

# Challenging divisions

Exploring the intersections of ethnography and intervention in IS research

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The relation between ethnographic techniques and systems development has been debated for some time within the field of Information Systems (IS). This special issue contributes to the debate by presenting a collection of papers that rework this link and the very distinction between ethnography and intervention. In these seven papers, a number of authors from various backgrounds reflect upon ethnographic fieldwork as a particular style of intervention. The papers regard *describing* the field and *changing* it as interwoven rather than separate practices. With this special issue of the Scandinavian Journal of Information Systems we aim to further enhance the ongoing debate concerning the appropriateness of ethnography in IS research.

The use of ethnographic techniques within IS research and development has been discussed at length with input from within and from without the IS discipline. A critical stance towards referring to what IS researchers do when they conduct fieldwork as 'ethnography' is expressed by scholars with a background in social anthropology (Finken 2000, Forsythe 2001). These authors claim that, contrary to what most IS researchers do, ethnographic fieldwork must be systematic and theoretically grounded and that it necessarily involves spending extensive periods of time in the field. Rather than entering into this discussion as to whether some kinds of ethnography are more 'authentic' than other more 'quick-and-dirty' forms, we have invited a number of IS researchers who use ethnographic techniques to tell about what *they* do and to reflect upon their practice. Together, the papers argue that the strengths of ethnography are found in the particular opportunities it offers for interacting and engaging with the field studied.

Several different ethnographic approaches exist within the IS community. A prominent example is Computer Supported Cooperative Work (CSCW). This research field applies insights generated in social studies of cooperative work to the design of computer systems. Among CSCW researchers, the idea to inform design through ethnographies of work practices has been well developed. On the basis of the insights generated by such studies, designers should build technologies that are more compatible with the particularities of work

practices. In summing up the experiences of this approach, however, Hughes, Randall, and Shapiro (1992) point to the recurring problem of 'handing over' ethnographic knowledge to be used in a design process. They point to the inherent tension between ethnography's tendency to emphasize the local, diversity, and the complexity of social processes, and the designers' requirement for clear-cut specifications from which to build the IT functionalities. In addition, they point to the more general problems of communication between the 'soft' social scientist and the 'hard' technology designers.

To overcome the problem of ethnography informing design as a process of 'handing-over' knowledge to the practitioners in the field, other scholars within IS research have proposed that designers themselves should conduct fieldwork and participate in ethnographic studies of work practices as part of design and systems development activities (Blomberg, Giacomi, Mosher, and Swenton-Wall 1993, Simonsen and Kensing 1997). In this approach, designers should follow the users in their daily work routines to gain an understanding of the situated practice for which they are designing. However, designers do bring certain assumptions regarding the desired changes with them to the field, and the toolkit to reflect on these assumptions in this straight-forward application of ethnographic techniques is limited. In addition, practicing this philosophy is very costly – at least in the short term – which seriously hampers its appropriation among IS developers.

Another related road has been taken by the so-called Scandinavian systems development approach, which is at the core of Participatory Design (PD). Emphasizing the importance of egalitarian, democratic values in IS design, researchers in this area have focused on involving the *worker/user* in the design process. An intense collaboration between users and designers, this approach argues, is a *sine qua non* for the development of information systems that will actually fulfil users' needs – and therefore stands a chance to work. However, there are dilemmas inherent in the notion of a PD designer as a 'mediator' that can 'neutrally' translate users' wishes into technological design

specifications (Markussen 1994). Also, this is just as costly as having designers do ethnography. Likewise, the requirement to enrol users, and the need to create consensus and to make the system fit local work practices effectively reduces the usability of this approach to small-scale projects. In a recent paper in *SJIS*, E. Beck (2002) calls for new explicit political stances and reflections on these problems among IS researchers.

Several critiques of the taken-for-granted assumptions of IS research have been inspired by the field of Science, Technology and Society studies (STS) (i.e. Markussen 1996, Berg 1998, Jensen 2001). Similarly, IS research, in embracing the desire to apply insights from the social sciences in far from naive ways, is miles ahead in addressing the issue of political relevancy that is high on the agenda of many social sciences – including STS (U. Beck 1998).

Several of the papers presented in this volume draw on strands of STS to show how ethnographically inspired research *inevitably* intervenes in the fields studied. And how, in turn, the 'fields' do not present themselves as pre-given objects that just need to be entered; they *emerge* during the process of ethnography just as much as the 'true' needs of the user emerge during the process of IS construction. Others combine ethnographic descriptions and approaches to intervention in new ways to address some of the difficulties noted above.

The paper by Hartswood, Procter, Slack, Voß, Büscher, Rouncefield, and Rouchy synthesizes PD principles of user-involvement and ethnomethodological notions of the researchers' membership of the research setting. The authors suggest the concept of *co-realisation* to move the design and systems development process into the use setting. They suggest that the researcher takes up a role as IT facilitator who commits him/herself to long-term engagement at the work place. This move of seeing the researcher as a facilitator rather than somebody who stands outside the problems and contingencies of the work place suggests that intervening is part of work place studies. The paper exemplifies how this IT facilitator may assist in creating adequate IT solutions in several settings.

The following paper by Henriksen likewise unpacks notions of design and use and their interrelatedness. The author examines specific ethnographic field encounters with an information system and provides examples of how this exploration also involves paradoxes and interventions, even when not aiming at informing specific design or change initiatives. The paper argues that intervening in the field is not something the researcher can choose to do or not to do, but that it is an unavoidable condition when conducting ethnographic research. This becomes an instance for reflecting upon how the object under investigation is brought into being across different times and places and thus presents different possibilities for the researcher to engage and intervene.

