

ACL 2007



ACL 2007

Proceedings of the Workshop on Embodied Language Processing

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Preface

Welcome to the ACL 2007 workshop on Embodied Natural Language. There has been a growing interest within the ACL community in extending the traditional focus on text and speech beyond the confines of natural language towards the inclusion of paralinguistic and non-verbal modes of communication, and beyond the confines of task-oriented language towards the inclusion of social and psychological variables such as attitude and affect. Studies of embodied dialogue systems, emotional expressiveness in speech, and personality detection in text are just a few examples of such research. These new extensions to computational linguistics have found a home in a number of different applications, from analysis of military videos to the development of Ambient Intelligent applications, where natural modes of interaction between humans and machines are envisioned that exploit the full bandwidth of human communication.

These studies in embodied language processing have close connections with other fields of inquiry such as Affective Computing and Embodied Conversational Agents. In all of these fields the many modalities through which we communicate besides language, such as facial expressions, gestures, and posture, play a prominent role. These and other related studies of nonverbal language processing offer complementary insights to traditional work in computational linguistics. After all, human-human communication is inherently multimodal, and unimodal spoken communication is really just an artifact of communications technology, specifically the telephone ... so surely the mechanisms of speech and language processing need to apply not just to word sequences but to natural (multimodal) human language distributed over multiple input streams (speech, hand gesture, gaze ...). It is increasingly clear that integrating the theories, models and algorithms developed in areas such as these with work in mainstream CL, will lead to a richer processing model of natural communication.

Workshop Chairs

Justine Cassell, Northwestern University

Dirk Heylen, University of Twente

Organizers

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Conference Program

Friday, June 29, 2007

- 14:30–14:35 Welcome
- 14:35–15:00 *Comparing Rule-Based and Data-Driven Selection of Facial Displays*
Mary Ellen Foster
- 15:00–15:25 *Aiduti in Japanese Multi-Party Design Conversations*
Yasuhiro Katagiri
- 15:25–15:50 *Computing Backchannel Distributions in Multi-Party Conversations*
Dirk Heylen and Rieks op den Akker
- 15:50–16:15 Break
- 16:15–16:40 *Which Way to Turn? Guide Orientation in Virtual Way Finding*
Mark Evers, Mariët Theune and Joyce Karreman
- 16:40–17:05 *A "Person" in the Interface: Effects on User Perceptions of Multibiometrics*
Álvaro Hernández, Beatriz López, David Díaz, Rubén Fernández, Luis Hernández
and Javier Caminero
- 17:05–17:30 *Coordination in Conversation and Rapport*
Justine Cassell, Alastair Gill and Paul Tepper
- 17:30–18:30 Demos & Poster Session
- Design and Evaluation of an American Sign Language Generator*
Matt Huenerfauth, Liming Zhou, Erdan Gu and Jan Allbeck
- Dynamic Movement and Positioning of Embodied Agents in Multiparty Conversations*
Dušan Jan and David Traum
- Design and Validation of ECA Gestures to Improve Dialogue System Robustness*
Beatriz López, Álvaro Hernández, David Díaz, Rubén Fernández, Luis Hernández
and Doroteo Torre
- Understanding RUTH: Reproducing Natural Behaviors in Conversational Animation*
Matthew Stone and Insuk Oh
- Situated Dialogue Processing for Human-Robot Interaction*
Geert-Jan M. Kruijff, Henrik Jacobsson, Maria Staudte and Hendrik Zender
- 18:30 Post-Workshop Dinner & Discussion

