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Nigerian "Digital Natives'" Knowledge, Reception, and Engagement with Indigenous Knowledge Systems Practices in the Era of AI, Big Data, and Cultural Transformation

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Abstract

Following the global rapid and steady evolution of digital technologies, including AI and Big Data, there has been a sudden and widespread adoption of these technologies among the ever tech-savvy young people referred to as "Digital Natives". In Nigeria, this adoption has led to observable cultural transformations and raises a concerned fear and risk of erosion of Indigenous Knowledge Systems (IKS) practices among these "Digital Natives". The researchers investigate the knowledge and reception of IKS practices as well as examine the extent to which AI and Big Data influence engagement with the IKS practices among the Nigerian "Digital Natives". Focusing specifically on Mass Communication undergraduates in three select universities within Anambra State, Nigeria, this research aims to bridge the existing gap in understanding how much these "Digital Natives" know about the IKS practices, their level of reception, and engagement with traditional knowledge in the evolving era of AI, Big Data, and cultural transformation. The study employed quantitative (surveys) research design. The questionnaire served as a data collection instrument, while the data collected were analyzed using Statistical Packages for Social Sciences (SPSS). Expected findings offered critical understanding into the evolving relationship between modern technological advancements and traditional heritage, informing curriculum development in higher education, guiding cultural preservation efforts, and shaping policies that promote the relevance and integration of IKS for sustainable development in the digital age. The study is anchored on Technology Determinism Theory (TDT) and Technology Acceptance Model (TAM).

Keywords: knowledge, reception, indigenous knowledge systems, digital natives, cultural transformation

Introduction

The global rapid and steady evolution of digital technology has changed social, educational, and professional lives, especially among young people. It has positively and negatively transformed lives and interactions worldwide. Research shows that young people are more into digital technologies and making waves in the form of access to education, training, and empowerment. The 2023 International Telecommunication Union (ITU) statistics show that almost four in five (79%) of the world's youth aged between 15 and 24 use the internet,

making the youth a generation of digital natives (Giri & Peng, 2024). The Union maintains that generally, more than two-thirds (67%) of the world's population are internet users.

Young people in high-income countries are more likely to make use of digital technologies than those in low-income countries for obvious reasons, including the digital divide in terms of digital literacy, accessibility challenges, and affordability of the technology, among others, in low-income countries. The implication of this higher engagement with digital technologies is a serious cultural transformation in low-income countries, which could lead to cultural homogenization to the detriment of the low-income countries if left uncurbed. With digital literacy, young people are obviously easing themselves from the shackles of ignorance, superstition, and poverty, although not without the negative outcomes too. They access information via digital technologies, including AI and Big Data, and are seen as having the potential to lead the continent in sustainable development through the strategic use of digital technology (Anosike & Adejare, 2024).

As noted by Ono, Okoli, Obi, and Chiaghana (2025, p.87), AI is trending among Nigerian undergraduates who use it for data collection, content generation, and analysis for academic research in the form of project writings, term papers, and even class assignments. Also, Tan (2023), cited in Ono, Obi, Okoli, Chiaghana, and Ezegwu (2024, p. 33) attests that the application of ChatGPT (AI) in the educational field has improved students' practical creativity, enhanced their cognitive initiative, and increased efficiency. AI has globally been acknowledged as a force to reckon with in improving diverse sectors of human endeavours (Ono, Obi, Okoli, Chiaghana, & Ezegwu, 2024). The digital technologies are changing how humans create, disseminate, consume information, understand social trends, predict behaviours, and target messages.

The global digital revolution has given rise to a generation of "digital natives", individuals who have grown up with technology and are fluent in its use (Gillis, 2020). These digital natives abound in Nigeria. Their digital literacy has made them youth entrepreneurs due to the abundant resources and knowledge they access via diverse digital platforms, which serves as a catalyst for their engagement in local and global development, which is a right step in the right direction. Some of these natives have become content creators and web

designers as well as cyber scammers, cyberbullies, internet fraudsters, hate-speech initiators/champions, among other criminal activities, highlighting the good and ugly implications of knowledge and engagement with digital technologies.

