Navigating User Understanding of the OPAC Interface: Case Study from OHSU's Web Usability Testing

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Slides and handouts:
Slides and handouts from this presentation will be available following the conference at:
http://www.ohsu.edu/library/staff/zeigenl/onlinenw2008/

Summary:
This session will provide an overview of the 1-on-1 Web and OPAC usability testing we conducted with 40 patrons in the Fall of 2006. Subject recruitment, test goals and design, discovery of gaps between user understanding and how the OPAC interface is set up, what was done to help address these issues, results after the new OPAC was launched, and recommendations for the future will be addressed. My hope is that this will lead to discussion of additional enhancements Innovative may want to consider for future releases.

The intended audience for this presentation is anyone interested in understanding more about what users want in searching the catalog (both interface and functionality), as well as anyone interested in how to conduct usability testing. Additionally this session might appeal to those interested in understanding more about what particular ILS systems will and will not allow us to do at this time and implications of what this means as we work towards designing OPACs in the future.

Impetus for the project:
OHSU was in the process of developing new templates for the institution Web site and we wanted to understand better how we should translate our existing pages into the new templates. We also knew that patrons found many features in our OPAC frustrating and hard to use. Before starting work on either major redesign we knew we had to gather not just feedback from users, since people often will report to you what they think you want to hear, but to witness how they actually were using the system and hear their thought processes along the way.

Test goals and design:
A working group of four people (Web developer, cataloger, reference librarian, access services/serials personnel) determined what information we most wanted from our user groups, but also which of those tasks would be relevant, and therefore more engaging, to the subjects as well. Together we decided on a list of 8 tasks common for patrons when using the library Web site or OPAC (or at least 8 tasks for which we thought they would use our Web site and OPAC!)

Utilizing the concepts outlined in Carolyn Snyder's book *Paper Prototyping: The Fast and Easy Way to Design and Refine User Interfaces*, we decided to move forward with a dual-pronged approach: both paper-prototyping our pages with the tasks we had determined, and having users run through these same tasks using our Web site and OPAC on a computer. Setting up the testing this way revealed a gap between how users wanted to search and how our interfaces were forcing them to search.

Subject recruitment:
A major challenge in any usability testing is subject recruitment. Current usability paradigms state that you don't have to have more than 5-8 subjects for testing in order to obtain the broad strokes pointing to which areas of your interface need to be fixed. Although we would have been happy with that, our diverse patron base (clinicians, researchers, public, on- and off-campus faculty, staff and students) and institutional size (11,000+ people) motivated us to find and obtain information from as many people as possible, particularly since this kind of 1-1 usability testing had not been done since 2001.

In 2003, 2004 and 2006 we conducted usability testing in conjunction with student orientations, but these brief 10-minute in-class assessments (captured with Camtasia software), while useful, did not give us the in-depth information we now needed.

To recruit, we started with an online survey, asking patrons about their use of the library Web site and asking if they would be willing to participate in more in-depth usability testing face to face. We linked this survey for several months from the top library Web page and a number of other pages throughout the site and on the OPAC in addition to running an article on the survey in the campus newsletter, published electronically. In addition we put out flyers across campus, table-top flyers in all the cafeterias across campus, and passed out bookmarks at the circulation desk with the Web address of the survey.

Approximately 200 users took the survey. From this survey approximately 40 people said they were willing to take the estimated hour with us (with appropriate expression of thanks of course!). At first we thought this would be too many people to test, but we realized this was as much an opportunity to market the library and raise awareness of our services as it was to capture the desired 5-8 people necessary for proper usability testing.

In addition to 37 people tested 1-1, three of us from the working group walked a group of 7 medical students through the same tasks and had a focus group on these issues and additionally received feedback from 8 other medical students who could not attend this session, but were interested in providing their ideas. Subjects tested included students from the School of Medicine and School of Nursing, graduate students in the science research areas, researchers, instructors (including one off-campus faculty member), a few clinicians, and one member of the public.

