

LV 706.046 3SE AK Mensch-Maschine Kommunikation
Usability Engineering for Software Developers
Applying User Centered Design

Welcome



Schönen Nachmittag!



- Bevor ichs vergesse:
- Diplomand gesucht: Front-End Development für EU-Projekt www.ist-EUROPCOM.org (zusammen mit Prof. Kubin)

Attitudes Towards Testing



The Fatalist
"Why test, it won't help."



The Philosopher
"I test therefore I am."



The Anarchist
"Test but don't tell anyone the results."



The Optimist
"Why test, what could be wrong?"



Usability Engineer
"I test therefore I work."



Alfred E. Neuman
"What me test?"



The Gangster
"You want to test? Fugettaboutit!"



The Designer
"Why test, my designs are perfect."



Product Manager
"Test, but no time to implement this version."



The Therapist
"Test and feel positive about it."

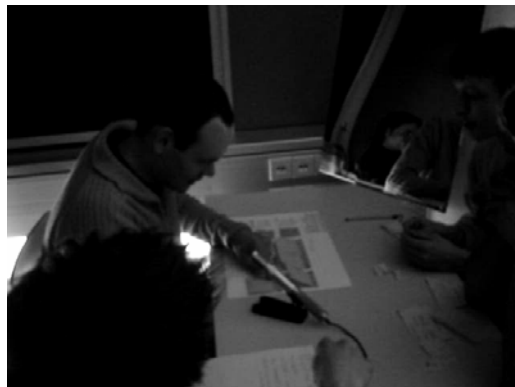


The Developer
"Why test at all?"



The Revolutionary
"Test but trash the results!"

■ Das letzte Mal: Thinking-aloud & Videoanalyse



- Subjective –
- but one of the most valuable methods in usability engineering!
- Literally, the user "thinks aloud" whilst going through tasks and their thoughts are recorded.
- Designers can then see what the user was thinking at the time of having problems.
- Reveals not only *what* the problems are, but *why!*

20.05.05 IICM	
Thinking Aloud	Thinking Aloud
Applicably in Phase	<i>Design</i>
Required Time	<i>high</i>
Needed Users	3+
Required Evaluators	1
Required Equipment	<i>high</i>
Required Expertise	<i>medium</i>
Intrusive	<i>yes</i>
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■ Heute: Heuristic Evaluation

- *Heuristic evaluation* requires the use of a team of evaluators, along with a set of design guidelines (these are the *heuristics*)
- Better to use external experts for the evaluators, not the designers
- The role of the heuristics is to guide the evaluators, who will perform the analysis (usually by performing walkthroughs of the interface)
- Can be done with a prototype, or even before (provided a sufficiently detailed description of the design is available)
- Useful for the analysis of a variety of user situations (usually where the user is not a novice!)

For example, one set of possible heuristics is

Nielsen and Molich (1989)

- Simple and natural dialogue
- Provide clearly marked exits
- Speak the user's language
- Provide short cuts
- Minimise user memory load
- Good error messages
- Be consistent
- Prevent errors
- Provide feedback

- Heuristics guide the analysis that the evaluators apply
- The evaluators try and assess

Examples:

- '*Prevent errors*' for example would focus the evaluator on searching for errors, perhaps by scanning the design for features that the user *might* misinterpret
- '*Provide short cuts*' would suggest looking for frequently performed tasks that involve lengthy sequences of actions

Advantages:

- Relatively low cost
- Intuitive to perform
- Doesn't necessarily require advance planning
- Suitable for use in all stages of development process

Disadvantages:

- Focuses on problems rather than solutions!
- Encourages designers to repair existing designs rather than think up new designs!
- Two experts might provide different results!

	Heuristic Evaluation
Applicably in Phase	<i>all</i>
Required Time	<i>low</i>
Needed Users	<i>none</i>
Required Evaluators	<i>3+</i>
Required Equipment	<i>low</i>
Required Expertise	<i>medium</i>
Intrusive	<i>no</i>

cf. Nielsen (1996)

- Need to test with PROTOTYPES!
- ... PAPER PROTOTYPES AGAIN ARE MOST USEFUL ...

- Und was sagt Jakob dazu ...