



Research Article

## Communicating the Dynamics of AI and Nigerian Language Studies: The Izon Language in Perspective

Preye Samuel OBRIKI, PhD & Timothy Ekeledirichukwu ONYEJELEM, PhD

### About Article

#### Article History

Submission: April 20, 2026

Acceptance: April 27, 2026

Publication: April 30, 2026

#### Keywords:

*AI, Language preservation, Language shift, Digital archiving, Izon Language learning, DGMTT, Communication dynamics*

#### About the Authors

##### Preye Samuel OBRIKI, PhD

Department of English and Communication Studies,  
Federal University Otuoke, Bayelsa State  
E-mail: [obriki@fuotuoke.edu.ng](mailto:obriki@fuotuoke.edu.ng),  
+2349029599615  
<https://orcid.org/0009-0008-79836-2587>

##### Timothy Ekeledirichukwu ONYEJELEM, PhD

Department of Journalism and Media Studies,  
Federal University Otuoke, Bayelsa State  
E-mail: [timothy@fuotuoke.edu.ng](mailto:timothy@fuotuoke.edu.ng),  
+2348033481465  
<https://orcid.org/0009-0005-8654-8978>

### ABSTRACT

Artificial Intelligence (AI) has the requisite potential to positively impact the study of indigenous languages in Nigeria by facilitating their preservation, revitalisation, and accessibility through digital tools. Despite Nigeria's linguistic diversity, the Izon language faces a foreseeable danger of extinction due to language shift, non-preservation by native speakers, and a lack of modern digital documentation. There is a critical need to investigate how AI-driven platforms can bridge the gap between traditional oral heritage and modern digital archiving. It is against this backdrop that the current study examined the application of AI in preserving the Izon language and investigated various digital platforms for archiving natural languages. The study adopted the Technology Acceptance Model (TAM) and the Digital Generative Multimedia Tool Theory (DGMTT) in explaining how traditional methods of language preservation are failing to keep pace with the digital migration of global communication. A descriptive research design was employed, using qualitative methods to collect data from ten selected digital platforms and forty native Izon speakers. Findings revealed that AI-based platforms significantly improve the learning and speaking of Izon and offer robust frameworks for digital archiving. However, the study also noted that lack of ICT literacy and high costs are significant barriers. The study concluded that engaging AI is essential for the survival of the Izon language in the digital age. This research bridges Nigerian linguistics with advanced AI theory, offering a model for indigenous language survival. The study identified that previous studies have focused on AI in major world languages, leaving minority languages behind. This work therefore addresses the scarcity of research regarding AI's interface with minority Nigerian languages like Izon. Based on the findings, the authors recommended that earning institutions in the Niger Delta should integrate AI tools into their curricula; and governments should formulate policies to bridge the digital divide.



## 1.0 INTRODUCTION

The advent of AI has demonstrated to a large extent a neo-renaissance period of science and technology. The present demonstrations of various forms of human-required activities by robots or robotic machines should never be over-emphasised, as it is assisting to reduce overwhelming tasks that ordinarily should have been done naturally and intellectually by humans. Fitch (2010) demonstrates that since the evolution of humans, Man has had the natural ability and instinct of communication. This makes him higher than other animals due to the shape of the larynx, which allows for the production of comprehensive sounds. Fitch maintains that language is the first and foremost social tool of man. However, the emergence of artificial intelligence has had a tremendous influence on human language and communication.

The Izon language, genetically classified as one of the Niger-Congo language family under the Ijoid branch, is one of the indigenous languages spoken in Nigeria, primarily in the Niger Delta region. As noted by Ude-Akpeh et al. (2018), communication is an imperative of development, yet the Izon language faces challenges ranging from documentation to standardisation. These are risk factors that could send the language into the danger of extinction. With AI-powered tools, the language can be saved. Such tools provide personalised language experiences and resources for promoting linguistic heritage.

Digital social media and innovative technologies now play a pivotal role in social science innovation (Onyejelem & Aondover, 2025). This prospect is the crux of the present study: to ascertain how AI-based digital platforms can preserve the Izon language. AI

is currently being embraced across science, technology, arts, and humanities. For instance, the use of AI in robotic defense systems (retrieved from a veteran association platform in Nigeria) shows how machines are designed to understand language to be effective. Consequently, language remains the driving force of human-based functions and AI.

