



Mensch-Maschine- Interaktion

Seminar at the
Media Computing Group
SS 2010

Prof. Dr. Jan Borchers

Dipl.-Inform. Thorsten Karrer, Dipl.-Inform. Dipl.-Wirt.Inform. Max
Möllers



Literature review course

Introduction

Logistics

Topics

Tips

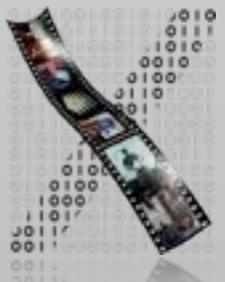
- In German
- Fri, March 12, 15:45
- Tue, March 16, 10:00
- Wed, March 17, 13:00
- sent mail today to:
 - biblio@informatik.rwth-aachen.de



Contents

- Introduction
- Logistics
- Topics
- Tips

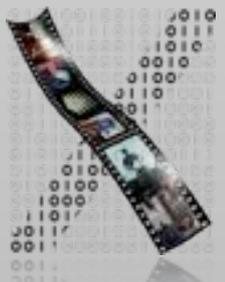
- Introduction
- Seminar logistics
- Presentation and distribution of topics
- Research and presentation tips



Media Computing Group

- Introduction
- Logistics
- Topics
- Tips

- Research and development
 - Interaction with multimedia
 - Ubiquitous computing
 - Tangible user interfaces
 - HCI design patterns
- Based in computer science



MMI Team @ media computing group

- **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



Our Team



Clarissa de Gavarelli
Office Administrator



Malte Weiß
Interactive Surfaces



Florian Heller
3D Audio



Sarah Mennicken
eHome



Moritz Wittenhagen
HumTec



Leonhard Lichtschlag
Visualizations



Jonathan Diehl
Associative Information
Management



Max Möllers
HumTec



Thorsten Karrer
Organic Interfaces



Gero Herkenrath
Bendable Interfaces



Daniel Spelmezan
Wearables

Diplomanden
and HiWis

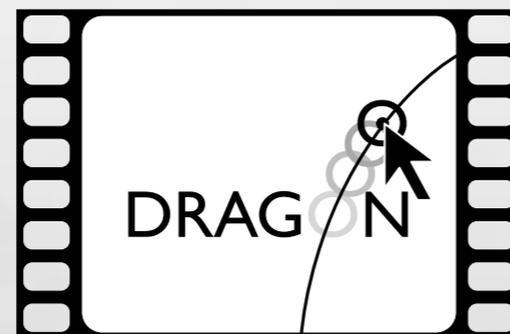


Our Projects

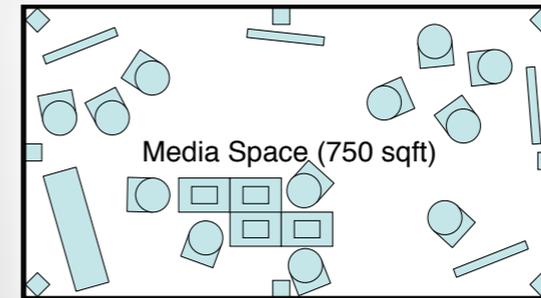
- Introduction
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- Tips



Route Charlemagne



Audio/Video Navigation



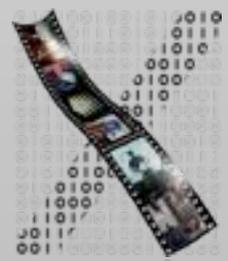
Interactive Room for Collaborative Work with Different Types of Media

