Human Computer Interaction

Fall 2014
Computer Science (BSc & Minor) & Media Technology

Lecturer: **Fons J. Verbeek**

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Practical Assignment I

- Nature: HCI course 2014
  » Control
  » Fine granularity of grading
  » Innovation and Users are key
  » Mixed teams

- Approach: User-Centered Design / Research
- Assignment: PDF available (this week).
- Start: Now …(literature, programming)
- Study-Model: Work ahead
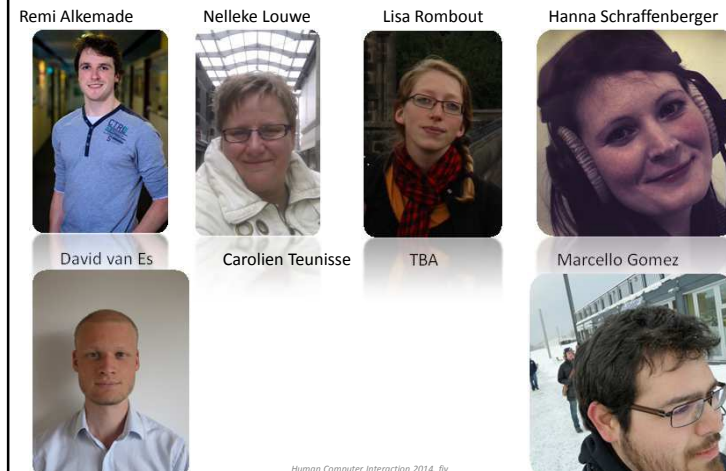- Deadlines: Strict (grading!)

Concept Plan – Project Plan

- September 25th, 2014 Concept Plan Submitted
- October 1st, 2014 Concept Plan Evaluated
  – Comment on Concept plan
    • Feasibility
    • Everything addressed according to instructions
  – Assign Assistant to Team
- Week of October 6th,
  – Connect with team **Assistant** (initiative Assistant)
  – Write Project Plan
  – Submit Project Plan to **Assistant**: PDF format
  – Look at team page

The Assistants

Remi Alkemade Nelleke Louwe Lisa Rombout Hanna Schraffenberger
David van Es Carolien Teunisse TBA Marcello Gomez

Practical Assignment II

- **Make use** of the supervision and coaching.
- All assistants
  - Small technical problems
  - Informing/Signaling of bigger problems
  - Feedback to Course Administrator

- Team Assistant
  - 3 meetings mandatory
  - Questions of no direct technical nature.
    - change planning
    - approach chosen
  - General questions in interfaces.
  - Pointers to literature.
  - You are stuck at some point: sparring partner.

Practical Assignment III

- Includes complete Development Trajectory for Interaction, i.e.:
  - problem statement (incl. analysis of users)
  - Research question (what are we trying to accomplish)
  - planning
  - design
  - draw-up usability specifications
  - prototyping
  - documentation, Help Facility
  - intermediate evaluation (2x) – answer research question
  - in Assignment:
    - Deadlines and how to deal with them
    - Grading issues

Materials for the Assignment

- Wii Mote
- Wii Balance Board
- Key-board
- Kinect
- Touch screen
- Projector
- Others ?
- Tiled Display (4x4 Monitors)

Important !

- Recommended for Assignment
  - Java / Processing / JavaScript
  - Flash / Flex, simulation
  - C++ , experienced and also adding functionality
  - Python

- For all assignments:
  - 2 persons teams

  - Agree on a subject: IDENTIFY your Users.

