International Journal of Multidisciplinary Research and Growth Evaluation.

The Effect of ChatGPT's Inaccuracy on Decision-Making: A Systematic Review of Trust in Generative AI, Acceptance, and Error Prominence

Raihana Akter Nira
Department of Nutrition and Hospitality Management, The University of Mississippi, P.O. Box 1848, University, MS, 38677, USA

* Corresponding Author: **Raihana Akter Nira**

Article Info

Abstract

The widespread adoption of generative artificial intelligence (AI) such as has transformed how users seek information and make decisions across different domains. Despite their accessibility, these AI models sometimes generate inaccurate responses that are commonly referred to as "hallucinations," which could impact user acceptance, trust, and reliance on AI-generated outputs. This study systematically reviews 37 articles published between 2022 and 2025 to examine the prevalence, consequences, and influencing factors of ChatGPT and other AI-generated inaccuracies. The study identifies three key findings: (i) hallucinations usually vary in type and visibility across different fields, (ii) incorporating information reduces credibility and impacts user trust, particularly when errors are prominent. The findings highlight that while users often value ChatGPT's efficiency and accessibility, unrecognized inaccuracies pose risks of misinformation and decision bias. The review proposes a research agenda to enhance the trustworthiness, explainability, and responsible integration of generative AI in decision support.

Introduction

With the rapid advancement of conversational assistance across a variety of industries, generative AI systems such as ChatGPT have significantly transformed the appearance of human-computer interaction (Hyder *et al*., 2022; Iskender, 2023) [9,10]. The industry has seen revolutionary developments due to the development of generative artificial intelligence (GAI), which enables companies to build innovative experiences that combine virtual and real-world settings (Mondal *et al*., 2023)[19]. For example, GAI applications can improve consumer loyalty and user engagement, generate personalized information, streamline businesses' operations, and offer additional advantages (Iskender, 2023; Mondal *et al*., 2023) [10,19].

In November 2022, ChatGPT (Chat Generative Pre-training Transformer, a new generation of AI technology) was introduced, and in less than two months, over 100 million active users signed up. It has prompted a new wave of global discussion across various fields (Gilson *et al*., 2022)[6]. According to Aydın and Karaarslan (2022), ChatGPT is an OpenAI-based general-purpose chatbot that can "generate human-like text." In recognition of this, it is called generative AI to acknowledge its capacity to generate new content in the form of conversation that is similar to that of a human being (Gimpel *et al*., 2023) [7]. It is essential to investigate how generative AI transforms different sectors. To better understand how it might result in new reevaluations for the sector (Gimpel *et al*., 2023; Mondal *et al*., 2023) [7,19]. According to Mondal *et al*. (2023), this commentary provides a preliminary look at ChatGPT's capacity to improve the decision-making process.

In particular, ChatGPT sets itself apart from the conventional decision-making process by empowering the user to actively search for extremely pertinent information via a question-and-answer style (Stergiou & Nella, 2024) [25]. This swift adoption has been primarily due to the models' accessibility, fluency, and capacity to produce content that appears individualized and legitimate (Stergiou & Nella, 2024) [25]. But this usefulness is essentially undermined by these systems' tendency to generate inaccurate data, which is sometimes referred to as hallucinations or misleading information that is presented with great confidence (Chernyaeva *et al*., 2025) [5]. Particularly in high-stakes situations when the user's dependence on the output affects significant decision-making, these AI-generated errors represent a serious risk (Nastoska *et al*., 2025) [20]. When such defects arise, the dependability of generative AI is directly called into question, and its impact on user attitudes and behavior must be carefully considered. Because of the fundamental conflict between the generative AI's perceived capabilities and intrinsic unreliability, user trust is a key component of the responsible integration of these tools (Wach *et al*., 2023) [29]. The decision to accept and rely on the AI's output, which in turn affects further user decisions, is referred to as trust in this context, rather than just a passive belief (Araujo *et al*., 2020) [1].

