

Peer Review

Review of: "What Counts as Green AI? Mapping Efficiency, Sustainability, and Critical-Ecological Strands in a Fragmented Discourse"

Athina Karatzogianni¹

1. University of Leicester, Leicester, United Kingdom

This article develops a credible typology of Green AI because it:

- a. explains clearly efficiency, sustainability, and critical-ecological as the three key strands in the form of a literature review that identifies in a balanced manner the strengths and weaknesses of each strand;
- b. discusses convincingly the problem that this contested field presents (methodological inconsistency and weak metrics, disciplinary silos and limited cross-fertilisation, policy-practice gap, global asymmetries, and green colonialism);
- c. demonstrates the positive implications such an integrated typology could have: theoretically (clarifying boundary work, explaining normative scope, reframing AI and planetary boundaries); methodologically (increasing rigour in terms of metrics, integrating cost-benefit analyses, bridging qualitative and quantitative approaches); improving policy and practice (mandatory lifecycle disclosure, standardised reporting protocols, independent auditing and certification, sector-specific allowances, global justice mechanisms, organisational accountability).

Overall, the article succeeds in producing an integrated framework to reconcile the three strands and moreover proposes concrete ways with which Green AI can respond to demands integrating technical optimisation with ethical ecological responsibility.

Declarations

Potential competing interests: No potential competing interests to declare.