The Erosion of Journalistic Integrity: How AI-Driven Fake News and Deepfakes Complicate Truth Verification in Journalism

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Abstract:- The introduction and consequent proliferation of Artificial Intelligence (AI) and deepfakes have created new challenges for journalists worldwide. These technologies have made it alarmingly easy to generate and disseminate fake news, complicating the verification process and undermining journalistic integrity. The rapid spread of AI-driven misinformation not only burdens journalists with the task of distinguishing fact from fiction but also erodes public trust in the media. This paper explores the implications of AI and deepfakes on truth verification in journalism, highlighting the ethical dilemmas faced by journalists in this new digital landscape. By examining the impact on public perception and the challenges of maintaining credibility, the study underscores the need for robust verification tools and ethical guidelines to safeguard the integrity of journalism in the age of AI.

Keywords:- Artificial Intelligence, Deepfakes, Journalism, Misinformation, Public Trust, Truth Verification

I. INTRODUCTION

The proliferation of artificial intelligence (AI) is undoubtedly one of the most transformative developments of the twenty-first century (Brynjolfsson et al., 2019; Dupont, 2013). AI has been continuously reshaping industries and revolutionising how tasks are performed and completed (Dauvergne, 2020). For students, AI has become an invaluable tool, enabling them to write more effectively and perform grammar checks with the help of AI-powered writing assistants (Pape et al., 2021; Singh & Hirah, 2022). These tools not only improve the quality of their work but also save time and enhance learning experiences (Li, 2020). In the business world, companies leverage AI bots to optimise sales and marketing strategies, allowing for more personalised customer interactions and efficient data analysis (Ljepeva, 2022; Mariani et al., 2022; Nalini et al., 2021). Teachers, too, have embraced AI, using it to plan lessons, tailor educational content to individual student needs, and discover innovative methods for delivering classes (Fitra, 2021). The integration of AI across various fields has undeniably made work easier and more efficient, offering new possibilities and transforming traditional processes (Chakraborty, 2022; Kraus et al., 2022).

The world has rapidly evolved from traditional AI applications, which primarily focused on tasks like data analysis and pattern recognition, to the more advanced realm of generative AI. This new wave of AI technologies, including models like OpenAI's ChatGPT and Google's Gemini (formerly Bard), goes beyond simply processing information; they can create entirely new content. These generative AI models are capable of producing text, images, and even videos that are highly convincing, often indistinguishable from human-made content. This shift marks a significant milestone in AI's development, as the ability to generate content autonomously introduces both opportunities and challenges across various industries (Oksymets, 2024).

In journalism, the rise of generative AI has profound implications for integrity and the spread of fake news. While these technologies can assist journalists in content creation and idea generation, they also make it easier to fabricate information and create deepfakes, which can be used to deceive the public. The realism and scale at which generative AI can produce false narratives threaten the credibility of news outlets, as distinguishing between authentic and AI-generated content becomes increasingly difficult (Dalalah & Dalalah, 2023). This erosion of trust complicates truth verification and places a greater burden on journalists to ensure the accuracy and authenticity of the information they publish.

Journalism is no exception to this AI-driven transformation (Helberger et al., 2022; Helberger & Diakopoulos, 2023). Journalists now use AI for an array of tasks, ranging from news writing and idea generation to sorting through large volumes of information and even broadcasting (Arets et al., 2024; Moravec et al., 2024; Oksymets, 2024). AI algorithms can quickly scan through data, identify trends, and generate news articles in a fraction of the time it would take a human journalist (Diakopoulos, 2019; Stray, 2021). This has led to more efficient newsrooms and the ability to cover a broader range of topics. Additionally, AI tools assist in curating content, tailoring news to the preferences of individual readers, and helping journalists stay

ahead in an increasingly fast-paced news environment (Singh & Pathania, 2024). The use of AI in journalism has expanded the capabilities of news organisations, enabling them to reach wider audiences and improve the overall quality of their reporting (Kalij et al., 2020).

