

Human-Computer Interaction Exercise

03



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SS 2013

Prof. Dr. Max Mühlhäuser
Dr. Jochen Huber
Mohammadreza Khalilbeigi
Roman Lissermann

Technische Universität Darmstadt
Department of Computer Science
Telecooperation Lab

Task

- Designing a ticket machine for local transport
 - Fahrkartenautomat für Nahverkehr



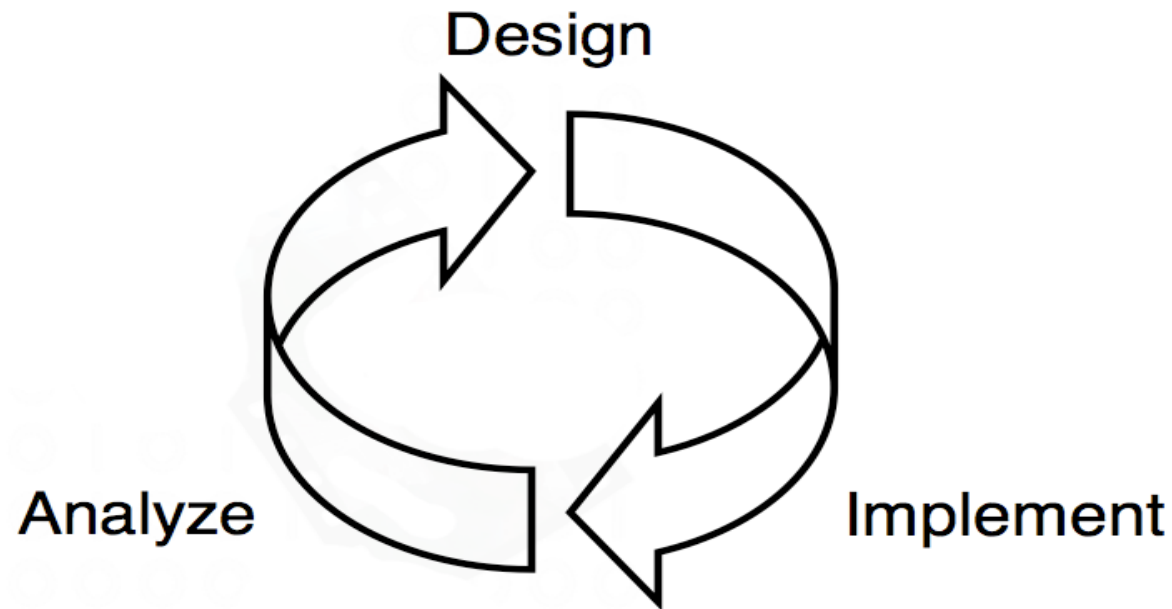
- Who are the Users?
 - Kids from 7-12 years
 - Traveling alone



Goal of Exercise

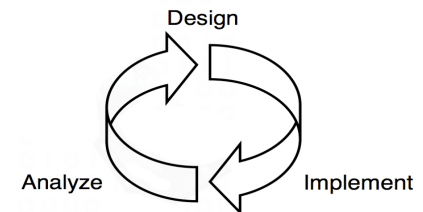


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There are four basic activities in Interaction Design

1. Analyze I:
Identifying needs and establishing requirements
2. Design:
Developing alternative designs
3. Implement:
Building interactive versions of the designs
4. Analyze II:
Evaluating designs



DIA Cycle

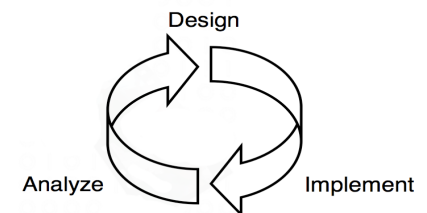


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1. Analyze I:
Identifying needs and
establishing requirements
2. Design:
Creating Storyboard
3. Implement:
Paper Prototype
4. Analyze II:
Evaluating designs

We have done
the needs for you!

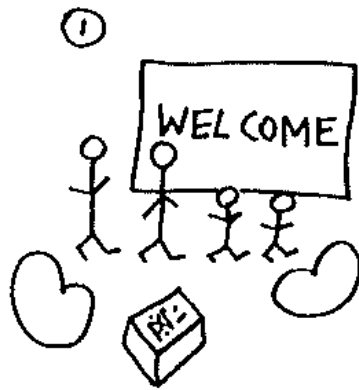
Your part!



