

## Leveraging Technology and Innovation to Advance Gender Equity in Marginalized Mining Communities in South Africa



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While the Fourth Industrial Revolution (4IR) offered unprecedented opportunities for development, inclusion, and empowerment across the globe, it is largely noticeable that marginalized communities, particularly in Africa have generally failed to reap its benefits. This paper seeks to explore how accessible community-driven technological innovations can be mobilized to address entrenched systemic gender inequalities, economic marginalization, and the digital divide in underserved and under-resourced South African mining communities, particularly the Far West Rand. The Far West Rand was once the world's prolific gold-producing region, between the late 19th and 20th centuries the region produced a significant percentage of gold on the international market (Grobler, W. Blaauw, D. and Botes, L, 2024). The region has played a vital role in South Africa's economic history, yet its communities that supplied extensive labour to the mines are still remarkably underdeveloped topped by the growing environmental challenges facing its future. These stuck contradictions place the Far West Rand at the centre of South Africa's contemporary development discourse.

Building on the work of scholars such as Jo Tacchi, Kathi R. Kitner and Crawford (2012) who examined the nexus between development, gender, and technology through a focus on mobile phones and their everyday use by women in rural India and the UNDP's, (2021) report on realizing the potential for gender equality in digitalization, this paper explores how digital tools, technology, and innovation can be reimagined as catalysts for empowerment and development in marginalised mining communities. Technology and innovation have immense potential to unlock opportunities such as the future of work and development (UNDP, 2021). Further, this paper looks into harnessing the power of technology to advance gender justice, economic development, and social transformation in marginalized resource-extractive communities in South Africa. Central to this paper's enquiry is the question of how technology can be used as an active agent and facilitator of development and empowerment in marginalised mining communities.

### References

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