

Artificial Intelligence In Education In Nigeria: Implications For The Multilingual Teacher

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Abstract—The redundancy of human teachers has been one of the circulated fears since the entrance of Artificial Intelligence into the educational sector. This fear, however, is unfounded as most Artificial Intelligence technologies used in education need to be operated by man. Every technological invention comes with its specific language and can function only when its operator understands this specific language. Adopting the analytical approach, this paper re - iterates the relevance of the Nigerian teacher who is multilingual even with the threat of Artificial Intelligence. The paper finds out that the multilingual teacher is an asset and not a liability. The paper concludes that to have relevance, the teacher must acquire linguistic competence in the languages of Artificial Intelligence.

Keywords—Artificial Intelligence, multilingualism, language, redundancy.

Introduction

It is remarkable the way burning issues, events, phenomena and experiences extend their effects on education and research. Interestingly, each of these items mentioned above, usually come with anticipated fears, negative impacts, hopes, expectations, both real, imagined, exaggerated and unfounded. In the past ten to fifteen years, a good percentage of conference themes worldwide, centred around sustainable development. Before this time, it was Information and Communication Technology (ICT) that was the subject matter of many academic conferences, and without doubt, ICT has resulted in innovative approaches and new avenues for improvements in the learning process as well as the quality of teaching, (Kaouni et al, 2023). From 2021 to 2022 the COVID – 19 pandemic took centre stage, as far as conferences and research were concerned in the global community. From 2023 till now, 2024, Artificial Intelligence, popularly called by its abbreviation “AI”, has dominated the academic scene. AI has been the subject matter of many conferences, workshops and seminars organized by higher institutions and private organisations globally, and it was the launch of ChatGPT in November, 2022 that brought AI into the limelight. (Baum, 2023). This is the beauty of research.

To the ordinary man on the street, AI simply means robots and his understanding of a robot is a machine that looks like a human being and works like a human

being. This mentality is not unfounded and therefore excusable. It is because the social media is a gigantic, invisible and indefatigable “teacher” that does not discriminate on who attends its lectures: young, old, illiterate, literate, white race, black race, coloured race, whatever. The only admission requirement to attend classes on the social media is the acquisition of an android phone. With an android phone, social media users are shown human – like robots weeding farms, operating machines, working in banks and factories. However, AI is beyond this. It is an all - engulfing phenomenon.

Many risks have been perceived, globally, that are going to affect world communities as a result AI. Top on the list include massive job losses (Keppler, 2024: Copp, 2024: Gonzales, 2023), bias in the area of decision making, (Beloum, 2023: Beeke, 2023: Bennet – Alexander & Hartman, 2022), harming of people’s right and safety, (O’Brien, 2024). In fact, to ensure that people are not exposed to harm or their rights infringed upon, some countries like the United States have introduced a framework for AI legislation.(Smith, 2023: Dig – Watch, 2023: Zhu, 2023: Maurer, 2023: Francis & Zagger, 2023:Nalty, 2023: Beeke, 2023: Zielinski, 2023).

In the area of job losses, Baum (2023:3), makes the following observation:

ranging from Traditional AI to Generative AI, the fascinating scientific accomplishments of artificial intelligence have caused organizational leaders to rethink workplace productivity, output potential, and the workforce itself.

The redundancy of human teachers has been one of the circulated fears since the entrance of Artificial Intelligence into the educational sector. This fear, however, is unfounded as most Artificial Intelligence instruments used in education need to be operated by man. As asserted by Gonzalez (2023), twelve million workers in professions for which the demand is dwindling, may need to look for alternative jobs within the next seven years. This is to say that the anticipated job losses will not be the same in magnitude in all professions. As far as human beings exist, teaching and learning will continue to be in demand, and, as Hindawi.com says, AI can actually enhance learning, empower education and personalize the teaching and learning experience, despite the attendant fears of misinformation and bias that characterize the operations of AI.Adaptive

learning platform, educational games, intelligent tutoring systems and chatbots, are some of the AI technologies used in education, (Waldeau). Examples of Intelligent Tutoring Systems include Duolingo App and Khan Academy's Khanmigo Tutoring System. AI powered devices and programmes can solve problems, make decisions, imitate and understand natural language, (Forbes ADVISOR)The subject matter of this paper is to allay this fear by suggesting solutions that can make the language teacher remain relevant in the face of the AI threat.

Conceptual Clarification

There are four key words in this article and this section will attempt their clarifications before proceeding to the literature review.

Artificial Intelligence

This is a phenomenon that has multiple definitions but all these definitions have one common feature: a computer that can do what used to be done only by humans. Nowadays, the term AI refers to a wide range of technologies that help in powering many of the services as well as goods that people use daily, (O'Brien, 2024). The Britannica says it is "the ability of a computer – controlled robot to perform tasks commonly associated with intelligent beings".

Language

This is another concept that has many definitions. For example, Edward Sapir (1921) defines language as a distinctly human and non – instinctive mode of expressing thoughts, feelings and desires via the use of intentionally created symbols. However, this article finds the following definitions, drawn from Webster's Comprehensive Dictionary, (2004), apt for the subject matter.

i. Language refers to the expression and communication of emotions or ideas between human beings by means of speech and hearing, the sounds spoken being systemized and confirmed by usage among a given people over a period of time.

ii. Transmission of emotions or ideas between any living creatures by any means.

(It must be noted here that communication can be verbal or non – verbal, through pictures or videos).

