

Exploring AI-generated Content Perception among Igbinedion University Students and its influence on Communication Authenticity

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Abstract

The proliferation of artificial intelligence (AI)-generated content in Nigeria's digital landscape has raised concerns about the authenticity of communication. This study investigates the perceived influence of AI-generated content on communication authenticity, trust, and credibility among students in Okada Edo State. Our study draws from the Media Richness and Uses and Gratification Theories. While Media Richness theory posits that different communication mediums have varying capacities to convey information and that these differences affect the effectiveness of communication, the uses and gratification framework explains how people use media to satisfy their needs and desires, to interrogate AI practices and how they impact communication authenticity. A cross-sectional survey of 200 participants conducted among students at the Igbinedion University, Okada, provided data for analysis. Findings indicate that while texts, videos and images are prevalent in Nigerian media, marketing, and education sectors, they are increasingly augmented by AI, with trust and credibility issues raising concerns. Further, misinformation and disinformation are the most pressing risks identified, underscoring a widespread concern about the potential for AI-generated content to propagate false information. This highlights the need for awareness and education regarding the responsible consumption and sharing of AI-generated content. In sum, our study contributes to a deeper understanding of practices in artificial intelligence and communication contents, thus, necessitating the development of strategies for promoting authentic communication within students' digital ecosystem.

Keywords: Influence, AI-Generated Content, Communication, Authenticity, Artificial Intelligence

Introduction

The advent of artificial intelligence (AI) has revolutionized various sectors, including communication, by enabling the generation of content that is increasingly indistinguishable from that created by humans (Zhang & Lu, 2021). In Nigeria, a country characterized by its rich cultural diversity and dynamic communication landscape, the rise of AI-generated content presents both opportunities and challenges (Oso, 2020). This phenomenon raises critical questions about the authenticity of communication, as AI tools can produce text, images, and videos that may mislead or manipulate audiences (Ramesh, 2021).

AI-generated content refers to any form of content, such as text, images, audio and video created using artificial intelligence technologies. This process typically involves machine learning algorithms that are trained on large datasets to understand patterns, styles and structures inherent in the content type they are designed to generate (Rogers, 2021). There are various types of AI content generation. They include:

- a) Natural Language Generation (NLG), which enables AI technologies to autonomously produce human-like text. For instance, models like OpenAI's GPT (Generative Pre-trained Transformer) can write essays, articles, and reports based on prompts given by users (Radford et al., 2019).
- b) Image Generation, which uses tools like DALL-E or Midjourney to create images based on textual descriptions, showcasing the ability of AI to synthesize visual information based on learned data (Ramesh, 2021). Audio and Music Composition, which enables AI systems such as OpenAI's MuseNet

or Jukedeck to create music tracks by learning from vast libraries of existing music (Dong et al., 2018). For instance, AI-generated music and videos can be used to create personalized playlists and video content for users (Briot et al., 2019).

Nigeria is home to numerous ethnic groups, languages, and cultures where communication defines various intersections. Effective communication will foster understanding and respect among these diverse groups. Okedirán (2018), notes that communication is key to promoting social cohesion in multi-ethnic societies like Nigeria, where misunderstandings can lead to conflict. Communication on every media platform has a different composition that engages the consumers in a distinct way (Okika, N et al., 2023) and therefore, anylack of authenticity can lead to a breakdown in communication (Odoemelam & Odoemelam, 2023). The introduction of AI-generated content poses challenges to this authenticity, as it can blur the lines between human-generated and machine-generated information.

Authentic communication involves genuine dialogue, where individuals engage in mutual understanding (International Communication Association, 2023; Odoemelam & Odoemelam, 2023). Authenticity is the foundation upon which effective communication is built. Authenticity in communication requires congruence, empathy, and unconditional positive regard. This is particularly relevant in a country where misinformation and disinformation can spread rapidly through social media and other digital platforms.

After its first mention by John McCarthy, at the Dortmund Conference in 1956, AI technology has made significant progress, and it has become a prominent research topic in computer science and communication disciplines where the algorithm is redefining the communication landscape. AI has been identified as the primary driving force of technology since the first half of this century (Arslan, 2020).

Artificial intelligence (AI) is a rapidly growing field that involves using computers to simulate human intelligence and decision-making processes. According to Russell and Norvig (2010), AI is defined as the study of agents that receive percepts from the environment and perform actions. These agents can range from simple programs that play games to complex systems that can analyze large amounts of data and make predictions.

