

# Design Ethics and prototyping experiences

Johan Blomkvist

# Agenda

- Lecture next Friday with Jon Manker on Video production, starts at **10:30!**
  - More supervision ahead
  - Today
    - Design and ethics
    - Prototyping experiences

Design and ethics

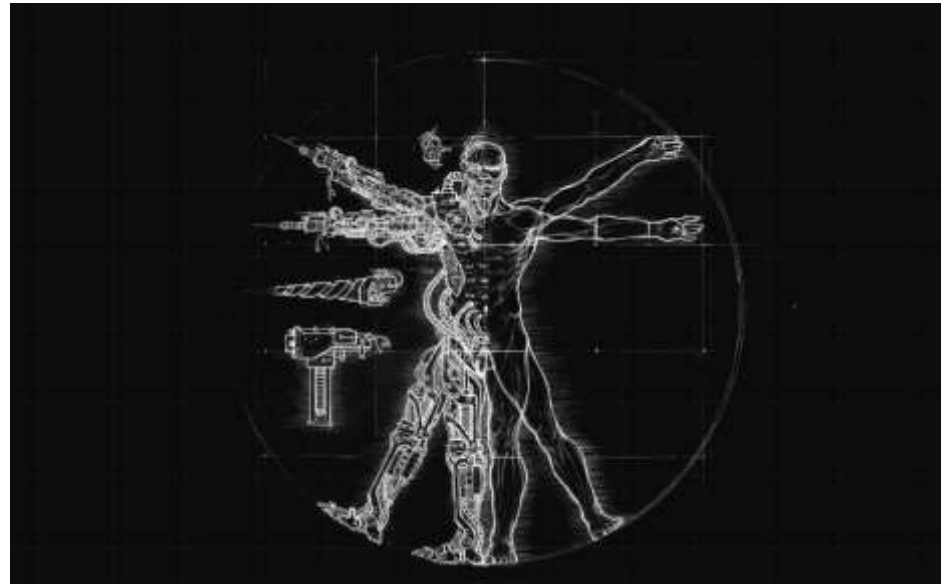
# Design and ethics

Susanne Bødker (1989)

- To design an artifact means not only to design the artifacts for a specific kind of activity. Because the use of artifacts is part of social activity, we design new conditions for collective activity (e.g., **new divisions of labor and other ways of coordination, control, and communication**).

# Design and ethics

- Technology is inseparable from humans
  - Our lives are mediated
- Transhumanism



<http://www.igyaan.in/wp-content/uploads/2015/10/Transhumanism.png>

# Design and ethics

- Do artefacts have morality?
  - “technologies mediate the experiences and practices of their users” (Verbeek, 2008, p.92)
- Do artifacts have politics?
  - Cars and buses in new york (Winner, 1986)



- What technologies are ethical?

*"Annoying, but in a Nice Way": An Inquiry into the Experience of Frictional Feedback*

