# Introduction to IN 5000/9000 Qualitative Research Methods in Information Systems

IN 5000/9000

January 24, 2023

Guri Verne,

Design of information systems group

# Lectures: Tuesdays 14.15-16

Room: Logo

The slides will be available on the course page after the lecture
You will find a detailed overview of the semester on the curse page

- Lecturer
- Lecture topic
- Curriculum

# Feedback and seminars: Tuesdays 12.15-14

Room: Perl

# Teachers

Guri, guribv@ifi.uio.no

Fabiano, fabiano.pinatti@ifi.uio.no

Vetle, vetleu@ifi.uio.no

# Research versus journalism or opinionating

## My advice after a year without tech: rewild yourself
*Mark Boyle*

We can't all go and live in the woods, of course. But if we resist debt, resist gadgets, and reconnect with nature, the world might just change



DO YOU WISH TO CONTINUE?
EVERYTHING NOT SAVED WILL BE LOST

YES                    NO

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**The long read**

## Becoming a chatbot: my life as a real estate AI's human backup

For one weird year, I was the human who stepped in to make sure a property chatbot didn't blow its cover – I was a person pretending to be a computer pretending to be a person

by Laura Preston

Illustration: Getty/Guardian Design

Tue 13 Dec 2022 06.00 GMT

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The recruiter was a chipper woman with a master's degree in English. Previously she had worked as an independent bookseller. "Your experience as an English grad student is ideal for this role," she told me. The position was at a company that made artificial intelligence for real estate. They had developed a product called Brenda, a

# Discuss with your neighbour:
## What can be differences between journalism and research?



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# Research produces new knowledge

… by asking questions and answering them.

There are different kinds of research
+ different kinds of questions
+ different approaches to answering them

Research logically begins with a question:
the Research Question

# Different kinds of research



For example
Qualitative research
Quantitative research
Technology research
Design research





Natural science
Social science
Cultural science

# Different kinds of questions

Descriptive:
opens up for descriptions of conditions or situations, and explanations of how something changes or stays unchanged.

Evaluative/ normative:
we ask which value something has. Normative arguments are required to answer evaluating questions.

Constructive:
evaluating something can logically be used to suggest and discuss improvements to it.

(Kalleberg 1992, 2002)

Harriet Holter og
Ragnvald Kalleberg
(red.)

Kvalitative
metoder
i samfunns-
forskning

Universitetsforlagets Metodebibliotek

# Different approaches to answering

Qualitative research
Aimed to understand a social phenomenon
Working with qualitiative data

Quantiative research
Originally from the natural sciences to study natural phenomena,
Working with quantitative data
Include survey methods, laboratory experiments, formal methods (e.g. econometrics) and numerical methods such as mathematical modeling.
(Myers living version)

# Qualitative research



"Qualitative research methods are designed to help researchers understand people and the social and cultural contexts within which they live. [..] the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context is largely lost when textual data are quantified" (Myers living version).

Qualitative research involves working with *qualitative data*
* interviews,
* documents,
* participant observation data,
* photos, ......

to *understand and explain social phenomena.*

We study use, design and development of technology as social phenomena.





Verne og Bråthen (2014)

# QUALITATIVE – QUANTITATIVE

- Observation
- Interview
- Texts/documents
- Audio / video
- Small numbers (focused)
- In-depth
- How, what, how come

- Questionnaires
- Surveys
- Experiments
- Statistics
- Large numbers (broad)
- Broad rather than in-depth
- How many? Why (causality)?

**What is best?**

No research approach (quantitative or qualitative) is better than any other.

In choosing a method, everything depends upon what we are trying to find out. Thus, it depends on your research question (Silverman 2005).

# A personal experience: Kali Eskrima



Dinh Uy Tran

Video of opponents before a fight

- Analysis of techniques

- Quantification

- Only a small piece of what they need: He can be injured, or adapt techniques to a different opponent.

- You need to know own strengths and weaknesses.

