Spoken Web: A Mobile Cloud based Parallel Web for the Masses

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ABSTRACT

In India and several other countries, most notably in Africa, the penetration of the personal computer and the internet remains relatively low. However, there has been a huge surge in the adoption of simple mobile phones (there are over 700 million mobile phone numbers in India), and this penetration continues to grow at a fast pace. We will present Spoken Web, an attempt to create a new world wide web for the masses in these countries, accessible over the telephone network and hosted in a cloud. The Spoken Web platform facilitates easy creation of user-generated content that populates 'voice sites', and allows contextual traversal of voice sites interconnected via hyperlinks based on the Hyperspeech Transfer Protocol. We present our experience from pilots conducted in villages in Andhra Pradesh, Gujarat, and other states in India. These pilots demonstrate the ease with which a semi-literate and non-IT savvy population can create voice sites with locally relevant content, including schedule of education/training classes, agricultural information, and entertainment related content, and their strong interest in accessing this information over the telephone network. We describe several outstanding challenges and opportunities in creating and using a Spoken Web for facilitating exchange of information and conducting business transactions.

General Terms

Design, Human Factors, Standardization

Keywords

Web accessibility, cloud computing, mobile computing