IN 5000/9000
Overview of the field

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Guri Verne
Design of Information Systems Group

PHILOSPHICAL ASSUMPTIONS

about valid research and appropriate methods

Different views on what is good and valid research

Qualitative research can be
- Positivist
- Interpretive
- Critical

- These have different epistemologies:
  what is (considered to be) knowledge?
  How do I know the world?

Epistemology:
the theory of knowledge, especially with regard to its methods, validity, and scope, and the distinction between justified belief and opinion.
(Oxford Dictionary of English)

The paradigm influences the research
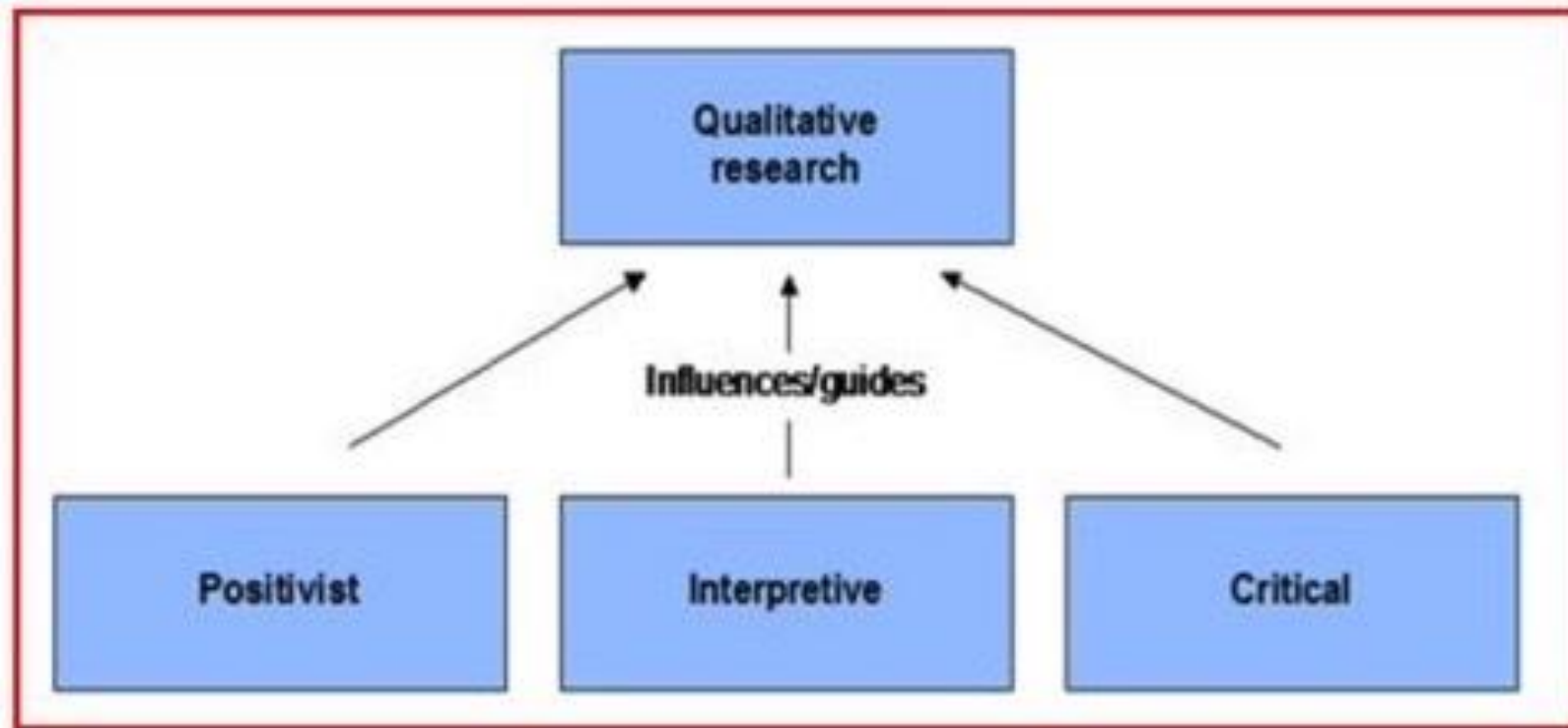
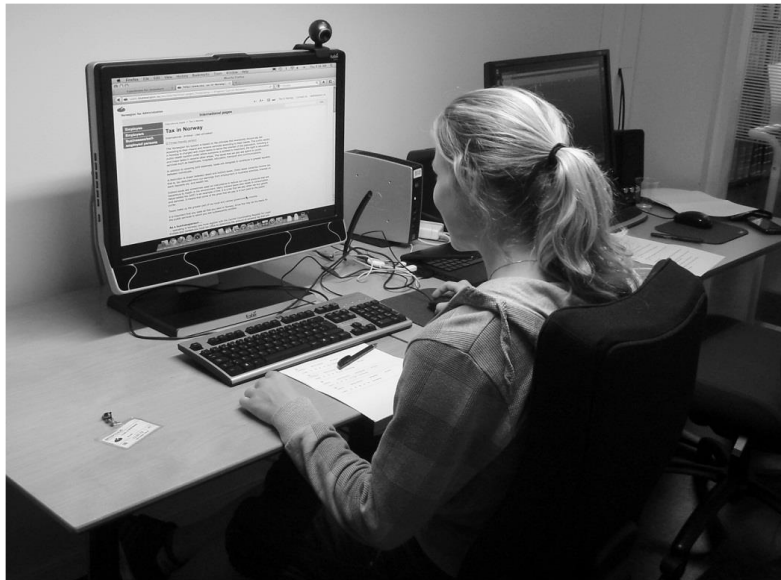From Myers (living version), Verne & Bratteteig (2018).