### 1.1 Statement of the Problem

The Izon language is currently threatened by a significant language shift, where younger generations prefer English or Nigerian Pidgin, leading to a decline in native fluency. Furthermore, traditional methods of language preservation are failing to keep pace with the digital migration of global communication. While AI offers transformative possibilities for language archiving, there is a lack of empirical research on the accessibility and effectiveness of these tools for Izon speakers. This study addresses the problem of linguistic erosion by exploring whether AI-driven digital platforms can provide a sustainable framework for the revitalisation and continuous learning of the Izon language.

## 2.0 OBJECTIVES OF THE STUDY

The primary objective of this study is to investigate the interface between Artificial Intelligence and the preservation of the Izon language within the context of Nigerian language studies. Specifically, the study sought to achieve the following objectives:

1. To examine how Artificial Intelligence is currently being integrated into the study, learning, and speaking of the Izon language across different spoken forms.
2. To determine how AI-based speech recognition and digital archiving can

serve as a sustainable repository for the Izon lexicon, thereby protecting the language from foreseeable extinction.

3. To evaluate the socio-economic and technical challenges, such as the digital divide and ICT literacy gaps, that hinder the effective adoption of AI tools for preserving the Izon language.
4. To assess how innovative digital tools and social media platforms facilitate the reconstruction of Izon linguistic identity among digital natives.

### 3.0 THEORETICAL PERSPECTIVE

The theoretical foundation of this study is anchored on a dual-framework approach: the Technology Acceptance Model (TAM) and the Digital Generative Multimedia Tool Theory (DGMTT).

#### 3.1 Technology Acceptance Model (TAM)

Propounded by Davis (1989), TAM is a leading framework for exploring the acceptance of new e-technology. Venkatesh and Davis (2000) state that the theory is one of the most widely utilised models of acceptance and usage of innovated technology. It provides a framework for comprehending why people choose to adopt or reject new technologies based on two primary variables: perceived usefulness and perceived ease of use. In the context of this study, TAM is utilised to evaluate how native Izon speakers and learners perceive the utility of AI-driven platforms in their daily linguistic interactions.

##### 3.1.1 Digital Generative Multimedia Tool Theory (DGMTT)

As a contemporary postulation in the era of Artificial Intelligence, DGMTT, as proposed

by Onyejelem and Aondover (2024a), focuses on the capacity of digital tools to generate, transform, and disseminate multimedia content. This theory suggests that digital tools are no longer passive repositories but active, generative agents capable of producing interactive linguistic content. In this study, DGMTT explains how AI platforms generate new learning materials, such as voice-synthesised Izon lessons and interactive orthography exercises, which go beyond traditional static archiving.

The integration of TAM and DGMTT is justified because the preservation of the Izon language via AI requires both human readiness and technological capability. While TAM addresses the human dimension (the willingness of Izon speakers to adopt AI based on its perceived ease and benefit), DGMTT addresses the technological dimension (the functional capacity of AI to generate high-quality multimedia content for language learning). Together, they provide a holistic view of how the Izon language can transition from a purely oral tradition to a digitally generated global resource.

The research design for the study is the descriptive research method. This qualitative approach involves collecting and analysing data to provide a detailed description of the phenomenon.

### 4.0 LITERATURE REVIEW

#### 4.1 The origin and concept of Artificial Intelligence (AI)

The origin of the Artificial Intelligence (AI) is credited to John McCarthy in 1955. He is considered to be the father of Artificial Intelligence. He was an American computer scientist, who brought about the term,

"Artificial Intelligence". He is considered as one of the founders of artificial intelligence, alongside the following persons: Alan Turing, Marvin Minsky, Allen Newell, and Herbert A. (<https://testbook.com>).

AI is described as the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent being. Artificial Intelligence (AI) technology is allowing computers and machines to simulate human intelligence and problem-solving capabilities. Algorithms are used in simple applications, while more complex ones help frame strong artificial intelligence. (<https://www.investopedia.com>).

John McCarthy (1955), defines Artificial Intelligence (AI) as the science and engineering of making intelligent machines. AI is the limitation of human intelligence through technology, which enables a machine to learn and perform tasks that are typically associated with humans.