Despite the growing body of research that has examined these issues, the existing studies remain scattered and largely confined to specific domains. A comprehensive, synthesized understanding of the relationship between ChatGPT's inaccuracies and user decision-making is limited. While evidence is expanding, no consolidated systematic review maps the specific types and prevalence of ChatGPT inaccuracies, synthesizes how they collectively influence trust, acceptance, and reliance. The purpose of this systematic review is to synthesize the academic literature published between 2022 and 2025 to examine the impact of ChatGPT and other AI-generated inaccuracies on user trust, acceptance, and the subsequent influence on decision-making, with a particular focus on the role of error prominence. This review addresses three main questions:

1. What are the types and prevalence of inaccuracies (hallucinations) generated by AI such as ChatGPT across different domains in the current literature?
2. What are the consequences of AI-generated inaccuracies on users' trust and acceptance across different domains?
3. How do inaccuracies of ChatGPT impact user trust, acceptance, and reliance on the generative AI-generated outputs?

Materials and Methods
Time Period
This systematic review presents a comprehensive overview of the effect of ChatGPT and other generative AI inaccuracies on decisions and how they impact Trust and acceptance of AI-generated output. For this study, we review articles published between 2022 to 2025. The selected time frame of 2022 to 2025 is justified by the rapid emergence and widespread adoption of generative AI technologies, particularly ChatGPT, during this period. While earlier forms of AI have been studied extensively, the introduction of ChatGPT in late 2022 marked a shift in the widespread use of large language models for information creation and decision-making. By focusing on this time frame, the evaluation gathers the most current data on how inaccuracies in AI-generated content impact decision-making, ensuring that its findings reflect the latest developments and discussions in the field.

Keywords
This study employs a keyword search strategy, incorporating specific terms such as "Generative AI AND decision making", "ChatGPT AND Decision making", "AI AND Trust", "ChatGPT and Trust", "Generative AI AND Inaccurate output", "ChatGPT AND inaccurate output". This methodology ensures a comprehensive review of the current applications in the field of Generative AI.

Databases
This systematic review sources relevant literature from Google Scholar, Science Direct, and Scopus, focusing on the specified timeframe. It includes research related to the application of generative AI. This database was used because of its document volume, reliability, the accuracy of the information, and its advantage of using rigorous original.

Inclusion Criteria
This study incorporates peer-reviewed articles written in English. It emphasizes studies that highlight the application of generative AI as well as the impact of incorrect output on user decision-making.