The opportunities created by digital technologies, AI, and Big Data, inclusive, have their negative consequences on Nigerian digital natives' engagement with indigenous knowledge systems (IKS), which have contributed so much to the general growth and development of Nigerians. For example, IKS has undisputably contributed to healthcare and medicinal practices through the use of plants, herbs, and leaves to treat diseases. Traditional farming methods and native cultural heritage have sustained food security and preserved Nigeria's rich cultural diversity. Masenya (2023) views IKS as undocumented cultural, local, traditional, and community knowledge produced and owned by local people in their specific communities, which is primarily preserved in the memories of elders and shared or passed on from generation to generation through oral communication, traditional practices, and demonstrations.

Studies show that digital technologies, AI, and Big Data can be used to preserve and revitalize IKS (Sustainability Directory, 2025; Adeyinka, Jatto, and Ajani, 2025). They can be used to support rather than undermine indigenous knowledge and culture or ensure the survival and vitality of IKS, but how knowledgeable the Nigerian digital natives are about the IKS is of necessity, since the future of the country is in the hands of its youth. AI and Big Data literacy and engagement by Nigerian digital natives seem to have influenced their reception and engagement with the indigenous knowledge systems practices, hence the perceived fear and risks of cultural erosion. Anosike and Adejare (2024) reiterate that Nigeria, with its burgeoning youth population, has the potential to lead the continent in sustainable development through the strategic use of digital technology, but what about Nigerian digital natives' knowledge of IKS? Is the IKS no longer relevant in the lives of young people? How much do they know and engage with IKS in solving their everyday challenges and sustaining the future? These questions prompt the need to investigate the level of knowledge, reception, and engagement with IKS among Nigerian digital natives using undergraduates of selected universities in Anambra State. The need to equip them with the

tools, opportunities, digital and local knowledge, and a sustainable environment to ensure a better future for all is therefore ripe.

Statement of Problem

The sudden and widespread embrace of digital technology by Nigerian digital natives has led to observable, unprecedented cultural transformations in Nigeria. This raises concerns about the erosion of Indigenous Knowledge Systems (IKS) practices, including traditional languages, practices, and identities among young Nigerians. The adoption of AI and Big Data (digital technologies) has led to misrepresentation or misappropriation of indigenous knowledge without proper consent. It has also led to the dominance or overshadowing of indigenous ways of knowing among Nigerian digital natives.

Although research has proved that these modern technologies, AI and Big Data, present good opportunities for IKS preservation and revitalization (Sustainability Directory, 2025; Adeyinka, Jatto, and Ajani, 2025), they are also serious threats to Nigeria's indigenous cultural heritage, which must be countered to prevent cultural homogenization in favour of Western cultures. The interface between IKS and digital technology has been a source of concern due to the risk of losing nature-given IKS, which have proven highly effective across every aspect of human communication and endeavour. Adebanjo (2023) affirms that there is a growing consensus on the importance of integrating IKS into modern education to promote cultural identity, local development, and sustainability, but this is only possible if Nigerian natives are meaningfully and positively disposed toward IKS. Their high level of knowledge, reception, and engagement with IKS can help develop strategies to leverage AI and Big Data as tools for cultural empowerment rather than as threats to cultural erosion and, of course, the perceived cultural homogenization if left unattended. The IKS may be lost forever as a result of its interface with modernization, colonization, and globalization in the era of AI, Big Data, and cultural transformation, if it remains unchecked. Also, as some indigenous youth become less interested in traditional knowledge, serious threats exist regarding the future of oral knowledge systems as the elders pass away (Food and Agriculture Organization, n.d.). Concerns over this loss necessitate this study.

