How to Test Usability

Web Design World 99

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Usable Web: http://usableweb.com/

Overview of Presentation

- How and why to test usability
- Informal versus structured testing techniques
- Case studies: what actual tests reveal
- Tips and tricks for usability testing
- Goal: get you interested, get you started, read more, try it

About the Web Page for the Presentation

- http://usableweb.com/instone/howtotest/
- Copy of these slides
- Links to material mentioned here
- Other related links
- Updated as presentation evolves (gets better from your feedback)

>> References to links at the web page will appear here underlined

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What is usability (user) testing?

- Pick some important tasks and watch quietly as people try to do them
- Not: link or load or code testing
- Not: having friends view your pages on their computers
- Not: online surveys or focus groups

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Client first experiences

- "It is such a rush. This is what I want to be doing!"
- "Not good news. A real eye-opener. We gotta get the developers involved so they can see where people are struggling."
- "The testing was not too hard, but now how do we get the results taken seriously?"

Why to Test Usability

- Value of usability testing
- Cost of usability testing
- Role within usability engineering
- Role within your software development lifecycle

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Why: Value of usability testing

- "A bad design can cost 40% of repeat traffic, half of potential sales" - CIO / Forrester
- "People will gladly waste a million dollars on their fancy design and not spend $4,000 to see if it works" - Nielsen
- Intranet: lost time = lost money
- Reduced calls to help line: do the math

>> Several Value links

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Why: Cost of usability testing

- $0: do-it-yourself, no-budget, invest time
- $2k: low budget, do-it-yourself
- $20k: hire out usability testing, portable lab
- $100k: fancy lab with trimmings
- Compare with Fortune 1000s: spending $2 mil/year on redesigns

>> Cost of user testing a website

Why: Beware limited views of usability

- "How Does **Usability** Relate to IA?"
- **Usability testing** ranges from observing how users react to color palettes to timing how long it takes someone to find a log out button. Sometimes testing is one-on-one, with a moderator asking an individual tester to go through the process of using a Web site--**asking questions along the way** about what they like and don't like, what is easy and difficult, and how it could be improved. Other times it consists of 10 to 20 person **focus groups** that also work with a moderator to determine preferences of target audiences and look at big picture issues, such as color treatment and content needs.

Why: Usability Engineering

- Know the user: characteristics, tasks
- Competitive analysis
- Usability goals
- Parallel & Participatory design
- Guidelines and heuristic evaluation
- Prototyping
- You are here: **Usability testing**
- Iterative design
- Feedback from field use

>> <u>Usability Engineering book</u>

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Why: Software Development Lifecycle

- Fit usability testing into your own way of doing things
- The sooner in the process, the better
- The more often you do it, the better
- Not a good idea: do testing just before a fixed release date

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How to Test Usability

- Plan
- Do
- Follow-up

>> <u>Several how-to links</u>

How: Plan

- Purpose and audience of site
- Usability goals
- Tasks
- Participants, scheduling, payment
- Materials
- Setting
- ...Expect to hear bad news

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How: Do

- Introduction for participant, list of tasks
- Watch quietly
- Record behavior (take notes, tape)
- Interact with participant
- Debriefing, questionnaire, payment

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How: Follow-up

- Tabulate data
- Findings
- Recommendations
- Actions

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Informal vs. Structured Techniques

- Opportunistic usability testing
- Quick and dirty
- Multi-purpose rooms
- Full usability labs

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Techniques: Opportunistic

- Do mini usability tests whenever/wherever opportunity arises
- 15 minutes = opportunity
- Violin lessons, after short meetings, cleaning lady, nosy relatives
- Jakob's 1-hour usability test: tradeshow, laptop, 50-line email

>> DevHead Cheap Usability Tests

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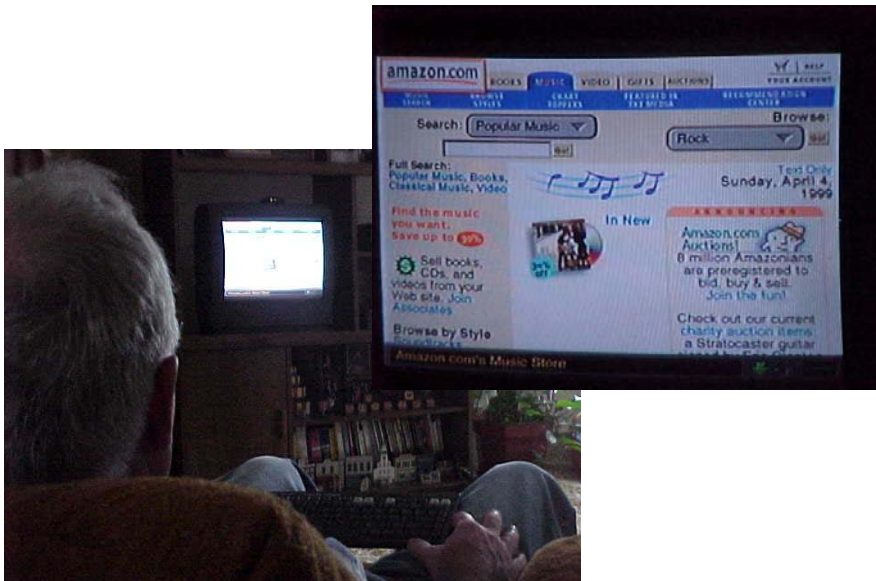