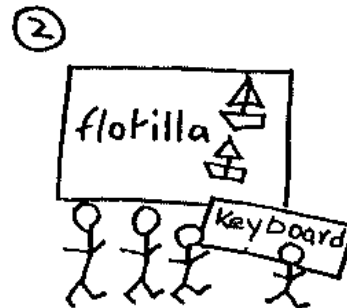
Storyboard Example: Travel Organizer



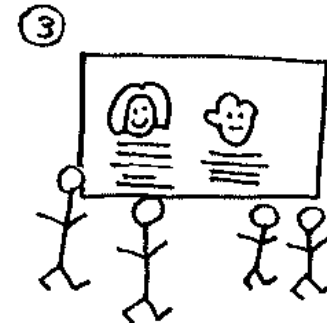
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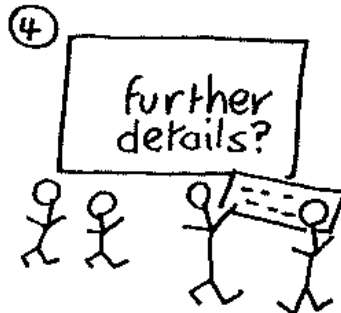
Thomson family
gather around



System suggests
flotilla



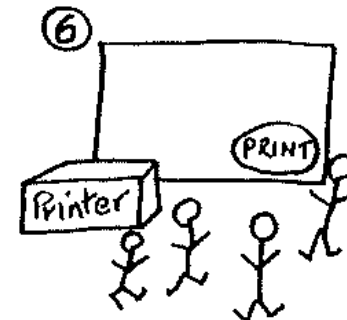
System shows
descriptions



System asks
for details



System shows
locations



Summary printed

Paper Prototypes: Example



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TRAVEL INFORMATION
Visarequirements
Vaccination Recommendations
What to pack before you go

VISA REQUIREMENTS
Destination Country ▾
Traveller's Nationality ▾
Find Requirements

VISA REQUIREMENTS FOR (COUNTRY)
Print

Task

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What are Needs?



- Search transport connection
 - How can I get to my grandmother?
 - How can I get to my sports club (e.g. soccer)?
 - How can I get to my friend's home?
- Information about upcoming/current transport
 - When does my next bus arrive?
 - What time I will be arriving at my destination?
- Purchasing the ticket
- Get personal help, if necessary

Setup

- Form groups of max. 5 students
- Schedule
 - 10 min: requirements
 - 5 min: checking requirements

Requirements 1/2

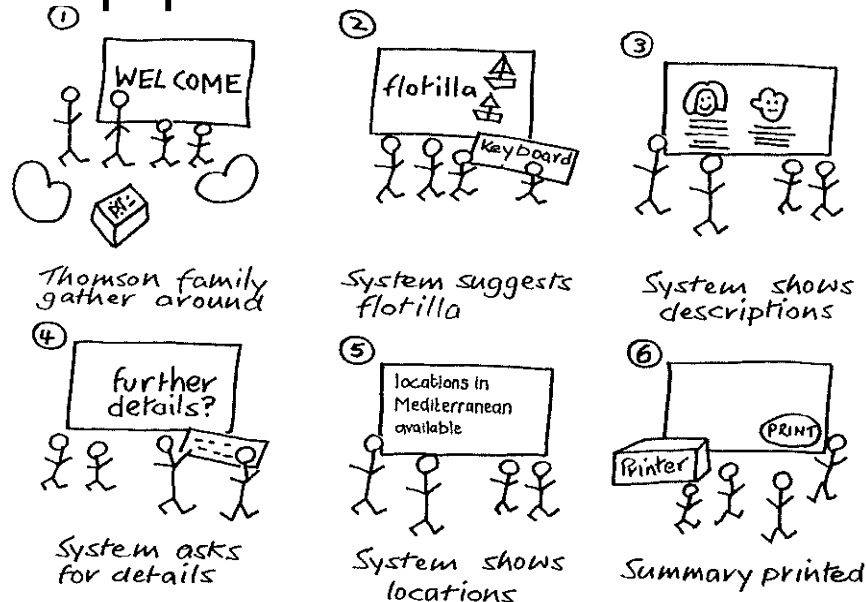
- Functional requirements
 - Search transport connection
 - Information about current transport
 - Buy the ticket
 - Provide help if necessary
 - Contract relative or agent of the transportation authority by calling them (establish voice connection)
 - Use the system collaboratively with other children – explain to each other how to use the system

Requirements 2/2

- Interaction design adapted to motor skills of children
 - Small device to be easily manipulated by kids
 - Coarse-grained input has to be supported
- Design adapted to cognitive skills of children
 - Simple interaction flow
 - Playful user experience
 - Little text, more visual communication
 - Understandable metaphors

■ Schedule

- 15 min: storyboard
- 30 min: sketch UI on paper (paper prototypes)
- 20 min: group presentation



Setup



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