is relevant to employability, and why it requires crucial considerations to be introduced to educational systems in a way that is ethical and sustainable. In so doing, it helps to enlarge the discussion as to how technology can be used to equip the workforce of tomorrow without sacrificing the ethos of inclusive and sustainable development.

Challenges and Ethical Considerations

Despite its promise, the integration of AI in special education presents considerable challenges. The biggest barrier in Nigeria and most African nations is infrastructure. The application of AI tools in schools is hindered by unstable electricity supply, low access to digital devices, and inability to connect to the Internet (Olaleye, 2023). In addition to infrastructure, it is an equity issue: when access to AI technologies is limited to only elite schools or urban schools, a digital divide will only widen, leaving rural and underfunded special schools behind. Ethical considerations are also prominent, specifically the protection of data privacy, AI bias, and the risk of excessive reliance on technology at the cost of human-centered teaching (Ogunleye & Musa, 2024). When applied to learners with disabilities, these risks are multiplied, as poorly

implemented AI systems can reproduce stereotypes or fail to address the numerous accessibility needs of learners with disabilities. In addition, another obstacle is teacher preparation since most teachers in special schools do not receive the necessary training in digital pedagogy. To resolve these problems, we must take steps that seem obvious to make AI in education inclusive and ethically responsive to the virtues of equity and justice.

The problem of access and infrastructural inequality is one of the most prominent challenges in the implementation of AI in the context of special education. As the advanced world rapidly embraces AI-driven technologies into the classroom, developing countries such as Nigeria continue to face issues with electricity, erratic internet connections and access to digital tools (Oladipo and Musa, 2023). Such structural constraints form a digital divide that frustrates fair participation by learners with disabilities. In the absence of meaningful infrastructural investment, AI will just become a means more marginalizing students who are and continue to be already vulnerable, rather than ameliorating that marginalization. Thus, one important ethical issue to consider is how to make access to AI-enabled education available to a greater number of people, who may not be a few.

Data privacy and security is another ethical issue that is on the frontline. To support students in a one-on-one manner, artificial intelligence integrates with data gathering and analysis, which reveals sensitive data about learners, their history, and their previous medical, cognitive, and behavioral history (Adebowale, 2024). Student information that is highly personal, as is the case with special education, presents an increased risk of abuse or unauthorized use. Ethics issues emerge concerning ownership of this data, storage and access to it. It is important to protect learners with disabilities against digital exploitation because a failure to secure their data integrity may place them at risk of stigmatization or discrimination in a world where the condition of disability remains not well understood.

Another threat is that of overdependence on technology at the expense of human interaction. Even though AI has incredible personalization and support opportunities, it will never be as empathetic, creative, and culturally sensitive as teachers are in the learning process (Eze & Adebayo, 2023). Human empathy and emotional attachment are among other crucial factors in creating trust and motivation among students in the special education industry, as listed below. Too much reliance on AI can lead to teaching becoming increasingly mechanical at the expense of social and emotional aspects of inclusive education. This brings up an ethical question as to whether AI is being put forward as an extension of the teacher, or as a choice that can harm the all-round development of students.

AI algorithms raise an important ethical issue of bias as well. AI systems can only be objective as the data they are trained on, and in cases where datasets do not sufficiently represent a representative sample of learners, biases will reveal themselves. With the speech recognition systems, people with irregular speech patterns such as individuals with hearing disabilities, this does not work (Okonkwo, 2022). Not only do such restrictions frustrate learners but also entrench exclusion by making learners feel as outsiders to so-called inclusive technologies. To do this, it is necessary to make conscious attempts to teach AI systems to work on a wide set of data that can cover the experience of learners with various disabilities and cultures.

Another practical and ethical concern is that of teacher preparedness. There are numerous untrained special education teachers in Nigeria or other developing nations (Ogunleye & Salami, 2024). The implementation of AI in the classrooms without proper training of the teachers can result in poor use of the technology, resistance, or even improper use of technology. Morally, it is unjust to require teachers to make the maximum use of AI tools without providing them with appropriate training and constant professional growth. The policies must target capacity building

programs to ensure that teachers can integrate AI into their practice in a more responsible and confident way.

Lastly, there is the problem of sustainability and equity caused by the high prices of AI technologies. Numerous assistive AI platforms, including real-time sign language recognition systems or AI-based screen readers, are considered both costly and unaffordable by most schools in developing settings (Nwosu, 2023). This brings the ethical issue of whether disabled learners in poor communities will be sidelined as disadvantaged learners in well-off institutions will be the only beneficiaries. AI is likely to further increase socioeconomic discrepancies in education without active investment, subsidies, and non-discriminatory policies. The implementation of AI in special education needs to be made affordable, sustainable, and inclusive on all fronts to realize its promise.

