Pre-conference interactive session (all day event, Thursday):

**Frontiers of group interaction research - Promoting collaborations among social and computer scientists**

Organizers: Hayley Hung, Catharine Oertel, Ronald Böck, Joseph A. Allen, Roni Reiter-Palmon, & Nale Lehmann-Willenbrock

This interactive session provides an interdisciplinary forum for group researchers and computer science scholars working on behavioral group interaction, observable team dynamics, people analytics, and multi-modal speech and language processing. Attendees will get acquainted with the state of the art in each discipline by presenting their current work, engaging in interdisciplinary discussions, and actively planning collaborative interdisciplinary projects on group interaction.

In order to capture temporal group and team dynamics, both social and computer scientists are increasingly working with coded or annotated behavioral interaction data. Such data can provide the basis for developing novel research programs that capture dynamic, often "messy" group phenomena and at the same time advance computer science by tackling interesting social signal processing challenges. For example, what are the behavioral imprints of group conflict in terms of verbal behaviors, nonverbal expressions, or meaningful patterns of visual or acoustic features during a group interaction? Which opportunities for automatically detecting relevant social signals of conflict arise? What can patterns of social signals in group interactions tell us about complex, often difficult to grasp constructs such as conflict, cohesion, cooperation, or team climate?

Technological advances in social signal processing allow for novel ways of group analysis to tackle these types of questions. At the same time, a growing number of group researchers with a background in the social sciences are embracing more behavioral approaches to group phenomena. Facilitating dialogue among these disciplines has the potential to spark synergies and radically innovate group research. To achieve this, technological advances for capturing dynamic group phenomena need to go hand in hand with conceptual/theoretical development.

The interactive session will be organized by a balanced interdisciplinary team of group researchers with a social science background and computer scientists. Participation in the interactive session requires prior submission of current work on group and team interaction dynamics to be presented during the workshop. Moreover, participants should be willing to engage in intense interdisciplinary workgroups that will yield concrete "homework" in terms of novel interdisciplinary collaborations.

As a basis for this process, attendees will present their work as a short talk (pitch) or poster on one of the following topic areas, among others:

- behavioral group interaction analysis (verbal, nonverbal, or both)
- conversation analysis
- multi-modal small group interaction
- machine learning for small groups
- speech and language processing for groups
- face and gesture recognition for groups
- people analytics and HR analytics
- computer-supported cooperative work
- technologies for supporting group interaction
- mathematical and computational models of group dynamics
- behavior-based social networks

Submissions will be reviewed by the organizers. To facilitate interdisciplinary dialogue, we aim to include a balanced selection of presentations by social and computer scientists, respectively.

If you are interested in attending, please submit an abstract of max. 250 words that represents your current work / research interest. This can be either a research idea, preliminary findings, or complete work. Please email your abstract as a pdf file to Nale by May 1, 2019. You will be notified by May 15 whether we can offer you a spot in this session.

Strongly suggested reading to prepare for the session:


