

Exercise 5 – Mensch-Maschine-Interaktion 1

Paper Prototyping

Topic: This exercise deals with rapid prototyping techniques for user interface design. Your group has to create a low-fidelity- (paper) prototype for a specific application scenario.

1. Prototype of a Tabletop Application Interface

(Per-group homework, 1 week)

In this exercise your group has to design a user interface for an application meant to run on an interactive tabletop system. This is a preparation for the next exercise (exercise 6) where you will develop a prototype, which will be running on the interactive table located at the basement of Amalienstr. 17.

The idea is to develop a paper prototype that you will then use to get feedback on your concept design.



You can **pick one** of the following applications:

– **E-Mail Application**

Traditional e-Mail applications make use of interface paradigms (lists, folders etc.) and interaction techniques (scrolling, browsing etc.) that have shown to work well on a desktop system. However, they are not suited for interactive tabletops that use pen-based input. Therefore, try to come up with a new concept to organize, compose and display messages. For instance, you may use gesture-based interaction techniques and a relation to the physical world by displaying messages as sheets of papers and representing folders as piles.

– **Board Game**

Much like traditional board games (Chess, Checkers, Backgammon, Monopoly, ...), digital tabletop games emphasize social interaction as they allow face-to-face collaboration between players. Furthermore, they have the potential to create rich gaming experiences due to their technological abilities, i.e. large display, (multi-) touch-based input, tangible interaction etc. For this task, design a tabletop game for multiple users. Do not simply copy existing (tabletop) game ideas; try to enhance them in meaningful ways. Or better yet, create something entirely new and unique.

– **Music / DJ Application**

Create an application, which allows multiple users to collaboratively play music. There are many features that can be implemented. For a start users should be able to share music (e.g. personal and public music collections). In addition the application could allow users to mix songs or choose transitions between two consecutive songs. A different approach would be letting the users create new electronic music.

Proceeding:

To fulfill this task, the following steps need to be taken:

1. Describe the basic concept of your application in less than 150 words.
2. Identify the main tasks users are going to do and shortly describe them in a few sentences.
3. Design the key screens of your application. Also, be sure to model important interactions that users have to carry out. Utilize the paper prototyping technique and document the design (digital photos / scans of your screens and the interaction performed).
4. Test your prototype on at least three different users. Incorporate their feedback into your concept. Summarize the feedback and describe the resulting changes in your design.

Submission:

- Prepare a short presentation (PowerPoint or PDF) for the next exercise session (4./6./7.12.2007, 12:15 a.m.). The presentation should cover all steps of the assignment (1 – 4). Be sure to include pictures (photos, scans) of your prototype. Bring your solution to the next exercise session (e.g. on a USB stick). Alternatively, submit your slides via e-Mail in advance to your tutor:
 - Groups 1 – 5: sara.streng@ifi.lmu.de
 - Groups 6 – 14: dingler@cip.ifi.lmu.de
 - Group 15: bremer@cip.ifi.lmu.de
- **Deadline:** 4./6./7.12.2007, 12:15 a.m.

In the next exercise you will be programming in C#. Therefore you will need a Windows (Vista or XP) machine. If your group does not have access to a Windows machine, please contact Sara Streng (sara.streng@ifi.lmu.de) as soon as possible.