



NIGERIAN JOURNAL OF EDUCATIONAL PHILOSOPHY

**PHILOSOPHY, ARTIFICIAL
INTELLIGENCE, AND DIGITAL
EDUCATION**

VOLUME 35 NO. 1, OCTOBER, 2025

**ISSN: 0794-0114
e-ISSN: 2971-5652**

Published by

PHILOSOPHERS OF EDUCATION ASSOCIATION OF NIGERIA (PEAN)
www.peanpapers.com.ng

Formatted & Printed in Nigeria by



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A Critique of Artificial Intelligence and Digital Education Vis-A-Vis the Fundamental Essence of Education: the Allures, Caveats and Challenges

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Abstract

Both artificial intelligence and digital education are the attractions of the millennium for not only the prepared and unprepared but also for the circumspect and laissez-faire. There are certain fundamental requirements that need to be put on ground before a society can think and implement policies related to technological advancements and innovations. There is a difference when a nation or society moves itself at its own pace than when it allows itself to be dragged into walking without learning how to crawl first. Technologies have their allures but we have to be circumspect. Technologies are not neutral. It is also a means of control. It is a challenge that AI is designed in a way that only the culture and interests of the designers are embedded in the systems. This makes it difficult for other cultures to have inputs of their values in education while adopting and using AI. This should be a cause for concern and challenge to philosophers of education. The critical and analytical methods were adopted in the work. This was to ensure adequate justifications of the positions in the paper. It is therefore submitted that technologies in education cannot dehumanize us, we are not ghosts in a machine. It is then suggested that we should not allow ourselves, the richness of human diversities and dynamics, to be put into precast moulds of AI and digitalization.

Keywords: Artificial intelligence, education, technology, critical thinking, inequality, digital education, digitalization of education, etc.

Introduction

From the African perspective, western education is a spark in a different kind of formal education (different from the formal traditional education before the advent of colonialism). The advent and history of western education in Africa should be seen as a child being born, nurtured and weaned. The child must have passed and graduated to maturity and independence. The African settings with regards to education in the continent appear to be that of a child that refuses and begs not to be weaned.

An adult should be able to charter his or her paths, know what he or she is looking for and be able to conceive and devise a means of achieving such. An adult becomes an overgrown baby when s/he is told his or her problems and how to navigate through the crucible to find the solutions. This appears to be the fate of African systems of education. The west and their systems of education are capitalist oriented. This is especially with regards to the application of technologies in education. Nneji (2014) referred to this as imperialisation of pedagogy. It is not only Africa that has been cajoled into buying western systems hook, line and sinker. Many other

developing nations go through similar experiences. However, the distinguishing factor here is the ability of the other nations to see and read in-between the lines to know when they are being drawn into a terrain that had already outpaced them or a culture that would make them abhor and abandon their own cultural values while promoting western ones. Education is an aspect of culture and equally, cultural values are promoted through education. Thus there is a subtle politics of culture and dominance in the idea of education, especially the current dimensions of digitalisation of education, artificial intelligence and other related variables.

Technologies have their allures. Its promises are unlimited. One needs to note that technologies are not neutral. There is politics in technology which the unwary users are not aware of. This is a sort of what Hickman (1998) called the 'black box effect' of technology. In most cases only the designers of technology know what they want, the essence of technology to them is beyond the knowledge of the users. It can be camouflaged. The algorithms may be resistant to certain values not included in the designs of artificial intelligence. It thus subtly becomes a means of control of other values not significant to the intentions and interests of the designers.

Majority of education curricula in most developing nations of Africa are designed after western concerns. This implies that other societies need to realign and redirect their concerns to such western ones in order to be relevant and compliant. We may not notice that we have been indoctrinated in this regard. For instance, all attention have been redirected to AI and digitalisation of education. We are no longer aware of other glaring and fundamental problems in our various societies. Majority of these problems have been taken care of by these advanced societies who are now luring us to another uncharted terrain.

Western education, through colonialism, brought many different types of education that were designed to serve the interests of the colonial masters. Those types of education (subjects) were not directed at the development of the African societies. It also changed the obtainable cultural settings to those of the colonial masters. This has been the major grouse of some African scholars like Frantz Fanon, Walter Rodney, Aime Cesare, etc.

