

Work and Systems Design

Graham Button

Work

- I want to address the topic of work
 - It has been central in the history of the design of collaborative systems
 - It is being suggested that systems to be used outside of the work place require a different form of ethnographic underpinning to those designed for the workplace
 - Questions about what work is have been raised with respect to the scope of CSCW

'Work': Theoretical Gerrymandering In The Human Sciences

- In 'the sociology of work and organisations' work and the workplace are treated as *theoretical objects*
 - The questions of “what is work” and “how work is organised” pervade, and are settled in theoretical fiat
 - Marx – Work as ‘species being’, alienation in a Capitalist mode of production, labour power
 - Durkheim – The Division of Labour, social solidarity, individual freedom
 - Weber – social stratification, rationality
 - Taylorism – scientific management
 - Human relations – sociality
 - Organisational culture – entwining values
 - Critical theory – technological rationality, conflated spheres of activity
 - Systems theory – rule bound activity and consensus
 - Contingency theory – organisational characteristics and situational circumstances
 - Action theory –the social construction of reality
 - Post-modernism – control, uncertainty
 - Actor networks – alliances of human and non-human actors
 - Feminism – un-recognised work

But Where Are The People

- In 1985 Anslem Strauss wrote:

“...remarkably little writing in the sociology of work begins with the work itself (except descriptively, not analytically) but focuses on the division of labour, on work roles, role relationships, careers, and the like. A concerted *analytic examination of work itself* ought to provide a needed corrective to more traditional approaches, which, however effective, still leave important issues untouched or unresolved.”
- Analysis involves treating work as an empirical matter as opposed to a theoretical object
 - Work in the actor’s world not work in the sociologists world
 - Viewing work as it unfolds
 - Turning then to the actor’s point of view
- In the actor’s world the answer to the question “what are you doing”:
 - Is answered in terms of what they are doing in doing their work
- The relationship between sociological description and members’ descriptions
 - Sociological re-description
- Orders of accounts
 - First order account
 - The parasitic status of theory

The Practical Character Of Work

- Describing what people are 'doing' when they are working:
 - Changing a truck tire
 - Prepping an animal in a scientific experiment
 - Using white boards in solving mathematical problems
 - Discovering a pulsar
- But not mere observation of unfolding activities
 - The collection of ethnographic materials for analysis
 - The practices and methods through which the activities and interactions are themselves done, or achieved
 - Practices and methods through which the observed activities are done so as to be recognisable as what is observed to those who know how to observe them
- For example changing a multi-piece truck wheel
 - From observation to analysis
 - Changing a wheel
 - Hammering a component
 - 'Keeping in touch' with the ring

An Interest In the Practical Not Well Received In Sociology

- Where are sociology's universally applicable primordial concepts
 - Power, class, the state and the rest
- Its all trivial
- Emphasising action and interaction precludes the study of structure
- Its fussy messy detail
- Endless particularism as opposed to generalisation

A Refreshing Interest In The Practical In System Design

- A welcome marriage
 - Finding sociologists jolly interesting
 - Not the theories and definitions of sociology
 - But the interest in the practical
 - Rearranging paper strips
 - At a glance understanding of other's workspace
 - Two implications for design
 - Methodological -look to what people *practically* do together and individually if you what to support their doings
 - Describe them in their own terms not terms of a prescribed theory
 - Rendering useful 'findings' for design in general or for a design project
 - Trouble shooting problems with a multi-functional office device

Strains In The Marriage

- The emergence of disputes about what work is
 - The exclusivity of a particular understanding of work for the domain of CSCW
- An emphasis on studying ‘work practice’ precludes studies of work and the workplace being relevant for the design of systems for other matters and places
- Variations of approach in studying ‘the practical’ –different types of ethnography

Variations Of Ethnographic Approaches

- Empirical investigations 'in the field' of, for example, workplaces and what goes on inside them are conflated in the term 'ethnography'
- But all that term means is studying social life in the midst of its doing as opposed to rendering it through, e.g. statistical proxies
- A simplest form of ethnography
 - Grossly observable features
 - Large screens are present in a church and in a service people look at them
 - In Asian homes women hang out in the kitchen, men are conspicuously absent and the women, not the men are found preparing meals
- The paucity of a scenic approach
 - Where's the news
 - Some of it is appallingly broad brush
 - The observer may not observe what is plain to everyone else in the scene because they cannot see it
 - Quasi behavioural accounts

