

UiO : Department of Informatics
University of Oslo

IN 5510/9000
Deltakende eksperimentell design/ Participatory Experimental Design

Introduction

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Course teachers



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Design of Information Systems

This course is about

- Participatory
- Experimental
- Design





Discuss for 3 + 3 minutes

- What does **participatory** mean for you?

- What does **experimental** mean for you?

Experimental + participatory design

In this course involves

- Open up for new ideas
- Open up for ideas you have not thought out yourself
- Work with design ideas







Experimental design

The design is open from start

- 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

But also about

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

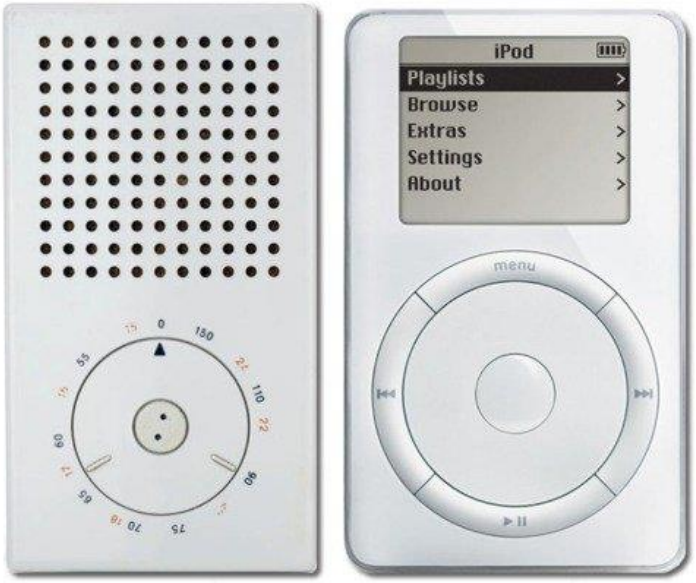


Where do ideas come from?

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.

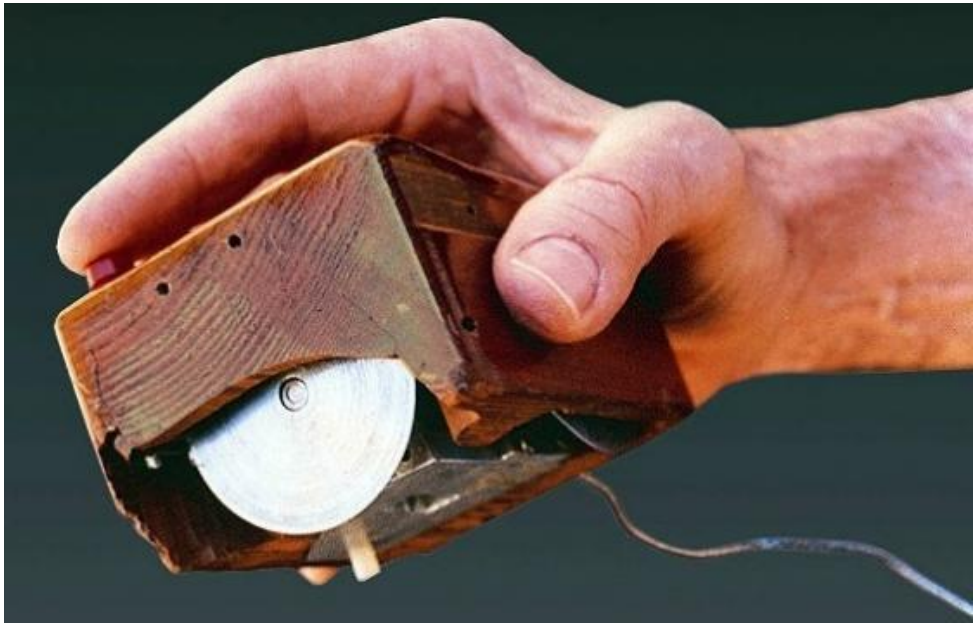
https://se.braun.com/en/design-culture

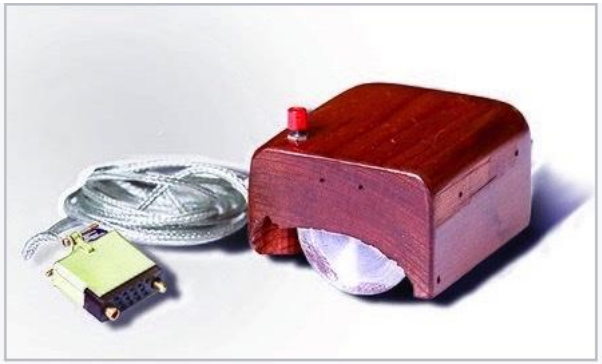
Source: http://www.apartmenttherapy.com/apple-design-doesnt-fall-far-from-brauns-tree-176668
https://www.cultofmac.com/188753/the-braun-products-that-inspired-apples-iconic-designs-gallery/

