Title of the Paper

Name of Author

Affiliations of author

ABSTRACT: AI is changing industries and society, leading to important questions about its ethical im-plications and innovation role. Ethical AI is an approach that adheres to the principles of fairness, accountability, transparency, inclusivity, and respect for human rights in its ap-plication to society while mitigating potential risks. This paper conducts a bibliometric analysis of the literature on ethical AI and innovation, capturing a systematic overview of the research landscape, identifying key contributors, and showing thematic trends. Using a targeted search strategy, a dataset of 358 peer-reviewed articles published in English up to 2024 was extracted from the Scopus database.

1 INTRODUCTION

The rapid development of artificial intelligence (AI) has sparked a large debate about its ability to revolutionize industries and society. However, with these innovations come critical concerns about the ethical implications and societal impacts of deploying AI systems (Steinhoff 2024). Ethical AI stands for fairness, accountability, transparency, inclusivity, and respect for human rights- principles that govern AI technologies for ensuring alignment with societal values with minimum unintended negative consequences (Arbelaez Ossa et al. 2024; Vayena, Blasimme, and Cohen 2018).

2 METHODOLOGY

This bibliometric investigation tracks the scientific landscape regarding ethical AI and its interfaces with innovation. The methodology focuses on detailing an organized approach to the collection, processing, and analysis of relevant scientific literature, thus aiming for comprehensiveness and the ability to reproduce the final results. The criteria for the selection of documents for the bibliometric study are explained in Table 1 below:

Table 1. Criteria for selecting data.

Criteria	Details	Count
Search String	("Ethical AI" OR "Ethics in Artificial Intelligence" OR "Responsible AI" OR "AI Ethics" OR "Bias in AI" OR "Fairness in AI" OR "Transparency in AI" OR "Explainable AI" OR "AI Accountability" OR "Sustainable AI" OR "Green AI" OR "Ethical Machine Learning") AND innovat*	935
Timeframe	Till 2024	908
Document Type	Only Article	369
Language	Only English	358

3 FINDINGS

3.1 *Performance Analysis*

This bibliometric analysis of research on ethical AI indicates that there is a sharp increase in academic interest between 2018 and 2024. The main information of the data are presented in Table 2.

3.2 *Keyword co-occurrence*

The keyword co-occurrence map (Figure 2) gives a very clear overview of the thematic landscape in ethical AI research. The keyword co-occurrence map obtained using VOSviewer software was constructed with bibliometric techniques and pinpoints clusters of interlinked terms that highlight dominant themes, emerging topics, and interdisciplinary relationships.
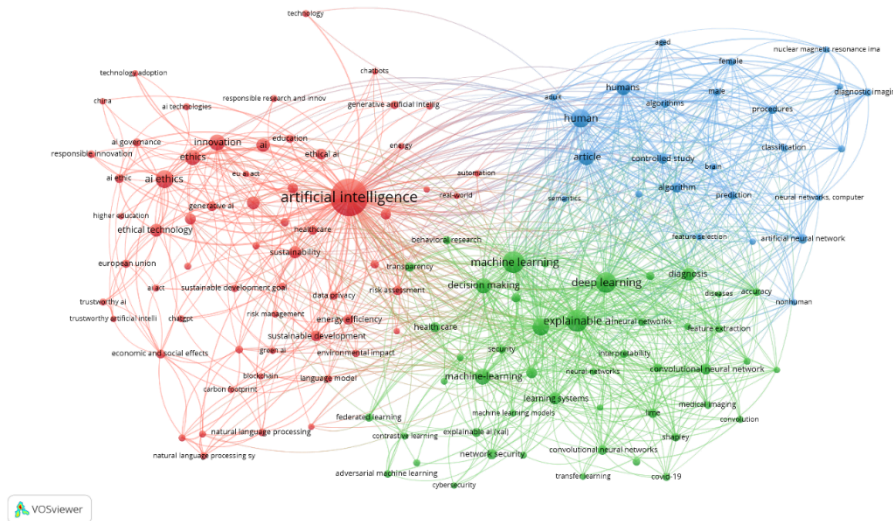

Figure 2. Keyword co-occurrence map.

4 DISCUSSION AND CONCLUSION

The findings of this bibliometric study represent the diversity and growth of this research area which is dealing with the intersection of innovation and ethical AI. The rapid growth in the number of scholarly outputs can be traced to the fast-paced adoption of AI technologies across different sectors, thus increasing the interdisciplinary dialogue on the issues of responsibility, fairness, and sustainability.

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