



Strategic Approaches to Enhancing Digital Access in Rural South Africa

Nontshepo Dlamini^{1,2}, Siyavhuwa Mngqibiswane^{3,4}

¹ Department of Artificial Intelligence, Vaal University of Technology (VUT)

² University of the Witwatersrand

³ Department of Software Engineering, University of the Witwatersrand

⁴ Vaal University of Technology (VUT)

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Correspondence: ndlamini@outlook.com

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Author notes

Nontshepo Dlamini is affiliated with Department of Artificial Intelligence, Vaal University of Technology (VUT) and focuses on Computer Science research in Africa.

Siyavhuwa Mngqibiswane is affiliated with Department of Software Engineering, University of the Witwatersrand and focuses on Computer Science research in Africa.

Abstract

Rural South Africa faces significant digital access disparities due to limited infrastructure and insufficient internet connectivity. Qualitative research methods were employed, including focus group discussions and stakeholder interviews to gather insights from local communities and service providers. A thematic analysis identified three key themes: government support, community-led initiatives, and technology adoption incentives. Government subsidies for broadband installation were found to be effective in increasing access by 25% among rural households over a year. The findings suggest that targeted governmental interventions combined with community engagement can significantly improve digital inclusion in rural settings. Local governments should prioritise funding and policy support for infrastructure development, while fostering collaboration between tech companies and local communities to maximise benefits. digital access, rural South Africa, stakeholder engagement, government subsidies Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \sum_{i=1}^n (y_i - f_{\theta}(\xi_i))^2 + \lambda \|\theta\|_2^2$, with performance evaluated using out-of-sample error.

Keywords: *Sub-Saharan, African, Glocalization, Spatial-Data-Science, Village-Computing, Multilevel-Analysis, Inclusive-Design*

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