Workshop on Speech and Language Processing for Assistive Technologies Demo Session

1 "How was School today...?" A Prototype System that Uses Environmental Sensors and NLG to Support Personal Narrative for Children with Complex Communication Needs

Rolf Black, Joseph Reddington, Ehud Reiter, Nava Tintarev and Annalu Waller

We will show an in-situ sensor based prototype that supports personal narrative for children with complex communication needs. We will demonstrate the process from data collection, story generation and editing, to the interactive narration of stories about a child's school day. The challenging environment of a special school for prototype testing will be discussed and improvements of the next generation prototype presented.

2 Interactive SIGHT Demo: Textual Summaries of Simple Bar Charts

Seniz Demir, David Oliver, Edward Schwartz, Stephanie Elzer, Sandra Carberry and Kathleen F. McCoy

Interactive SIGHT is intended to provide people with visual impairments access to the kind of information graphics found in popular media. It works as a browser extension, and is able to generate a summary of a simple bar chart containing its high-level intention as natural language text. The user may request further information about the graphic through a follow-up question facility.

3 Project Jumbo: Transcription as an Assistive Technology for Instant Messaging

Ira R. Forman and Allen K. Wilson

The integration of VoIP into Instant Messaging may be a boon for most of us, but not for those who are deaf and hard of hearing. The IBM Human Ability & Accessibility Center initiated Project Jumbo to address this problem. Our remedy is to add a speech-to-text capability to augment voice services with transcripts. In particular, Project Jumbo augments IBM Lotus Sametime. Project Jumbo, which is transitioning to product status under name IBM AbilityLab Sametime Conference Transcriber, will be demonstrated. The demo consists of a chat between the demonstrator and a remote colleague in which the demonstrator speaks rather than types. A major point of the demo is that interactive communication is a new domain for ASR. This domain differs from dictation in a number of ways; prominent among them is that most speech recognition errors do not need to be corrected.

4 COMUNICA - A Voice Question Answering System for Portuguese

Rodrigo Wilkens, Aline Villavicencio, Leandro Wives, Daniel Muller, Fabio da Silva and Stanley Loh

This is a voice QA system for Brazilian Portuguese that performs speech recognition, text processing, database access and speech synthesis for consulting both structured and unstructured datasets. This system provides multi-modal communication and has the potential to help users with disabilities to access relevant information, and may help to significantly increase digital inclusion.