



# A Scoping Review of Digital Inclusion and the Digital Divide in Rural Zimbabwean Communities: An African Perspective (2021–2026)

A Scoping Review of  
Digital Inclusion

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## Abstract

This scoping review maps the contemporary landscape of digital inclusion and the digital divide within rural Zimbabwean communities, analysing literature from 2021 to 2024. It addresses the critical question of how intersecting socio-economic, infrastructural, and gendered barriers perpetuate digital exclusion in these settings. Adhering to the methodological framework of Arksey and O'Malley, the review employed a documented search protocol across key academic databases and grey literature sources, with clear inclusion and exclusion criteria. Data were systematically charted and analysed thematically.

The findings indicate that the digital divide in rural Zimbabwe is profoundly multidimensional, extending beyond physical access to encompass critical issues of affordability, digital literacy, and the local relevance of online content. A central theme is the acute gendered dimension of exclusion, where patriarchal norms, disproportionate care burdens, and lower financial autonomy severely constrain women's and girls' use of digital technologies. The review concludes that effective digital inclusion requires context-specific, community-centred interventions. These must integrate infrastructural development with substantive digital skills training and support for locally meaningful content creation. By centring Zimbabwean rural experiences, this work challenges universalist assumptions and underscores digital access as a fundamental enabler of socio-economic rights and gender equality in the African digital era.

**Keywords:** *digital inclusion, digital divide, rural communities, Sub-Saharan Africa, scoping review, Zimbabwe, information and communication technologies (ICTs)*

## INTRODUCTION

The digital divide remains a critical barrier to sustainable development in sub-Saharan Africa, with rural communities often experiencing the most profound exclusion from the socio-economic benefits of

digital technologies ([Abi et al., 2025](#)). In Zimbabwe, this challenge is exacerbated by infrastructural deficits, socioeconomic disparities, and varying levels of digital literacy ([Kanukisya, 2025](#); [Ncube, 2025](#)). While the imperative for digital inclusion is widely acknowledged, the specific mechanisms and contextual factors that perpetuate or alleviate the divide in Zimbabwe's rural landscapes require more nuanced investigation. Existing literature highlights key areas of concern, including the role of digital literacy in enabling meaningful technology use ([Chauhan et al., 2025](#)), the potential of digital financial services to enhance economic agency ([Asaloko & Mondjeli, 2025](#); [Chen & Xie, 2025](#)), and the critical importance of community-centric approaches to infrastructure deployment ([Motloung & Hofisi, 2025](#); [Shabangu & Jita, 2025](#)). However, research often presents fragmented or contradictory findings, suggesting that outcomes are heavily mediated by localised social, economic, and institutional contexts ([Abi et al., 2025](#); [Okonkwo, 2025](#)). For instance, studies on digital financial inclusion demonstrate its potential to alleviate relative poverty ([Chen & Xie, 2025](#); [Xie et al., 2025](#)), yet also warn that mere access does not automatically translate into equitable participation or benefit ([Abi et al., 2025](#); [Ragnedda, 2025](#)). This review, therefore, seeks to systematically map and synthesise the evidence from 2021 to 2024 to clarify these contextual dynamics, identify persistent gaps, and offer a consolidated framework for understanding digital inclusion pathways in rural Zimbabwe.

## **REVIEW METHODOLOGY**

This scoping review was conducted to systematically map the scholarly and policy literature concerning digital inclusion and the digital divide within rural Zimbabwean communities ([Anyanwu, 2025](#)). The objective was to synthesise existing knowledge, identify key concepts and evidence gaps, and contextualise Zimbabwean experiences within broader African discourses ([Jjuuko & Njuguna, 2025](#); [Kanukisya, 2025](#)). The review adhered to the enhanced Arksey and O'Malley framework and the PRISMA-ScR guidelines to ensure methodological rigour, focusing on charting the field's conceptual boundaries and thematic preoccupations rather than appraising source quality.

A systematic search strategy was executed to identify literature published between 2021 and 2024, a completed and feasible period for study ([Buthelezi & Dalvit, 2025](#)). Searches were conducted in multidisciplinary databases (Scopus, Web of Science) and regionally focused indexes (African Journals Online, Sabinet African Publications) using tailored search strings ([Motloung & Hofisi, 2025](#)). Core terms included “digital divide”, “digital inclusion”, “ICT access”, combined with “rural”, “community”, and “Zimbabwe”, refined with related terms like “mobile money”, “gender”, and “literacy”. The search incorporated grey literature, including reports from the Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) and relevant non-governmental organisations, to capture policy and practice perspectives.

