

# Human- Computer Interaction



Proseminar

Media Computing Group  
RWTH Aachen University

Summer term 2007

<http://media.informatik.rwth-aachen.de/>

# Today

- Proseminar topics and style
- Who, what, and where
- Individual topics and group formation

# Proseminar style

- In groups of two
- 45 mins talk, shared equally between both
- 15 mins questions and critique
  - Format
  - Contents
- Written report and slides
  - Due one week before presentation
  - 10 pages

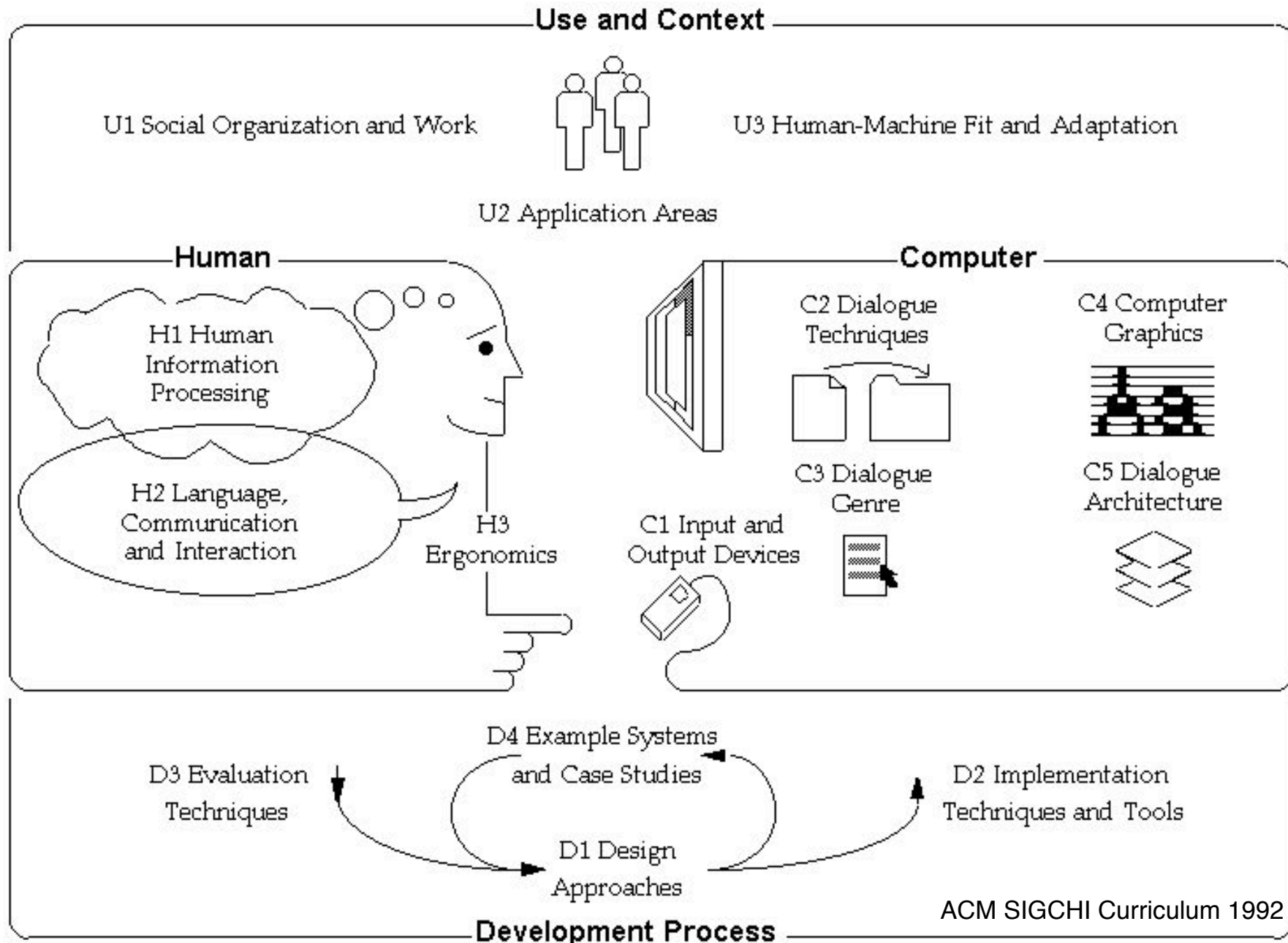
# Who are we?



