



Department of Computer Science

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**Exercise Sheet 1**

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**Intelligent User Interfaces: Design and Implementation (course 89-7159)**  
Fall Semester 2014/2015

**Exercise 1: (compulsory)**

Take a look at the reading list and select four papers, two from each category.

<http://www.dfki.de/%7Esonntag/courses/WS13/reading-list.html>

Begin to read with respect to the instruction in <http://www.dfki.de/%7Esonntag/courses/WS14/How-to-Read-a-Research-Paper.html> and the review questions: <http://www.dfki.de/%7Esonntag/courses/WS14/Critique.html>

The paper critiques (1-2 pages each) are due to January 9, 2014.

**Exercise 2: (compulsory)**

**Software Project "Digital Pen for Dementia Tests"**

Phase 1: Topic Selection & Task Analysis:

Read <http://www.aaai.org/ocs/index.php/IAAI/IAAI14/paper/view/8626/8656> and identify a type of technology to investigate and begin thinking about tasks and (possibly hypothetical) set of users that you will support with your intelligent user interface. Determine what is difficult (and easy) about the current task and how it can be supported. (Only this part is due Friday, November 21, 2014.)

Phase 2: Initial Design and Implementation

Specify system design goals and create an initial conceptual design and implement it together.

Phase 3: Final Report and Presentation (due January 30, 2014)

Write a report describing the users, their tasks, your technological solution to supporting them (including design and prototype implementation), and how the system is expected to be used. Also include an empirical or observational study of how you would evaluate your system's success in meeting its goals of supporting users. Don't worry, we will introduce the concepts you need in the first block lecture.

What you turn in on January 30: 8 to 12 page final report, including two to three page description of the task being supported, how users currently perform this task, and the type of technology you investigated. This should include some indication of how a system might augment current work practices—remember to respect current tradition while looking for ways to transcend current practice. Second, a description of the system goals and conceptual design. This should include diagrams/drawings of the interface or interactions between system components and users in order to provide a sense of what the system might look like. There is also a formal presentation in class.

Contact [markus.Weber@dfki.de](mailto:markus.Weber@dfki.de) for further details.