

Understanding the impact of AI Hallucinations on the university community

Research – Results

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Abstract

Since we live in the era of the information revolution, finding trusted and accurate information takes time and effort made students and researchers aim to find an easier way. Generative AI (Artificial Intelligence) tools offer an easy solution for accessing the required information easily and accessible; however, these tools rely on vast datasets to predict statistically probable outputs, not guaranteed accuracy. This can lead to misinformation, factual errors, biases, and fabricated content, which is termed "hallucinations." The research problem focuses on the challenges of detecting these AI hallucinations, the main issue for all users of AI technologies. The main objective of the study is to raise awareness about AI hallucinations and promote the ethical and effective use of AI tools among New Giza University students, faculty, and staff. This involves the approach to understanding the biases and errors associated with AI outputs. Methodologically, the study will employ a mixed-methods approach, combining quantitative analyses of AI tool accuracy with collecting qualitative data via survey of users across a range of fields to gather insights on the impact of AI hallucinations. The expected results of this research are to reveal the pitfalls that researchers might run into when relying on AI technology for their work. Additionally, the findings will contribute significantly to information literacy programs, by advocating for the including of AI tool assessments within the broader information literacy curriculum and equipping users with the skills to critically evaluate AI-generated content.

Keywords

Artificial Intelligence (AI), Generative AI, Natural language processing (NLP) – AI Hallucinations, Information literacy, AI literacy

Conclusion

This study has explored the issue of AI hallucination instances where AI tools generate inaccurate or misleading content and how these inaccuracies impact the university community, specifically from the perspective of librarians. The results highlight a crucial need for students, faculty, and researchers to better understand the limits of AI.

User Awareness:

AI hallucinations can negatively impact the quality of academic work and affect research integrity. For librarians, they play a key role in guiding research and helping students and faculty, being aware of these limitations is vital. By educating the university community about the potential pitfalls of AI inaccuracies, librarians can encourage a more cautious and critical approach to using these technologies. This awareness will empower individuals to better assess the credibility of AI-generated information and minimize the risk of misinformation in their research.

AI Literacy Sessions:

To tackle the challenges caused by AI hallucinations, Providing AI literacy sessions into our educational programs is crucial. These sessions should not only cover how AI tools work but also teach practical skills for evaluating the accuracy of AI-generated content. These sessions are an opportunity to influence how students and faculty engage with AI tools. By providing hands-on training, librarians can equip users with the knowledge they need to effectively navigate AI technology and address potential errors.

AI Usage Policies:

Developing clear and effective AI usage policies is also essential for managing the impact of AI hallucinations. Developing guidelines on how AI tools should be used, including how to verify and report inaccuracies, will help set best practices across the university. Librarians have a key role in creating and enforcing these

policies, ensuring they meet the needs of our academic community and tackle the specific challenges posed by AI.

In summary, understanding and addressing AI hallucinations is crucial for making the most of AI tools in academia. From a librarian's perspective, boosting awareness, offering AI literacy sessions, and setting up solid usage policies are all crucial steps. By focusing on these areas, librarians can help make AI a more reliable and effective part of the academic experience, ensuring it supports rather than hinders our work