

UiO : Department of Informatics
University of Oslo

IN 5510
The design process

2. september 2024

Guri Verne
Design of Information Systems

Contents

- About design
- The design process
  - early phases
  - design moves
- The designer
- Participatory Design
- When does the design process stop?

About design

”The term ’design’ comes originally from the Latin *signum* – meaning ’sign’, to designate or appoint – via Italian and French, its meaning shifting to mean making, and then drawing or sketching (marks).”
(Bannon & Ehn 2012, p. 40)

To design is both a noun and a verb
– It is both a specialized and a general ability

A Design Perspective

Löwgren & Stolterman (2007) *introduce a design perspective*

on the creation and shaping of digital artifacts

- like architecture or industrial design
- a reality of complexity and change
- how to think about interaction design
- thoughtful design – being reflective and critical



Disciplines

Computer science
Software engineering
IS development



Design is

to shape and compose
- *not in clay, plastic or metal*
- but in information technology
- "the material without qualities"

The material is a composition of technical artifacts and social systems.

- A social process aimed at making change

Löwgren & Stolterman (2007)

Talk with your neighbour 5 min

Design is

- to shape and compose
- *not in clay, plastic or metal*
- in information technology
- "the material without qualities"

- The material is a composition of technical artifacts and social systems.

- A social process aimed at making change



What does this mean to you?
How does this fit with your thoughts on design?

Design is to create something new

- Not problem solving
  - Who defines what is the problem?
  - Who provides insight into the situation?
- Not formal logic
- No right or wrong design proposal

- Design is about
  - Making people's futures
  - Making change
- This is an ongoing process

First appears a design vision:



"appears very early, maybe too early: before you start thinking about any analysis you find yourself thinking about the final solution" [Stolterman, 91: 137 (our translation)].

(Bratteteig & Stolterman 1997:289)

It may be contradictory and fragmented!



Designing the design process

The design process begins when the initial ideas concerning a possible future take shape.

«There is no clever way to define away the intricacy of design» (L&S 2005)

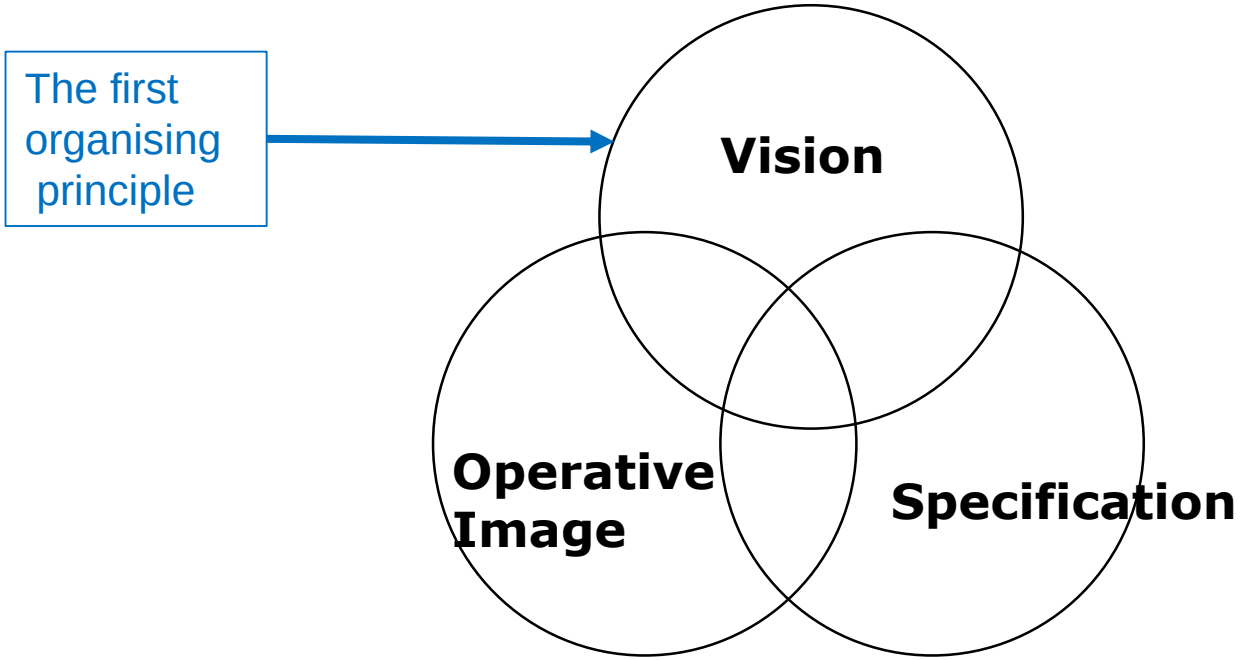
Thoughtful design!