This study holds significant theoretical and practical importance for several stakeholders, including academia, traditional institutions, policymakers, youth, and curriculum developers. For academia, the findings will contribute to the body of knowledge on digital natives' integration of technologies (AI and Big Data) and traditional knowledge for a deeper and better understanding of the world. It will provide valuable insights for tertiary institutions' curriculum developers, particularly Mass Communication departments, to develop relevant and culturally responsive programmes that prepare students to be technologically proficient and culturally aware.

Government agencies and traditional or cultural bodies can become better informed about the influence of technologies, especially AI and Big Data, on IKS practices, which will help them develop more effective strategies to promote, document, and safeguard IKS for future generations. The research can guide policymakers in formulating digital and educational policies that bridge the gap between traditional knowledge and modern technology. Understanding the attitudes of young people can help create a harmonious balance between cultural identity and global trends.

The study, therefore, sought to answer these research questions:

1. What is the level of knowledge of Indigenous Knowledge Systems (IKS) practices among Mass Communication undergraduates in the era of AI, Big Data, and cultural transformation?
2. What is the level of reception of IKS practices among mass communication undergraduates in the era of AI, Big Data, and cultural transformation?
3. What is the level of engagement with IKS practices among the students in the era?
4. To what extent do Artificial Intelligence (AI) and Big Data influence the students' engagement with Indigenous Knowledge Systems (IKS) practices?

Literature Review

Digital Natives

Digital natives, according to Techslang (2022), are people from the generation that grew up in the digital age who see technology as a necessary part of life, and are naturally tech-savvy and have become very comfortable with computers and digital devices. Similarly, Gillis (2020) defines 'Digital natives' as people who grew up with the presence of digital technology or in the information age and are comfortable and fluent in technology. Gillis reiterates that the term 'digital native' differs from the people who were born before the digital age and who may have more challenges and be hesitant about learning how to use new technology.

Digital natives are generally identified as the millennial generation and the generations that come after them, referred to as Generation Z. Techslang (2022) writes that the term 'Digital Natives' was coined by an American writer called Marc Prensky in a 2001 paper while discussing how students have radically changed. These digital natives are therefore referred to as the students of today who are 'native speakers' of the digital language of computers, video games, and the internet. They possibly see technology as one of the basic needs of man, just as food, water, shelter, and clothing. They are at ease with computer and digital devices operations because of their high level of digital literacy. This explains why they are becoming young entrepreneurs at an early age. These natives utilize technologies more proficiently than those born before the invention of these technologies. Digital natives are not limited to Western countries. They abound globally, and in Nigeria, they are mainly students in their teens and early adulthood. They seem to be on the internet most of the time and can multitask and seemingly switch to diverse activities with ease as intuitive learners.

Indigenous Knowledge Systems (IKS)

The IKS is a knowledge that predates colonization and Western modernity. It is nature-given and has kept indigenous communities together for centuries before the evolution of digital technologies, including AI and Big Data. Ojo (2022) views IKS as the cumulative body of knowledge, practices, and beliefs handed down from generation to generation, often orally. According to Albert (2025), indigenous knowledge is based on centuries of cultural wisdom

and practices that are deeply embedded in local traditions and values. It is usually generated and transmitted by communities in attempts to solve their own societal challenges, such as ecological and socioeconomic problems (Agada *et al.*, 2022). The IKS are from and for the community and are therefore likely to be more credible and trusted.

Unfortunately, knowledge systems are relegated to the background due to the evolution of global media and the youth's digital literacy, even when studies have shown the benefits of their intersection with digital technologies for sustainable local and national development. The neglect of indigenous knowledge systems through preferences for anything foreign has dealt a big blow to Africa's growth and development (Ibagere & Anyanwu, 2024).

