Analysing and Modelling Collective Design

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At the beginning of this year we started a new project 'Theatre of Work Enabling Relationships (TOWER)'. TOWER is an international project with partners from industry, academia, and research centres in the 5th Framework Information Societies Technology (IST) Programme of the European Union.

In the TOWER project we are developing and evaluating an infrastructure supporting geographically distributed group members with group awareness. This group awareness includes information about the presence of users, the activities of users, changes to documents, and so forth. In particular we are developing various means of presenting the group awareness information ranging from visual and audio interfaces on PCs to ambient interfaces and three-dimensional virtual worlds. In the three-dimensional virtual worlds users and their actions are represented in a symbolic way—that is, the users do not actively navigate the virtual worlds as in many existing systems; rather, the system analyses the occurring events in the collaborative environment and then translate it into three-dimensional visualisation and present it accordingly. The three-dimensional virtual worlds are primarily used as a representation of events in the real world—thus the name theatre of work.

In this workshop I would like to discuss collective design, and in particular collective design among geographically distributed users. In my opinion, collective design among users with different knowledge, perspectives, techniques, heuristics, and so forth who are at different places is an interesting application scenario for TOWER.

I am employed at GMD, where I am currently working in a project on an awareNESS envIronmEnt called NESSIE. The project NESSIE is part of the research framework the Social Web; its goal is the enhancement of social and task-oriented awareness between people who cooperate or inhabit the same context. In the years 1993-9 I was working at the Institute of Applied Computer Science at the Johannes Kepler University of Linz, Austria, where I received his Ph.D. in 1997. My research interests include CSCW, HCI and global Internet-based information systems.