- Prof. Dr. Jan Borchers
  - B.Sc. & M.Sc. CS, U Karlsruhe & U London
  - Ph.D. CS, U Linz, U Ulm & TU Darmstadt
  - Assist. Prof. at Stanford & ETH Zurich
  - Research area:  
Interaction Design for New Media
- Dipl.-Inform. Daniel Spelmezan
  - RWTH Aachen



# What's Human-Computer Interaction?



# Media Computing Group

- Interaction with multimedia: WorldBeat



# Media Computing Group

- Interaction with multimedia:  
Personal Orchestra

## **Personal Orchestra:**

Conducting the Vienna Philharmonic

Jan Borchers

Acting Assistant Professor

Computer Science Department

Stanford University

[borchers@stanford.edu](mailto:borchers@stanford.edu)

# Media Computing Group

- HCI Design Patterns

H13 IMMERSIVE DISPLAY \*



Figure 4.31: CAVE in the Ars Electronica Center Linz.

... you have decided to create an exhibit that several people can experience simultaneously—COOPERATIVE EXPERIENCE (H3). Now you need to find a way to design the visual output of such a system.



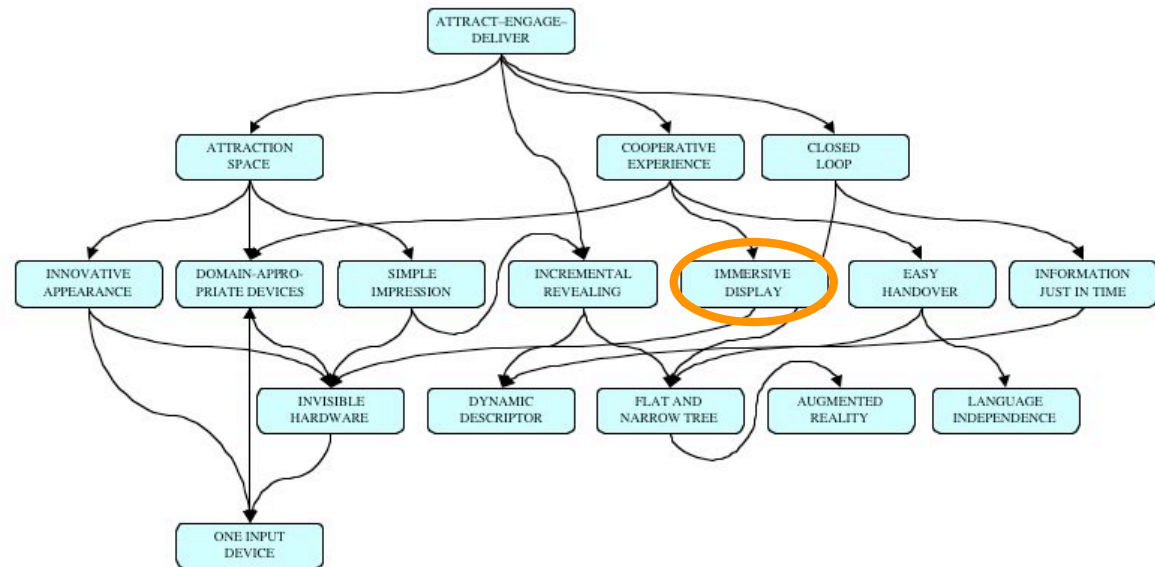
Typical usage scenarios of standard computer systems often involve only one human interacting with the computer at any time, and the system is only a small part of the real environment of the user. But exhibits are usually visited by groups of people, and when users interact with them, they are ready to immerse themselves into the world of the exhibit.

The CAVE installation in the Ars Electronica Center in Linz uses wall-size projections all around the visitors to immerse them into a virtual reality. Special glasses synchronize with these displays to create a three-dimensional impression.

Virtual Vienna uses a rear-projected display screen of about

CAVE: 3-D walls

Virtual Vienna: panorama



many may find already sufficient without becoming an active user.

