



[Digital Transformation, Sustainable Innovations and Development in the African Continent]

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Upskilling Healthcare Workers for an AI-Aided Future in Africa: A Perspective

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ABSTRACT

Africa, a continent with persistent resource shortages and labour capacity gaps, faces both opportunities and difficulties as a result of the rapid growth of digital transformation in healthcare. The importance of upskilling healthcare professionals to sustainably use artificial intelligence (AI) and digital health advances is examined in this integrative study. Telemedicine, mobile health (m-Health), AI-driven diagnostics, and electronic health records (EHRs) are all part of Africa's digital transformation, but its success depends on resolving issues with infrastructure, cost, and digital literacy. In this setting, low-cost, scalable solutions that bridge urban-rural differences while maintaining long-term viability—like solar-powered clinics and community health worker (CHW) programs—are given priority in sustainable healthcare innovation. Upskilling healthcare workers in AI literacy, data analytics, digital tool use, and ethical considerations is essential to this shift in order to promote productive AI-human collaboration. Customised continuous professional development (CPD) and e-learning systems designed for low-resource environments can help reduce resistance to technology adoption. This discussion is supported by three theoretical frameworks: The Diffusion of Innovations Theory, which describes the stages of technology integration in healthcare systems; the Technology Acceptance Model (TAM), which emphasizes perceived utility and ease of use in AI adoption; and the Human Capital Theory, which highlights the return on investment in workforce training for health system resilience. Aligning digital transformation with sustainable development in Africa necessitates regional approaches that put equity, resource optimization, and capacity building first. Governments, academic institutions, and the commercial sector must work together to create inclusive upskilling initiatives if they are to be successful. Africa may use AI to improve patient outcomes, treatment planning, and diagnostic accuracy while guaranteeing moral and just healthcare delivery by developing a workforce of healthcare professionals that are adept in digital technologies. In order to educate healthcare professionals for an AI-augmented future and eventually advance universal health coverage (UHC) throughout the continent, this review emphasizes the need of legislative and pedagogical reforms.

Keywords:

AI in healthcare, Digital Transformation, Upskilling, Sustainable Innovation, Africa, Workforce Development