THREE PARADIGMS

Positivist Research

- Reality is objectively given

- Reality can be described independently of the observer and his/her instruments

  - Often by measurable properties

- Controlled setting

- Theory testing

- Variables: emphasis on quantitative data

- Statistical tools are an essential element

(Myers living version + Klein & Myers 1999)

Positivist example

Positivist Research Example:
Looking for <mark>objective criteria</mark> for the user´s attention

(Nora Raaum ,master thesis (2012) Hvor ser brukeren? En analyse av
eye tracking-data fra bruk av Skatteetatens nettsider», eye tracker
Tobii T60XL)

A usability study of how
the participants found
information on the tax
web pages.

HCI and design research is often positivist

Through Voice Message-Based Real-Time Viewer-Animal Interaction

Chee Eun Ahn
Department of Industrial Design, KAIST
Daejeon, Republic of Korea
cheeeunahn@kaist.ac.kr

Woohun Lee
Department of Industrial Design, KAIST
Daejeon, Republic of Korea
woohun.lee@kaist.ac.kr

Hunmin Park
TmaxOffice Co., Ltd
Seongnam-si, Gyeonggi-do, Republic of Korea
hunmin_park@tmax.co.kr

Jiwoo Hong
Department of Industrial Design, KAIST
Daejeon, Republic of Korea
jwhong10@kaist.ac.kr
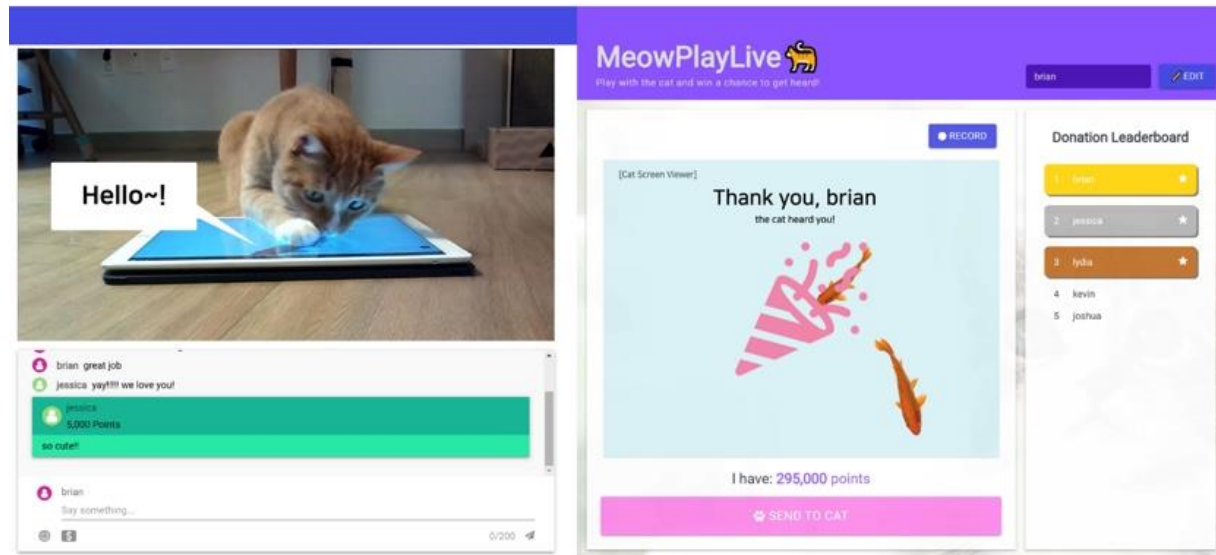
THREE PARADIGMS

Interpretive Research

- The aim is to understand phenomena through the meanings people assign to them.

- Access to meaning is through social constructions, such as language.

- Focuses on the full complexity of human sense-making as a situation emerges. Not predefined dependent and independent variables.

- Interpretive methods of research in IS are "aimed at producing an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context" (Walsham 1993, p.4-5).

THREE PARADIGMS

Critical Research

- Social reality is historically constituted and it is produced and reproduced by people – there is no blank slate.

- People's ability to change social and economic circumstances is constrained by various forms of social, cultural and political domination

- Focuses the oppositions, conflicts and contradictions in contemporary society, and seeks to be *emancipatory* (i.e. help eliminate the causes of alienation and domination)

  (Myers living version + Klein & Myers 1999)

- Power issues are taken into account.

- Within IS, Participatory Design is an example of critical research.

Moving the main circuit breaker to the outer wall

THREE PARADIGMS

Critical Research Example:

Seeing tax as power and taking sides with the citizens doing taxes

No easy corre-spondence

From: "The winners are those who have used the old paper form"
On Citizens and automated public services (Verne, 2015)

Discuss in groups

Thinking about paradigms, what do you think about your previous work?

Where do you feel «at home»?

METHODOLOGIES

While paradigms are philosophical assumptions about research and the world, methodologies are strategies of inquiry.

Methodologies discussed in this course:
(NB: The term used in Myers (living version) is «method»).

Descriptive:

- Case study

- Ethnography

- Grounded theory

Constructive:

- Action Research

- Design research

Case Study

- Case studies involve in-depth examination of a single instance, event or example.

- A case study is an empirical inquiry that:
  - investigates a contemporary instance or event within its real-life context
  - can be positivist, interpretive, or critical

- In IS research:
  the study of information systems in organisations (not just technical issues)