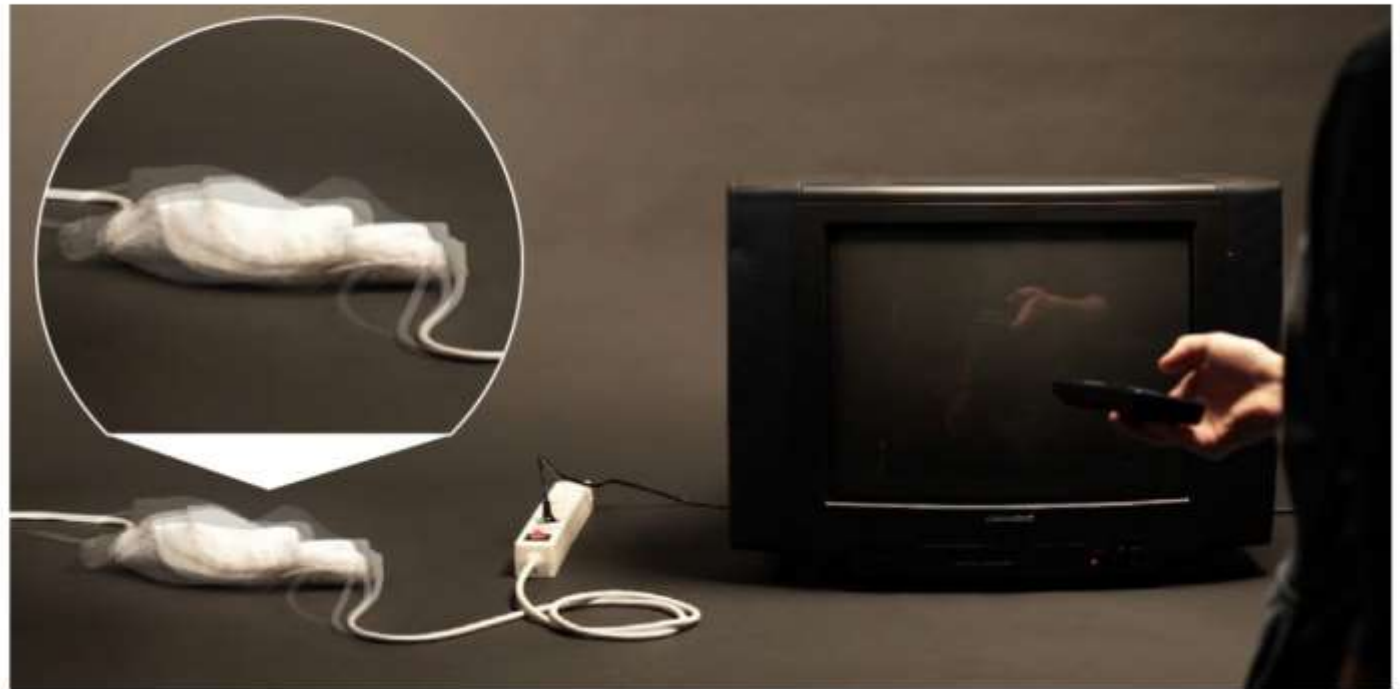


Figure 4. The Never Hungry Caterpillar.

(Laschke, Diefenbach, & Hassenzahl, 2015)

# Design and ethics

- What technologies are ethical?
  - Interactive artefacts can:
    - Shape our intentions
      - Shape our understanding
      - Limit our possibilities



- What technologies (artefacts) are ethical?
- What technologies are moral?
  - Ultra sound
  - Thermometer
  - Speedometer
  - Glasses
- (interactive) products are never neutral
- Products can not be held responsible (unlike humans) what about autonomous agents?



- What ethical implications do your solution(s) have?
  - In what way is it sustainable?
    - ecological
    - economical
    - social

# The Varieties of Good Design

(Ylirisku & Arvola, in press)

- Design Ethics
  - What kind of world do you want to contribute to?
- Varieties of Goodness
  - Utilitarian (useful)
  - Instrumental (usable)
  - Hedonic values
    - enjoyment
    - happiness
    - Wellbeing
  - Preferable

Prototyping experiences

- **Prototype (ISO 9241-210:2010)**
  - Representation of all or part of an interactive system, that, although limited in some way, can be used for analysis, design and evaluation

” 1) prototypes are for traversing a design space, leading to the creation of meaningful knowledge about the final design as envisioned in the process of design, and

2) prototypes are purposefully formed manifestations of design ideas.” (Lim & Stolterman, 2008)

- or, a representation of the future



- Fundamental principle

*“Prototyping is an activity with the purpose of creating a manifestation that, in its simplest form, filters the qualities in which designers are interested, without distorting the understanding of the whole.”* (Lim & Stolterman, 2008)

- Economic principle (Lim & Stolterman, 2008)