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)

Design building on practice

- A socio-technical approach that appreciate the context in which the technology will be used
- …and what's going on in that context
- …. and what people really do

"..the development of the artifacts with which people work and the development of their work practices go hand in hand" (Suchman & Trigg 1991, p. 65).





Norwegian heritage !



- Early PD projects were Scandinavian
- Norwegian Iron and Metal project
- Work was changing with the introduction of computers
- Kristen Nygaard: building and sharing knowledge

Newer developments in PD

- New design usually/ often build on existing technology and systems
- More people have experience with IT
  - What kind of knowledge needs to be shared?
- What does participation mean?

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 design 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 in making design choices 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 for design and participation
  - Workshops
  - Interactions with prototypes
  - Mock-ups
  - Scenarios
  - Design games
  - …..



Photo: Ida Braaten

Ui



PDC2024
Sibu, Sarawak, Malaysia

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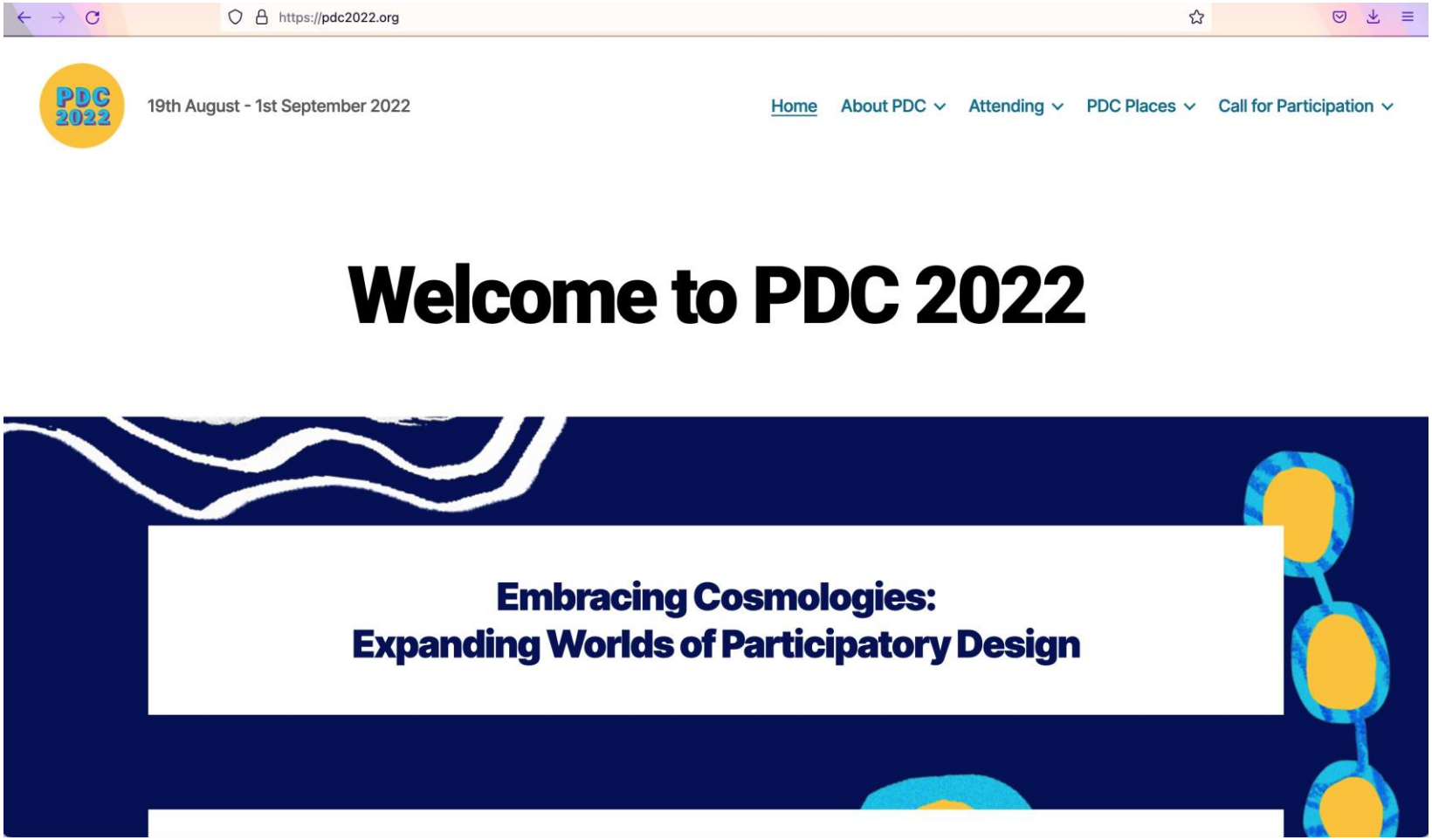
Theme