- Basic methods:
  interview, observation, document analysis
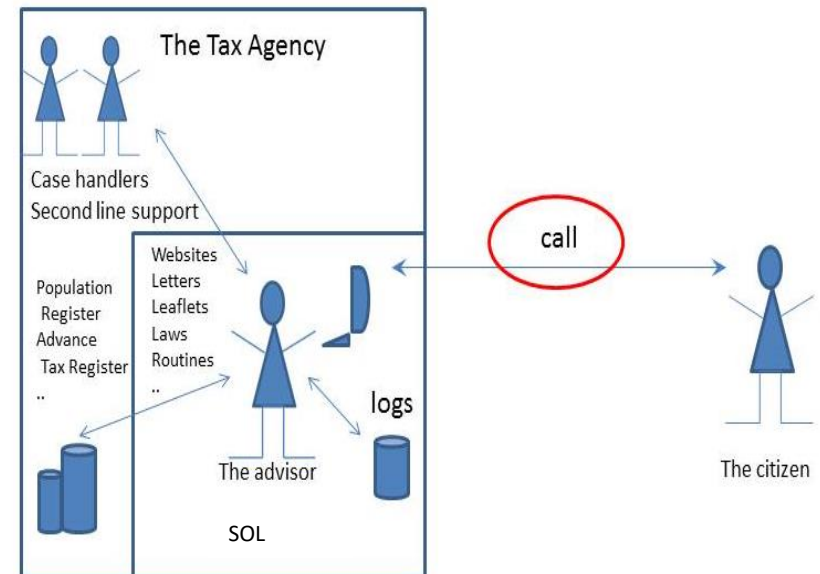
Verne 2015

Ethnography

- Social and cultural anthropology
- Explicit interest in understanding social practices and interactions in diverse communities as they unfold in everyday life.
- It seeks descriptions of what people do rather than what they say they do
- Ethnographers immerse themselves in the world / lives of the people they study
- Understanding the informants' point of view
- Basic methods: participant observation, interview
- Field notes are essential in ethnography
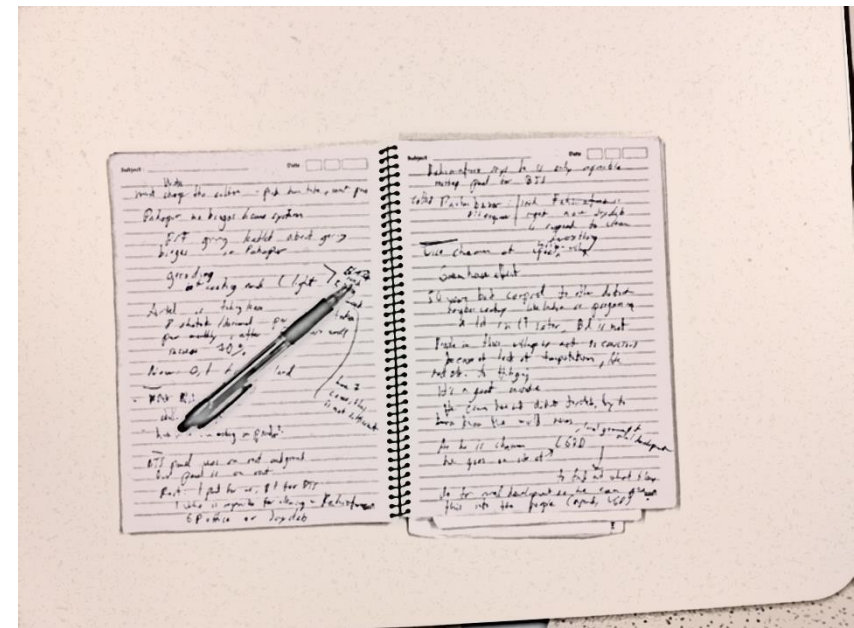
Grounded Theory

- "Grounded theory is a methodology that seeks to construct theory about issues of importance in peoples' lives" (Mills et al. 2006: 26).

- Building theory from data.

- Enter the field with as few pre-determined ideas about what to find there as possible.
  - Avoid hypotheses
  - Sensitivity to the data, but not tabula rasa

- Developed by the sociologists Glaser and Strauss.

Techniques of grounded theory:

- Special emphasis on continuous interplay between data collection and analysis.

