



The Future of Speech and Audio in the Interface

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SUMMARY

This workshop will explore current and future applications, research areas, and interaction techniques that use audio in the user interface. The emphasis of the meeting will be on a “CHI perspective” of using speech and sound, in appropriate interactive contexts, where the audio channel can be exploited for the user’s benefit. The workshop will encompass user interface areas including: speech input and output, non-speech audio, data sonification, spatial audio, and access to audio databases. The workshop will not address topics such as computer music, hardware/systems support for audio, or signal processing as these areas are better addressed in other forums.

This workshop is in many ways a follow-on and extension of the half-day “Sound-Related Computation” workshop held at ACM MultiMedia 93 (organized by Carla Scaletti, the founder of the ACM SIGSound e-mail forum). The MM93 workshop was productive in that it brought researchers with a wide variety of audio backgrounds and interests together for the first time. Unfortunately, that workshop was too short, and its participants too diverse to properly focus on user interface issues. This new CHI 94

workshop will bring together members and ideas from the CHI community to further define the emerging area of sound in user interfaces.

The presentations and discussions at the workshop will focus on the uses of speech and sound in interactive user interfaces. Specific topics to be addressed include:

- When are audio interfaces the most (and least) effective
- Interaction tools and techniques for the successful use of sound
- Integrating audio and graphics into a unified interface
- Real-time sonification of multi-variate data
- Interface issues of using speech recognition and synthesis
- Using speech as data
- Sound in collaborative and virtual environments
- Interfaces for visually impaired users or low visibility environments
- Other applications of auditory displays

This workshop will be a meeting ground for both researchers and practitioners in the CHI community to exchange ideas regarding the use of speech and audio in human-computer interaction, and to set future directions for work in this important area.

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