



## Learning from Our Users: Usability Testing of WebPacs & Web Sites

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## Discussion Overview

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- Why test
- Usability Testing
- Methodologies
- Planning
- Analysis
- Implementation of Results
- Costs of Testing
- Conclusions



## Why Test?

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- More design options in WebPacs
- Increased reliance on Library Web Sites
- Lack of agreement amongst Librarians
- Desire for User Centered Design



## Usability Testing

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



## WSU Testing Overview

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- Jan - Sep 1998 - WebPac at Pullman and Vancouver
- Summer 1998 - More WebPac at Pullman
- Nov 1998 - Web Site at Vancouver
- Summer 1999 - Web Site at Pullman
- Oct 1999- Feb 2000 - Web Site at Vancouver



## Methodologies

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- Formal/Informal Usability Testing
- Focus Groups
- Site Usage Logs
- Cognitive Walkthrough
- Card Sort
- Category Membership Expectation
- Questionnaire/Survey

## Methodologies: Formal Usability Testing

- Observers watch participants perform actual tasks in the WebPac or Web Site and record successes, failures, comments
- Can be very informal and inexpensive
- Works better with WebPacs



## 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

## Methodologies: Site Usage Logs

- A method of using Web server (httpd) logs to track users' movements on a Web site.
- Need access to the server.
- Good for determining patterns of movement and use.

## 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.



## 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.

## 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 exhaustive for participants.
- Good for small sites.

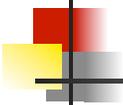




## Methodologies: Questionnaire/Survey

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



## Planning

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- Literature Search
- Purpose Statement
- Task Lists
- Human Subjects Review Board
- Participants
- Incentive
- Script



## Analysis: Formal Usability Testing

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- There was no problem navigating between search types - author, title, etc.
- Most participants could do basic title and author searches
- 8 of 10 participants could not locate an entire periodical or current issue of a periodical
- 6 of 10 could not do a corporate author or a call number search correctly



## Analysis: Card Sort

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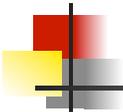
- 7 of 8 participants thought there should be a faculty resources category
- Majority of participants wanted help documentation grouped with specific databases
- 4 of 8 participants wanted the Request forms to be near the databases



## Analysis: Category Membership

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- 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: Questionnaire

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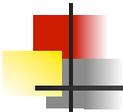
- What is best about the current site
- What is worst about the current site
- What should be within 2 clicks of the home page



## Analysis: Focus Group

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



## Analysis: Site Usage Logs

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- NC add info here.....



## Implementation: WebPac Usability

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- Prepare a list of problem areas
- Assign responsibility for solution - Web group, Vendor, Instruction group
- Work on solution/re-design
- Implement
- Test again



## Implementation: WebPac Redesign

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- **Problem:** Hard to find periodicals
- Action: Add a periodical title search option with results "scoped" to periodicals only
- **Problem:** Six different kinds of call numbers
- Action: Add a number search button with a page of examples and explanations
- **Problem:** Emailing selected results
- Action: Vendor improved email screen

## Implementation: Old and New

- Old

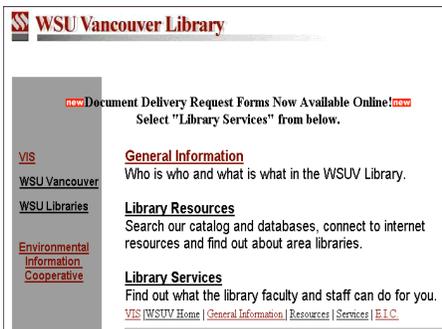
- New

## Implementation: Journal search screen

## Implementation: Web Site Redesign

- **Problem:** Several "Reserves" pages
- Action: Reorganize and rename pages
  
- **Problem:** Request forms are too far from databases
- Action: Add more links to forms
  
- **Problem:** Too many clicks to key resources
- Action: Added links to the Library's home page

## Implementation: Old and new

 <p><b>WSU Vancouver Library</b></p> <p><b>new!</b> Document Delivery Request Forms Now Available Online! <a href="#">new</a> Select "Library Services" from below.</p> <p><b>VIS</b> WSU Vancouver WSU Libraries Environmental Information Cooperative</p> <p><b>General Information</b> Who is who and what is what in the WSUV Library.</p> <p><b>Library Resources</b> Search our catalog and databases, connect to internet resources and find out about area libraries.</p> <p><b>Library Services</b> Find out what the library faculty and staff can do for you. <a href="#">VIS</a>   <a href="#">WSUV Home</a>   <a href="#">General Information</a>   <a href="#">Resources</a>   <a href="#">Services</a>   <a href="#">E.I.C.</a></p>	 <p><b>WSU Vancouver Library</b></p> <p>Having Problems Connecting to the Databases or Forms? Click <a href="#">here</a>.</p> <p><b>General Information</b> <a href="#">Hours</a>   <a href="#">About the Library</a>   <a href="#">Staff</a>   <a href="#">More...</a></p> <p><b>Library Resources</b> <a href="#">Orflin</a>   <a href="#">Databases</a>   <a href="#">WSUV Reserves</a>   <a href="#">Internet Resources</a>   <a href="#">More...</a></p> <p><b>Library Services</b> <a href="#">Document Delivery Request Forms</a>   <a href="#">Circulation</a>   <a href="#">MS Workshops</a>   <a href="#">More...</a></p> <p><b>Resources by Subject</b> Find information by subject.</p> <p><a href="#">VIS</a>   <a href="#">WSUV Home</a>   <a href="#">General Information</a>   <a href="#">Resources</a>   <a href="#">Services</a>   <a href="#">E.I.C.</a></p>
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## Costs of Usability Testing

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- Can be very inexpensive
- Costs
  - Staff Hours
    - Preparation of test materials
    - Testing, Analysis and Implementation
  - Incentives for Participants
  - Office Supplies



## Conclusions

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- Costs were low, while amount of information gained was high
- Creation of test instruments was worthwhile
- Good PR for the Libraries
- Focus on *Users*



## Learning from Our Users:

### Usability Testing of WebPacs & Web Sites

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Presentation, testing instruments and  
bibliography available at:

[http://www.vancouver.wsu.edu/fac/  
diller/usability/iil/iil.html](http://www.vancouver.wsu.edu/fac/diller/usability/iil/iil.html)