The paper by Winthereik, de Bont, and Berg takes up the thread of ethnography and intervention as interwoven practices. These authors question the very notion of ethnography as a means for moving closer to the complexities of work practices and for producing rich representations that may inform design. Exploring three problematic instances of doing fieldwork on electronic patient journals in general practice, they note how these are productive occasions for reworking the researcher's assumptions. Rather than seeing fieldwork access as a problematic phase of getting research done, they look at how access negotiations and problems enables the researcher to see particular aspects of work and their relevance for IT use. Discussions of what the researcher can or cannot see illustrate how the research object is continually transformed and constructed through the very practice of research.

In the discussions on ethnography and intervention the notion of intervention tends to imply change for the better. During his study in a Dutch haemophilia care center, Zuiderent was confronted with difficulties in univocally answering what a 'better technology' is. Asking this question leads to another question: "better for whom?" and to an explosion of the field into eight different versions of what the center is and should be. In examining these eight versions of the center and what a good system for the center might be, Zuiderent shows there is not one

answer to how to intervene and ensure the production and implementation of better technology. In addressing such unsolvable dilemmas, Zuiderent warns against falling back on overall democratic or egalitarian values as implying the better for all. Instead he suggests that research inevitably involves taking sides. Researchers ought to be better equipped for situated choices with what he terms a politicized ethnography.

The article by Henwood, Wyatt, Hart, and Smith presents a longitudinal research project to study the impact of on-line health information. By drawing on discussions within social science and medical informatics the authors come up with an innovative methodological approach to overcome the user/non-user division for capturing the dynamic processes of Internet use. To a large extent the work within PD, IS research, and CSCW relies on the category of the user, as has been demonstrated by Agre (1995) and thus on a distinction between design and use. In looking to other fields of health and medicine research, a similar construction could be the patient/consumer. Contrasting the multiple identities and continual transformations embedded in these discourses, the authors open up practices that the singularizing category of the user tends to gloss over.

Also reworking our notions of the user, Suchman draws on critical literature from anthropological and feminist research. In rethinking the notions of *us* as system designers and *the others* as system users, Suchman compares three approaches to design and systems development. The first approach resonates functionalist assumptions of work practices as uniform and describable on formal terms without regarding the situated character of the work. The second approach reiterates the *us/them* dichotomy in a construction that considers the user as separate and distanced from designers. The third proposal is to pay attention to the multiple relations between users and designers rather than constructing barriers and setting up divisions. Subsequently, Suchman presents a number of suggestions for creating an accountability of co-located designers and users.

The final paper by Leigh Star concludes this special issue by questioning common notions of

technology. Star approaches technology as widespread infrastructural arrangements that can and should be studied ethnographically. She introduces the notion of *fringes* for thinking about infrastructures that span diverse fields of knowledge and discusses how communities of practice and boundary objects bind these together. Throughout the article Star gives examples of complex issues embedded in the politics of standards and infrastructures and shows how various subtle material details influence human relations and distributions of power.

With this collection of papers, this special issue provides new ways of exploring the intersections of ethnography and intervention. The papers are accounts of the way in which ethnography and intervention in fieldwork experiences can be explicitly combined. The approaches presented challenge the very division and address head-on the political implications of any research involvement. They highlight and rework the contribution of ethnographically framed research activities carried out in the vicinity of CSCW, PD, medical informatics, media and information studies, and not least systems development. The issues raised for discussion are thus relevant for contemporary IS research, intent on understanding the on-going changes of IT and work practice. Enjoy!

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### References

- Agre, P. "Conceptions of the User in Computer-Systems Design," in *Social and Interactional Dimensions of Human-Computer Interfaces*, P. Thomas (ed.), Cambridge:Cambridge University Press, 1995, pp. 67-106.
- Beck, U. "Politics of Risk Society," in *The Politics of Risk Society*, J. Franklin (ed.), Polity Press, 1998, pp.

Beck, E. "P for Political. Participation is not enough," *Scandinavian Journal of Information Systems* (14:1), 2002, pp. 77-92.

Berg, M. "The Politics of Technology: On Bringing Social Theory into Technological Design," *Science, Technology and Human Values* (23), 1998, pp. 9-21.

Blomberg, J., Giacomi J., Mosher A. and Swenton-Wall, P. "Ethnographic Field Methods and Their Relation to Design," in *Participatory Design: Principles and Practices*, D. Schuler and A. Namioka (eds.), Hillsdale, N.J.:Erlbaum, 1993, pp. 123-156.

Finken, S. "Bringing Ethnography Home - reflections upon a style of enquiry," in *Proceedings of IRIS 23*, L. Svensson, U. Snis, C. Sørensen, H. Fägerlind, T. Lindroth, M. Magnusson and C. Östlund (eds.), 2000, pp. 267-277.

Forsythe, D. *Studying Those Who Study Us: An Anthropologist in the World of Artificial Intelligence*, Stanford:Stanford University Press, 2001.

Hughes, J., Randall, D. and Shapiro, D. "Faltering from Ethnography to Design," in *Proceedings of CSCW 92*, 1992, pp. 115-122.

Jensen, C. B. "CSCW Design reconceptualized through Science Studies," *AI & Society* (15:1), 2001, pp. 200-215.

Markussen, R. "Dilemmas in Cooperative Design," in *PDC '94: Proceedings of the Participatory Design Conference*, R. Trigg, S. I. Anderson and E.A. Dykstra-Erickson (eds.), 1994, pp. 59-66.

Markussen, R. "Politics of Intervention: Feminist Reflections on the Scandinavian Tradition," *AI & Society* (10), 1996, pp. 127-141.

Simonsen, J. and Kensing, F. "Using Ethnography In Contextual Design," *CACM* (40:7), 1997, pp. 82-99.