Replicating User Interface Designs for Low-Literacy Populations in Cape Verde: An African Perspective Study

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Abstract

User interfaces designed for low-literacy populations often face challenges in effective communication due to language barriers and limited reading skills. The methodology involved a structured questionnaire survey administered in both Portuguese and Creole. Data analysis used logistic regression models. A significant proportion (75%) of respondents preferred visual icons over text-based instructions, indicating the need for more intuitive design elements. User interfaces designed with visual cues were significantly more effective than those relying solely on textual explanations among low-literacy Cape Verdean populations. Future studies should focus on iterative testing and user feedback to continuously improve interface designs tailored for diverse literacy levels. User Interface Design, Low-Literacy Populations, Cape Verde, Logistic Regression 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: *Cape Verde, Geographic Design, Low-Literacy Populations, User Interface Design, Accessibility Studies, Cognitive Psychology, Human-Computer Interaction*

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