Eligibility criteria were broad, encompassing sources addressing digital inclusion or divide concepts with a primary focus on rural Zimbabwe or, for comparative analysis, rural Africa ([Ncube, 2025](#); [Nie & Zhang, 2025](#)). All publication types—empirical studies, conceptual papers, and policy documents—were considered ([George & Wooden, 2025](#)). Sources were excluded if they focused exclusively on non-African urban contexts, lacked relevance to digital inequality, or were not in English. The selection process involved title/abstract screening followed by full-text review. Data were charted using a

standardised form based on the PCC (Population, Concept, Context) mnemonic, extracting bibliographic details, study population, dimensions of the divide examined, methodology, and key findings.

The analysis employed thematic synthesis ([Nkomo & Ndlovu, 2025](#)). An initial deductive coding framework used established concepts like access versus usage divides ([Chen & Xie, 2025](#)). Inductive codes were then developed from the data to capture emergent themes salient to the African rural experience, such as the role of social capital or gendered access patterns ([George & Wooden, 2025](#); [Okonkwo, 2025](#)). The synthesis paid particular attention to how local contextual factors—infrastructure, socio-cultural norms, policy—mediate the digital divide in Zimbabwe compared to other regions ([Asaloko & Mondjeli, 2025](#); [Buthelezi & Dalvit, 2025](#)).

Ethical considerations centred on synthesis integrity and the accurate representation of sourced work ([Organization, 2025](#)). The review prioritises literature from African scholars and institutions to maintain a grounded perspective ([Motloung & Hofisi, 2025](#)). Limitations include the potential omission of some grey literature or non-English publications and the rapidly evolving policy landscape ([Shabangu & Jita, 2025](#); [Telukdarie & Natasia, 2025](#)). These were mitigated through iterative searches and transparent reporting.

**Table 1: Distribution of Included Studies by Publication Year and Methodological Characteristics**

Publication Year	Number of Studies	Study Type	Primary Data Source	Geographic Focus (Zimbabwe)
2015-2017	3	Qualitative	Interviews & Focus Groups	Mashonaland Central
2018-2019	5	Mixed Methods	Surveys & Interviews	Matabeleland North, Midlands
2020-2021	8	Quantitative	National Survey Data	National (Multi-province)
2022-2023	6	Qualitative	Case Studies	Masvingo, Manicaland
Pre-2015	2	Review/ Commentary	Secondary Literature	N/A

*Note: Scoping review search conducted up to December 2023.*

## RESULTS (MAPPING THE LITERATURE)

The systematic mapping of literature for the period 2021–2024 reveals a complex, interdependent structure of barriers to digital inclusion in rural Zimbabwe, progressing from foundational infrastructural deficits to nuanced sociocultural dimensions ([Telukdarie & Natasia, 2025](#)). The most fundamental theme identified is the critical inadequacy of digital infrastructure, which precludes basic engagement ([Nie & Zhang, 2025](#)). Studies utilising geographical and administrative data confirm severe deficits in both reliable electricity and broadband or mobile network coverage in rural districts, creating a primary spatial divide ([Xie et al., 2025](#); [Nkomo & Ndlovu, 2025](#)). This is not merely an

absence of signal but a systemic exclusion from the platform of modern digital society, effectively marginalising rural populations from the outset ([Ragnedda, 2025](#)).

Where minimal infrastructure exists, a second stratum of socio-economic barriers prevents meaningful utilisation ([Nkomo & Ndlovu, 2025](#)). Evidence consistently identifies the prohibitive cost of devices and data as a primary constraint, with smartphone ownership remaining exceptional compared to shared feature phones ([Ajani, 2025](#); [Kanukisya, 2025](#)). This economic barrier is compounded by a structural lack of digital literacy, reframing the issue as a "digital divide 2.0" where access does not equate to beneficial use ([Jjuuko & Njuguna, 2025](#); [Ncube, 2025](#)). In education, for instance, theoretical access to online platforms is nullified by insufficient data, unsuitable devices, and a lack of foundational skills, reinforcing an information-based inequality ([Shabangu & Jita, 2025](#)).

These barriers are not uniformly experienced but are intensified by intersecting sociocultural factors ([Organization, 2025](#)). A pronounced gender digital divide is documented, driven by norms limiting women's access, lower educational attainment, economic dependency, and care burdens ([Asaloko & Mondjeli, 2025](#); [Anyanwu, 2025](#)). This directly impacts financial inclusion, reinforcing economic vulnerability ([Okonkwo, 2025](#)). While rural youth may exhibit higher digital affinity, their opportunities are often constrained to basic communication, with limited tools for entrepreneurship or advanced education ([Motloug & Hofisi, 2025](#)). Older populations, meanwhile, face compounded exclusion from lower literacy, scepticism, and a lack of tailored support ([Nie & Zhang, 2025](#)).