However, the implementation of AI in the media can create new vulnerabilities, multiply information disorders (Karnouskos, 2020), as well as generate challenges relating to transparency (Kaplan & Haenlein, 2010). For instance, AI-generated deep fakes can be used to create non-consensual explicit images and videos that can be used to harass and exploit individuals (Henry & Powell, 2024). This phenomenon presents serious difficulties for Nigeria's culturally varied community, traditional media, and journalism. Deepfakes can be used to create convincing fake videos, audio recordings, and images that can be used to spread disinformation and manipulate public opinion (see, Zhang et al., 2021; Vaccari & Chadwick, 2024). Reflective of its negative influence, Onuoha (2020) observes that misinformation is a major threat to Nigeria's democracy, as it can incite violence, undermine trust in institutions, and disrupt social cohesion.

The spread of misinformation and disinformation through AI-generated content has already become a significant issue in recent elections, with social media platforms struggling to combat the proliferation of fake news. According to Botsman (2017), trust is the ultimate currency in communication, and authenticity is the key to earning it. However, the interplay of AI-generated content can spread false information, contributing to the erosion of trust in digital platforms, which has prompted Benkler (2018) to observe that, the spread of misinformation and disinformation through AI-generated content is a major concern for democratic societies. Educating the public about the potential harms of AI-generated content and how to identify and avoid it, is crucial. Social media has become a significant channel for spreading misinformation and disinformation in Nigeria (Oso, 2020). Additionally, as the literature (Cohen, 2020; Levine, 2019) suggests, the implementation of AI in media introduces new vulnerabilities, exacerbates information disorders, and presents challenges related to transparency. Transparency is essential for maintaining trust in communication, especially when AI-generated content is

involved. According to Diakopoulos (2019) and Gunning, (2017), while audiences may see AI as a means to improve the quality of information, they also face risks such as biased data, privacy invasion, and the potential for increased political polarization.

In this study therefore, we explore the complex interplay between AI technologies and communication authenticity in Nigeria, highlighting the need for a deeper understanding of these dynamics.

Research Questions

These research questions provided guidance in the study:

1. How does AI-generated content influence communication authenticity in Nigeria?
2. What are the primary challenges posed by AI-generated content to the genuineness of information shared in media, marketing, and education sectors?
3. What types of AI-generated content (e.g., text, images, videos, audio) are most prevalent in media, marketing, and education sectors?
4. What are the primary risks associated with AI-generated content, particularly regarding misinformation, disinformation, and privacy invasion?

Theoretical Framework

This study is anchored on the Media Richness Theory and the Uses and Gratification theory.

Media Richness theory, which is a communication theory developed by Richard L. Daft and Robert H. Lengel in the 1980s, posits that different communication mediums have varying capacities to convey information and that these differences affect the effectiveness of communication. The fundamental premise is that richer media are more effective for ambiguous or complex tasks than leaner media. According to media richness theory, media can be classified along a continuum of richness, with face-to-face communication being the richest and text-based communication being the leanest (Webster & Trevino, 1995).

On the other hand, the Uses and Gratification Theory is a communication theory that is linked to the research of Michael Gurevitch, Jay Blume, and Elihu Katz (1970). The theory explains how people use media to satisfy their needs and desires (Katz et al., 1974). The theory posits that individuals actively seek out media that meet their specific needs, such as entertainment, information, or social interaction (Blumler & Katz, 1974). Uses and gratification theory also suggests that individuals have different motivations for using media, and that these motivations influence their media choices (Blumler & Katz, 1974). The theory has been applied to exposure to various media, including television, radio, newspapers, and social media (Rubin, 2002).

Method

We deployed the survey research method and conducted a cross-sectional study among Igbinedion University students in Okada, Edo State, Nigeria, on AI-generated content practices and how this influences their perception of authenticity in communication. The sample consisted of 200 respondents, determined with the Taro Yamane formula, resulting in the selection of 200 students from a total population of 5,200 students at the undergraduate and postgraduate levels. Next, the simple random technique was adopted, ensuring that the selection process was unbiased, a random number generator was employed, allowing for the application of a basic random sampling technique. A questionnaire was generated that aligned with items in extant similar studies (Odoemelam, 2023; Kerlinger & Lee, 2000), as a research tool to collect quantitative data from a population similar to that of the subjects of this study in a validity and reliability test in line with Krippendorff's baseline (Kerlinger & Lee, 2000). The returned instruments were amended along the observed discrepancies and administered on 200 respondents who constituted the sample for the study.

Data and Result

The analysis is based on data generated from the 200 copies of questionnaires administered. However only 195 were found useable, giving 95% return rate.