Therefore:

Prefer a single exhibit with a large-scale display, with a minimum of 1.5 m in display width, over several similar stations with smaller displays, and over other output devices that shield a single user from his co-visitors, such as head-mounted displays. Design for a viewing distance that roughly equals the width of the display.

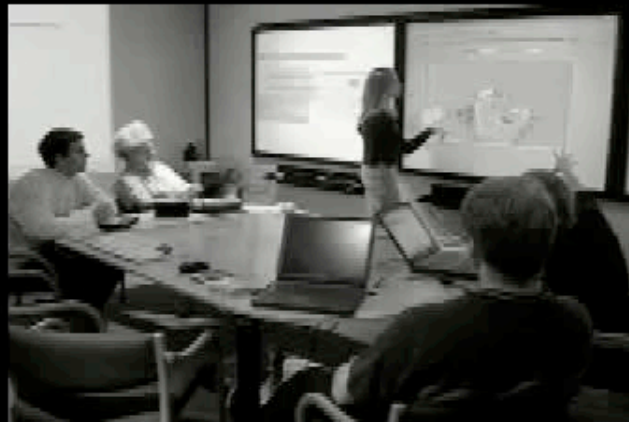


If you hide the display technology, it can become a “magic image”—INVISIBLE HARDWARE (H14). ...



# Media Computing Group

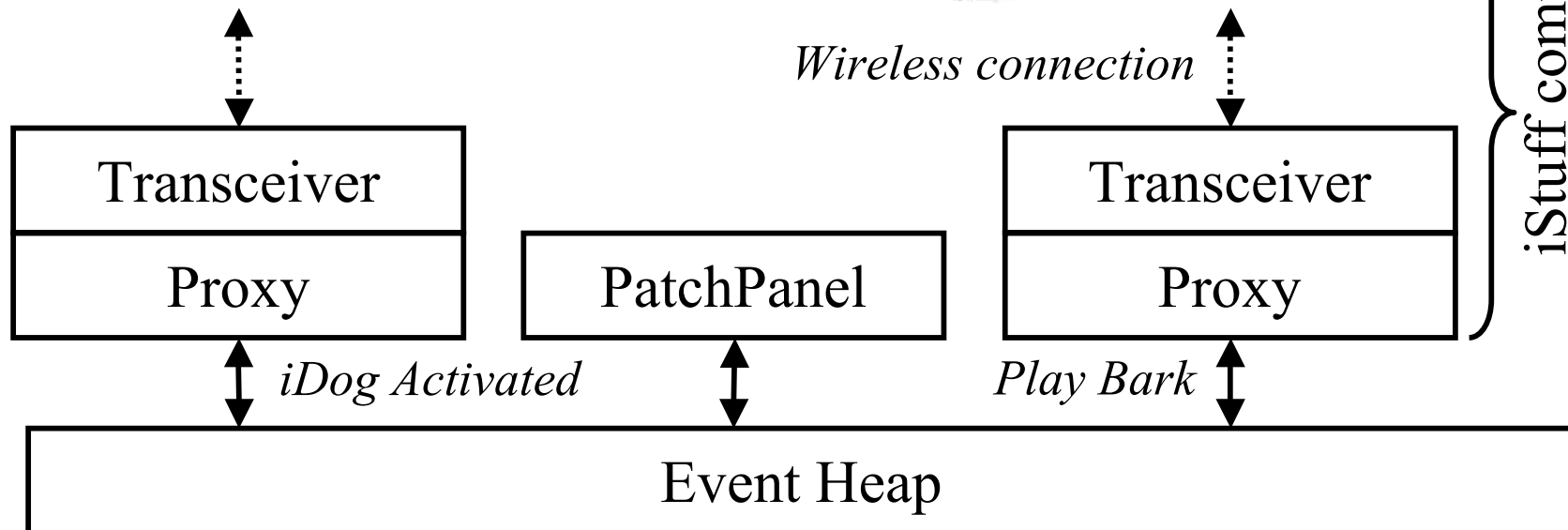
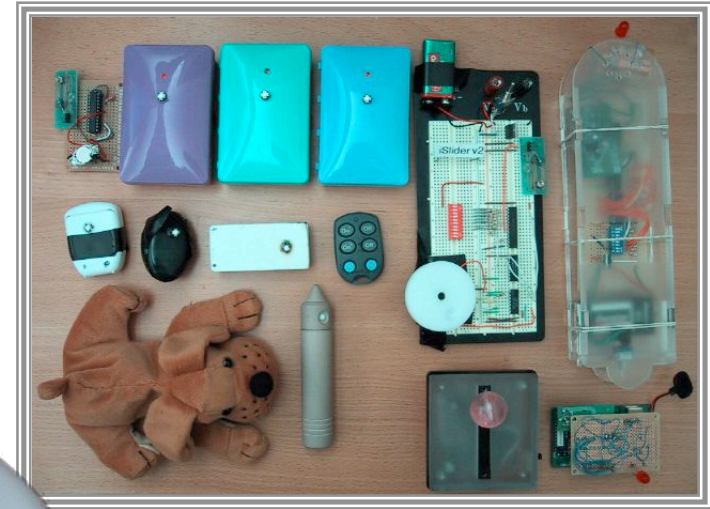
- Media Spaces