Exclusion Criteria
Exclusion of non-peer-reviewed materials, papers not written in English, and studies that fall outside the 2022-2025 timeframe. Additionally, we exclude papers that do not directly contribute to the application and user decision-making of Generative AI, such as ChatGPT.
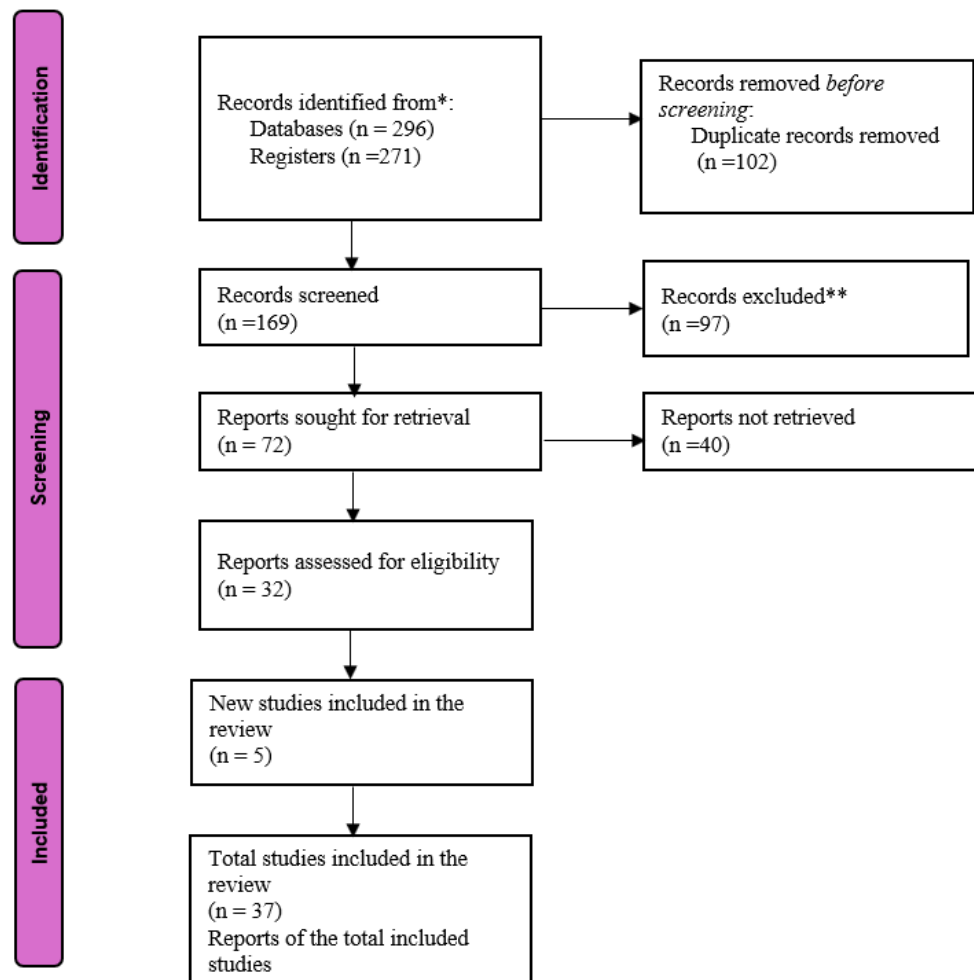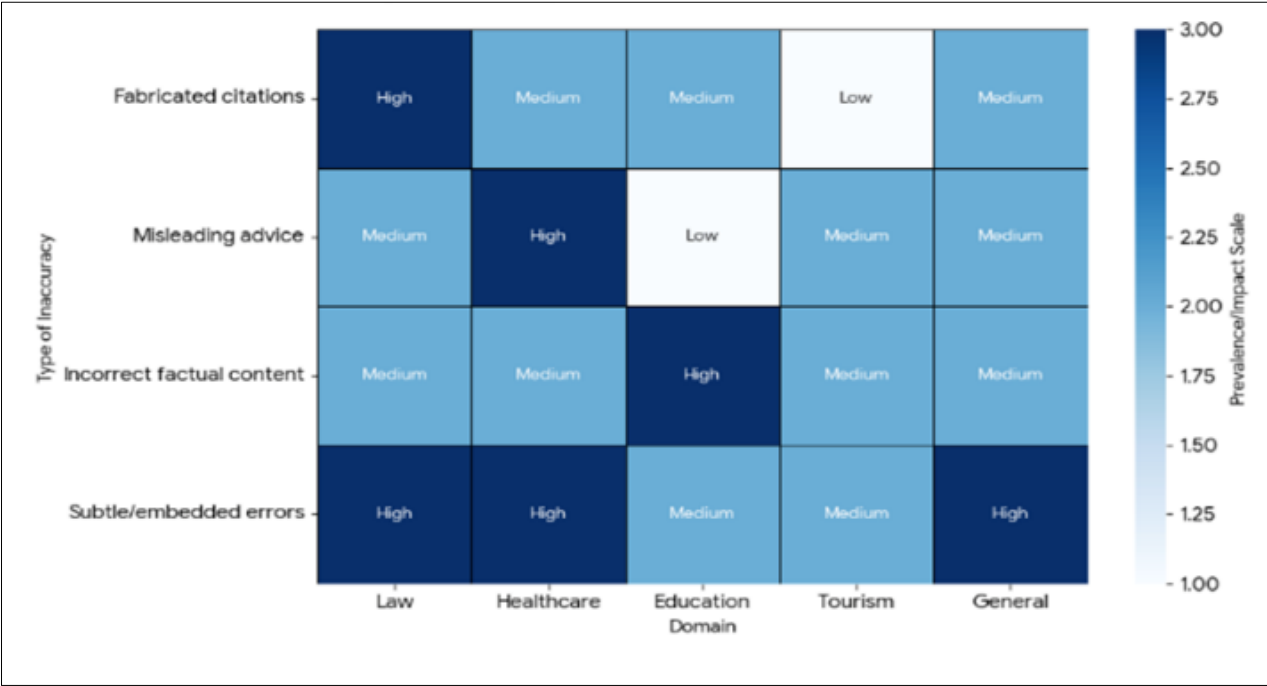
Fig 1: Prisma Flow Diagram

Results

Prevalence and Types of Inaccuracies (RQ1)

Across different domains, inaccuracies are common. Studies across law, medicine, travel and tourism, and education have revealed that even when ChatGPT sometimes provides appropriate responses, this challenges the reliability of generative AI systems. The following table summarizes key types of inaccuracies reported across different domains (Ayers *et al*., 2023; Van Dis *et al*., 2023; Venkit *et al*., 2024) [2, 28].

