



- Design and the designer
- Choices/decisions

Löwgren & Stolterman, Winograd,  
Bratteteig & Stolterman, Kyng & Greenbaum, Suchman



# What is design?

Design work consists of producing design representations in different modalities, scales and materials, and their constant transformation in a process of ongoing refinement and increased specificity. In order to be able to do that, designers typically have to mobilize resources from a diversity of disciplines and to enlist the cooperation of experts of all sorts.

Wagner, Ina lecture Oslo 2004.



*Interaction design* refers to the process that is arranged within existing resource constraints to create, shape, and decide all use-oriented qualities (structural, functional, ethical, and aesthetic) of a digital artifact for one or many clients

Löwgren & Stolterman (2005:44)



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)



A 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)



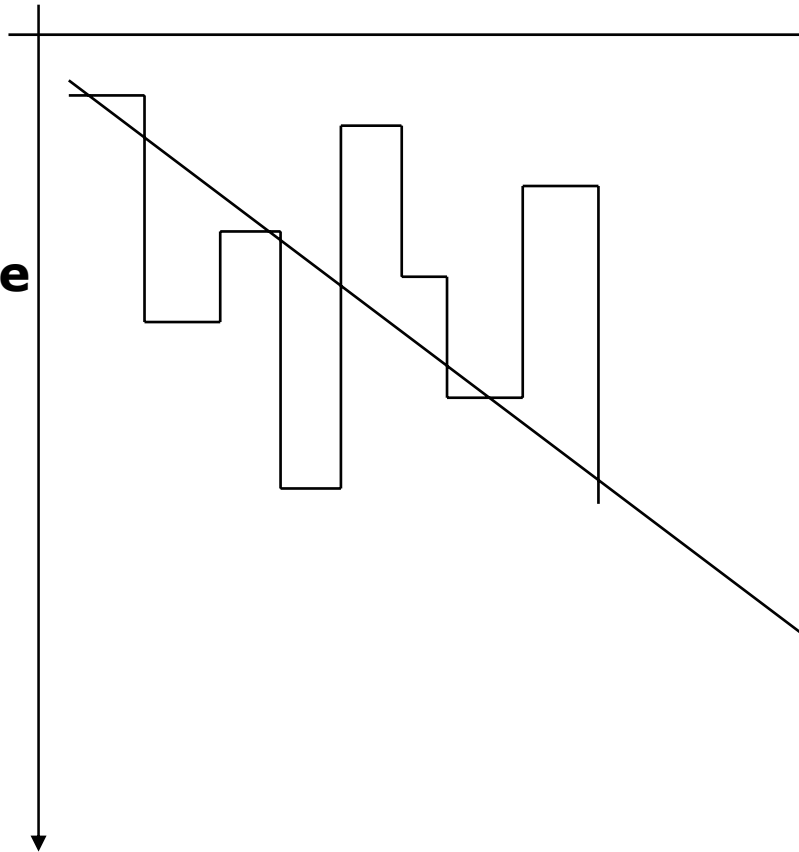
time

**Vision**

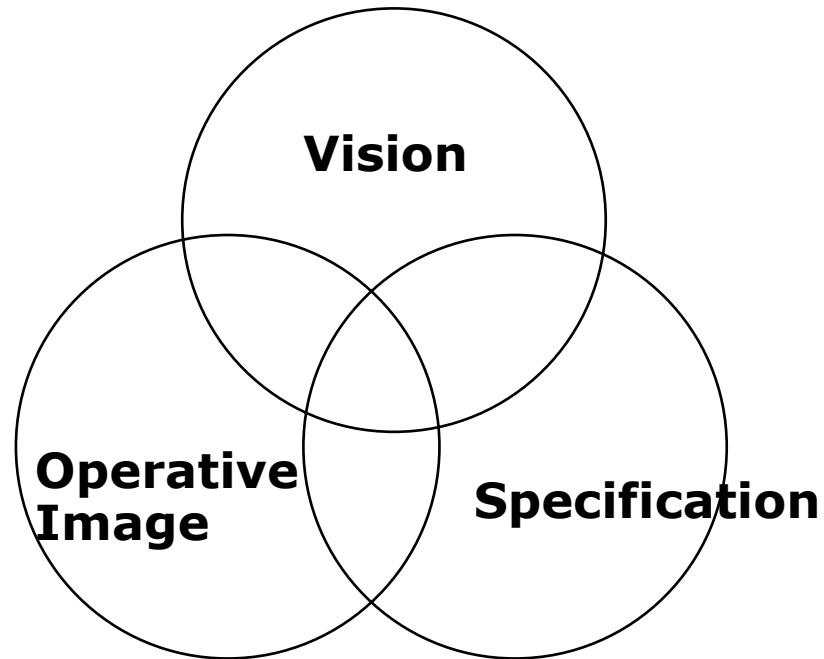
**Operative image**

**Details**

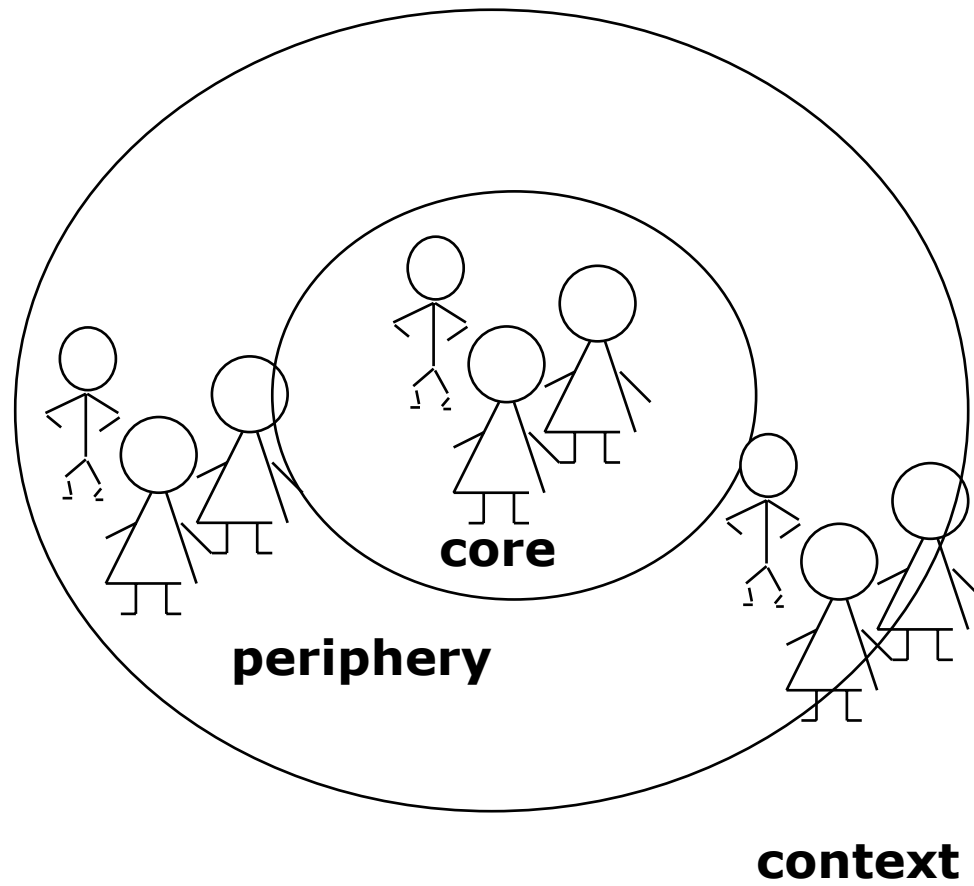
**Specification**



**Löwgren & Stolterman 2005**



**Löwgren & Stolterman 2005**







# Sketching

- Forming ideas
- Communicating with oneself
- Communication with others

**Löwgren & Stolterman 2005**



# Choices/decisions



"Everything we do in life is rooted in theory. Whether we consciously explore the reasons we have particular perspective or take a particular action there is also an underlying system shaping thought and practice."

bell hooks (2000:19)

Feminism is for Everybody: Passionate politics. Cambridge MA: South End Press



*Design from nowhere* – (s-knows-that p)

IT systems are constructed from nowhere to everyone or the designers are seeing everyone but not seeing themselves

The developers are not aware of their own positions, activities, visions, dreams.

How the disciplines are organised separate use and design

Lucy Suchman (2002)



## *Detached intimacy*

distance from the specific sites of technologies-in-use

intimate relations with their own professions and with the companies

*Design from somewhere* - extended set of working relations

Knowledge is partial, located and situated

Lucy Suchman (2002)



# Hva er Participatory Design? (*brukermedvirkning i design*)

generelt: deltakelse fra brukere i utvikling av saker som vil påvirke deres liv

i systemutvikling: involvering av fremtidige brukere i arbeids-aktiviteter i systemutvikling på måter som gjør det mulig for dem å påvirke beslutninger som vil ha betydning for det resulterende systemet og gjennom det, virksomheten der systemet vil bli brukt.