AI Tools and Support to the Sustainable Goal

Artificial Intelligence (AI) tools like Spoken AAC ("Spoken – Tap to Talk"**)** have transformed communication for children with speech or language impairments by providing visual symbols, text, and speech synthesis that enable them to express needs and participate actively in learning. This directly supports SDG 4: Quality Education by ensuring that no learner is left behind due to communication barriers, promoting inclusivity in classrooms and learning environments. Similarly, Be My Eyes / Be My AI empowers visually impaired children by allowing them to capture images or videos and receive real-time descriptive feedback from either volunteers or AI systems. This promotes independence, enhances access to learning materials, and addresses SDG 10: Reduced Inequalities by providing tools that minimize exclusion due to disabilities.

Additionally, Seeing AI (Microsoft) uses computer vision to read text aloud, recognize faces, detect objects, and describe surroundings, enabling visually impaired learners to access textbooks, classroom instructions, and digital content more independently. This aligns with SDG 3: Good Health and Well-being by reducing dependency, improving confidence, and fostering social inclusion. Similarly, Otsimo, an AI-driven learning platform for children with autism and speech disorders, provides adaptive educational games tailored to each learner's pace and ability level. This supports SDG 4 by ensuring equitable learning opportunities while also contributing to SDG 8: Decent Work and Economic Growth by equipping learners with foundational skills for future employment. Finally, Real-Time Captioning and Speech-to-Text tools like Google Live Transcribe and Microsoft Translator convert spoken words into text instantly, allowing Deaf or Hard-of-Hearing learners to follow lessons, participate in discussions, and acquire literacy skills. This promotes SDG 4 by ensuring inclusive education and prepares learners for SDG 8, equipping them with the communication and digital skills necessary for the workforce of tomorrow.

Policy and Practice Implications

Effective use of AI in workforce preparation in special education requires strong policy interventions and new practices. Social planners ought to come up with models that safeguard the amicable utilization of AI and put in place safeguards against misuse. The introduction of AI into the National Policy on Education can be seen as a form of precondition of a systemic change in the education system in Nigeria, since the education policy has, in fact, long lagged behind the state of technological reality (Federal Ministry of Education, 2023). Teacher training materials must incorporate AI literacy training as this will equip teachers with technical and pedagogical expertise to hold AI accountable (Yekinni, 2024). The participation of the private sector will also play an important role in overcoming funding shortages and the long-term implementation of AI tools depending on the local environment. Employers should also be involved in co-designing AI

curricula in such a way that the skills taught in schools are relevant to the labor market. Notably, learners with disabilities should be directly engaged in the design and assessment of AI platforms in which their voices should lead development. Incorporating AI into inclusive policy, teacher education, and curriculum development can facilitate the role of classroom learning in employment generation and sustainable development, aligning classroom learning to workforce expectations.

Special education needs a structured policy in place with inclusivity and sustainability in focus to introduce AI. In Nigeria and other developing countries, the number of education policies that pay minimal attention to digital transformation and traditional pedagogical practices is still high (Ogunlade & Adeyemi, 2023). In order to avoid leaving learners with disabilities behind, governments need to update their policies to incorporate the AI-powered assistive technologies into the national curriculum. The adoption of AI should be systematic instead of disjointed by having policies that focus on infrastructure, funding, training teachers, and curriculum development. An organized scheme like this one will help bridge the end of intent and action within the classroom whereby technological advancements will truly reach the people that most need them.

At the instructional level, AI creates possibilities to re-architecture teaching activities towards individualized teaching and competency-based teaching. AI tools can help special education teachers to monitor the progress of learners, detect patterns of learning problems, and implement necessary interventions (Olawuyi & Eze, 2024). This redefines pedagogy as a mass teaching model into a more responsive model that recognizes the diversity of the learners. Classrooms in Nigeria tend to be packed, and teachers have too many students to attend to, so AI systems in Nigeria can ease the burden on teachers, and make teachers work on creative and people-oriented areas of education. It is this automation-pedagogy balance that ensures that technology does not render the teacher irrelevant, but instead complements the teacher.

Teacher education and professional development can also have policy implications. To harness AI in special education, AI needs to be incorporated into the curriculum of teacher training institutions (Okeke & Bello, 2022). This includes providing an educator with the ability not just to employ AI tools, but to understand how their application can be effective with learners with disabilities. Education ministries need to turn continuous professional development programs into a mandatory activity and they also need to make sure that teachers are not lagging behind with the emerging AI innovations. This is especially true in the Nigerian environment where modern assistive technologies are not exposed to many special education teachers. Workshops, mentorship, and peer collaboration also help in strengthening teacher capacity and hence is a policy requirement.

