Media Computing Project

Prof. Dr. Jan Borchers
M.Sc. René Schäfer
INTRODUCTION

Media Computing Group
Here you find all information regarding the lab

https://hci.rwth-aachen.de/mcp
Team

Prof. Dr. Jan Borchers

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Please mail René for any questions

Start E-mail with [MCP] tag.
Tangible Interfaces

Interactions in AR

Physical Computing
FabLab

Interactive Exhibits

Student Projects
Thesis

• Get in contact with us

• Mail to Clarissa (degavarelli@cs.rwth-aachen.de) including
  • CV
  • Transcript of Records
  • Some information about yourself and your interests
SCHEDULE

Project Process
Lab Format

• 14 weekly meetings
  • Mandatory attendance
  • Wednesdays 13:30 until 15:30
• Final presentation Feb 10th
• ~ 13h work per week and per person
• Registration: Is everybody registered?
  • Access to RWTHmoodle
  • Last day for dropout: Nov 5th
## Schedule

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INTRODUCTION

Prototyping
Storyboard

• What is it?
  • Sequence of pictures *(drawn)*
  • *Little* text

• Why use it?
  • Shows activity in its context
  • Shows UI
  • *Detailed* presentation of *interaction*
Storyboard

Comparison to before

1. All the people get on the bus through the same door.
2. Entering the bus.
3. Where is a handle or even better a free seat?
4. It is too crowded to reach handles or free seats.
Many people are boarding at the same time.

With the help of the app, the user knows where to go.

The app knows the user’s position on the train.

Based on previously defined preferences, the app reserves a suitable and free seat that meets the user’s needs.
Storyboard

Style of drawing should fit the situation
Drawing Users

• Reference: https://hci.rwth-aachen.de/verplank

• Part 1

• Starting at about 18min 25sec
Paper-Prototype

• What is it?
  • **Drawing** on [several] paper sheets
    • Storyboard prototype
    • Flipbook prototype
    • Post-It prototype

• Why use it?
  • Performing tasks within the right **context**
  • UI walkthrough with **users**
Recipe Suggestions:

- Broccoli Cheese Soup

Ingredients in cart:
- Broccoli
- Milk
- Cheese

Post-It Prototype

Before the user interaction.
Recipe Suggestions:
15 Recipe(s) found:
- Broccoli Cheese Soup
- Bolognese with Broccoli

Ingredients in cart:
- [ ] Broccoli
- [x] Milk
- [x] Cheese
Flipbook Prototype

User has a run through the prototype.
Hardware Prototype

• What is it?
  • Model out of
    • Styrofoam
    • Cardboard
    • Paper

• Why use it?
  • Execution of task in its context
  • Physical interaction is the main thing
Hardware Prototype

Wizard of Oz an option.
INTRODUCTION

Project Topic
Kyub (CHI’19) by Baudisch et al.

Create models with cubes which unfold for laser cutting.
Cura Plugins (M3)

- Autoparter: Split objects in Cura and join them after print
- BLENDReader: Import blend files into Cura
- Continue Print for cura: Generate gCode to finish the print
- Print Continue: Continue failed prints with Cura

Created by students within the M3
Fusion360 Plugin

• Each group develops one plugin

• Important:
  • User input
  • User interaction
  • User experience

• Help the users with their workflow
Ideas

- Gaming tokens
- City creator
- Parametric programming
- Fit electronics into a case
- Noise interpreter (e.g. dynamic terrain building)
- Live sketching
- Convert models to Lego
TEAMS

Form Groups
Groups

9 x 2
ASSIGNMENT

Tasks for next week
Tasks for next week

• Register in RWTHonline (if you haven’t already)

• Form groups over RWTHmoodle

• Brainstorm ideas and create 3 storyboards