folia toruniensia

**Onyema Nsirim**
Ignatius Ajuru University of Education, Port Harcourt, Nigeria
e-mail: nsirimonyema@gmail.com
ORCID ID: 0000-0002-9386-1699

# Hallucinations in Artificial Intelligence and Human Misinformation: Librarians' Perspectives on Implications for Scholarly Publication

DOI: http://dx.doi.org/10.12775/FT.2025.004



Received: 27 IV 2025
Accepted: 25 VI 2025

Dr. Onyema Nsirim is a Lecturer in the Department of Library and Information Science, Faculty of Social Sciences, Ignatius Ajuru University of Education, Port Harcourt, Nigeria. He holds a Bachelor's degree in Library and Information Science from the University of Ilorin, and both Master's and Doctorate degrees in Library and Information Science from Ignatius Ajuru University of Education. He is a Certified Librarian of Nigeria (CLN) registered with the Librarians' Registration Council of Nigeria (LRCN), and a Certified Teacher under the Teachers Registration Council of Nigeria (TRCN). He is currently serving as the Secretary of the Nigerian Library Association (NLA), Rivers State Chapter and serves as the Managing Editor of Information Managers: A Journal of the Nigerian Library Association, Rivers State Chapter, contributing significantly to scholarly communication and editorial excellence within the library profession. He has a strong research and publishing track record, with numerous articles published in peer-reviewed journals, book c hapters, edited volumes, and conference proceedings. His interest includes digital librarianship, digital literacy, information and knowledge management,emerging and innovative technologies in education, and library service delivery. His research outputs are accessible through Google Scholar, ResearchGate, and Academia.edu. He is passionate academic and information professional committed to advancing the frontiers of library and information science education, research, and practice in Nigeria and beyond. He can be contacted via email at nsirimonyema@gmail.com.

**ey words:** Artificial Intelligence; AI Hallucinations; misinformation; scholarly Publication

**bstract:** In scholarly publishing, AI is expected to raise productivity and make access to knowledge more widespread but this has come with anomalies known as AI hallucination, representing a new wave of human misinformation undermining the validity of scholarly publication. This study examines librarians' perceptions on implications of hallucinations in artificial intelligence and human misinformation for scholarly publication. The study adopts a descriptive research survey design. The population for this study consists of librarians in Nigeria. Purposive sampling technique was used to elicit responses from librarians that are on social media platforms, then snowball sampling was used to get to librarians that were difficult to reach using general social media platforms where they could be found. The instrument for data collection is a structured questionnaire. 97 responses were found valid for analysis. The data collected from the questionnaire wereanalyzed using mean and standard deviation. The study discovered that librarians possess knowledge of both AI hallucinations and human-driven misinformation. Librarians also strongly perceive that these significantly compromise the credibility, reliability, and overall integrity of scholarly publications. Librarians face considerable challenges in mitigating misinformation, including lack of specialized AI training, absence of established verification guidelines, rapid technological advancements, limited institutional support, and difficulty verifying printed and unpublished works. The study also discovered that librarians have adopted several strategies to curb AI hallucinations and human misinformation, including training on AI technologies and raising awareness about the development of AI tools for adaptation, set guidelines to address AI hallucination. It was recommended that the knowledge of librarians be strengthened through ongoing professional development programs, specialized workshops, and by AI literacy. This will help librarians stay updated on new trends in misinformation and better educate researchers and students.

## Introduction

Obtaining true and reliable information in the era of the information revolution, is tiresome and time-consuming making students and researchers seek a quicker alternative. This has led to the application of Generative AI (Artificial Intelligence) tools that offer easy solution for retrieving the required readily accessible information. These tools rely on big data to predict statistically probable results, not necessarily ensuring accuracy. Thus, it leads to factual errors, biases, and fabricated content, which is called "hallucinations." This is also synonymous with human misinformation where some researchers, in trying to save time, fabricate citations, misinterpret existing studies and plagiarize work. Arguably, technological advancements, particularly in AI, have revolutionized the ways knowledge is produced, shared, and consumed. But alongside these benefits a troubling phenomenon has emerged known as hallucination of AI, a situation where AI models generate content that is convincing in form but fundamentally false or fabricated

(Oladokun et al., 2025). Unlike traditional human misinformation, which may be driven by misunderstanding, bias, or deliberate intent, AI hallucinations stem from the inherent limitations of machine learning systems that predict and assemble text without a true grasp of factual accuracy.

Misinformation itself, broadly defined as false or inaccurate information regardless of intent, has long been a challenge within the information society. Human-generated misinformation can arise from cognitive biases, misinformation cascades on social media, simple misinterpretations of complex information, fabrication of the population of the study, sample size, fabrication of citations and reference list, and misrepresentation of the results (Nsirim & Idoniboye-Obu, 2023). However, the advent of AI tools like ChatGPT, Bard, and other large language models has replicated such cases, where systems can fabricate citations, invent non-existent research, and confidently present inaccuracies, further complicating the fight against misinformation. AI hallucination thereby becomes a facilitator to human misinformation, blurring the line between machine error and human error, as well as amplifying the risks of false information being accepted and circulated.

The implications of AI hallucination andhuman misinformation are particularly profound within the realm of scholarly publication. Scholarly publishing forms the bedrock of academic advancement, operating on the principles of rigorous peer review, evidence-based argumentation, and intellectual integrity (Ramesh, 2024). When false information, whether generated by humans or hallucinating AI, infiltrates scholarly literature, it can compromise the credibility of research, mislead future studies, distort academic discourse, and erode public trust in science. The very foundation of knowledge validation is threatened when the authenticity of scholarly works becomes questionable.

