Put it to the Test:
Usability Testing of Library Web Sites

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Overview
- Why test
- Usability Testing
- Methodologies
- Planning
- Analysis
- Implementation of Results
- Conclusions
WSU Vancouver

- WSUV is a branch campus of Washington State University
- Usability Testing at WSUV
  - Jan - Aug 1998 - Web Pac

Why Test?

- Increased reliance on Library Web Sites
- Lack of agreement amongst Librarians
- Opportunity to watch users interact with a system
- Desire for User Centered Design
Usability Testing

- Analyzes interaction between product and user
- Based on User Centered Design
  - Early focus on users and tasks
  - Behavioral measurement of product usage
  - Iterative design
- Includes many methodologies

Methodologies

- Formal Usability Testing
- Focus Groups
- Site Usage Logs
- Card Sort
- Category Membership Expectation
- Questionnaire / Survey
- Cognitive Walkthrough
- Heuristic Evaluation
Methodologies:

Formal Usability Testing

- Observers watch participants perform actual tasks in the Web Site and record successes, failures, comments
- Can be very informal and inexpensive

Example Tasks

1. Does the library have access to Medline, a resource for locating journal articles in the area of medicine?  ____ Yes  ____ No

2. Locate a list of databases for history.
Methodologies:
Focus Groups

- A small group of individuals discuss their opinions and ideas about a defined topic or set of topics.
- Requires independent and skilled discussion leader

Example Questions

- Describe your experience with the library’s Web site.

- What do you think about the vocabulary (or language) used on the site?
Methodologies:
Site Usage Logs

- Need access to the server.
- Good for determining patterns of movement and use.

Example log entries

- debiana.vancouver.wsu.edu - - [03/Apr/2000:10:09:03 -0700] “GET /vis/lib/library.html HTTP/1.0” 200 -

- debiana.vancouver.wsu.edu - - [03/Apr/2000:10:09:03 -0700] “GET /vis/lib/lib.jpg HTTP/1.0” 200 -
Methodologies: Card Sort

- Tests the structure of a Web site or application using index cards, each representing an individual concept or Web page.
- Participants arrange the cards in an order or structure that makes sense to them.

Example Cards

Library Homepage

Internet Resources
(Explanation: web sites and resources recommended by librarians)
Methodologies:
Category Membership Expectation

- Tests the participants’ understanding of various categories including what they think should be in each category and what the category should be named.
- Can be exhausting for participants.
- Good for small sites.

Example

<table>
<thead>
<tr>
<th>Name of Category</th>
<th>Contents of Category</th>
<th>Suggested Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Resources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Methodologies:
Questionnaire/Survey

- A set of questions designed to collect responses and opinions from users on a topic.
- Easy to analyze results.
- Can be designed for a variety of purposes

Example Questions

- When using the Web site, can you find what you need easily?
  - Always, Most of the time, Sometimes, Rarely, No opinion

- What is the best feature(s) of the site?
Methodologies:

Cognitive Walkthrough

- Product designers try to predict users’ movements and actions by doing actual tasks themselves.
- Good for early design phase.
- Most designers will behave differently than novice users.

Heuristic Evaluation

- Evaluators analyze the interface of a web site based on heuristics.
- Heuristics are recognized usability principles.
  - User Control and Freedom
  - Consistency and Standards
  - Help and Documentation
Planning

- Literature Search
- Purpose Statement
- Prepare Instruments
- Human Subjects Review Board
- Participants
- Incentive
- Script
- Room Setup & Equipment

Analysis:

Card Sort

- 7 of 8 participants thought there should be a faculty resources category
- Majority of participants wanted help documentation grouped with specific databases
- 4 of 8 participants wanted the Request forms to be near the databases
Analysis:
Category Membership

- What should be added to the Web site
  - Pictures of the staff
  - Links to email account information
  - Checkout periods
- What is confusing about the current site
  - Subject Trees
  - Best of Lists
  - Library Reserves

Analysis:
Questionnaires

- 5 of 6 thought the site seems easy to use
- Average hours computer use per day: 3.2
- Best feature(s):
  - ease of use and navigation
  - organization and design
- Worst features(s):
  - too many clicks to get to the databases and forms
  - too much text on pages
Analysis: Focus Group

- Easy to use and easy to navigate
- Liked the simplicity of layout and colors
- Library jargon is confusing
- Difficulty distinguishing between databases, library catalogs and the web

Analysis: Site Usage Logs

  - 46,857 total requested pages
  - Busiest days: Tuesday - Thursday
  - Busiest hours: 10am - 4pm
- Patterns
  - Majority go directly to databases
  - Little time spent on each page
Analysis:
Formal Usability Testing

- Easy to navigate
- Extensive use of shortcut links
- Difficulty reading the Databases page
- Little use of Resources by Subject page
- Problems locating Tips page

WSU Vancouver Library

Document Delivery Request Forms Now Available Online! Select "Library Services" from below.

- General Information
  Who is who and what is what in the WSUV Library.

- Library Resources
  Search our catalog and databases, connect to internet resources and find out about area libraries.

- Library Services
  Find out what the library faculty and staff can do for you.

WSU | WSUV Home | General Information | Resources | Services | E.L.C.
Implementation

- Problem: Several “Reserves” pages
- Action: Reorganized and renamed pages

- Problem: Too many clicks to key resources
- Action: Added links to home page
Implementation

- Problem: Difficulty reading the Databases page
  - Action: Redesign and reformat

- Problem: Difficulty locating Tips page
  - Action: Provide more links

Conclusions

- Gain valuable information about the Web site and users
- Process of creating test instruments is worthwhile
- Make usability testing an integral part of design process
- Focus on Users
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Presentation, testing instruments and more information available at:

http://www.vancouver.wsu.edu/fac/campbell/usability/litaforum/index.html