MMI 2

Tutorials

Winter Term 2017/18
Organization

**Project 1:**
- **Topic:** from problem to product
- **Task:** create product including a smartphone app + wearable or individual HW
- **Goal:** iteratively developed and tested a software- and hardware concept

**Project 2:**
- **Topic:** specialties of Automotive UIs
- **Task:** develop interface concept, e.g., for autonomated cars
- **Goal:** to be announced
## Projekt 1: Phases & Dates

<table>
<thead>
<tr>
<th>Phase</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase 1:</strong> 7.11 - 28.11</td>
<td>28.11.2017</td>
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<tr>
<td>→ Identify common problem</td>
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<tr>
<td>→ Find a solution</td>
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<tr>
<td>→ Sketch idea &amp; test with persona</td>
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| Phase 2: 28.11 - 12.12 | 12.12.2017 |
| → Advance and specify idea | |
| → Low-fidelity prototyp (only SW) & mini user study | |

| Phase 3: 12.12 - 9.1 | 09.01.2018 |
| → Refine concept | |
| → Clickable prototyp (only SW) & mini user study | |

| Phase 4: 9.1 - 16.1 | 16.01.2018 |
| → Refine concept | |
| → Adjust prototype | |
| → Report lessons learned | |
Phase 1: Tasks & Presentation

Tasks & Output:
- Build groups of 2-4 people (groups cannot be changed during the project, register in Uniworx)
- Brainstorm to identify a common problem that (all of) you face frequently or even daily
- Brainstorm to find a solution for the problem. The solution must be based on
  - a Smartphone App and
  - a Wearable or a self-designed hardware
- Sketch your solution. This includes
  - at least two persona
  - at least two user stories (use the personas)
  - sketches of software, hardware and interaction (to explain the concept)

Presentation:
- Problem & Solution
- Personas, Use Cases and Sketches
- Ask for specific feedback
- Needs to be submitted as PDF until midnight November 27, 2017 (Uniworx)
Design Process

Understand problem - explore solutions - decide & sketch - develop prototype - evaluate prototype

*If you identify bigger problems you need to go back more steps!
Brainstorming: How To

The ideation process is based on brainstorming sessions, reviews and discussions.

**Silent Brainstorming:**
Each team member writes down as many ideas as possible. Use one sticky note per idea. After the silent phase, structure and group the ideas. Start a discussion on the ideas. If new ideas come up, write a new sticky note and add it.

**Group Brainstorming:**
Perform a group-based brainstorming to identify interesting design challenge. Ask the “how might we“ question to get first ideas on how to tackle the design challenges. Once you have an understanding of the problem space and once you decided on a specific design challenge, it is time to explore solutions. It is time to diverge, so encourage wild ideas and build on the ideas of others.

→ **Select the most promising idea and sketched and further specify it**
Brainstorming: How To

Some supportive questions:

- What are current problems that need to be solved or supported?
- What is the goal state?
- How could the current state be improved?
- Which design factors can be exploited to achieve the goal state?
- How will the proposed design extend or change current ways of doing things?
Sketching: How To

The decision should be based on votes, reviews and discussions.

**Sketch your Ideas (alone or together):**
Use pen and paper to sketch the ideas. Use these sketches to explain your ideas to your team members. Focus on a specific use case. You can sketch a process, the GUI or interaction styles. Remember the “how might we” answers.

Illustrate the most important aspects of your final concept. Depending on your concept, the most important aspects include the GUI, the interaction and the use case (i.e., when and where does a user use your application). The UI/UX flow of the GUI and the interaction styles can be sketched using a template [3]. The context of use can be illustrated using storyboards.
Personas & Use Cases: How To

Persona:
• Fake but realistic person with own thoughts, values, habits,...
• How to develop personas:
  • https://www.interaction-design.org/literature/article/personas-why-and-how-you-should-use-them
  • https://www.nngroup.com/articles/persona/

User Stories:
• Describe how your personas use user product
• Use text and drawings
• How to develop user stories:
  • http://www.romanpichler.com/blog/10-tips-writing-good-user-stories/
Communication

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