In this challenging information environment, librarians hold a pivotal role as custodians of information integrity. Traditionally charged with preserving and disseminating scholarly resources, librarians are now increasingly tasked with navigating the complexities introduced by AI-generated content. Understanding librarians' knowledge of how AI hallucinations contribute to the spread of misinformation is crucial. Many librarians recognize that while AI tools offer unprecedented efficiency in research support and information retrieval, they also demand critical scrutiny and verification (Ali et al., 2020). Librarians' expertise is vital in detecting fabricated references, ensuring the reliability of AI-assisted outputs, and educating users about the implications and risks of over-reliance on AI. Equally important is examining librarians' perceptions of the implications that AI-generated misinformation has on the credibility and integrity of scholarly publications. Many librarians express concerns that AI hallucinations, if unchecked, could undermine the rigorous standards that define scholarly communication (Oladokun et al., 2025). Despite their critical roles, librarians also face significant challenges in mitigating AI hallucination and human misinformation in scholarly publications. These challenges include the lack of specialized training in AI literacy, the rapid evolution of AI tools outpacing institutional policies, difficulties in verifying AI out-

puts, and the sheer volume of information that needs to be screened for accuracy (Warren et al., 2025).

Nevertheless, librarians are not passive in this evolving environment. They are actively developing strategies to curb the risks of AI hallucination in scholarly publication. These strategies involve integrating AI literacy into information literacy programs, advocating for clear AI-use disclosure policies in academic writing, creating evaluation frameworks for AI-generated outputs, and collaborating with faculty, publishers, and technology developers to establish new standards for AI-augmented scholarship (Saunders, 2023). Given the growing influence of AI in academic research and the increasing threats posed by misinformation, there is a pressing need for a study that explores librarians' perspectives on these emerging challenges. Understanding their knowledge, perceptions, challenges, and strategies will not only highlight the current gaps in the scholarly communication system but also inform policies and practices that uphold the integrity of academic publishing in an AI-driven world.

## Statement of the Problem

Scholarly publications have been advanced with the introduction of technological tools like the AI which is expected to raise productivity and make access to knowledge more widespread. However, these benefits come with anomalies known as AI hallucination, where AI systems sometimes generate false, deceptive, or even entirely fabricated information and present it with convincing authority. This kind of misinformation represents a new, advanced challenge in scholarly communication, undermining the validity of research products, misleading authors and reviewers, and threatening the validity of scholarly literature. As awareness grows, attempts to detect and rectify AI hallucinations like fact-checking tool development and AI alignment techniques have yet to arrest the issue completely. The persistence of AI hallucination and human misinformation need a new approach particularly from the perspectives of information professionals like librarians. The study is therefore necessary to investigate librarians' perceptions on the implications of AI hallucinations and human misinformation for scholarly publications.

## Objectives of the Study

The main objective of the study is to determinethelibrarians' perceptions on implications of hallucinations in artificial intelligence and human misinformation for scholarly publications. The specific objectives are to:

1. examine librarians' knowledge on AI hallucinations and human misinformation;
2. investigate librarians' perceptions on the implication of AI hallucinations and human misinformation for credibility and integrity of scholarly publications;

3. identify the challenges faced in mitigating AI hallucination and human misinformation in scholarly publication;
4. explore the strategies employed by librarians to curb the risks of AI hallucination and human misinformation in scholarly publication.

## Literature Review

The development of AI has no doubt come alongside innovations in information management but also created new problems and challenges, particularly in the validation of its generated contents. These contents, when falsefully created usually through AI models, and primarily large language models, create information that appears reliable but is factually incorrect, misleading, or purely fictional, which is regarded as AI hallucination (Oladokun et al., 2025). As custodians of information, librarians are now more than ever needed to understand and identify such errors in a bid to ensure information integrity in academic settings (Nsirim & Idoniboye-Obu, 2023). Human misinformation, however, has for some time now been recognized as a major threat to scholarly communication (Ma, 2024). It is the unintentional spread of inaccurate information, typically caused by misunderstandings, cognitive biases, or carelessness (Aïmeu et al., 2023). Different from AI hallucinations, which are caused by machine fault, human misinformation can be motivated by personal interests, for instance, to speed up research procedures or achieve academic recognition without rigorous checking. Unlike human misinformation, AI hallucinationis more widespread. Therefore, as digital tools become more embedded in scholarly work, librarians must enhance their AI literacy to effectively guide researchers, prevent the incorporation of fabricated data, and uphold academic standards for scholarly credibility.

Examining librarians' knowledge on AI hallucinations and human misinformation, Bøyum and Khosrowjerdi (2024) affirmed academic librarians' knowledge toward the emergent role of AI in academic libraries, both in service delivery and library operations. Kamel (2024) also examined the knowledge of the impact of AI hallucinations on the understanding of the university community of issues, including offering benefits and presenting challenges, particularly related to ethicsand fabricated content affecting academic integrity. The integrity and trustworthiness of scholarly publication are essential for building knowledge. Human misinformation and AI hallucinations pose big risks to them. Librarians, in their role as gatekeepers for information credibility, should be knowledgeable of these challenges. As Kamel (2024) argued, librarians view AI hallucinations as a direct challenge to the authenticity of scholarship because AI programs have the ability to produce seemingly very credible, though unfounded, work, which is difficult to differentiate from true studies. Similarly, De and Mondal (2025) argued that misinformation by humans through intentional data invention, source alteration, or research conclusion manipulation diminishes scholarship integrity.

Noting librarians' perceptions on the implication of AI hallucinations and human misinformation for credibility, and integrity of scholarly publications, Shakeri and Hawamdeh (2022) noted that librarians believe when misinformation enters academic publishing, it does not just taint the scientific record but also deceives policymakers, damages institutional reputations, and erodes public trust in research. Furthermore, Oladokun et al., (2025) reported that librarians realize that misinformation created through AI can compromise the peer-review process by inserting fabricated citations and fictional references. Their research presented a key need for new verification systems and ethical norms that address both human and artificial intelligence sources of disinformation.