However, despite these advantages, the integration of AI into journalism has brought significant challenges, particularly in the areas of truth verification and combating misinformation (Kertysova, 2018). The same technology that enables AI to assist journalists can also be used to create convincing fake news and deepfakes, making it increasingly difficult to distinguish between real and fabricated content (Thompson et al., 2022). The ease with which AI can generate false information, combined with the rapid spread of such content through digital platforms, poses a serious threat to journalistic integrity. Journalists now face the daunting task of verifying the authenticity of news and images in an environment where sophisticated AI tools can mimic reality with alarming accuracy (Thompson et al., 2022). This challenge has sparked a growing concern within the industry, as the line between fact and fiction becomes blurred, undermining public trust in the media and complicating the role of journalists as gatekeepers of truth (Sharma et al., 2022).

II. AI-DRIVEN MISINFORMATION AND FAKE NEWS

Artificial intelligence (AI) is often characterised in two seemingly contradictory ways. One perspective defines AI as intelligence that replicates human intelligence and behaviour. Conversely, AI is also described as intelligence that contrasts with natural, or human, intelligence. As Russel and Norvig (2016) explain, the first set of definitions evaluates AI's success "in terms of fidelity to human performance," while the second set of definitions assesses AI's success "against an ideal performance measure, called rationality" (p. 1).

To gain a clearer understanding of fake news, Wardle and Derakshan (2017) differentiate between three key categories: misinformation, disinformation, and malinformation. Misinformation is characterised by the unintentional sharing of false information without any harmful intent. Disinformation, in contrast, involves the intentional creation and distribution of false information with the specific purpose of causing harm or deceiving others. Malinformation, however, refers to the dissemination of true information with the intent to inflict harm, often by revealing private or sensitive details to the public. These distinctions help to clarify the diverse motivations and impacts associated with the spread of fake news.
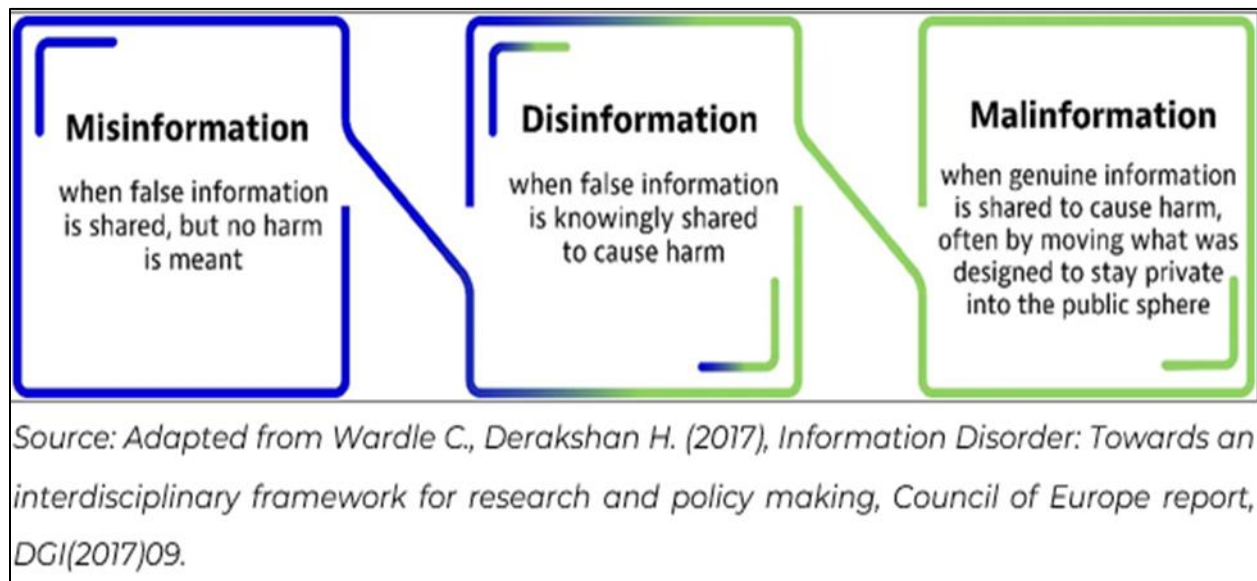

Source: Adapted from Wardle C., Derakshan H. (2017), Information Disorder: Towards an interdisciplinary framework for research and policy making, Council of Europe report, DGI(2017)09.

