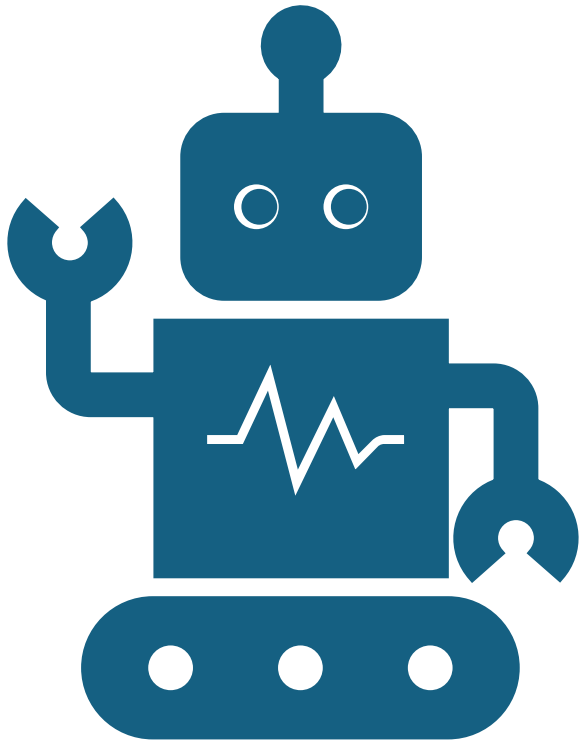


Radovan Vrana

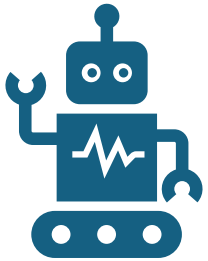
Faculty of Humanities and Social Sciences, University of Zagreb, Deparment for information and communication sciences, Zagreb, Croatia

AI in Scientific Publishing: Support or Subversion?

The Evolution of AI Support



Long-standing Tradition: Computers have assisted writing for decades through formatting, spellchecks, and data visualization



Generative AI Shift: Shift from simple predictive text to advanced LLMs, automated synthesis, and data validation.



Efficiency Gains: Fast literature discovery, manuscript drafting, and grammar refinement for non-native English speakers.

AI Across Publishing Workflow



Authorship: Accelerates literature reviews, protocol design, code generation, summarization, and language polishing.



Peer review: Assists editors in detecting text/data similarities, verifying citations, and expediting review turnarounds.



Dissemination: Generates visual abstracts, key takeaways, and multimedia summaries for broader public engagement.

Key Ethical Risks & Challenges



Subversion of Integrity: Over-reliance risks diminishing critical thinking, intellectual rigor, and original writing skills.



Proliferation of Paper Mills: Automated AI tools enable mass generation of fake manuscripts based on fabricated research.

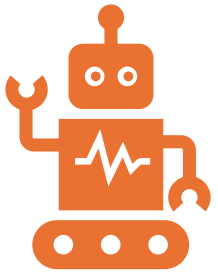


Algorithmic Bias & Attribution: Potential bias embedded within AI training datasets and unclear intellectual property rights.



Authorship Blurring: Difficulty distinguishing true human contributions from machine-generated content.

Mandatory Standards & Reforms

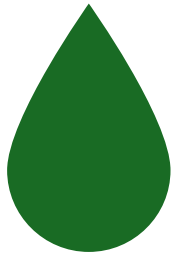


Author Disclosures

Declare specific AI models, dates, and operators used.

Provide clear rationale for AI deployment.

Include all prompts, responses, and specific locations in paper.



Stockholm Declaration Actions

Reclaim scientific publishing control via non-profit Open Access.

End 'publish or perish' metrics; reward quality over volume.

Deploy independent fraud monitoring to sanction paper mills.

"A human-centered model is essential: technology must support, but never replace, expert judgment in scientific publishing."

Conclusion & Takeaway

Thank you for your attention!