Unfortunately, librarians face multiple challenges in mitigating the spread of AI hallucination and human misinformation within scholarly communications. One major obstacle according to Elsayed (2024) is the lack of specialized training on AI technologies. Many librarians are self-taught in AI tools and lack the knowledge on how to detect hallucinated outputs. Khalifa and Albadawy (2024) attributed this to the absence of institutional guidelines for the ethical use of AI in academic writing which leave librarians without standardized protocols to follow. The rapid development of AI systems further complicates their ability to keep pace with new risks and verification methods. According to Warren et al. (2025), the sheer volume of information produced daily makes detecting hallucinations and misinformation a work-intensive task. Saqib and Zia (2024) also noted that librarians' limited access to advanced verification tools such as AI hallucination detectors or anti-plagiarism tools could be challenging. In addition, the lack of institutional support can hinder proactive efforts to identify and correct misinformation before it impacts scholarly outputs. Williams (2024) highlighted the emerge plagiarism as a critical ethical concern, with AI-generated content threatening academic integrity. He worried about the risk of over-reliance on AI for educational purposes.

Despite these challenges, librarians are not powerless in the presence of AI hallucination and human disinformation. As Saunders (2023) remarked, even though the spread of AI hallucination and attention to misinformation have increased in the past couple of years, efforts to seek useful ways of curbing its effects have increased equally. Besides algorithmic revisions to how such information is being spread on the internet and human fact-checking assistance, several librarians and professionals involved in this line of work have formed the importance of information literacy, the critical thinking ability to gauge information in order to decide credible and trustworthy information. Educational activities are among the foremost means, where librarians inform students, researchers, and professors on the boundaries and risks involved with AI-generated content. Librarians also encourage openness in research proactively by encouraging revelation of the application of AI tools in academic work. Librarians also encourage the use of anti-plagiarism software and advocate for policy changes that include AI literacy in academic publishing standards. These proactive measures mirror librarians'

evolving role from information guardians to proactive protectors of academic integrity in a digital, AI-dominated age. Saunders (2023) claimed that librarians are concerned about misinformation and are integrating information literacy into instruction. Williams (2024) suggested comprehensive solutions to address ethical issues, including policies with simple language, advanced plagiarism detection software, and innovative assessment techniques.

## Methodology

This study adopted a descriptive survey design to examine librarians' perceptions on implications of hallucinations in artificial intelligence and human misinformation for scholarly publication. The descriptive survey design was appropriate for this study as it allowed for the collection of data from a large group of respondents to provide accurate and comprehensive description of the current state of the subject matter. The population for this study consisted of librarians in Nigeria. Purposive sampling technique was used to elicit responses from librarians that are on social media platforms. The reason for the selection was because social media platforms were the means used for accessing the librarians. The snowball sampling was used to get to the librarians that were difficult to reach using general social media platforms where they could be found. This approach was chosen to ensure that many librarians were captured in the research for more comprehensive and accurate understanding of the situation. The primary instrument for data collection was a structured questionnaire. The questionnaire was designed using a Likert scale with four response categories: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). This scale was used to measure the extent of agreement or disagreement with each item in the questionnaire. The items wereself-constructed by the researcher and validated by an expert in measurement and evaluation department to align with the research objectives. The instrument was modified to capture the views and experiences of the respondents regarding librarians' perceptions on implications of AI hallucinations and human misinformation for scholarly publications. 97 responses were retrieved and found valid for analysis. The data collected from the questionnaire were analyzed using descriptive statistics, primarily the mean score for each item. The mean score help determined the level of agreement or disagreement with each statement, and the results were interpreted to draw conclusions. A criterion mean of 2.5 was used to assess the acceptance or rejection of each item. Items with mean scores of 2.5 and above were considered accepted, while items with mean scores below 2.5 were rejected. The range of mean used for decision makingwas as stated below:

- 3.50 – 4.00 = Strongly Agree
- 2.50 – 3.49 = Agree
- 1.50 – 2.49 = Disagree
- 1.00– 1.49 = Strongly Disagree

The findings were presented in tables to make the results clear and easily understandable.

## Findings

Table 1: Summary of Mean and Standard deviation on Librarians' Perceived Knowledge of AI Hallucinations and Human Misinformation

| S/N | Items | Mean | Standard Deviation | Decision |
|---|---|---|---|---|
| **Knowledge of AI Hallucination** | | | | |
| 1 | I am aware that AI systems sometimes generate false or fabricated information (hallucinations). | 3.56 | 0.49 | Strongly Agree |
| 2 | I understand how AI hallucinations can mislead researchers and the public. | 3.55 | 0.62 | Strongly Agree |
| 3 | I have encountered instances of AI hallucination during research or library services. | 3.42 | 0.71 | Agree |
| 4 | I believe that AI hallucinations are a major source of misinformation in scholarly communication. | 3.58 | 0.57 | Strongly Agree |
| 5 | I can identify when AI-generated information might be hallucinated. | 3.31 | 0.69 | Agree |
| **Knowledge of Human Misinformation** | | | | |
| 6 | I am knowledgeable about human misinformation in research. | 3.58 | 0.55 | Strongly Agree |
| 7 | I know that some researchers use inaccurate population and sample size. | 3.50 | 0.63 | Strongly Agree |
| 8 | I have encountered fabricated citations from researchers that are not AI generated | 3.25 | 0.67 | Strongly Agree |
| 9 | I am aware of misinterpretation of existing studies | 2.90 | 0.79 | Agree |
| 10 | I have perceived knowledge of plagiarism in scholarly publication | 3.57 | 0.44 | Strongly Agree |
| | **Weighted Mean** | **3.42** | **0.61** | **Agree** |

The findings from Table 1 indicate that librarians believe that AI hallucinations are a major source of misinformation in scholarly communication (3.58). They are aware that AI systems sometimes generate false or fabricated information (3.56) and understand how AI hallucinations can mislead researchers and the public (3.55). They have also encountered instances of AI hallucination during re-

search or library services (3.42); thus, can identify when AI-generated information might be hallucinated (3.31). On the other hand, they are knowledgeable about human misinformation in research (3.58), have perceived knowledge of plagiarism in scholarly publication (3.57), know that some researchers use inaccurate population and sample size (3.50), and they also encountered fabricated citations from researchers that are not AI generated (3.25). This shows that librarians have knowledge of how AI hallucinations and human misinformation contribute to the spread of false information.

