



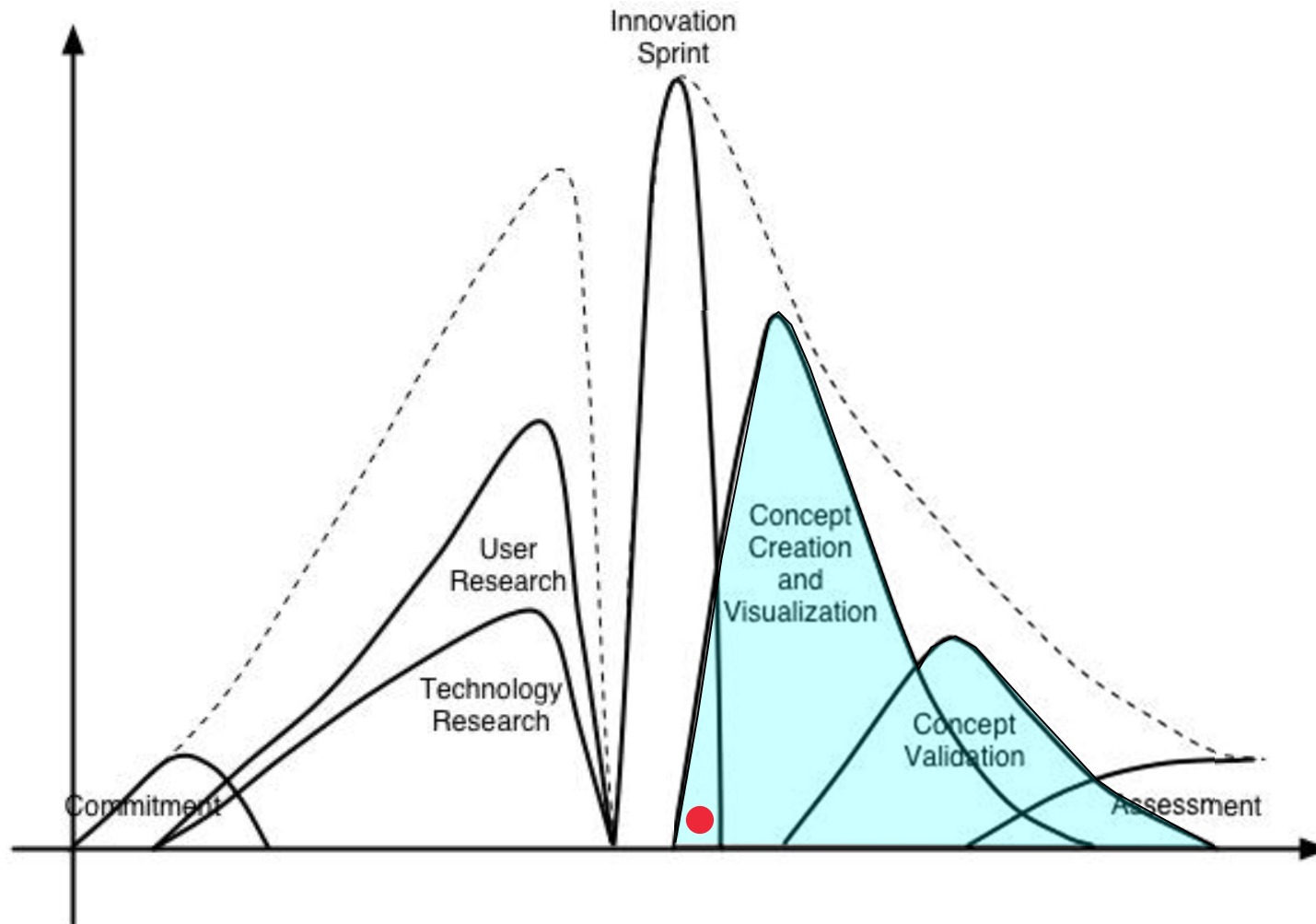
Aalto University  
School of Science

# CS-E5200 Design Project

## Concept Visualization and Validation

STRATUS!

# You are Here !



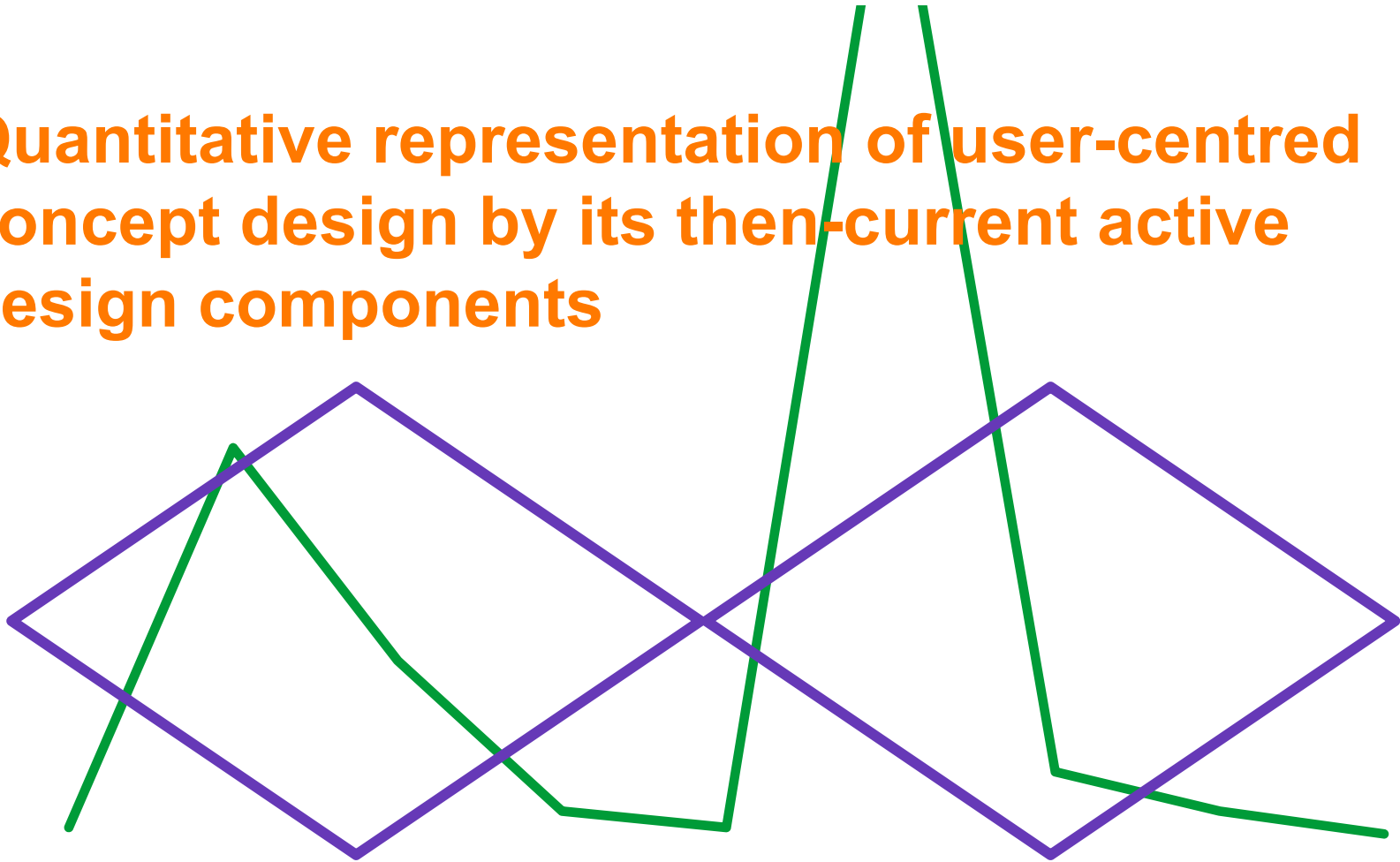
# Concepts and Concept Candidates

- Concept is a complete product or service
- Document all created concepts, especially dropped or failed cases, and the process
  - Not all ideas make it to concept candidates and not all candidates get full blown visualization, but the killed ideas must be explained in enough detail to understand why they lost the game
- Consider the extremities of you Concept portfolio.
  - Sometimes the worst come out first

