



Aalto University
School of Electrical
Engineering

Communication acoustics

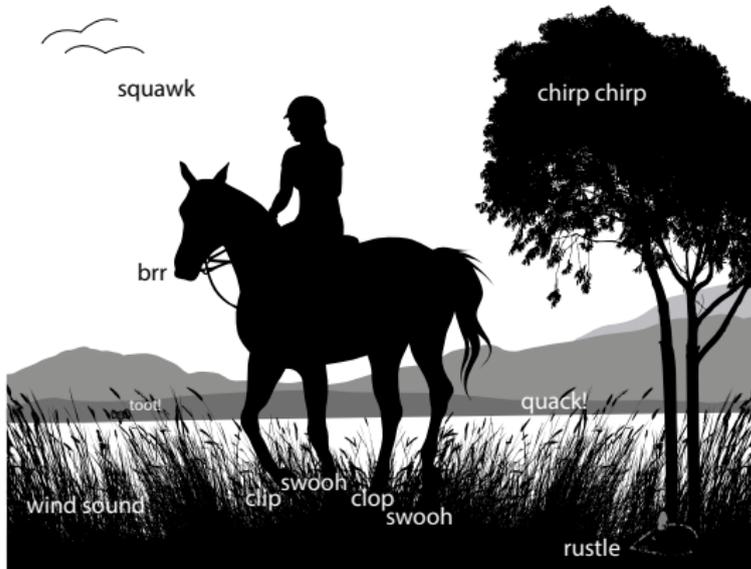
Introduction

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Transmission of information by sound



The sound events shown bring information to the subject about the surroundings

Speech communication



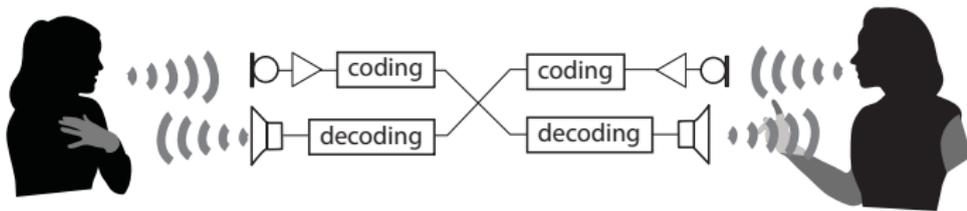
Speech communication in different situations between subjects or from the presenters to the audience. The acoustic waves carry the information either directly from the presenter to the listener or through an audio system.

Music – communication by sound



Musical communication with electronic sound reinforcement. The audience responds acoustically to the band by clapping hands and with their voices.

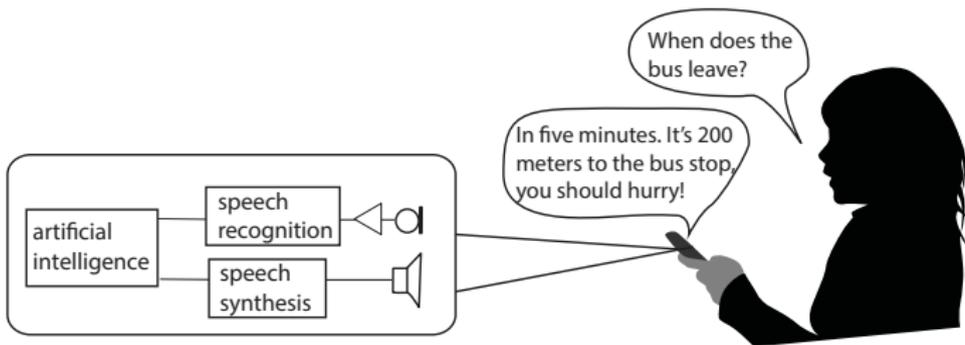
Acoustic communication over distance



Communication through a technical transmission channel.

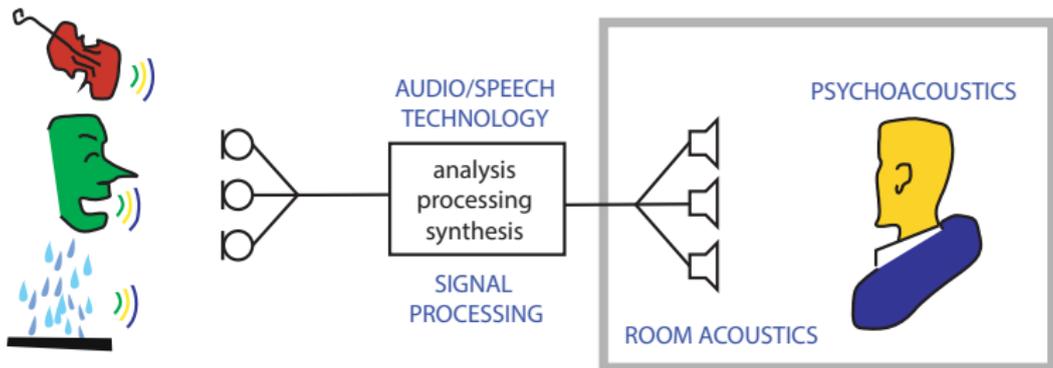
- telephone / radio
- phonograph / record player
- digital audio
- speech technologies

Man-machine communication over voice



- automated telephone service
- voice control system of devices
- automated public address

Fields involved in acoustic communication channels



References

These slides follow corresponding chapter in: Pulkki, V. and Karjalainen, M. Communication Acoustics: An Introduction to Speech, Audio and Psychoacoustics. John Wiley & Sons, 2015, where also a more complete list of references can be found.