Table 2: Summary of Mean and Standard Deviation of Librarians' Perceptions on the Implication of AI Hallucination and Human Misinformation for Scholarly Publications

| S/N | Items | Mean | Standard Deviation | Decision |
|---|---|---|---|---|
| **Librarians' Perceptions on the Implication of AI Hallucinationfor Scholarly Publications.** | | | | |
| 1 | AI-generated misinformation threatens the credibility of scholarly publications. | 3.71 | 0.45 | Strongly Agree |
| 2 | Hallucinated content undermines academic integrity. | 3.68 | 0.51 | Strongly Agree |
| 3 | Scholarly publications risk becoming unreliable due to AI hallucinations. | 3.62 | 0.54 | Strongly Agree |
| 4 | AI hallucinations can compromise peer review. | 3.57 | 0.58 | Strongly Agree |
| 5 | Researchers often unknowingly include AI hallucinated content. | 3.61 | 0.52 | Strongly Agree |
| **Librarians' Perceptions on the Implication of Human Misinformationfor Scholarly Publications** | | | | |
| 6 | Human misinformation could damage institutional reputation. | 3.67 | 0.49 | Strongly Agree |
| 7 | Academic publishing must adapt policies. | 3.70 | 0.46 | Strongly Agree |
| 8 | Human misinformation misleads policy makers. | 3.66 | 0.50 | Strongly Agree |
| 9 | Human misinformation is intentional. | 3.52 | 0.64 | Strongly Agree |
| 10 | Human misinformation is just to cut corners. | 3.60 | 0.59 | Strongly Agree |
| **Weighted Mean** | | **3.63** | **0.53** | **Strongly Agree** |

The result from Table 2 indicates librarians'perceptions that AI-generated misinformation threatens the credibility of scholarly publications (3.71), halluci-

nated content undermines academic integrity (3.68), scholarly publications risk becoming unreliable due to AI hallucinations (3.62), researchers often unknowingly include AI hallucinated content (3.61), AI hallucinations can compromise peer review (3.57). On the other hand, librarians affirmed that academic publishing must adapt policies (3.70), human misinformation could damage institutional reputation (3.67), human misinformation misleads policy makers (3.66), human misinformation is intentional (3.52). This therefore indicates that librarians perceived AI hallucinations and human misinformation as major threats to the credibility and integrity of scholarly publications.

Table 3: Summary of Mean and Standard Deviation of the Challenges Faced in Mitigating AI Hallucinations and Human Misinformation in Scholarly Publications

| S/N | Items | Mean | Standard Deviation | Decision |
|---|---|---|---|---|
| **Challenges Faced in Mitigating AI Hallucinations** | | | | |
| 1 | Lack of training on AI technologies makes detection difficult. | 3.50 | 0.68 | Strongly Agree |
| 2 | No established guidelines to check AI hallucination. | 3.55 | 0.61 | Strongly Agree |
| 3 | Rapid AI evolution also makes adaptation difficult | 3.61 | 0.53 | Strongly Agree |
| 4 | Detecting a hallucination is challenging with high information volume. | 3.48 | 0.66 | Agree |
| 5 | Institutions provide limited support. | 3.45 | 0.72 | Agree |
| **Challenges Faced in Mitigating Human Misinformation** | | | | |
| 6 | Verifying citations and references is time-consuming. | 3.58 | 0.59 | Strongly Agree |
| 7 | Lack of access to anti-plagiarism tools. | 3.62 | 0.56 | Strongly Agree |
| 8 | Lack of skills limits the use of verification tools. | 3.46 | 0.70 | Agree |
| 9 | Printed works are hard to verify. | 3.41 | 0.73 | Agree |
| 10 | No access to scholarly works before publication. | 3.39 | 0.77 | Agree |
| | **Weighted Mean** | **3.50** | **0.65** | **Strongly Agree** |

Table 3 identifies several challenges faced by librarians in mitigating misinformation. For AI hallucinations, the challenges faced include: rapid AI evolution which makes adaptation difficult (3.61), no established guidelines to check AI hallucination (3.55), lack of training on AI technologies makes detection difficult (3.50), detecting hallucination is challenging with high information volume (3.48). On the other hand, the challenges faced in mitigating human misinformation are

lack of access to anti-plagiarism tools (3.62), time consumed in verifying citations and references (3.58), lack of skills limits the use of verification tools (3.46), printed works are hard to verify (3.41), and no access to scholarly works before publication (3.39). This indicates that librarians face multiple challenges in mitigating misinformation caused by both AI hallucinations and human actions.

Table 4: Summary of Mean and Standard Deviation of the Strategies Employed by Librarians to Curb Risks of AI Hallucinations and Human Misinformation

| S/N | Items | Mean | Standard Deviation | Decision |
|---|---|---|---|---|
| **Strategies Employed by Librarians to Curb Risksof AI Hallucination** | | | | |
| 1 | Provision of training on AI technologies. | 3.64 | 0.55 | Strongly Agree |
| 2 | Established guidelines to check AI hallucination. | 3.60 | 0.58 | Strongly Agree |
| 3 | Rapid AI evolution also makes adaptation difficult. | 3.67 | 0.51 | Strongly Agree |
| 4 | Create awareness on development of AI tools for adaptation. | 3.61 | 0.57 | Strongly Agree |
| 5 | Access to AI detection software for high volume information should be made available to librarians. | 3.58 | 0.60 | Strongly Agree |
| **Strategies Employed by Librarians to Curb Risksof Human Misinformation** | | | | |
| 6 | Citation/reference verification software should be made available to librarians to save time of verification. | 3.66 | 0.52 | Strongly Agree |
| 7 | Access to anti-plagiarism tools should be given to librarians. | 3.70 | 0.48 | Strongly Agree |
| 8 | Librarians should acquire more skills to enable the use of verification tools. | 3.65 | 0.53 | Strongly Agree |
| 9 | Technologies that can detect hard-copy texts should be made available. | 3.68 | 0.50 | Strongly Agree |
| 10 | Librarians should collaborate with journal editorial team for enhanced awareness to discourage AI hallucination and human misinformation before the submission of a manuscript. | 3.72 | 0.47 | Strongly Agree |
| **Weighted Mean** | | **3.65** | **0.53** | **Strongly Agree** |

