Natural User Interfaces (5 cp)
Exam 10.3.2015
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Instructions

- You will need only equipment required for writing - no study material or calculator is allowed in the exam.
- The maximum time for the exam is four hours.
- Please answer to all of the questions using the answer sheets.
- You may answer either in English or in Finnish.

Question 1

Let's assume that a friend of yours would like to design an interactive prototype using the same NUI type that your group prototyped in NUI course.

1.1 What should your friend pay attention to when designing this type of interface? Form your advice into three design guidelines.

1.2 What kind of advice would you give to your friend about building the prototype, e.g., which environment to use and why, what kind of challenges there may be and how to deal with them?

(6 p.)

Question 2

What are the most important issues to remember when evaluating prototypes with users?

(5 p.)

Question 3

What is "Midas touch problem"? Give one example of how it affects interaction in one type of NUI and describe at least two different ways in which a designer can solve the problem.

(4 p.)

[Exam continues on the next page —>]

Question 4

4.1 Define *natural user interfaces* and describe how they differ from graphical user interfaces.

4.2 Describe what are the major differences when interacting using *touch gestures* compared to *air-based gestures*.

4.3 Explain the idea of *brain-computer interfaces* and descibe two major ways in which brain-computer interfaces can be used to enhance human-computer interaction.

4.4 Give three good reasons for using *video prototypes* in the design process.

(10 p.)

Question 5

Define *user experience*. Give one example of users, tasks and context in which a natural user interface can contribute to better user experience compared to graphical user interfaces. Describe how the user experience is likely to be better and why.

(5 p.)