

The ACM Eighth International Conference on Multimodal Interfaces (ICMI '06)

Preliminary Conference Schedule

Thursday, November 2

8:30 – 9:45 Conference Welcome and Keynote Address #1

Room: Van Horne Ballroom C

Session Chair: Francis Quek

- **Speaker: Ted Warburton, UC Santa Cruz**
Title: “Weight, Weight, Don’t Tell Me”
Session Chair: Francis Quek

9:45 – 11:15 Poster Session 1 (w/ coffee break)

Room: Baron Shaughnessy

Session Chair: TBA

- **Collaborative Multimodal Photo Annotation over Digital Paper**
Paulo Barthelme, Ed Kaiser, Xiao Huang, David McGee, Philip Cohen (Natural Interaction Systems)
- **MyConnector - Analysis of Context Cues to Predict Human Availability for Communication**
Maria Danninger, Tobias Kluge, Rainer Stiefelwagen (Universität Karlsruhe)
- **Human Perception of Intended Addressee in Multiparty Meetings**
Rebecca Lunsford, Sharon Oviatt (Oregon Health & Science University)
- **Automatic Detection of Group Functional Roles in Face to Face Interactions**
Massimo Zancanaro, Bruno Lepri, Fabio Pianesi (ITC-irst)
- **Speaker Localization for Microphone Array-Based ASR: The Effects of Accuracy on Overlapping Speech**
Hari Krishna Maganti, Daniel Gatica-Perez (IDIAP Research Institute)
- **Automatic Speech Recognition for Webcasts: How Good is Good Enough and What To Do When It Isn't**
Cosmin Munteanu, Gerald Penn, Ron Baecker, Yuecheng Zhang (University of Toronto)
- **Cross-modal Coordination of Expressive Strength between Voice and Gesture for Personified Media**
Tomoko Yonezawa, Noriko Suzuki, Shinji Abe, Kiyoshi Kogure (ATR); Kenji Mase (Nagoya University)
- **VirtualHuman - Dialogic and Affective Interaction with Virtual Characters**
Norbert Reithinger, Patrick Gebhard, Martin Klesen, Markus Loeckelt, Alassane Ndiaye, Norbert Pflieger, (DFKI GmbH)
- **From Vocal to Multimodal Dialogue Management**
Miroslav Melichar, Martin Rajman, Marita Ailomaa (Ecole Polytechnique Fédérale de Lausanne); Pavel Cenek (Masaryk University); Agnes Lisowska (University of Geneva)
- **Human-robot dialogue for joint-action construction tasks**
Mary Ellen Foster, Markus Rickert, Alois Knoll (Technical University of Munich)
- **roBlocks: A Robotic Construction Kit for Math and Science Education**
Eric Schweikardt, Mark D. Gross (Carnegie Mellon University)

Thursday, November 2 (cont.)

11:15 – 12:30 Oral Session 1: Speech and Gesture Integration

Room: Van Horne Ballroom C

Session Chair: Sharon Oviatt

- **GSIDemo: Multiuser Gesture / Speech Interaction over Digital Tables by Wrapping Single User Applications**
Edward Tse, Saul Greenberg (University of Calgary); Chia Shen (MERL)
- **Co-Adaptation of Audio-Visual Speech and Gesture Classifiers**
Christos Christoudias, Kate Saenko, Louis-Philippe Morency, Trevor Darrell (MIT)
- **Towards the integration of shape-related information in 3-D gestures and speech**
Timo Sowa (University of Chicago)

12:30 – 2:00 Lunch Break

2:00 – 3:15 Oral Session 2: Perception and Feedback

Room: Van Horne Ballroom C

Session Chair: Rainer Steifelhagen

- **Which One is Better? -- Information Navigation Techniques for Spatially Aware Handheld Displays**
Michael Rohs, Georg Essl (Deutsche Telekom Laboratories)
- **Comparing the Effects of Visual-Auditory and Visual-Tactile Feedback on User Performance: A Meta-Analysis**
Jennifer Burke, Matthew Prewett, Ashley Gray, Liuqin Yang, Robert Stilson, Michael Covert, (University of South Florida); Elizabeth Redden, Linda Elliott (Army Research Laboratory)
- **Multimodal Estimation of User Interruptibility for Smart Mobile Applications**
Robert Malkin, Datong Chen, Jie Yang, Alex Waibel (Carnegie Mellon University)

