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# SIGCHI Social Impact Award Talk – Designing for Low-Literate Users

**Indrani Medhi Thies**

Microsoft Research

Bangalore, India

[indranim@microsoft.com](mailto:indranim@microsoft.com)

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CHI'17 Extended Abstracts, May 06-11, 2017, Denver, CO, USA

ACM 978-1-4503-4656-6/17/05.

<http://dx.doi.org/10.1145/3027063.3058589>

**Abstract**

About 800 million people in the world are completely non-literate and many are able to read only with great difficulty and effort. Even though mobile phone penetration is growing very fast, people with low levels of literacy have been found to avoid complex functions, and primarily use mobile phones for voice communication only. “Text-Free UIs” are design principles and recommendations for computer-human interfaces that would allow a first-time, non-literate person, on first contact with a PC or a mobile phone, to immediately realize useful interaction with minimal or no external assistance. Through an ethnographic design and iterative prototyping process involving hundreds of hours spent in the field among low-income, low-literate communities across rural and urban India, the Philippines and South Africa, we established design principles that use combinations of voice, video and graphics. We have applied these principles across several application domains, including job-search for domestic workers, health-information dissemination, map navigation, mobile money transfer, agriculture video search, and social networking for farmers. Rigorous user evaluations confirm that our non-textual designs are strongly preferred over standard text-based interfaces, and that first-time, non-literate users are, in fact, able to navigate through our UIs meaningfully.

**Speaker's Bio**

Indrani Medhi Thies is a Researcher in the Technology for Emerging Markets group at Microsoft Research in Bangalore, India. Her research interests are in the area of User Interfaces, User Experience Design, and ICTs for Global Development. Over the years, Indrani's primary work has been in user interfaces for low-literate and novice technology users. As a part of this research, Indrani spent hundreds of hours in the field among low-income communities in rural and urban India, the Philippines and South Africa, conducting ethnographic design, iterative prototyping and user evaluations. Indrani is considered a world expert in interfaces for low-literate users. Her recent work is in user experience of conversational agents, mainly chatbots. Indrani also serves on the board of Digital Green, a not-for-profit international development organization that uses an innovative digital platform for community engagement to improve lives of rural communities across South Asia and Sub-Saharan Africa.

Indrani's distinctions include an MIT TR35 award, ACM SIGCHI and ACM CSCW best paper honourable mentions, a "Young Indian Leader" award from CNN IBN, and featuring in the list of Fortune magazine's 2010 "50 Smartest People in Technology". Indrani has published over 20 refereed research articles in leading conferences and journals. She has a Ph.D. from the Industrial Design Centre, IIT Bombay, India; a Masters' degree in Design from the IIT Institute of Design, Chicago, USA; and a Bachelors' degree in Architecture from VNIT, Nagpur, India.