

The Critical Loop: Ethical Implications of Artificial Intelligence in the Information Profession

Ian Alloway

University of South Florida

BSIS Senior Capstone

3/1/2026

Introduction

Artificial Intelligence (AI) has rapidly transitioned from a theoretical concept to a ubiquitous utility, fundamentally altering how information is created, processed, and consumed. In the context of critical thinking, AI is not merely a tool for automation but a subject demanding

rigorous interrogation. Defined broadly, AI encompasses machine learning algorithms and generative models capable of synthesizing vast datasets to produce text, code, and media. Today, it permeates sectors ranging from hospitality to higher education, offering unprecedented efficiency while simultaneously obscuring the line between human and machine authorship. However, the adoption of AI introduces significant ethical volatility. As future information professionals, we must move beyond passive acceptance of these technologies and apply a critical lens to their "truth." This analysis explores the ethical implications of AI, specifically regarding algorithmic bias and academic integrity, and proposes that the role of the information professional must evolve into one of ethical auditing and policy governance.

Ethical Implications: Bias and the "Black Box"

A primary tenet of critical thinking is the evaluation of source validity. In the realm of AI, this is complicated by the "black box" nature of machine learning. As highlighted by Research Trends (2023), one of the most pressing ethical challenges is algorithmic bias. AI models are trained on historical data, which inherently contains human prejudices. If an information professional treats AI outputs as objective "fact" without scrutinizing the underlying training data, they risk perpetuating systemic inequalities. For instance, in data auditing—a field reliant on precision—blindly trusting an AI to detect anomalies could lead to false positives or missed risks if the model's baseline is flawed. Critical thinking requires us to question not just the output, but the architecture of the system itself, recognizing that an algorithm's "authority" is only as reliable as its input.

Policy Implications: Redefining Integrity in Education and Practice

The rapid integration of Generative AI (GenAI) necessitates a shift in policy, particularly regarding intellectual property and academic integrity. The traditional binary of "plagiarism vs. original work" is insufficient for an era where human-AI collaboration is the norm. Furze (2023) argues for the importance of teaching AI ethics, suggesting that we cannot simply ban the technology but must instead understand its mechanics and limitations.

To address this, institutions and organizations need granular frameworks. Perkins et al. (2024) propose the AI Assessment Scale (AIAS), a five-tier framework ranging from "No AI" to "Full AI generation." This type of policy nuance is a practical application of critical thinking—it rejects a simplistic "all or nothing" approach in favor of a reasoned, context-specific strategy. Adopting such scales in professional environments would allow organizations to classify data artifacts based on their provenance, ensuring transparency.

Connection to Future Career

As the founder of Alloway LLC and a future Master of AI candidate, the ethical implications of AI are operational, not just theoretical. My current work involves developing specialized tools, such as an "Audit Anomaly Detector" using the R programming language, to verify complex datasets. Critical thinking is the safeguard in this development process; if I were to rely solely on opaque "black box" AI models to flag financial discrepancies without understanding the underlying statistical logic, I would be failing in my duty to verify accuracy. The ability to appraise the "truth" of a dataset compels me to use R to transparently code algorithms rather than blindly accepting the outputs of generative models. In this context, technical proficiency becomes a tool for ethical enforcement, ensuring that the "anomalies" my systems detect are based on verifiable logic rather than hidden algorithmic bias.

Conclusion

Artificial Intelligence offers a powerful lens through which to view the world, but it must not be the only lens. The ethical challenges of bias, privacy, and integrity demand that we remain active critical thinkers rather than passive users. By implementing transparent policies like the AI Assessment Scale and maintaining a vigilant, questioning stance toward algorithmic outputs, information professionals can harness the power of AI without surrendering their ethical responsibilities. Ultimately, the "truth" provided by AI is a starting point for inquiry, not the final answer.

References

- Furze, L. (2023, January 26). Teaching AI ethics. Leon Furze.
<https://leonfurze.com/2023/01/26/teaching-ai-ethics/>
- Perkins, M., Furze, L., Roe, J., & MacVaugh, J. (2024). The AI Assessment Scale (AIAS): A framework for ethical integration of Generative AI in educational assessment. Journal of University Learning and Practice. <https://doi.org/10.53761/q3azde36>
- Research Trends. (2023). The biggest ethical challenges for artificial intelligence [Video]. YouTube. <https://www.youtube.com/watch?v=shZYttzC7Wc>