Fig 1: The Psychology of Fake News (Wardle and Derakshan, 2017)

Artificial intelligence is used to create fake news leading to the spread of misinformation. Inobemhe et al. (2020) defined fake news as "the deliberate misinformation about an issue or a matter" (p. 156). McGonagle (2017), in a similar vein, defined fake news as "the deliberate misinformation about an issue or a matter" (p. 156). Lazer et al. (2018) define fake news as information that is fabricated to resemble news media content in form, often overlapping with information disorders such as misinformation or misleading information. According to Pate et al. (2019), the proliferation of fake news has emerged as a significant societal threat, prompting calls for urgent government intervention through legislative measures. They emphasise that the impact of fake news on society is substantial and cannot be disregarded. Similarly, Pulido et al. (2020) view fake news as a public health concern, asserting that it poses harm to individuals exposed to it. This

perspective underscores the notion that fake news represents a serious public health risk for those who encounter it.

AI-driven fake news refers to misinformation that is deliberately created and spread using artificial intelligence technologies (Broussard et al., 2019). This type of fake news often involves automated systems that generate, curate, or amplify false information with the intent to deceive or mislead the public (Collins et al., 2021). The creation of AI-driven fake news typically involves natural language processing algorithms that can produce convincing articles, social media posts, or even entire websites that appear legitimate (Humprecht, 2020). The purpose behind such content can range from political manipulation to financial gain, as it can easily sway public opinion, cause panic, or discredit individuals or organisations (Karnouskos, 2020).

Deepfakes, on the other hand, are a specific subset of AI-driven content that involves the use of machine learning algorithms to create highly realistic, yet entirely fabricated, audio and visual content (Masood et al., 2023; Mustak et al., 2023; Vasist & Krishnan, 2023). This technology relies on deep learning techniques, particularly generative adversarial networks (GANs), to superimpose one person's face onto another's body or alter their voice (Shen et al., 2018; Yadav & Salmani, 2019). The implications of deepfakes are profound, as they can make it appear that someone said or did something they never did, leading to potential damage to reputations, political instability, or even threats to national security (Striuk & Kondratenko, 2023). The ability to create such convincing fake content challenges traditional methods of truth verification, making it increasingly difficult to distinguish between real and fake media (Kalpokas & Kalpokiene, 2022).

Deepfakes are highly realistic synthetic media, typically videos or images, created using artificial intelligence to convincingly superimpose someone's likeness onto another person's body or voice. This technology has advanced rapidly, making it increasingly difficult to distinguish between genuine and fabricated content. Deepfakes have become a powerful tool in the spread of misinformation, with several high-profile instances illustrating their impact. One notable example is the deepfake video of former U.S. President Barack Obama, where his likeness was manipulated to deliver a speech, he never gave. The video, created by filmmaker Jordan Peele in 2018, was initially intended to raise awareness about the potential dangers of deepfakes (Peele, n.d.).

Fig 2: Obama's deepfake video[1]

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[1] https://www.youtube.com/watch?v=AmUC4m6w1wo.

American director, Jordan Peele, also created a photorealistic video of Obama to show the world that AI can be dangerous and truth verification can be more tasking. In the image in figure 3, Jordan Peele begins with a video with a deepfake Obama educating the public on misinformation, before he meshes it up with the original clip of himself, which is the original video. However, in the meantime, some people had circulated the video and some other fake videos, recreated with AI, with Obama and other celebrities saying nefarious things.

Fig 3: Jordan Peele shows himself in the video (Peele, n.d)

However, its realistic portrayal underscored how easily such technology could be used to spread fake news, leading to public confusion and the potential for significant political ramifications.

Another significant instance occurred in 2020 during the COVID-19 pandemic when a deepfake of Indian actress Deepika Padukone surfaced, showing her endorsing a false remedy for the virus. The video, which quickly went viral, was eventually debunked, but not before it contributed to the spread of dangerous misinformation. Such instances highlight the potential for deepfakes to not only distort reality but also to endanger public health and safety by spreading false information (Reuters, 2023).