In this paper, a critical look is taken on the essence of what it means to be a human being involved in the knowledge process. A human being involved in the knowledge process carries along his or her ontological constitution – which comprises the anthropological dimensions of humans - and his/her epistemological worldviews. These should not be side-lined by the introduction of technology into the process. There is need to ensure that the diversities of culture, knowledge economies, values, that have local perspectives and worldviews, are respected and pursued instead of forcing humanity to fall into a precast mould, be subsumed or submerged by the technocapitalists and their government collaborators in the global south. There are needs for caveats.

Let us now have a peep into appreciating what is meant by the major key concepts of this work. This is expected to set the pace for the discussion and critique.

Artificial Intelligence

Artificial Intelligence is the buzzword of the contemporary society. As the word rightly indicates, it is different from natural intelligence which is attributable to only humans. Natural intelligence and ability come through human intellectual efforts. It varies from one individual to

another. Among animals, only human beings possess natural intelligence due to the possession of intellect. The mimicking of this possession of related intelligence by machines leads to the idea of artificial intelligence (AI). Artificial intelligence follows human algorithmic designs and patency.

The algorithms in the AI is designed in a closed format that its performance (behaviour) has been programmed (predetermined). It is originally designed in a particular way that cannot be altered by any other party outside the designers. It is a closed unit.

Digital Education/Digitalization of Education

Digital education and the digitalization of education are the contemporary shifts in paradigm as far as education is currently concerned. When everything about education, teaching and learning become programmed to be delivered outside the traditional systems of education, digital education and digitalization of education become manifest. Digital education deals with making the materials for learning available in digital forms, putting them online. Digitalization deals more with the delivery of lessons and lectures without geographical or physical limitations, a sort of virtual education with virtual classrooms. In such a situation, only those technologically equipped are to actively and successfully participate. Those technologically disadvantaged can neither compete, input, nor change anything. They have fewer options than to join the bandwagon no matter how ready or qualified. This, most likely, affects outcomes and competitiveness. Some individuals, groups or societies have to be disadvantaged due to pace of development.

Having appreciated these concepts, we can now meaningfully glean at the major thrusts of the work. This is more from the critical perspectives.

The Allures

Any cursory follower of technologies in education will know that each introduction of a cycle of technology in education will come with highfalutin promises of bettering the process of teaching and learning. In all these, there is still a movement and demand for more technologies ad infinitum still with perpetual and recycling promises of improvements. It all started with educational videos and cameras, CD ROMs, TV programs, etc. Internet later came and the digital and virtual crave surfaced. In all these there is the recurrent promise of improvements. This appears to be an infinite regress. Winner (2009) had noted that technology in education is a form of fair-weather; a cycle of technology introduced that has its hay days and will later come to fade away. A look at the various devices involved depicts a continuous capitalist drive.

For the circumspect observer and analyst, each of these technological cycles never showed results of recorded success. This was established by the surveys of Lamont (2008) and Branigan (2004). What we had and have is the crave for more. Each cycle continues to introduce a new need, and the cycle continues. The focus is always on improvements and philosophers of education have never asked the relevance of these to the aims and essence of education. How human has the technologies been on the ontological constitution of what it means to be human. Education should continue to make us human and not less. This is capitalism on the prowl.

Technological advancements and innovations in education are capitalist initiatives and ventures. How many have been initiated by the professionals in the sector? Which one have philosophers initiated and improved? Technologies are designed to always create needs for

improvement. This calls to mind the laws of technology (every microchip manufactured will lead to more microchips within a space of time).

The Challenges

With the age of computers came a divide between the computer literate and the non computer literate. This dichotomy has a trickle down effect. Technologies in education have further widened the inequality gaps in the educational sector. The introduction and use of technology in education, especially in relation to AI and digitalisation, has challenges which directly impact on the essence of education. These challenges, it is believed, if well taken care of will definitely ensure the realisation of the much touted improvements. Technological advancements in education must take care of the aims, goals and essence of education. This however requires the fulfilment of certain *condition sine qua non*. For Artificial Intelligence and Digitalisation of education to pass the scrutiny of philosophers of education, there are certain variables that will serve as criteria for its justification. Philosophers of education are the major frontliners in the business of education.

