

# **Mensch-Maschine-Interaktion 2**

## **Übung 1**

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# Good to Know

- Informatiker Forum  
<http://www.die-informatiker.net/>
- Mimuc Twitter Account (inoffiziell)  
<http://twitter.com/mimuc>
- Medieninformatik LMU Facebook Gruppe (inoffiziell)  
<https://www.facebook.com/groups/36775131102/>

# Übungsbetrieb

- Informationen zu den Übungen:  
<http://www.medien.ifi.lmu.de/mmi2>
- Anmeldung über Uniworx  
<https://uniworx.ifi.lmu.de/?action=uniworxCourseWelcome&id=109>
- Zwei Stunden pro Woche
- Praktische Anwendungen zum Gebiet der Mensch-Maschine-Interaktion 2
- Vorbereitung auf die Übungsblätter
- Wöchentliche Übungsblätter (teilweise in Gruppen)

# Note und Bonuspunkte

- Klausur
- Bearbeiten der Übungsblätter keine Klausurvoraussetzung
- Bonuspunkte für Klausur durch ÜBs:
  - >75% der Punkte eines ÜBs => 1 Bonuspunkt für Klausur
  - max. 10% Bonus in der Klausur

# Plagiate

- Einmalig identifizierte Plagiate führen zur Aberkennung des aktuellen Bonuspunkts
- Mehrmalige Plagiate (>1) führen zur Aberkennung **aller** Bonuspunkte
- Prüfung auf Plagiate kann jederzeit erfolgen (auch am Ende des Semesters)

Today

# Web Usability Testing

# Website Usability Testing

- Different approaches (partially complementing each other)
- Examples:
  - Expert-based evaluation:
    - Heuristic Evaluation
    - Cognitive Walkthrough
    - Guidelines/Checklists
  - User-based evaluation:
    - Lab Studies
    - Crowd-sourced studies
  - Live (large-scale) evaluation:
    - Feature Roll Outs
    - A/B testing
  - ...

# Heuristic Evaluation

- Cheap and easy
- Evaluate an interface based on specific heuristics (e.g. Nielsen heuristics:  
[http://www.useit.com/papers/heuristic/heuristic\\_list.html](http://www.useit.com/papers/heuristic/heuristic_list.html))
- Different evaluators each performing the evaluation individually
- Identify usability problems and rank them by severity

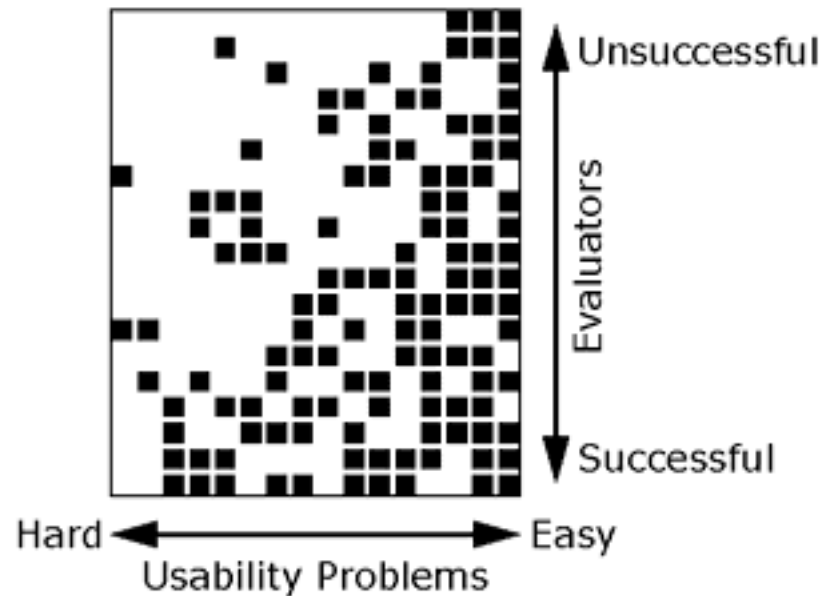


# Heuristic Evaluation

## Necessity of multiple Evaluators

- Example: different usability problems of the same system found by different evaluators (taken from Nielsen, 1994)

