Designing of shareable interfaces to support co-located collaboration

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Introduction

In order to have a good collaboration there needs to be good communication in the group and vice versa. Collaboration being the activities performed towards achieving a goal and communication being the verbal and physical agreements towards those activities. A shared interface must support the combination of both.

Bucciarelli (1994) describes the process of designing as "a social process, one in which different participants, with different competencies, responsibilities and interests must negotiate their claims and individual contributions to the design if the process is to prove fruitful" [2]. This is relevant for every type of collaboration between people towards a specific goal. When designing a shareable interface, all these factors must be taken into consideration and simply enabling sharing will not suffice. Group dynamics varies depending on disciplines, cloture, type of activity, etc. There is a need to study the communicating within the group and how they create shared understanding; in order to find opportunities to support their way of collaboration.

This social process that Bucciarelli refers to is combined not only of verbal language, but also of bodily language. And the interplay between bodily language and products is essential when designing interactive products that are grounded in people's everyday lives and activities [4].

Single person activity

No mater how big a TV screen is, it is by purpose a device that is designed for more then one person to watch, as apposed to a PC (Personal Computer) that no mater what size screen, is meant for one person at a time.

> […] tangible interfaces give physical form to digital information, employing physical artifacts both as *representations* and *controls* for computational media.[Ullmer and Ishii, 2000]

Thinking of a TV screen as the digital representation and the Remote control as a physical representation, this coupling is supporting one person alone. Watching

the screen as a group would require a verbal agreement as to what is going to be watched.

There for the collaboration towards such an activity is not supported by the device or artefacts it is agreed upon verbally.

Clearly, simply giving a remote to each person is not the solution. By doing so we give every person complete control over the device. There needs to be an additional factor that would support their activity, and influencing the activity must be divided equally amongst the participants in the activity.

The TV and remote represents a Shareable device in a co-located setting which is not supported by its Tangibles.

Board games as supporting group communication.

Iversen & Buur (2002) talk about collaboration between stakeholders in a design process through games, as a way of involving participants in the process of envisioning and experiencing future work situation, the game is not about winning but a setting to explore design moves and strategies. In this setting all players are equal and have the same possibility of influencing the process [3]. The game allows participants to create shared understandings and representations through physical objects. When looking at how technology can support shared activities and collaborating, those same outcomes become relevant. Games can serve as a part of an inquiry into those activities.

Conclusion

To create meaningful support through technology for co-located activities, the design must include inquires as to the collaboration and activities performed in the group; Exploring the communication both bodily and verbally through conversation analysis [1], games [3] and interactive sculptures [4]. Since the technology designed often alters the practice which it eventually becomes part of [3], group participants should be involved in the design process, constantly feeding in to the process of design.

References

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