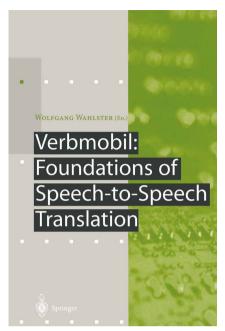


## springer.com



2000, XII, 677 p.



## Hardcover ISBN 978-3-540-67783-3

- ► 194,99 € | £169.99
- ► \*208,64 € (D) | 214,49 € (A) | CHF 230.00

W. Wahlster (Ed.)

## **Verbmobil: Foundations of Speech-to-Speech Translation**

Series: Artificial Intelligence

- ► An invaluable resource for academia and industry
- ► Presents for the first time a unified, coherent picture of a completely operational spoken dialog system
- With theoretical and practical foundations: Includes fundamental research and applied innovations in the key areas of speech-tospeech translation

Verbmobil is the result of eight years of intensive research in a large speech-to-speech translation project, executed by a consortium comprising nineteen academic and four industrial partners. The system that was developed by more than 100 researchers and engineers handles dialogs in three business-oriented domains, with translation between three languages: German, English, and Japanese. Verbmobil deals with spontaneous speech, which includes realistic repair phenomena, and uses deep semantic analysis to recognize a speaker's slips and to translate what he tried to say rather than what he actually said.

After more than 400 single publications, this book gives the first comprehensive overview of the results of this unique and seminal project in human language technology. The theoretical and practical foundations from signal processing to language understanding are described in detail. The system anatomy is presented and the components for multilingual and robust speech processing, prosodic analysis, parsing, semantic analysis, discourse understanding, translation, generation and speech synthesis are discussed.

Contributions by leading scientists in speech and language technology look at the component technologies that make Verbmobil the most advanced speech-to-speech translation system worldwide and a landmark project in the history of natural language processing.