Findings:

1. Subjects, not surprisingly, gave different answers with the paper prototypes/conversation than they did when using our Web site. How they thought they should be able to search was not how we had things set up.
2. Library terminology is extremely confusing to users! Put labels on that say what the function is for the page under that link.
3. No one completed all these tasks in the way we would have expected them. The five subjects with more library exposure had answers that mirrored what we had expected all the users to do.
4. The divisions between print and electronic formats of an item seem arbitrary and frustrating to users, who just want their stuff on one chronological list (for journals).
5. Features we thought would be helpful to users actually added to their frustration in doing simple tasks in the OPAC.
6. Users want interfaces to have information that is logically grouped and for them, logically grouped often meant “how Amazon does it”.
7. People thought they were searching correctly, but often were not, so they did not even know to ask the question of “how should I do this to obtain better results?”

Outcome: Changes Made in Response to Usability Testing

1. We consolidated “Journals” and “Electronic journals” on the top page and changed other terminology across the OPAC and site.
2. We overhauled the design of the catalog, making changes we could at this time in response to user needs.
3. We jumpstarted our liaison program and Mobile Library Lab.

Implications for the future (aka what users want for interface and functionality in searching the catalog):

1. We need to review our site more often to make sure that it is not a digital reflection of previous organizational structure, terminology or decisions.
2. We need to be in more continuous dialogue with our users, whether it be through a more formal liaison program or informally getting out to where the users are. That is the only way we will be able to check in with their assumptions.
3. We need to have systems that allow us to respond quickly to our users' needs and customize the interface in ways that are suited to our local environment.
4. We will be incorporating more direct access to OPAC searching from the top library page in the future.
5. We are looking at more faceted OPAC options in the future.
6. We have made enhancement requests and continue to lobby our ILS for the changes we can not yet make in the OPAC.

Tips on usability testing:

1. Determine your goals for the testing first (Why you are doing the testing? What do you want to find out about your site?) before you determine which exact tasks you want people to do on the tests. The goals will also help determine the type of testing you may want to conduct and the scope of how many people you will want to test.
2. Bring together a diverse group of staff from across the library to help determine these goals for testing, even if you are testing a small part of the site: together we can all double-check each other's assumptions about how people are already using the site.
3. Test your tasks internally first and adjust the test as necessary before the real testing begins.
4. Compare what people say they do with what they really do and learn to discern where the true needs lie.
5. Release your assumptions! The concept of designing around the users' needs (or "Don't Make Me Think") is not in conflict with the sophistication built into the back-end of our OPAC and other systems: in making certain changes we are not "dumbing" our systems down, but making the interface less painful so users can conduct their search strategies to best advantage.
6. Allow enough time (and opportunity) to be "off script": bulldozing through the predetermined tasks without allowing for the occasional detours of people's minds will mean missing a lot of valuable information. Most usability testing is qualitative, not quantitative!
7. Allow the usability testing to be an opportunity for "just in time" learning moments as questions may arise.
8. After testing, but before the subject leaves, make use of this 1-1 opportunity with the subjects to obtain any other feedback they may have about library services.
9. Give your subjects a token of thanks for their time, within the scope of your budget and administrative rules. When possible, provide food for student subjects!
10. Follow-up, follow-up, follow-up! Follow-up with subjects who had questions that could not be answered during the testing and send emails of thanks for people's time after they have completed testing.

Resources:

Krug, Stephen (2005). *Don't Make Me Think: A Common Sense Approach to Web Usability*, 2nd ed. New York: New Riders Press.

Nielsen, Jakob (1999). *Designing Web Usability*. New York: Peachpit Press.

Snyder, Carolyn (2003). *Paper Prototyping: The Fast and Easy Way to Design and Refine User Interfaces*. New York, Morgan Kaufman.

Weinberg, David (2007). *Everything is Miscellaneous: The Power of the New Digital Disorder*. New York: Henry Holt and Company.

Additional resources related to this topic are listed at:
http://www.ohsu.edu/library/staff/zeigenl/onlinenw2008/

Speaker Biography

Laura Zeigen is the Systems and Web Development Librarian at Oregon Health & Science University. A graduate of University of Washington's iSchool, she has been involved with Web interface and resources development, usability testing, and other systems support at the OHSU Library since 1997 and has more recently been exploring the implications of interface design for adult learners in the teaching and learning process. She serves as library liaison to OHSU's Physician Assistant program and other departments and currently serves on the Northwest Digital Archives Usability and Design Working Group.