A significant potential for advancing sustainable development lies at the intersection of Indigenous knowledge and Information Technology (IT) (Bawack *et al.*, 2025). The authors cited Jones and Choy (2021) as saying that IKS, encompassing traditional ecological knowledge, cultural practices, and community-based approaches, provides valuable insights into sustainable resource management and environmental stewardship. On their part, Adeyinka *et al.* (2025) avow that modernization, globalization, and environmental changes have made the priceless indigenous knowledge more vulnerable. IKS can still be a better way to communicate moral values, resolve conflicts, or preserve local histories for sustainable development because IKS are culturally sensitive and build on existing social structures.

The town crier remains an effective and the most reliable way of announcing a community meeting, especially in Nigerian rural areas, as a significant population still lives in the rural communities and digital literacy is more deficient. Likewise, the schools, churches, village meetings, among other interpersonal communication outlets, are still relevant as far as inculcation of moral values, traditions, and local language learning are concerned. There is therefore the need to make sure that the IKS are not lost completely but retained or perhaps juxtaposed with the digital technologies for a healthier Nigeria. The study aims to find out how prepared the youths are to be part of this noble venture for a sustainable Nigeria that works. People without a cultural identity is at risk of cultural loss and the dangers of cultural supremacy and homogenization.

Empirical Literature

The literature search shows that there is a limited study on Nigerian digital natives' knowledge and engagement with IKS. There is, however, literature on young people's engagement with technology, especially AI, how technology has been integrated with IKS, and the prospects being harnessed, but none is on technology's role in influencing youth to engage with IKS. The study by Ominikari and Okringbo (2023) investigated the factors influencing the sharing of indigenous knowledge among rural farmers in South-South Nigeria. A multi-stage sampling technique was used to select 360 farmers. Data collection was through a structured questionnaire and was analyzed using both descriptive and inferential statistics, such as mean and Ordinary Least Squares (OLS) regression. Findings revealed, among others, that access to information was one of the factors that influenced indigenous knowledge sharing. The study concluded that indigenous knowledge sharing was influenced by participation, social network, infrastructure, and farm income.

A study by Mudau and Sikhwari (2025), which adopted a qualitative, expository research design to explore the influence of IKS on youth behaviour in Mutale municipality, South Africa, revealed that indigenous knowledge significantly influences youth moral behaviour and decision-making. It also revealed that a disconnection from traditional structures due to modernization and a lack of intergenerational dialogue weakens the influence. The disconnection implies little or no knowledge of traditional structures, which can result in little or no knowledge of IKS among the youth, which the present study investigates. The study recommends the establishment of structured intergenerational knowledge-sharing platforms and the integration of indigenous knowledge into community-based youth development programmes.

Olaitan's (2024) study explores how African Indigenous Knowledge Systems (AIKS) can impact the practical realities of the African people and contribute to the socioeconomic development of Africa. The paper argues that the relevance of AIKS should not be limited to the realm of epistemology, as it can be used to guide the way of life and practices of Africans. It proposes that Africa must shift beyond the view of AIKS as just an alternative form of knowledge to enable Africans to acknowledge that AIKS is an entire system that comprises

knowledge, beliefs, practices, concepts, and value systems that can better improve lives and contribute to development in Africa. The same can be proposed for Nigerian digital natives to receive and engage with IKS to guide their way of life and practices. The present study is a narrowed-down study specifically on Nigerians.

Oladipupo *et al.* (2025) examined the role of indigenous knowledge practices in enhancing students' academic performance and self-concept in senior secondary Biology students in Ile-Ife, Nigeria, using a survey research design and a structured questionnaire. The results showed that incorporating indigenous practices such as traditional healing methods, sustainable agriculture, and ecological management could improve students' academic performance and self-concept in Biology. The findings also revealed a strong positive correlation between the inclusion of indigenous practices in Biology education and students' self-concept ($r = 0.977$, $p < 0.05$), as well as their academic performance ($r = 0.993$, $p < 0.05$). The study highlights the importance of integrating indigenous knowledge into science curricula as a means of fostering an inclusive and engaging learning environment. It recommends curriculum reforms that incorporate indigenous epistemologies to bridge the gap between students' cultural backgrounds and formal scientific education. The same can be replicated using Nigerian undergraduates.

