How to Design Library Websites for Usability 2.0

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Arizona State University
What is Usability?

• “Usability is the quality attribute relating to **HOW EASY** something is to use. More specifically, it refers to how **QUICKLY PEOPLE CAN LEARN** to use something, how **EFFICIENTLY** they are using it, how **MEMORABLE** it is, how **ERROR PRONE** it is, and how much users **LIKE** it. If people can’t or won’t use a feature, it might as well not exist.”

  - Nielsen, “Prioritizing Web Usability”
Jakob Nielsen

- "the king of usability" (Internet Magazine)
- "the guru of Web page usability" (The New York Times)
- "the next best thing to a true time machine" (USA Today)
- "the smartest person on the Web" (ZDNet AnchorDesk)
- "the world's leading expert on Web usability" (U.S. News & World Report)
- one of the top 10 minds in small business (FORTUNE Small Business)
- "the world's leading expert on user-friendly design" (Stuttgarter Zeitung, Germany)
- "knows more about what makes Web sites work than anyone else on the planet" (Chicago Tribune, March 6, 2000)
- "one of the world's foremost experts in Web usability" (Business Week)
- "the Web's usability czar" (WebReference.com)
- "the reigning guru of Web usability" (FORTUNE)
- "eminent Web usability guru" (CNN)
- "perhaps the best-known design and usability guru on the Internet" (Financial Times)
- "the usability Pope" (Wirtschaftswoche Magazine, Germany)
- "new-media pioneer" (Newsweek)
- Jakob Nielsen, Ph.D., is a User Advocate and principal of the Nielsen Norman Group

From http://www.useit.com/jakob/
Web 2.0 Can Be Dangerous

“AJAX, rich Internet UIs, mashups, communities, and user-generated content often add more complexity than they're worth. They also divert design resources and prove (once again) that what's hyped is rarely what's most profitable.”

-Jakob Nielsen's Alertbox, December 17, 2007
Luke Wroblewski

Senior Director of Product Ideation & Design at Yahoo! Inc.

Author of two popular Web design books: Web Form Design (2008) and Site-Seeing: A Visual Approach to Web Usability (2002). He also publishes Functioning Form, a leading online publication for interaction designers.

Previously, Luke was the Lead User Interface Designer of eBay Inc.'s platform team, where he led the strategic design of new consumer products and internal tools and processes.

Founded LukeW Interface Designs, a product strategy and design consultancy, taught interface design courses at the University of Illinois and worked as a Senior Interface Designer at the National Center for Supercomputing Applications (NCSA), the birthplace of the first popular graphical Web browser, NCSA Mosaic.

From http://www.lukew.com/about/luke/
Traditional Usability Standards

- **Motivate** - Design your site to meet specific user needs and goals.
- **User task flow** - Who are your users? What are their tasks and online environment?
- **Architecture – it's 80% of usability** - Build an efficient navigational structure. Remember – if they can't find it in 3 clicks, they're gone.
- **Affordance means obvious** - Make controls understandable. Avoid confusion between emblems, banners, and buttons.
- **Replicate** - Why reinvent the wheel? Use ergonomically designed templates for the most common 8-12 pages.
- **Usability test along the way** - Test early in design using low-fidelity prototypes. Don’t wait until the end when it’s too late.
- **Know the technology limitations** - Identify and optimize for target browsers and user hardware. Test HTML, JavaScript, etc for compatibility.
- **Know user tolerances** - Users are impatient. Design for a 2-10 second maximum download. Reuse header graphics so they can load from cache. Avoid excessive scrolling.
- **Multimedia – be discriminating** - Too much movement distracts, slowing reading and comprehension.
- **Use a stats package** - Monitor traffic through your site. Which pages pique user interest? Which pages make users leave? Adjust your site accordingly.

10 Usability Principle Tips, Human Factors International Inc.
http://www.humanfactors.com/downloads/10tips.asp
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Web 2.0

- Web as platform
- Users have become the producers of content
- AJAX-created micro-interactions
- Mash-up
- Folksonomies
- Social experience
- Power of play
Web 2.0 User Expectations

• Why
  • Users often expect what they see when they visit the top sites on the web.
  • A familiar model of customer interaction can reduce the user's cognitive load and let users focus on their task.

• What
  • Easy access to comprehensive and very current information
  • Unbundled objects
  • User control
  • Recommendations
• User ratings
• Recommended resources
Facebook

- 80 million users
- Main actionable buttons at top of screen
- Use of small icons
- Up to date syndicated information
- Social connection
User Expression

“How do you create frameworks that allow expression and yet have some level of overall usability… and how do you help (or educate?) users-as-designers to use these most effectively.”
- Fails in heuristic comparisons, yet 4th most popular web site*
- User is the producer
- Power of Play
- Conventional video controls, similar to domestic video players
- Featured, most viewed, most discussed; and top favorites videos
- Related, and more from this user
- Users’ purpose is explore, have fun, and enjoy the ‘route’

*http://www.alexat.com
Flickr

- Unbundled objects
- User created tags
- Easy to use uploading tools
Yahoo

- Disposable prompts show on first use
- Multitasking (Chat, calendar, news, email, etc)
- “New” button to composes email, text, or chat
- “To” line searches contacts as you type
• 6.3 million members
• Hover pop-up info windows
• Drag and drop queue
• Obvious state change
• Recommendations
• Only a few objects shown on each page
Google Apps

Google Apps 'On in 60 seconds' by Microcost

http://www.youtube.com/watch?v=QhLyiuDKNrU
Challenges to Usability 1.0

- **Motivate** - Design your site to meet specific user needs and goals.
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Usability 2.0

- Usability Redefined?
- States
  - Initiation, transition, and feedback
- Importance of Search
- Content Distribution
- Rich Interactions
- User Control
  - Choose how to access content (mobile, syndication)
  - Respond to content (rate, vote, flag, etc)
  - Remix and Share Content
  - Interact with content (drag and drop, inline editing, etc)
Nielsen – Prioritizing Web Usability

- **Still not usable...**
  - Breaking the back button
  - Dense content
  - “Click here”
  - Pop-up windows
  - “Violating web-wide conventions”

- **Not that bad now...**
  - Links that aren’t blue
  - Scrolling
  - Pull-down menus
  - Flash
  - Frozen layouts
  - Complex urls

“Users have influenced usability.”
New Usability Guidelines?

- User control and freedom
- Enable identity
- Provide for creators, synthesizers, and consumers
- Think through barriers to entry
- Match between system and real world
- Maintaining states between tasks – Invitation, transition, and feedback
- Flexibility and ease of use
- Contextual help and documentation
- Know your core
- Know what other sites are doing so that you can meet current user expectations
- Test often
Benefits of Usability Testing

- Informs the design process
- Uncovers unexpected issues
- Improves customer support and retention
- Reduces training costs
- Solves opinion battles
- Gets stakeholder buy-in
Testing Fundamentals

- Know your audience
- Understand your success metrics
- Learn differences between novice and expert users
- Focus on the types of interactions most frequently employed by your audience
# Evolution of Usability Testing

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<td>Large Redesigns</td>
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<td>Emphasis on quantitative results – time on task, # or errors, clicks, page views</td>
<td>Emphasis on qualitative results – complete picture, customer support info., thinking aloud protocols, user expectations</td>
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Web 3.0

- Semantic Web
- RDF ontologies
- Machine interchangeable services
- Intelligent applications
Works Cited

- Tse, O., England, D. and Nimoy, J. What’s your view on Web 2.0? Interfaces 69 (Winter 2006), 8–9
- Usability 2.0 WebGuild Event: http://video.google.com/videoplay?docid=2325891672846330303