Introduction to the Creativity and Innovation in Teams and Organizations Minitrack

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Innovation is a critical force in organizational performance and survival. Changes in technology, globalization, and increased competition have all created an environment in which creativity and innovation are needed in order to cope with situational and economic pressures and frequent changes. Designers and Developers of organizational systems must therefore innovate almost continuously to keep the organization aligned with such changes. Creativity is a critical pre-condition for innovation. Generating novel and creative ideas are the key to innovation and growth in every organization today. Providing employees with tools to think creatively has been proven to increase innovation in organizations. Research shows that organizations which have established skill-bases and tools for creativity outperform the competition in terms of revenue, rolling out new products, innovation and growth. Though organizations deploy groups for most creative processes, there has been little research in the area of group creativity. Most creative research is focused on individual factors affecting creativity. Many challenges that arise from pursuing creativity in teams remain unexplored. Consequently, it is important that creativity in teams be given a central place in organizational research.

This year we received twelve papers, six of which were accepted. These submissions cover a variety of topics ranging from theoretical development to field experiences with group creativity to algorithms and tools to support idea selection.

The first paper by Stan examines the effects of group structure and evaluation pressure on group creativity. The author’s investigation of 32 teams working on an idea generation task offers support for the notion that teams working under an imposed, functional structure create higher quality results than teams that work under an emergent structure. The author’s findings offer insights for design considerations of organizational creative teams.

The next paper by Majchrzak, Birnbaum-More, and Johnson presents a qualitative longitudinal study of 31 creative teams. The authors investigated two practices that these teams used to manage their creative process: maintaining engagement and co-creating shared boundary objects. They found that these practices affected the assessment of the teams’ innovativeness. Based on the findings, the authors recommend (1) that team members should engage in the co-creation of boundary objects early in the life of the team, and (2) that members need to maintain their engagement with a team, e.g. through the use of collaboration technology, even when they have to focus on other projects.

The paper by Kempe, Horton, Buchholz, and Görs, “An Optimal Algorithm for Raw Idea Selection under Uncertainty” address the challenge of selecting the initial ideas for further development from a large set of raw ideas. The authors propose a ranking algorithm based on pairwise comparisons to be made by knowledgeable decision makers. Through a detailed exposition of the algorithm they show that its use will reduce uncertainty and effectively involve expert knowledge in the idea selection process.

The next paper, “A Collaborative Algorithm for Computer-Supported Idea Selection in the Front End of Innovation” comes from the same research group. In this paper, another selection algorithm is proposed based on a method used in computer-based sorting. This algorithm combines individual and group-based selections to balance speed and simplicity with high quality selections. An experiment showed that the proposed algorithm compares favorably with individual and group methods.

“Cross-Level Influence of Team Characteristics on Individual Idea Generation in Technology-Supported Teams”, by Srinivasan, Maruping, and Robert investigates the use of technology to support idea generation in groups. The authors draw on multilevel theory to understand the interplay between team characteristics and individual goal striving in influencing individual idea generation performance. Their results show that individual goal striving is a stronger predictor of individual idea generation performance in dispersed team contexts compared to co-located team contexts and in larger teams than in smaller teams.

The final paper by de Vreede, Boughzala, de Vreede, and Reiter-Palmon, “A Model and Exploratory Field Study on Team Creativity” proposed a causal model of the antecedents of team creativity that combines individual creativity, knowledge sharing, and the formation of shared mental models. The authors provide anecdotal support for the constructs in their model through a study of an innovation team in a Telecom company.