

BOOK REVIEW

An Expressive Conversational-Behavior Generation Model for Advanced Interaction within Multimodal User Interfaces

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Successful interpersonal interactions is made by means of coordinated system of words, gestures, and body movements. Nonverbal behaviors provide information to the communicative act, supporting the speaker's communicative goal and allowing to add a variety of other information to her messages including (but not limited to) psychological states, attitudes, personality. These behaviors are *global in their meaning, context-sensitive*, created at the moment of speaking and are exploited *in partnership with speech for appropriately shaping communicative intentions and satisfying the requirements of meaningfulness to the message being transmitted*.

The present book indeed focus on these co-verbal behaviors and propose the design of an automatic interactive communication system which exploits a large number of multidisciplinary information deriving from synchronization, tagging, and animation procedures in order to transform every text into animated sequences of expressive synchronized body movements and speech. To my knowledge, this is the first expressive Text to Speech system, omni-comprehensive in its form, since its design accounts for the latest research results on multimodal communication.

The writing is simple, clear, easy and pleasant to read. The approach proposed in designing and implementing such system goes beyond traditional computational speech processing techniques and exploits heuristic and psychological models of human interaction in order to succeed in the implementation. The book propose advances in these directions taking into account the multifunctional role of speech and emphasize theoretical and practical issues that largely improve the effectiveness and performance of Text to Speech Systems. In this sense, the book represents a huge multidisciplinary work in the field of speech synthesis and human-machine interaction.

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