Techniques: Quick and Dirty

- Shortcuts on the planning: get convenient participants, not ideal ones
- Schedule an hour worth of tasks
- Convenient locations, realistic tasks
- Debriefing very important: ask why
- Shortcuts on the write-up

>> WebMonkey Quick and Dirty

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Techniques: Multi-purpose Rooms

- Use available space as laboratory-for-a-day
- Bring in portable equipment
- Convert an empty office into a full-time lab
- Use a lab for other things to help justify cost
- Since people coming to you, do more planning

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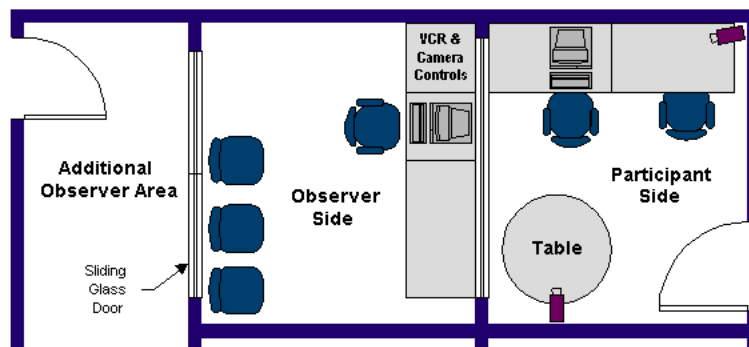Instone, How to test usability, Web Design World 99, July 21, 1999

Techniques: Full Usability Labs

- Build rooms just for this purpose
- Adjoining, sound-proofed rooms
- Video cameras, scan converters, two-way mirrors, microphones, etc
- Cost: $80-120k
- Do it all of the time to recoup investment

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>> Microsoft usability labs

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Techniques: Full Usability Lab

- Examples: Ameritech, Sun, Lotus, Microsoft
- A few vendors...
- STC Usability SIG page for more pointers
- Find someone who has built one similar to what you need

>> Links to selected labs and more information

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Techniques: A Comparison

	Opp.	Q&D	MPR	Labs
Plan	.25	4	5-15	5-15
Do	.50	4	6-10	6-10
Follow-up	.25	4	5-15	5-15
Hours	1	12	16-40	16-40
Users	2	3	4-5	4-5
Deliverable	Email	Text	Video-	Video+
Start-up	0	0	$1-30	$80+

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Case Studies

- Examples of when usability testing of a web site is particularly useful
- That is, situations where usability testing has helped, repeatedly
- That is, situations where usability testing has helped, repeatedly

>> <u>Several Case Study links</u>

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Case: When you do not do your homework

- "Of course my site is easy to use, I use it every day"
- Introduction to importance of usability engineering
- Wake-up call to the organization
- Very common in the early days of the web, still too common

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Case: When good GUIs go bad

- Well-designed desktop applications are not necessarily well-design web applications
- Limiting technology (today)
- Different context of the Web

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Case: When you are allowed to break the rules

- "Animation is bad, never use animation on the Web"
- Tog: many tests/re-designs over a few days
- With a thorough understanding of his users and the problem, he used animation to improve usability

>> Trials and Tribulations of Web Application Design

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Case: When a side-effect dominates

- Test existing site to determine most important usability problem
- Redesign and build prototype
- Test prototype: some side-effect makes it worse than before
- Iterate to remove new usability problem

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Tips and Tricks

- Little things that you should not forget
- Some of my own tricks but most I learned from someone else
- "Everybody loves tips and tricks" - Jim Heid

>> Section of Tips/tricks links

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Tips: Note-taking

- Map out several possible routes
- Use screen printouts to scribble on
- Words and body language as important as what they are doing
- Time-stamp

>> "Following a fast-moving target"

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Tips: Participants think they are dumb

- Play dumb: "I do not know how to do it either, I am confused too"
- Join the club: "Everyone else has had trouble too, so it is not just you"
- Blame the designer: "If you are having trouble, then it must be the designer who is dumb"

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Tips: Uses for video/audio tapes

- Support note-taking and remind you what happened (audio and cheap video)
- Review session with people who could not be there (video)
- High-lights tape (quality video)
- Sit on a shelf

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Tips: Recruiting users

- Broadcasting does not work
- Friends of friends
- Return participants
- Find an organized group for a special audience (e.g., senior citizens center)
- Focus group recruiters

>> When to outsource the recruiting of test users, UIE participant tips

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Tips: Do not forget about other techniques

- Surveys
- Log analysis
- Focus groups
- User feedback

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Tips: Do it before you get very far

- Existing site
- Competitors' sites
- Paper prototypes
- Templates
- Vertical prototypes

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Tips: Remote testing

- Coordinate over telephone
- Screen capture over Internet
- But, more set-up time than quick & dirty (and lots more things to go wrong)
- Best to overcome geographic boundaries

>> "Remote usability evaluation", DevHead Cheap Usability Tests

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Conclusions

- Why? Benefit >> cost
- You will get surprises, I promise
- Plan, do, follow-up
- Find right techniques for your situations: from opportunistic to full lab
- Any case studies look familiar?
- Pull from pool of tricks as needed

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