

Interpretive case studies  
Analysis  
Generalisations  
3rd hour: Master project

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# Interpretive case studies

- In-depth, longitudinal study of one event/organisation/process – a case
- Investigates a phenomena in its real-life context (Yin, 1994)
- Case studies are common in the interpretive tradition – focus on human interpretation and meaning. (Human behaviour and the reasons behind it)
- Interviews: main data source
- Cases using ethnographic methods vs. "traditional" cases.

# Walsham (2002):

Walsham (2002)

## Interpretive case studies in IS

- Philosophical basis of interpretative studies shared with ethnography:
  - Status of data
  - The importance of "thick descriptions"
- Not reporting "facts", but one's interpretations of other people's interpretations
- Not aiming to produce "truth" or social laws, but still generalizable findings

# Three ways to use theory:

1. As an initial guide to design and data collection (Build on previous knowledge, theory as "sensitizing device")
2. As part of an iterative process of data collection and analysis (Initial theories being expanded, revised or abandoned)
3. As a final product of the research

# Example 1

- Walsham (1995) used Pettigrew's content, context and process framework to look at IS strategy/implementation
- Research questions generated:
  - What IS strategic approaches had the organization adopted? (**content**)
  - What was the position of this organization in its sector and country? (**context**)
  - How had the organization tried to implement its stated strategy and with what success? (**process**)

# Example 2:

- Structuration Theory (See Giddens 1984 - also Walsham 1993):
  - Three dimensions of meaning, norms and power
  - Structures are produced or reproduced in action
  - Emphasis also on unintended consequences of intentional action

# Example 2

- Theoretical guidance to formulation of interview questions:
  - What do you understand this technology is aimed to do? (meaning)
  - Does this technology require you to do your job in a different way? (norms)
  - Who has required you to use this technology and what are their motives? (power)
  - What changes in your work, and that of others in the organization, has resulted from the use of this technology? (production).
  - What has stayed the same? (reproduction)
  - Did any unexpected things occur in the use of the technology? And what happened as a consequence? (unintended consequences)

# Example of interpretive case study

- Walsham and Sahay: GIS in India. From a Special Issue of MISQ on "Intensive Research"
- Longitudinal study: 3 years (1993-1995) + historical reconstruction (1991-1993).
- 5 field trips, interviews as main data source (note details given), but also systems demonstrations, archival data, informal contact, workshop.
- Describes gaining access, working with data, the role as researchers (p. 43-46 + 54-55).

# Role of theory

- *“The theoretical basis of our study evolved over time in response to both our deepened understanding gained through the collection of the field data and our changing ideas concerning appropriate theory”.. (p. 41)*
- Initially: Structuration theory + social construction of technology (SCOT), then (used in this paper): actor-network theory

# "Implications for GIS practice"

- Research questions: p. 40
  - Has GIS been implemented successfully for real application in district-level administration?
  - If not, why is this the case?
  - What can be done about it?
- Page 55 onwards seeks to answer the third research question
- Formulated for different levels:
  - For GIS implementation at district-level in India
  - Potential relevance for GIS for decentralized management in other developing countries
  - General implications for GIS practice

# "Implications for Intensive IS Research"

- Reflections on how to conduct and write "intensive research studies" (or interpretive case studies)
- Three criteria for convincing texts:
  - Authenticity
  - Plausibility
  - Criticality
- Discusses also the way the paper evolved (two different versions)
- (More in-depth discussion of these aspect next time)

# Analysis

- Hidden process in most accounts of research
- Ongoing process, not just after data collection. Analytic writing, try out forms/representations of your data
- Geoff Walsham:
  - “In addition to field notes, I normally write a personal comment on the interview and the interviewee.”
  - ”I also generate sets of initial themes from my field notes as a basis for reflection, theorising, and interaction with my co-researchers (if any)”
- See table 3 in Walsham and Sahay – sets of themes that emerged after interviews during field visits

# Ask key questions about your data

- What are the main units in your data and how do they relate to one another?
- Which categories are used by the people you study?
- What are the contexts and consequences of your subjects' use of categories?
- Do your own experiences in the field provide you with other research topics?

# From coding to interpretation

- Data reduction:
  - Selecting, focusing, simplifying, abstracting and transforming "raw" data.
- Data display:
  - Organized assembly of information that permits conclusions drawing
- Conclusion drawing/Verification:
  - Beginning to decide what things means, noting regularities, patterns, explanations, possible configurations, causal flows and propositions
  - Testing the provisional conclusions for their plausibility, their sturdiness, their confirmability

# Walsham on analysis:

- Best tool for analysis is your own mind and that of others
- So read your data carefully and then read it again
- Make data/theory links
- Try your ideas on others through working papers, conversations, seminars

# Analysis

- Data-driven versus theory-driven analysis
  - Data-driven: Silverman's examples in chapter 11 and 12, close to grounded theory.
  - Theory-driven: when a case study is (re)-interpreted according to a theoretical framework:
    - Walsham and Sahay (ANT)
    - Hanseth et al. "Reflexive Standardisation" (Complexity Theory/ANT)

# Theorizing from data

- How to theorize about data:
  - Resist the temptation to rush to explanations, don't begin with "Why" questions. Ask "what" and "how".
  - Look at timings of peoples behaviour/actions or at processes of change
  - Look at the context of your data
  - Compare with other relevant data (or divide your data into different sets and compare them)
  - Think of implications, how findings are related to broader categories
  - Explore relations between models, theories.

# SPEED BUMP

HVIS DU TAR PÅ DEG  
DEODORANT FØRST, OG  
SÅ EN MØRK T-SKJORTE,  
BLIR DET HVITE MERKER.