- Asking questions aimed at exploring properties, connections, similarities and dissimilarities.

- Developing gradually more abstract ideas from the data.

THE DISCOVERY OF GROUNDED THEORY: strategies for qualitative research

Barney G. Glaser/Anselm L. Strauss

Action Research

- Collaboration with a group of people experiencing a problem
- Researchers help to find what the problem is and implement possible solutions
- An iterative cycle:
  - diagnosing a problem, action planning, action taking, implementing, and evaluating outcomes.
  - Evaluation may lead to a new diagnosis, cycle is repeated.
- Contribution to practical concerns in parallel with theory building
- Vision: researchers have a vision on how the reality should be – not value free
- Action research can be both positivist, interpretive, and critical

Susman 1983 in Baskerville et al. 2002

(Myers living version)

Design Research

- User centered design
- Participatory design
- Research through design
- ..

- Methods:
- Observations, interviews
- Design workshops, user experiments, ..

Verne og Bråthen (2014)

METHODS

While paradigms are philosophical assumptions about the world and methodologies are strategies for gaining knowledge about it, methods* are techniques for generating data.

- Observation: passive and participant (naturally occurring settings)
- Document analysis: e.g., screen dumps, newspapers, letters, agreements, brochures
- Interviews: structured, semi-structured, open-ended (not naturally occurring settings)
- Video and audio-tapes can be studied over and over and be transcribed
- Note taking: Describe what you observe/encounter/hear/smell/engage in. Remember: date, time, place, persons present (roles, occupation, affiliation).
- Design workshops.

*Myers: "technique"

(Crang & Cook 2007, Blomberg et al. 1993, Silverman 2005)
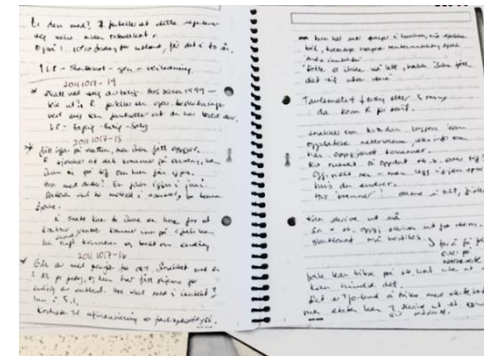
Discuss in groups

Which research methods do you have experience from?

Are there some you are curious about and want to try?

Researcher's reflexivity

Do we see the same regardless of who we are and where we come from?

- **Positivist paradigm**: We will see the same if we use proper methods for data collection and analysis.

- **Interpretive and critical paradigms**: Knowledge about how people make sense of and experience the world can only be accessed through representations (e.g., language and shared meaning). Your previous experiences will influence how you interpret what you encounter. How you appear to the informants will influence how they relate to you as a researcher.

