

Peer Review

Review of: "Ethical Dimensions of Artificial Intelligence in Educational Technology and Policy: A Global Bibliometric Analysis (2020–2025)"

Inderpreet Kaur¹

1. Chitkara University, Chandigarh, India

The paper aims to conduct a bibliometric analysis of research related to ethical issues in Artificial Intelligence (AI) as applied to educational technology and policy, using Scopus-indexed articles from 2020–2025. It identifies major ethical concerns (e.g., privacy, algorithmic fairness, academic integrity), maps global collaboration patterns, and highlights gaps in the current literature.

The **interdisciplinary bibliometric focus on AI ethics in educational policy** is timely and underexplored.

The paper contributes to **understanding how AI ethics are evolving globally** in education and identifies **regional disparities and collaboration asymmetries**.

The use of VOSviewer for **co-authorship, co-citation, and keyword clustering** provides a rich visualization of academic networks and discourse.

While bibliometric studies on AI in education exist, this work **specifically emphasizes ethical, governance, and policy dimensions**, making it a valuable addition to the literature.

- Well-defined research questions (RQ1–RQ5) with corresponding empirical analysis.
- Deep coverage of ethical themes, with well-structured cluster-based analysis.
- Effective use of visual bibliometric tools (VOSviewer).
- Critical discussion of under-researched topics such as blockchain ethics, algorithmic bias, and child-centric AI policy.
- Robust methodological framework: search strategy, dataset refinement, and analytical tools are clearly explained.

Areas for Improvement

A. Grammatical and Stylistic Issues

The manuscript requires careful **language polishing**. Some sentences are **ungrammatical, redundant, or awkwardly constructed**. Below are examples with suggested corrections.

Section	Original	Correction
Abstract	“AI has shown a vast likelihood of integration...”	“AI has shown vast potential for integration...”
Abstract	“Yet it also brings up the important issues...”	“However, it also raises important issues...”
Introduction	“AI entered the education system increasingly every day.”	“AI is increasingly entering the education system.”
Methodology	“The use of VOSviewer software was done...”	“VOSviewer software was used...”
Literature Review	“AI driven technologies enriched education so that better educational services can be provided...”	“AI-driven technologies have enhanced education by enabling more accessible and affordable services...”
RQ2	“It refered to issues...”	“It referred to issues...”
Results	“These clusters pointed to a multifaceted ethical problem rife with challenges...”	“These clusters illustrate the multifaceted ethical challenges...”
Discussion	“AI technologies, such as generative models... were disrutping education...”	“...were disrupting education...” (spelling error)
Conclusion	“This research underscoreed the pressing need...”	“This research underscores the pressing need...”

B. Ambiguity and Clarity Issues

Passive voice and inconsistent tenses often obscure meaning.

Repetition of terms (e.g., “ethical issues,” “AI ethics,” “governance”) without clarification or contextualization.

“Referred,” “indicateed,” “demonstrated and details” – such errors distract from credibility.

The intellectual significance of clusters (yellow, green, red, etc.) needs deeper interpretation beyond keyword naming.

C. Missing References / Related Works

The paper omits key works that could strengthen both the **ethical and bibliometric frameworks**.

Highly Relevant Missing References:

Jobin, Ienca, & Vayena (2019).

“The Global Landscape of AI Ethics Guidelines.”

Nature Machine Intelligence, 1(9): 389–399.

→ A seminal work not sufficiently explored in the paper, though cited.

Holmes et al. (2021).

“Ethics of AI in Education: Towards a Community-Wide Framework.”

IJAIED, 31(3): 578–602.

→ It is mentioned, but its **framework** is not critically discussed.

Seliya et al. (2021).

“The Ethical Design of Educational Algorithms.”

Educational Technology Research and Development.

→ Not cited, but directly aligns with the paper’s theme of designing responsible AI tools.

Zupic & Cater (2015).

“Bibliometric Methods in Management and Organization.”

→ This work offers deeper theoretical grounding for the methodology.

D. Methodological Limitations (Partially Addressed)

Only **Scopus** was used. Authors mention this, but **do not compare** it to other databases (e.g., Web of Science, IEEE Xplore).

Lack of **thematic coding or validation** of the bibliometric clusters.

The analysis is quantitative-heavy, but **qualitative interpretations of ethical implications remain superficial** in some areas.

4. Ethical Analysis Blind Spots

Despite its strengths, the paper could improve by:

Deeper examination of **child-centered AI ethics**, not just citing gaps.

More analysis of **regional inequalities** in AI ethics discourse—e.g., Global South perspectives.

Discussion of **cultural/contextual variance** in interpreting AI governance (e.g., EU GDPR vs. U.S. policies).

Final Evaluation

Criteria	Rating
Novelty	★★★★☆
Rigor of Methodology	★★★★☆
Writing Quality	★★☆☆☆
Relevance to Journal Scope	★★★★★
Use of Visuals and Tools	★★★★☆
Ethical Depth	★★★☆☆
References and Scholarship	★★★☆☆

Recommendation: Major Revision

The manuscript offers a valuable, data-driven look at the ethics of AI in educational technology. However, its **impact is reduced by grammatical issues, occasional ambiguity, and underutilized references**. With targeted revision and polish, it can become a highly publishable and timely study.

Recommendations:

- Conduct a professional proofreading and grammar revision pass.
- Refine sentences for readability and eliminate redundancy.

- Add these to strengthen the literature base and demonstrate full awareness of the field.

Declarations

Potential competing interests: No potential competing interests to declare.