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Formalization in CSCW

Elin Rønby Pedersen & Lucy Suchman
Xerox Palo Alto Research Center, U.S.A.

Panelists:

Graham Button, Polytechnic South West, UK
Reinhard Keil-Slawik, Technische Universität, Berlin, Germany
Elin Rønby Pedersen, Xerox PARC, USA
Mike Robinson, University of Amsterdam, The Netherlands
Lucy Suchman, Xerox PARC, USA

A usage perspective on formalization

This panel aims at exploring formalization **in use**, i.e. how people acquire, develop, use, and communicate formalizations.

The notion of formalization applied here emphasizes its situational and historical roots. We would like to take as our point of departure an acknowledgement of well-known obstacles in using formalization, but we want to get further than that, to an acknowledgement of the constructive aspects of using formalization.

The range of formalization issues in typical CSCW situations is wide and includes various activities of description and specification during design and development of an application, procedural structures imposed on those who use the system and representation system and models used in customization and adaption of running CSCW applications.

Three major themes

The panel discussion will be organized around a few selected situations in which formalization - broadly understood as some sort of formality or structure - appears in CSCW related activity:

1. Studying work practice
2. Designing and developing CSCW tools
3. Working with CSCW tools

Reflection on each situation raises a number of questions and issues:

Studying work practice

The attention is here on formal structures used in observing and learning about work situations; the formal structures usually appear in the form of specialized notation.

One area of particular interest is work studies that are done as part of a computer programming effort; formal expressions are mandatory when programming, whereas several other modes of expression are available in human communication.

Some questions to consider are:

Can we assess the role of formal modes of expression relative to, for instance, more narrative means of expression in systems analysis and design? How do the mere formulation and formalization affect or shape our understanding of work situations (as authors as well as readers)? Are other media, e.g., video recordings, different in this regard? And as a very general question: how can we understand the relation between knowledge and certain artifacts, e.g., descriptions, computerized models?

Designing and developing CSCW tools

The attention is here on formal structures that may influence the relevant designers and implementors; the structures may come in the form of expression systems (e.g., specification languages), models of the design area, or as methods for organizing the system development process, and they may be experienced as supporting the process or imposing restrictions on it.

Some questions to consider are:

To what extent can formal structures support collaboration in multi-disciplinary design teams?

To what extent is the analysis and design governed by model-like

understandings of the use of the future system (e.g. the seemingly inevitable "models of the user"), and which are the advantages and problems with such models?

Working with CSCW tools

The attention is here on formal structures that are facilitated or required by a running CSCW application; the structures may appear in the form of embedded models and or as prescriptive work procedures, and they may be experienced as supporting the work in the user community or imposing restrictions on it.

Some questions to consider are:

To what extent does the skilful use of a CSCW system rely on the existence of (and the user's awareness of) models in the system?

To what extent can the explicitness of embedded formal models be expected to empower the users, e.g., by making the system accessible and thereby allowing for flexibility and appropriation?