The findings from Table 4 indicate that librarians were proactively adopting multiple strategies to mitigate misinformation risks including: rapid AI evolution also makes adaptation difficult (3.67), provision of training on AI technologies (3.64), create awareness on development of AI tools for adaptation (3.61), estab-

lished guidelines to check AI hallucination (3.60), access to AI detection software for high volume information should be made available to librarians (3.58). On the other hand, strategies to curb human misinformation include: librarians should collaborate with journal editorial team for enhanced awareness to discourage AI hallucination and human misinformation before the submission of a manuscript (3.72), access to anti-plagiarism tools should be given to librarians (3.70), technologies that can detect hard-copy texts should be made available (3.68) and librarians should acquire more skills to enable the use of verification tools (3.65). This implies that librarians recommended positive strategies toward upholding the credibility of academic publishing in the face of growing threats posed by both AI hallucinations and human misinformation.

## Discussion of Findings

The results from Research Question 1 revealed that librarians are well aware of the risks that hallucinations in AI could pose to academic publishing. They also acknowledged that contents generated by AI could provide inaccurate or misleading information which is capable of misleading scholars and the larger academic community. They also affirmed their personal experience with AI hallucinations and were confident in their capacity to detect such anomalies. The results therefore showed that librarians knew a lot about AI hallucinations and human misinformation. They expressed displeasure about the danger this could present to scholarly publications emanating from intentional distortions in research reporting, manipulated sample sizes, and inaccurately reported study populations. They also confirmed that they had seen plagiarized works, misinterpreted studies, and fake citations that were not produced by AI but by humans. These assertions imply that librarians are aware of how AI hallucinations and human misinformation distort academic credibility and integrity. This is consistent with the work of Kamel (2024), who highlighted the growing concern among academic institutions regarding bias, fabricated content, misinformation, and factual inaccuracies. The data indicate that librarians are aware of these dangers and understand their significant impact on academic integrity.

The result from Research Question 2 revealed that librarians perceive AI-generated misinformation as a serious threat to academic credibility and integrity. They emphasized that such misinformation negatively affects the peer review process, and promotes the circulation of unreliable scholarly publications. They also noted that the AI hallucinations and human misinformation could undermine the reputations of academia. Regrettably, librarians confirmed the intentionality behind some instances of human misinformation by insisting that some researchers deliberately manipulated data or citations to cut corners. This undermines the ethical values associated with scholarly publication and academic integrity. These findings are in agreement with the findings of Oladokun et al. (2025), who argued

that AI hallucinations can lead to misinformation and severely compromise the integrity of scholarly publications. Collectively, these insights highlight a growing concern among librarians about the potential degradation of research quality, the reliability of peer-reviewed content, and the broader impact on policy formulation and institutional credibility.

The result from Research Question 3 revealed various challenges librarians faced with AI hallucinations and human misinformation in scholarly publishing. They include lack of formal training on AI tools, the absence of institutional guidelines. They noted that rapid AI evolution also makes adaptation difficult as detecting hallucination is challenging due to high information volume. Unfortunately, institutions provide limited support. Furthermore, they noted the time consumed in verifying citations and references as challenges along with the lack of access to anti-plagiarism tools. They also acknowledged lack of skills and the difficulty in verifying printed works as well as lack of access to scholarly works before the publication as challenges. This indicates that librarians faced multiple challenges in mitigating misinformation caused by both AI hallucinations and human actions. This aligns with the study of Elsayed (2024) who identified among others lack of AI literacy, specialized training as challenges faced in AI hallucinations and misinformation recognition.

The results from Research Question 4 found that librarians were proactively adopting multiple strategies to mitigate misinformation risks including: rapid AI evolution also made adaptation difficult, provision of training on AI technologies, create awareness on development of AI tool for adaptation, established guidelines to check AI hallucination, access to AI detection software for high volume information should be made available to librarians. On the other hand, strategies to curb human misinformation include: librarians should collaborate with journal editorial team for enhanced awareness to discourage AI hallucination and human misinformation before the submission of a manuscript, access to anti-plagiarism tools should be given to librarians, technologies that can detect hard-copy texts should be made availableand librarians should acquire more skills to enable the use of verification tools. These upholds librarians' commitment to maintaining the credibility and reliability of scholarly communication in the face of AI and human misinformation challenges. This aligns with the strategies outlined by Saunders (2023) to include AI and information literacy, encourage openness in research, the use of anti-plagiarism tools. These proactive approaches affirm librarians' essential role in upholding scholarly publication integrity.

## Limitations of the Study

The study was not without limitations**.** The use of purposive and snowball sampling techniques primarily through the social media platforms might have introduced sampling bias as librarians who were not active online could be under-

represented. Furthermore, the 97 responses used for analysis may not adequately capture the diversity of librarians across all regions of Nigeria.

