

Introduction

The two sources I will be reviewing in this peer review activity are the articles 'Artificial Intelligence Techniques and Methodology' published in AI Magazine (Carbonell & Sleeman, 1982) and 'Artificial Intelligence Research: A Review on Dominant Themes, Methods, Frameworks, and Future Research Directions' from The Alliance of Bioversity International and the International Center for Tropical Agriculture (CIAT) (Ofosu-Ampong, 2024).

Artificial Intelligence Techniques and Methodology

The article in AI Magazine analyses past AI research projects to guide future research. It combines a theoretical analysis with a reflection on the methods AI researchers use to address specific problems and proposes improvements to AI research methodologies through a meta-analysis. As the findings are theoretical one could question the real-world value.

Artificial Intelligence Research: A Review on Dominant Themes, Methods, Frameworks, and Future Research Directions

The article from CIAT is a comprehensive literature review and thematic analysis of 85 peer reviewed articles on AI research themes and methodologies between 2020 and 2023. The article looks at emerging trends in technology and security issues with AI with the goal of guiding the future of AI research. While the article uses a lot of secondary research one could argue it doesn't use enough primary research.

Comparing the studies

The article in AI Magazine focuses on refining the research methodologies used in AI research whereas the article from CIAT reviews AI research trends and offers insights into emerging areas of focus. The methodologies used in both articles are appropriate (reflective analysis in the article in AI magazine and a systematic review in the article from CIAT).

Both articles rely on data from secondary sources instead of primary research which may cause one to question their validity. Regardless of this both articles contributed significantly to AI research.

Future Enhancements

Both articles could be enhanced by integrating more empirical data, contemporary trends, and interdisciplinary perspectives to make them more applicable to the current and future directions of AI research. Additionally, they could incorporate primary research and quantitative analyses to provide stronger evidence for the arguments presented, with real-world case studies to have an immediate impact on AI research instead of being mainly theoretical.

Conclusion

While both articles are mainly theoretical and could have benefited from primary research, they certainly do provide value in the field of AI research as they both contributed to the collective body of knowledge.

References

Carbonell, J.G. & Sleeman, D., (1982) Artificial intelligence techniques and methodology. *AI Magazine*, 3(2), pp.47-56. Available at: <https://doi.org/10.1609/aimag.v3i2.371> [Accessed 20 November 2024].

Ofosu-Ampong, K., (2024) Artificial intelligence research: A review on dominant themes, methods, frameworks, and future research directions. *CGIAR*, 15 November. Available at: <https://www.cgiar.org> [Accessed 20 November 2024].