Interacção Pessoa-Máquina
2019/20

Final project

Stage 3: 1st prototype (paper)

In this stage you are going to develop the first prototype of your system. It will be a paper prototype, which should be able to handle at least 3 scenarios described in the task analysis. Your prototype will be tested by your colleagues during the lab class on October 14/16.

Objective: Development and evaluation of the first prototype.

Description

Preparation

Before the tests you should:

- **Sketch your interface:** Do a preliminary design, starting by sketching the windows and dialog boxes along with the menus and controls that will be available for the users. Then, for each scenario (defined in the previous project stage) describe how your preliminary interface would be used to perform the different tasks (storyboards). You should take some time to brainstorm and experiment different interface designs, sketching them by hand on paper. Then select the most promising one, or a combination of them to develop.
- **Build the prototype:** Design the static background, menus, dialog boxes and windows. Decide how to implement the dynamic parts of your interface. Hand draw is preferable. You can elaborate different alternative designs. Brainstorming helps to develop new ideas.
- **Prepare a briefing for the test users:** It should be a short, simple and clear description of the purpose of your application. It should include any background information about the problem domain that may be needed by your colleagues to understand it. It should be 1/2 page at most. It should **not** describe how to use the interface.
- **Write the 3 scenarios in separate paper sheets:** Identify the concrete goal of each task (ex: buy apples, milk and water). **Don't** specify the actions that should be executed, since the users should figure it out by themselves. The tasks should be brief (max. 5 minutes).
- **Assign roles to each member of the group:** one person should play the role of the computer and the remaining ones will be the facilitator and the observer. Swap roles after every test (plan in advance).
- **Practice running your prototype:** Each member of the group should practice playing the computer (rearranging interface elements and writing responses), so that there is no hesitation during the real tests. It is not important to be fast, but you should be competent and secure. Make sure your prototype can handle the 3 proposed scenarios.

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Testing day (in class October 14/*16*)

The class will be split in two equal periods of time and the projects will be split on two sets. During the first half of the class, the first set of projects will be tested by the developers of the second set of projects (who play the role of individual users). During the second half of the class, we switch.

The development team should (for each user):

- **Brief the user:** Use the briefing to orally describe the purpose of the application and the background information concerning the problem domain (1 minute at most).
- **Present one task:** Give the user the paper sheet with the description of the first scenario. Let him read it. Make sure the user understands the task.
- **Watch the user execute the task:** Take notes regarding what you observe.
- **Repeat for the remaining tasks:** Spend 15 minutes at most with each user and test as many tasks as you can. If you can't get to all your tasks with one user, start the other user on untested tasks.

Bring extra material on testing day: Post-its, paper, colour pens… You may have to improvise if a user has an unexpected behaviour or you may have to make short correction to your prototype.

On the testing day, you will also have to play the user. When playing the user, you should:

- **Cooperate**: Interact with the interface as if you were really using it. Point out any errors you find or any suggestions you have.
- **Think aloud:** Help the observers understand what you are thinking. Ex: "Ok, I am going to register the bread now. Where is the bar code?".

Paper prototype Report

The report should include:

- **Sketches and scenario storyboard:** Storyboards for each scenario, including the sketches to show how your interface would look at key points of the interaction.
- **Prototype photos:** Photos of the relevant pieces of your prototypes (also take photos in the testing day)
- **Briefing:** The briefing provided to the users.
- **Scenarios:** Scenario descriptions provided to the users.
- **Observation:** Usability problems found during the tests and possible solutions. Describe user comments without identifying them.

Testing day (mandatory class): October 14/16
Deadline paper prototype report: Delivery (in class) October 21/23