

Chapter 8

Fieldwork, Ethnography and Ethnomethodology

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Summary

Driven by the 'failure' of systems that manifestly did not meet the needs of their users, fieldwork is an approach to the study of work where an observer engages directly with work in its own environment, with a view to understanding the 'real' processes, activities and interactions of the people involved. Ethnography is an observational approach that examines work as it is practised in a naturalistic setting and ethnomethodology is an approach to analysis that gives precedence to the actors their ways of structuring work rather than attempting to analyse this using some theoretical framework.

Fieldwork

If design is more of an art than a science, dealing with messy indeterminate situations and 'wicked problems', then before designers can solve a design problem they need to understand some basics - such as what they are designing, what it should do and who should use it and in what circumstances. So methods needed to be more attuned to gathering relevant data in 'real world' environments; that is, the social settings in which systems were likely to be used rather than in laboratories.

Fieldwork is an approach to research and the collection of data that involves actually going to site where a system is being used, or where a new system is

proposed, in order to study the natural circumstances of work and activity that any system is designed to support. The method is an alternative and response to the perceived weaknesses of those experimental methods that seek to replicate features of the setting in the laboratory.

Ethnography

Ethnography is a qualitative orientation to research, derived from anthropology, that emphasises the detailed observation of people in naturally occurring settings. The fieldworker experiences the environment in the same way as the people in that environment and observes their activities and interactions. The move towards naturalistic observational methods in anthropology is generally attributed to Malinowski and the conviction that only through living with and experiencing 'native' life in their own environment could a researcher really understand that culture and way of life. In CSCW and HCI, the ethnographic move is strongly associated with Lucy Suchman's 'Plans and Situated Actions' and the Lancaster ethnographies of Air Traffic Control conducted by Richard Harper and Dave Randall.

The main virtue of ethnography is its ability to make visible the 'real world' sociality of a setting producing detailed descriptions of the 'workaday' activities of social actors within specific contexts. It is a naturalistic method that seeks to present a portrait of life as seen and understood by those who live and work within the domain concerned. It is this objective which is the rationale behind the method's insistence on the development of an 'appreciative stance' through the direct involvement of the researcher in the setting under investigation. In the study of socio-technical systems ethnography has primarily focused upon the study of work and settings for which new technology is being designed with the intention of informing that design.

Ethnography has acquired some prominence as a fieldwork method that could contribute both to a general understanding of systems in use in a variety of contexts and to the design of distributed and shared systems. Efforts to incorporate ethnography into the system design process have had much to do with the (belated) realisation, mainly among system designers, that the success of design has much to do, though in complex ways, with the social context of system use. A number of well publicised 'disasters' (The London Ambulance System) suggested that traditional methods of requirements elicitation were inadequate, or in need of supplementation, by methods better designed to bring out the socially organised character of work settings. Ethnography with its emphasis on the in situ observation of interactions within their natural settings

seemed eminently suited to bringing a social perspective to bear on system design.

This 'turn to the social' in design arose out of dissatisfaction with existing methods as offering overly abstract and simplistic analyses of the nature of social life. Additionally, this 'turn to the social' recognised a new kind of end-user, a 'real time, real world' human being and consequently designers turned to the social sciences to provide them with some insights, some sensitivities, to inform design. Requirements elicitation has to be informed by an analysis of the 'real world' circumstances of work and its organisation. The virtue of ethnographic approaches comes from this recognition that computers are enmeshed into a system of working and incorporated in highly particular ways - used, misused, modified, circumvented, rejected - in the flow of work. One of the virtues of ethnography lies in revealing these myriad usages in the context of 'real world' work settings seeking to answer what might be regarded as the essential socio-technical question - what to automate and what to leave to human skill and experience?

Ethnomethodologically informed ethnography

An ethnographic stance entails viewing the social world from the standpoint of its participants - data is collected about their everyday actions and interactions. Once collected, a detailed analysis of this data takes place. This analysis of ethnographic data can be attempted from a number of different analytic perspectives - such as Activity Theory, Distributed Cognition, Actor-Network Theory and so on. In ethnomethodologically informed ethnographic research the understanding of any setting is derived from the study of that setting itself, rather than from any highly structured model or theory of work organisation or work processes; it ties itself closely to the observed data, it is 'data-driven'. The approach recognises the inherent 'messiness' of the world and the inadequacy of any theory to deal with this.

An ethnomethodological approach is an atheoretic approach to this analysis where a member's methods for accomplishing situations in and through the use of local rationalities become the topic of enquiry. For ethnomethodologically informed ethnographic enquiry, the people in an environment, their subjective orientations and experiences are central. Observation focuses on the places and circumstances where meanings and courses of action are constructed, maintained, used and negotiated. A central precept of ethnomethodological ethnography is to find the orderliness of ordinary activities, an orderliness accomplished by social actors, unreflectively taken-for-granted by them and constructed with

their common-sense knowledge of social order.

In acknowledging the 'situated' character of work, ethnomethodologically informed ethnography displays how even in the most apparently routine activities workers need to use their judgement and discretion in response to the various contingencies that arise. In consequence, the accomplishment of work tasks involves a range of tacit skills and local knowledge that may be rendered invisible by formal models of processes or procedures, often going unrecognised by the workers themselves. In ethnomethodologically informed ethnography, the phenomena which are to be investigated are to be studied in their character as 'phenomena of everyday life' as 'everyday' occurrences for those who are involved in the activities in question, and the investigator is, therefore, seeking to ascertain what the phenomena mean for them.

In studies of the kind that ethnomethodologically motivated ethnographers make, the concern is with the depiction of 'the working sensibility' of those under study. The interest is remote from the kinds of general reflections that someone in an occupation can produce, and much more engaged with their consciousness and attention when they are 'at work': what kinds of things do they take for granted or presuppose in going about their work, what kinds of things do they routinely notice, what kinds of things are they 'on the lookout' for, how do they 'tune themselves in' to the state of being 'at work', what are the constituents of their 'serious frame of mind', how do they react to the things that occur within their sphere of attention, what objectives are they seeking to attain in their reactions to whatever occurs, and by what means - through what operations - will they seek to accomplish those objectives in adaptation to these unfolding circumstances. Thus, attention is focused on the study of doing the work. The emphasis is on work in the raw, work as it is done, and in the ways in which it is done in actual practice, as opposed to work in idealised form as presented in organograms and process models.

Retrospective

Ethnographies of work have proven to be very useful in developing an understanding of how work is practised and hence in informing systems engineering processes of specification and design. They are particularly effective in settings, such as control rooms, where the people involved are co-located and the work involves coordination of different people. For distributed work, conventional ethnography is more difficult and expensive and so we have much less experience of the contribution that it can make.

Most ethnography has focused on the 'users' of a system and hence the in-

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formation derives is most effective in understanding user needs and constraints. Fieldwork is also valuable in understanding broader organisational needs but observations must be supplemented by other techniques such as interviewing and document analysis to understand the 'organisational' requirements and constraints on systems design.