Similarly, a study by Okudaye and Okulugbo (2025) examined the role of AI in enhancing indigenous knowledge and entrepreneurial skills development among Business Education students in Delta State, Nigeria, using a descriptive survey design and structured questionnaire. The study was analyzed using descriptive and inferential statistics, including Pearson's correlation and regression analysis. It explored the level of AI awareness and usage among students, the extent to which AI facilitates the integration of indigenous knowledge into entrepreneurial training, and the impact of AI on entrepreneurial skills development. The findings revealed that while students have a high level of awareness of AI tools, their practical application in entrepreneurship remains low. AI was found to play a crucial role in preserving and integrating indigenous knowledge into modern business practices through digital documentation, market intelligence, and language processing technologies.

The study concludes that AI has the potential to transform Business Education by bridging the gap between traditional indigenous business practices and modern entrepreneurial approaches. However, despite its growing relevance, limited hands-on engagement with AI tools hinders its full adoption among the students. The study recommended the integration of AI into Business Education curricula, the development of AI-driven platforms for preserving indigenous knowledge and fostering innovation, and the establishment of AI-supported business incubation centers that would provide students with practical exposure to AI applications in entrepreneurship. AI usage among the students implies students' engagement with AI or technology. AI facilitating the integration of IK practices is the same as technology influencing youth engagement with technology, which the present study is about.

Another study by Ugwuoke and Ugwuoke (2025) investigated the role of digital technology in the revitalization of Igbo IKS using a qualitative theoretical approach grounded in digital technological determinism. The authors used secondary data sources to explore how modern digital tools are being used to preserve and promote the Igbo language. The findings revealed that digital technology significantly contributes to making indigenous knowledge more accessible to wider audiences, particularly younger generations and the Igbo diaspora. Digital technological tools not only document cultural knowledge but also engage youth in dynamic ways, making indigenous knowledge relevant and appealing in the digital age or era. The study recommends, among others, the development of culturally rich and linguistically relevant digital content, the implementation of digital literacy initiatives, and active collaboration with educational and cultural institutions. This study shows the positive or meaningful engagement of young people with technology and the influence of technology on their engagement.

Theoretical Framework

Technology Determinism Theory (TDT)

Technology Determinism Theory was coined by Thorstein Veblen, an American sociologist and economist who lived from 1857 to 1929. This theory suggests that technology

influences society and alters the way we think and act, the way we conduct our interpersonal relationships, our values, and the way we learn (Beiro, 2023). Technology is seen as being synonymous with our daily life and shapes and controls society. The theory posits that technological innovations are the driving force behind social and economic change or the principal initiator of society's transformation.

TDT can help explore how AI and Big Data influence the creation, dissemination, and reception of IKS among digital natives. It can be used to explain that technology influences Nigerian digital natives' way of thinking and the sudden rush to use the technology. Technology must have influenced the digital natives to be perhaps less knowledgeable about engagement with IKS. They perhaps see technology as life, which has culturally transformed society and is the driving force behind the technological waves youths are making in society.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) was propounded by Fred Davis in 1989 (Morah & Okunna, 2023). It provides a structured understanding of how individuals adopt and accept new technology. TAM has been one of the most influential models of technology acceptance, with two primary factors influencing an individual's intention to use new technology: perceived ease of use and perceived usefulness. TAM explains that Nigerian digital natives are very much into technology because they are influenced by its perceived ease of use and the benefits that accrue from technological use.

Method

The study employed quantitative (surveys) research design. The population of this study comprised all regular undergraduates of mass communication in the three select universities in Anambra State, which have a total of 2,251. The three selected universities for the study were Nnamdi Azikiwe University, Awka, a federal university; Chukwuemeka

Odumegwu Ojukwu University (COOU), Igbariam campus, a state university; and Paul University, Awka (UniPaul), a private university. The choice of students for the study was because they fall into the generation that is born in the digital age, and who view technology as a necessary part of life (Grills, 2020; Techslang, 2022).