- Who?
- How?
- Workshops?
- Meetings?
- Prototypes?
- ….



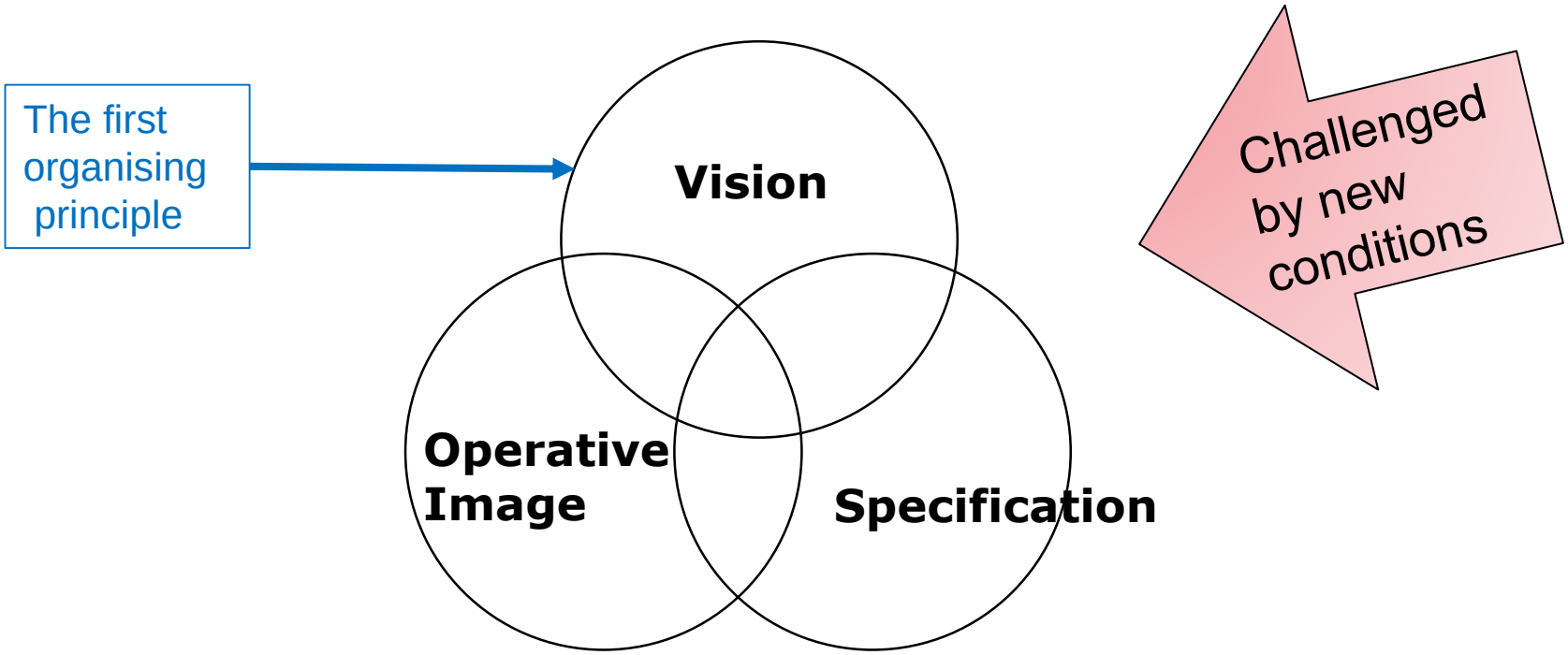
Jonas Löwgren: «The knowledge is in the practice" 7.9.2018)