KLOKKE-NE  
VAR MYE  
PENERE I GAMLE  
DAGER.

DET ER  
LETT Å VÆRE  
OVERMODIG.

GENRELLE  
OBSERVASJONER

# On generalizability:

- "Generalizability is ... (a) word ... that should be reserved for surveys only. What can be analyzed instead is how the researcher demonstrates that the analysis relates to things beyond the material at hand. ...extrapolation better captures the typical procedure in qualitative research"
  - (Alaatusaari, 1995, cited in Silverman, p. 136)

# On generalizability:

- Howard Becker: "Tricks of the Trade. How to think about your research while you're doing it", University of Chicago Press, 1998.
- Advice when you try to generalize:
- "Tell me what you've found out, but without using any of the identifying characteristics of the actual case".

# Generalizations

- Explanations are not predictions
- Four types of generalizations:
  - Development of concepts
  - Generation of theory
  - Drawing of specific implications
  - Contribution of rich insights
- Some examples of the types (used by Walsham):

# 1) Development of Concepts

- Zuboff (1988) - concept of '*informate*'
- Walsham (2004) - concept of *knowledge communities*:
  - 'are a complex network of sense-readers and sense-givers, taking action, reflecting on it, making representations based on their tacit knowing, 'reading' others' representations, and taking further action in turn'

## 2) Generation of Theory

- Theories of organizational consequences of IT
  - Orlikowski and Robey (1991)
  - Jones and Nandhakumar (1993)
- Walsham (2004): A basic model of communication with a sociological complement

### 3) Drawing of Specific Implications

- Relationship between design and development and business strategy - Walsham and Waema (1994)
- Walsham (2004): on incentives and disincentives for knowledge 'sharing'; on forms of representation etc.

## 4) Contribution of Rich Insight

- Suchman (1987) - limits of machine intelligence; differences between plans and practical actions
- Walsham (2004) - weaknesses of the 'knowledge as object' literature; deep meaning of tacit knowledge

# Group discussions

- Three papers:
    - Markus
    - Bardram and Bossen
    - Walsham and Sahay
1. Do you see traces of the analysis process?
  2. What kind(s) of generalisations made?
  3. What is the "level of ambition" for the generalisations?

# Generalizations from one case?

- Flyvebjerg: five common misunderstandings:
  - Theoretical knowledge is more valuable than practical knowledge
  - One cannot generalise from a single case
  - The case study is most useful for generating hypotheses
  - The case study contains a bias towards verification
  - It is often difficult to summarize different case studies

More recent text in English:

Flyvebjerg, B. Five Misunderstandings about Case Study Research, *Qualitative Inquiry*, vol. 12, no. 2, April 2006, p. 219-245

# 1) Theoretical or practical knowledge?

- Cases, examples "provides the type of context-dependent learning that is required for people to develop from rule-based beginners to virtuous experts".
- "In the study of human affairs, there appears to exist only context-dependent knowledge".
- "There does not and probably cannot exist predictive theory in social science."

## 2) Generalize from a single case?

- It depends on the case and how it is chosen (Falsification – finding "black swans", critical cases).
- Carefully chosen experiments, cases and experience were also critical to the development of physics
- More discoveries have arisen from intense observations than from statistics applied to large groups.
- (Formal) generalization (as aim, ideal) is overrated as a source of scientific development, while the power of the example is underrated

### 3) Only for generating hypothesis?

- Builds on previous point -> cases can also be used to test hypotheses
- Generalisation dependent on case selection: Atypical, extreme cases may reveal more information than representative cases
- More important to clarify deeper causes and their consequences than to describe the symptoms of the problem and how frequently they occur.
- Extreme/deviant cases, maximum variation cases, critical cases, paradigmatic cases

## 4) Verification bias?

- Is there a tendency to confirm the researcher's preconceived notions?
- This problem is relevant for all methods
- Many field studies report revision of initial assumptions
- Geertz: "The field is itself a powerful disciplinary force, assertive, demanding, even coercive".

## 5) Cases are difficult to summarize

- Strong narrative element – difficult to summarize into propositions or theory. The case story is itself the result.
- Is summarizing and generalizing always desirable?
  - “..the value of the case study, the contextual and interpenetrating forces, is lost when one tries to sum up in large and mutually exclusive categories”
  - Payback: a sensitivity to issues that cannot be gained from theory.
  - Summarizing can even be counter-productive to learning
- Rather important: keep **open** the case study, maintain the rich ambiguity of reality

# Optional readings

- Geertz
- Latour
- Schultze
  - Geertz and Latour: theory strongly informs account, but is invisible.
    - Geertz: challenging functionalist anthropology with his interpretive view
    - Latour: "Actor-Network Theory ontology" is the structuring device for the account
  - Schultze: self-reflexive/confessional accounts – (for next lecture)

# Paradigmatic case: "Deep Play"

- The (illegal) Balinese tradition of cock fighting illustrates social structures:
  - "For it is only apparently cocks that are fighting there. Actually, it is men."
- Page 4: "The Fight" – a description of the procedures, rules and actions
  - (Practices)
- Page 6: "Odd and Even Money" describes the betting procedures.
  - (Institutions)
- Page 7: "Playing with Fire" – the notion of "depth", Geertz argument for the social significance of these matches
  - (Symbols)

# Latour: Circulating Reference

- .."Paying close attention to the details of scientific practice"
- Case: Amazon study, soil sampling to detect transition between rain forest and savannah
- What are the actions that transforms pieces of nature into scientific facts or statements?
  - A chain of transformations
- Latour's general program: challenging the discourse of science – showing the disjunction between accounts of praxis and the ethnographic data – "science in action" – not "ready-made" science.