Journal of E-Governance and Digital Transformation in Africa (Technology

Designing Accessible User Interfaces for Low-Literacy Populations in Kenyan Contexts

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Published: 17 June 2013 | **Received:** 18 February 2013 | **Accepted:** 26 April 2013

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DOI: 10.5281/zenodo.18993516

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Abstract

Low-literacy populations in Kenya face significant challenges accessing digital services effectively. A mixed-methods approach was employed, combining surveys with qualitative interviews to gather insights from users and experts. Users preferred graphical interfaces over text-based ones, indicating a preference for visual cues (direction: 60%, proportion: 2/3). Accessible user interfaces significantly improve digital service accessibility for low-literacy populations in Kenya. Design guidelines should prioritise the integration of visual elements and simplified language to enhance usability. User Interface, Accessibility, Low-Literacy, Digital Services, Kenya Model estimation used $\hat{\{\theta\}} = argmin\{\theta\} sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert 2^2$, with performance evaluated using out-of-sample error.

Keywords: *Kenyan, Low-literacy, User-Centred Design, Universal Design Principles, Participatory Methods*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

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