Illustration: Hans Møller, mollers.dk
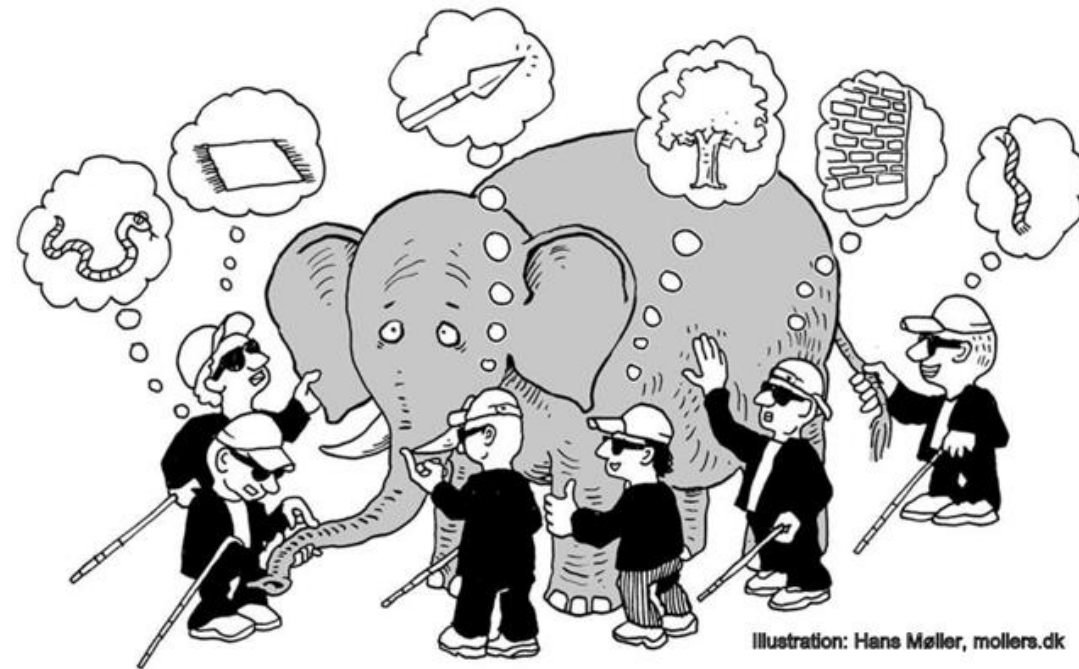
Conducting field work
+ analyzing field material

- What are people doing? What are they trying to accomplish?

- How, exactly, do they do this? What specific means and/or strategies do they use?

- How do members talk about, characterize, and understand what is going on?

- Which assumptions are they making?

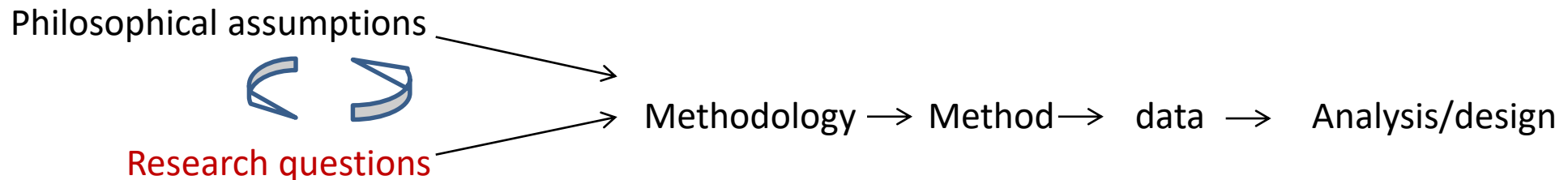- What do I see going on here? What did I learn from these notes?

(Emerson et al. 1995:146)

Concepts

- **Paradigm**: a set of philosophical assumptions, a pattern of thinking.
- **Theory**: a set of propositions providing the principles of analysis or explanation.
- **Analysis**: breaking something down into smaller parts to gain understanding of it. Put it together in new ways to learn something new.
- **Ontology**: theory of reality, existence, being (what is reality, how does something come into being).
- **Epistemology**: theory of knowledge (about the nature and origin of knowledge – how do I know the world?).
- **Methodology**: research strategy, strategy of inquiry (how do we gain knowledge of the world?).
- **Method**: a way of arranging the generation, analysis, and writing up of qualitative research material.
- **Reflexivity**: the process of reflecting critically on approach, positioning, and relationship between what you encounter in the field and how you represent it.
- **Inductive approach**: theory building bottom-up from empiric material
- **Deductive approach**: theory building top-down (hypothesis testing)

(Denzin & Lincoln 2005 + Mautner 2005)

How it connects

Researchers have different philosophical assumptions (**paradigms**) about the world: how we are to understand it, and how we are to study it. This has lead to different strategies of inquiry (**methodologies**) and to different ways of approaching how we gather empirical material and analyze it (**methods**).

Philosophical assumptions

Research questions

Methodology → Method → data → Analysis/design

How it connects

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