- Do as little as possible to understand the qualities of the idea

- Explore, Test, Communicate

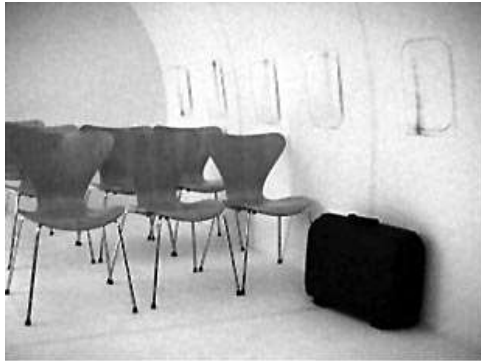
- ... also, a mindset and an attitude

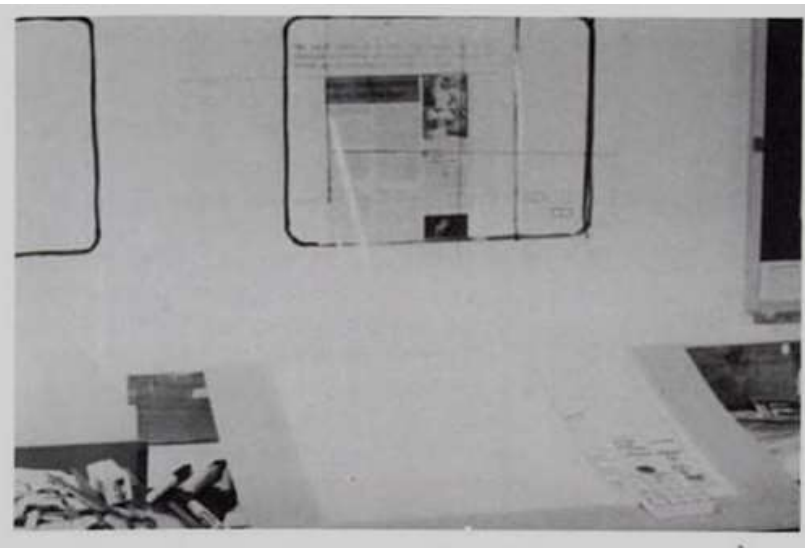


# Experience prototyping

- Definition of experience prototyping
  - “any kind of representation, in any medium, that is designed to understand, explore or communicate what it might be like to engage with the product, space or system we are designing”  
(Houde & Hill, 2000, p. 424)