# Course requisites for validation

- Validate at least three concepts with at least two users each
- Each user can only validate one concept, unless you have a fully planned comparison test setup (A/B testing)
  - May included people from earlier phases, but also seek fresh opinions

# Quantitative representation of user-centred concept design by its then-current active design components



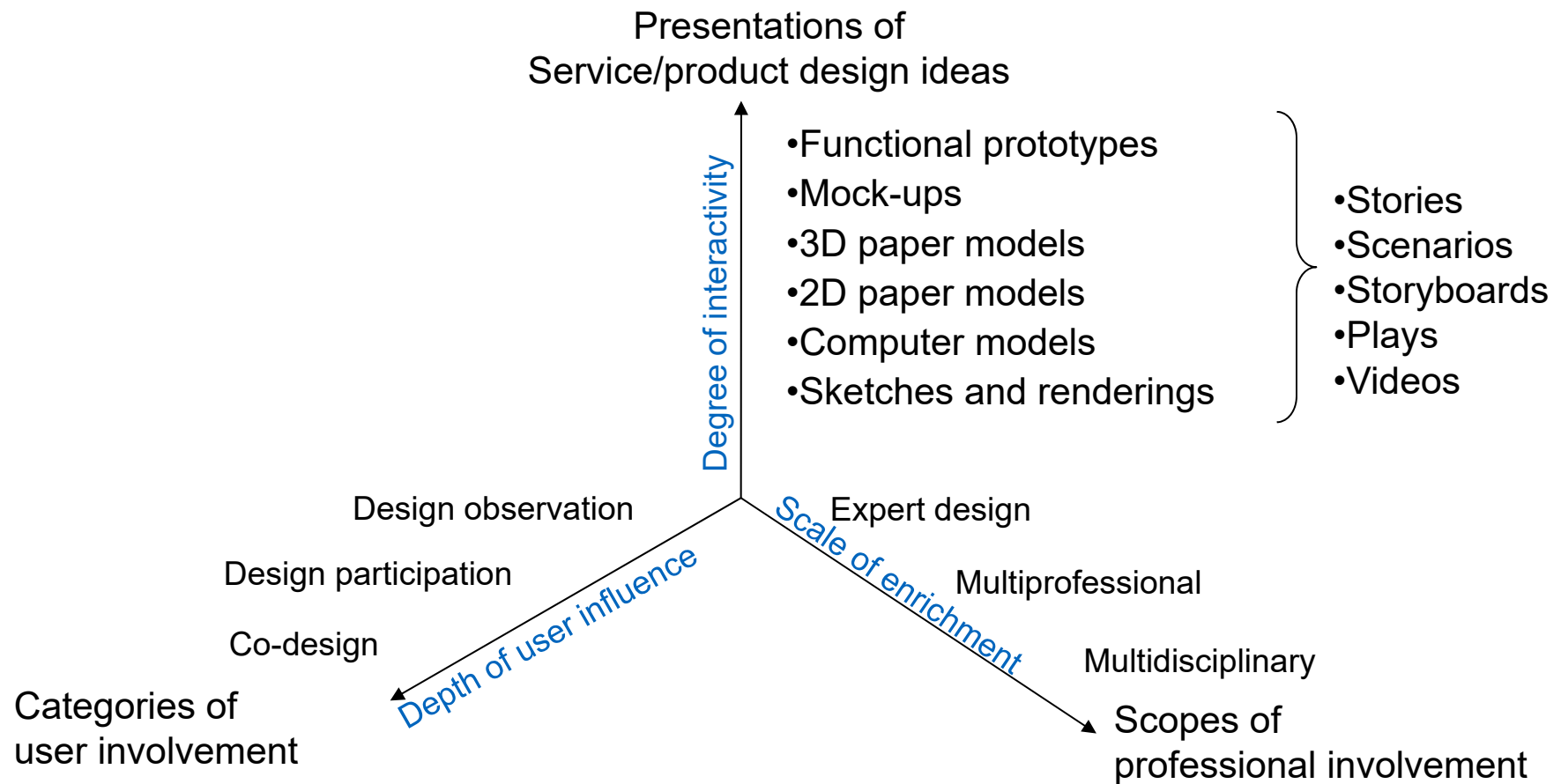
Design Brief	Research data units	Observations	Research results	Design Perspectives	Idea Generation	Idea Categories	Concept Candidates	Concepts
5	121	56	10	5	312	22	10	3

# Why must I visualize the Concepts

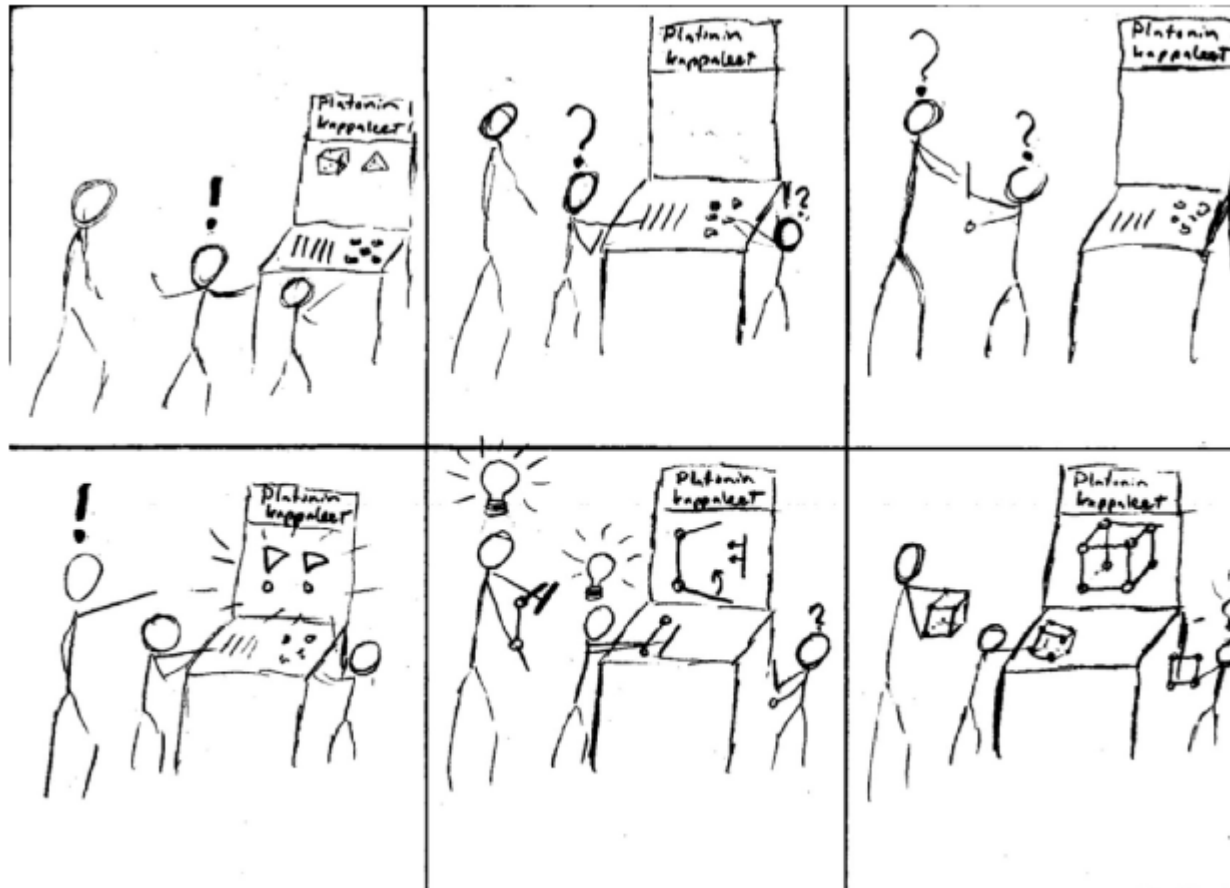
- Using several representations adds detail to the concepts
  - Designers spot the problems and get new ideas
- Only concrete concepts that can be evaluated or validated
- In very rare occasions some of the work done on the concept can transfer to the final product (mostly not)

# Ways to Visualize

Salovaara J. 2000 (adapted)



# Examples: Scenario / Storyboard



*Sarjakuva, jota käytettiin älykkäiden ohjeiden validoinnissa*



# Scenario / Storyboard



*Virtuaalioppaan validoinnissa käytetty sarjakuva*

# InfoCircle



Heureka. Olin täällä viimeksi  
pikku poikana. Paikka näyttää  
hieman muuttuneen. Mitähän  
täällä nykyään on?