3:15 – 3:45 Coffee Break

3:45 – 5:00 Demonstration Session

Room: Baron Shaughnessy

Session Chair: Xilin Chen

- **Short Message Dictation on Symbian Series 60 Mobile Phones**
E. Karpov, I. Kiss, J. Leppänen, J. Olsen, D. Oria, S. Sivadas and J.Tian (Nokia)
- **The NIST Smart Data Flow System II Multimodal Data Transport Infrastructure**
Antoine Fillinger, Stéphane Degré, Imad Hamchi (NIST)
- **A Contextual Multimodal Integrator**
Péter Pál Boda (Nokia)
- **Collaborative Multimodal Photo Annotation over Digital Paper**
Paulo Berthelme, Edward Kaiser, Xiao Huang, David McGee, Philip Cohen (Natural Interaction Systems)
- **CarDialer—MultiModal InVehicle Cellphone Control Application**
Martin Cmerjek (IBM)
- **A Gender and Age Estimation System Robust to Pose Variations**
Erina Takikawa, Koichi Kinoshita, Shihong Lao, Masatao Kawade (OMRON Coporation)
- **Fast and Robust 3D Head Pose and Gaze Estimation System**
Kocichi Kinoshita, Shihong Lao, Masato Kawade (OMRON Corporation)

5:00 – 7:00 Conference Reception

Friday, November 3

8:30 – 9:45 Opening Remarks and Keynote Address #2

Room: Van Horne Ballroom C

Session Chair: Jie Yang

- **Keynote Speaker: Sile O'Modhrain, Queen's University, Belfast**
Title: "Movement and Music: Designing Gestural Interfaces for Computer-Based Musical Instrument"

9:45 – 11:15 Special Poster Session on Human Computing and Doctoral Spotlight Poster Session (w/ coffee break)

Room: Baron Shaughnessy

Session Chairs: Maja Pantic, Anton Nijholt, and Trevor Darrell

Special Session Posters:

- **Audio-visual Emotion Recognition in Adult Attachment Interview**
Zhihong Zeng, Yuxiao Hu, Glenn I. Roisman, Yun Fu, and Thomas S. Huang
- **Modeling naturalistic affective states via facial and vocal expressions recognition**
George Caridakis, Lori Malatesta, Loic Kessous, Noam Amir, Amaryllis Raouzaïou, Kostas Karpouzis
- **A 'Need to Know' System for Group Classification**
Wen Dong, Jonathan Gips, Alex Pentland
- **Spontaneous vs. Posed Facial Behaviour: Automatic Analysis of Brow Actions**
Michel Valstar, Maja Pantic, Zara Ambdar, Jeff Cohn
- **Gaze-X: A Study on Affective Multimodal Interaction in Office Scenarios**
Ludo Maat, Maja Pantic
- **Virtual Humans and Computational Imperfection**
Dennis Reidsma, Zsofia Ruttkay, Anton Nijholt

Doctoral Spotlight Posters:

- **The Sensual Move: Gesture Learning and Sensory-Motor Based Interaction Design**
Yon Visell
- **Embodied Interaction for Distance Tutoring using Behaviourally Correct Pen-Driven Avatar**
Yonca Haciahmetoglu (Virginia Tech)
- **Toward an Open-Source Toolkit Allowing the Rapid Creation of Multimodal Interfaces**
Bruno Dumas
- **Mouth Detection in Vector Model Base and Its Application in Planning Meetings**
Bing Fang (Virginia Tech)
- **TBD**
Lei Chen (Purdue University)

Friday, November 3 (cont.)

11:15 – 12:30 Oral Session 3: Language Understanding and Content Analysis

Room: Van Horne Ballroom C Session Chair: Trevor Darrell

- **Using Maximum Entropy (ME) Model to Incorporate Gesture Cues for SU Detection**
Lei Chen, Mary Harper (Purdue University)
- **Saliency Modeling based on Non-verbal Modalities for Spoken Language Understanding**
Shaolin Qu, Joyce Chai (Michigan State University)
- **EM Detection of Common Origin of Multi-Modal Cues**
Athanasios Noulas, Ben J.A. Krose (University Of Amsterdam)

12:30 – 2:00 Lunch Break

2:00 – 3:15 Oral Session 4: Collaborative Systems and Environments

Room: Van Horne Ballroom C Session Chair: Kenji Mase

- **Prototyping Novel Collaborative Multimodal Systems: Simulation, Data Collection and Analysis Tools for the Next Decade**
Alexander Arthur, Matt Wesson (Natural Interaction Systems); Rebecca Lunsford, Sharon Oviatt (Oregon Health & Science University)
- **Combining Audio and Video to Predict Helpers' Focus of Attention in Multiparty Remote Collaboration on Physical Tasks**
Jiazhi Ou, Yanxin Shi, Jeffrey Wong, Susan Fussell, Jie Yang (Carnegie Mellon University)
- **The Role of Psychological Ownership and Ownership Markers in Collaborative Working Environment**
QianYing Wang, Clifford Nass (Stanford University); Alberto Battocchi (University of Trento); Ilenia Graziola, Fabio Pianesi, Daniel Tomasini, Massimo Zancanaro (ITC-irst)

3:15 – 3:45 Coffee Break

3:45 – 5:00 Special Oral Session on Human Computing

Room: Van Horne Ballroom C Session Chair: Anton Nijholt

- **Foundation of Human Computing: Psychology of Human Behavior**
Jeff Cohn
- **Front End of Human Computing: Machine Analysis of Human Behavior**
Maja Pantic, Alex Pentland, Anton Nijholt, Thomas Huang
- **Computing Human Faces for Human Viewers: Automated Animation in Photographs and Paintings**
Volker Blanz