AI is also about creating machines and programmes that can do tasks that usually need human thinking, like learning, recognizing patterns, making decisions, and solving problems.

The Oxford Dictionary defines Artificial Intelligence (AI) as the theory and development of computer systems able to perform tasks normally, requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

Artificial Intelligence can also be defined as the capability of computer systems or algorithms to imitate intelligent human behaviour (Merian webster 2025).

Home/ Generative Artificial Intelligence (AI). Generative AI is a type of artificial intelligence that can learn from, and mimic large amounts of data to content such as text, images, music, videos, code, and more, based on inputs and prompts. (<https://www.huit.harvard.edu>).

Mohammed (2019) describes artificial intelligence as a branch of computer science that is involved in developing computer programmes, to complete tasks which would otherwise require human intelligence.

All the above opinions on the Artificial Intelligence are pointing to the fact that the human advancement in science has brought about the invention of machines that now imitate human activities by mimicking the human intellects that are channeled towards the creation of so many human endeavours. The study is poised to x-ray the interface between AI and the Izon language, and also to investigate how this interface would guarantee the preservation of the language, archiving lexes of the language, and also recognizing Izon words for accurate pronunciation and spelling. The investigation is couched on the use of relevant digital platforms to achieve the aim of the study, which is to save the language from foreseeable and possible endangerment and subsequent threat to extinction.

#### **4.1.1 The Concept of Language**

The present study will not be complete if little or no attention is given to the concept of language. Universally, language is the social apparatus of communication among people in all social settings. No society can survive without constant communication. And this can only be achieved via language. Behind every human act, language gives the

directives to all the actions we take.

Nwala (2015), defines language as an organized and systematic way of communication among people who share a common code in a given area. He also put it that language is simply a code of conduct. In this instance, code here, refers to language while conduct is making reference to all the actions, we carry out based on the dictate of our languages. There are so many definitions of language but we will make do of just four opinions of scholars about language.

Crystal (2008) defines language as the biological faculty which enables individuals to learn and use their languages. He also states that language is a universal behaviour of human beings. And that language can only be learned in human environment. This definition buttresses the fact that language is a purely human endeavour.

Olaoye (2007), defines language as a purely human and non-instinctive way of communicating ideas, emotions, and desires, by means of voluntarily-produced symbols.

Ofeogbu (2017) describes language as a distinctively human system of communication, based on oral and written symbols.

Akindele and Adegbite (1999), define language as a system of sounds or vocal symbols by which human beings communicate experience. They also opine that language is characterized by a set of vocal sounds which can be decoded. According to them, language stands as man's most important tool, his most important asset with which he interacts. All the above definitions of language are enough for us to understand

how critical language is, to human existence. Therefore, it is the duty of every native speaker (s) to maintain, preserve and jealously guard their language(s) against any form of endangerment or possible extinction. The provision of AI through science and Technology is a blessing in disguise to a host of indigenous languages, including the Izon language in Nigeria. Incorporating AI in the study and learning of the Izon language and other indigenous languages in Nigeria, would be a rewarding opportunity to preserving and protecting these languages from possible extinction. However, there is the advocacy of moderating the use of AI in all spheres of human activities, especially in the Humanities and Arts because of the limitation it will pose to the critical and intellectual growth and development of people in this area of knowledge seeking, through creative thinking.

#### **4.1.2 AI and Language studies**

Since the introduction of AI in the human space, researchers have been preoccupied in investigating the impact of Artificial Intelligence on language and communication, which is also the interest of the present study. Some of these works are briefly presented in this study. Zhang et al (2024), demonstrate that the Large Language Models (LLMs) can be trained on Izon language datasets to develop language models that can generate texts, translate texts, and even provide language learning recommendation. In the same manner, Zhou et al (2024); Guo et al (2022) note that Large Language Models (LLMs) and Generative AI (GenAI) have shown great promise in language preservation and documentation. They aver that these technologies can analyze and generate human-like language, making them ideal for creating educational resources, language

learning tools, and linguistic corpora.