Table 1: Prevalence and Types of Generative AI/ChatGPT Inaccuracies Across Domains

Domain	Common Types of Inaccuracies	Key Findings from Existing Research	Representative Studies
Law	Hallucinated cases, fabricated citations, misapplied legal precedents	ChatGPT frequently generates plausible but non-existent legal cases and incorrect citations which is leading to reliability concerns.	(Van Dis *et al*., 2023; Venkit *et al*., 2024) [27, 28]
Medicine	Fabricated references, incomplete summaries, incorrect clinical advice	Inaccurate or hallucinated medical information poses patient safety risks	(Ayers *et al*., 2023) [2]
Education	Incorrect factual content, conceptual errors,	AI-generated educational responses sometimes contain factual inaccuracies despite confident phrasing, misleading learners.	(Lund *et al*., 2025; Rasul *et al*., 2023) [18, 22]
Science & Research	Hallucinated citations, inconsistent data interpretation, incorrect methodological explanations	ChatGPT fabricates academic sources and misinterprets quantitative data which is affecting research integrity.	(Thorp, 2023) [26]
Travel & Tourism	Misleading destination details, incorrect information	ChatGPT provides travel information but occasionally incorrect travel advice due to lack of real-time.	(Seyfi *et al*., 2025) [23]
General	Subtle inaccuracies embedded in fluent, persuasive text	The greatest risk lies in undetectable, fluent inaccurate outputs that users may trust without verification.	(Ji *et al*., 2023) [11]

Source: Author's own calculation-based creation

Fig 2: Matrix of Inaccuracies Across Domains

The consequences of AI-generated inaccuracies on users' trust and acceptance across different domains? (RQ2)

AI-generated inaccuracies, often referred to as "hallucinations," have raised significant concerns. These errors decrease the perceived reliability of AI systems and also shape users' willingness to adopt and rely on them (Goel *et al.*, 2024; Ji *et al.*, 2023; Labajová, 2023) [8,16].

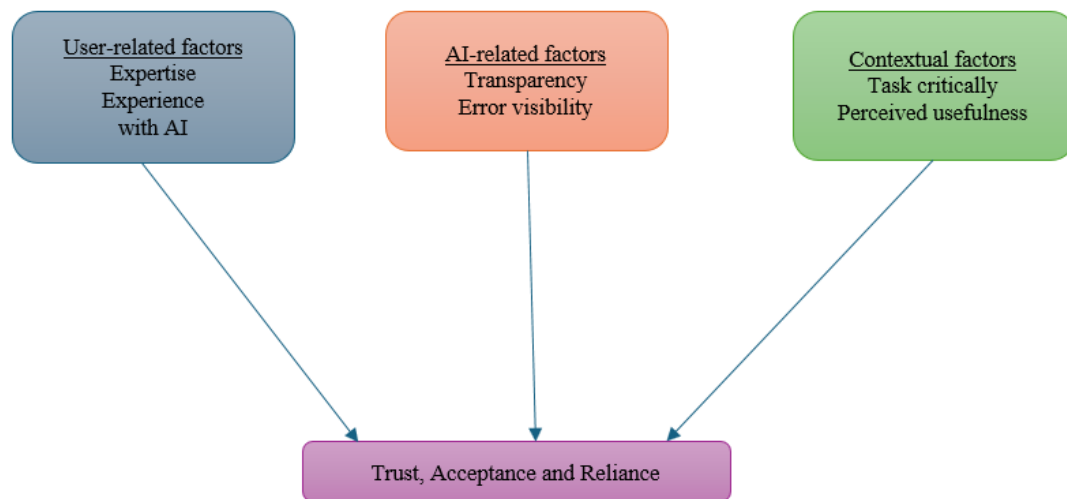**Table 2:** Consequences of Generative AI Inaccuracies on Trust and Acceptance

