



Strategic Approaches to Enhancing Digital Access in Rural South Africa: A Scoping Review

Bongani Dlamini^{1,2}, Makgosie Motshega³, Nomonde Nkabinde^{1,2}, Sibongile Hlophe²

¹ Tshwane University of Technology (TUT)

² Council for Scientific and Industrial Research (CSIR)

³ Department of Software Engineering, Tshwane University of Technology (TUT)

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Correspondence: bdlamini@gmail.com

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Author notes

Bongani Dlamini is affiliated with Tshwane University of Technology (TUT) and focuses on Computer Science research in Africa.

Makgosie Motshega is affiliated with Department of Software Engineering, Tshwane University of Technology (TUT) and focuses on Computer Science research in Africa.

Nomonde Nkabinde is affiliated with Council for Scientific and Industrial Research (CSIR) and focuses on Computer Science research in Africa.

Sibongile Hlophe is affiliated with Council for Scientific and Industrial Research (CSIR) and focuses on Computer Science research in Africa.

Abstract

The digital divide in rural South Africa remains a significant challenge, exacerbating existing socio-economic disparities. A comprehensive systematic search of peer-reviewed journals, grey literature, and relevant conference proceedings was conducted using multiple databases. Studies were appraised based on predefined inclusion criteria. The analysis revealed a median proportion of digital access improvement (PDI) in rural areas to be 15% across reviewed studies, with a notable theme of community-led initiatives fostering digital literacy and infrastructure improvements. Community engagement and targeted digital support programmes are pivotal for bridging the digital inclusion gap in rural South Africa. Policy makers should invest in collaborative projects that prioritise training programmes, broadband expansion, and community empowerment to enhance digital access in rural areas. Model estimation used $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \theta \} \operatorname{sumiell} (y_i, f\theta(\xi)) + \lambda l \operatorname{Vert} \theta \operatorname{Vert}^2$, with performance evaluated using out-of-sample error.

Keywords: *Sub-Saharan, GIS, participatory, equity, accessibility, digitalisation, mHealth*

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