Reaching Out: Connecting Beyond Participation

The Participatory Design Community now looks back on three decades of research and change initiatives to allow organizations and societies to develop based on a broad set of opinions and stakeholders. In this time, the emerging Information and Communication Technologies have been both a challenging arena to maintain democratic values and an important set of tools to support initiatives for change.

The arenas around this duality of ICT potentials have changed and diversified. In many regions of the world, access to participation infrastructures-technological as well as non-technological continues to be a challenge, while in other regions issues of choice of investment in and success with change initiatives are tightly connected with living socio-technical infrastructures from Open-Source-Platforms over Makerspaces to Social Media.

Phenomena of and challenges for participation as a democratic foundation of the organization of mankind has grown past ritual modes of involving the underprivileged in (technological) projects and decisions they are affected by. It has turned into a continuous effort to improve the capacities to act towards change in an informed way. PD has been very much in the realm of academics, and practitioners, such as in areas of user experience, user interface design, and moved into areas such as ICT4development. Yet there should be awareness and understanding from the different sectors, not only, academia and industry, also from government, NGO's

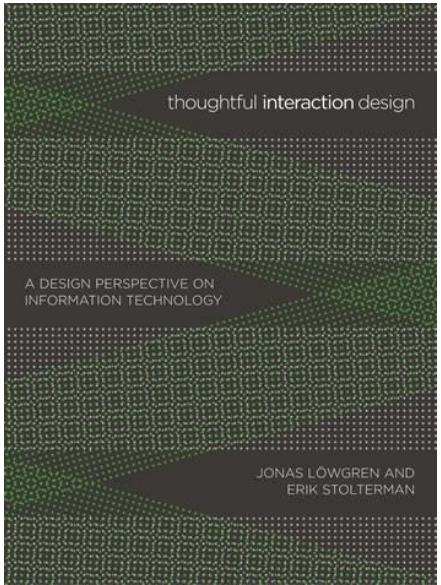


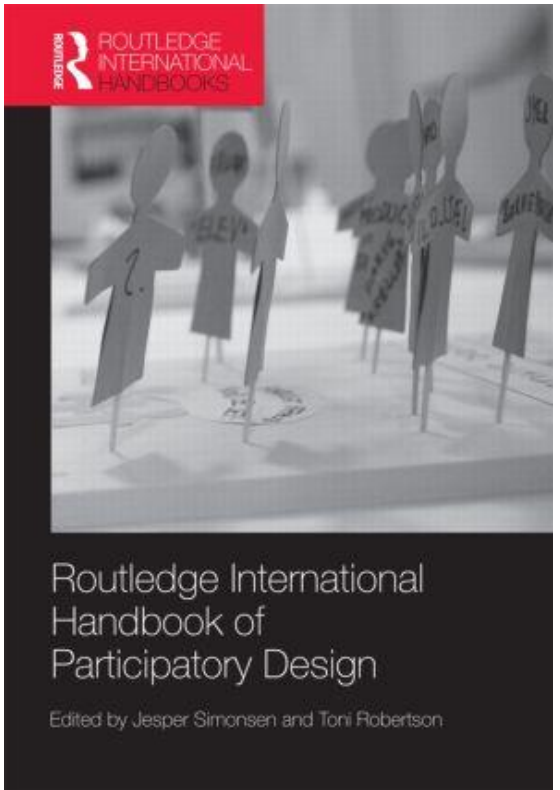
https://pdc2022.org/

Practical matters

- Textbooks:
  Simonsen, J., & Robertson, T., editors (2012) "Routledge International Handbook of Participatory Design", Routledge, Available online on oria.uio.no
  Löwgren, J. & Stolterman, E. (2005). Thoughtful interaction design: a design perspective on information technology. Cambridge, Mass.: MIT Press,
  Preface + chapter 1-2. Available online on oria.