Haptic feedback for sports training



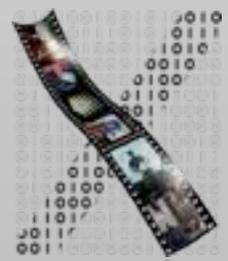
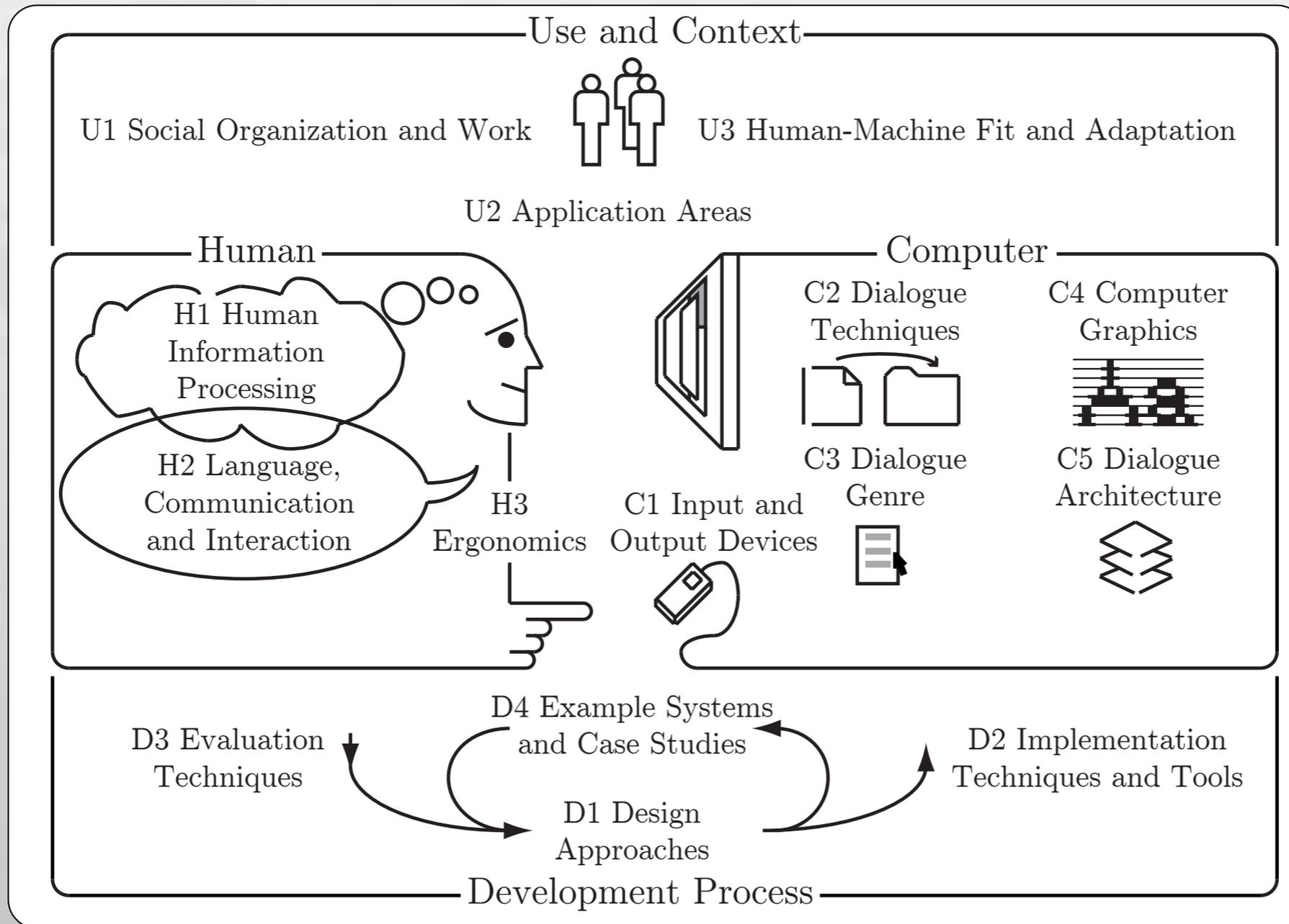
Novel Input Metaphors

Multitouch tables



HCI?

- Introduction
- Logistics
- Topics
- Tips



Format

Introduction

● Logistics

Topics

Tips

- Language = German
- 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

Introduction

● Logistics

Topics

Tips

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



Schedule

Introduction

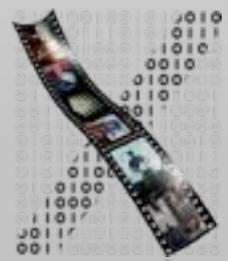
● Logistics

Topics

Tips

Weeks before final presentation	Milestone
today	Start
8	Literature Review
7	Outline of Report
4	First Submission of Report
2	Presentation Slides
1	Camera-ready Presentation slides
0	Presentation
-2	Final Report Submission

Deadlines are mandatory!



Milestone I: Literature Review

Introduction

● Logistics

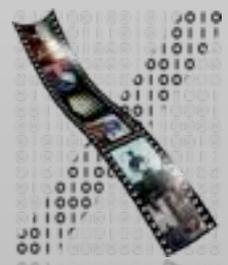
Topics

Tips

- When: 8 weeks before final talk, 9am
- How: Meeting in room 2314
and e-mail submission
- Deliverable:
 - ▶ List of at least 4 **relevant** related papers
 - ▶ For each paper: 30 word statement of benefits and contribution

Do NOT cite Wikipedia!