It is believed and argued by many that developments and change come with distortions. However when such changes cause continuous distortions, it then should call for caveats and rethinking of the status quo. Developments, especially technologies in the field of education should not be a cure that is worse than the disease.

Inequality: Inequality has been a challenge to many societies from different sectors and different dimensions. One of the most destabilizing inequalities is educational inequality. It is a great stumbling block to many national developments. Educational inequalities have been in existence in many societies. Only few societies have been able to successfully manage and address it. With the development and advancements of technologies in education, this inequality has been exacerbated.

The glaring nature of inequality in education, vis-a-vis technologies in education, became more pronounced during the covid-19 period. Many individuals and societies could not continue with education during the period because of what it demands to make it to online lessons and education delivery. This worsened the divides at both the individual and societal levels. The poor who managed to be in schools before the pandemic found their situations more unbearable. There are certain things an individual could provide and there are others the society/government is expected to provide. Where these are not feasible, then education is challenged.

In the Nigerian setting, inequality of educational opportunities is still a current challenge ordinarily. The basic facilities and amenities necessary for education have not been met across board and in all societies till the present situation. This creates a gap when there is a leap to a more advanced level if the necessary fundamentals are not yet in place.

In the Nigerian setting, the necessary facilities for digitalisation of education and use of Artificial Intelligence are still farfetched in many communities. In most communities, there is no power supply. Where there is, it is irregular. There are no free Wi-Fi internets, etc. In a society that many find it hard to feed and pay school fees, it becomes difficult for them to afford the basic devices necessary for digital education and artificial intelligence. The message appears to be that education is no longer a fundamental right, it is for the privileged. In the northern Nigerian setting, the education topography has a wide gap between that of the southern setting.

This is more pronounced at the basic education levels. Generally the region lacks basic infrastructures and one wonders how such a region would match up or benefit from the policy of digitalisation and the AI systems. Philosophers of education should be concerned about how such people from the region would perform in national competitive exams. Worse still, some of these exams are internet based. Many from the region are seeing the equipments for the first time during such exams. They equally spend fortune engaging in the online exams. With this situation one wonders the essence of the national policy on education that stresses the idea of equality of educational opportunities for all citizens.

In view of all these it is now understandable why the UN special rapporteur reported that technologies have exacerbated existing inequalities

Many African societies are challenged by poverty. Electricity and related devices are luxuries of the elite classes. Many of the schools in the rural settings can hardly afford a roof over their classrooms. Some don't even have seats for their students and pupils. Despite all these, governments and their capitalist collaborators push ahead with the policy of digitalisation and artificial intelligence. The poor continues to be deficieted and kept below the margins of opportunities in education. With such a situation the poor can hardly be carried along. Education based on such technologies becomes out of reach for the poor masses in most societies.

Critical Thinking: the advent of the internet has created one more prosthetic god. We now delegate majority of the duties of the human brain and thinking to the internet and its search engines. The internet has provided shortcuts to myriads of problems which we would have used our thinking faculties to tinker about. This is a long history but most noticeable with the advent of calculators. Many of our brain cells are becoming redundant in matters of calculations. We rely more on their results and feedbacks. Gradually the computers and the internet came. More responsibilities were relinquished to them. Artificial intelligence just arrived. We can now relax and with a press on certain keyboards, what we need are before us on our screens. What else do we trouble our brains for?

The internet is free for all. However some are more in control of it than others. We can feed into it and we can download out of it. What is fed into the internet depends on who is feeding in the information. There are definitely conflicts of information from different sources and orientations.

Artificial intelligence is programmed. It is controlled by those who programme it. Generally the internet is consulted for various reasons and references. There is the tendency for many to believe in the sources of information they get from the net. Thus there is no need to query further. Sometimes efforts to probe further do not yield the needed answers based on how the information were designed and programmed. This is the same case with artificial intelligence. Information fed into the system are generally trusted. Only a few go beyond what Artificial intelligence offload to look at such critically. It has made our critical thinking abilities become redundant. Biases can be introduced into the AI systems. There is no gainsaying the fact that there are instances where such has been detected.