In practice they make a qualitative assessment

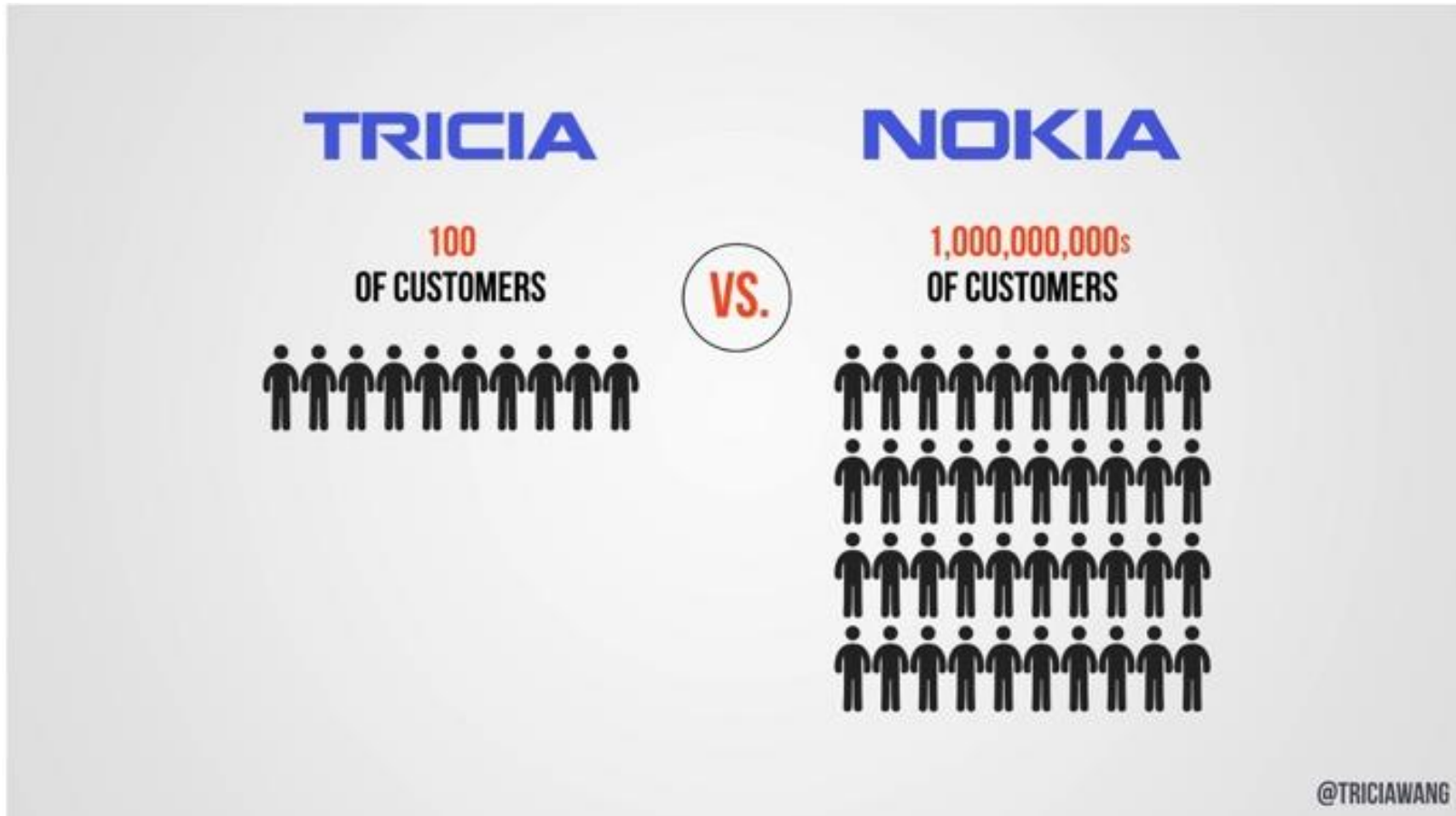 - Plan A, B and C for eventualities



CC image courtesy of Boso
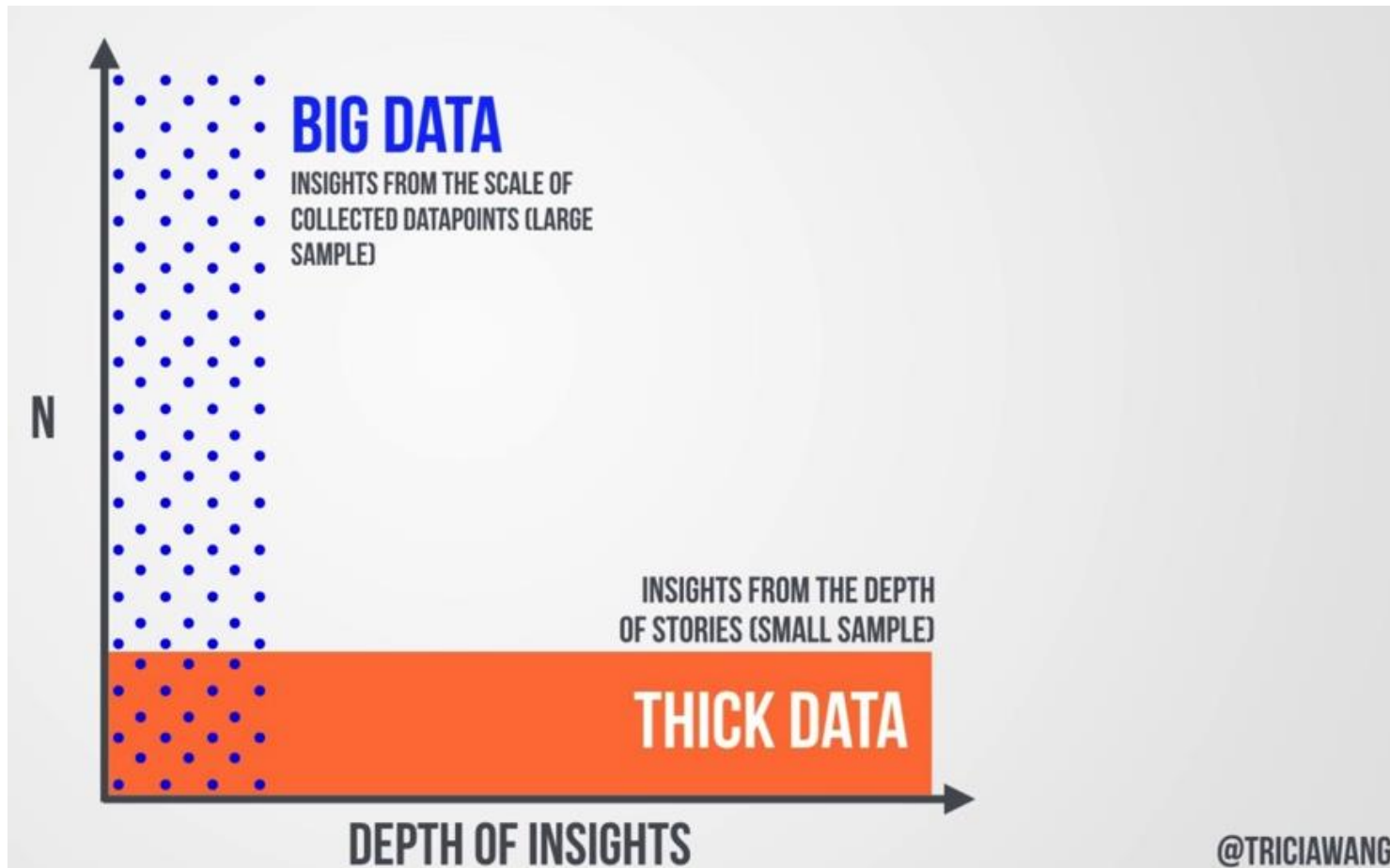
# Big data versus thick data



WHILE CONDUCTING ETHNOGRAPHIC RESEARCH AT NOKIA IN 2009, I DISCOVERED SOMETHING THAT CHALLENGED NOKIA'S EXISTING BUSINESS MODEL.

