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Making sense of the IT artefact

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Background

The issue of meaning has long been a key concern in HCI (e.g. Bourges-Waldegg & Scrivener, 1998). This concern is becoming increasingly important with growing pace of technology change, market turbulence, outsourcing of software (SW) development tasks, company acquisitions and mergers, etc. Fisher (2002) has suggested that SW development should be regarded as a *human activity* where several actors participate. This requires a deep understanding of cognitive and social issues. Moreover, complex things as SW systems cannot be completely designed prior to use. They must evolve at the hands of the users to suit their needs. This in turn requires that the SW system must be designed for evolution.

These considerations indicate that strategies for development of IT artefacts should be based on a *collaborative domain construction* approach where one of the construction elements is shared meaning. In Taxén (2005) one such strategy concerning the coordination of complex development projects in the telecom industry is described: the domain construction strategy (DCS). The purpose of this contribution is to explore enabling mechanisms of DCS.

Results

In DCS a group of actors consisting of both domain practitioners and SW system developers start off by drawing a tentative map of the domain: the context model. This model signifies relevant phenomena in the domain, how these are characterized and how they are related to each other. The model is implemented in an information system (IS) and instances of the type phenomena are created. The result is discussed and evaluated with respect to usefulness, correctness, comprehensibility, etc. A new version of the model is created and implemented anew. In this iterative process, shared meaning about the coordination domain is constructed simultaneously with the IS.

Discussion/Conclusions

The main DCS enabling qualities were:

- Pragmatic approach towards truth: usefulness rather than truth
- Discovering new ways of working in the process
- Allowing failures, creating an experimental atmosphere
- Fast design and test cycles
- Implementing the context model "on the fly" in the IS
- Iconic compliance between the IT artefact and the context model
- Construction of several coordination areas (requirement mgmt, test mgmt, etc.) simultaneously
- Providing "active" communication to users globally through event triggered information
- Providing "passive" communication by user access to the same information everywhere, at all times
- Providing users with means to easily define reports
- "Discussion group" mechanisms regarding Change Request comments
- The adaptability of the IS platform to suit any activity
- Fast global access to information through lean clients and servlet based web-techniques
- Not having to close the IS database for changes
- Interpretative programming language

The DCS is an example of a practically relevant collaborative domain construction strategy with focus on the construction of shared meaning. In this strategy, users are actively constructing the IT artefact together with the system developers. Thus, the gap between users and developers is blurred; rather, users and developers bring their expert knowledge into a common arena of co-construction. This in turn caters for attaining IT quality through used involvement.

References

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