- Theoretical curriculum – read it!
- Four mandatory assignments
- Learning outcomes





More practical matters

Teaching schedule

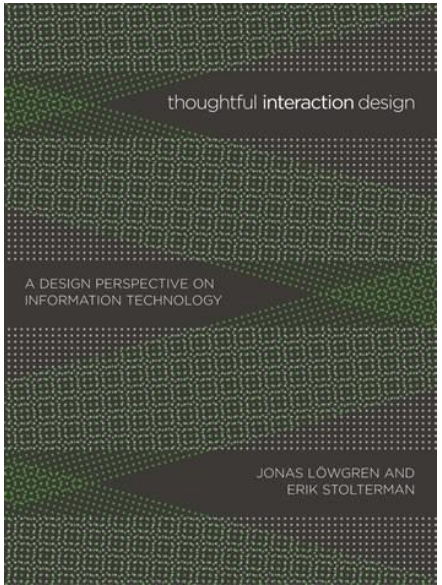
- Lectures on Mondays 14.15- 16
- Exercises on Wednesdays 12.15- 14

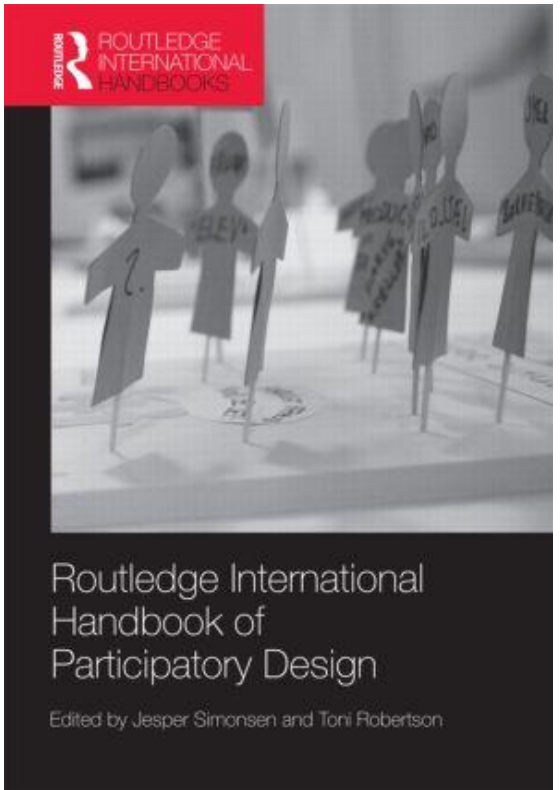
Project work in groups

- Two feedback sessions
- Project report
- Oral exam

Papers to present

Midterm presentation





Learning outcomes

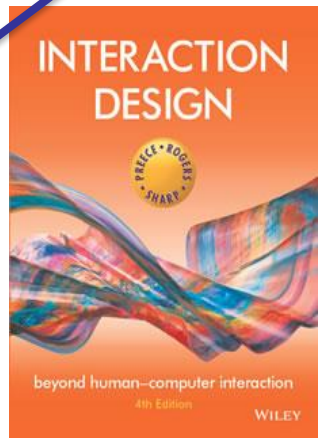
After successful completion of this course, you can

- 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

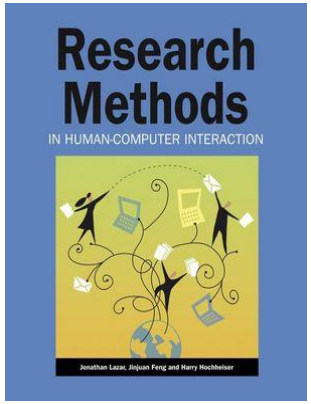
About reading papers

- 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



- 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.

Wallet+ excercise Wednesday with Jasmin and Tora



When you have questions, please bring them up in the class, during breaks, or as emails to both

jasminni@ifi.uio.no and guribv@ifi.uio.no