*i niin kuin informaatio.  
Sitä tässä tarvitaankin.  
Mitä kaikkea täällä  
Heurekassa on ja mitä se  
maksaa? Miten tämä  
ympyrä toimiikaan?*







Oho, kuulostaa  
veisateelta! Eihän täällä  
oikeasti sada!



Mitä valikossa onkaan?  
Ilmeisesti näitä otsikoita  
voi klikata. Planetario  
kiinnostaa... Ja tietysti  
näyttelyt.



*Esitellään hämähäkkien  
saalistustekniikoita Costa  
Rican sademetsissä.  
Ainakin tuo kolahtaa.*





Tai tuo:  
marakattiyhteisön elämää  
Planetariossa! Minun  
suosikkieläimiä!



Mitäköhän tämä lysti maksaa? Hinnasto-otsikon alta löytyy varmaan se tieto.



Tämä hinta ei ole paha,  
jos on näin paljon  
mielenkiintoista.  
Ehdinköhän edes käydä  
läpi kaikkea.



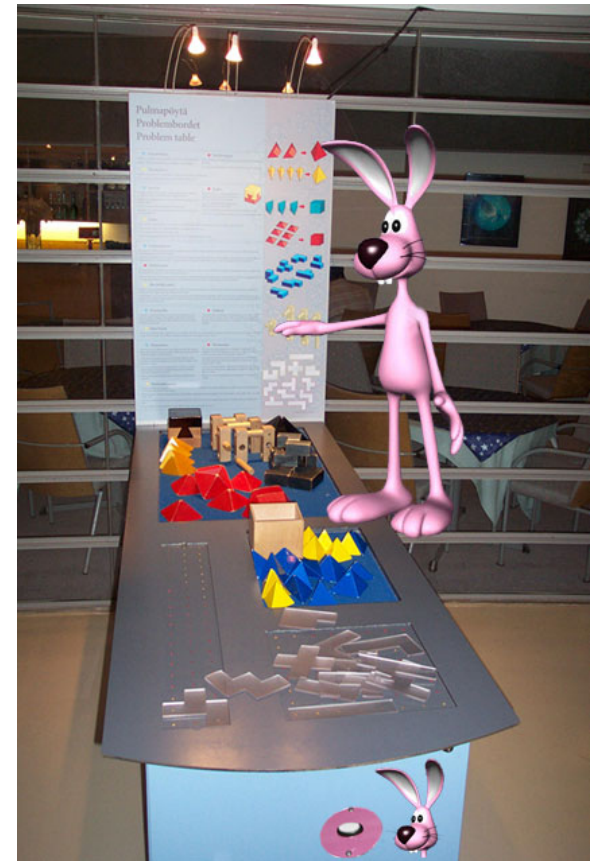
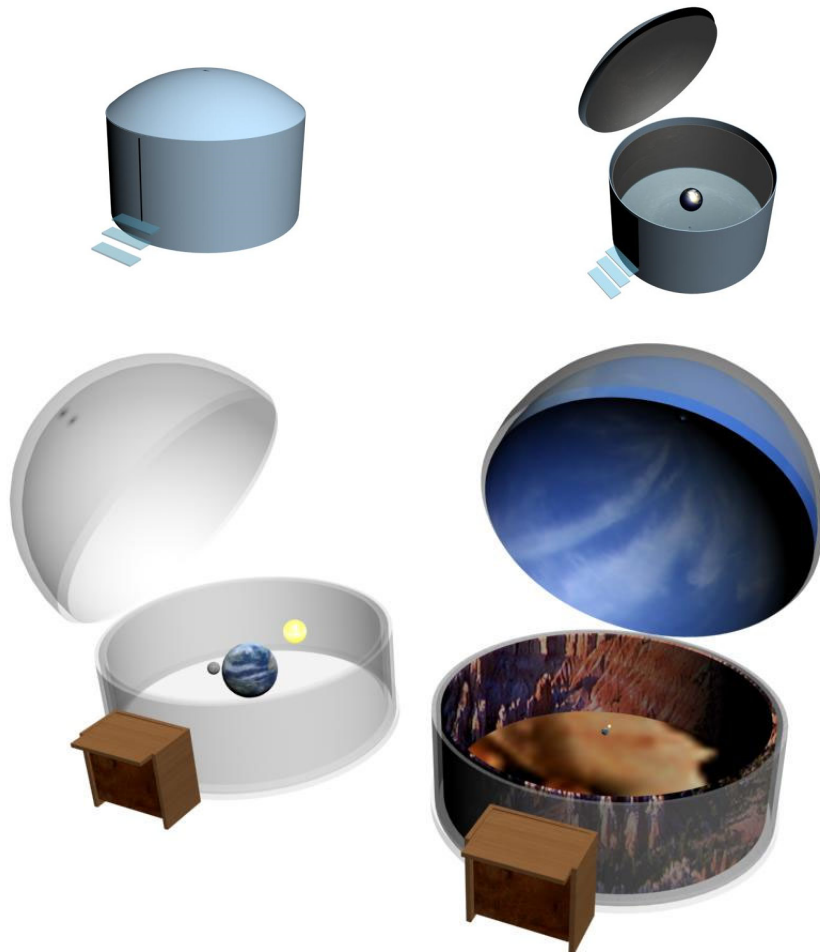
Taidan pärjätä  
näillä tiedoilla.



