Assignments 2 and 3 – Iterative Prototyping and Evaluation

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Days and Topics

March 11	Intro
March 16	Designing Interactive Systems – Assignment 1 Published in Detail
March 23 (10-13)	Prototyping + Evaluating Interactive Systems **- Paper Presentation and Discussion (Assignment 1)** **– Assignments 2-4 Published in Detail** **– Android Sensing Tutorial Day will be Announced!**
April 20	**Presentation Assignment 2/3**
April 27	**Presentation Assignment 2/3** **– Submission Assignment 4**
May 4	User Interfaces for Ubiquitous Computing **- Assignment 5 Published in Detail**
May 11	Context-Aware Computing **- Details on Final Paper**
May 18	**Presentation Assignment 5**
June 1	**Presentation Assignment 5**
June 8	**Submission Final Paper**

General Idea

Design **Interaction Flow** of <u>a smartphone-based system</u> inspired by your paper - No coding allowed

Evaluate and improve your design

Since I am going to present two assignments in one, the points will add up to 200% (100% for prototypes – Assignment 2, 100% for evaluation – Assignment 3)

Learning Goals

– **Approximate** system from paper with smartphones (use your creativity to capture the core idea!)

– **Prototype**

– … **iteratively**

- In order to at least partially check for this: I want to see two sufficiently different initial prototypes (different interaction flows), one more mature prototype, and the evaluation plus resulting changelist

– Task-based heuristic **evaluation** (cognitive walkthrough)

Design: Initial Prototypes – 60%

- Hand-drawn paper prototypes (use no software at all)
  - Present at least two sufficiently different pretty rough initial prototypes (take pictures)
  - Grading: You will get 30% for each of plausible prototype that is sufficiently close to the original paper (at most 60%). The points are for meaningful approximation of the original paper that demonstrates understanding the original paper, as well as for plausible interaction flow.
- Suggestion – do some iterations for these as well (Evaluate informally) …

Evaluate – 80%

Choose one of the two prototypes

Perform a cognitive walkthrough

1. Define the key user tasks (1-2) that a user wants to achieve with the system
   – Grading: You will get 20% for a reasonable choice and description

2. Identify the user actions and system responses
   – Grading: You will get 30% for a reasonably full description of user actions and system responses

3. For each user action, answer the CW questions from the lecture
   – Grading: You will get 30% for reasonably answering the CW questions

Evaluate and Refine– 20%

Describe what problems you identified during the CW, with implications for design! (Evaluate – Analyse)

– Grading: You will get 20% for a reasonable list of changes

Also use the 10 usability heuristics to check iteratively for improvements to all of your prototypes!

Design: "Final" prototype – 40%

This would be a prototype with which you go to users, for thinking aloud tests for instance!

– Grading: You will get 40% for a reasonably more mature and adapted (following your own suggestions from CW) prototype

Presentation (30min per group – 10min questions and discussion)

Present your work on assignments 2+3

Please send me your presentation to viktoria.pammer@tugraz.at !

– Include your names and Matrikelnummer on the slides!

Rationale:

– I need to be able to grade you based on your presentation BUT need your slides to document your work.

– All others should be able to learn from your work

Presentation (30min per group)

- Show me and the class the **initial prototypes**. Place them physically on the table in the lecture hall, and show large enough photos on the beamer – 5min

- **Explain the key tasks**, and **demonstrate** how key tasks would be achieved with the selected prototype – 5min

- Show the detailed list of user actions and system responses, and **your assessment of CW questions** (don't need to go in detail into this in the presentation, but show complete list and explain one or two examples) – 1min

- **Explain the key changes** that you made to the design – 4min

- … **and demo final prototype**. – 5min