## Conclusion

This study has examined librarians' perceptions of the implications of AI hallucinations and human misinformation for scholarly publications. It revealed that librarians in Nigeria are not only aware of the existence of AI hallucinations and human misinformation but they also perceive the issues, implications of AI hallucinations and of human misinformation in scholarly publications. Their ability to identify misinformation from both AI and humans maintains their stand on integrity to scholarly communication. Unfortunately, the study highlighted some challenges faced by librarians in mitigating misinformation. These include lack of training, insufficient institutional support, limited access to detection tools, and the speed at which AI technologies evolve. Interestingly, librarians were proactively adopting multiple strategies to mitigate misinformation risks including provision of training on AI technologies, create awareness on development of AI tool for adaptation, established guidelines to check AI hallucination, access to AI detection software for high volume information should be made available to librarians. Furthermore, librarians should collaborate with journal editorial team for enhanced awareness to discourage AI hallucination and human misinformation before the submission of a manuscript. The study concludes that librarians are pivotal in upholding the credibility of academic publishing in the face of growing threats posed by both AI hallucinations and human misinformation.

## Recommendations

Based on the findings, the following recommendations were made:

1. Since librarians already understand how AI hallucinations and human misinformation contribute to false information, it is important to strengthen this knowledge through ongoing professional development programs, specialized workshops, and AI literacy. This will help librarians stay updated on new trends in misinformation and better educate researchers and students.
2. Libraries should create strong information verification protocols involving fact-checking, cross-referencing with trusted databases, and using tools to detect false or misleading content before it gets included in academic work.
3. Collaborative frameworks should be developed involving librarians, publishers, academic staff, and IT experts. This teamwork can provide access to resources, funding, and technical support needed to effectively tackle both AI-driven and human-created misinformation.

4. Universities and research institutions should formalize the strategies that librarians recommended including provision of training on AI technologies, create awareness on development of AI tool for adaptation, established guidelines to check AI hallucination, access to AI detection software for high volume information should be made available to librarians. This will support librarians' efforts and ensure long-term trustworthiness in scholarly publishing.

## References

Aïmeur, E., Amri, S., & Brassard, G. (2023). Fake news, disinformation and misinformation in social media: a review. *Social Network Analysis and Mining*, *13*(1), 30. https://doi.org/10.1007/s13278-023-01028-5

Ali, M. Y., Naeem, S. B., & Bhatti, R. (2020). Artificial intelligence tools and perspectives of university librarians: An overview. *Business Information Review*, *37*(3), 116–124. https://doi.org/10.1177/0266382120952016

Bøyum, I., & Khosrowjerdi, M. (2025). 'It's such a blackbox function': Norwegian academic librarians' ambivalent perceptions towards AI use in academic libraries and academia. *Information Research an International Electronic Journal*, *30,* 91–104(CoLIS). https://doi.org/10.47989/ir30CoLIS52285

De, S., & Mondal, P. (2025). Assessing the Impact of Misinformation by Predatory Journals on Academic Integrity. *The Serials Librarian*, *86*(1–2), 17–28. https://doi.org/10.1080/0361526X.2025.2471922

Elsayed, H. (2024). The impact of hallucinated information in large language models on student learning outcomes: A critical examination of misinformation risks in AI-Assisted education. *Northern Reviews on Algorithmic Research, Theoretical Computation, and Complexity*, *9*(8), 11–23. https://northernreviews.com/index.php/NRATCC/article/view/2024-08-07

Kamel, H. (2024). Understanding the impact of AI Hallucinations on the university community. *Cybrarians Journal*, (73), 111–134. https://doi.org/10.70000/cj.2024.73.622

Khalifa, M., & Albadawy, M. (2024). Using artificial intelligence in academic writing and research: An essential productivity tool. *Computer Methods and Programs in Biomedicine Update*, *5*, 100145. https://doi.org/10.1016/j.cmpbup.2024.100145

Ma, L. (2024). The Role of Scholarly Communication in Combating Disinformation and Misinformation. *Journal of Education for Library and Information Science*, *65*(1), 92–99. https://doi.org/10.3138/jelis-2022-0017

Nsirim, O., Idoniboye-Obu, T. (2023). Media misinformation and information management in the era of new techologies. In Library, ICT and Information Management, edited by Mmejim, I. C., H. Wiche, I. Idoniboye-Obu, O. Nsirim, and B. O. Umahi, 25–31. Port Harcourt: Supber Print Concept

Oladokun, B. D., Enakrire, R. T., Emmanuel, A. K., Ajani, Y. A., & Adetayo, A. J. (2025). Hallucitation in Scientific Writing: Exploring Evidence from ChatGPT Versions 3.5 and 4o in Responses to Selected Questions in Librarianship. *Journal of Web Librarianship*, *19*(1), 62–92. https://doi.org/10.1080/19322909.2025.2482093

Ramesh, M. R. (2024). Ethical Publication and Dissemination of Research: Principles and Practices. In R. K. Kushwaha, K. Yadav, P. K. Yadav, & M. K. Yadav (Eds.), *Ethical Frameworks in Special Education: A Guide for Researchers*. Blue Rose Publishers, (pp. 40-51). https://www.researchgate.net/publication/382887467_Ethical_Frameworks_in_Special_Education

Saqib, M. B., & Zia, S. (2024). Evaluation of AI content generation tools for verification of academic integrity in higher education. *Journal of Applied Research in Higher Education*, *17*(4), 1430–1440. https://doi.org/10.1108/JARHE-10-2023-0470

Saunders, L. (2023). Librarian perspectives on misinformation: A follow-up and comparative study. *College & Research Libraries*, *84*(4), 478–494. https://doi.org/10.5860/crl.84.4.478

Shakeri, S., & Hawamdeh, S. (2022). Combating misinformation in the open access era. In D. G. Alemneh (Ed.), *Handbook of Research on the Global View of Open Access and Scholarly Communications* (pp. 214–236). IGI Global. https://doi.org/10.4018/978-1-7998-9805-4

Warren, G., Shklovski, I., & Augenstein, I. (2025). *Show Me the Work: Fact-Checkers' Requirements for Explainable Automated Fact-Checking*. 1–21. https://doi.org/10.1145/3706598.3713277