The sample size for this study is 399, as determined by krejcie and Morgan (1970), which states that 399 at a 99% confidence level is adequate for a population in thousands. The proportionate sampling technique was used to ensure that each unit in the population is fairly represented in the final sample, as shown below

Table 1. The three selected universities and their population.

University	Population	Proportionate Sample
NAU, Awka	759	134
COOU, Igbariam campus	1,432	254
Unipaul	60	11
Total	2,251	399

The questionnaire served as the instrument for data collection. The data were analyzed using Statistical Packages for Social Sciences (SPSS).

Results

Table 1: Respondents' Knowledge of IKS Practices

Variables	Response	Frequency	Percentage

How familiar are you with the concept of Indigenous Knowledge Systems (IKS)?	Very familiar	120	30
	Familiar	179	45
	Not familiar at all	100	25
	Total	**399**	**100**
Which of the following areas of IKS are you aware of?	Traditional medicine	102	26
	Oral storytelling and proverbs	128	32
	Indigenous conflict resolution	64	16
	Local agricultural practices	45	11
	Indigenous media formats (e.g., town criers, folk songs)	60	15
	Total	**399**	**100**
Do you believe IKS has relevance in today's digital and AI-driven society?	Strongly agree	156	39
	Agree	174	44
	Disagree	45	11
	Strongly disagree	24	6
	Total	**399**	**100**

Data from Table 1 shows that the majority of respondents (45%) are familiar with the concept of IKS, while 25% are not familiar at all. Also, the majority of them (128 out of 399) are mainly aware of oral storytelling and proverbs more than any other areas of IKS practices. On whether the respondents believed IKS has relevance in today's digital and AI-driven society, the majority of them, 174 out of 399 (44%), agree with the question, while only 6% strongly disagree. The implication is that the majority of the respondents are not only familiar with IKS but also see it as relevant in today's digital world.

Table 2: Respondents' Reception of IKS Practices

Variables	Response	Frequency	Percentage
How would you describe your attitude toward Indigenous Knowledge Systems?	Very positive	168	42
	Positive	189	47
	Negative	42	11
	Total	**399**	**100**
Do you think IKS should be integrated into the Mass Communication curriculum?	Yes	318	80
	No	81	20
	Total	**399**	**100**
Have you ever used IKS content (e.g., proverbs, folktales, traditional formats) in your academic or creative media work?	Frequently	96	24
	Occasionally	138	35
	Rarely	87	22
	Never	78	19
	Total	**399**	**100**

Data from Table 2 show that only 11% of the respondents have a negative attitude towards IKS. A high percentage of them affirm that IKS should be integrated into the mass communication curriculum, even when they have occasionally used IKS content in their academic or creative media. Their responses imply that they have a good disposition towards IKS practices.

Table 3: Respondents' Engagement with IKS in the Era of AI

Variables	Response	Frequency	Percentage
How often do you engage with Indigenous Knowledge content online (e.g., blogs, YouTube, podcasts)?	Very often	72	18
	Sometimes	96	24
	Rarely	147	37
	Never	84	21
	Total	**399**	**100**
Do you follow any social media accounts or platforms that promote Indigenous Knowledge Systems?	Yes	174	44
	No	225	56
	Total	**399**	**100**

Have you ever created media content (e.g., video, podcast, article) that incorporates IKS themes or practices?	Yes	108	27
	No	186	47
	Planning to	105	26
	Total	**399**	**100**

Data from Table 3 shows that the majority of respondents (37%) rarely engage with IKS content online and do not follow any social media accounts or platforms that promote IKS practices. Also, most of them (47%) had never created media content that incorporates IKS themes or practices. The implication is that the respondents are not very much engaged with IKS practices in the digital age.