Variations Of Ethnographic Approaches (2)

- Theoretically motivated ethnography
 - European Field Study tradition –German Industrial Sociology
 - Pre-elected categories: qualification, stress, margins of disposition
- Same old problems
 - Converts an open question into a methodological and theoretical precept
 - Tension between the general and the situation
 - Looking for relevant cases
- Analytically driven ethnography
 - Taking instructions on how to observe from participants rather than a theory
 - Becoming a competent member
 - Unique adequacy
- Why it matters for design
 - Its time to move on
 - Jolly interesting
 - Individualistic inspiration
 - *Methodically* building 'the social' into the design process

A Re-emergence of the Question 'What Work Is'

- The question of whether CSCW should continue to focus on 'work' and the 'workplace' has been raised
- One side of that argument takes up the concept of work and basically asks the same old sociological question "what is work"
 - A confusion arises in asking the question in the first place as an universal question requiring a universal answer
 - But it has an occasioned character, and its answer resides in the occasion
- Theoretical fiat masquerading as reasonableness
 - An appeal to the everyday notion of work, its ordinary meaning is made
 - Working involves skill, sweat and commitment
 - A workplace
- Focusing upon one answer is to elect a universal definition of work
 - People are denied their ability to competently speak of their actions and interactions
 - Working on my hamburger
 - There's a lot of hard work involved in having fun
- Work becomes constituted in argumentation and elected definitions not in how people do it and talk about it
- As a practical matter the theoretical definitions of work may or may not be relevant for people
 - Car mechanic's diagnostic procedures
 - Boat navigation
 - Sequencing print jobs in a production process
 - Shopping on the internet at work
- Of course the setting and conditions are relevant matters
 - But it is for participants to instructs us in and and when and how this is the case, not theoretically assume it to be, and assume it to be in certain ways

Save Us From Disciplinary Prescription

- This is not to say that designers should not have an interest in the development of systems (information systems?) to be used in a geographically located or distributed place of work as an environment in which people work together in paid employment
 - If some want to focus their attention on this; no problem
- It is also not to say that designers should not take work done in CSCW and use it to inform the design of other types of systems
 - If some want to use concepts used to inform work in CSCW to design non-work related systems; no problem
- It is to say that juxtaposing these matters in this way is more about cutting the world up according to disciplinary relevances than it is to do with how that world is cut up as an everyday matter
- What people do and how they do it overflows the neat disciplinary category boxes erected by disciplinary theorists

Studying Non-Work Matters Requires Different Methodologies

- The argument made is two fold:
 - What has been dubbed as work-practice studies are not appropriate (because they apprehend *work-practice*) for non-work settings and activities
 - Contaminates them with work related ideas
 - New forms of ethnography are required
 - That supporting non-work activities requires different kinds of systems to those that support what are described as work place systems

Just Addressing The First Point

- The theorist makes 'judgemental dopes' out of people
 - People in the sociologists world as opposed to people in the everyday world
 - In the theorists' world they are puppets of structural forces as defined in the theory, in the everyday world they are active in what they do
 - What people do is achieved in their practices and methods, what they do is worked on and worked out by them
- Two examples
 - Achieving the smooth flow of work on the print room floor
 - Achieving the appearance of spontaneity in traditional Irish music making
- Methods and Practices In the Print room
 - Juggling
 - Jumping the gun
 - Helping out a mate
 - Passing the work to Mary
- Methods and Practices in Irish music making
 - Choosing sets of tunes
 - Using prompts and cues
 - Building a shared repertoire
 - Developing a session etiquette
- Same orders of description
 - The practices and methods through which what is done is organised
 - The work that goes into the achievement of the recognisability of a an action or a course of actions or interaction

The Ubiquity of Work

- Work is a members' matter
- They display it to be relevant across varieties of settings from the industrial workplace to the pursuit of love
 - In the face of that questions about whether or not CSCW should confine itself to a particular understanding of work will dissolve as methodologically and theoretically defined matters and emerge as practical matters decided by market forces and grant committee imperatives
- They display themselves to be working on and working at matters that sociology would not normally consider to be work
 - In the face of that what they work on are amenable to the same order of investigation be that print production, making music in the pub or wooing the desire of one's hart
- Making visible how they do that in their organising practices and methods is the question for an analytically drive ethnography
- How that is then *methodically* built into the design process is the burning question
 - Free from theoretical disputes over what work is
 - Free from methodological misunderstandings over analysing work