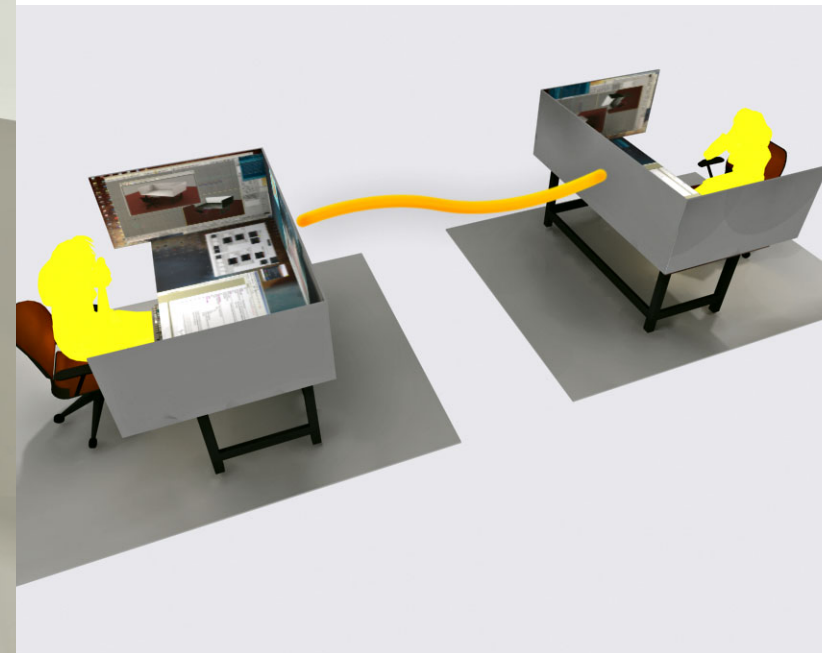
# Collages / Moodboards



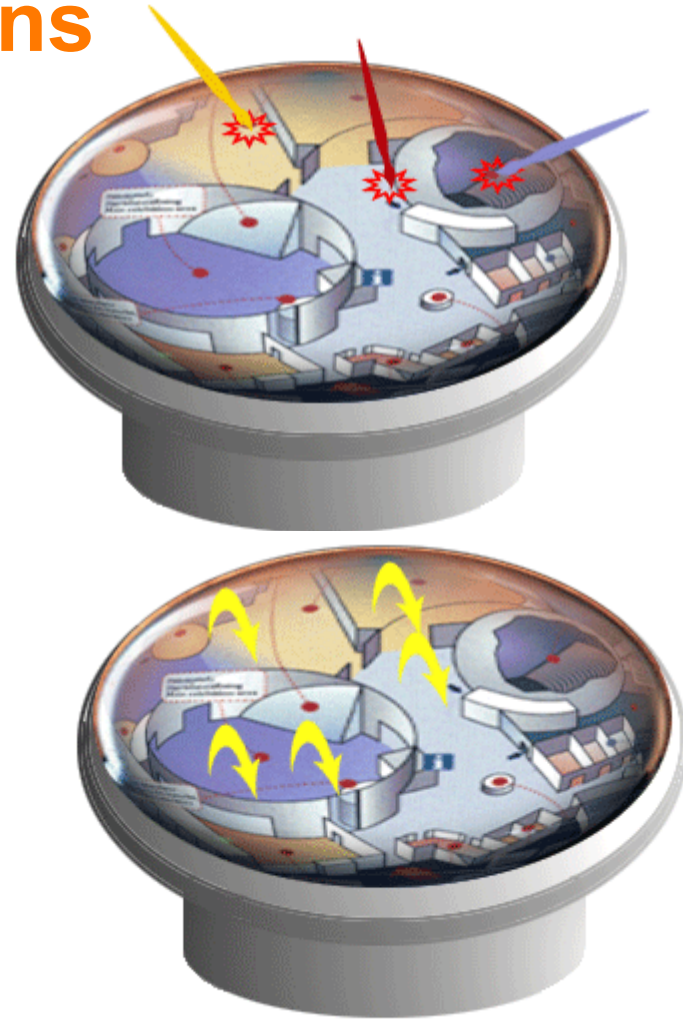
# CGI Simulations / animations



# 3D illustrations

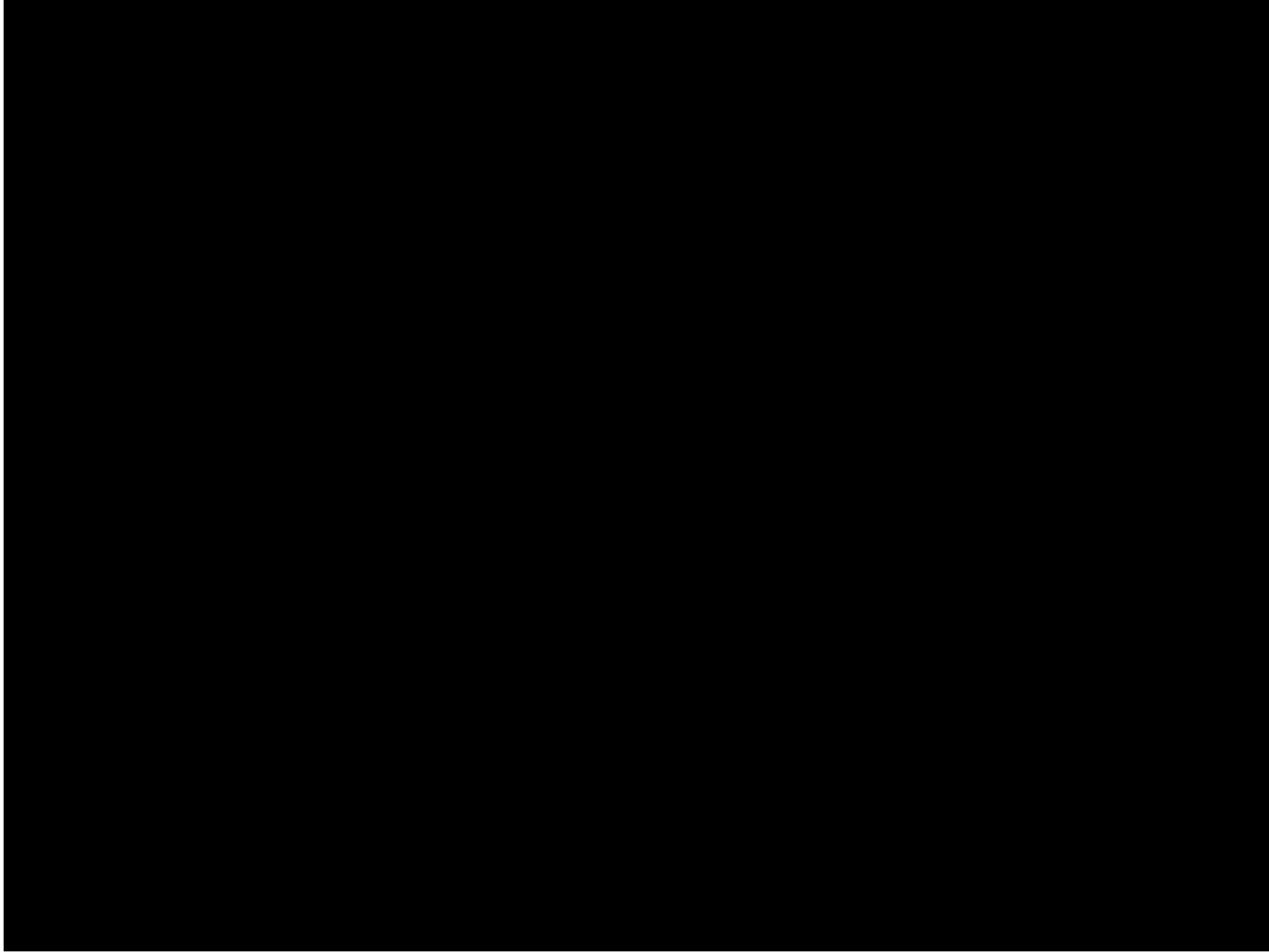


# Example: 3D illustrations





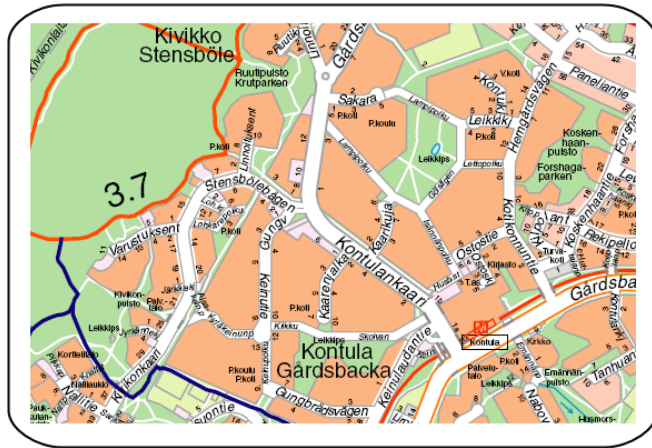
# Movie / Play



# Movie / Play



# Paper prototypes, tangible prototypes



VOIT PIIRTÄÄ KYNÄLLÄ  
UUDEN MATKAN KARTALLE

MATKAN PITUUS  km

TULOSTA REITTI

KIRJAUDU  
SISÄÄN

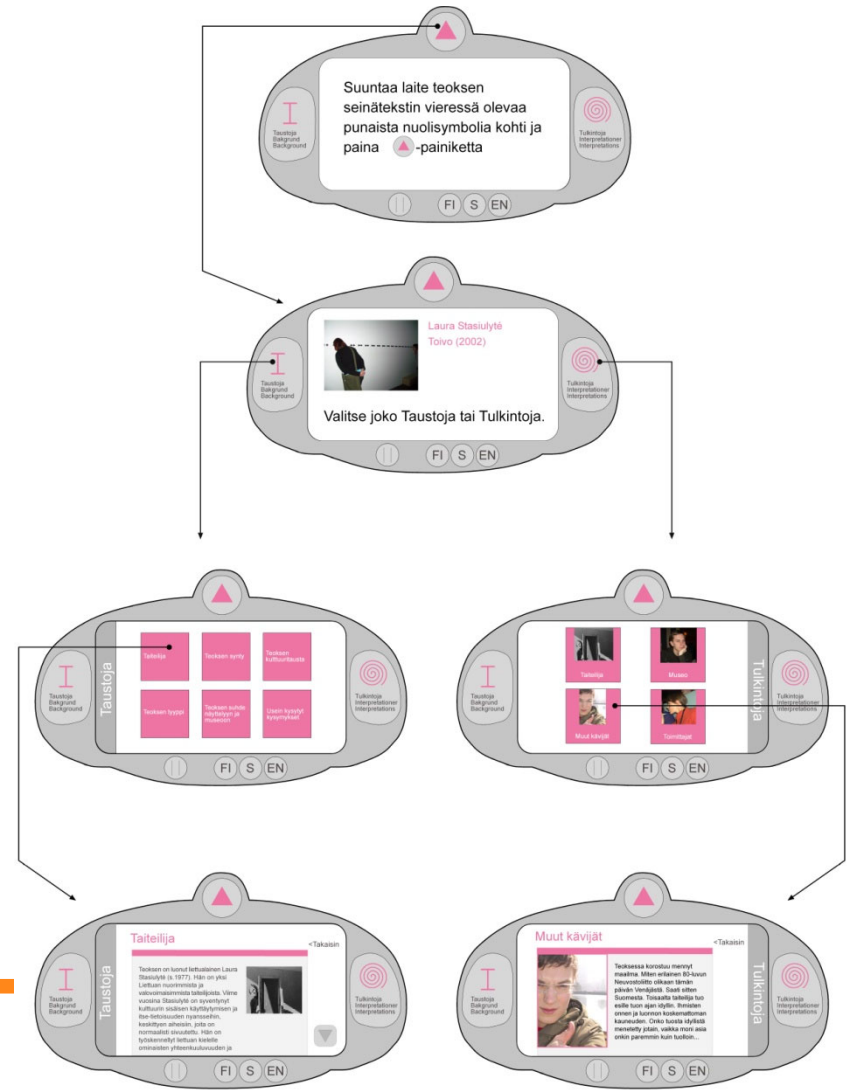


TOP 5 KÄVELY-YHTEISÖT

1. Vuosaari 8090 km
2. Kontula 7780 km
3. Itäkeskus 7327 km
4. Rajatorppa 6862 km
5. Huopalahti 6806 km

SUOSITUMMAT REITIT  
TÄLLÄ ALUEELLA

- 5156 m NÄYTÄ
- 8805 m NÄYTÄ
- 7300 m NÄYTÄ
- 15560 m NÄYTÄ



# Paper prototypes, 3D prototypes



# Functional prototypes

**DRINKit** 

>> Etsi drinkki

Vapaa haku

Hintaraja  euroa

Alkoholipitoisuus

Väri

Kotimaa/-alue

Lasi

Blandis


Alkoholi

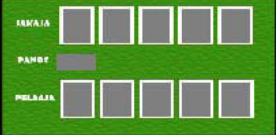


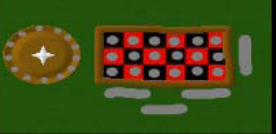
# Functional Prototypes

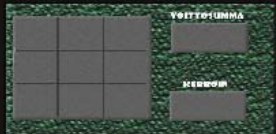
RAHAT: **0.00** e VOITOT: **0.00** e

**Valitse arpa**

**Superarpa**  
  
20c

**Hyperarpa**  
  
50c

**Giga-arpa**  
  
1e

**Mega-arpa**  
  
1,5e