Table 4: Respondents' Influence of AI on Engagement with IKS

Variables	**Response**	**Frequency**	**Percentage**
Do you think AI tools (e.g., Chatbots, Generative AI) can help preserve or promote Indigenous Knowledge Systems?	Strongly agree	123	31
	Agree	165	41
	Disagree	69	17
	Strongly disagree	42	11
	Total	**399**	**100**
Have you ever used AI tools to explore or create content related to Indigenous Knowledge Systems?	Yes	96	24
	No	189	47
	Not yet, but interested	114	29
	Total	**399**	**100**

Data from Table 4 reveal that the majority of respondents, 165 out of 399 (41%), agree that AI tools could help preserve or promote IKS practices. The data also reveal that the majority (47%) have never used AI tools to explore or create content related to IKS. The data imply that digital technology does not influence the respondents' engagement with IKS practices.

Discussion

The study aimed at investigating the Nigerian digital natives' knowledge, reception, and engagement with IKS practices in the era of AI, Big Data, and cultural transformation using mass communication undergraduates of three selected universities in Anambra State, Nigeria. Findings from the study revealed that undergraduates possess a moderate level of knowledge about IKS practices in the era under study, thereby answering the first research question. Specifically, 75% of the respondents indicated familiarity with IKS, with 30% being very familiar and 45% familiar, while 25% were not familiar at all. The respondents' level of awareness of IKS was strongest in oral storytelling and proverbs (32%) and traditional medicine (26%), but significantly lower in indigenous conflict resolution (16%) and local agricultural practices, suggesting that while the digital natives are exposed to certain aspects of IKS, their knowledge remains limited in scope. This finding agrees with Masenya's (2023) emphasis that IKS is largely undocumented and orally transmitted.

The finding also aligns with the Technology Determinism Theory, which posits that technology shapes societal values and behaviours, and also with the Technology Acceptance Model, which suggests that the students engage more with IKS practices that are perceived as useful and easy to integrate into digital platforms. The strong agreement (83%) among respondents that IKS remains relevant in today's AI-driven society highlights a hidden value for traditional knowledge, even as digital technologies dominate their academic and social lives. These findings imply that while AI and Big Data have not entirely displaced IKS, they have reshaped its visibility and accessibility.

In answer to research question 2 on respondents' level of reception of IKS in the digital era, findings revealed a generally positive reception of Indigenous Knowledge Systems (IKS) practices among the respondents, even in the midst of rapid technological advancements driven by AI and Big Data. According to Table 2, 89% of respondents described their attitude toward IKS as either "positive" (47%) or "very positive" (42%), while only 11% held a negative view. This positive reception is further supported by the fact that 59% of students reported using IKS content—such as proverbs, folktales, and traditional formats—in their academic or creative media work either "frequently" or "occasionally."

Furthermore, a significant majority (80%) agreed that IKS should be integrated into the Mass Communication curriculum. This suggests a strong endorsement of its relevance and applicability in academic and professional contexts, as demonstrated by Oladipupo *et al.* (2025). The current study's findings suggest that despite the dominance of digital technologies, students still recognize the cultural and educational value of IKS and are open to its integration into formal education as posited by the Technology Acceptance Model (TAM). Students perceive IKS as useful and compatible with their academic and cultural identities, which increases their willingness to engage with it.

From the lens of Technology Determinism Theory (TDT) that technology shapes societal values and behaviours, the strong reception of IKS among students suggests that traditional knowledge systems can coexist with digital innovations rather than displace them. This suggests a possibility for hybrid knowledge systems where AI and Big Data help preserve and revitalize IKS instead of contributing to its decline.

