Editorial

This second issue of volume 2003 appears shortly after the first, and the topics they address overlap. The four papers in this issue study knowledge, technology, and organization. They ground our conception of knowledge and technology as aspects of ongoing organizational practices, emphasizing their social character, practical situatedness, and change. All the same, they adopt different conceptual stances in moving research on knowledge and technology beyond cognitivist conceptions. The spatial distribution and movement of participants and technology in complex, changing practices is also given much consideration. The four papers are relevant for issues of knowledge and technology in other fields than the study of organizations. Thus, their illumination of issues pertaining to the application and transfer of knowledge and knowledge-based methods is of broad relevance for addressing issues of the technology of academic disciplines such as psychology across diverse fields of application.

Arne Prahl ("Formalizing Knowledge Creation in Inventive Project Groups: The Malleability of Formal Work Methods") studies groups using a formal method to work on innovations in organizations. How, Prahl asks, may formal methods be of help in structuring the work of groups in the early phase of innovation? His empirical analysis of such a case offers interesting and rich insights into the practical nature of formal (and other) methods. The social and contextual meaning and use of formal methods as aspects of concrete modes of organizing is emphasized. In practice, he argues, even a formal method is a malleable tool with no tight coupling between its elements.

Rieko Sawyer's paper ("Identity Formation through Brokering in Scientific Practice") is based on her doctoral study of international graduate students learning Japanese and their discipline in a science lab in Japan. Sawyer uses a rich and detailed analysis of practices in such communities to expand and revise Lave & Wenger's conception of communities of practice. She highlights the diversity of activities, events, and occasions and the construction of various activities and boundaries in a community. To do so, she draws on Goffman's distinction between 'front stage' and 'backstage' in ongoing practices and shows how time of day, co-presence of particular others, spaces, choice of words, language register and use of dialect affect the construction of divisions in communities of practice. Participation and identity formation are not a linear process from peripheral to full participation, she argues, since persons are involved in diverse modes of participation in a community of practice. Personal identity formation is also affected by moving across communities of practice in the course of which participants may also bring along new ideas and knowledge from other communities. Personal participation is multiple and heterogeneous, and the formation of identity is influenced by involvements in multiple, concurrent communities. Identity formation adjusts the relationship between multiple communities for an individual, organizes links between communities, and reconstitutes communities.

Carsten Østerlund's paper ("Documenting Practices: The indexical centering of medical records") rests on a study – reported at length in his PhD-thesis at MIT – of a very specific object, the electronic patient files in a hospital complex in Boston. The key question is how electronic files may be used for distributing and sharing knowledge across persons, professions, times and places. In cognitive science terms, that is conceptualized as based on the generalization and transfer of knowledge. But in this paper Østerlund takes this issue from the level of cognitive processes to the level of language theorized as communicative practice in social practice, inspired by the work of the linguistic anthropologist William Hanks. In so doing, he points to how certain formal features of natural language enable us to deal with dimensions of times, places and perspectivity. These potentials of language communication in practice turn language into a tool for the distribution and situated use of knowledge across professions, persons, times, and places in complex organizational practices. Like Prahl, Østerlund is concerned with formal features of ongoing practices, arguing that an improved understanding of these formal features of natural language would allow us to design more viable information systems sustaining "members' capabilities to operate effectively both within and across temporally and geographically distributed settings".

Martin Nielsen's paper, ("Representations at Work"), is a further study of a very specific object: the role of the pigeonhole in the postal work practices at the University of Aarhus. Like Østerlund's study, it is about distribution, but here distribution is understood by means of cognition and artifacts as cognitive elements distributed in work practices. Hutchins' conception of distributed cognition facilitates the study of organizations as socio-technical systems, Nielsen argues, and enables us to conceptualize the cognitive elements of the pigeonhole as a performative representation orchestrated by human beings. The distribution of processing capabilities across minds and artifacts implies a reinterpretation of representation as a model of task relevant structures of a given domain. Information processing is then seen as an analyzable object at the center of the work process, and rationality is not in the mind but a socio-cultural property of a system. This conception does not juxtapose human versus material agency and is better attuned to the study of tool use and work flows than conceptions focusing merely on social aspects of ongoing practices. Nielsen, thus, argues for combining cognitive science and organizational studies by expanding from studies of distributed cognition to implications for organizational studies.

At this point in time we have published the first five volumes of Outlines, and the editors would like to thank the anonymous reviewers listed at the end of this issue for their constructive contributions to the editing of the particular papers they reviewed.

Ole Dreier