Rusmiyanto *et al.*, (2023) carried out an investigation to have an overview at the existing research and literature on the use of AI-based technologies in English language learning environments. Their study tends to achieve this by employing a literature review approach in gathering and analyzing relevant studies on the topic. Their approach in the study involves the analysis and synthesis of existing research and scholarly literature. Their study concludes that Artificial Intelligence has the potential to significantly enhance English language learners' communication skills by guaranteeing personalized and interactive learning experience. In a similar manner, Hohenstein *et al.* (2023) carried out a study on the social consequences of one of the AI's applications called "smart replies" which is used to send billions of messages each day. In their study, they conducted two random experiments among a total number of 1020 Mechanical Turk crowd workers between the ages of eighteen and sixty-eight through a Qualtrics online survey to find how smart replies affect the way people interact and perceive themselves. Findings in their study, based on the two experiments they conducted, reveals that generative AI, including a commercially deployed AI system, can have a significant impact on how people communicate with both positive and negative consequences. They recommend that it is important for researchers and practitioners to consider the broader social consequences when designing algorithms that support communication. Ali (2020) presented a paper on reviewing the uses of AI in language teaching and learning. In particular, the paper reviews the research on the uses of AI and its application in the

learning and teaching of language. Ali's study adopts a qualitative research approach, in the area of content analysis, which is used as the technique to review the articles that are obtained from the relevant databases. Ali's study revealed in its findings that four (4) themes emerged in the use of AI in relation to teaching and learning a language. The study also revealed that the uses of AI pedagogy eases teaching and learning of language. The study is relevant to the present study because they are related in the angle of language study. Another related study carried out by Li *et al.* (2020) also worked on the impact of artificial intelligence (AI)-based speech recognition system on the pronunciation skills of English Foreign Language (EFL) learners. Their study adopted a quasi- experimental design, with which it has a control group and an experimental group, in order to rate the effectiveness of the AI-based system. 160 EFL learners from a university in China were selected as the participants for the study. The experimental group utilized the AI-based speech recognition system that provided instant feedback on their pronunciation whereas, the control group received traditional instruction without the aid of the system. The pronunciation skills of both groups were assessed with the use of pre-and post- tests, which involved reading aloud and recording specific sentences. Findings of the study showed that the EFL learners who utilized the AI-based speech recognition system presented significant improvement in their pronunciation skills compared to the control group. Based on the findings, the study concludes that integrating AI-based speech recognition systems into EFL instruction can be rewarding and an effective approach to improving learners' pronunciation skills. From the above related studies reviewed, it is

clear to state that there have been so many studies on the interface of AI and language, and how AI influences language and interactions. Nevertheless, majority of research works on artificial intelligence are yet to take into full consideration the impact of AI in the Izon language. It is hoped that this study will create that platform where the Izon language like other languages will be studied with an AI-based approach. The present study will also serve as among the early calls for the interface of AI and the Izon language in area of studying and learning the language in a digital way.

Recent research has focused on AI's impact on communication. Zhang et al. (2024) demonstrate that Large Language Models (LLMs) can be trained on Izon datasets to generate texts and recommendations. Similarly, Zhou et al. (2024) and Guo et al. (2022) note that generative AI shows promise in language documentation. Rusmiyanto et al. (2023) conclude that AI enhances communication skills by guaranteeing interactive learning.

Beyond basic learning, AI is used in "smart replies" and social interaction (Hohenstein et al., 2023). In the Nigerian context, the use of "film language" to report child rights (Onyejelem, 2023) suggests that multimedia platforms are crucial for cultural messaging. Furthermore, Oboko and Onyejelem (2024) highlight that digital natives are reconstructing Igbo proverbs through digital platforms, a trend that can be mirrored in the Izon context to preserve identity. Anunike et al. (2025) note that the utilisation of AI resources in media production, such as Nollywood, can be extended to the creation of high-quality Izon language content.

### **4.1.3 The Izon Language**

Nigeria as a country is a multi-lingual setting where over five hundred languages are spoken by her citizens. Among these languages is the Izon language. The Izon language is spoken by the Ijaw people situated in the Niger delta region and beyond the shores of the region, as the language is also spoken among the migrational IZONS in the Cameroon, and some other parts of the Gulf of Guinea. In the Niger delta region, the Izon language is spoken in Bayelsa, Delta, Edo and in Ondo state in the South western region. There are as many as forty sub-groups or ibe of the Izon in the Niger delta as stated by Imoagene (1990), but Alagoa (1972) identified forty -three sub-groups, and this is the most acceptable since he has done more thorough and rigorous research about the Izon than any other scholar.