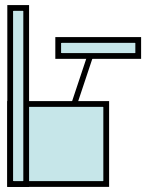
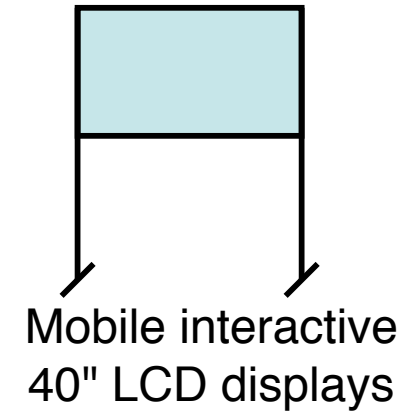
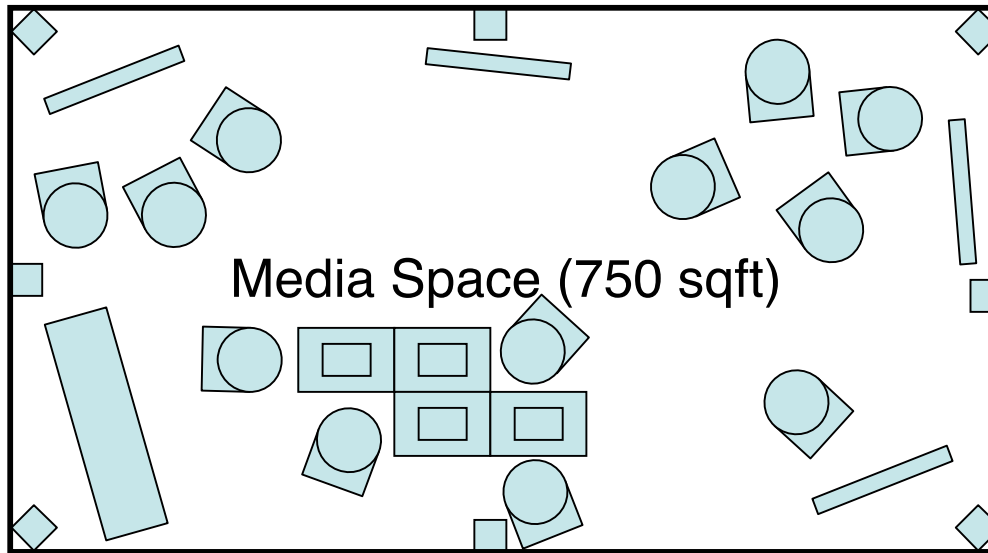
Interactive Workspaces Project