[http://www.useit.com/papers/heuristic/heuristic\\_evaluation.html](http://www.useit.com/papers/heuristic/heuristic_evaluation.html))



# Cognitive Walkthrough

- Different evaluators
- More specific than heuristic evaluation
- Analyzes predefined (correct) interaction sequences
- Focus on mental models of users
- Outcome: potential problems of solving a task

John, B., Packer, H. 1995. Learning and using the cognitive walkthrough method: a case study approach. In *Proc. CHI '95*. ACM Press/Addison-Wesley Publishing Co., New York, NY, USA, 429-436. DOI=<http://dx.doi.org/10.1145/223904.223962>

# Guidelines/Checklists

- Cheap and easy (as well)
- Step-by-step lists to ensure web usability
- Hundreds of different lists available
- Example: 113-point website usability checklist by Jakob Nielsen

<http://www.useit.com/homepageusability/guidelines.html>

## Navigation

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12. Main navigation is easily identifiable ✓ ✓ x

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13. Navigation labels are clear & concise ✓ ✓ x

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14. Number of buttons/links is reasonable ✓ ✓ x

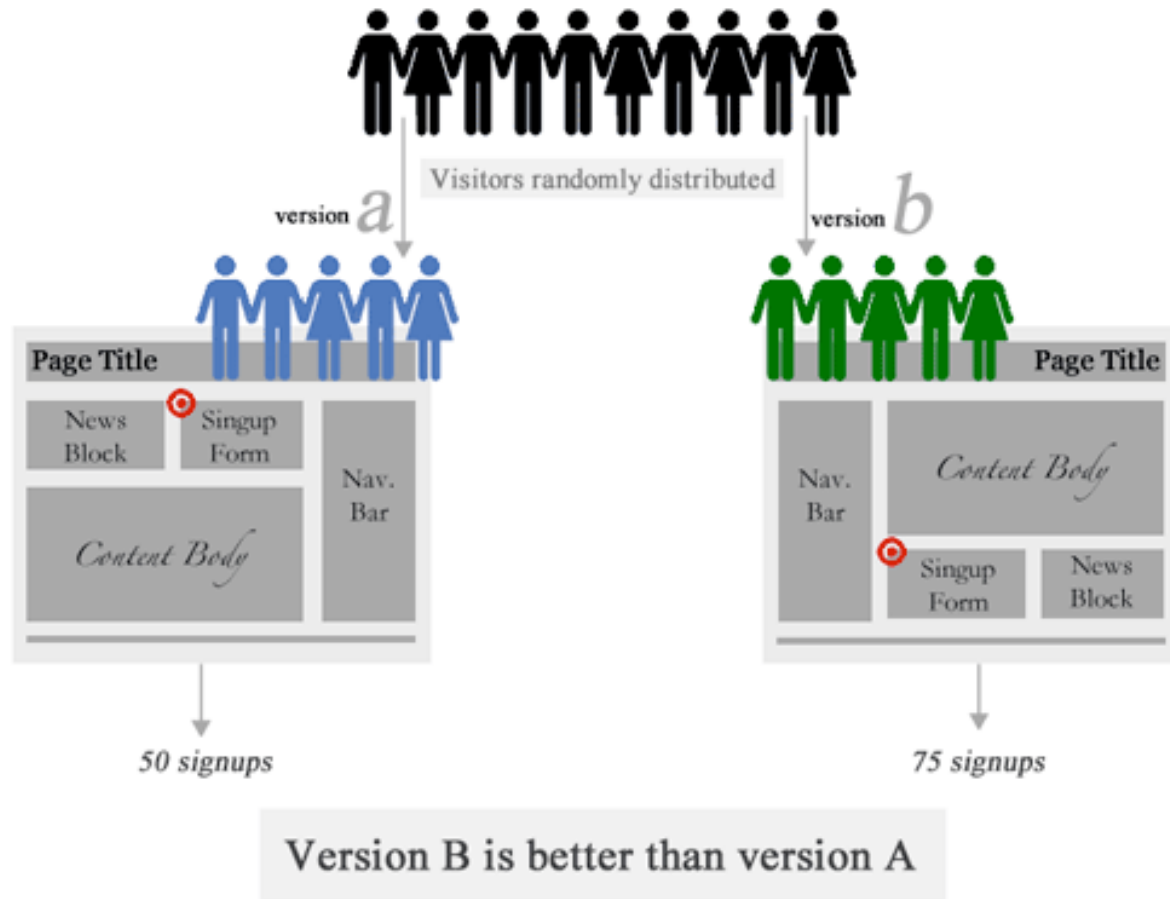
# Lab Studies

- Empirical evaluation of a website
- Not conducted with experts but “standard” users
- Often performed with the help of additional tools (e.g. eye trackers)

# Feature Roll Outs

- New features are made available to some of the users
- Collect usage data
- Results: publish the feature for all users, improve it or remove it
- Real users of a service are used as guinea pigs (or beta testers)
- Example: Facebook timeline

# A/B – multi-variate Testing



From: <http://www.smashingmagazine.com/2010/06/24/the-ultimate-guide-to-a-b-testing/>

# Another Approach

- Steve Krug. “Don’t make me think”. 2009
- “A common sense approach to web usability”
