Hearsay: A New Generation Context-Driven Multi-Modal Non-Visual Web Browser

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Motivation
- 10-11 Mil. Visually Impaired People in U.S.
- 1.3+ Million Americans are Legally Blind
- 45+ Million People Without Sight Worldwide
- At least 50% of Blind Americans Use Internet
- Current Screen Readers have plain interfaces sequentially verbalizing content.

Key Features
1. Context-driven Browsing (Context Analyzer)
   - Text in and around the link is extracted from the source page (Context)
   - Finds the best match for the starting position in the next page using Context

2. Identification of Content Changes (Dynamo Module)
   - Handles dynamic and static changes in web pages
   - Associates labels with form elements

3. Transaction and Macro Manager
   - Support non-visual transactions (e.g., online shopping)
   - Automate repetitive browsing tasks (e.g., checking email, weather or news, paying bills and shopping)

HearSay Browser
- Standard screen reader shortcuts
- Context-driven browsing
- Automation of repetitive tasks
- Identification of content changes
- "Semantic" segmentation of contents
- Language switching
- Layered navigation
- Touch & Gesture Interface
- Supported platforms: Win, Linux, OS X
- Supported TTS's: Cepstral, FreeTTS, Microsoft, OS X TTS

4. Remote Web Access by Phone (via Skype)
   - TeleWeb: a telephony-based web browsing service
   - Users call their Skype-In number to connect to HearSay and remotely browse the Web by speaking and phone key-pad

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