Special Session at Interspeech 2015

on

Speech and Language Processing of Children's Speech

This special session is aimed at bringing together researchers and practitioners from universities and industry working in all aspects of speech and language processing of children' speech, including multi-modal aspects. Children are special both at the acoustic and linguistic level as well as the interaction level. The special session provides an opportunity for bringing together different research communities from cognitive science, robotics, speech processing, phonetics, and linguistics, as well as from applied areas. The special session will serve as a venue for presenting recent advancements in core technologies as well as experimental systems and prototypes.

Acoustic and linguistic characteristics of children's speech are widely different from those of adults' speech and spoken interaction between children and computers opens challenging research issues on how to develop effective acoustic, language, and pronunciation models for reliable processing of children's speech. Furthermore, the behavior of children interacting with a computer or a mobile device is also different from the behavior of adults. When using a conversational interface for example, children have a different language strategy for initiating and guiding conversational exchanges, and may adopt different linguistic registers than adults. The aim of the special session is to highlight areas of difference and develop a common understanding of the best methods for developing spoken language technologies to successfully process input from children.

We invite prospective authors to submit papers describing original work in the following, and related, research areas:

- Intra- and inter-speaker variability in children's speech
- Age-dependent characteristics of spoken language
- Acoustic, language and pronunciation modeling in ASR for children
- Analysis of pathological speech
- Paralinguistic information extraction from children's speech
- Spoken dialogue systems
- Multimodal speech-based child-machine interaction
- Toys and games using spoken input
- Innovative applications employing speech technology

Submitted papers will be peer reviewed according to the normal Interspeech review process.

Organizers:

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Shrikanth Narayanan, University of Southern California, USA
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