We first analysed the demographic data of respondents, which indicate that, while 78 respondents (40.0%) reported as male, 117 respondents (60.0%) who are in the majority, were female. Further, majority of the respondents (n=170, 87.2%) were between the ages of 18-25; 12 respondents (6.2%) are between the ages of 26-35 while, 7 respondents (3.6%) are between the ages of 36-45 and 6 respondents (3%) are above 46 years. Our analysis indicate that majority (n=172, 88.2%) were pursuing Bachelor Degree, M.Sc (n=18, 9.2%) and while the least, (n=52, 6%) were pursuing doctoral degree (see table 1 below)

Table 1. Respondents’ Demographic Data

Variables	Frequency	Percent
Gender		
Male	78	40.0
Female	117	60.0
Age		
18-25	170	87.2
26-35	12	6.2
36-45	7	3.6
46 and above	6	3
Programme		
Undergraduate Students	169	88.2
Masters Students	18	9.2
Doctoral Students	5	2.6
Others	3	1.5

How AI-generated Content influence Communication Authenticity

With regard to this research question, we posed two distinct questions. The first explored perceived importance of AI to participants work and studies. Analysis indicate thus: very important (n=62, 31.8%); Important (n=82, 42.1%); Not important (n=31, 15.9%); very unimportant (n=20, 10.2%). These responses indicate that AI generated content is perceived very important and important by majority of the participants. Secondly, we explored perceived importance of AI’s influence on authenticity of communication. Indications are that, majority (n= 115, 60.7%) believe that AI generated content is not an important influence on communication authenticity; 72 respondents (36.9%) believes that it is very unimportant; 5 respondents (2.4%) believes that it is very important; 0 respondent (0%) believes that it is important. What this suggests is that, authenticity in communication is perceived as unimportant. (see table 2 below).

Table 2: How does AI-generated content influence communication authenticity in Nigeria?

Is AI generated content is a valuable or important tool for your work or studies?	Frequency	Percentage
Very important	62	31.8
Important	82	42.1
Not important	31	15.9
Unimportant	20	10.2

How important is the influence of AI-generated content on communication authenticity?		
Very important	5	2.4
Important	0	0
Not important	115	60.7
Unimportant	72	36.9

Challenges posed by AI-generated Content to the Genuineness of information Shared in Media, Marketing, and Education Sectors?

This segment sought ascertain the perceived challenges posed by AI generated content in relation to genuiness on spaces such as media, marketing and education. Hence, we asked participants to rate the level of their perception that AI has effect on their trust on information. Our analysis indicate that majority (n=150, 76.1%) of the participants indicated that AI generated content has very important effect on their trust on information; 40 respondents (%) noted that it is important; 5 respondents (%) noted that it is not important. A follow up question to participants was for them to rate the significance of the influence of AI-generated content on the authenticity of information. Analysis indicate that, majority, (n=139, 71.3%) indicated that AI-generated content has an unimportant significance. However, 42 respondents, representing 21.5 percent indicated that AI-generated contents has a very important significant impact on the authenticity of information in Nigerian media, marketing, and education sectors; while 9 respondents (4.6%) indicates that AI-generated content has an important significance; 5 respondents (2.6%) indicates that AI-generated content is not an important significance; (see table 3 below).

Table 3: What are the primary challenges posed by AI-generated content to the genuineness of information shared in media, marketing, and education sectors?

Do you think AI generated content affects your trust in information. How important is this issue to you?	Frequency	Percentage
Very important	150	76.9
Important	40	20.5
Not important	5	2.6
Unimportant	0	0
How would you rate the significance of the influence of AI-generated content on the authenticity of information in Nigerian media, marketing, and education sectors?		
Very important	42	21.5
Important	9	4.6
Not important	5	2.6
Unimportant	139	71.3

Types of AI-generated Content (e.g., text, images, videos, audio) most prevalent in Media, Marketing, and Education Sectors

Data revealed that, 98 respondents (50.3%) which constitute of majority of the respondents, believes that images are the most prevalent AI generated content in Nigeria media, marketing and education sectors; while 54 respondents (27.7%) believes that images are the most prevalent AI generated content in Nigeria media, marketing

and education sectors. Meanwhile 24 respondents (12.3%) believe that texts are the most prevalent AI-generated content in Nigerian media, marketing and education sectors; 19 respondents (9.7%) believe that images are the most prevalent AI-generated content in Nigerian media, marketing and education sectors (see table 4 below)

TABLE 4: What type of AI-generated content (e.g., text, images, videos, audio) do you think are most prevalent in Nigerian media, marketing, and education sectors?