The Izon language is a language with many dialects or forms. Some of these dialects include; Mein, Kabu, Kolokumo, Apoi, Touboro, Kumbo, Tobu, Ogbain, Olodiana, Egbema, Arogbo, Iduwuni, Tuomo, to mention but a few.

### **Historical Background of the Izon**

The Izon people also known as Ijaw or Ijo, have a long history rooted in the Niger delta region of Nigeria. They are believed to be among the earliest inhabitants of southern Nigeria, with evidence suggesting their presence dating back to 800 BCE. The IZONS have maintained a distinct cultural identity and language for over 5,000 years, making them one of the world's oldest ethnic groups.

### **Origin and Early History**

#### **Ancient Inhabitants**

The IZONS are thought to be indigenous to the Niger delta, with archaeological findings and oral traditions indicating their presence in the

region, since around 5,000 BC. Their location in the Niger delta allowed them to develop a separate identity from other Benue- Kwa groups, who were more agriculturally dependent. Early Izon settlements included the city-state of Agadagba-bou, which existed for over 400 years until 1050 BCE. Following its abandonment, Isoma-bou was founded in the 11<sup>th</sup> century and lasted until the 16<sup>th</sup> century. Some theories proposed that the Izon may have migrated from the Nile Valley during antiquity, as indicated by Scouts for SDGs. (cited from Ijaw people-Wikipedia).

### Language Lost

The Izon language is not an exception to language shift, language endangerment and also language death. In recent times there are clear evidences of language shift and lost in some of the Izon settlements, due to social and cultural contact. Bulu- Apelebiri in Patani LGA and KIagbodo in Brutu LGA, all in Delta state are Izon speaking settlements that have lost the Izon language to the Urhobo language. Also in Ondo state, the Apoi dialect of Izon language has gone into extinction in favour of the Yoruba. This unfortunate linguistic situation may continue due to lack of interest in speaking the Izon language among younger generation of the Izon people, whose demography is the highest.

### 5.0 Methodology

The research design for the study is the descriptive research method. This method is chosen because it is a kind of research method that is focused and interested in describing the characteristics of a phenomenon or issue. it is the kind of methodology in research that involves collecting and analyzing data in order to provide a detailed description of the phenomenon. It can use either qualitative or quantitative methods, in this study, the qualitative method is used.

### Method of data collection

Data for the study were collected from ten selected digital platforms for AI-based language study in the Izon language, and forty natives of the language. Twenty out of these forty selected persons are normal native Izon language speakers, with vast knowledge in Information and communication Technology. While the other twenty (20), are Izon persons with below average percent in speaking and understanding the language. Those with ICT knowledge were selected to critically study these digital platforms in the study for an unbiased result. While the others were to observe all processes carried out by their counterparts. The selected digital platforms for the study include;

- a. The Izon Language Learning on Online
- b. Izon Language Learning on Podcast
- c. Izon Language Learning on You Tube
- d. Izon Language Course on Udemy
- e. Izon Language Learning App
- f. Hello Talk
- g. Lingodeer
- h. Memrise
- i. languagePod101
- j. Duolingo

### Data Presentation

The data for this study were generated through a qualitative assessment of ten purposefully selected digital platforms and the observational feedback from forty (40) Izon natives. The presentation is categorised into the technological landscape (the platforms) and the human landscape (the participants).

### The Digital Ecosystem: Investigated Platforms

The study assessed ten platforms that utilise Artificial Intelligence to facilitate language acquisition, documentation, and archiving. These platforms were categorised based on

their primary generative output:

- **Interactive Forums & Courseware:** *Izon Language Learning Online*, *Udemy*, and *LanguagePod101*.
- **Multimedia Generative Platforms:** *Izon Language Learning on Podcast* and *Izon Language Learning on YouTube*.
- **Mobile-Centric AI Applications:** *The Izon Language Learning App*, *LingoDeer*, *Memrise*, and *Duolingo*.
- **Social-Connective AI:** *HelloTalk*.

## Participant Demographics and Observational Groups

To ensure a robust analysis, forty participants were categorised into two distinct groups:

1. **Group A (ICT-Fluent Natives):** Twenty (20) native Izon speakers with advanced skills in Information and Communication Technology. Their role was to evaluate the technical "Perceived Ease of Use" and the "Generative" quality of the platforms.
2. **Group B (Linguistic Learners):** Twenty (20) persons of Izon heritage with below-average speaking proficiency. Their role was to test the "Perceived Usefulness" of the AI tools in real-time language acquisition.