Social media platforms and digital algorithms play a crucial role in the proliferation of both AI-driven fake news and deepfakes. These platforms, designed to maximise user engagement, often rely on algorithms that prioritise sensational or controversial content, inadvertently amplifying the reach of misinformation. Once fake news or deepfakes are posted, they can quickly go viral, spreading across networks and reaching millions of users within minutes. The speed and scale at which this content spreads make it challenging for fact-checkers and journalists to keep up, allowing false information to embed itself in public consciousness before it can be corrected (Sharma et al., 2022).

III. THE IMPACTS OF AI-CREATED FAKE NEWS AND DEEPFAKES ON JOURNALISM

The advent of artificial intelligence (AI) has brought about transformative changes across various sectors, including journalism. While AI has enhanced the efficiency and capabilities of newsrooms, it has also introduced unprecedented challenges. Among the most significant are the proliferation of AI-created fake news and deepfakes, which threaten to undermine the core principles of journalism—truth and integrity. These AI-driven technologies have blurred the line between reality and fabrication, making it increasingly difficult for journalists and the public to distinguish between genuine news and falsehoods (Iqbal, 2023). As a result, the integrity of journalism is at risk, with far-reaching implications for public trust and the role of the media in society.

➢ *Challenges in Truth Verification*
The rapid advancement of artificial intelligence (AI) technologies has revolutionised many aspects of journalism, offering tools that enhance efficiency and broaden the scope of news coverage. However, these same technologies have also introduced significant challenges, particularly in the realm of truth verification. One of the primary difficulties lies in distinguishing real content from AI-generated fakes, especially as deepfake technology becomes increasingly sophisticated. Deepfakes, which involve the manipulation of audio, video, or images to create realistic but entirely fabricated content, have made it exceedingly difficult for journalists and the public to

differentiate between authentic and false information (Leiser, 2022).

Journalists have traditionally relied on established methods of fact-checking, cross-referencing sources, and using their judgement to assess the credibility of information. However, the rise of AI-driven fake news has complicated this process. AI can generate false articles, photos, and videos that are nearly indistinguishable from real ones, leaving even experienced journalists struggling to verify the authenticity of content. The sheer volume of information available online further exacerbates this challenge, as newsrooms are inundated with content that must be vetted and verified in real-time. This has placed an enormous burden on journalists and fact-checkers, who must now contend with a new level of complexity in their work (Cheruiyot & Ferrer-Conill, 2018).

The verification process has also become more time-consuming, as journalists must use specialised tools and software to detect AI-generated fakes. This often involves checking the metadata of images and videos, analysing patterns of dissemination on social media, and employing AI-driven fact-checking tools that can detect anomalies in content. While these methods can be effective, they are not foolproof, and the speed at which fake news spreads online often outpaces the ability to debunk it. This lag between the creation of fake content and its detection can result in false information reaching millions of people before it is corrected, causing lasting damage to the reputation of news organisations and the public's trust in journalism.

➤ *Erosion of Public Trust*
The proliferation of AI-driven misinformation has had a profound impact on public trust in the media. As deepfakes and fake news become more prevalent, the public's ability to discern truth from falsehood diminishes, leading to widespread scepticism and cynicism toward news sources. The erosion of trust in journalism is particularly concerning, as a well-informed public is essential for a functioning democracy. When people cannot trust the information they receive, it undermines the foundation of informed decision-making and erodes the social contract between the media and its audience (Samuel-Okon et al., 2024).

Several case studies highlight the damaging effects of AI-driven misinformation on public trust. For example, during the 2020 U.S. presidential election, deepfake videos of political figures, including one of House Speaker Nancy Pelosi appearing to slur her speech, went viral on social media (CBS News, 2019). Although the video was quickly debunked, it had already been viewed millions of times, leading to widespread confusion and reinforcing existing partisan divides. This incident exemplifies how quickly AI-generated content can spread and the difficulty of restoring trust once it has been compromised.