# Media Computing Group

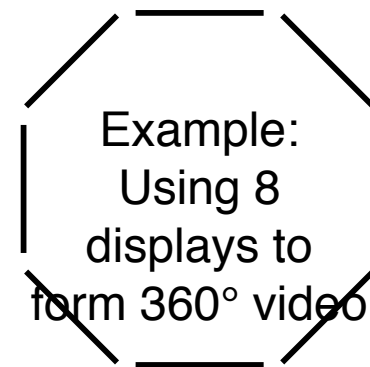
- iStuff: Post-Desktop User Interfaces

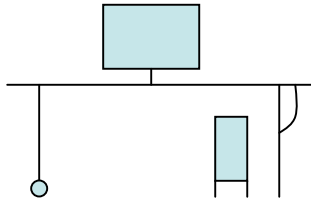


# Media Space Architecture

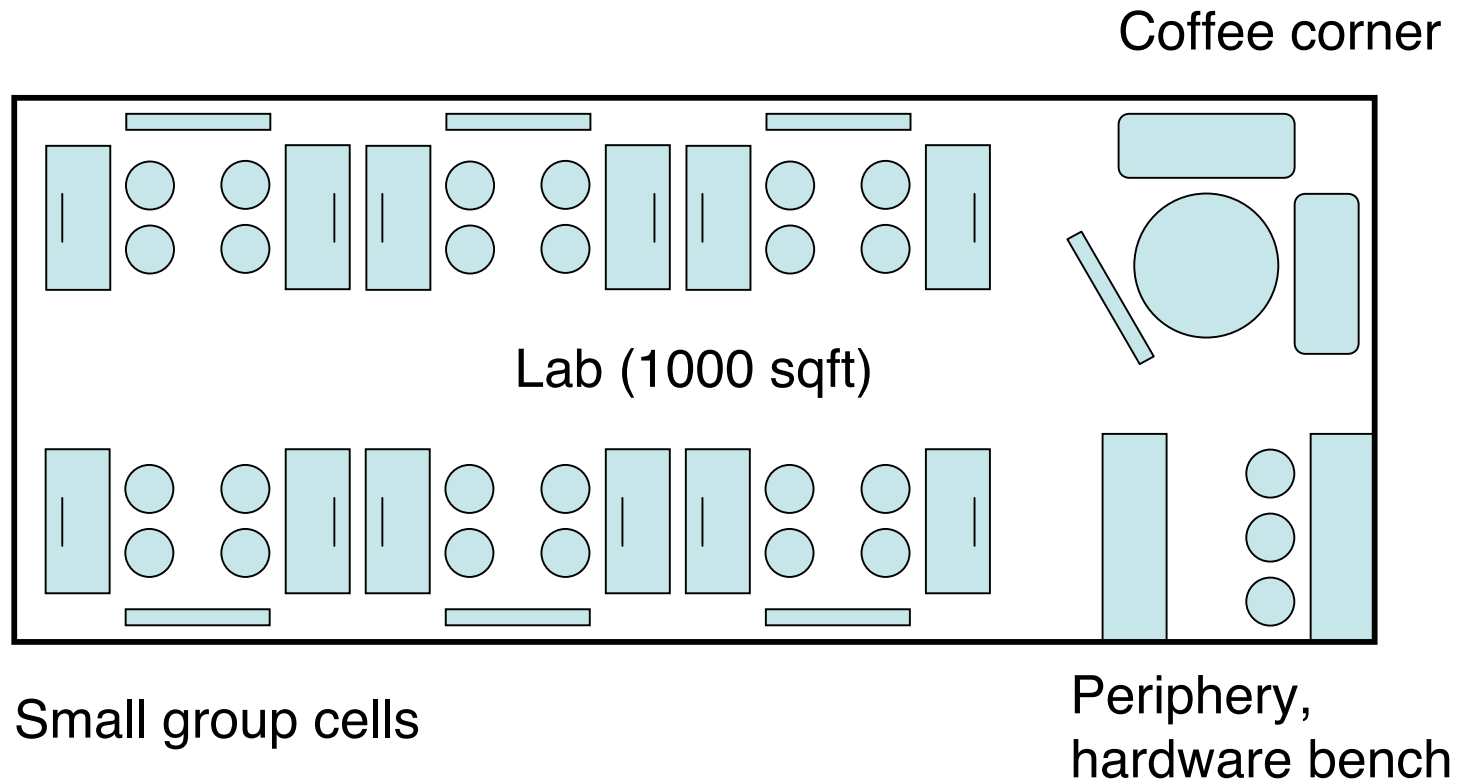


Chairs for laptop use — rotate easily  
— storage space for backpack —  
with power supply?





