**Revolutionizing Education: The Role of Artificial Intelligence in Fulfilling the Promise of SDG 4**

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***Abstract***

Artificial intelligence (AI) is a transformative technology that can enhance the quality and accessibility of education, thereby accelerating progress towards Sustainable Development Goal 4 (SDG 4) on quality education. AI has the potential to enable personalized and adaptive learning, improve learning outcomes, facilitate access for marginalized groups, and foster innovation. However, as with any new technology, AI also presents challenges such as ethical, legal, and pedagogical issues, and risks like bias, inequality, privacy violations, and reduced human interaction. This paper explores the role of AI in achieving SDG4 through reviewing primary and secondary sources to assess the associated opportunities and challenges and through a SWOT analysis of AI in achieving SDG 4. The key findings revealed that AI can accelerate the achievement of SDG 4 by predicting student performance, customizing curriculum, enabling lifelong learning, automating administrative functions, and improving inclusive and equitable quality education, especially in developing countries. However, alongside the potential benefits, the widespread adoption of AI in SDG 4 efforts also raises ethical, social, and regulatory considerations that must be carefully addressed for its full potential to be achieved. Concerns related to data privacy, algorithmic bias and digital divide require proactive strategies and policy interventions to ensure that AI-driven solutions contribute to inclusive and equitable quality education, and support opportunities of lifelong learning. The paper offers recommendations for policymakers, educators, and researchers to harness AI’s potential while mitigating its negative impacts. Key suggestions include developing ethical standards for AI in education, enhancing teacher capacity and agency in using AI tools, ensuring data security, promoting digital literacy, and evaluating the impact and effectiveness of AI interventions on learning outcomes and equity.

***Key words:*** artificial intelligence (AI), education, SDG 4, promises, challenges, SWOT