African Broadcasting Studies

Indigenous Knowledge Systems Integration into AI Development in West Africa: An Ethiopian Perspective

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Abstract

Indigenous Knowledge Systems (IKS) in West Africa are rich repositories of traditional wisdom and practices that can inform AI development. A qualitative case study approach was employed to understand existing AI projects and their potential for incorporating IKS. In-depth interviews revealed that approximately 40% of current AI applications in Ethiopia use elements derived from traditional knowledge. While preliminary, the findings suggest a promising pathway for integrating IKS into AI development frameworks to enhance local relevance and effectiveness. Developing an interdisciplinary team including computer scientists, anthropologists, and community representatives is recommended. Indigenous Knowledge Systems, Artificial Intelligence, West Africa, Ethiopia Model estimation used $\hat{\{\theta\}} = argmin\{\theta\} sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert 2^2$, with performance evaluated using out-of-sample error.

Keywords: *African, GIS, ethnography, ontology, epistemology, data fusion, machine learning*

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