Tricia Wang, 2016,
https://medium.com/ethnography-matters/why-big-data-needs-thick-data-b4b3e75e3d7
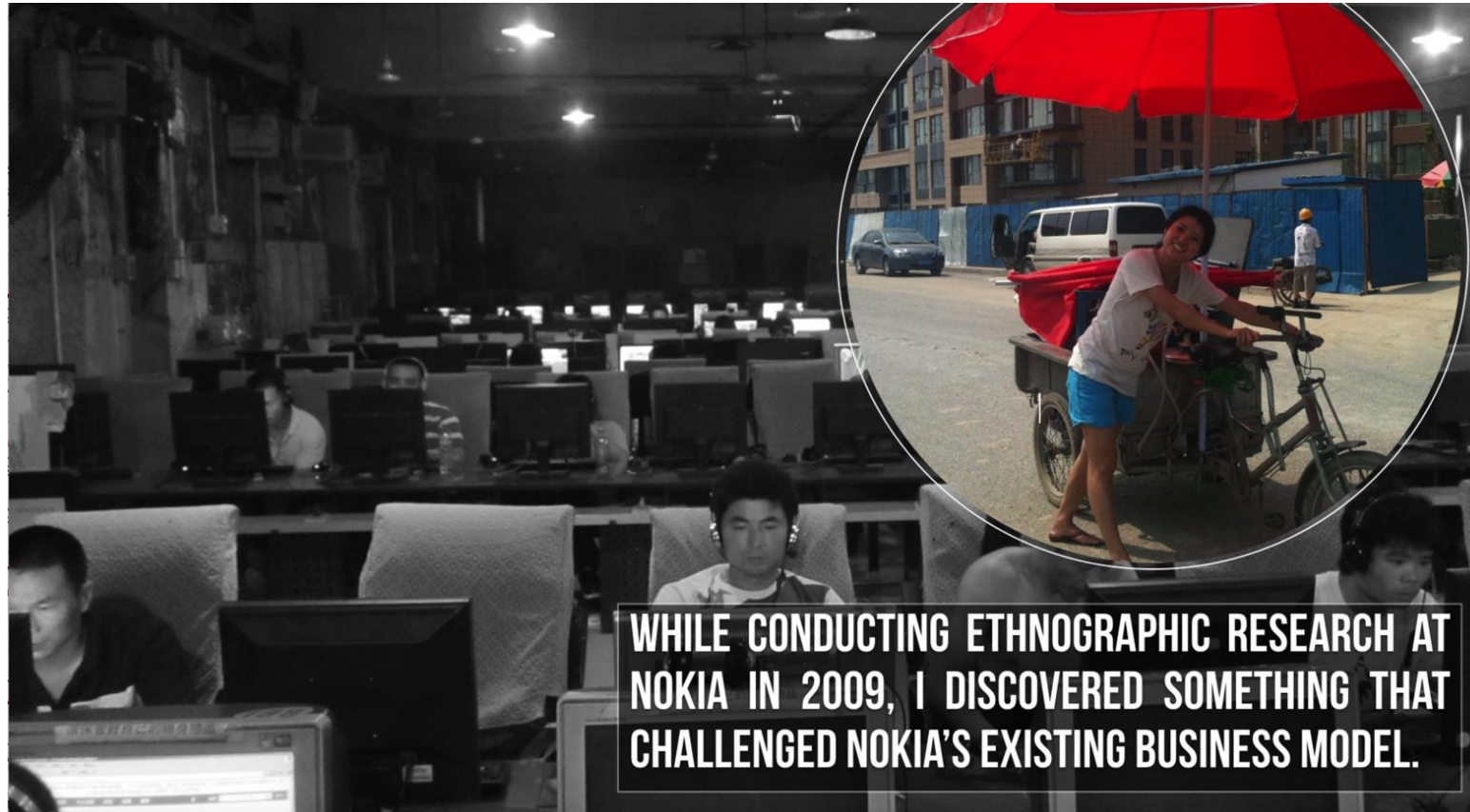
We know what happened to NOKIA

# Big data and thick data

# Discuss with your neighbours

Do you have previous experience with qualitative or quantitative research?

What is your experience with qualitative research?

# Philosophical assumptions

All research is based on some (explicit or implicit) underlying philosophical assumptions about what constitutes valid research and which research methods are appropriate.

