

## Exercise 6 – Mensch-Maschine-Interaktion 1

### Heuristic Evaluation

(Per-group homework, 1 week)

#### 1. Preparation

Choose three members of your team who take the following roles:

- 1.) The user (“**tester**”): The tester has the duty to perform given tasks and communicate while performing the task. He/She must use a cell phone, which he/she is not familiar with. Therefore, please exchange your own phones in your group for the duration of the test.
- 2.) The **observer**: The observer has to record all of the user’s actions and difficulties while performing the task. Ideally a video camera would be used. For the purpose of this exercise it is sufficient to take still images in addition to measuring the time.  
If your team has more than three members split the observer tasks within the rest of your group, e.g. one team member can measure the time while the other team member is taking still images to document the test.
- 3.) The test **moderator**. The moderator has the duty to secure the usability test’s quality and delegate the tasks to the tester and observer(s) within the team. Furthermore the moderator should give clear indications when the usability test starts and ends.

#### 2. Usability Test

Choose one of the following usage scenarios:

**Scenario 1:** Tester: You want to call a cab with your mobile phone. You don’t have a number from an operator only the cell phones internet browser is available.

- 1.) Find and open the Browser
- 2.) Open the google.com webpage
- 3.) Google a taxi company near your location
- 4.) Copy and paste the number from the browser in the phone’s address book and save it.
- 5.) Pretend to call the taxi company

**Scenario 2:** Tester: It’s New Year and you want to invite some friends at the party to a New Year’s dinner at your house.

- 1.) Change the phone’s date and time settings to 01/01/2009 0:00.
- 2.) Schedule an appointment on the 01/01/2009 20:00 using the phone’s calendar
- 3.) Activate Bluetooth
- 4.) Send the appointment to a friend (observer) who’s Bluetooth is set to discoverable.

Perform a usability test (see: [http://www.useit.com/papers/guerrilla\\_hci.html](http://www.useit.com/papers/guerrilla_hci.html), section 2) (1-2 Hours). Meet the following requirements:

- Communicate while performing the task (Think aloud method).
- Take pictures and notes to document the test session.

(turn the page)

### 3. Heuristic Evaluation

Following the usability test, do a heuristic evaluation. Create a checklist that fits your scenario. The checklist could e.g. consist of Nielsen’s heuristics. For each of the main heuristics define a set of specific questions (~ 3-5) as shown in Figure 1 exemplary for the visibility of the system status.

#### Heuristic Evaluation - A System Checklist

##### 1. Visibility of System Status

The system should always keep user informed about what is going on, through appropriate feedback within reasonable time.

#	Review Checklist	Yes No N/A	Comments
1.1	Does every display begin with a title or header that describes screen contents?	○ ○ ○	
1.2	Is there a consistent icon design scheme and stylistic treatment across the system?	○ ○ ○	
1.3	Is a single, selected icon clearly visible when surrounded by unselected icons?	○ ○ ○	
1.4	Do menu instructions, prompts, and error messages appear in the same place(s) on each menu?	○ ○ ○	
1.5	In multipage data entry screens, is each page labeled to show its relation to others?	○ ○ ○	
1.6	If overwrite and insert mode are both available, is there a visible indication of which one the user is in?	○ ○ ○	
1.7	If pop-up windows are used to display error messages, do they allow the user to see the field	○ ○ ○	

Figure 1: System Checklist

Use your checklist to evaluate the user interface issues. Create an Excel spreadsheet to document the results.

The table should look like this:

#	Review Checklist	not at all – very much	Comments
		1 - 2 - 3 - 4 - 5	

Write a report, which covers all decisions made in the preparation phase, the name of the device that was used, a documentation of the usability test as well as the results of the heuristic evaluation. Combine your results and give a severity rating for each problem found. For each problem try to give a short hint how to solve it (see <http://www.useit.com/papers/heuristic/severityrating.html>). Perform this exercise as a team and hand in one spreadsheet per group.

#### Submission:

- Send your solution to your tutor by email. Use an attachment named exercise6-groupN.zip (N is the number of your group). Use the email subject “mml exercise 6 group N”.
- The attachment must contain:
  1. Report (PDF format)
  2. A document that specifies how the work was split between the team members (“task-sharing.pdf”).
- **Deadline:** 17.06.2009, 12 noon
- Present your results in the next tutorial (~ 5 minutes). Focus on details that might differ from other teams.