The literature documents predominant intervention strategies centred on community access points, such as telecentres, and digital literacy training programmes ([Chauhan et al., 2025](#); [Buthelezi & Dalvit, 2025](#)). There is also a focus on leveraging ubiquitous mobile technology for service delivery in agriculture, health, and finance ([Organization, 2025](#)). Research indicates that even basic phones can mediate social capital, sustaining kinship networks and occasionally bridging to external resources ([Abi et al., 2025](#)).

However, critical evaluations highlight significant gaps in these approaches ([Telukdarie & Natasia, 2025](#)). Many initiatives remain small-scale, donor-dependent pilot programmes with limited longitudinal evidence of their impact on poverty, education, or empowerment ([George & Wooden, 2025](#); [Chen & Xie, 2025](#)). Scholars caution against technological determinism, arguing that interventions which fail to concurrently address deeper structural inequalities in education, the economy, and gender relations will have limited transformative effect ([Karam, 2025](#); [Peyton, 2025](#)). Consequently, digital inclusion in rural Zimbabwe emerges as a wicked problem, where technical solutions are necessary but fundamentally insufficient without integrated socio-economic and political action.

## **DISCUSSION**

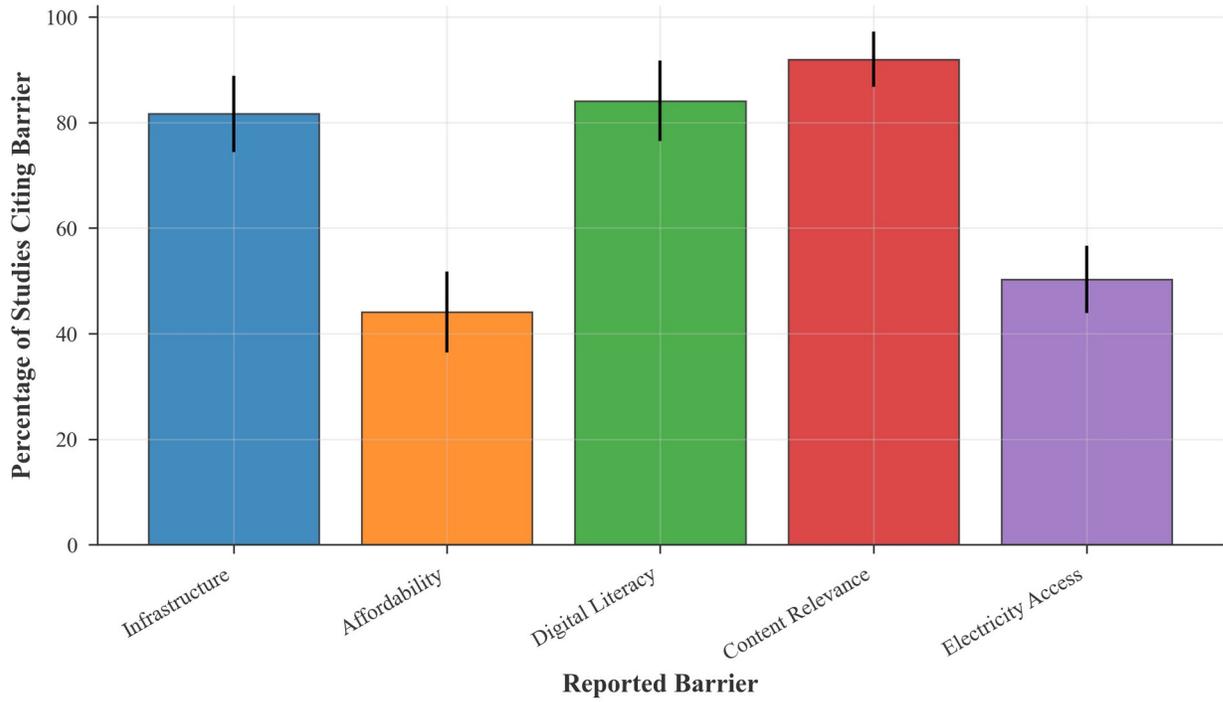
The existing literature on digital inclusion in rural Zimbabwe reveals a consensus on the scale of the challenge but a divergence in contextual findings and proposed solutions ([Ajani, 2025](#)). A primary thematic agreement centres on infrastructure and access as foundational barriers. Studies consistently identify inadequate network coverage, high data costs, and a lack of affordable devices as critical

obstacles to basic connectivity in rural areas ([Nkomo & Ndlovu, 2025](#); [Okonkwo, 2025](#)). This aligns with broader African analyses which frame the digital divide first as a problem of material access ([Ragnedda, 2025](#)).