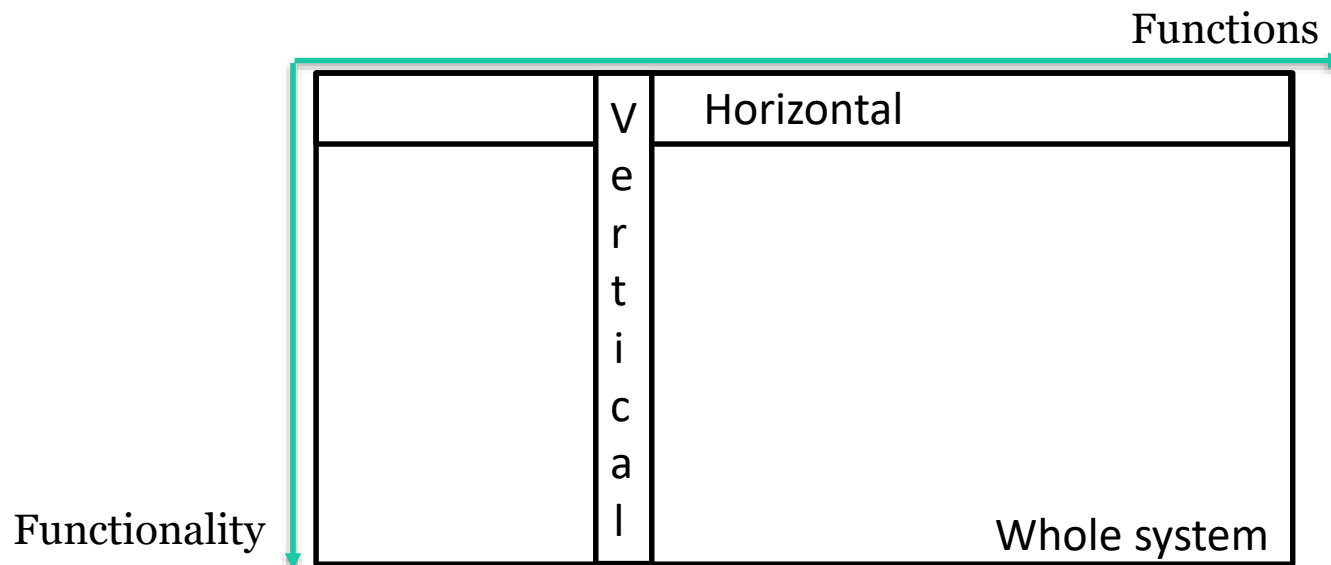
# Experience prototyping





# Prototyping

- Type of prototype
- T-shaped



# Prototyping

- Wizard of Oz



## APP:

- 10-15 artiklar
- Identifiera artikel-etikett
- Addera kundkorg
- Ta bort från kundkorg
- Summera
- Illustrera betalfunktion
- City Gross maner

## Kapacitiv givare:

- Portabel till mobil



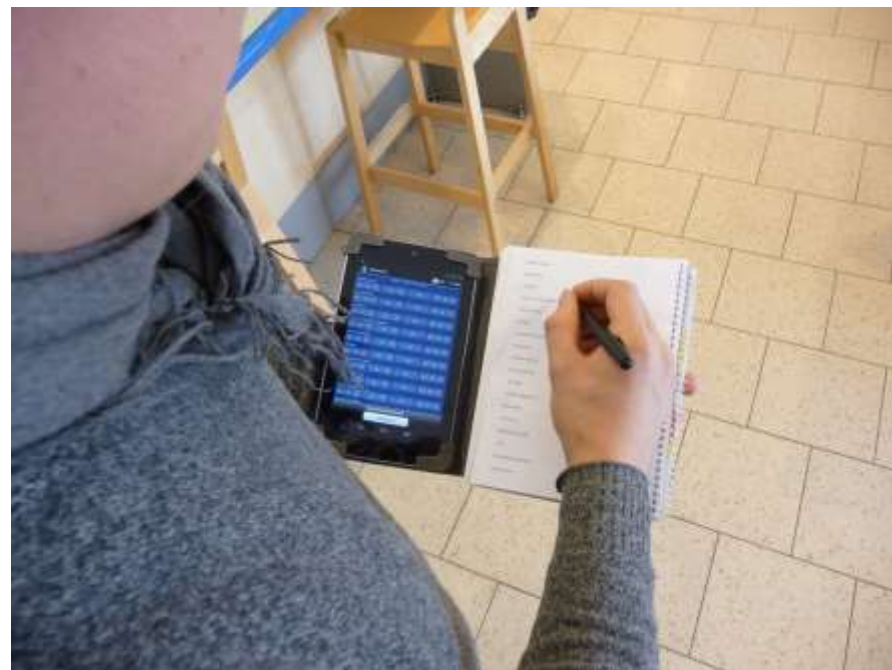
x 10-15

## Dynamiska etiketter:

- Kapacitiv koppling
- Skarp för "Handla" funktion
- LCD skärm för pris (behöver ej kunna ändras)
- Betalayta (lägg handen på och telefon reagerar för betalning)

## Skärmvägg

- Simulerar butik
- För styckvara och vågvara (1 st)
- Portabel
- Styv i materialet
- Med lister
- Tar Bfo fram