  - Work plan with your Deadlines

  - Evaluations of your interface by users.
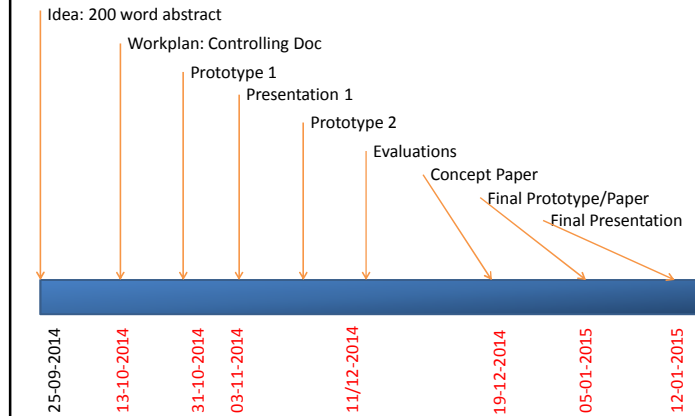
Background Material

- Use Wireframe Sketcher / MS-Visio
  - Paper design
  - Interaction design sketches/flow
- Online tutorials
  - Flash, Delphi
  - Java SDK
  - More available soon
- Online Quiz (hci.liacs.nl)
- Proceedings HCI 2013 (soon)

- HCI, A. Dix et al.; HCI, Benyon. (e.g. Ch 16)
- Designing the User Interface, B. Shneiderman et al.
- Additional papers provided by course
- Additional links provided by course

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Time-Line

Idea: 200 word abstract
Workplan: Controlling Doc
Prototype 1
Presentation 1
Prototype 2
Evaluations
Concept Paper
Final Prototype/Paper
Final Presentation

25-09-2014 13-10-2014 31-10-2014 03-11-2014 11/12-2014 19-12-2014 05-01-2015 12-01-2015

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Presentation of Design …+

- Presentation format
  - PowerPoint
- Presentation contains
  - Paper design
  - Underlying principles
  - Results obtained so far
- Presentation of the prototype
- Time constraint: 20 minutes

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Presentation of (Final) Prototype

- Check beforehand on the demo computer
  - What is the version/type of OS
  - All "dll" are installed ?
  - Correct versions of compiler, JVM etc. is available
  - RT version of prototype executes with given OS
  - Time required to demonstrate prototype

- Read this before you present!

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C++

- MS FC (in Visual C++)
  - Also look for material on Internet.
- Qt Designer
  - A short introduction is available in:
    - "Een minimale interface in Qt Designer"
    - URL: see HCI website
  - Qt online tutorial
- Objective C (for Apps)
  - Open frameworks

Flash / Flex

- Installed ?
- On line material available
- Tutorial Nezhinsky on Flash
  – Available via HCI website
  – Supervision – assistants

Delphi

- Download demo version
- Tutorial is available via HCI website
- Not installed on computers in student-rooms

Mobile-based

- For web-based applications
  – Flash/Flex
  – JAVA 2, Java script.
  – webpage using only HTML will not lead to the rich interaction we pursue

- Browsers
  – Chrome, Firefox, Safari, Explorer

- iOS or Android toolkits
  – Eclipse plugin & Dev. Kit for Android
  – iOS license via LIACS (hanna schraffenberger, fons verbeek)
  – Open Frameworks

Deliverables

- Final Paper
  – Compilation of results
  – Consistency in style/layout according template
  – Readable
  – Conclusions & Discussion (Reflection and Future)

- Final Prototype
  – Discuss
  – Present (January 2015, see document)
  – Grading by course administration (pass-fail)

Example HCI – Practical: Poiise

Themes HCI 2014

A. This App can be done Better
   – Redesign an App (iOS or Android)

B. Connecting People
   – Information Visualization and Interaction of connectivity of people

C. Scientific Interfaces/Interaction
   – Involve in upgrading software for Science; UI

D. Games for Sports (on Mobile Devices)
   – Support for a Sports Activity

E. New Interactions
   – Changing the interaction in an application to enhance the performance and experience

Issues

- Concept plans
- HCI website
  – Quiz
  – Tutorials
  – Proceedings
- HCI exam
  – Reserved   Dec 22nd 2014
  – Extra   Oct 30th 2014 (10.00 – 13.00)
- HCI Presentation
  – Taking into account exams

Questions