The design process – early phases



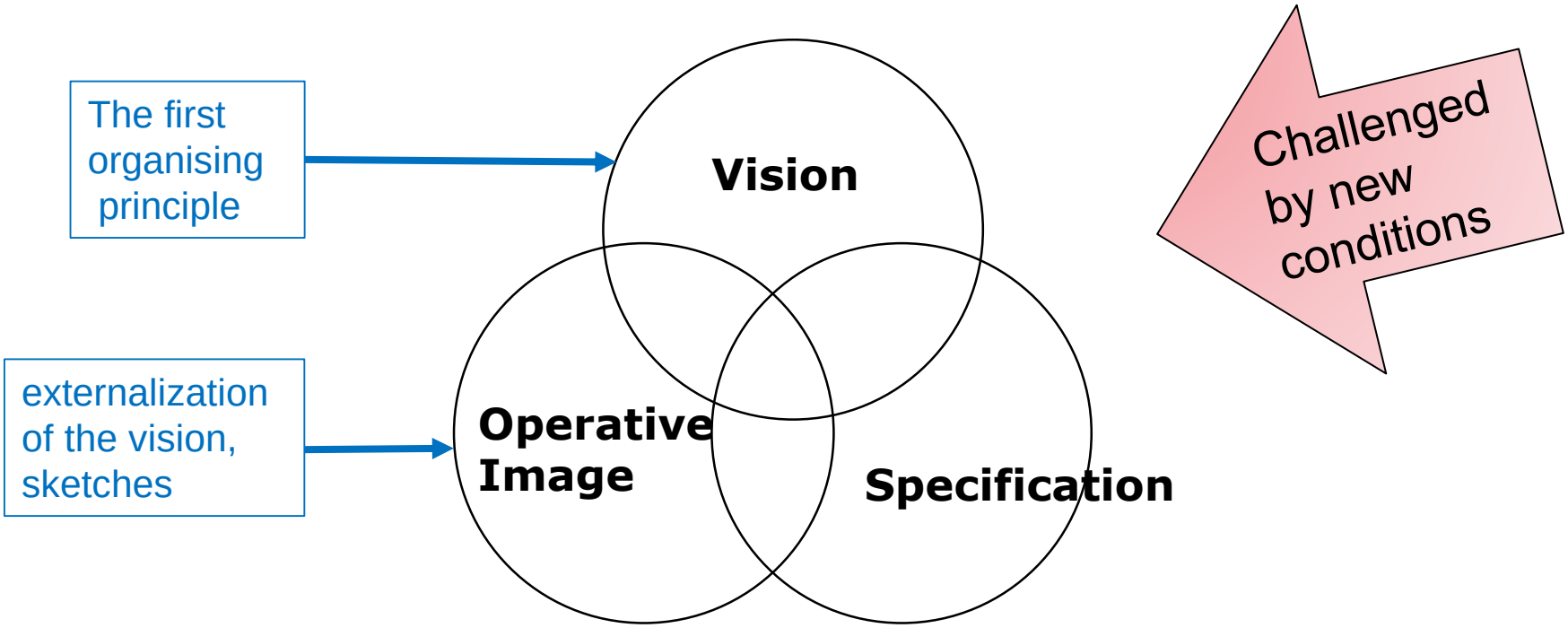
Löwgren & Stolterman 2007

The design process – early phases



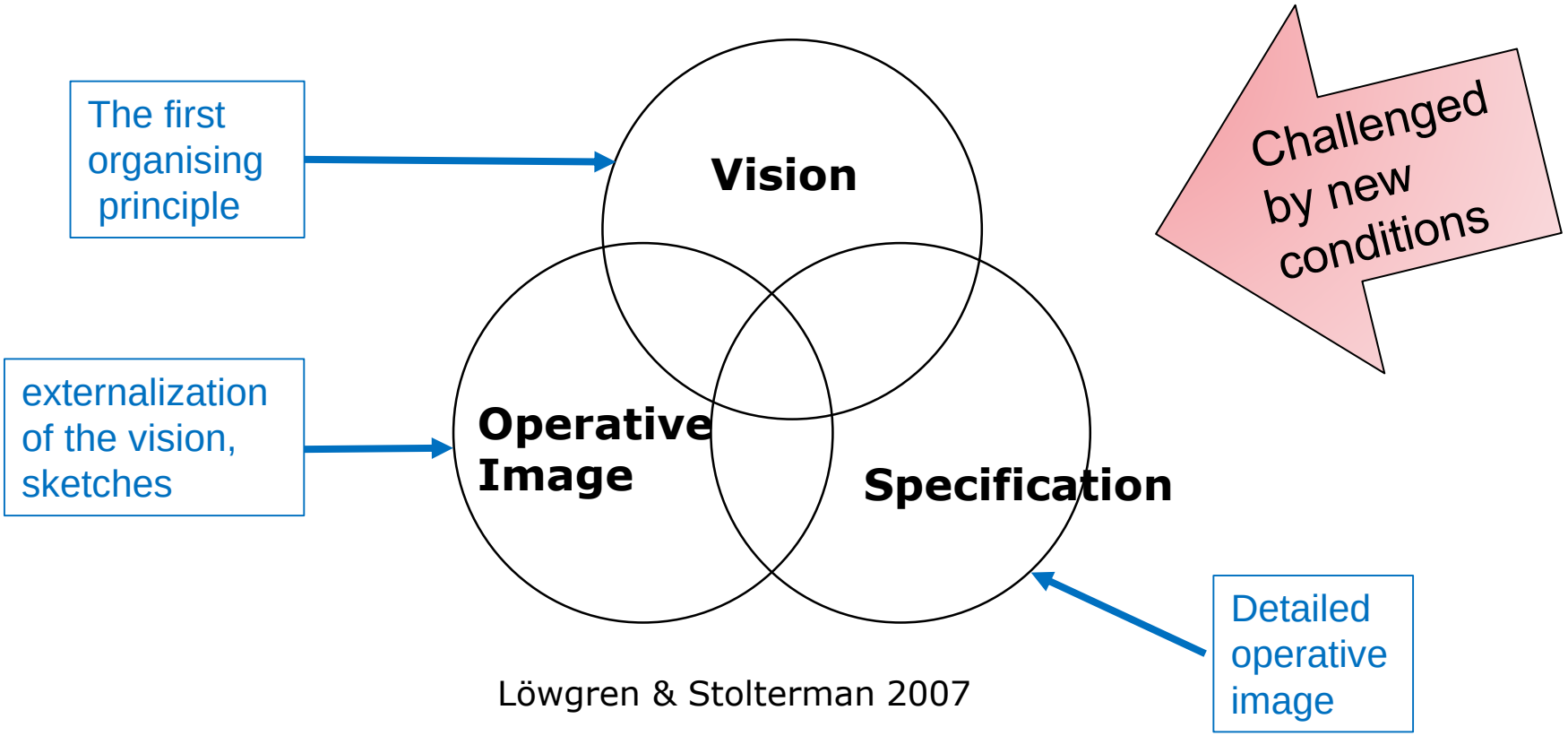
Löwgren & Stolterman 2007

The design process – early phases



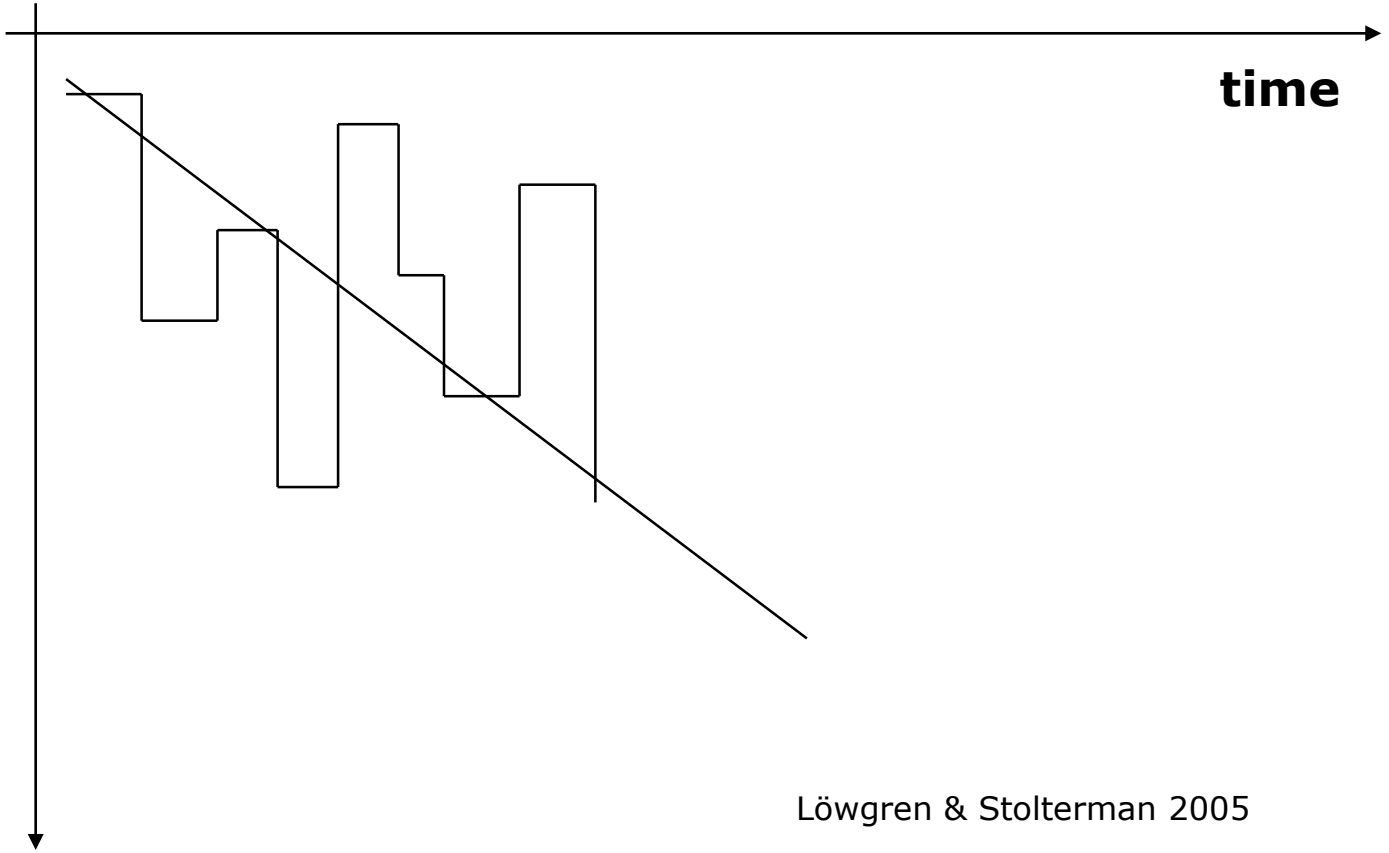
Löwgren & Stolterman 2007

The design process – early phases



Löwgren & Stolterman 2007

A DIALECTIC process



Löwgren & Stolterman 2005

Dialectical:
examining something or finding a solution to a problem by considering opposite theories, dialogue (dictionary.cambridge.org)

Design moves

Testing out ideas, retracting if it does not work with the designer's understanding

Seeing – moving – seeing

- See what's there (descriptive)
- See how it functions (a judgment)

Design as a conversation between the designer and the materials

- The material talks back

A cumulative process of discovery

(Schön and Wiggins 1992)

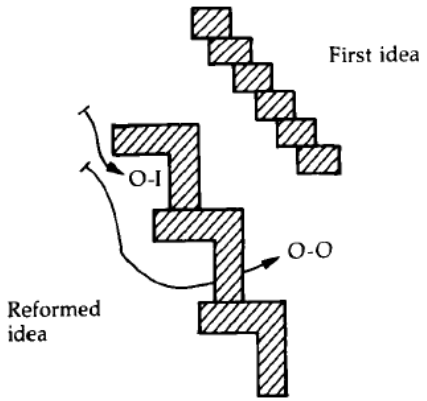


Figure 1: Petra's Move. How Petra, a design student, illustrated her design reconceptualisation (for a school) for her studio master.

The material plays a role in what you can make









«Båtbyggerne er avhengig av eik for å kunne bygge et vikingskip. Eiken gir dem emner til spantene. Men ett tre gir bare ett eller to slike emner.» (Aftenposten 29. april 2019)