A second important implication is that policymakers, educators, technologists, and disability advocates must collaborate across sectors. The adoption of special education AI cannot exist in a vacuum as it should be a multisectoral process where the policymakers, the technologists, and the educators should respectively provide the enabling environment, develop tools to suit classroom situations, and help to use those tools in the classroom (Adebayo & Usman, 2023). This type of collaboration is necessary to ensure that the AI solutions implemented are technically advanced and affordable at the same time being culturally relevant. An example would be to work on AI-based solutions to identify native sign languages in Nigeria, not only to ensure more people are on board but also to capture local realities. The partnering policy frameworks also inculcate accountability and eliminate blanketing models that may never reach the marginalized communities.

Considering curriculum development, the implementation of AI also generates significant pedagogical issues regarding the delivery of content and the learning outcomes. It should also be a balance between both traditional knowledge and computer-related skills so that learners with disabilities can learn competency that not only will assist them to grow in their career but also allow them to get jobs (Ibrahim, 2024). This is in line with Sustainable Development Goal 4 which focuses on quality and inclusive education. AI-based problem solving, creativity and digital literacy activities should therefore be included in special education curricula. This type of curriculum does not merely help individuals with disabilities satisfy short-term learning requirements, but rather empowers them with the ability to work in a rapidly expanding AI-driven economy.

Lastly, it can be seen that there is a strong policy imperative to attain equity in resource allocation. Most schools in Nigeria with special education are poorly financed and do not have access to even the simplest learning tools, not to mention AI-driven technology (Umar & Chukwu, 2023). Unless there are intentional policies to allocate resources to underprivileged schools, AI implementation is likely to increase existing educational disparities. Pedagogically, this implies that certain learners can get quality, technology-rich education and the other learners will be left out. To avoid this governments should take up inclusive budgeting measures, donor collaborations and partnerships with the private sector to subsidize AI tools to learners with disabilities in schools. It is only then that the pedagogical promise of AI can be achieved in a genuinely inclusive and sustainable fashion.

Conclusion

Artificial Intelligence (AI) has the potential to transform special education by reducing learning barriers, equipping learners with disabilities with employable skills, and fostering inclusivity. Its impact, however, depends on responsible and equitable integration that addresses infrastructural gaps, teacher training, ethical protections, and cultural adaptation. Rather than questioning whether AI should be adopted, the focus lies in ensuring it bridges the gap between classroom learning and workforce demands, empowering learners with disabilities for meaningful participation in society. When implemented inclusively, AI can align education with sustainable development goals by providing personalized learning opportunities and preparing students for future employment needs.

Looking ahead, the success of AI in special education will require context-specific innovations that reflect local languages, sign variations, and cultural realities while remaining affordable and accessible. Ethical safeguards such as bias-free datasets, data privacy, and teacher empowerment must accompany technological adoption to prevent marginalization. Partnerships between governments, NGOs, and private enterprises will be essential for funding, innovation, and expanding access, especially in underserved regions. Ultimately, AI should complement rather than replace teachers, fostering a collaborative learning environment that builds academic, vocational, and digital skills. By strategically aligning AI with sustainable development and workforce readiness, education systems can create equitable opportunities for learners with disabilities and ensure no one is left behind in the digital future.

Suggestions

Looking at Artificial Intelligence as a new norm in our lives and how it is transforming how we think and learn, and how it is changing world development, the following suggestions are made to ensure AI integration promotes equity, accessibility, and more for special needs students in Nigeria.

1. Professional Development

Special educators should be trained on AI as a new innovation in our educational sector, most especially in special needs education. Therefore, there is a need for special educators to be trained on the effective use of AI tools for teaching and assessing the special needs students.

2. Development of Guidelines

Government and educational authorities should develop comprehensive policies that guide the integration of Artificial Intelligence (AI) in special needs education. The guidelines should be in line with Nigeria's educational goals and those of international commitments to special needs education and equitable quality education for all.

3. Adequate Funding

Government, NGOs, and the private sectors in the country should support AI projects in special education. There should be adequate investment in modern technological gadgets and reliable internet connectivity to ensure equitable access to AI-driven learning.

4. Support for Research

More research should be encouraged in this area of education vis-à-vis Artificial Intelligence (AI), and the ongoing research should be encouraged to explore some of the challenges, outcomes, and successes in the use of AI in special education.

5. Ethical Safeguards

The implementation of ethical safeguards is very important. Strong measures should be put in place to protect students' data privacy, prevent algorithmic bias, and ensure that AI applications promote equity rather than promoting already existing marginalization.

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