

Ethical Landscape of Artificial Intelligence: A Review

HCT Gamage^{1#} and PRD Wijesinghe¹

¹Department of Information Technology, Faculty of Computing, General Sir John Kotelawala Defence University, Sri Lanka

#38-bit-0050@kdu.ac.lk

The rapid growth of artificial intelligence technologies raises critical ethical concerns, particularly regarding fairness, transparency, privacy, and accountability. This review synthesizes current research findings to identify key ethical challenges and proposes strategies for responsible artificial intelligence development. A systematic literature review was conducted, examining peer-reviewed articles, reports, and policy documents. The review focused on recurring themes such as data bias, privacy concerns, accountability, and transparency, using thematic synthesis to integrate findings. The review identified several critical ethical challenges in artificial intelligence including inherent biases in training data, difficulties in ensuring accountability, and the tension between maximizing innovation and safeguarding human rights. It was found that existing guidelines vary significantly in scope and effectiveness, often lacking in operationalization and real-world impact assessment. Additionally, the study highlights the importance of inclusive governance and stakeholder participation in addressing these challenges. The findings emphasize that technical solutions alone are not sufficient to address artificial intelligence ethics; social and governance responses are also necessary. Further, the review advocates for a comprehensive approach to artificial intelligence ethics, focusing on transparency, responsibility, and human-centred design. Additionally, it calls for the development of adaptable frameworks that align artificial intelligence technologies with societal values and ensure their ethical deployment.

Keywords: *artificial intelligence, artificial intelligence ethics, data bias in artificial intelligence, data privacy in artificial intelligence, responsible artificial intelligence development*