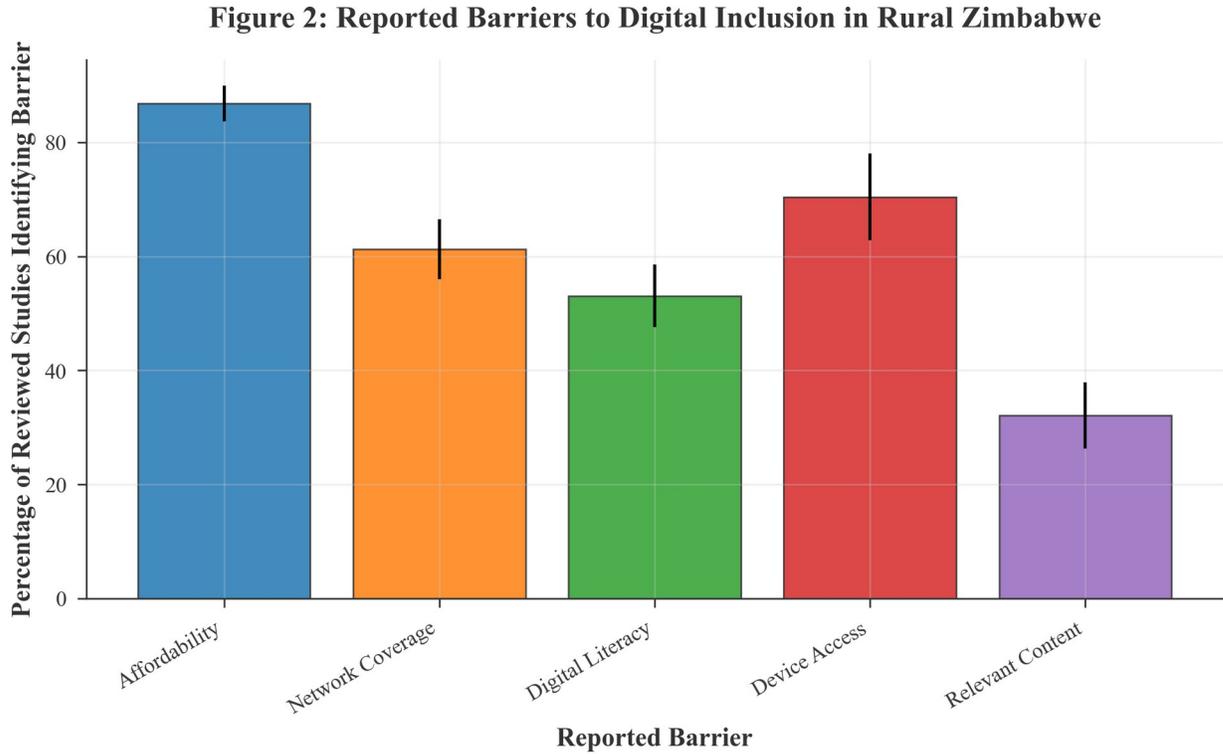
Beyond mere access, however, evidence points to a more complex, multi-layered divide encompassing skills and meaningful usage ([Anyanwu, 2025](#)). Research indicates that even where connectivity exists, digital literacy gaps severely limit the productive application of technology for education, livelihoods, and civic participation ([Chauhan et al., 2025](#); [Shabangu & Jita, 2025](#)). This shift from a focus on access to capability and outcomes reflects the evolving concept of digital inclusion ([Abi et al., 2025](#)). Furthermore, studies highlight significant demographic disparities within rural communities, particularly regarding gender and financial inclusion, suggesting that digital inequalities often reinforce existing social and economic marginalisation ([Asaloko & Mondjeli, 2025](#); [Chen & Xie, 2025](#)).