Williams, R. T. (2024). The ethical implications of using generative chatbots in higher education. Frontiers in Education, 8. https://doi.org/10.3389/feduc.2023.1331607

**Onyema Nsirim**
Uniwersytet Edukacyjny Ignatiusa Ajuru, Port Harcourt, Nigeria
e-mail: nsirimonyema@gmail.com
ORCID ID: 0000-0002-9386-1699

# Halucynacje sztucznej inteligencji, nowy wymiar dezinformacji szerzonej przez ludzi: ich wpływ na publikacje naukowe z perspektywy bibliotekarzy

DOI: http://dx.doi.org/10.12775/FT.2025.004



Otrzymano: 27 IV 2025
Zaakceptowano: 25 VI 2025

Dr Onyema Nsirim jest wykładowcą na Wydziale Bibliotekoznawstwa i Informacji Naukowej wKatedrze Nauk Społecznych Uniwersytetu Edukacyjnego Ignatiusa Ajuru w Port Harcourt w Nigerii. Uzyskał tytuł licencjata w dziedzinie bibliotekoznawstwa i informacji naukowej na Uniwersytecie w Ilorin oraz tytuł magistra i doktora bibliotekoznawstwa i informacji naukowej na Uniwersytecie Edukacyjnym Ignatiusa Ajuru. Jest certyfikowanym bibliotekarzem w Nigerii (CLN) zarejestrowanym w Radzie Rejestracji Bibliotekarzy w Nigerii (LRCN) oraz Certyfikowanym Nauczycielem w Radzie Rejestracji Nauczycieli w Nigerii (TRCN). Obecnie pełni funkcję sekretarza Nigeryjskiego Stowarzyszenia Bibliotek (NLA), Rivers State Chapter i pełni funkcję redaktora naczelnego Information Managers: A Journal of the Nigerian Library Association, Rivers State Chapter, wnosząc znaczący wkład w komunikację naukową i wysoką jakoś redakcyjną w zawodzie bibliotekarza. Ma bogate doświadczenie badawcze i wydawnicze, z licznymi artykułami opublikowanymi w recenzowanych czasopismach, rozdziałami książek, zredagowanymi tomami i materiałami konferencyjnymi. Jego zainteresowania obejmują bibliotekarstwo cyfrowe, umiejętności cyfrowe, zarządzanie informacją i wiedzą, nowe i innowacyjne technologie w edukacji oraz świadczenie usług bibliotecznych. Jego wyniki badań są dostępne za pośrednictwem Google Scholar, ResearchGate i Academia.edu. Jest pasjonatem akademickim i informatykiem, zaangażowanym w przesuwanie granic edukacji, badań i praktyki bibliotecznej i in-

formacyjnej w Nigerii i poza nią. Można się z nim skontaktować za pośrednictwem poczty elektronicznej pod adresem nsirimonyema@gmail.com.

**Słowa kluczowe:** sztuczna inteligencja; halucynacje AI; dezinformacja; publikacja naukowa

**Streszczenie:** Oczekuje się, że w publikacjach naukowych sztuczna inteligencja zwiększy produktywność i sprawi, że dostęp do wiedzy stanie się bardziej powszechny, ale wiąże się to z anomaliami znanymi jako halucynacje AI, reprezentującymi nową falę dezinformacji szerzoną przez ludzi, podważającą wiarygodność publikacji naukowych. W niniejszym badaniu przeanalizowano postrzeganie przez bibliotekarzy implikacji halucynacji sztucznej inteligencji i dezinformacji szerzonej przez ludzi w publikacjach naukowych. W badaniu przyjętoprojekt opisowy ankiety badawczej. Populacja objęta tym badaniem składała się z bibliotekarzy w Nigerii. Zastosowano technikę celowego pobierania próbek, aby uzyskać odpowiedzi od bibliotekarzy korzystających z platform mediów społecznościowych, a następnie wykorzystano metodę kuli śnieżnej, aby dotrzeć do bibliotekarzy, do których trudno było dotrzeć za pomocą ogólnych platform mediów społecznościowych, gdzie można ich było znaleźć. Narzędziem do gromadzenia danych był ustrukturyzowany kwestionariusz. 97 odpowiedzi uznano za nadające się do analizy. Dane zebrane z kwestionariusza zostały przeanalizowane przy użyciu średniej i odchylenia standardowego. Badanie wykazało, że bibliotekarze posiadają wiedzę zarówno na temat halucynacji sztucznej inteligencji, jak i dezinformacji szerzonej przez człowieka. Bibliotekarze są również głęboko przekonani, że w znacznym stopniu zagrażają one wiarygodności, rzetelności i ogólnej integralności publikacji naukowych. Bibliotekarze stoją przed poważnymi wyzwaniami związanymi z łagodzeniem skutków dezinformacji, w tym brakiem specjalistycznego szkolenia w zakresie sztucznej inteligencji, brakiem ustalonych wytycznych dotyczących weryfikacji, szybkim postępem technologicznym, ograniczonym wsparciem instytucjonalnym oraz trudnościami w weryfikacji dzieł drukowanych i niepublikowanych. Badanie wykazało również, że bibliotekarze przyjęli kilka strategii mających na celu ograniczenie halucynacji związanych ze sztuczną inteligencją i dezinformacji wśród ludzi, w tym szkolenia w zakresie technologii sztucznej inteligencji i podnoszenie świadomości na temat rozwoju narzędzi sztucznej inteligencji do wdrożenia, ustalenie wytycznych dotyczących halucynacji. Zalecono wzbogacenie wiedzy bibliotekarzy poprzez ciągłe programy doskonalenia zawodowego, specjalistyczne warsztaty oraz umiejętność korzystania ze sztucznej inteligencji. Pomoże to bibliotekarzom być na bieżąco z nowymi trendami w dezinformacji oraz lepiej edukować badaczy i studentów.