These assumptions are called paradigms.
In this course, we talk about research within three paradigms:

- Positivist
- Interpretive } research
- Critical

# What is Hanne Cecilie doing here? (different paradigms)



Positivist research
- Reality is objectively given



Interpretive research
- Access to reality is only through language or other social phenomena



Critical research
- social critique to uncover restrictive conditions

# Having passed IN5000

After you have completed this course, you can

- explain and compare different qualitative research paradigms including the interpretive, critical, and positivist paradigms

- explain and compare different qualitative methodologies including case studies, action research, and ethnography

- explain and compare different methods used in qualitative empirical research in informatics including interviews and observations

- explain and illustrate the relationships between research questions, paradigms, methodologies and methods

- position and discuss your own and others' research with respect to the qualitative research paradigms

- make qualified and well-motivated choices of research methodology for your own research and assess others' choices of methodology

- perform interviews and observations and analyze the resulting empirical data

+
photos and documents

+
design methodologies
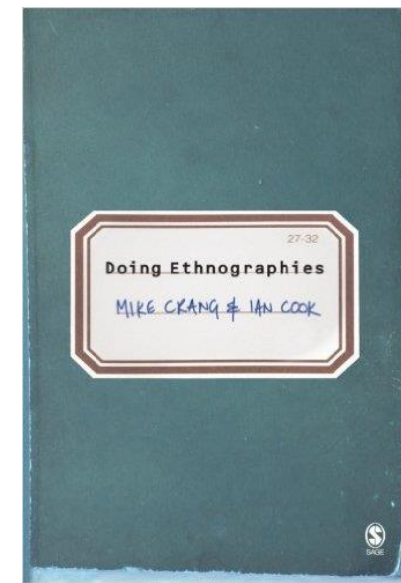
You'll learn about different types of research (as sketched above).

- How to do it yourself (assignments are central for learning), and how to analyze and write up your findings.
- The course has one course book (Crang and Cook (2007)).
- In addition, we will work with a number of articles, both discussing methodological issues and as exemplars of these different types of studies.
- See course page for literature (syllabus) + detailed teaching plan for readings and assignments.

# A word of caution

You may have experience with other textbooks, e.g.:
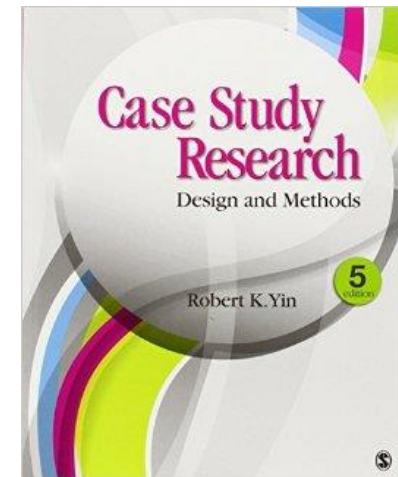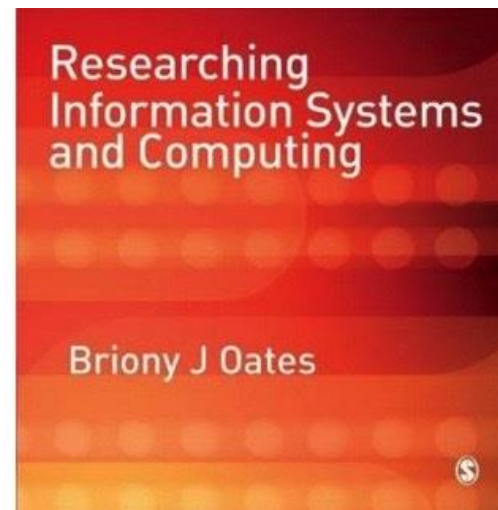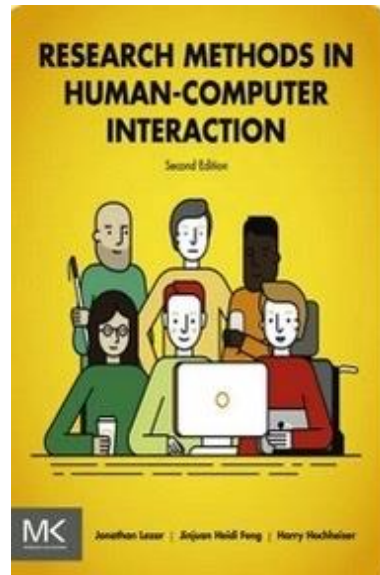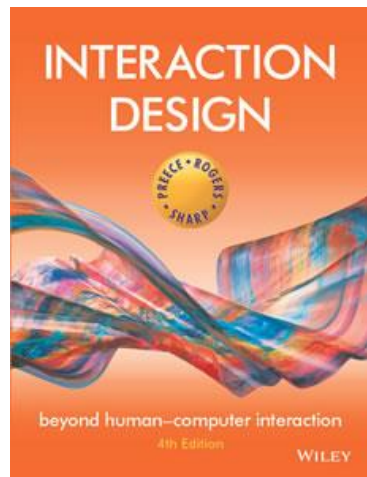


They take other approaches that is different from what we teach here. This can be a risk at the exam!

