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ABSTRACT

We are organizing again the workshop on Interdisciplinary Insights into Group and Team Dynamics which is a joint effort between researchers in the the ICMI and INGRoup (Interdisciplinary Network for Group Research) communities. This workshop aims to provide a common destination for researchers to exchange ideas and collaborate. We have found in previous years that instigating interdisciplinary collaborations can be hard. The aim of this workshop is to sustain a joint community to foster continued cross-disciplinary exchange and mutual understanding.

CCS CONCEPTS

• **Applied computing** → **Psychology**; • **Human-centered computing** → **Collaborative and social computing theory, concepts and paradigms**; • **Computing methodologies** → **Artificial intelligence**.

KEYWORDS

group interaction, group dynamics

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1 INTRODUCTION

Human life happens in groups whether at work or leisure. Group dynamics is an area of inquiry of interest to both fundamental and applied settings. Recently, in the fields of social signal processing and affective computing, there has been a trend to move from controlled lab experiments to perception of group phenomena in uncontrolled real life settings, leading to significant technical challenges. This implies a great need to gather more data to train, validate, and test methods for behaviour perception, modelling, and synthesis. In the disciplines of social and organizational psychology, perception of group phenomena have often been observed and studied both in the lab and in uncontrolled real life settings, with an emphasis on theoretical development and growth over time.

To capture temporal group and team dynamics, both social and computer scientists are increasingly working with annotated behavioral interaction data. Such data can provide the basis for developing novel research lines that capture dynamic, often "messy" group phenomena and at the same time provide intriguing challenges for the automated analysis of multi-modal interaction. By bringing social and computer scientists together, the unique modeling of the computer scientists can be informed by the extensive theories from the social scientists, and eventually novel new insights resulting in new research avenues and new theory will emerge. For example, what can the behavioral patterns of social signals in group interactions tell us about complex, often difficult to grasp emergent group 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 collaboration among these disciplines has the potential to spark synergies and radically innovate both research in multi-modal interaction research as well as group research and theory in general.

This workshop is part of a timeline of initiatives starting from a 2016 Lorentz Workshop [2] which aimed to bring group scholars and researchers in the social and affective computing community together. The following events were co-organised by organizers or attendees of the Lorentz Workshop:

- 2018: ICMI workshop on Group Interaction Frontiers in Technology (Boulder Colorado) [3];
- 2018: Symposium on Group Dynamics (Delft, The Netherlands)
- 2019: INGRoup Preconference on Frontiers of Group Interaction Research – Promoting collaborations among social and computer scientists 2019 (Lisbon, Portugal);
- 2019: ACII workshop on Emotions and Emergent States in Groups
- 2020: ICMI workshop on Group and Team Dynamics (Virtual) [1]

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- 2020: INGroup session: GeeksnGroupies: Cracking the code to Interdisciplinary Collaboration between Computer scientists and Group researchers. (Virtual)

This workshop aims to continue the momentum of having group scholars and researchers in multi-modal interaction develop a common language and a platform to meet, foster and maintain relationships and to grow as a community. In 2020, we extended our efforts from alternating between workshops at the ICMI in one year and at the INGRoup conferences in the next year to a more integrative approach. That is, we reported back on the insights from the ICMI 2020 workshop during a one-hour event at the INGRoup conference on 28th October ("GeeksnGroupies: Cracking the code to interdisciplinary collaboration between computer scientists and group researchers") that was also well attended by both disciplines. This effort was easier to facilitate as a result of the enforced virtual conference format as a result of the global pandemic. This workshop serves as yet another opportunity to build connections between these communities as a follow-up is being scheduled at the upcoming INGRoup conference.

2 WORKSHOP ORGANIZATION

The workshop will be organized in a mini-conference format with papers solicited and reviewed via a double blind peer review process. Each paper will be reviewed by three reviewers, with at least one expert from each of the two disciplines to ensure that a broad spectrum of expertise is used to judge each paper.

3 KEYNOTE SPEAKERS

In addition to presenting submitted papers, the workshop also features two keynote speakers:

- Giovanna Varni (Telecom Paris, Institut polytechnique de Paris, France),
  Talk Title: A look at automated groups' analysis.
- Marshall Scott Poole (University of Illinois Urbana Champagne, USA),
  Talk Title: A Social Media Based Decision Support System: Combining Participant Input with Interaction Analytics in Decision Making.

We have chosen again to select a keynote speaker from both communities to highlight differences and similarities in how we work.

4 PROGRAM COMMITTEE

We have assembled a mixed set of reviewers covering both expertise in multi-modal interaction as well as group communication.

- Oya Aran, Proctor & Gamble, USA
- Dinesh Babu Jayagopi, IIT Bangalore, India
- Kazuhiro Otsuka, Yokohoma National University, Japan
- Stephanie Tan, Delft University of Technology, Netherlands
- Bernd Dudzik, Delft University of Technology, Netherlands
- Joe Bonito, University of Arizona, USA
- Senthil Chandrasegaran, Delft University of Technology, Netherlands
- Lesley Jessiman, University of the Fraser Valley, Canada
- Andrew Pilny, University of Illinois, USA
- Aaron Schecter, University of Georgia, USA
- Sarah Sebo, University of Chicago, USA

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