Another notable case occurred during the COVID-19 pandemic when a deepfake of Indian actress Deepika Padukone surfaced online, falsely showing her endorsing a remedy for the virus. The video, which was widely circulated before it was exposed as a fake, contributed to the spread of dangerous misinformation at a time when accurate information was critical for public health. Such instances illustrate how AI-driven fake news can exploit the credibility of public figures to disseminate false information, further eroding trust in both the media and the individuals involved (Mookdarsanit & Mookdarsanit, 2021).

The long-term impact of these incidents is a growing distrust of traditional news sources, as people become increasingly uncertain about the accuracy of the information they consume. This scepticism is exacerbated by the fact that AI-generated content is often designed to look and feel like legitimate journalism, making it more difficult for the average person to identify fake news. As a result, many people turn to alternative sources of information, such as social media and partisan outlets, which can further fragment the media landscape and contribute to the spread of misinformation (Chakraborty, 2022).

➤ *Ethical Dilemmas*
The rise of AI-generated content in journalism has also introduced a host of ethical dilemmas that challenge the core principles of the profession. One of the most pressing ethical issues is the responsibility of journalists to verify the authenticity of the content they report. With the increasing prevalence of AI-driven fake news and deepfakes, journalists must be more vigilant than ever in ensuring that the information they publish is accurate and trustworthy. However, this responsibility comes with significant challenges, as the pressure to deliver news quickly often conflicts with the need for thorough verification (Kaur & Sharma, 2024).

The balance between speed and accuracy is a longstanding issue in journalism, but the advent of AI-driven misinformation has made it even more difficult to navigate. In today's fast-paced news environment, journalists are expected to report breaking news as it happens, often with little time for fact-checking. This creates a tension between the imperative to be first with the story and the ethical obligation to ensure that the information is correct. The risk of inadvertently spreading AI-generated fake news is heightened by this pressure, leading to potential harm to individuals, organisations, and the public's trust in the media (Chakraborty, 2022).

Another ethical dilemma revolves around the use of AI tools in journalism itself. While AI can assist journalists in various tasks, such as content generation and data analysis, it also raises questions about the integrity of the profession. For instance, the use of AI to write news articles or generate ideas for stories could potentially compromise the originality and authenticity of journalistic work. Moreover, reliance on AI

tools could lead to a homogenization of news content, where the same AI-generated narratives are repeated across multiple outlets, reducing diversity in reporting and limiting the range of perspectives available to the public.

The ethical challenges posed by AI in journalism extend beyond individual journalists to news organisations and the broader media industry. Newsrooms must establish clear guidelines for the use of AI tools, ensuring that they are used responsibly and transparently. This includes disclosing when AI-generated content is used and implementing rigorous fact-checking procedures to verify the authenticity of information. Additionally, there is a need for industry-wide standards to address the ethical implications of AI in journalism, including the potential impact on employment, as AI-driven automation could reduce the need for human journalists in certain roles.

IV. AI AND JOURNALISTIC INTEGRITY: CRITICAL NIGERIAN PERSPECTIVES

In today's digital age, the rapid advancement of artificial intelligence (AI) has revolutionized various sectors, including journalism. While AI offers tremendous potential for enhancing news production and dissemination, it also presents significant challenges, particularly concerning the integrity of journalistic practices. The rise of generative AI tools has made it increasingly easy to create and spread fake news, deepfakes, and other forms of misinformation. These developments have profound implications for the credibility of media outlets and the trust that the public places in the news they consume. This paper examines the critical perspectives from Nigeria and Africa on how AI-driven technologies have influenced journalism, with a focus on the ethical dilemmas, challenges in truth verification, and the broader impact on democratic processes. Through the lens of recent events, this study explores the complexities introduced by AI and generative AI in the journalistic field and underscores the urgent need for effective strategies to safeguard journalistic integrity in the face of these technological advancements.

In recent years, Nigeria and Africa have witnessed several instances where AI-driven technologies have been used to create and spread fake news, significantly impacting public perception and socio-political stability (Gbanden et al., 2024). One notable example occurred during the 2019 Nigerian general elections, where AI-generated fake news circulated widely on social media platforms. False reports about candidates' health, election results, and fabricated endorsements were disseminated, creating confusion and tension among voters. The AI tools used to create these fake stories made them appear credible, making it difficult for both the public and journalists to distinguish between factual information and falsehoods, thereby undermining the democratic process (Christian, 2024).

Another instance of AI-generated misinformation occurred during the COVID-19 pandemic in Africa. Deepfake videos and AI-generated articles spreading false information about the virus, including fake cures and conspiracy theories, proliferated across the continent (Okpara, 2023). In Nigeria, a deepfake video surfaced in which a supposed health official falsely claimed that the virus was a government hoax aimed at controlling the population. This misinformation spread quickly, leading to public skepticism about the pandemic's severity and the government's response, which hindered efforts to contain the virus and protect public health (Okpara, 2023).

Another example can be seen in the widespread protests across Africa against police brutality, particularly during Nigeria's #EndSARS movement in 2020. AI-generated fake news was used to discredit the protests by creating and spreading false narratives about violent actions by protesters or fabricated government statements. These AI-generated images and videos were shared on social media, causing confusion and fear among the public. This not only disrupted the peaceful nature of the protests but also complicated efforts by journalists and fact-checkers to provide accurate coverage, further eroding public trust in the media and the authenticity of information being reported (Oladele & Aiyetiran, 2023).

A more recent example was seen in the 2023 general elections in Nigeria. The 2023 Nigerian general elections highlighted the growing influence of AI technologies, particularly in the creation and dissemination of deepfakes, which significantly complicated the work of journalists (Ekpang et al., 2023). During the elections, AI-generated content was used to manipulate public perception, spread misinformation, and create fake narratives around political candidates. For instance, a deepfake audio purportedly capturing a conversation between Labour Party's presidential candidate, Peter Obi, and Bishop David Oyedepo, was circulated widely. The audio, which was presented as a genuine conversation urging religious votes, was later dismissed as a deepfake by Obi and his party. Despite the denials, the audio had already been viewed over 10.3 million times, illustrating how quickly AI-generated content can spread and influence public opinion. This scenario placed immense pressure on journalists to verify the authenticity of such content, making their work more strenuous and time-consuming as they navigated the challenges of distinguishing between real and fabricated information (Eleanya, 2023).

Similarly, another instance involved an audio clip allegedly featuring Atiku Abubakar, Governor Ifeanyi Okowa, and Aminu Tambuwal, plotting to rig the presidential election by compromising key officials. The deepfake audio, which was released shortly before the election, was designed to damage the reputations of the involved politicians and sow doubt among the electorate. Like the Obi audio, this deepfake required extensive verification efforts from journalists, who had to counter the spread of false information in real-time. The

challenge of identifying and disproving these deepfakes underscored the complexities introduced by generative AI in the journalistic field, particularly during high-stakes events like national elections. The rapid proliferation of such content has made truth verification more arduous, highlighting the urgent need for more robust tools and strategies to combat the spread of AI-generated misinformation in journalism (Eleanya, 2023).

V. CONCLUSION

The convergence of AI-driven fake news and deepfakes has ushered in an era of unprecedented challenges for journalists (Kalpokas & Kalpokiene, 2022). The ability to create highly convincing synthetic media has eroded public trust in traditional news sources, making it increasingly difficult to discern fact from fiction. This crisis of credibility necessitates a fundamental rethinking of journalistic practices, including the adoption of advanced detection tools, rigorous verification processes, and transparent reporting methodologies, which can advance journalistic efforts and bring about credibility (Whyte, 2020). Moreover, fostering media literacy among the public is crucial to equip individuals with the skills to critically evaluate information and resist the spread of misinformation (Kalpokas & Kalpokiene, 2022).

In conclusion, the future of journalism hinges on a proactive response to the threats posed by AI-generated disinformation. In this regard, by investing in technological advancements, upholding ethical standards, and prioritising transparency, the media industry can reclaim its role as a trusted source of information. Collaboration between journalists, technologists, and policymakers is essential to develop comprehensive strategies for combating fake news and deepfakes, safeguarding democratic discourse, and preserving the integrity of journalism in the digital age (Whyte, 2020).

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