Consequences of Inaccuracies	Findings	Sources
Decrease professional credibility; increased caution in AI use for legal writing	Legal professionals report diminished trust after AI-generated hallucinations, prompting stricter verification procedures.	(Bommarito II & Katz, 2022; Latif, 2025) [4,17]
Reduce of patient trust and professional hesitancy to adopt AI tools	Healthcare users concern for reliability, limiting AI adoption in diagnostics and clinical support.	(Ayers *et al.*, 2023; Khan *et al.*, 2025) [2,13]
Lowered perceived reliability and academic integrity risks	Teachers and students develop skepticism toward AI-generated materials, reducing reliance for assessment.	(Kasneci *et al.*, 2023; Lund *et al.*, 2025) [18]
Threat to academic credibility	Fabricated citations undermine confidence in AI-assisted writing and peer-review integrity.	(Krupp *et al.*, 2023; Lund *et al.*, 2025) [15,18]
Decreased user confidence and acceptance of AI-based travel recommendations	Users become hesitant to rely on ChatGPT for travel planning after exposure to inaccurate output.	(Zhao *et al.*,2024 ;Kim *et al.*, 2025; Shi *et al.*, 2024)[14,24]
Decline in overall trust, especially when inaccuracies appear in fluent and confident outputs	Representation of even little errors significantly decreases acceptance and trust in AI-generated information.	(Goel *et al.*, 2024; Ji *et al.*, 2023; Labajová, 2023) [8,11,16]

Inaccuracies of Generative AI, such as ChatGPT, impact user trust, acceptance, and reliance on generative AI-generated outputs (RQ3)

Understanding how generative AI inaccuracies shape user perceptions is critical to evaluating its behavioral implications. Prior studies suggest that user trust, acceptance, and reliance are not solely determined by the accuracy of AI-generated responses but are also influenced by user characteristics and AI design features (Azaria *et al.*, 2024; Ji *et al.*, 2023; Kasneci *et al.*, 2023; Nira, 2025) [3,12,21].

Table 3: Factors Influencing the Relationship Between Generative AI, such as ChatGPT, Inaccuracies, and User Trust, Acceptance, and Reliance

Type	Key Factors	Influence on Trust, Acceptance, and Reliance	Sources
User-Related Factors	User expertise	Users with higher domain knowledge detect inaccuracies more easily and show lower reliance on ChatGPT compared to novices.	(Azaria *et al.*, 2024; Ji *et al.*, 2023; Kasneci *et al.*, 2023) [12]
	User experience with AI	User who has experienced more critically evaluate behavior and are less likely to over trust AI outputs.	(Lund *et al.*, 2025)[18]
	Cognitive load	When users find complicated tasks, they rely more on ChatGPT even whenit provide inaccurate result, increasing potential misinformation effects.	Ji *et al.* (2023); Borji (2023)
AI-Related Factors	Transparency and explainability	When ChatGPT provides uncertainty cues, users demonstrate higher trust and acceptance levels.	(Ayers *et al.*, 2023) [2]
	Error visibility	Obvious errors reduce trust immediately, whereas subtle inaccuracies maintain false confidence and high reliance.	(Borji,2023; Ji *et al.*,2023)
	Response fluency and confidence	Highly fluent and confident responses increase user acceptance, even when content is inaccurate.	(Thorp, 2023) [26]
Contextual Factors	Task criticality (e.g., law vs. travel)	In high-stakes contexts (e.g., legal, medical), inaccuracies significantly reduce trust and adoption.	(Ayers *et al.*, 2023) [2]
	Perceived usefulness and convenience	Despite inaccuracies, users may continue relying on ChatGPT due to its efficiency and ease of access.	(Lund *et al.*, 2025) [18]
	Feedback and correction mechanisms	Systems that allow user feedback or error correction enhance perceived control.	(Kasneci *et al.*, 2023) [12]

Source: Author creation

Fig 2: Factors Affecting Trust, Acceptance, and Reliance

Discussion

This study demonstrates that AI-generated inaccuracies significantly impact user trust, acceptance, and reliance. Among different examined domains such as law, education, tourism, healthcare, and general decision-making, hallucinations were prevalent, ranging from overt factual errors to subtle inaccuracies embedded in outputs. The type of error strongly influences user trust.

User characteristics were found as critical moderators. Higher domain expertise enabled users to detect inaccuracy more effectively, whereas less experienced users tended to over-trust AI-generated outputs, especially when responses were fluent. Sometimes, cognitive load affected reliance in complex tasks; users were more likely to accept AI-generated content despite inaccuracies.