**OHJE**

RAHAT: **0.00** e VOITOT: **0.00** e

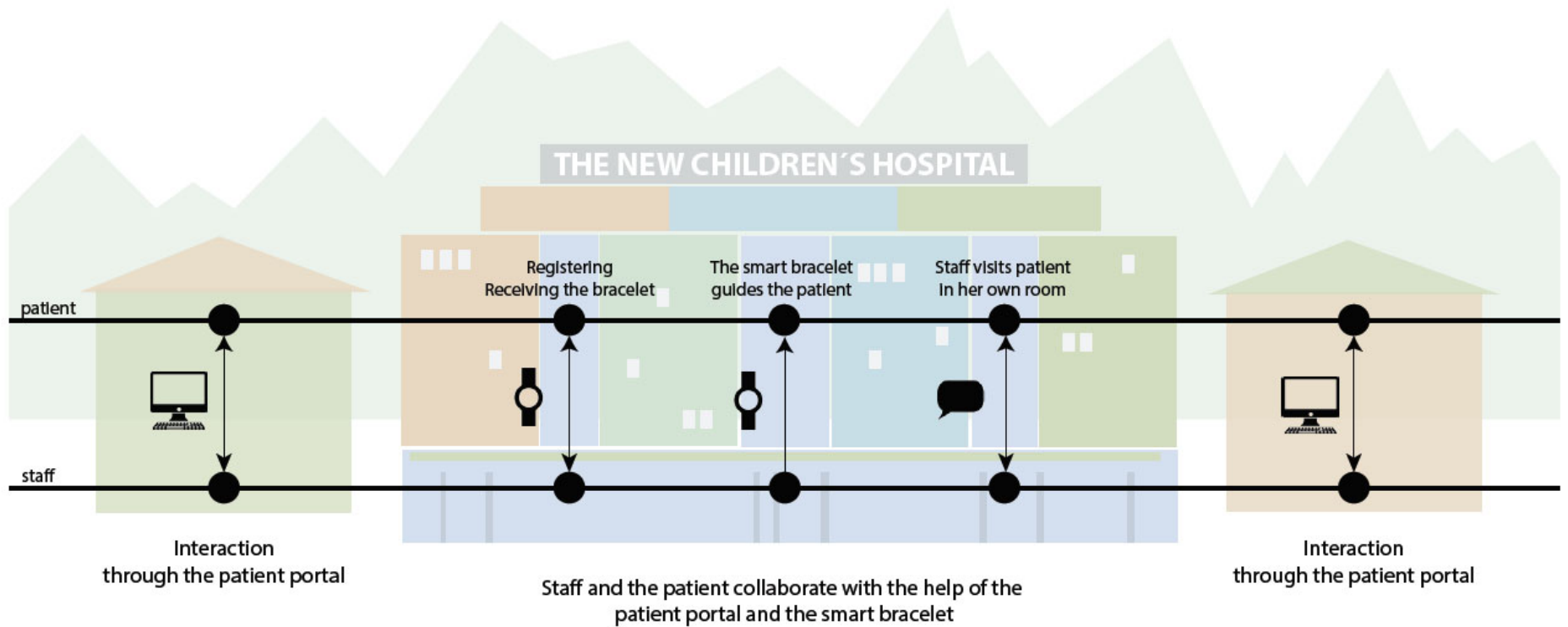
**Mega-arpa**

			<b>VOITTOSUMMA</b> 
			
			

**KERROIN**  


**OHJE** **TARKISTA VOITTO**

# Customer Journey Map





Aalto University  
School of Science

# T-121.5350 Strategic User-Centred Design

## Concept Validation



# Why must I validate the Concepts?

- To assure the research has identified and interpreted the users needs correctly
- To assure that the concepts fit the users (not the designers)
- Both qualitative and quantitative data can be gathered
- Validation is the justification for the finalization, presentation and possible continued development of the concepts

# Validation is ...

- Validation can be understood as two way communication between the design team and user during product concept development process.
- Medium for this communication are stories with various level of visualizations, like sketches, renderings, storyboards, plays, computer models, 2D and 3D paper prototypes, mock-ups, and finally functional prototypes.
- The detailing and quality of visualizations is improved the further the development process goes. However, all the different levels are used all the time.