# Prototyping

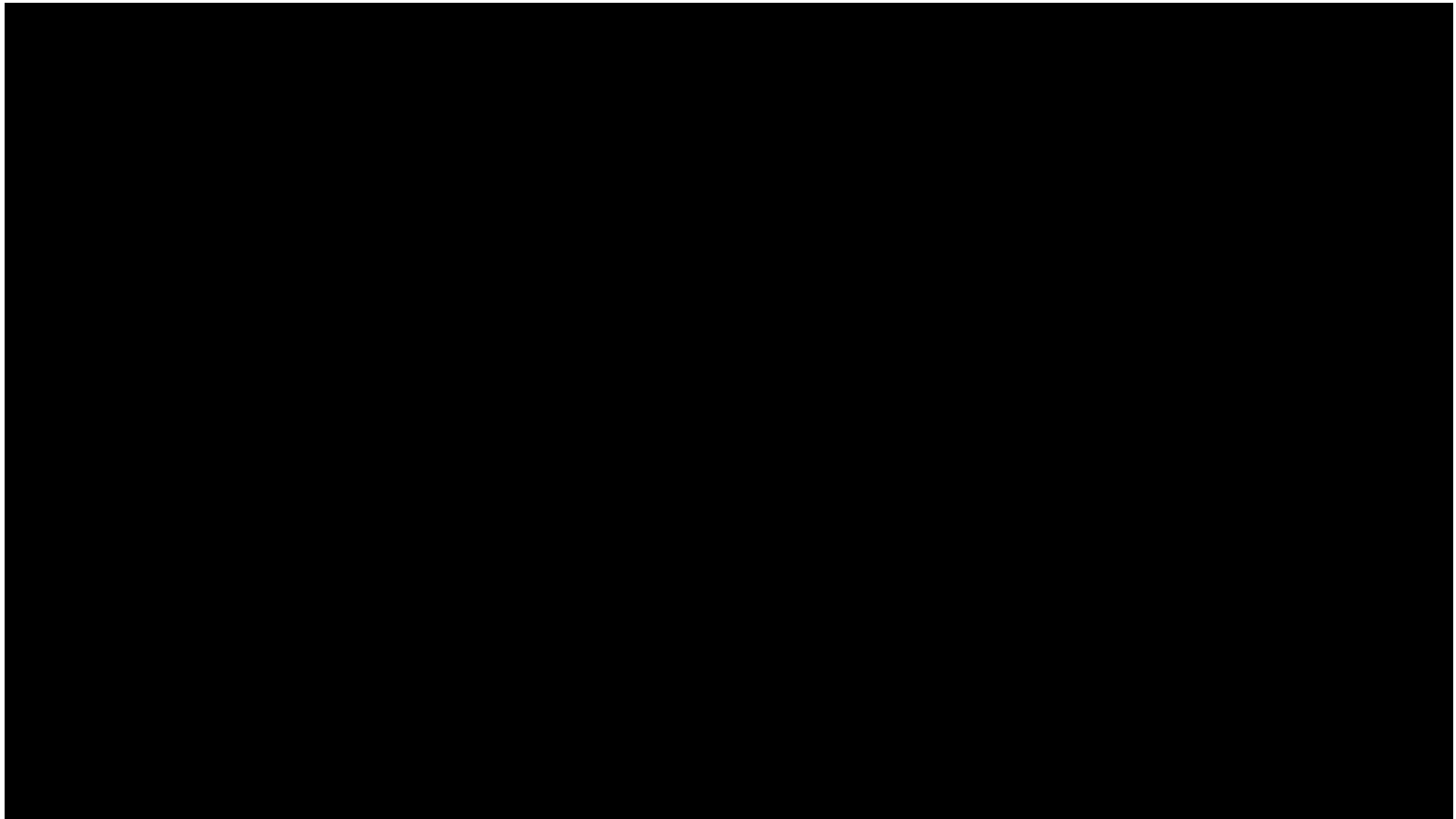
- As a mindset and attitude
  - Don't accept half-finished ideas
  - Question!
  - Be curious
  - Explore (with materials)



# Prototyping



# Prototyping



# Prototyping

- The importance of alternatives
  - Design Performance, Learning, and Self-Efficacy  
(Dow et al., 2009)
  - Sharing Multiple Designs Improves Exploration, Group Rapport, and Results  
(Dow et al., 2011)

# Prototyping

- The significance of making
  - Making is a prerequisite for explorative design of non-idiomatic interaction
  - Making leads to responsive exploration of materials
  - Making is central for collaborating when you don't know where you are going
  - Making leads to knowledge



Jonas Löwgren

# Prototyping

- Non-idiomatic interaction
  - When we don't have any precedents
- Exploration central
  - We can only understand experiences by creating something



