



# Assessment of Digital Literacy Programmes’ Impact on Gender Equity in Ethiopian Villages: A Participatory Learning Analysis

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### Abstract

Digital literacy programmes have been implemented in Ethiopia to bridge the digital divide and enhance economic productivity. However, their impact on gender equity remains underexplored. A mixed-methods approach combining qualitative interviews and quantitative surveys was employed. Participatory action research methodologies were used for data collection and analysis. Participatory learning revealed significant improvements in digital skills among both men and women, with a notable increase of 25% in computer literacy among female participants compared to baseline levels (90% vs. 65%). The findings suggest that targeted digital literacy programmes can contribute positively to gender equity by fostering equal access and usage of technology. Future initiatives should prioritise community engagement, continuous feedback loops, and tailored training modules based on local needs. Model estimation used  $\hat{\theta} = \underset{\theta}{\operatorname{argmin}} \{ \sum_{i=1}^n \ell(y_i, f_{\theta}(\xi)) + \lambda \|\theta\|_2^2 \}$ , with performance evaluated using out-of-sample error.

**Keywords:** Ethiopia, Digital Divide, Gender Equity, Participatory Learning, Indicators, Empowerment Studies, Techno-Social Change

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