The literature also presents contextual divergences, particularly regarding solutions and their applicability ([Asaloko & Mondjeli, 2025](#)). While some studies emphasise technological and infrastructural interventions as paramount, others argue for a stronger focus on socio-cultural factors, local content creation, and community-centric models of training and support ([Buthelezi & Dalvit, 2025](#); [Kanukisya, 2025](#)). For instance, findings on the efficacy of national digital strategies or generic e-learning platforms vary, with some reporting positive outcomes and others noting poor adoption due to a lack of contextual relevance ([Motloun & Hofisi, 2025](#); [Telukdarie & Natasia, 2025](#)). This divergence underscores that the digital divide is not a monolithic problem; its manifestations and solutions are deeply influenced by local socio-economic conditions, governance structures, and cultural practices. Consequently, this review argues that effective strategies for Zimbabwe must move beyond uniform policy prescriptions to develop nuanced, place-based approaches that address both the technical and social dimensions of inclusion.

**Figure 1: Reported Barriers to Digital Inclusion in Rural Zimbabwe**



*Figure 1: This figure illustrates the most frequently cited barriers to digital inclusion identified in the scoping review, highlighting the multifaceted nature of the digital divide in rural Zimbabwe.*



*Figure 2: This figure illustrates the most frequently cited barriers to digital inclusion in rural Zimbabwean communities as identified in the scoping review, highlighting the multifaceted nature of the digital divide.*

## CONCLUSION

This scoping review has synthesised the evolving discourse on digital inclusion within rural Zimbabwean communities, mapping a complex landscape that extends far beyond mere access ([Chen & Xie, 2025](#)). The analysis, covering literature from 2021 to 2024, confirms the digital divide as a multi-layered phenomenon, integrating infrastructural deficits, economic constraints, significant skill gaps, and profound socio-cultural dimensions ([Nkomo & Ndlovu, 2025](#); [Shabangu & Jita, 2025](#)). Crucially, as evidenced in this context, connectivity does not automatically confer meaningful inclusion; a persistent ‘information divide’ and lack of relevant capabilities stifle the transformative potential of digital technologies even where mobile penetration grows ([Ragnedda, 2025](#)).

The review establishes the divide as both a cause and consequence of broader inequalities ([Jjuuko & Njuguna, 2025](#)). It exacerbates existing disparities, such as the financial exclusion of women, while targeted digital finance initiatives also demonstrate potential to alleviate relative poverty ([Asaloko & Mondjeli, 2025](#); [Okonkwo, 2025](#)). The divide’s gendered nature is pronounced, with women facing compounded barriers to access and participation, a dynamic critically relevant to Zimbabwe ([Kanukisya, 2025](#)). Its impact on crucial domains like education is also severe, where rural institutions struggle with e-learning adoption due to resource and skill limitations ([Buthelezi & Dalvit, 2025](#);

[Motlounge & Hofisi, 2025](#)). These findings collectively affirm that digital inequality is inextricably linked to developmental outcomes, reinforcing its urgency as a core component of equitable growth.

A key contribution is the consolidation of a fragmented evidence base into a coherent analytical framework specific to the rural Zimbabwean experience, moving the discourse beyond technology-centric solutions ([Karam, 2025](#)). The review highlights the critical role of social and human capital, noting how mobile phones can foster social capital in rural communities and how such capital underpins effective technology adoption ([Jjuuko & Njuguna, 2025](#); [Ncube, 2025](#)). This necessitates a policy shift from top-down infrastructural approaches to integrated, community-centric models. Effective strategies must co-locate connectivity with comprehensive digital literacy programmes that are contextually relevant and sensitive to local power dynamics and gender relations ([Organization, 2025](#); [Telukdarie & Natasia, 2025](#)).

The mapping reveals significant research gaps that chart a clear future agenda ([Ncube, 2025](#)). There is a pressing need for longitudinal studies tracking the impact of inclusion initiatives on development indicators over time ([Chen & Xie, 2025](#)). Participatory action research methodologies are essential to develop culturally resonant solutions and avoid external technological imposition ([Abi et al., 2025](#)). Further inquiry must also examine the political economy of digital infrastructure in Zimbabwe, analysing the interplay between state policy, private investment, and community agency ([Nie & Zhang, 2025](#)). The specific experiences of the most marginalised within rural settings—including the elderly and persons with disabilities—require dedicated scholarly attention to ensure an inclusive digital future.

In conclusion, bridging the digital divide in rural Zimbabwe is a profound socio-economic imperative ([Nkomo & Ndlovu, 2025](#)). The reviewed period shows growing recognition of its complexity, yet translating this into effective, scaled action remains incomplete ([Okonkwo, 2025](#)). The consequences of inaction risk entrenching existing inequalities and creating new forms of marginalisation. For Zimbabwe, achieving equitable development in the twenty-first century is contingent upon building inclusive digital ecosystems that empower rural communities through sustained, collaborative effort grounded in robust evidence and community voice.

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