# Lab Architecture



Small group cells

Periphery,  
hardware bench

# Literature review

**“Literaturrecherche”**,  
keine Bibliotheksführung!

- **Required** course at RWTH CS Library
  - Contact Mrs. Renate Eschenbach
  - Special courses for our seminar
    - Tue, 20th February, 11:00
    - Thu, 22nd February, 15:00
    - Thu, 01st March, 15:00
    - Wed, 28th March, 11:00
  - Groups of 6 students

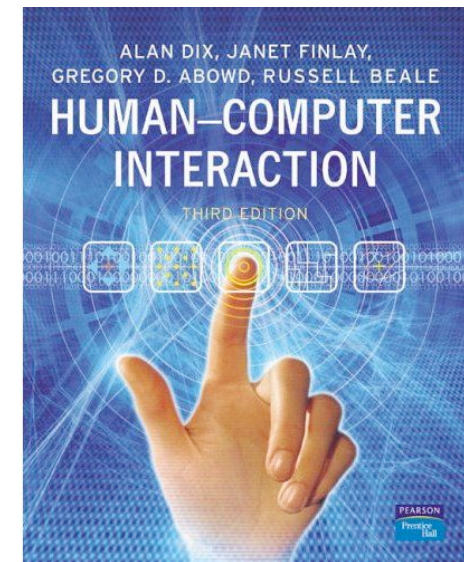
# Schedule

- First presentation on April 05, then every week, Thursdays, 14:15–15:45, room 2010
  - 05. April, 12. April, 19. April, 26. April
  - 10. Mai, 24. Mai
  - 14 June, 21. June, 28. June (2 talks)
  - 05. Juli (2 talks), 12. Juli

# Proseminar Topics

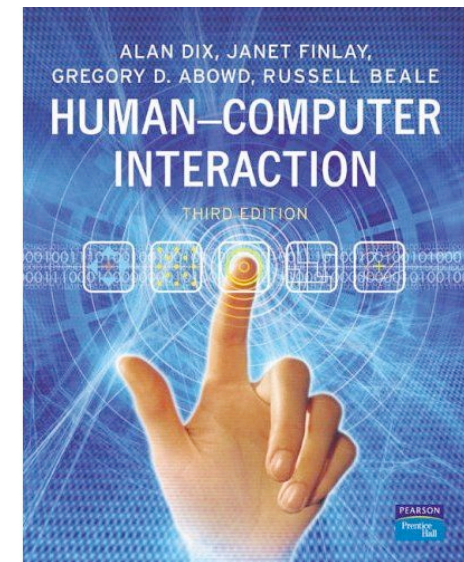
- Human Computer Interaction (3rd)  
Dix, Finlay, Abowd, Beale

- ISBN-10: 0130461091
- ISBN-13: 978-0130461094
- at Amazon for 75,- Euro



# Your task

- **1 chapter** from the book + **3 related** and recent conference publications
- See website for topics...





# Report

- CHI conference publication format (see link on website)
- Correct spelling and grammar !!!

# Hints for a successful presentation

# Slide Content and Layout: Don't Do This!

A seminar is a form of academic teaching, at a university or offered by a commercial or professional organization, in small groups where students are requested to actively participate during meetings. This often has to be done by presenting a paper in class and also in written form. The idea behind seminars is to confront students with the methodology of their chosen subject and also to familiarize them with practical problems that might crop up during their research work.

Font size ?

Complete sentences ?

Blank space ?

# Slide Content and Layout: Do This!

## Text

Supports presentation

Bullet points: short but meaningful

## Media

Images

Audio & Video



# Slide Design

Slide title

Sections

- Keep a clear structure
- Important information?
- Our templates (Keynote, PPT)

Slide count

Title and Author

1 / 29



# Presentation

Appropriate volume & speed

Draw in the audience

Look at them

Questions & Demonstrations

Rehearse your presentation

Don't use notes !

# Presentation

Test the presentation in the same room and with the same equipment used during the actual presentation!

More tips here...

[http://media.informatik.rwth-aachen.de/seminar\\_howto.html](http://media.informatik.rwth-aachen.de/seminar_howto.html)

# Presentation & Report

- Start early!
- No division of responsibilities!
- Approach me for questions, report drafts, presentation slides, presentation equipment...