- Next slides are based on the book



# Don't make me think

**NOT THINKING**

OK. This looks like the product categories...

Memory, Modems... There it is: Monitors. *Click*

...and these are today's special deals.

Steve Krug. Don't make me think. 2009.



# Don't make me think

## THINKING

Hmm. Pretty busy. Where should I start?



Hmm. Why did they call it that?



Can I click on that?



Is that the navigation? Or is *that* it over there?



Why did they put that *there*?




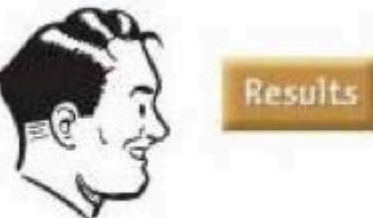

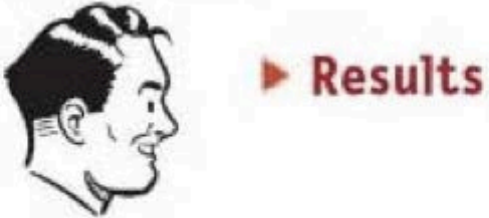


Those two links seem like they're the same thing. Are they really?



Steve Krug. Don't make me think. 2009.

# Don't make me think

< OBVIOUS		REQUIRES THOUGHT >	
<p>Jobs! <i>Click</i></p> 	<p>Hmm. <i>[Milliseconds of thought]</i> Jobs. <i>Click</i></p> 	<p>Hmm. Could be Jobs. But it sounds like more than that. Should I click or keep looking?</p> 	
< OBVIOUSLY CLICKABLE		REQUIRES THOUGHT >	
<p><i>Click</i></p> 	<p>Hmm. <i>[Milliseconds of thought]</i> I guess that's a button. <i>Click</i></p> 	<p>Hmm. Is that a button?</p> 	

# Don't make me think

## MOST BOOKSTORE SITES



QUICK SEARCH  Keyword Search



Let's see. "Quick Search."  
That must be the same as  
"Search," right?



QUICK SEARCH  Keyword Search



Do I have to click on that drop-down  
menu thing?  
All I know about the book is that it's  
by Tom Clancy. Is Clancy a keyword?  
(What is a keyword, anyway?)



QUICK SEARCH  Keyword Search

- Title
- Author
- Keyword



I guess I have to use the menu.  
*Clicks on the arrow*

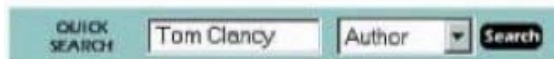


QUICK SEARCH  Keyword Search

- Title
- Author
- Keyword



"Title. Author. Keyword."  
OK. I want "Author."  
*Clicks "Author"*



QUICK SEARCH  Author Search



*Types "Tom Clancy"*  
*Clicks "Search"*

Steve Krug. Don't make me think. 2009.