**Concept Validation ≠ Usability Evaluation**

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# Usability Evaluation Methods

- Usability inspections
  - Heuristic evaluation
  - Standard reviews
  - Cognitive walkthrough

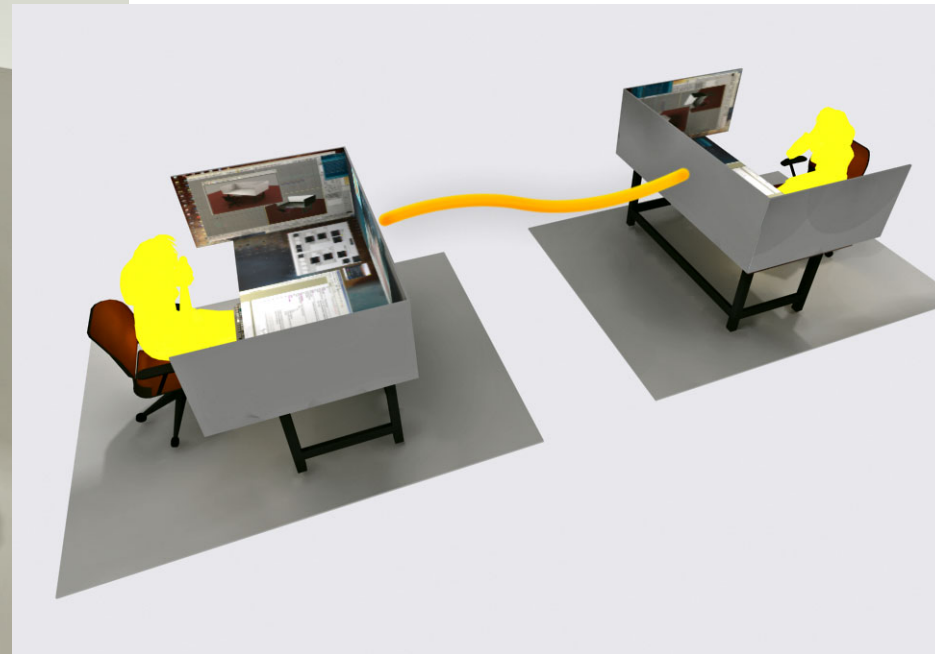
- User Testing
  - Usability test
  - Pluralistic walkthrough
  - Observation
  - Interview, questionnaire and survey

In Validation especially WOZ

# Connecting with the users

- Make it easy for the users to give feedback
  - Master & Apprentice (Beyer&Holtzblatt, 1998)
- Don't PUSH your agenda, but PULL the users' thoughts
  - Avoid good/bad judgements, ask for descriptions
  - Try to find opportunities to improve the concept
- Both old and new users can be used
  - No, that does not refer to their ages...

