Introduction to Collaborative Modeling Minitrack

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Modeling is a basic skill and practice in the systems disciplines, and requires complex analytical and conceptualization skills. Traditionally, models are mostly created by individuals.

However, in an increasing number of situations modeling is becoming a group activity, involving mixed groups of participants such as engineers, analysts, architects, and various types of stakeholder; also, in many cases, facilitators.

Such collaborative modeling (closely related to participative and interactive modeling) requires and allows groups to create and/or validate rational conceptual structures of considerable complexity whilst also achieving or reifying a very sophisticated level of shared understanding, consensus, and commitment.

Though its applications as such are certainly worthy of study, we are also seeking theoretical insights in the mechanisms of collaborative modeling, if possible looking beyond the editing of models and extending investigations to the wider cognitive, social, and communicational aspects of the creation of models, e.g. conversation, negotiation, argumentation, conceptualization, facilitation, and learning.

The 2012 HICSS minitrack on collaborative modeling includes five high quality papers:

End-User Involvement and Team Factors in Business Process Modeling by Peter Rittgen concerns the impact of end-user involvement and team factors on model quality and consensus.


Exploring Collaborative Modeling as Teaching Method by Jose J. Gonzalez addresses the question whether collaborative modeling may be used effectively as a method to improve learning of advanced forms of modeling – with a focus on System Dynamics.

From Measuring the Quality of Labels in Process Models to a Discourse on Process Model Quality: A Case Study, by Peter Fettke, Armella-Lucia Vella and Peter Loos, provides a new perspective on the discussion about label quality in business process modeling, focusing on a discourse-oriented understanding.

Finally, Abstract Reasoning in Collaborative Modeling, by Ilona Wilmont, Erik Barendsen, Stijn Hoppenbrouwers, and Sytse Hengeveld, reports on a case study of abstract reasoning in a real collaborative modeling setting, indicating a relation between an individual’s executive functioning and his ability to do abstract reasoning.