# Preece, Sharp and Rogers on data gathering

«.. data gathering is a central part of establishing requirements, and of evaluation. Within the requirements activity, the purpose of data gathering is to collect sufficient, accurate, and relevant data so that a set of stable requirements can be produced, within evaluation, data gathering is needed in order to capture users' reactions and performance with a system or prototype»

Yvonne Rogers, Helen Sharp, Jenny Preece (2015, p 226)
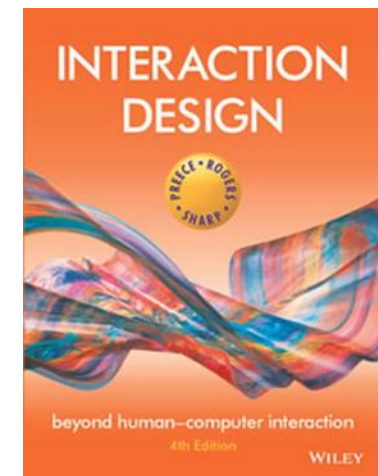
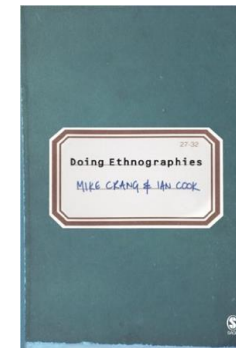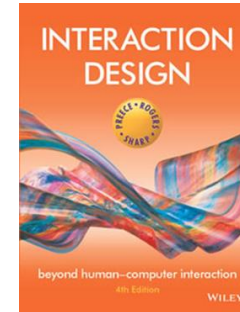# Comparing Rogers, Sharp and Preece with Crang and Cook on data gathering

RSP:

«.. data gathering is a central part of establishing requirements, and of evaluation».

CC:

«… research must involve the struggle to produce *inter-subjective thruths*, to understand why so many versions of events are produced and recited».

Rogers, Sharp and Preece (2015, p 226)
Crang and Cook (2007, p 14)

# Questions so far?

Before I turn to practical matters

## There are five mandatory assignments

Assignment 1: observation

Assignment 2: interview

Assignment 3: reflections on qualitative research

Assignment 4: Research proposal v. 1

Research proposal v. 2

Only for IN 9000 students:

Mandatory seminar in ca April

- Date to be decided

## Groups or individual?

We aim to combine the strengths of working in groups and working to prepare for your your master work.

Next Tuesday we form groups
You can start observations now

# Feedback on assignments: Tuesdays 12.15-14

Room: Perl

| Assignment | Delivery | Feedback |
|---|---|---|
| 1: Observation | Wed February 8th, 12 noon | Feb 14th |
| 2: Interview | Wed March 8th, 12 noon | March 14th |
| 3: Reflections on qualitative research methods | Wed March 22nd, 12 noon | March 28th |
| 4: First draft of RP | To be decided | To be decided |
| 5: Final draft of RP | To be decided | To be decided |

Seminars: to be decided

# How to submit assignments

Deliver as email to guribv@ifi.uio.no, deadline 12 noon on the following Wednesdays:

- Assignment 1: February 8th
- Assignment 2: March 8th
- Assignment 3: March 22$^{nd}$

- Assignment 4: to be decided
- Assignment 5: to be decided

# Oral Exam

- The exams will be individual
- 25 min each
- ca 10 min to talk about a chosen topic
- ca 15 min to answer questions and discuss with the examiners

- Grading scale A-F for IN 5000
- Grading scale pass/fail for IN 9000

- Probable dates:
- 30. 5. to 2.6 or 12.-16.6