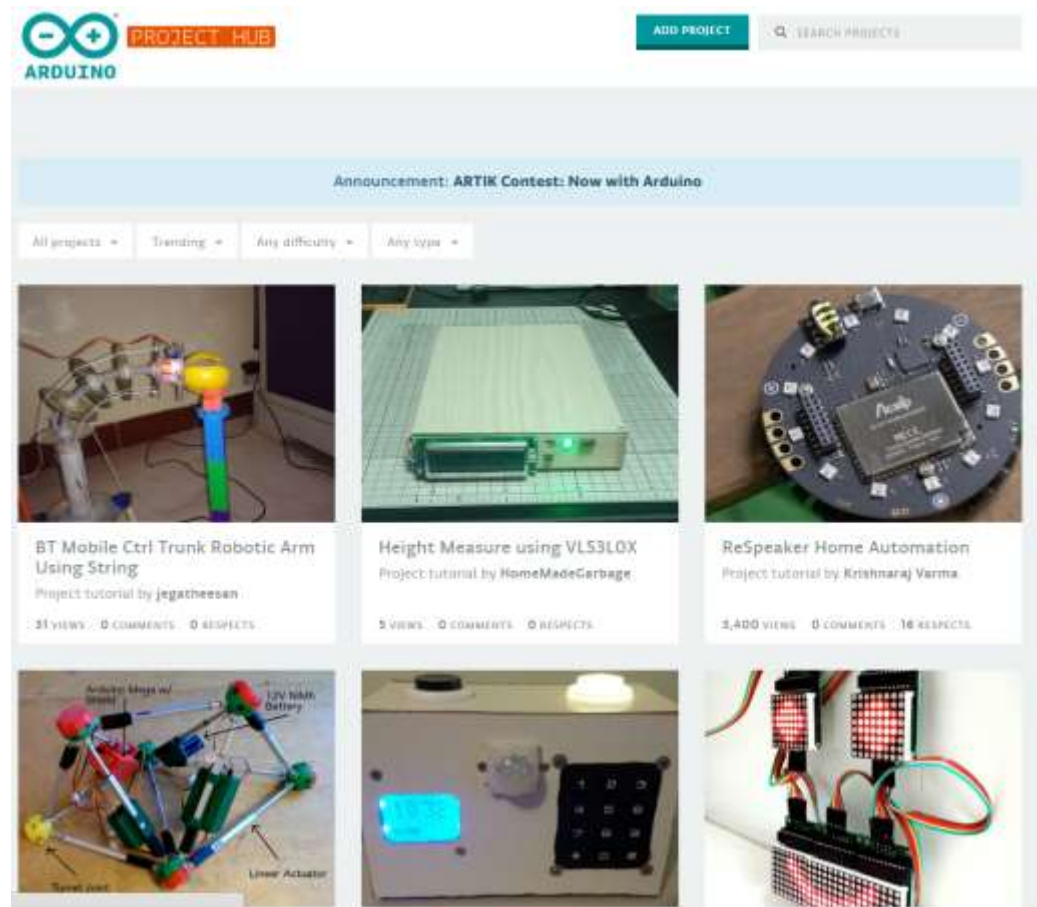
The assignment

# The Assignment

- Create an experience prototype
  - Will be different for everyone
  - Test first within your group
- Prototype the experience
  - Mindset
- Create a final prototype
  - Test with users
  - Wizard of Oz?
  - T-shape

# The Assignment

- Potential material
  - Arduino
  - Dioder
  - Cables
  - etcetera
- Cardboard
- Projector
- Seonsors
  - ?





# The Assignment

- Start and stop?
  - Where does the experience start and stop?
  - What happens before?
  - What happens after?
- Be prepared to adjust your prototype according to input from the process.

