Introduction to the Social & Psychological Perspectives and Theories in Collaboration Research Minitrack

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Technology supported collaboration and communication between individuals entails complex social and psychological situations. An understanding of social and psychological aspects of collaboration is essential to creating productive work environments. The use of collaboration and communication systems is framed by the psychological and social factors concerning the users and their work environment. It is important to understand these factors to successfully facilitate the sustained use of these technologies. Further, knowledge of the psycho-social aspects of technology-supported collaboration and communication also assists in detecting, avoiding, and effectively resolving issues that may arise from using such technologies. This minitrack provides a venue for studying issues related to the dynamic interplay between people, their environment, and the collaboration technologies they use to create collaborative value.

In its second year, this minitrack accepted 5 papers. These submissions cover a variety of topics ranging from technology adoption, to the role rumors and motivators of participation in crowds, to team conflict and shared mental models.

The first paper by Olschewski, Renken, and Bullinger, “Are You Ready to Use? Assessing the Meaning of Social Influence and Technology Readiness in Collaboration Technology Adoption” proposes the Technology Acceptance Model for Collaboration Technology (TAM-TC) as an extension of TAM. The authors’ results show that social influence is of particular importance for collaboration technology adoption. Both social influence and technology readiness contribute to a considerable improvement of TAM-CT compared to TAM. Finally, the authors argue that TAM can be used for assessing alternative technology use due to appropriation and repurposing efforts.

In the second paper, “Critical Thinking of Crowd: Towards A Social-Technological System that Inactivate False Rumors”, Tanaka, Sakamoto, and Matsuka propose a social-technological system, in which critical thinking is crowd-sourced: Individuals benefit from others’ criticisms of false information, and the system stops the spreading of false information provided that some individuals practice critical thinking. The authors examine the effect of exposure to criticisms on people’s decision to spread rumors in social media and found that when people experienced criticisms before rumors, the proportion of responses to stop the rumor spread was significantly larger than when people experienced rumors before criticisms.

The third paper by Reed, Raddick, Lardner, and Carney, “An Exploratory Factor Analysis of Motivations for Participating in Zooniverse, a Collection of Virtual Citizen Science Projects” describes a survey among users of Zooniverse, a collection of Virtual citizen science (VCS) projects. With the survey, the authors assessed the possible motives for users’ participation. An exploratory factor analysis suggests a three-factor solution representing motives related to Social Engagement, Interaction with the Website, and Helping.

In the paper “Structural Stability and Virtual Team Conflict”, Wallace, Heath, and Singh present a study on the role of conflict within virtual teams (VTs). Arguing that conflict should be treated as part of the VT process and not as an antecedent or post-facto analysis to VT performance, they propose the concept of conflictual balance, grounded in Structural Balance Theory. Their paper provides a developmental view of the emergence and impact of structural stability within VTs, and a greater understanding of the contribution of conflict to VT performance.

The final paper, “The Effect of Shared Mental Models on Consensus” by de Vreede, Reiter-Palmon, and de Vreede looks at a critical condition of successful team work: consensus among the team members about the decisions made. This study focuses on shared mental models as a factor that may influence team consensus. The authors explored if shared mental models had a positive relationship with the consensus decision making in groups. Their results show that teams with higher shared mental models reached higher levels of consensus. In addition, it was discovered that perceptions of fairness in the decision-making process was the greatest contributor to difference between groups’ shared mental model scores.