In response to the third research question on respondents' engagement with IKS in the era of AI, the study reveals a relatively low level of active engagement with IKS despite moderate awareness and positive reception. According to Table 3, only 18% of respondents engage with IKS content online "very often," while 24% do so "sometimes." A significant portion—58%—engage "rarely" or "never," indicating limited interaction with indigenous knowledge in digital spaces. This suggests that while students may recognize the value of IKS, their actual participation in its dissemination or consumption remains minimal, as observed by Okudaye and Okulugbo (2025), who found that although students are aware of AI tools, their practical application in integrating indigenous knowledge into entrepreneurial or academic activities remains low. This reflects a broader trend of underutilization of digital tools for cultural engagement, despite their potential. Ugwuoke and Ugwuoke (2025) emphasize that digital technology can rejuvenate IKS by making it accessible and engaging for younger audiences. However, the current findings imply that such revitalization is not yet widespread or effective among the target population.

From a theoretical perspective, the Technology Determinism Theory (TDT) suggests that technology shapes societal behaviours and values. The low engagement with IKS may be a

consequence of digital technologies prioritizing globalized, entertainment-driven content over localized, traditional knowledge. Meanwhile, the Technology Acceptance Model (TAM) helps explain that engagement depends on perceived usefulness and ease of access. If students do not perceive IKS content as relevant or easily accessible through digital platforms, their engagement will naturally be limited.

In response to the fourth research question on the influence of AI on respondents' engagement with IKS, the findings suggest that AI plays an indirect, yet increasingly significant, role in shaping students' direct engagement with IKS. It influences how students perceive, access, and interact with IKS. Earlier findings showed that students' direct engagement with IKS content online is relatively low, with only 18% engaging "very often" and 24% "sometimes." The document notes that Nigerian undergraduates widely use AI tools like ChatGPT for academic tasks such as data collection, content generation, and analysis, which implies a growing familiarity with AI-driven platforms. This technological fluency creates opportunities for students to encounter IKS in digital formats, even if their engagement is not yet consistent. Ugwuoke and Ugwuoke's (2025) and Okudaye and Okulugbo's (2025) studies support the interpretation. While Ugwuoke and Ugwuoke (2025) found that digital technologies, including AI, regenerate indigenous knowledge by making it more accessible and interesting to younger audiences, Okudaye and Okulugbo (2025) found that AI enables the integration of indigenous knowledge into business training. Technology Determinism Theory, which assumes that technology drives societal transformation, can help understand why the respondents are shifting away from traditional oral transmission towards digital formats, even when the technology is not fully incorporating digital content. Meanwhile, the Technology Acceptance Model (TAM) suggests that students are more likely to engage with IKS through AI platforms if they perceive the content as useful and easy to access. The limited engagement observed may reflect a gap in perceived relevance or usability of IKS content within AI-driven environments.

Conclusion

The study shows that Mass Communication undergraduates in Anambra State have a moderate understanding of Indigenous Knowledge Systems (IKS), with 75% being familiar, especially in storytelling and proverbs. Their attitude toward IKS is mostly positive, with

89% holding a positive disposition, and 80% supporting its inclusion in academic programmes. However, actual engagement is low, as 58% rarely or never engage with IKS content online, revealing a gap between appreciation and participation. Although AI and Big Data could improve IKS engagement, their impact is still developing, mainly through academic use rather than cultural preservation. The results highlight the importance of deliberate efforts to close the gap between digital literacy and indigenous knowledge, so that IKS remains relevant and accessible in the digital era.

Recommendations

The authors recommend the following:

1. Universities should incorporate IKS into Mass Communication and related programmes to foster cultural literacy and encourage academic engagement with indigenous practices.
2. Cultural institutions and educators should invest in creating youth-friendly digital content such as podcasts, blogs, and AI-powered platforms that showcase diverse aspects of IKS.
3. Government and other concerned stakeholders should develop AI-supported tools and applications that document, translate, and disseminate indigenous knowledge, making it more accessible and engaging for digital natives.
4. Student should be encouraged to participate in IKS-focused media projects, research, and community outreach to deepen their practical engagement and promote intergenerational knowledge sharing.

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