The fuzzy front end

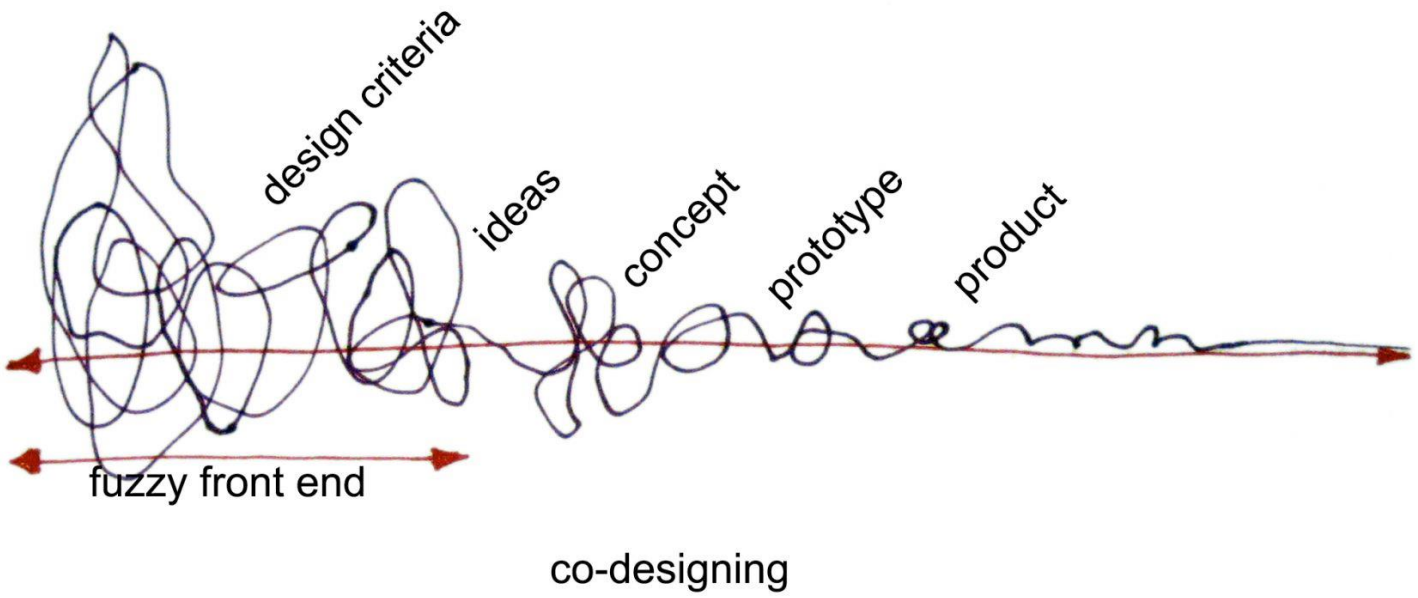
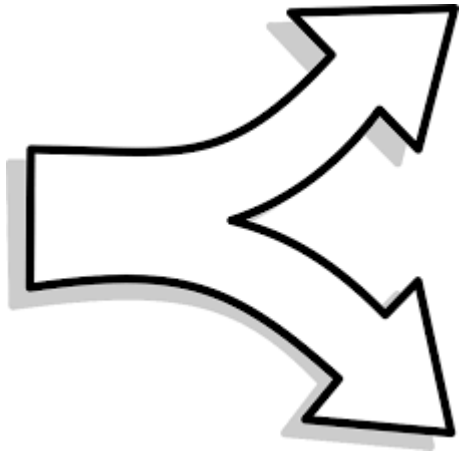


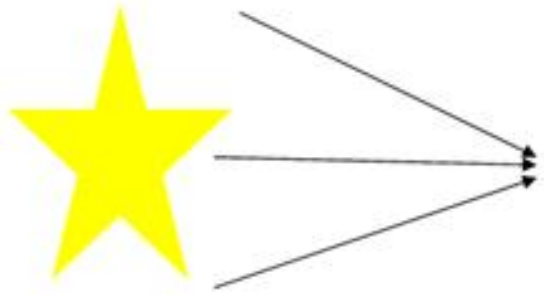
Figure 2. The front end of the design process has been growing as designers move closer to the future users of what they design.

(Sanders & Stappers 2008, p. 6)

Approaches



- Divergence
  - Find more alternatives
  - Explore more alternatives
  - Keep design ideas open
  - Work with more than one idéa

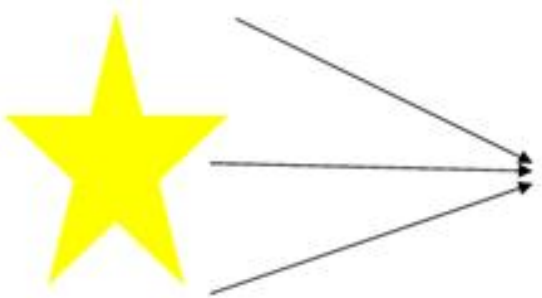


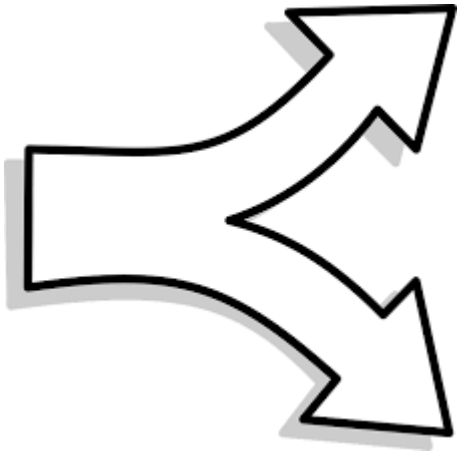
- Convergence
  - Focus on a specific solution

