



Strategies to Narrow Digital Access Disparities in Rural South Africa: A Technological and Socioeconomic Approach

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Abstract

Rural areas in South Africa face significant digital access disparities compared to urban regions, limiting their ability to benefit from digital technologies. A mixed-methods approach combining surveys with qualitative interviews was employed to assess existing access barriers and preferences among rural populations. The survey revealed that only 35% of respondents had access to reliable internet, with a notable preference for mobile over fixed broadband connections. Socioeconomic factors such as income levels and education were found to significantly influence digital access. While technological improvements are essential, addressing socioeconomic issues is crucial to ensure equitable digital inclusion in rural areas. Investment in affordable internet infrastructure should be prioritised alongside targeted socio-economic support programmes aimed at increasing digital literacy and reducing financial barriers. Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \sum_{i=1}^n (y_i - f(\theta(\xi)))^2 + \lambda \|\theta\|_2^2 \}$, with performance evaluated using out-of-sample error.

Keywords: Sub-Saharan, AfricanNeolocalization, SocioeconomicAnalysis, CommunityEngagement, CulturalAssimilation

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