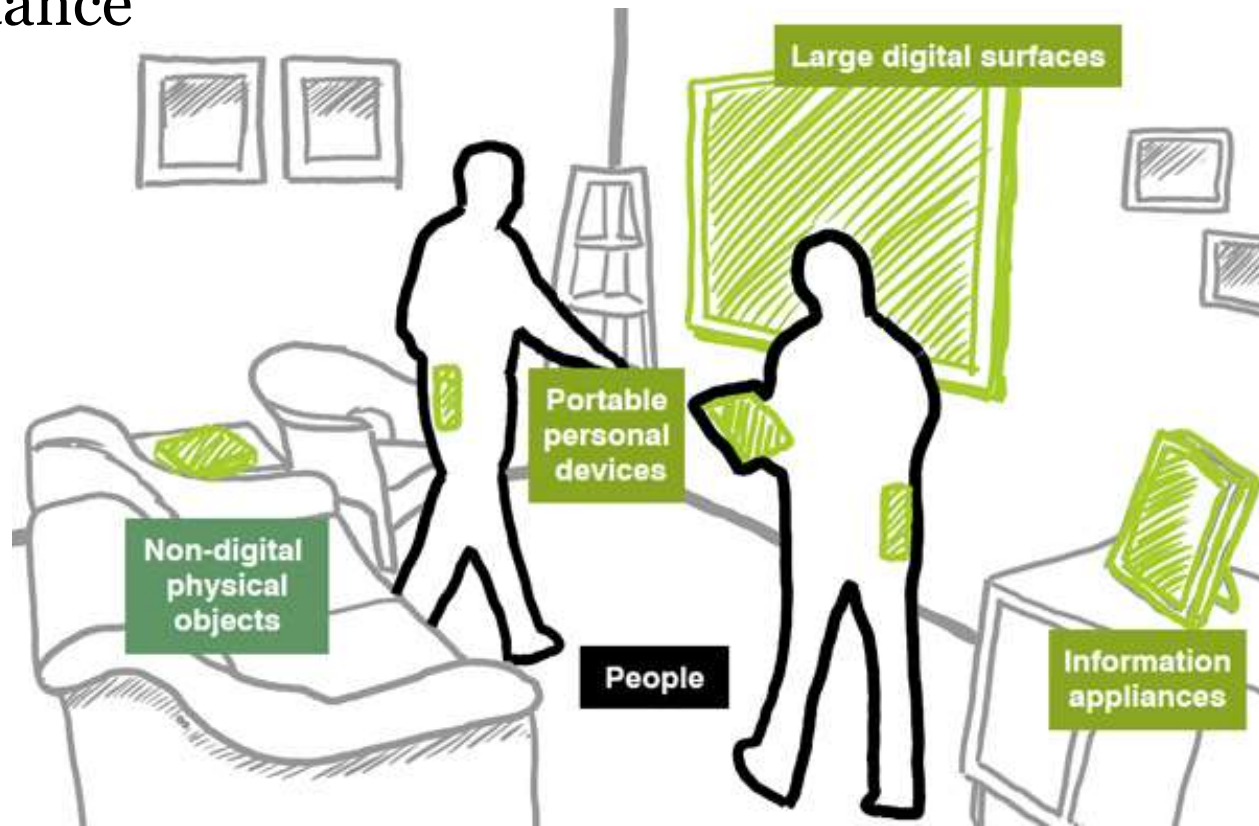
- Add juice!



[www.liu.se](http://www.liu.se)

# Prototyping

- Place and distance important
  - relations
    - social
    - spatial



# Prototyping

- Non-idiomatic interaction
  - When we don't have any precedents
- Exploration central
  - We can only understand experiences by creating something
- Also the creation of something metaphoric or ambiguous can drive design

# Prototyping

- Imaginative spaces
  - Create different distinct places
  - Elements for
    - Anchoring in the present situation, and for
    - transcendence.



- <http://dl.acm.org/citation.cfm?id=766132>
- <http://dl.acm.org/citation.cfm?id=2047238>
- <http://ieeexplore.ieee.org/document/1541970/>
- [http://link.springer.com/chapter/10.1007%2F11748625\\_22](http://link.springer.com/chapter/10.1007%2F11748625_22)
- Löwgren – importance of doing