Variables	Frequency	Percentage
Text	24	12.3
Images	54	27.7
Videos	98	50.3
Audio	19	9.7

Risks associated with AI-generated content, particularly regarding misinformation, disinformation, and privacy invasion

Our last research question focused on risks associated with AI-generated content, particularly regarding misinformation, disinformation, and privacy invasion. The analysis shows that 132 respondents (67.7%) which constitute majority of the respondents, believe that misinformation and disinformation, are the primary risks associated with AI-generated content. However, 37 respondents (19.0%) believe that manipulation of public opinion is the primary risk associated with AI-generated content; 17 respondents (8.7%) believe that privacy invasion and data breaches, are the primary risks associated with AI-generated content; 9 respondents (4.6%) believe that spreading of hate speech and extremism are the primary risks associated with AI-generated content. What we deduce is misinformation and disinformation are the most perceived prevalent risks associated with AI-generated content, other risks such as, Privacy invasion and data breaches, Manipulation of public opinion and Spread of hate speech and extremism, are marginally perceived as risks in AI-generated discourse (see table 5).

TABLE 5: What do you think is the primary risk associated with AI-generated content?

Variables	Frequency	Percentage
Privacy invasion and data breaches	17	8.7
Manipulation of public opinion	37	19.0
Spread of hate speech and extremism	9	4.6
Misinformation and disinformation	132	67.7

Discussion of Findings

Consistent with the objectives set out in this study, our findings indicate that while texts, videos and images are prevalent in Nigerian media, marketing, and education sectors, they are increasingly augmented by AI, with trust and credibility issues raising concerns. Further, misinformation and disinformation are the most pressing risks identified, underscoring a widespread concern about the potential for AI-generated content to propagate false information. Nigeria has a long history of problems with trusting the media. The spread of AI-generated content can make this problem worse. AI can create false or misleading information, which can damage trust in media and communications. According to a report by the Reuters Institute for the Study of Journalism (2022), Nigerians are already skeptical of news sources. The rise of AI-generated content may increase this skepticism, causing people to question everything, including genuine content. This impersonality can cause people to feel

disconnected and view AI-generated content as less authentic. A survey by Onuoha (2020) found that many Nigerians prefer human interaction over automated responses in customer service and communications.

AI struggles to replicate the depth of human experience that fosters genuine connection. There is a risk that AI-generated content could contribute to the spread of false information, either intentionally or unintentionally and this raises the phenomenon of lack of accountability since AI systems may produce content without a clear source or accountability.

Following the democratic nature of AI, quality and relevance of AI-generated content can vary widely, leading to inconsistencies in the information shared. Hence, ethical issues regarding authorship, originality, and transparency, are inevitable (Levine 2020).

Together, these challenges reflect a complex relationship between AI-generated content and the authenticity of information, prompting the need for careful consideration and strategic approaches to address them in Nigerian media, marketing, and education.

We found that videos are most prevalent in Nigerian media, marketing, and education sectors. Video content, including promotional videos, tutorials, and social media snippets, is being increasingly augmented or generated by AI. On the other hand, AI-generated text, including articles, blogs, product descriptions, and educational materials, is increasingly common. AI-generated images are used in marketing, advertising, and social media content. The importance of visual content in attracting and retaining audience attention cannot be overstated (Cohen, 2020).

Audio: AI-generated audio content is mainly utilized in the creation of podcasts, voiceovers, and educational materials. Audio content provides an alternative for consuming information, particularly in a country where mobile usage is high. AI can create natural-sounding speech for various applications.

In sum, this paper points to misinformation and disinformation as the most pressing risk identified, which underscores a widespread concern about the potential for AI-generated content to propagate false information. Given the rapid dissemination capabilities of social media and the internet, AI tools can easily create realistic yet misleading narratives that can confuse or deceive the public.

Conclusion

The rise of artificial intelligence (AI) has significantly transformed various sectors, including communication. This change introduces complex challenges regarding the authenticity of communication, as AI-generated content can blur the lines between human-created and machine-generated information. Communication authenticity is essential for fostering trust and collaboration among diverse communities, especially in a place where misinformation and disinformation can spread quickly through digital platforms like social media. Scholars have explored how AI enhances efficiency in content production while also sparking concerns over the credibility of information. The study emphasizes the need to balance leveraging AI's benefits while maintaining communication authenticity.

While the rise of AI-generated content has brought transformative potential to various sectors, enhancing productivity and personalization in communication and media, this technology also presents significant risks, particularly in relation to communication authenticity, trust, and ethical considerations. The blurring of lines between human-generated and machine-generated information poses challenges for credibility, potentially exacerbating issues of misinformation and disinformation, especially in politically sensitive contexts. The research implies that in order to promote a more genuine communication environment, it is essential to weigh the advantages of AI-generated material against its risks.

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