There is need for philosophers of education to ask if AI makes us and especially the learners more critical? From the Nigerian education setting it is not farfetched that most of our

teaching and learning lack critical contents. This is based on the fact that there is an abhorrence of philosophy and philosophy related courses in our tertiary institutions - see Goucha (2007).

Integrity: Academic integrity is one of the virtues in education for both teachers and learners. Since the advent of the internet, academic integrity has been a challenge to parties in the sector. Students are battled for academic integrity. Teachers and lecturers are equally battled. Plagiarism has become rife. Lack of academic integrity can be seen as a fallout of lack of critical thinking abilities. Critical thinking makes feasible creativity, innovation and the ability to think out of the box. With critical thinking out, lack of integrity takes over. With the advent of the internet many do not take the pains to do thorough research. We now go for short cuts. We see different people lifting information from the same source. Some acknowledge their sources while some do not, making it look like the idea is original to them.

One side of the dark sides of lack of academic integrity is the ignorance of the power of serendipity. In the course of researching through books and journals (not the readily available answers from AI) one gets other knowledge of latent and manifest issues. We usually read an entire chapter, journal article, textbook before we find what we are looking for. In the course of reading we get new and unexpected knowledge and information. This is never the case with AI and digitalisation. They simply give us what we want without any stress or strain.

Students fall for the allures of AI and digitalisation. It has made education 'effective' for them. They go for shortcuts. They avoid what they perceive as 'stress'. AI is thus alluring. Many teachers and lecturers would have experienced that when students are given assignments, they, in most cases, lift/copy from the same website. A teacher would be surprised to see two or more students submitting assignments that are the same verbatim. We learn a lot from mistakes. When corrected the knowledge sinks well and we know why we failed initially. One important thing in learning from mistakes is that we come to know why the answer is really the answer. This is because many who find answers through AI and related sources may not know the justifications for their answers. The worst thing is to claim to know an answer without knowing why it is the answer. This is going to be the case of a lot of the millennial AI enthusiasts and those deeply allured.

It is good for philosophers of education to ask and critically look at this issue of integrity vis-a-vis AI and Digitalisation. Does it smack of academic integrity and how justifiable is it to say that one who uses AI to solve a problem (academic one) qualifies for integrity pass? Let's take for example such a question as this: why are some philosophers called pre-Socratics? To answer this question someone gets a straight and simple answer from AI and another goes through his plethora of materials and then tinkers and cracks one's brain and comes out with an answer. Who qualifies for integrity and who is more critical? This is one of the ways to look at the allures of AI and digitalisation. These should prompt philosophers of education to ask questions and raise critical concerns. Do these take care of the aims, goals and essence of education bearing in mind the ontological constitution and dimension of what it really means to be human? This is a challenge for philosophers of education.

The Caveats

As we marvel in the allures of Artificial Intelligence and digitalisation, let us be wary of some caveats. There is everything political about technologies and especially technologies in education. They are not neutral. Pauwels (2018) pointed out that there is need for caveats in the

issue of Artificial Intelligence because there is pronounced asymmetry of knowledge which leaves room for the exacerbation of inequalities. Technologies are never neutral is buttressed by the fact she noted where black AI engineers detected that features of AI do not recognize individuals with darker skin tones. If this is possible, there is no gainsaying the fact that there may be other cultural values not possible to be accommodated by the AI systems. This is bearing in mind that the AI technologies are western tools in private hands. So philosophers of education must brace up to critically look at the allures of AI in a world where a few and unfortunately few or no philosopher (stakeholders) are involved in the research, design and development of AI for education.

Technology can be a means and instrument of control. One area such can happen is In the field of education. Education is an aspect of culture and vice versa, culture is transmitted through education. Technologies can lead to cultural amnesia and annihilation. It can be intended and it can be unintended.

Critical Evaluation

There is need to ask why did Socrates not give his interlocutors answers instead of making them go through the pangs of thinking. AI does not give its users the hassles of experiencing the pangs of birth. What and why Socrates does is to ensure that critical thinking abilities are activated in them. That Socrates teaching methods are still in vogue today is a sign and insignia that critical thinking is still sine qua non in education. Thus anything, any device or technology that makes such redundant, needs real philosophical scrutiny and justification.

