Ethnography and workplace studies

(some slides adapted from Mark Rouncefield, Lancaster University)

Workplace studies

- Chicago school (E. C. Hughes and others)
- Computer-Supported Cooperative Work
  - Photocopying (Suchman)
  - Air traffic control (Hughes et al.)
  - London Underground control (Heath and Laff)
- Use ethnography (in various guises)

Ethnography

- Long history with its roots in anthropology
- Is it a method?
  - certainly NOT a methodology
  - does not predefine a theoretical or conceptual status
  - has been used in support of many methodological standpoints

The study of work in organisations

- Ethnography & the analysis of ‘work’
  - assumes human activities are socially organised
  - commits to inquiring into patterns of interaction and collaboration
  - relies on an observer ‘going into the field’
  - ‘learning the ropes’ through questions
  - listening, watching, talking, etc., with practitioners

The basic principles of ethnography (1)

- Ethnography is naturalistic
  - studies should be studies of real people and their activities, operating in their natural environment
  - doesn’t deal with artificial worlds & controlled versions of work (but what is ‘artificial’?)

- Michael Lynch: “Stop talking about science. Go to a laboratory - any laboratory will do - hang around a while, listen to conversations, watch the technicians at work, ask them to explain what they are doing, read their notes, observe what they say when they examine data, and watch how they move equipment around…”

The basic principles of ethnography (2)

- Ethnography is prolonged (usually)
  - no logical reason why an ethnography should take a long time
  - some practical reasons:
    - The main reasons for prolongation
      - ethnographers have no clear idea what they will find
      - domain may be ‘technical’
      - focus may change
The basic principles of ethnography (3)

- Ethnography understands the world from the point of view of those who inhabit it
  - it is behavioural, i.e. interested in the detail of the behaviour to a greater or lesser extent
  - it is not behaviourist, i.e. it does not consider the behaviour itself as the appropriate level of analysis
  - The appropriate level is the significance of the behaviour for those who undertake it.

The basic principles of ethnography (4)

- Ethnographic data is eclectic
  - resists formalisation
  - can include:
    - general descriptions of behaviours, descriptions of physical layouts, close descriptions of conversation
    - thoughts and feelings, work sequences, anecdotes
    - examples, common occurrences, hypotheses?
  - difficult to distill data down to an 'essential' form ⇒ analysis is critical

Ethnographic data

- descriptions of conversation and movement, 'stories', opinions, anything!
- granularity issues
- ethnographer organises the data as showing something
- readability issues
- contain a number of technical terms
- The ethnographer usually provides 'examples' of something

Types of Ethnography

- Consecutive/concurrent ethnography
  - ongoing ethnographic study taking place before, or at the same time as, systems development
- 'Quick and dirty' ethnography
  - to provide a general but informed sense of the setting for designers
- Evaluative ethnography
  - to verify or validate a set of already formulated design decisions
- Re-examination of previous studies
  - to inform initial design thinking

Consecutive v concurrent ethnography

- Sequenced process
- Ethnographic study precedes system development
- Thorough insight into the subtleties of the organisation
- Declining rate of usefulness for fieldwork to contribute to design

- Concurrent process
- Ethnographic study goes hand-in-hand with system development
- Highlights key surface features of organisation
- High contribution of fieldwork to design per hour spent

'Quick and dirty' ethnography

- Provides knowledge of large scale organisation’s work setting in relatively short space of time
- Pay off greater as time expended on fieldwork provides a lot of information
- Knowledge can be built upon for more focused study of detailed aspects of work
- Provides broad overview which can sensitise designers to issues of acceptability and usability of an envisaged system
- Can provide an informed sense of what the work is like in a way that is useful for designers
Evaluative ethnography

- More focused version of ‘quick and dirty’
- Does not necessarily involve a prolonged period of fieldwork
- ‘Sanity check’ of already formulated design proposal
- Useful in ‘tweaking’ existing systems
- Useful for informing design of next generation of systems
- Modest redesign through periodic ethnographic field studies of system use may have considerable benefits

Re-examination of previous studies

- New approaches, new methods, new systems lack experience and a set of case studies which can be used either to sensitize study or to inform preliminary design
- Especially useful when prime goal is obtaining sight of general infrastructural principles
- A way of sensitising designers to social nature of settings
- Performs useful role in making designers aware of what to avoid and what the more specific issues might be

Practical issues with doing ethnography (1)

- Do not read methodology books
  - Ethnography is not an esoteric procedure nor is it searching for things that are hard to find
- Hanging around is not the point
  - Much of ethnography does involve ‘hanging around’, but this is not the point, but a means of achieving the objective of uncovering the social organisation of the workplace
- Shut up and listen

Practical issues with doing ethnography (2)

- Access
  - Getting in
  - Gatekeepers can be managerial sections, admin staff, shop floor workers
  - Some areas might be regarded as off-limits to observers
  - Observer might be associated with vested interests
  - Ethnographers must gain acceptability - open and honest, showing respect
  - Gaining credibility may include working shifts, sharing conditions, a non-intrusive demeanour (without being too self-effacing), sharing dress codes

The limitations of ethnography

- What ethnography cannot do
  - ‘Is that it then’. Over-expectations as to how much can be found out in the time available
  - ‘Well, we knew that’. False expectations as to the kind of information that fieldwork can reveal, and complaints that it does not provide blinding insights into the organisation of work
  - ‘Tell me what to build’. False expectation that fieldwork can directly answer design problems

Key studies (1)

- Suchman (1987), Plans and situated actions, Cambridge University Press
  - How do rule-based help systems get used?
  - What can a photocopier ‘see’?
  - Assumptions about a plan-based model of human action
Key studies (2)

- Hughes et al., (1992), Faltering from ethnography to design, in proceedings of CSCW’92, ACM
  - Workplace expertise
  - Making sense of technologies
  - Designing from ethnographic study

Key studies (3)

  - Peripheral monitoring
  - Designing actions for their visibility by others
  - Public technologies in workplaces

Summary (1)

- A variety of roles for ethnography in design
  - ethnography has a role to play in various phases of organisational systems design and makes different contributions to them
- Responding to pressure of time and budget
  - prolonged fieldwork not always necessary
- Importance of focus
  - Successful ethnography is focused

Summary (2)

- Importance of previous studies
  - contribution to informing good practice
- System and work design
  - system design is work design
  - understanding the context, the people, the skills
  - capable in highlighting those ‘human factors’ which most closely pertain to organisational order of use