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""3.3.2 Communication Management""""3.3.3 Nonverbal and Expressive Behavior""; ""3.4 Summary""; ""4 Empirical Background""; ""4.1 Method of Utilizing a Multimodal Corpus""; ""4.2 Corpus Acquisition""; ""4.3 Annotation""; ""4.3.1 Verbal Aspects""; ""4.3.2 Nonverbal Aspects""; ""4.4 Analysis""; ""4.4.1 Verbal Aspects""; ""4.4.2 Communication Management""; ""4.4.3 Nonverbal Aspects""; ""4.4.4 Correlation of Verbal and Nonverbal Behavior""; ""4.5 Summary""; ""5 Conceptual Design and Technical Realization""; ""5.1 Procedure""; ""5.2 General Approach""; ""5.2.1 Behavior Planning""
 ""5.2.2 Bayesian Networks""""5.3 Modeling Culture-related Differences""; ""5.3.1 Small Talk and Topic Selection""; ""5.3.2 Nonverbal Behavior""; ""5.4 Demonstrator""; ""5.4.1 System Overview""; ""5.4.2 Characters and Environment""; ""5.4.3 Generation of Example Dialogs""; ""5.5 Summary""; ""6 Evaluation of Behavioral Aspects""; ""6.1 Small Talk Behavior""; ""6.1.1 Study Design""; ""6.1.2 Results and Discussion""; ""6.2 Communication Management and Nonverbal Behavior""; ""6.2.1 Study Design""; ""6.2.2 Results and Discussion""; ""6.3 Summary""; ""7 Generalization of the Approach""
 ""7.1 Transferring the Approach""""7.2 Applications""; ""7.2.1 Simulation of Synthetic Cultures""; ""7.2.2 Impact of Social Relationship""; ""8 Contributions and Future Work""; ""8.1 Contributions""; ""8.1.1 Identify operationalizeable Models of Culture and Behavioral Differences""; ""8.1.2 Extract concrete Behavioral Differences from a Video Corpus""; ""8.1.3 Build computational Models of Culture-related Behavior""; ""8.1.4 Measure Impact on Human Observers""; ""8.1.5 Methodical Contribution""; ""8.1.6 Conceptual Contribution""; ""8.1.7 Technical Contribution""; ""8.2 FutureWork""
 ""8.2.1 Refinement of the Models""

Sommario/riassunto

Culture plays a crucial role in our lives. Depending on our cultural background, we judge on and react to everything that we encounter. Subtle differences in behavior can lead to misunderstandings or even culture shock. In a similar manner, virtual characters can be declined by certain user groups when showing culturally inappropriate behavior. But how can social aspects such as culture be integrated into the behavioral models of virtual characters? Birgit Endrass addresses this question by carrying out a hybrid approach that is based on theoretical background from the social sciences as well as a multimodal corpus analysis, and exemplified the approach for the German and Japanese cultures. For this purpose, different methods from artificial intelligence and multiagent systems are applied and simulated with a virtual character system. Contents Virtual Agents Behavioral Models Culture: The German and Japanese Cultures Target Groups Academics and practitioners in the fields of Virtual Agents, Autonomous Agents, Human Factors, Multimedia.