Designing for Technology-Mediated Collaboration

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Abstract

This thesis concerns the design of a synchronous shared workspace supporting technology-mediated collaboration. In order to collaborate, participants need to be able to coordinate the activity. And to coordinate an activity, they need be aware of others involved in the collaboration. However, what do we need to be aware of concerning the others? And how do we visualize that? Further, how well does contemporary technology support what we need to visualize? And finally, how do we evaluate this type of system, and how do we communicate the results? Two systems were developed having different support for coordination of activities. The first system was used to gain insight into the impact of minimalist awareness information on a web page, while the second system, a web-based collaboration software was developed based on design guidelines emerging from the first system. Two observation studies and focus group sessions, as well as a literature study, supplemented the set of design guidelines into a first set of design requirements for the collaborative system. Inspired by a design science research approach, the system was developed in a cyclical fashion, alternating between development steps and various forms of evaluation.

The thesis contributes by supplying a set of design patterns made to support coordination in a shared workspace based on a theoretical construct I call "self-awareness", where users are not only seeing the activity of others, but also their own activity as seen by the others.