# Examples iCubicles virtual workstation

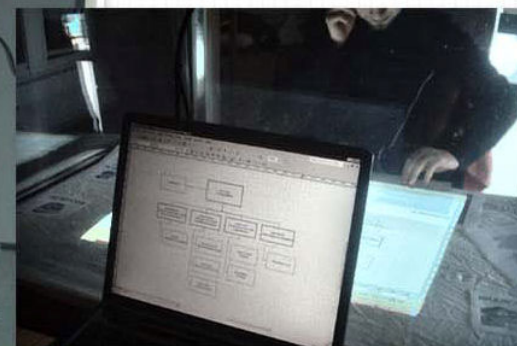


icubicles

Rakennusvaihe

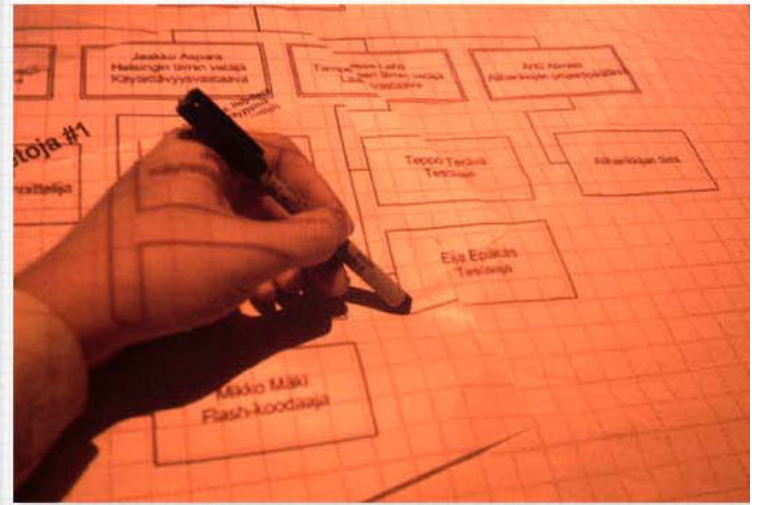


Valmis prototyyppi







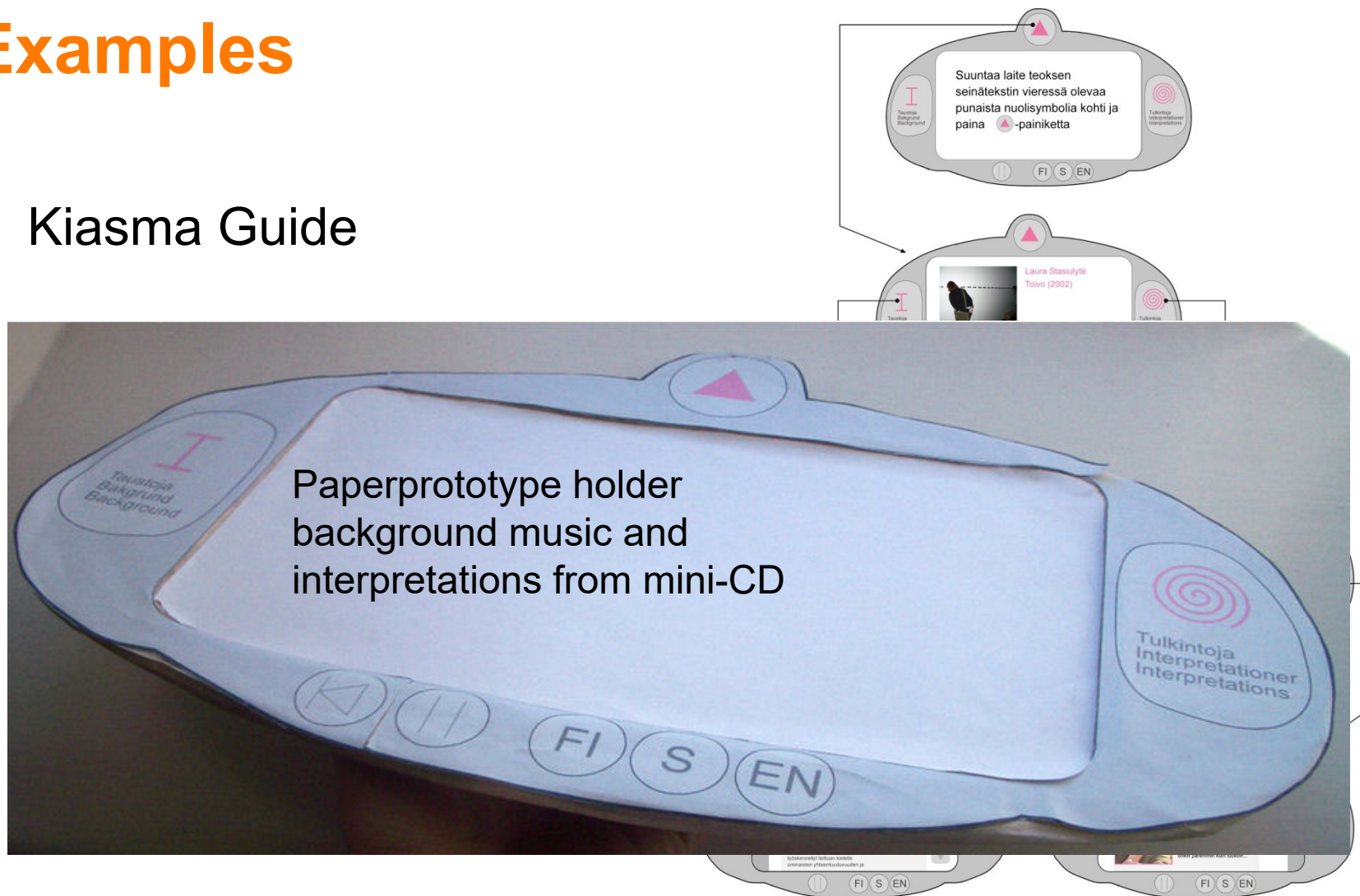




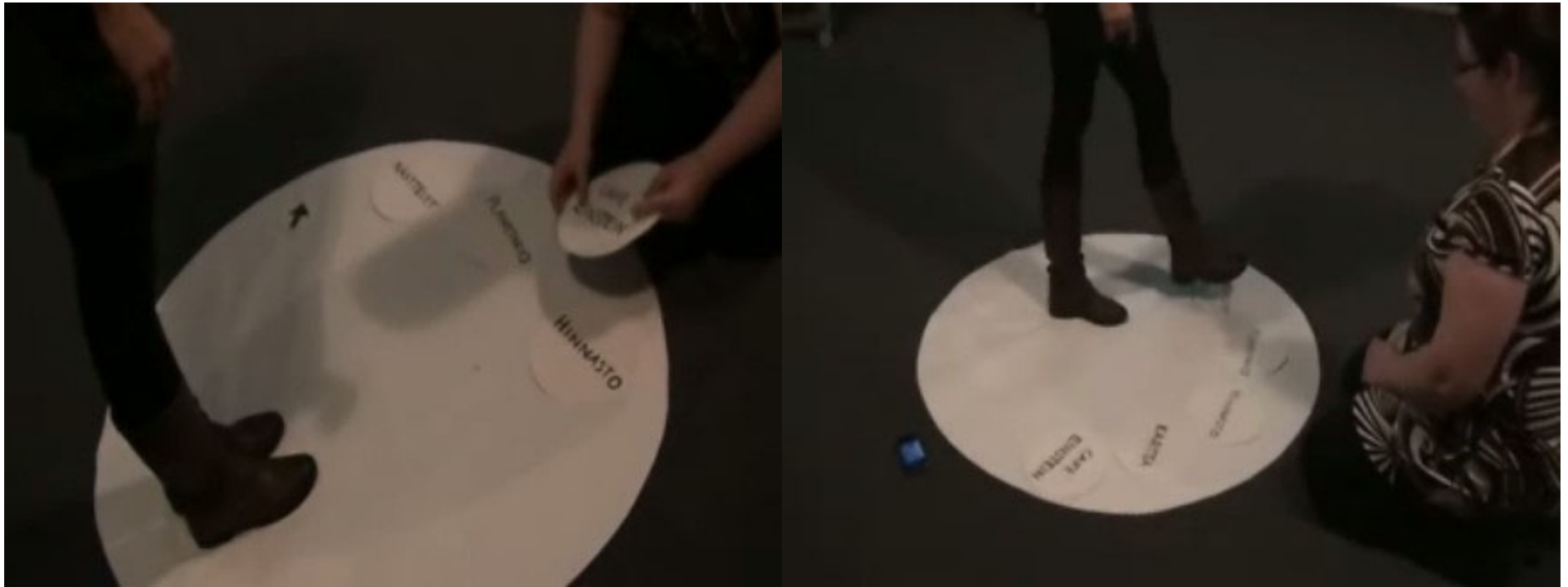


# Examples

- Kiasma Guide



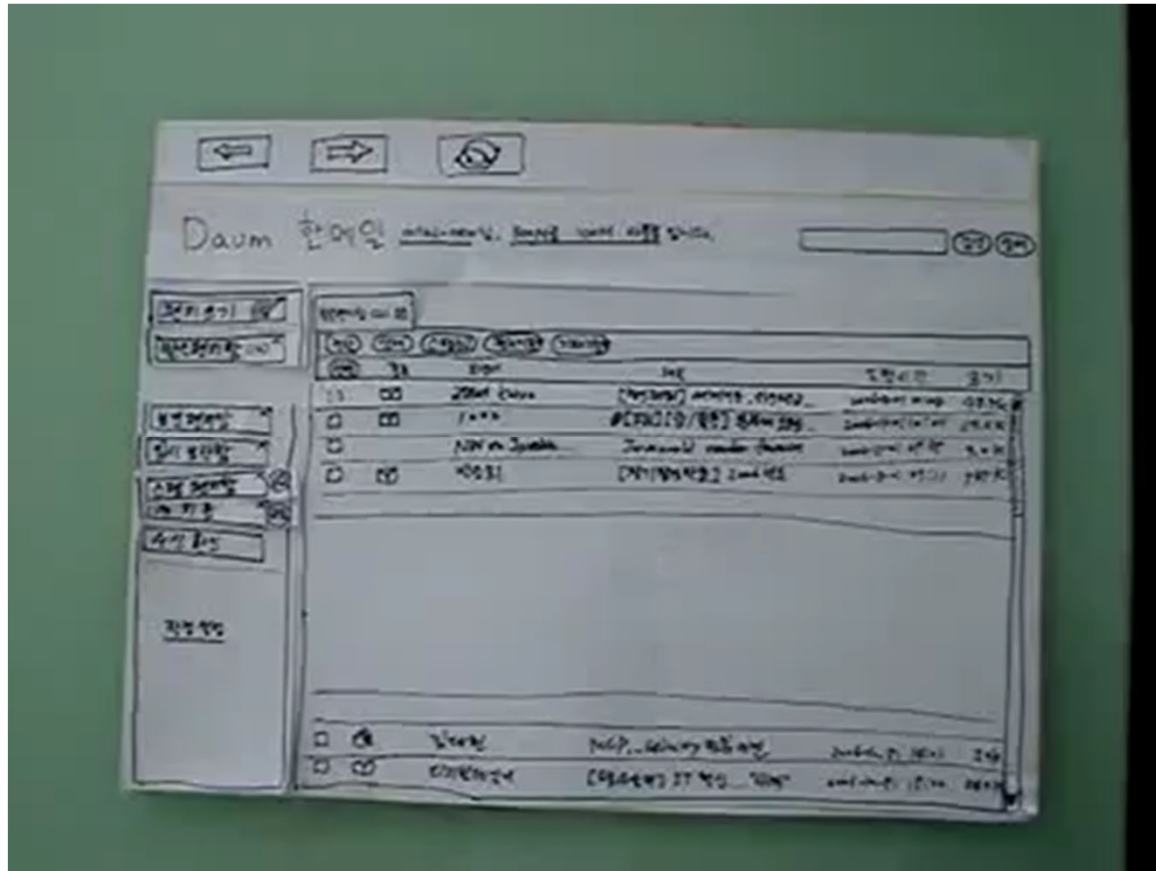
# Paper prototypes



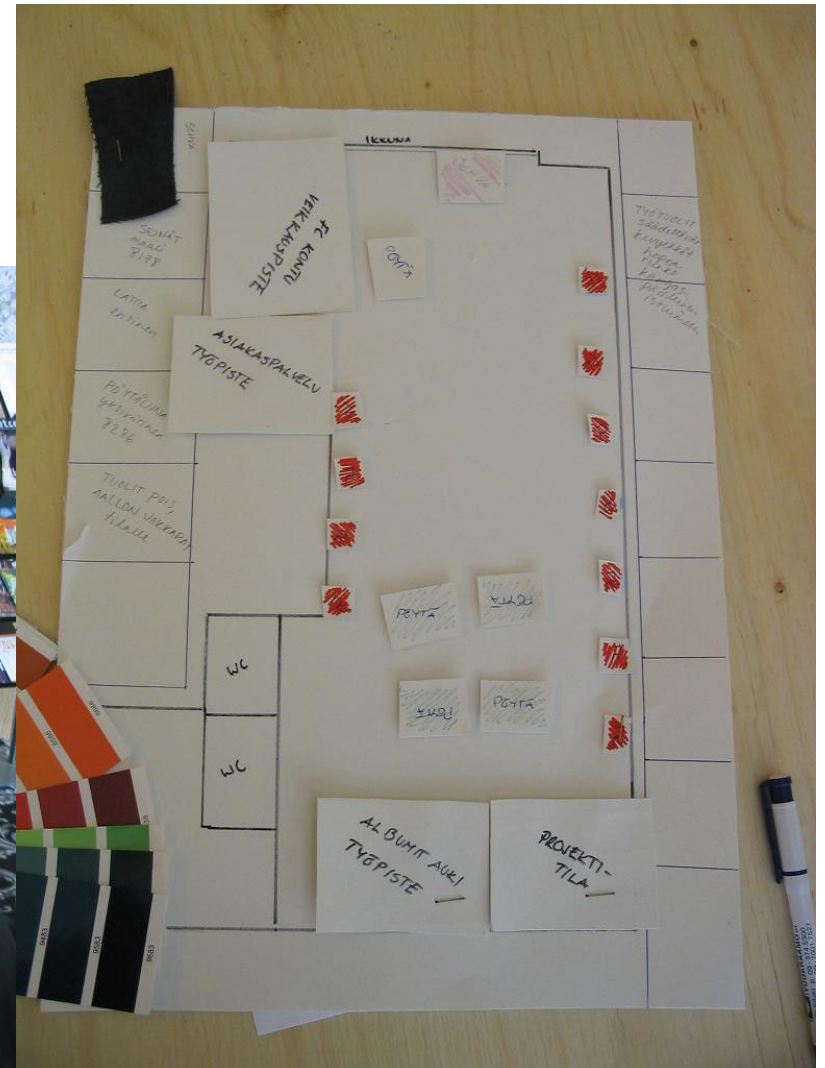


Development after validation  
'Foot prints' should be added or circle should be  
more illuminated?

