

School text books that people with visual disabilities can read

Students with visual disability use text-to-speech (TTS) applications on their smartphones to read digital textbooks. These applications have helped reduce the number of school drop-outs. But some digital textbooks are not TTS compatible, and the person with visual disability has to depend on another person to read it out loud. Images in digital textbooks cannot be interpreted by the TTS applications.

Summary of Recommendations

Immediately: Provide alternative text/image descriptions in the digital textbooks where appropriate.

Long term: Design all text books using Adobe Illustrator with Unicode fonts for TTS compatibility

e.g.:



A photograph of the Rockwood Asylum in Kingston, OH. A large, drab grey five storey institution. In the foreground of the image is a wet road leading to front entrance of the building. There are a few trees in front of the building.

Detailed alternative text/image description

The Research

- LIRNEasia conducted a nationally representative survey among 15-65-years-old PWDs in Nepal to understand ICT access and use. Four hundred PWDs from 400 households in 100 wards in all 7 provinces were interviewed between August and October 2018. The questionnaire was designed based on the Washington Group on Disabilities Questions. The results are nationally representative with 95% confidence interval and ± 9.8 margin of error.
- LIRNEasia conducted qualitative research in Provinces No. 1, 2, 3 and 5 in urban and rural locations. The research was designed to understand how ICTs can help ensure independent living for PWDs in Nepal. Grounded theory was applied to identify key themes emerging in interviews of 174 PWDs and nine key informants.

Key Findings

- 1.6% of the population aged 15-65 reported as a PWD
- 54% had no schooling, and 26% had only primary education.
- Certain books are available in digital format but are not fully compatible with screen-reading software:

“Smartphones cannot recognize all fonts and description of the images found on Google.” -- Visual disability, Male, Palpa

“I also think that the Nepal government should localize the international made applications in Nepal as well. I know an app named ‘Book share’ which helps to download all the published books internationally and nationally as a pdf file.”
-- Visual disability, Male, Kathmandu

More Information: <http://bit.ly/NPtech4PWD>

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