(Löwgren & Stolterman 2007)

Talk with your neighbour:

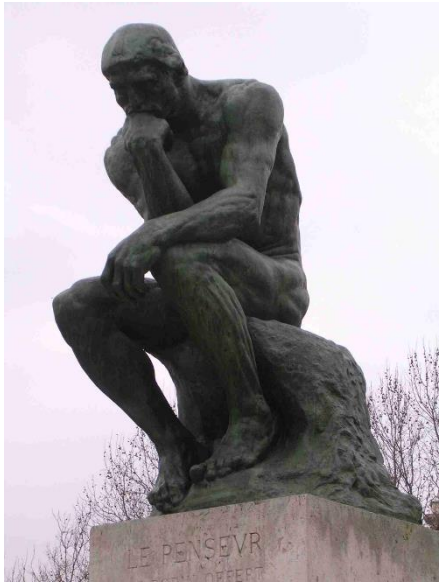
- Can you recognize convergence and/or divergence from your previous design processes?





The thoughtful designer

- Shows conceptual clarity
- Designs the design process
- Acknowledge there are no recipes to follow
- Shows critical judgment in design decisions
- Creative and analytical



«The thinker»
Auguste Rodin

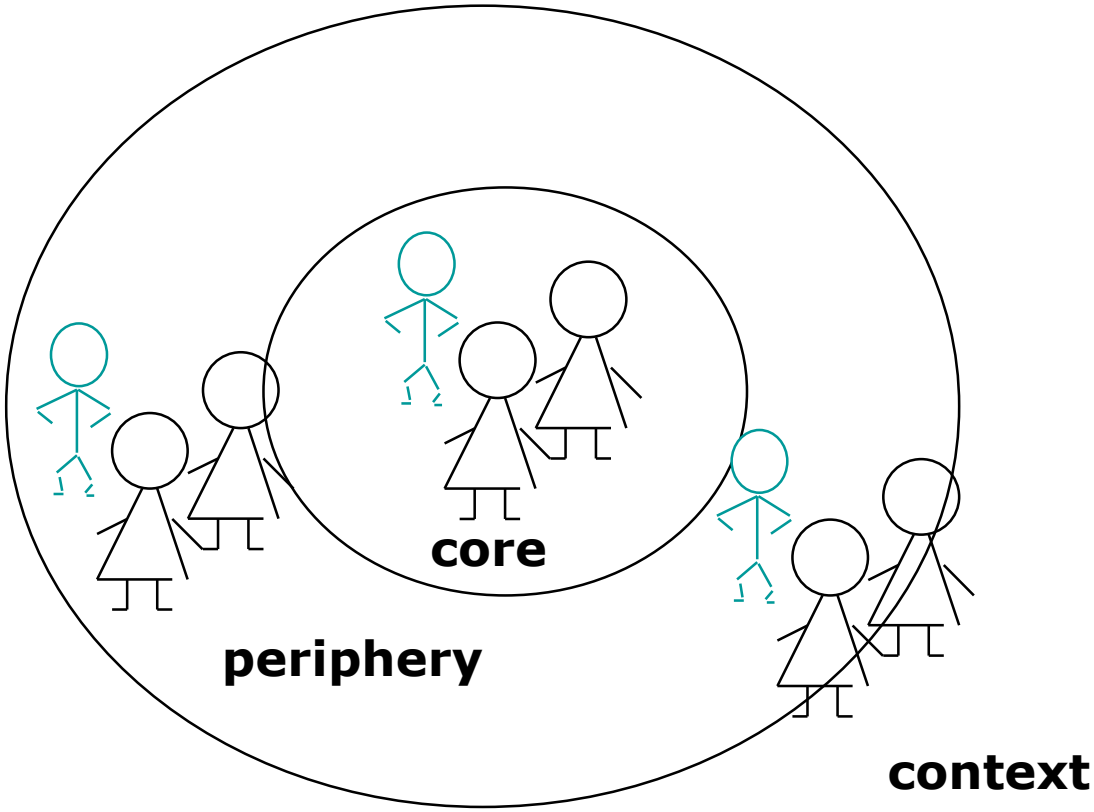
Three roles of the designer

- The computer expert
  - Offers technical expertise
- The socio-technical expert
  - Cooperate with users in developing an understanding of the underlying problem
- The political expert
  - Who does the design help?



Jazz group as a metaphor for a design group.