### 5.1 Data Analysis

The data gathered were subjected to thematic analysis, aligned with the Technology Acceptance Model (TAM) and the Digital Generative Multimedia Tool Theory (DGMTT). The analysis reveals the following core themes:

#### Theme 1: Generative Multimedia Efficiency and Lexical Acquisition

Analysis of the data reveals that the generative nature of AI as postulated by DGMTT (Onyejelem & Aondover, 2024a) significantly

enhances lexical understanding. Participants in Group B noted that the AI-driven podcasts and YouTube algorithms provided "repetitive and adaptive" audio-visual stimuli. This confirms that when AI generates multimedia content (text, audio, and video), it moves beyond a static archive to become a dynamic pedagogical tool. The "Izon Language App" was particularly noted for providing a generative framework for Izon orthography, allowing users to move from oral sounds to written symbols with electronic precision.

#### Theme 2: Perceived Usefulness for Global Archiving and Connectivity

In line with TAM, the study analysed the "Perceived Usefulness" of platforms like *HelloTalk* and *Izon Online Forums*. The data shows that these platforms successfully bridge the geographical gap for the Izon diaspora. Group A (the ICT experts) observed that the AI-based speech recognition systems on these platforms are capable of recording and archiving voice lexes. This finding suggests that AI is not just a learning tool but a digital repository that preserves the Izon lexicon against the "language loss" identified in settlements like Bulu-Apelebiri. The ability to connect native speakers with learners globally highlights the social-correction dynamics of digital natives (Oboko & Onyejelem, 2024).

#### Theme 3: Perceived Ease of Use and the ICT Literacy Gap

A critical point of analysis involved the "Perceived Ease of Use" variable of TAM. While the ICT-fluent participants (Group A) navigated the AI courseware on *Udemy* and *LanguagePod101* with ease, Group B faced significant hurdles. The analysis indicates that "lack of average ICT education" acts as a barrier to linguistic revitalisation. Even if a

platform is linguistically sound, its perceived complexity for a non-tech-savvy user limits its effectiveness. This reinforces the argument by Vitalis et al. (2025) regarding the digital divide in Nigeria, where the media dimension of technology access remains skewed towards the digitally literate.

#### **Theme 4: Socio-Economic Realities and Capital Intensity**

The data further revealed that the "Usefulness" of these AI platforms is constrained by economic factors. Both groups agreed that learning via these platforms is "capital intensive." The requirement for high-end smartphones, computers, and consistent data subscriptions (data-heavy platforms like YouTube and Duolingo) suggests that the preservation of the Izon language through AI is currently an elitist endeavour. This analysis highlights a gap between the potential of AI (DGMTT) and the practical economic realities of the Niger Delta region.

The analysis confirms that while AI-driven platforms provide a robust, generative framework for preserving the Izon language, their successful adoption is predicated on two factors: ICT literacy (ease of use) and economic accessibility (the digital divide). The study finds that AI is most effective when it generates interactive multimedia content that mimics natural human intellect, thereby providing a "neo-renaissance" for the Izon language in the digital age.

#### **5.1.2 Findings**

Based on the assessment of selected AI-based digital platforms and observational data from native speakers, the

1. The study discovered that AI-based platforms possess a robust capacity to bridge the gap between traditional oral traditions and modern digital

requirements. These platforms enable users to learn the Izon language outside the traditional classroom, allowing for "anytime, anywhere" acquisition via AI-powered gadgets.

2. It was discovered that AI-based platforms have the technical capacity to preserve the Izon language through the digital archiving of lexes. By recording and recognizing voice patterns in the targeted language, these tools create a sustainable digital lexicon that protects against the total death of the language in threatened settlements.
3. In line with DGMTT, the study found that generative platforms like the *Izon Language App* and *YouTube* provide interactive learning opportunities that static archives cannot match. These tools generate personalised exercises that adapt to the learner's pace, making the acquisition of orthography and phonetics more efficient.
4. A significant finding is that the benefits of these AI-driven platforms are exclusive to individuals who are averagely educated in computer and ICT operations. Those without basic digital literacy are marginalized, regardless of their linguistic interest, which limits the reach of language revitalisation efforts.
5. The study discovered that digital language learning is capital intensive. The requirement for high-end AI-powered gadgets (smartphones and computers) and the high cost of data subscriptions in Nigeria represent a significant barrier to the mass adoption of these tools for language preservation.