AI design features, such as transparency and feedback mechanisms, also moderated user trust and acceptance across contexts. For example, users demonstrated higher trust when explanation indicators accompanied outputs. Contextual factors further influenced reliance: high-stakes domains elicited lower tolerance for errors, whereas lower-stakes domains showed more forgiving user behavior.

These findings have significant implications. This study contributes theoretically by framing accuracy perception as a key construct for future AI trust and acceptance frameworks across multiple domains. Developers should give priority to transparency and explainability while fostering digital literacy among users to minimize reliance on AI-generated outputs without a clear understanding. Standardized guidelines for AI accuracy disclosure are important, particularly in critical professional environments.

Conclusion and Future Directions

This paper emphasizes the dual-purpose aspect of ChatGPT and generative AI: whereas these systems improve efficiency, usability, and decision-support capabilities, their inaccuracies constitute significant risks to adoption, trust, and reliability. User perceptions are influenced by a number of factors across different domains, including task complexity, skill, AI transparency, and incorrect accessibility.

Experimental investigations should be emphasized in future research to investigate the long-term impacts of ongoing

exposure to AI errors on behavioral reliance and trust calibration. A deeper understanding of how users interpret mistakes emotionally and cognitively can be gained through interdisciplinary approaches that combine psychology, communication, and human-computer interaction.

Further research should investigate interventions such as uncertainty cues, credibility indicators, and feedback mechanisms to mitigate misinformation effects. Expanding research into applied settings will provide a comprehensive understanding of how generative AI inaccuracies influence real-world decision-making, thereby guiding developers of trustworthy and responsible AI applications

