Current Topics in Media Computing and HCI

Prof. Dr. Jan Borchers

Media Computing Group
RWTH Aachen University

Summer Term 2019

https://hci.rwth-aachen.de/cthci
Team

Lecturer

Prof. Dr. Jan Borchers
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Assistants

Marcel Lahaye
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Guest Assistants

Sebastian Hueber
Adrian Wagner
Krishna Subramanian
Nur Hamdan
Christian Corsten
Philipp Wacker
Anke Brocker
Goals

• Understand **types of research and methods in HCI**

• Practice how to **retrieve** and **evaluate** information from the literature
  ⇒ Preparation for thesis and future (research) work

• Learn about **up-to-date developments** in Human–Computer Interaction and interactive multimedia from new books and **recent conference/journal articles**

• Meet PhD students at the lab and learn about their research areas to find a favorite topic and advisor for your thesis
Who Are You?

• Audience
  • M.Sc. Computer Science
  • M.Sc. Media Informatics
  • M.Sc. Software Systems Engineering
  • B.Sc. Computer Science (extra credit / carry-over)
  • B.Sc. / M.Sc. Technical Communication (with focus on CS/HCI research)

• Prerequisite: DIS 1
  • In our studios, assignments, and exams we assume that you know DIS 1
Administrative

• Format: 6 ECTS
• Studio: Tuesdays, 10:30–12:00
• Lab: Wednesdays, 12:30–14:00

• Expect to spend around 9h/week in total on this class
Adrian Wagner: Input Devices for Games

Christian Corsten: Force Input on Handheld Devices

Krishna Subramanian: Supporting Exploratory Programming Workflows
Sebastian Hueber: Experience with VR

Philipp Wacker: AR and Immersive Sketching

Nur Hamdan: Smart Fabrics

Rietzler et al., VaiR, CHI17
Course Structure

Flipped Classroom

Videos: How does research in HCI work?
- Research Contributions
- Research Approaches
- Scientific Publishing
- Statistics in HCI

Studios (Tuesday):
- Discussion of lecture and assignment content
- Time and space for your assignments

Workshop (Wednesday):
- Work in groups at a given topic

Apr 3rd – May 14th

Frontal Lecture

Studios: Current Topics in HCI (Tuesday)
- Presentations by i10 assistants
- Guest lecture by Oliver Stickel: CSCW

Mini HCI Project: (Wednesday)
- Write your own research paper!

May 28th – Jul 10th
Literature Sources

• Recent conference papers
  • CHI, UIST, ISS, DIS, Ubicomp,…

• Recent journal articles
  • TOCHI,…
Literature Sources

• Recent books
  • Research Methods in HCI (Lazar et al., 2017)
    • Highly recommended reading for more details about evaluation methods—especially if you are considering to do your thesis at our chair!
  • Research Methods for the Behavioral Sciences (Gravetter and Forzano, 2015)
    • Further recommended reading for more details about experimental research methods
Final Grade

Final exam: 45%
Midterm exam: 30%
Assignments & project: 25%
Plagiarism

Usability testing—whether inside a lab facility, using portable equipment, or outside of a lab facility—was rated highest as an effective usability methodology to create greater strategic impact. One reason for this high rating

“Usability testing—whether inside a lab facility, using portable equipment, or outside of a lab facility—was rated highest as an effective usability methodology to create greater strategic impact.” [1]

Usability testing has the largest impact on strategic improvement [1].


Cite and quote instead of plagiarizing!
Consequences of Plagiarism in this Class

• Plagiarism will result in an immediate 5.0 for this class.

• Repeated plagiarism will also lead to banning from all other i10 classes.

• Sign the declaration of compliance and hand it in during the lab.
Limited Seats

• **30 seats** available

• Register in RWTHonline **today**

• Seats will be assigned on April 9th
Current Topics in HCI (Summer '19)

This class covers basic research methods and current research trends in Human-Computer Interaction. We use a mix of recent book chapters and papers from conferences and journals of the last few years to give you an idea of how HCI research is conducted, and of the hot topics that are being worked on in the international research community. Examples from past years include interactive surfaces, tangible user interfaces, human computation, gestural input, interactive textiles, augmented reality, and personal fabrication.

The class explains the differences between empirical, ethnographic, and systems research in HCI, and how to quickly retrieve and evaluate information from existing literature, a skill you will need for your Master’s thesis and future research work in HCI.

The class consists of weekly labs, studios, group assignments, reading assignments, a group project, and graded written midterm and final examinations.

The first part of this class is taught in a flipped classroom style in which you will be able to watch online videos of individual topics at your own pace. The studios will be for reviewing the learned concepts, hands-on exercises, Q&A, and for introducing new assignments. The labs will be for assignment discussions and one-on-one feedback. In the second part of this class, the studios are dedicated for presenting new topics in HCI, and the labs are for project work and face-to-face discussions.

Contact

Prof. Dr. Jan Borchers
Marcel Lahaye
Oliver Nowak

For any questions about the class, please contact Marcel Lahaye, MSc or Oliver Nowak, MSc.
What to do now?

Download and watch the videos from the website!

Sign and hand in the declaration of compliance!