### 5.1.3 Discussion of Findings

The findings of this study provide an eye-opener into the neo-renaissance of indigenous language studies through technology. The discovery that AI platforms are robust for linguistic survival aligns with the Technology Acceptance Model (TAM) regarding "Perceived Usefulness." For the Izon diaspora and younger generations, the usefulness of these platforms in maintaining a cultural link is undeniable. This resonates with the work of Onyejelem (2023), who argued that digital "language" whether through film or AI is a critical vehicle for communicating rights and cultural heritage.

The effectiveness of generative tools found in this study justifies the Digital Generative Multimedia Tool Theory (DGMTT) postulation by Onyejelem and Aondover (2024a). Unlike traditional documentation, which is often passive, AI acts as an active agent that generates interactive content. This dynamic is similar to the "social correction" observed by Oboko and Onyejelem (2024), where digital natives use technology to reconstruct and preserve Igbo proverbs. In the Izon context, AI platforms serve as the new "digital shrine" where language is not just stored but actively performed and reconstructed for a modern audience.

However, the findings regarding the ICT literacy gap and capital intensity highlight a sobering reality. As Vitalis et al. (2025) noted, the digital divide in Nigeria has profound implications for social and linguistic inclusion. The "capital intensive" nature of AI tools means that while the technology exists to save the Izon language from the extinction noted in Bulu-Apelebiri, it may only be accessible to a privileged few. This mirrors the findings of Anunike et al. (2025), who

noted that while AI is revolutionizing Nollywood, its utilisation is strictly tied to the user's level of technical knowledge and economic access.

Ultimately, the study shows that AI provides a "blessing in disguise" for the Izon language. As Ude-Akpeh et al. (2018) emphasized, development communication is essential for rural empowerment. Using AI to revitalise the Izon language is a high-level form of development communication that empowers the Ijaw people to maintain their identity in a globalised village. The survival of the Izon language in the digital age depends on a strategic blend of human willingness (TAM) and the generative power of technology (DGMTT).

## 6.0 CONCLUSION

After a thorough examination of the application of AI-based digital platforms, this paper concludes that despite the limitations of cost and literacy, it is rewarding and imperative to engage Artificial Intelligence in the study of the Izon language. The study has shown that through digital archiving and generative multimedia tools, the Izon language can survive the human-induced factors of extinction. AI provides a sustainable framework for continuous learning and speaking, ensuring that the language remains accessible not only to native speakers but also to the diaspora and non-native learners. By moving the language into the digital space, we ensure its survival for future generations of digital natives, effectively allaying the fears of linguistic erosion.

## 7.0 RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

1. The application of AI in Izon language studies should be formally introduced into the curriculum of all primary, secondary, and tertiary institutions within the Niger Delta region.
2. State governments in Bayelsa, Delta, Edo, and Ondo should formulate deliberate policies on ICT education and digital infrastructure. This will create a platform for ICT-assisted language learning and help bridge the digital divide for rural speakers.
3. Parents from Izon backgrounds should see it as a duty to encourage their children to use AI-based language apps at home. This will make the transition to digital language platforms easier and more natural.
4. Language teachers in the Ijaw territory should be trained in the necessary ICT skills to utilise generative AI platforms, enabling them to teach Izon orthography and phonetics more effectively in a modern classroom.
5. To mitigate the "capital intensive" nature of these tools, community centres and libraries should be equipped with AI-powered gadgets to provide free or low-cost language learning opportunities for those who cannot afford personal devices.

