



Indigenous Knowledge Systems Integration into AI Development in West Africa

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Abstract

Indigenous Knowledge Systems (IKS) in West Africa are rich repositories of traditional wisdom and practices that can complement modern technological advancements. A comprehensive search strategy using electronic databases was employed to identify relevant studies. Studies were assessed for inclusion based on predefined criteria. The analysis revealed a significant interest among researchers and practitioners in exploring the potential of IKS integration but with limited empirical evidence available. While there is growing recognition of the importance of integrating IKS into AI, more empirical research is needed to substantiate theoretical insights. Further studies should focus on developing methodologies that can measure the impact of IKS integration in AI applications and validate these through controlled experiments. Model estimation used $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sum}_{i \in I} \ell(y_i, f(\theta(\xi))) + \lambda \operatorname{Vert} \theta \operatorname{Vert}^2$, with performance evaluated using out-of-sample error.

Keywords: *African, AI, Indigenous Knowledge Systems, Methodology, Theory, West Africa, Cultural Integration*

ABSTRACT-ONLY PUBLICATION

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