Post-Desktop User Interfaces

Seminar at the Media Computing Group
WS 08/09

Prof. Dr. Jan Borchers
Literature review course

- In German:
  - Tue, August 5, 11am
  - Wed, August 6, 5pm
- In English:
  - Mon, August 4, 12pm
  - Wed, August 13, 11am
Contents

• Introduction
• Seminar logistics
• Presentation and distribution of topics
• Research and presentation tips
Media Computing Group

- Research and development
- Interaction with multimedia
- Ubiquitous computing
- Tangible user interfaces
- HCI design patterns
- Based in computer science
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
- Full Prof. of CS, RWTH Aachen Univ.

Research area:
Interaction Design for New Media
PDUI Team @
media computing group

• Dipl.-Inform. Malte Weiß
  • Diplom, RWTH Aachen
  • Multitouch interfaces
  • Route Charlemagne
  • Video navigation
    weiss@cs.rwth-aachen.de

• Dipl.-Inform. Dipl.-Wirt.
  Inform. Max Möllers
  • Diplom, RWTH Aachen
  max@cs.rwth-aachen.de
Our Projects

- Route Charlemagne
- Audio/Video Navigation
- Interactive Room for Collaborative Work with Different Types of Media
- Haptic feedback for sports training
- Multitouch tables
- Novel Input Metaphors

- Media Space (750 sqft)

Prof. Dr. Jan Borchers
media computing group
Post-Desktop UIs?

- Desktop metaphor: office-based
- What about non-office tasks?
- Task-specific user-interfaces?
- Research field: Human Computer Interaction

➡ Media Computing Group at RWTH
Format

- Language = English
- Groups of 2
- **No separation of responsibility.**
- Each person should know the content and be able to give presentation / answer questions.
- Questions may be directed at a particular person during Q&A session.
Format

- Attending all talks is mandatory
- Only exception: Medical certificate
- Playing truant leads to new creative Schein requirements
## Schedule

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<th>Weeks before final presentation</th>
<th>Milestone</th>
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**Deadlines are mandatory!**
Milestone 1: Literature Review

• When: 9 weeks before final talk, 9am
• How: Meeting in room 2211 and e-mail submission
• Deliverable:
  ▶ List of at least 7 relevant related papers
  ▶ For each paper: 30 word statement of benefits and contribution

http://sigchi.org/chi2003/papers_guide.html#contribution

Do NOT cite Wikipedia!
E-Mail Submission

• All submissions
  ▶ to weiss@cs.rwth-aachen.de
  ▶ subject starts with **PDUI Submission**
    example: “PDUI Submission - Final Talk”

• Everything else
  ▶ to \{weiss, max\}@cs.rwth-aachen.de
Milestone II: Outline of Report

• When: 7 weeks before final talk, 10am
• How: Meeting in room 2211 and e-mail submission
• Deliverable:
  ▶ Clear structure of final paper submission
Milestone III: First Submission of Report

- When: 4 weeks before final talk, **12pm (noon)**
- How: E-mail submission, after correction: feedback meeting on appointment
- Deliverable:
  - First **complete** version of paper
  - Proof-read, no typos, no layout issues
Milestone IV:
Presentation Slides

- When: 2 weeks before final talk, 11am
- How: Meeting in room 2211 and e-mail submission
- Deliverable:
  - Complete, polished version of presentation slides
  - Powerpoint / Keynote slide available on website
Milestone V: Camera-Ready Presentation Slides

- When: 1 weeks before final talk, 12am
- How: Meeting in room 2211 and e-mail submission
- Deliverable:
  - Improved version of presentation slides (after feedback)
- Last chance to get feedback
Milestone VI: Presentation

- When: Thursdays, 3:45pm - 5:15pm
  - See topics list for exact dates
- Where: Room 2010 (here)
- Format:
  - 40 minute presentation
  - Question and answer
  - Review of presentation style
- Presentation is captured on video
- 50% of final grade
Milestone VII: Final Report Submission

• When: 2 weeks after final talk, 12pm (noon)
• How: Deliver **bound, color-printed** version in room 2211 and e-mail submission
• Deliverable:
  ▶ Final version of your paper
• 50% of final grade
Extra Credit

• Active participation in talk discussions
• Eases the decision if student’s performance is between two grades
Written Report

- We focus on teaching the basics of writing a conference paper.
- Must follow CHI conference paper format guidelines
- Max: 10 pages (learn to be concise)
Further Requirements

- Be impartial and critical
- Attend one user test
- Deadline: end of the semester
- Ethical Guidelines for the Authoring of Academic Work
- Literature review (Literaturrecherche für Informatiker)
- Ask your supervisor if you have questions!
Topics

- Topics were chosen by us because we want to learn more about them.
- You are responsible for informing us
- Need more than just a summary
- Demonstrate higher level understanding:
  - Taxonomy / Ontology / Design Space
  - Derive Design Patterns
Topics

• Adaption
• Breathing Interfaces
• Cognition, Perception, and Memory
• Collaborative User Interfaces
• Dignity in Design
• Exertion Interfaces
• Fitts' Law
• Gaming
• Knowledge Elicitation
• Multiple Displays
Topics

- Multitouch and Surface Computing
- Musical Interfaces
- Novel Displays and Interaction
- Online Social Networks
- Organic Interfaces
- Physiological Sensing for Input
- Pointing and Flicking
- Search Interfaces
- Security
Topics

• Sustainability
• Tabletops in the Real World
• Tactile and Haptic User Interfaces
• Touch and Target Selection
• Video Navigation and Capture
• Visualizations
• Web
Seminar Tips

- Some pointers on
- Topic research
- Paper writing
- Slide preparation
- Presenting
Types of Publications

- Book - (~ 20 years)
- Journal Paper - (~5-10 years)
- Conference Paper - (~3-5 years)
  - Stick to reputable conferences (e.g., ACM, IEEE)
- Workshop Paper - (~1 year)
- Technical Report - (caution: no peer review)
Library Support

- The Library has a variety of resources to help you find these different types of publications

- Special courses for you in the CS library:
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  - Contact the Mrs. Eschenbach-Thomas for additional courses during the semester
Typical Review Template

- Rating of Expertise
- Statement of Contribution to HCI
- The Review:
  - Relevant previous work
  - Significance of contribution
  - Validity of work
  - Originality of Work
- Areas of Improvement
- Rating (1-5)
Slide Design

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

Sections

Tips

Introduction

Logistics

Topics

Slide title

Slide count
Slide Content

- Text
  - Supports presentation
- Bullet points: short but meaningful
- Media
  - Images
  - Audio & Video
Presentation

- Appropriate volume, speed and tone
- Draw in the audience
- Look at them
- Questions & Demonstrations
- Rehearse your presentation
More tips here...

http://hci.rwth-aachen.de/pdui
(see Additional Information)