## REFERENCES

- Akindele, F., & Adegbite, W. (1999). *The sociology and politics of English in Nigeria*. Debiyi-Iwa.
- Alagoa, E. J. (1972). *A history of the Niger-Delta: An historical interpretation of Ijo oral tradition*. Ibadan University Press.
- Ali, Z. (2020). *Artificial Intelligence (AI): A review of its uses in language teaching and learning*. IOP Publishing Limited.
- Anunike, O. W., Onyejelem, T. E., & Nkwam-Uwaoma, A. O. (2025). Knowledge, attitude and utilisation of artificial intelligence (AI) resources in production of Nollywood films. *IMSU Journal of Communication Studies*, 9 ( 1 ) , 1 4 2 – 1 5 2 . <https://doi.org/10.5281/zenodo.15240818>
- Crystal, D. (2008). *A dictionary of linguistics and phonetics* (6th ed.). Blackwell Publishing.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and users' acceptance of information of technology. *MIS Quarterly*, 13(3), 319.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111–1132. <https://doi.org/10.1111/j.1559-1816.1992.tb00945.x>
- Fitch, W. T. (2010). *The evolution of language*. Cambridge University Press.
- Guo, Y., et al. (2022). *Auto debias: Debiasing marked language models with automated biased prompt*. Association for Computational Linguistics.
- Hohenstein, J., et al. (2023). *Artificial intelligence in communication impacts language and social relationships*. Nature Publish Group.
- Imoagene, O. (1990). *Peoples of the Cross River Valley and the eastern Delta*. New-Era Publishers.
- Investopedia. (2024). *Artificial Intelligence (AI)*. <https://www.investopedia.com>
- Ijaw people. (n.d.). In *Wikipedia*. [https://en.wikipedia.org/wiki/Ijaw\\_people](https://en.wikipedia.org/wiki/Ijaw_people)
- Li, et al. (2020). *A unified MRC framework for named entity recognition*. Association

- for Computational Linguistics Press.
- McCarthy, J. (1955). *A proposal for the Dartmouth summer research project in artificial intelligence*. <http://www.jmc.stanford.edu>
- Micheal, A. N. (2015). *Introduction to linguistics: A first course* (Revised ed.). Wisdom Publishers Limited.
- Oboko, U., & Onyejelem, T. E. (2024). Identity constructions, social correction and representational dynamics of reconstructing Igbo proverbs among digital natives: A socio-pragmatic analysis. In A. Raji-Oyelade (Ed.), *Postproverbials at work: The context of radical proverb-making in Nigerian languages* (pp. 229–261). Online Supplement 4. Faculty of Humanities and Social Sciences, Josip Juraj Strossmayer University of Osije.
- Ofoegbu, C. O. (2017). *Issues in language and national development in Nigeria*. Mustard Printing & Publishing Company.
- Olaoye, A. A. (2007). *Introduction to sociolinguistics*. Ogunleye Publishing and Printing Press.
- Onyejelem, T. E. (2023). Reporting child rights through film 'language'. In C. S. Okunna (Ed.), *Communication and media studies: Multiple perspectives* (2nd ed., pp. 423–439). New Generation Educare Ltd.
- Onyejelem, T. E., & Aondover, E. M. (2024a). Digital Generative Multimedia Tool Theory (DGMTT): A theoretical postulation in the era of Artificial Intelligence. *Advances in Machine Learning and Artificial Intelligence*, 5 ( 2 ) , 0 1 – 0 9 . <https://www.peertechzpublications.com/articles/AMLAI-5-177.php>
- Onyejelem, T. E., & Aondover, E. M. (2025). Role of digital social media in social science innovation. In C. Ekesiobi & M. H. C. Madubueze (Eds.), *Innovation in the social sciences: Theory and practice* (pp. 352–369). Anchor Book Publisher Africa.
- Rusmiyanto, et al. (2023). The role of artificial intelligence (AI) in developing English language learner's communication skills. *Journal on Education*, 6(1), 750–757.
- Ude-Akpeh, C. E., Akakwandu, C., & Onyejelem, T. E. (2018). Mass media and rural development in Nigeria: Imperatives of development communication. *Novena Journal of Communication*, 8, 227–234.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204.
- Vitalis, P. O., Aondover, E. M., Ogunbola, O., Onyejelem, T. E., & Ridwan, M. (2025). Accessing digital divide and implications in Nigeria: The media dimension. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 8(1), 1–12. <https://www.bircu-journal.com/index.php/birci/article/view/8017>
- Zhang, Y., et al. (2024). *Leveraging Large Language Model for language learning and teaching*. ZFIN Publishing.
- Ziyad, M. S. (2019). *Artificial intelligence, definition, ethics and standard*. The British University in Egypt.