# Paper prototype of an web email



# Kontu-Piste Interior

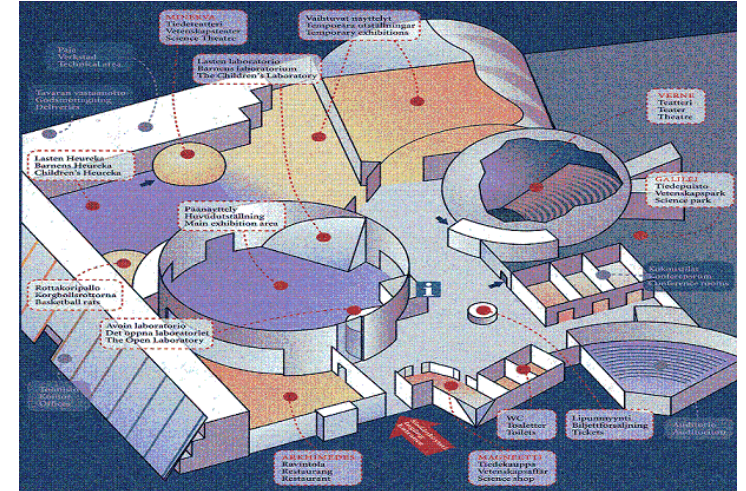




# Heureka Now



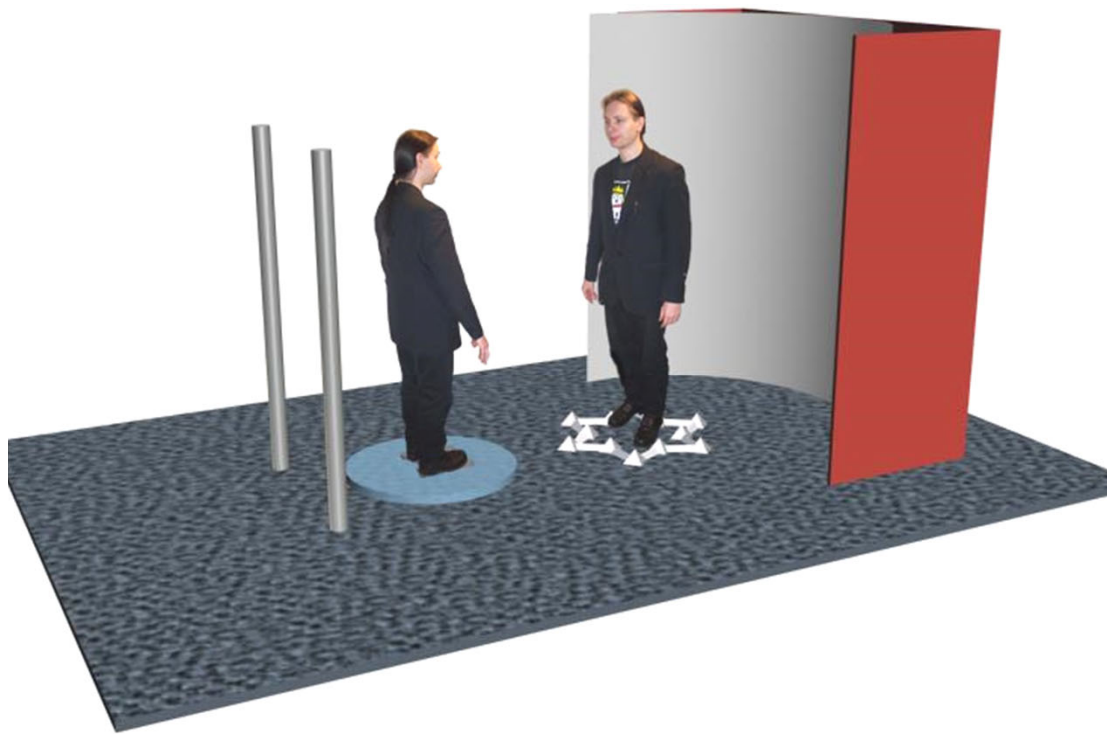
# HNow validation



# ...and the real Heureka infoteller a.k.a. Hopastin



# Heureka: Me yesterday and tomorrow



Olet vierailut Heurekassa kohteessa

# **Minä eilen ja huomenna**



**Tältä sinä näytät 20 vuoden kuluttua**

**Yleiskunto: erinomainen**

**Näkö: hyvä**

**Kuulo: hyvä**

**Hiukset: tuuheat**

**Ravinto: terveellinen**

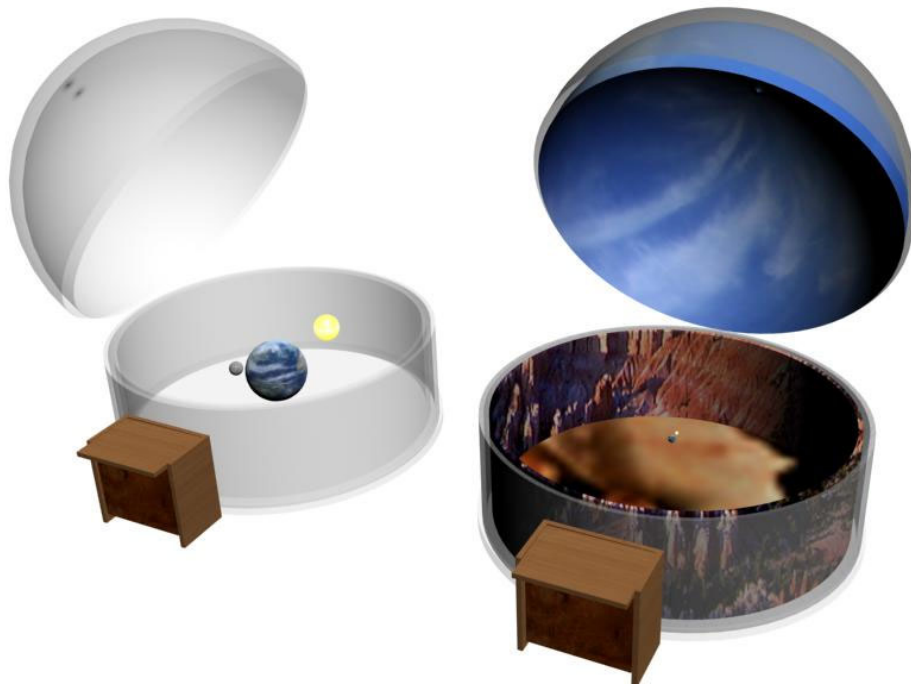
**Aktiivisuus: melko aktiivinen**

**Odotettavissa oleva elinikäsi on noin 86 vuotta.**

Tervetuloa vierailulle myös uudestaan!

Näkemisiin!

# Heureka: Travel the Globe



# Mega-Scratch Lottery

RAHAT: **0.00** e VOITOT: **0.00** e

## Mega-arpa

**VOITTOSUMMA**

**KERROIN**

x2

**OHJE** **TARKISTA VO**



# Windshield and Swipe&Touch validations