Multilingualism

This is the ability of societies, institutions, groups and individuals to engage, on a regular basis, with more than one language in their day to day lives. (European Commission, 2007). Multilingualism, according to ScienceDirect, has three types namely:

- ❖ bilingualism (the ability to speak two languages fluently)
- ❖ trilingualism (the ability to speak three languages fluently)
- ❖ multilingualism (ability to speak four or more languages fluently)

Redundancy

Oxford Languages defines this term as "the state of being no longer in employment because there is no more work available". Nevertheless, the definition by the Cambridge Dictionary is considered more apt for the intention of this paper and it goes thus: "a situation in which someone loses their jobs because the employer does not need them".

Review of Relevant Literature

We will begin this section with the following observation of AI by Klepper (2024):

frightening to some, thrilling to others, baffling to many: AI has been called a transformative technology, a threat to democracy or even an existential risk for humanity.

There are two ways in which people learn languages, (Blakely et al, 2023). The first way is that which is applicable to children who begin acquiring one or more languages as they go about their daily lives. This first way is as a result of the circumstances surrounding the growing years of the children and so is not optional. The second way is that in which someone consciously decides to learn a new language. There are some people who learn many languages for the fun of it. Such people are called "polyglots", (ScienceDirect). In fact Blakely et al (2023)assert that multilingualism helps in protecting the brain from dementia. Thus acquisition of languages is not without health benefits.

When it comes to AI, there are different forms of learning and the simplest form is learning through trial and error. (Copeland, 2024).To understand AI, there is only one way: to learn. A United States congressman who wished to understand AI went back to a college to learn, (Klepper, 2024). Machine learning makes use of algorithms which create machine learning models that enables the computer to perform any given tasks. Examples of machine learning technologies include Google Translation, ChatGPT, Netflix and Tesla, (Coursera Staff, 2024). These technologies work in the following ways:

- ❖ Google Translation uses deep learning algorithms to translate messages or texts from one language to another.

- ❖ ChatGPT uses Large Language Models (LLMs) to generate text to reply to comments or questions directed to it.

- ❖ Netflix uses algorithms to create personalized recommendation engines for the users based on their previous viewing history.

- ❖ Tesla uses computer vision to power self – driving features on their cars.

Four types of AI and where they can be used, have been identified by (Coursera Staff, 2024). These are Reactive machines, Limited Memory machines, Theory of Mind machines and Self – Aware machines. these can be used in the health care industry, the finance industry and the agricultural sector. O'Brien

(2024) opines that the foundation on which Open AI (the maker of ChatGPT) and others built upon, was a new AI model called a transformer, which was introduced by a group of Google engineers.

Potential dangers and benefits of AI

Although AI possesses many applications that can change the way people work and though some of the changes are quite impressive and awe – inspiring, such as virtual assistants, self – driving cars, wearable devices in the health sector (Coursera Staff, 2024), AI is not without dangers. Below are some of the dangers and disadvantages identified by Pelley (2023). Belous, (2023), Coursera Staff (2024) and Techtargat:

- ❖ job losses
- ❖ AI is expensive to acquire
- ❖ bias or discrimination in decision making
- ❖ cybersecurity crimes
- ❖ misinformation
- ❖ lack of transparency
- ❖ it requires technical experts
- ❖ limited supply of qualified workers to build AI tools
- ❖ increasing unemployment
- ❖ lack of ability to generate from one task to another

The potential benefits of AI include:

- ❖ ability to generate new content quickly
- ❖ greater accuracy
- ❖ improved decision making
- ❖ decrease cost of operation
- ❖ personalization is increased within digital services and products

How does multilingualism help the language teacher to tackle AI?

It has been earlier asserted that multilingualism is the ability to speak fluently, four or more languages. for someone to be able to become multilingual, it means the person has a natural flair for languages or the person has made a conscious effort, for whatever reasons, to learn such languages. The underlying proviso is the interest of the individual, coupled with the anticipated and latent relevance and importance of the languages being studied, in the career of the individual. It is only a polyglot who learns a new language for the fun of it. Many others learn new languages unconsciously as a result of circumstances yet many others pay money to learn. Learning the languages of AI should therefore, not be a novel thing for the multilingual teacher, as such a person must have acquired the patience and the persistence necessary for the acquisition of linguistic competence of any language.

What must the multilingual teacher do in the face of AI to keep his job?

It is no gainsaying that AI will eventually result in colossal job losses in different spheres of human

endeavours. Nevertheless, to keep his job the language teacher must learn the languages of AI. To do this successfully, the teacher must:

- ❖ get an android or Iphone
- ❖ get a functioning laptop
- ❖ be ready to spend money on data
- ❖ attend seminars, webinars, conferences centred around AI in education
- ❖ be determined to acquire linguistic competence in the various AI languages
- ❖ apply every knowledge acquired in his teaching activities.
- ❖ relate well with young people as they are more versatile in ICT

Conclusion

This paper attempted to assert that even though Artificial Intelligence will result in a high percentage of job losses globally, the losses will not be evenly distributed across professions. The paper observed that AI has many advantages and disadvantages and that many employers are opting for AI since it is cost friendly. The paper argued that the multilingual teacher who is ready to change with the times and is willing to spend time and resources in order to be abreast of developing technologies, will remain relevant in the teaching profession irrespective of the threat arising from the entry of AI into the classroom arena. Such multilingual teachers must get an android phone, attend academic conferences, seminars, webinars on Artificial Intelligence, be determined to learn the languages of AI and relate well with young people since they are more versed in ICT.

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