

UiO : **Department of Informatics**
University of Oslo

**IN 5510 Deltakende eksperimentell design/
Participatory Experimental Design**

Introduction

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Design of Information Systems



This course is about

- Where do design ideas come from?
- How can I stimulate ideas?
- Working with design ideas based on use.



Experimental design

- Open up for new ideas
- Open up for ideas you have not thought out yourself
- Learn to work professionally with design ideas



Experimental design 2

- Not a deterministic outcome
- No master plan for the design product
 - maybe for the process
- No formalized models
- No up-front specifications

➔ Often a topic



Where do ideas come from?

Designers learn from designers

Apple Design vs Braun

Braun became known for its iconic designs for a wide range of devices



Braun T3 pocket radio vs. the early iPod



Early iPhone calculator app vs Braun ET44 calculator.

Where do ideas come from (2) ?

*Engelbart
designed the first
mouse -
for «augmenting
human intellect»*

Douglas Engelbart, 1963



"I don't know why we call it a mouse. Sometimes I apologize. It started that way and we never did change it" (Engelbart)

<http://www.networkworld.com/article/2167877/smb/douglas-engelbart--inventor-of-the-computer-mouse--has-died.html>

Design is about making futures

- Scandinavian tradition of Participatory Design: “ensuring that **those who will use information technologies** play a critical role in their design”.
- “shaping of future situations” for others
- mutual learning

(Robertson and Simonsen, 2012, p 2)

Discuss for 10 minutes

- Do you have experience with design that has slid nicely into your life?
- Have you experienced design that has not fitted nicely into your life?

Software design sits at the crossroads of all the computer disciplines: hardware and software engineering, programming, human factors research, ergonomics. It is the study of the intersection of human, machine, and the various interfaces – physical, sensory, psychological – that connect them.

(Winograd 1996:xv my italics)

In this course

- This course stands on two legs:
 - Creativity by opening up for ideas based on use
 - User participation in design
- Focus is on use
- Focus is on process

Aims for user participation

- Improving the **quality and relevance** of the product
- Improving the quality of the **design process**
- Enhances **engagement** from users
- Encourages more robust **communication**
- **Shared understandings** between stakeholders
- Close to **actual practice**
- Participation as a **democratic value**

Participation

- Users are not merely answering questions about their opinions
- Users draw sketches and discuss design ideas together with colleagues and designers



How?

- Tools and techniques

Design by doing:

- Workshops
- Interactions with prototypes
- Mock-ups
- Scenarios
- Design games
-



Photo: Ida Braaten

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participatory
design
conference

1 5 — 1 9 J U N I O , 2 0 2 0

MANIZALES – COLOMBIA

 Participation(s) otherwise

Practical matters

- Textbooks:
Simonsen, J., & Robertson, T., editors (2012) "Routledge International Handbook of Participatory Design", Routledge, Available online on oria.no
Löwgren, J. & Stolterman, E. (2005). Thoughtful interaction design: a design perspective on information technology. Cambridge, Mass.: MIT Press, Preface + chapter 1-2.
- Theoretical curriculum – read it!
- Learning outcomes
- Four mandatory assignments
- Teaching schedule
- Project work in groups
- Lectures and exercises on Tuesday
- Two feedback sessions with Tora/Åsmund
- Project report
- Oral exam

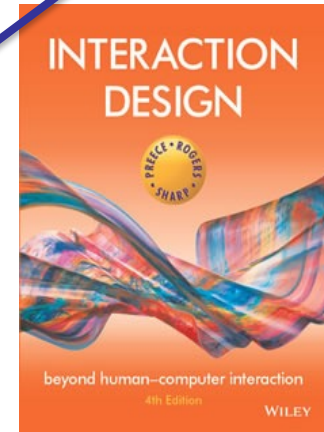
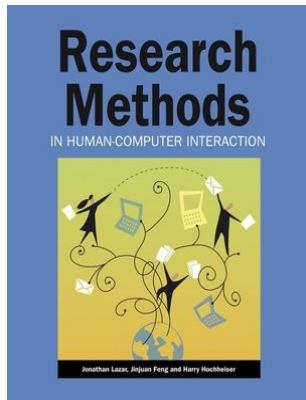


About reading papers

- What is the key question(s) that the author(s) address in their text?
- How do they motivate (i.e. justify) the importance of the question(s)?
- How do they go about to produce their argument(s) to the question(s) addressed?
- What is the answer to the questions stated, or what is the key message of the paper (or chapter) that the author(s) try to send to the readers?
- What are the potentially positive benefits, that the authors state themselves, of the key message of the text?
- What does it say to you?
- **You can read it fast for overview first, and then read it deeper later in the course.**

NOT: Other literature

- Preece, Sharp and Rogers: Interaction Design beyond human-computer interaction, 2015, John Wiley & Sons Ltd
(INF 1500/1510)
- Lazar, Feng and Hochheiser: *Research Methods in HCI*, 2010. Wiley



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**» (Preece, Sharp and Rogers, 2015, p 226).
- This is different from doing PD.

Learning outcomes

After successful completion of this course, you can

- explain the basic principles of experimental and participatory design
- apply basic tools and techniques for collaborating with users in the design process
- provide a rich description of the use context and the user group
- design a prototype together with users and evaluate it with them
- analyze the design suggestion through theoretical concepts from the course and argue for your design choices
- discuss ethical perspectives concerned with designing with users
- plan and implement a participatory design process where mutual learning is a goal