Tre grunner for PD

- 1) å forbedre kunnskapsbasis for systemet
- 2) å lette introduksjonen av systemet
- 3) å øke arbeidsplass-demokratiet / arbeidstakernes autonomi



Deltakelse =  
dele makt

## Å praktisere Participatory Design

- gjensidig læring betyr
  - å undervise med mål å utvikle sitt eget standpunkt
  - å lære å forstå hva vi ser og hører
  - krever gjensidig respekt
  - og anerkjennelse av profesjonell kunnskap og ferdigheter
- designsamarbeid betyr
  - å gi fra seg makten til å bestemme over designet
  - å akseptere makt og forpliktelser knyttet til forandringen (forbedringene)
  - å forandre (utvide) kvalitetsstandarden



# Designer

Traditional approach	Cooperative approach
<p><i>focus is on</i></p> <ul style="list-style-type: none"><li>problems</li><li>information flow</li><li>tasks</li><li>describable skills</li><li>expert rules</li><li>individuals</li><li>rule-based procedures</li></ul>	<p><i>focus is on</i></p> <ul style="list-style-type: none"><li>situations and break-downs</li><li>social relationships</li><li>knowledge</li><li>tacit skills</li><li>mutual competencies</li><li>group interaction</li><li>experience-based procedures</li></ul>

**Greenbaum & Kyng**





# Design - the core of design ability?

Is it the ability to create good software?

The ability to solve complex logical problems?

The ability to interpret and understand future users?



What is it that characterizes design ability?

How is it possible for a designer to develop ability?

**Löwgren & Stolterman 2005**



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Löwgren & Stolterman (2005:44)



# Design ability

- *Creating and shaping* demands creative and analytical ability
- *Deciding* demands critical judgement
- Working with a *client* demands rationality and ability to communicate
- Design of *structural qualities* demands knowledge of technology and material
- Design of *functional qualities* demands knowledge of technology use
- Design of *ethical qualities* demands knowledge of relevant values and ideals
- Design of *aesthetic qualities* demands an ability to appreciate and compose



# Design ability

- Rationality and Communication
- Creative and Analytical
- Values and Ideals
- Aesthetic Sensibility
- Judgment

**Löwgren & Stolterman 2005**



# Developing Design Ability

- a sense of quality
- a developed language
- reflective thinking
- retrospective reflection

**Löwgren & Stolterman 2005**



- Constraints
- Material
- Use and user involvement