The role of Socrates is a pointer to the fact that education is a human encounter and interaction. Thus AI and digitalisation attempting to replace that calls for serious reflection. Philosophy related courses are fundamentally subtlety oriented. This is the basis and hallmark of critical thinking as a tool in philosophy and education. Ai and digitalisation can hardly lead to the development and instilling of critical thinking in learners.

Developing AI systems and digitalising education without taking into consideration these philosophical challenges creates and leaves a great lacuna in the process of teaching and learning. Philosophers of education are serious stakeholders in the world of education. Their critiques have to continue being relevant in the entire process of development of all stages of education. They have to remain, not only the custodians of the process of teaching and learning, but also the unparalleled gadfly of the teaching and learning business.

Many scholars subscribe to social darwinism in education. This appears to be the philosophy of AI and digitalisation in education. Education policies are becoming elite policies. The capitalist strongly believes in inequality so long as it keeps up their capitalist instincts alive. They know how to propagate such especially through technological advancements and innovations.

As far as technologies are concerned, many believe that it is a battle between the global north and the global south. The global north appears to have edges over the global south, from mostly the economic perspective and beyond. Karanja (2022) had argued that many nations in the global south are at the mercy of the global north. They thus, through the ace they hold in technology advancements, hold these other nations to a lower level. With regards to the design of AI they asked a question which should be of great concern to philosophers of education, that,

what percentage of the global south are involved in the design and development of AI systems? AI systems being in the hands of a few means that the few dictate the pace which others have to merely follow. Here, there is need to pause and ponder: how do we ensure that society values are accommodated by AI designed by the capitalist and global north? With what values were the AI systems developed? Cultural implementation can be perpetuated by the introduction and use of AI in education.

We talked about the aspect of inequality. There have been challenges of inequality in education across nations. This is rife in developing nations. Since the advent of technologies in education there has been the promise that technology will help to close such gaps. Whether this promise had been fulfilled is anybody's guess in the different societies of developing nations. The more new technologies and innovations, the more the gap widens. Should education be made to widen or to close such gaps? This is a challenge.

The idea of critical thinking has been challenged with the advent of these technologies in education. Not many believe or realise this. AI is now a prosthetic of the human thinking faculties. AI can make our critical thinking abilities become redundant. It diminishes the curiosity acumen of learners of this millennium. How can learners be curious again since AI has made everything readily available just with a touch on the keyboard?

Aristotle (1999) made us to know that all human beings desire to know. We should take delight in our sense and intellectual faculties. These are the beauties of humanity. These should not be mortgaged by the capitalist prowling around promising infinite Eldorado in education.

Integrity is a constant challenge in academics. Also in various sectors, integrity is a requirement. AI has no powers of moral evaluation of situations. Situations vary slightly and only humans can decipher such. A predictive system like AI has limitations in such areas. It can have inbuilt biases. This would make us be like the sophists who only argue for the sake of gains. Accepting predictions of AI just like that makes us susceptible to sophistic manipulations. Data can be stolen through these technologies. Developing nations that lack control of the entire system and its algorithms can have their data, researches and other intellectual properties stolen. Searches one does can be pointers to areas individuals are trying to navigate and such knowledge could be usurped at the expense of powerless AI system users.

Conclusion

Since the advent of AI, there have been negative aspects of it that have already started raising concerns. The global and many governments are battling the negative sides of AI such as deep fakes, artificial misinformation, artificial videos, etc. In view of these, there is no doubt that education is not immune to these negativities. For every fact in the internet, there are always and readily available, a counterfactual. Besaw and Filitz (2019) talked of AI as all about predictive reasoning. AI can be prepared to give only what the designers need. The globe can thus be programmed to think in only the way the AI designers want the globe to think.

We are still human beings. The beauty of our ontological constitution is seen in the diversities of humanity. This diversity cannot be shielded or clouded by AI and digitalisation of education. We should not relinquish creativity, critical thinking, teamwork, etc. to these technologies. We are not extensions of technologies.

This is this the time to ask: where are the philosophers of education? If we keep quiet, we have failed humanity. We will equally fail education. We are the pace setters in art of pedagogy.

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