References

1. Araujo T, Helberger N, Kruikemeier S, de Vreese CH. In AI we trust? Perceptions about automated decision-making by artificial intelligence. AI Soc. 2020;35(3):611–623.
2. Ayers JW, Poliak A, Dredze M, Leas EC, Zhu Z, Kelley JB, *et al*. Comparing physician and artificial intelligence chatbot responses to patient questions posted to a public social media forum. JAMA Intern Med. 2023;183(6):589–596.
3. Azaria A, Azoulay R, Reches S. ChatGPT is a remarkable tool—for experts. Data Intell. 2024;6(1):240–296. doi:10.1162/dint_a_00235.
4. Bommarito MJ II, Katz DM. GPT takes the bar exam. arXiv. 2022. arXiv:2212.14402.
5. Chernyaeva O, Lee OKD, Hong T. From fake to AI-generated: leveraging information manipulation theory and explainable AI for robust detection of manipulated reviews. Decis Support Syst. 2025;197:114522. doi:10.1016/j.dss.2025.114522.
6. Gilson A, Safranek C, Huang T, Socrates V, Chi L, Taylor R, *et al*. How well does ChatGPT do when taking the medical licensing exams? Implications of large language models for medical education and knowledge assessment. medRxiv. 2022.
7. Gimpel H, Hall K, Decker S, Eymann T, Lämmermann L, Mädche A, *et al*. Unlocking the power of generative AI models and systems such as GPT-4 and ChatGPT for higher education: a guide for students and lecturers. Hohenheim Discuss Pap Bus Econ Soc Sci. 2023.
8. Goel A, Raut G, Sharma A, Taneja U. Artificial intelligence and sustainable business: a review. South Asian J Bus Manag Cases. 2024;13(3):340–365.
9. Hyder Z, Siau K, Nah FFH. Artificial intelligence, machine learning, and autonomous technologies in mining industry. In: Research Anthology on Cross-Disciplinary Designs and Applications of Automation. Hershey (PA): IGI Global; 2022. p. 478–492. doi:10.4018/JDM.2019040104.
10. Iskender A. Holy or unholy? Interview with OpenAI's ChatGPT. Eur J Tour Res. 2023;34:3414. doi:10.54055/ejtr.v34i.3169.
11. Ji Z, Lee N, Frieske R, Yu T, Su D, Xu Y, *et al*. Survey of hallucination in natural language generation. ACM Comput Surv. 2023;55(12):1–38.
12. Kasneci E, Seßler K, Küchemann S, Bannert M, Dementieva D, Fischer F, *et al*. ChatGPT for good? On opportunities and challenges of large language models for education. Learn Individ Differ. 2023;103:102274.
13. Khan MM, Shah N, Shaikh N, Thabet A, Belkhair S. Towards secure and trusted AI in healthcare: a systematic review of emerging innovations and ethical challenges. Int J Med Inform. 2025;195:105780. doi:10.1016/j.ijmedinf.2024.105780.
14. Kim JH, Kim J, Park J, Kim C, Jhang J, King B. When ChatGPT gives incorrect answers: the impact of inaccurate information by generative AI on tourism decision-making. J Travel Res. 2025;64(1):51–73. doi:10.1177/004728752312129.
15. Krupp L, Steinert S, Kiefer-Emmanouilidis M, Avila KE, Lukowicz P, Kuhn J, *et al*. Unreflected acceptance—investigating the negative consequences of ChatGPT-assisted problem solving in physics education. arXiv. 2023. arXiv:2309.03087. doi:10.48550/arXiv.2309.03087.
16. Labajová L. The state of AI: exploring the perceptions, credibility, and trustworthiness of users towards AI-generated content. 2023.
17. Latif YA. Hallucinations in large language models and their influence on legal reasoning: examining the risks of AI-generated factual inaccuracies in judicial processes. J Comput Intell Mach Reason Decis Mak. 2025;10(2):10–20.
18. Lund B, Mannuru NR, Teel ZA, Lee TH, Ortega NJ, Simmons S, *et al*. Student perceptions of AI-assisted writing and academic integrity: ethical concerns, academic misconduct, and use of generative AI in higher education. 2025;1(1):2.
19. Mondal S, Das S, Vrana VG. How to bell the cat? A theoretical review of generative artificial intelligence towards digital disruption in all walks of life. Technologies. 2023;11(2):44.
20. Nastoska A, Jancheska B, Rizinski M, Trajanov D. Evaluating trustworthiness in AI: risks, metrics, and applications across industries. Electronics. 2025;14(13):2717. doi:10.3390/electronics14132717.
21. Nira RA. AI-driven hyper-personalization in hospitality: application, present and future opportunities, challenges, and guest trust issues. Int J Res Innov Soc Sci. 2025;9(4):5562–5573.
22. Rasul T, Nair S, Kalendra D, Robin M, de Oliveira Santini F, Ladeira WJ, *et al*. The role of ChatGPT in higher education: benefits, challenges, and future research directions. J Appl Learn Teach. 2023;6(1):41–56. doi:10.37074/jalt.2023.6.1.29.
23. Seyfi S, Gorji AS, Vo-Thanh T, Zaman M. Travel virtual assistant or untrusted advisor? Developing a typology of resistance to AI-generated travel advice. Int J Tour Res. 2025;27(4):e70082.
24. Shi J, Lee M, Girish V, Xiao G, Lee CK. Embracing the ChatGPT revolution: unlocking new horizons for tourism. J Hosp Tour Technol. 2024;15(3):433–448. doi:10.1108/JHTT-07-2023-0203.
25. Stergiou DP, Nella A. ChatGPT and tourist decision-making: an accessibility–diagnosticity theory perspective. Int J Tour Res. 2024;26(5):e2757. doi:10.1002/jtr.2757.
26. Thorp HH. ChatGPT is fun, but not an author. Science. 2023;379(6630):313.
27. Van Dis EA, Bollen J, Zuidema W, Van Rooij R, Bockting CL. ChatGPT: five priorities for research. Nature. 2023;614(7947):224–226.
28. Venkit PN, Laban P, Zhou Y, Mao Y, Wu CS. Search engines in an AI era: the false promise of factual and verifiable source-cited responses. arXiv. 2024.

arXiv:2410.22349. doi:10.48550/arXiv.2410.22349.

29. Wach K, Duong CD, Ejdys J, Kazlauskaitė R, Korzynski P, Mazurek G, *et al*. The dark side of generative artificial intelligence: a critical analysis of controversies and risks of ChatGPT. Entrepreneur Bus Econ Rev. 2023;11(2):7–30.

How to Cite This Article

Nira RA. The effect of ChatGPT's inaccuracy on decision-making: a systematic review of trust in generative AI, acceptance, and error prominence. Int J Multidiscip Res Growth Eval. 2026;7(1):510-516. doi:10.54660/.IJMRGE.2026.7.1.510-516.

Creative Commons (CC) License