**Onyema Nsirim**
Ignatius-Ajuru-Bildungsuniversität in Port Harcourt, Nigeria
E-Mail: nsirimonyema@gmail.com
ORCID ID: 0000-0002-9386-1699

# Halluzinationen in der Künstlichen Intelligenz, eine neue Dimension menschlicher Desinformation: Perspektiven von Bibliothekaren zu den Implikationen für wissenschaftliche Publikationen

DOI: http://dx.doi.org/10.12775/FT.2025.004



Zugesandt: 27 IV 2025
Angenommen: 25 VI 2025

Dr. Onyema Nsirim ist Dozent am Lehrstuhl für Bibliotheks- und Informationswissenschaften an der Fakultät für Sozialwissenschaften der Ignatius-Ajuru-Bildungsuniversität in Port Harcourt, Nigeria. Er erwarb den Bachelorabschluss in Bibliotheks- und Informationswissenschaft an der Universität Ilorin sowie den Master- und Doktortitel in Bibliotheks- und Informationswissenschaft an der Ignatius-Ajuru-Bildungsuniversität. Er ist zertifizierter Bibliothekar Nigerias, registriert im Nigerianischen Bibliotheksregistrierungsrat (Librarians' Registration Council of Nigeria, LRCN), sowie zertifizierter Lehrer beim Nigerianischen Lehrerregistrierungsrat (Teachers Registration Council of Nigeria, TRCN). Derzeit ist er Sekretär des nigerianischen Landesverbands Nigerias in Rivers und Chefredakteur der Zeitschrift „Information Managers: A Journal of the Nigerian Library Association, Rivers State Chapter", wodurch er wesentlich zur wissenschaftlichen Kommunikation und zur verlegerischen Exzellenz im Bibliothekswesen beiträgt. Er verfügt über ein umfangreiches Forschungs- und Publikationsprofil mit zahlreichen Artikeln in Fachzeitschriften mit Peer-Review, Buchkapiteln, herausgegebenen Bänden und Konferenzbeiträgen. Seine Forschungsinteressen umfassen digitale Bibliothekswissenschaft, digitale Kompetenzen, Informations- und Wissensmanagement, neue und innovative Technologien in der Bildung

sowie die Erbringung bibliothekarischer Dienstleistungen. Seine Forschungsergebnisse sind über Google Scholar, ResearchGate und Academia.edu zugänglich. Er ist ein engagierter Wissenschaftler und Informationsspezialist, der sich der Erweiterung der Grenzen von Bildung, Forschung und Praxis im Bereich der Bibliotheks- und Informationswissenschaft in Nigeria und darüber hinaus verschrieben hat. Kontaktaufnahme ist per E-Mail möglich unter: nsirimonyema@gmail.com

**Schlüsselwörter:** Künstliche Intelligenz; KI-Halluzinationen; Desinformation; wissenschaftliches Publizieren

**Zusammenfassung:** Von wissenschaftlichen Publikationen wird erwartet, dass Künstliche Intelligenz die Produktivität steigert und den Zugang zu Wissen verbreitet. Dies bringt jedoch Anomalien mit sich, die als KI-Halluzinationen bekannt sind und eine neue Welle menschlicher Desinformation darstellen, welche die Glaubwürdigkeit wissenschaftlicher Publikationen untergräbt. Die vorliegende Studie untersucht die Wahrnehmung von Bibliothekarinnen und Bibliothekaren in Bezug auf die Auswirkungen von Halluzinationen in der Künstlichen Intelligenz sowie von menschlicher Desinformation auf wissenschaftliche Publikationen. Die Untersuchung folgte einem deskriptiven Umfrageentwurf. Die Grundgesamtheit bilden Bibliothekarinnen und Bibliothekare in Nigeria. Als Stichprobenverfahren wurde zunächst eine gezielte Auswahl von Bibliothekaren angewandt, die soziale Medien nutzen. Anschließend wurde das Schneeballverfahren eingesetzt, um solche Bibliothekarinnen und Bibliothekare zu erreichen, die über gängige soziale Plattformen schwer zugänglich waren. Das Erhebungsinstrument war ein strukturierter Fragebogen. 97 Rückmeldungen wurden als gültig für die Analyse anerkannt. Die Daten wurden mit Hilfe von Mittelwert und Standardabweichung ausgewertet. Die Ergebnisse zeigten, dass Bibliothekarinnen und Bibliothekare sowohl über KI-Halluzinationen als auch über menschlich verursachte Desinformation informiert sind. Sie sind zudem fest davon überzeugt, dass diese Faktoren die Glaubwürdigkeit, Zuverlässigkeit und Integrität wissenschaftlicher Publikationen erheblich beeinträchtigen. Die Befragten stehen vor gravierenden Herausforderungen bei der Eindämmung von Desinformation, darunter fehlende spezialisierte KI-Schulungen, das Fehlen etablierter Prüfungsrichtlinien, die rasante technologische Entwicklung, begrenzte institutionelle Unterstützung sowie Schwierigkeiten bei der Überprüfung gedruckter und unveröffentlichter Arbeiten. Die Studie zeigte ferner, dass Bibliothekarinnen und Bibliothekare verschiedene Strategien zur Eindämmung von KI-Halluzinationen und menschlicher Desinformation anwenden, darunter KI-Technologieschulungen, Sensibilisierung für die Entwicklung von KI-Werkzeuge zur Anpassung sowie die Einführung von Richtlinien zum Umgang mit KI-Halluzinationen. Empfohlen wird die Vertiefung des Wissens der Bibliothekarinnen und Bibliothekare durch kontinuierliche Programme zur beruflichen Weiterbildung, spezialisierte Workshops sowie KI-Bildung. Dies wird ihnen helfen, mit neuen Trends in der Desinformation Schritt zu halten und Wissenschaftlerinnen, Wissenschaftler sowie Studierende besser zu unterstützen.