CTHCI Lab 1
Retrieving and Classifying Literature

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Media Computing Group
RWTH Aachen University
Summer Semester 2014
http://hci.rwth-aachen.de/cthci

CTHCI — Jan Borchers
Review

• Three steps in the empirical approach
  • Why iterate?

• Variables

• Research question vs. research hypothesis

• Operational definition

• Three strategies in the empirical approach
  • Descriptive vs. Relational
  • Relational vs. Experimental (Third variable)

• Relationship patterns and strength
### Times:

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Type</th>
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<tbody>
<tr>
<td>Tue 10:15h – 11:45h</td>
<td>2222</td>
<td>lecture</td>
</tr>
<tr>
<td>Wed 13:15h – 14:45h</td>
<td>2222</td>
<td>lab</td>
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</tbody>
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### Exam:

- Midterm Tue 03.06.2014 10:15 – 11:45. 2222 Ahornstraße 55
- Final (1st Chance) Tue 29.07.2014 10:15 – 12:00. AH6, Ahornstraße 55
- Final (2nd Chance) Tue 12.08.2014 10:00 – 11:30. AH6, Ahornstraße 55

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<tr>
<th>Lecture</th>
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<th>Presenter</th>
<th>Lab</th>
<th>Topic</th>
<th>Reading Assignment</th>
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</table>
| 08.04.  | Research literacy 1: Research approaches in HCI | Jan       | 09.04. | Literature searching and reading techniques | Required:  
  - (Wobbrock, 2014) 7 Research Contribution Types in HCI  
  - (Griswold, n.d.) How to Read an Engineering Research Paper |
|         | Slides: [1up] [4up] [Literature]            |           |     | Slides: TBA [In-class exercise] [Declaration of compliance] | Written Assignment: None |

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Literature in this Class

• Do I need to know what problems that GPS creates while driving?
  • No.

• **Required reading:** Examinable, must be read by everyone
  • The list will be published on our website and on L2P this week

• **Recommended reading:** Not examinable

• Other example papers: Not examinable
  • Examples to illustrate the concepts explained in the class.
In-Class Exercise: Binning HCI Papers

Approaches
- Test
- Look
- Make

Seven Research Contribution types
- Empirical
- Artifact
- Methodological
- Theoretical
- Dataset
- Survey
- Opinion

In-class exercise
Research Example: CommandMaps

- Scarr et al., Best paper CHI ’12
- Improve toolbar (specifically Microsoft’s Ribbon interface)

In-class exercise:
- Contributions?
- Benefits?
- Which part uses empirical science, ethnography, and engineering/design approach?
CommandMaps, CHI ’13
Available at: http://dl.acm.org/citation.cfm?id=2207713
The Messy Truth

Observation → Prototype 1 → Prototype 2 → Prototype n → Real-world study → Descriptive model → Predictive model → Commercial product → Long-term effect study → Related scientific theory
CommandMaps

• Contributions & Benefits:
  • “Introduces CommandMap interfaces for mouse-based command invocation. Theoretically and empirically demonstrates that their defining properties — spatially stable command locations and a flat command hierarchy — improve user performance.”

[Scarr et al., CHI ’12]