5:00 – 6:00 Government Funding Panel Discussion:

Room: Van Horne Ballroom C Session Chair: Francis Quek

Panelists: Barbara Muir (NSERC) and Vincent Stanford (NIST)

7:00 Conference Banquet

Room: New Brunswick Room (in main hotel building)

Saturday, November 4

8:30 – 9:45 Opening Remarks and Keynote Address #3

Room: Van Horne Ballroom C

Session Chair: Francis Quek

- **Keynote Speaker: Herbert Clark, Stanford University**
Title: “Mixing Virtual and Actual”

9:45 – 11:15 Poster Session 2 (w/ coffee break)

Room: Baron Shaughnessy

Session Chair: Fabio Pianesi

- **Detection and Application of Influence Rankings in Small Group Meetings**
Rutger Rienks (University of Twente); Dong Zhang, Daniel Gatica-Perez (IDIAP); Wilfried Post (TNO)
- **Tracking the Multi-Person Wandering Visual Focus of Attention**
Kevin Smith, Siley Oumar Ba, Daniel Gatica-Perez, Jean-Marc Odobez (IDIAP)
- **Towards Open-Microphone Engagement for Multiparty Interactions**
Rebecca Lunsford, Sharon Oviatt (Oregon Health & Science University); Alexander M. Arthur (Natural Interaction Systems)
- **Tracking Head Pose and Focus of Attention in Smart Rooms with Multiple Far-Field Cameras**
Michael Voit, Kai Nickel, Rainer Stiefelhagen (Universität Karlsruhe)
- **Recognizing Gaze Aversion Gestures in Embodied Conversational Discourse**
Louis-Philippe Morency, C. Mario Christoudias, Trevor Darrell (MIT)
- **Explorations in Sound for Tilting-Based Interfaces**
Matthias Rath, Michael Rohs (Deutsche Telekom Laboratories)
- **Haptic Phonemes- The Basic Building Blocks to Haptic Communication**
Mario Enriquez, Karon MacLean, Christian Chita (University of British Columbia)
- **Toward Haptic Rendering for a Virtual Dissection**
Nasim Vafai, Shahram Payandeh, John Dill (Simon Fraser University)
- **Embrace System for Remote Counseling**
Osamu Morikawa (National Institute of Advanced Industrial Science and Technology); Sayuri Hashimoto, Tsunetsugu Munakata (University of Tsukuba); Junzo Okunaka (National Institute of Information and Communications Technology)
- **Enabling Multimodal Communication for Enhancing the Ability of Learning for the Visually Impaired**
Francis Quek, Francisco Oliveira (Virginia Tech); David McNeill (University of Chicago)
- **The Benefits of Multimodal Information: A Meta-Analysis Comparing Visual and Visual-Tactile Feedback**
Matthew Prewett, Jennifer Burke, Liuqin Yang, Frederick Stilson, Ashley Gray, Michael Coovert (University of South Florida); Linda Elliot, Elizabeth Redden (Army Research Laboratory)

Saturday, November 4 (cont.)

11:15 – 12:30 Oral Session 5: Speech and Dialogue Systems

Room: Van Horne Ballroom C Session Chair: Noelle Carbonell

- **Word Graph Based Speech Recognition Error Correction by Handwriting Input**
Peng Liu, Frank K. Soong (Microsoft)
- **Using Redundant Speech and Handwriting for Learning New Vocabulary and Understanding Abbreviations**
Edward C Kaiser (Natural Interaction Systems)
- **Multimodal Fusion: a new hybrid strategy for dialogue systems**
Pilar Manchón, Guillermo Pérez, Gabriel Amores (University of Seville)

12:30 – 2:00 Lunch Break

2:00 – 3:15 Oral Session 6: Interfaces and Usability

Room: Van Horne Ballroom C Session Chair: Matthew Turk

- **Evaluating Usability Based on Multimodal Information: An Empirical Study**
Tao Lin, Atsumi Imamiya (University of Yamanashi)
- **A new approach to haptic augmentation of the GUI**
Thomas Smyth, Arthur Kirkpatrick (Simon Fraser University)
- **HMM-based Synthesis of Emotional Facial Expressions during Speech in Synthetic Talking Heads**
Nadia Mana, Fabio Pianesi (ITC-irst)

3:15 – 3:45 Coffee Break

3:45 – 5:00 Debate Session & Closing

Room: Van Horne Ballroom C Session Chair: Jie Yang

Debate Topic: “Embodiment and Multimodality”

Panelists: Matthew Turk, Herbert Clark, and Francis Quek

5:00 -6:00 Town Hall Meeting (may be moved to another earlier time)

Room: Van Horne Ballroom C Session Chair: Jie Yang & Francis Quek