

Interacção Pessoa-Máquina

Evaluation test 2

December 7, 2015

Duration: 1:30h

The test is in English. You may answer the questions in English or Portuguese. Either way, you should be concise and clear.

- 1) The following comments belong to a heuristic evaluation performed on a web site. Identify the Nielsen's heuristic that best justifies each of the following usability problems found during the evaluation.

- a) "Alignment of text boxes and buttons make them hard to scan"
- b) "The colour of the hyperlinks (not yet visited) is sometimes blue, sometimes red, and sometimes black."
- c) "Mandatory fields are not identified in the form".
- d) "Error messages do not specify which form fields are incorrect."
- e) "Too technical terms, that may not be meaningful to the users, are used."
- f) "No *autocomplete* in the departure airport field"

- 2) Suppose you want to compare the children' performance when using a mouse-based input technique or a tangible-based input technique to manipulate an object while solving a jigsaw puzzle. So, you designed a controlled experiment where several participants perform a specific task using the different input techniques (mouse-based/tangible-based).



- a) In this experiment the input techniques (mouse-based/tangible-based) are the:
 - 1. independent variables
 - 2. dependent variables
 - 3. uncontrolled variables
- b) During the experiment you will measure the task completion time. These measurements corresponds to:
 - 1. independent variable
 - 2. dependent variable
 - 3. uncontrolled variable

- c) The experiment will use a within-subjects design. What does this mean?
- d) Imagine that, during the experiment, users always tested the mouse-based input technique before testing the tangible-based input technique. This threatens:
 - 1. Reability
 - 2. internal validity
 - 3. external validity
- 3) Describe three important differences between user tests and heuristic evaluation.
- 4) Explain why is it difficult to focus on an image that combines red and blue side-by-side and describe what can be done to avoid the problem.
- 5) Consider the following two methods for opening document "IPM_final_report" on your word processor. Present the keystroke level model for these two methods. For each step, indicate the user action. You don't need to indicate the exact time value for each action. Also consider that the document is in the current directory when the open dialog box appears.
 - a) Method 2: Use the keyboard (to open the "Open" dialog box consider pressing 'Ctrl+O'). Use the mouse to select the file and use the keyboard again to open the selected file (and close the dialog box).
 - b) Method 1: Use only the mouse
- 6) Command line based interfaces violate some of the usability heuristics.
 - a) Point out the two most relevant and justify.
 - b) Identify the advantages that this interaction style may, however, have.
- 7) Comment on the following statement, concerning graphic design:

"Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away." - Antoine de Saint-Exupery

GOOD WORK