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Designing User Interfaces for Illiterate Populations in Uganda: A Technical Design Document

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Abstract

The context of this Data Descriptor is the design of user interfaces for illiterate populations in Uganda, focusing on the challenges and opportunities in designing accessible digital solutions. Qualitative research methods were employed, including interviews, observations, and participatory workshops with illiterate adults in Uganda to gather insights on preferred modes of communication and interaction with digital devices. Participants expressed a preference for visual icons over text alone, indicating that the use of simple images could significantly enhance understanding and engagement among non-literate users. The findings suggest an optimal ratio of text-to-image at 30% to maintain readability while leveraging visual cues effectively. The research underscores the importance of incorporating visual elements in user interfaces for illiterate populations, providing a concrete example that can guide further design efforts and inform policy recommendations. Recommend adopting a visual interface strategy with an emphasis on using icons to convey information. Further studies should explore how different cultural contexts might influence these findings. Model estimation used $\hat{\{}\theta\}=argmin\{\theta\}sumiell(yi,f\theta(\xi))+\lambda lVert\theta rVert2^{2}$, with performance evaluated using out-of-sample error.

Keywords: *African, Anthropology, Interaction, Design, Literacy, Usability, Accessibility*

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