We need to talk: Rediscovering Audio for Universal Access (A Panel)

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Abstract
"In all the wonderful worlds that writing opens, the spoken word still resides and lives. Written texts all have to be related somehow, directly or indirectly, to the world of sound, the natural habitat of language, to yield their meanings." [1]

Only 22% of the human population accesses the Internet. The larger fraction of the world cannot read or write. Worldwide, 284 million people are visually impaired. And yet, there are 5.3 billion mobile subscribers, and their numbers are increasing.

Much of the mobile work by HCI researchers explores a future world populated by high-end devices and relatively affluent users. This panel turns to consider the hundreds of millions of people for whom such sophistication will not be realised for many years to come. How should we design interfaces and services that are relevant and beneficial for them?

Keywords
Speech User Interfaces, Mobile Speech, Mobile User Interfaces

[1] Walter J. Ong, Orality and Literacy: Technologizing of the World. New Accents. Ed. Terence Hawles (New York: Methuen, 1988).

ACM Classification Keywords

H.5.2 Information Interfaces and Presentation: Voice I/O

General Terms

Design, Human Factors, Experimentation

Background and motivation

For a long time now, Voice-driven interfaces and applications have been the holy grail of many a sci-fi movie. The natural-ness of the speech interface make it a compelling mode of interaction. With recent advancements in speech-related technologies and the proliferation of the mobile devices, are we any closer to fulfilling the dream?

In developing world contexts (Africa and India), people will continue to rely on voice-primary interactions due to both literacy and economic reasons. Voice-driven interfaces to applications have been found to have immense appeal for semi-literate and illiterate users, the need for designing flexible, adaptive and robust voice UIs is imminent.

Even as smart phones becomes cheaper and more and more economically accessible, we have an opportunity of improving the interaction experience with the more established modalities (such as audio).

How should we design voice interfaces? What role should multimodality play? What are the important research issues to be addressed to realise this vision of empowering the masses?

We hope that this will motivate researchers to focus on problems that will benefit a very large number of potential users in emerging markets as well as to disabled people around the world. We would expect that the outcome of such design efforts to have useful side-effects on familiar use cases where the users cannot use their visual sense due to another task (e.g. interacting with the web while driving a car).

References

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