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



E-Mail Submission

Introduction

● Logistics

Topics

Tips

- All submissions
 - ▶ to max@cs.rwth-aachen.de
 - ▶ subject starts with **MMI Submission**
example: “MMI Submission - Final Talk”
- Everything else
 - ▶ to {karrer, max}@cs.rwth-aachen.de



Milestone II: Outline of Report

Introduction

● Logistics

Topics

Tips

- When: 7 weeks before final talk, 10am
- How: Meeting in room 2314 and e-mail submission
- Deliverable:
 - ▶ Clear structure of final paper submission
 - ▶ Full sentence for each section, not only heading



Milestone III: First Submission of Report

Introduction

● Logistics

Topics

Tips

- 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

Introduction

● Logistics

Topics

Tips

- When: 2 weeks before final talk, **I I am**
- How: Meeting in room 2314 and e-mail submission
- Deliverable:
 - ▶ **Complete, polished** version of presentation slides



Milestone V: Camera-Ready Presentation Slides

Introduction

● Logistics

Topics

Tips

- When: 1 weeks before final talk, 12am
- How: Meeting in room 2314
and e-mail submission
- Deliverable:
 - ▶ Improved version of presentation slides
(after feedback)
- Last chance to get feedback



Milestone VI: Presentation

Introduction

● Logistics

Topics

Tips

- When: Thursdays, 3:15pm - 4:45pm
 - ▶ See topics list for exact dates (to come)
- Where: Room 2010 (here)
- Format:
 - ▶ 40 minute presentation
 - ▶ Question and answer
 - ▶ Review of presentation style
- Presentation may be captured on video
- 50% of final grade



Milestone VII: Final Report Submission

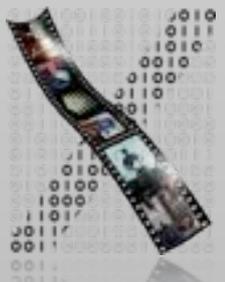
Introduction

● Logistics

Topics

Tips

- When: 2 weeks *after* final talk, 12pm (noon)
- How: Deliver **bound, color-printed** version in room 2314 and e-mail submission
- Deliverable:
 - ▶ Final version of your paper
- 50% of final grade



Extra Credit

Introduction

● Logistics

Topics

Tips

- Active participation in talk discussions
- Eases the decision if student's performance is between two grades



Written Report

Introduction

● Logistics

Topics

Tips

- We focus on teaching the basics of writing a conference paper.
- Must follow CHI conference paper format guidelines
- LaTeX template for Papers at:
<http://www.chi2010.org/format.html>
- Max: 10 pages (learn to be concise)



Further Requirements

Introduction

● Logistics

Topics

Tips

- 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

Introduction

Logistics

● Topics

Tips

Topic	Interests
Back-of-device interaction allows creating very small touch devices.	
Remembrance of things tagged: how tagging effort affects tag production and human memory.	
Dynaspot: speed-dependent area cursor.	
Smartplayer: user-centric video fast-forwarding.	
Tactile feedback for predictive text entry.	
Motion-pointing: target selection using elliptical motions.	
Ephemeral adaptation: the use of gradual onset to improve menu selection performance.	
Providing dynamically changeable physical buttons on a visual display.	
Brain measurement for usability testing and adaptive interfaces: an example of uncovering syntactic workload with functional near infrared spectroscopy.	
The teeboard: an education-friendly construction platform for e-textiles and wearable computing.	
My dating site thinks i'm a loser: effects of personal photos and presentation intervals on perceptions of recommender systems.	
The unmousepad: an interpolating multi-touch force-sensing input pad.	
Bezel swipe: conflict-free scrolling and multiple selection on mobile touch screen devices.	
Microrolls: expanding touch-screen input vocabulary by distinguishing rolls vs. slides of the thumb.	
Design, implementation and evaluation of a novel public display for pedestrian navigation: the rotating compass.	
Graph sketcher: extending illustration to quantitative graphs.	
Ensemblematrix: interactive visualization to support machine learning with multiple classifiers.	



Prof. Dr. Jan Borchers
media computing group

Time to find a seminar partner ...

... and a topic

Seminar Tips

Introduction

Logistics

Topics

● Tips

- Some pointers on
 - Topic research
 - Paper writing
 - Slide preparation
 - Presenting



Types of Publications

Introduction

Logistics

Topics

● Tips

- 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

Introduction

Logistics

Topics

● Tips

- The Library has a variety of resources to help you find these different types of publications
- Special courses for you in the CS library:
 - Fri, March 12, 15:45-17:45
 - Tue, March 16, 10:00-12:00
 - Wed, March 17, 13:00-15:00
- Be a grown up and send mail today to:
 - biblio@informatik.rwth-aachen.de



Slide Design

Slide title

Introduction

Logistics

Topics

Tips

Sections

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

Slide count



Slide Content

Introduction

Logistics

Topics

● Tips

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



Presentation

Introduction

Logistics

Topics

● Tips

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



More tips here...

Introduction

Logistics

Topics

 Tips

<http://hci.rwth-aachen.de/ms>
(see Additional Information)



Questions?