The three circles of involvement

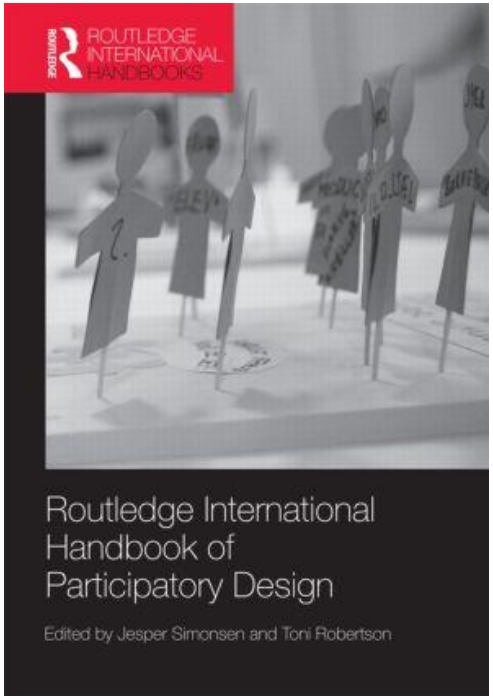


Löwgren & Stolterman (2007)

About participatory Design

- PD aims at creating closer connections between design ideas and conditions for use by involving future users in design

- Designing own futures
- Having a voice
- Having a say



Participatory Design – Scandinavian tradition

Based on union projects in the 70-ies
- Kristen Nygård and others

Democratisation of working life

Democratisation of the development process

Cooperation on equal terms

Give space to all voices (even margins)

Builds on practical knowledge plus dialogical relations with others

Guiding principles of PD

- Alternative visions about technology

- Equalizing power relations
- Democratic practices
- Situation-based actions
- Mutual learning
- Tools and techniques

Recent developments

Who are the participants in design?

.... A tree? A river with personhood (the Whanganui)?

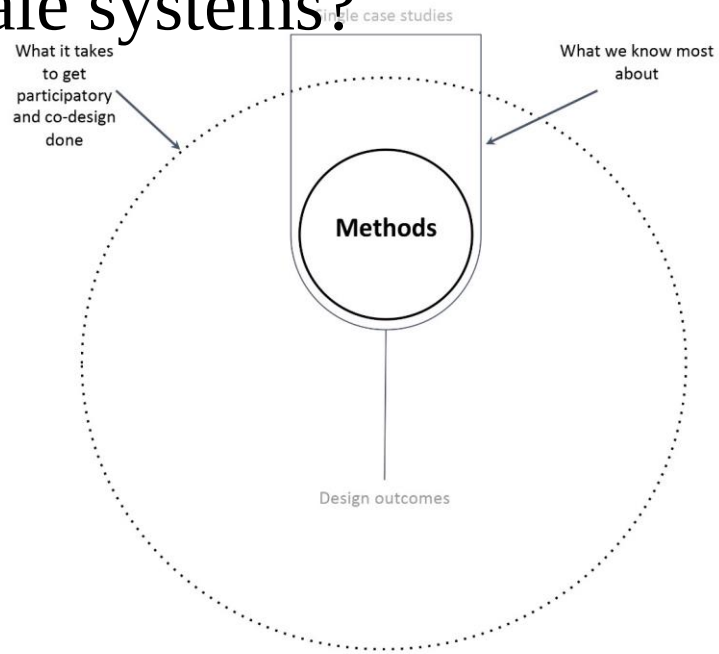
What with very large scale systems?

A global perspective

Activism is back!



A. Botero, S. Hyysalo, C. Kohtala, and J. Whalen



References

- Bratteteig (2004), Dealing with relations between design and use, Dr. Philos Thesis, UiO
- Bratteteig & Stolterman (1997) Design in groups – and all that jazz
- Crang and Cook (2005), Doing Ethnographies, Sage
- Löwgren & Stolterman (2007) Thoughtful Interaction Design
- Schön and Wiggins (1992) Kinds of Seeing in Designing, Creativity and innovation management, 1992-06, Vol.1 (2), p.68-74
- Simonsen & Robertson (2012), Chapter 3
- Botero, A., Hyysalo, S., Kohtala, C., & Whalen, J. (2020). Getting Participatory Design Done: From Methods and Choices to Translation Work across Constituent Domains. 14(2).
- Lurgio, Jeremy (2019) Saving the Whanganui: can personhood rescue a river? The Guardian, Friday 21 Nov