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Usability testing of our library's new website

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Abstract

Since the University of Zurich required all departments to use the same content management system, a makeover of our Main Library's website was planned for 2017. Following Steve Krug's book *Don't make me think, revisited*, we reduced the contents and tried to build an easy to understand and straightforward navigation for the users. To verify our concept, we arranged "do-it-yourself" usability tests. Three test sessions with three persons each were sufficient to find out what had to be improved on the website, and were more helpful than hours of discussion among the team. Usability testing helped us to understand our customers' search behaviour and expectations for navigation. It was also entertaining and a novel way of interacting with our customers.

Key words: website; usability; customer; feedback; interaction.

Introduction

"File people better than pile people. But throw-away people best of all" (1).

Librarians tend to collect a lot of information in catalogues, but also on websites. When we were commissioned to move our website (<http://www.hbz.uzh.ch>) to the university's content management system, we decided to rearrange and especially reduce its contents. For that purpose, we took the number of clicks on the current pages into account (Which pages were most used?) and discussed what we considered relevant information (Which services does our library offer? What information do people seek on our website? What do we want to emphasise?).

We were a multidisciplinary team, consisting of two subject librarians (natural sciences, medicine), one member of the e-media team, one member of the open access team, and two IT specialists. Early in the makeover process, we decided to follow Steve Krug's book *Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability*, which suggested to "get rid of half the words on each page, then get rid of half of what's left" and to do usability tests of the newly built websites (2). At first, performing tests on a large scale seemed an appalling task for our small team, which had to relaunch the homepage parallel to many other tasks in the library. However, the "do-it-yourself" usability testing Krug suggested seemed feasible to us and we decided to give it a try.

Methods

The usability tests cannot be performed too early in the process of redesigning, obviously, the test persons have to see the contents and be able to navigate on the website, but also not too close before go-live, when there is no time left to change things. We started about four months before go-live (looking back, we could have started even earlier). Firstly, we did a pre-test with a member of our staff who had not been involved in the project so far. The main aim was to test the procedure and the equipment. We then scheduled three test sessions in monthly intervals with three customers on each date. Using flyers, students of science, medicine, and nursing were recruited (seven students, two researchers). It is important to notice that the test persons do not have to be representative for the library patrons (2), since anyone can find serious problems or mistakes in the navigation of a website, but they need to have enough background to understand the tasks during the tests.

One person of the web relaunch team led the user through the test, which lasted about 45 minutes per participant. The other team members were following the test in another room, watching a transmission of the screen of the test computer and listening to the user's comments. The sessions were recorded using TeamViewer software with the written consent of the participant.

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The tests followed a strict protocol. The purpose of the usability testing (which, as we assured them, was not a testing of the user's abilities, but the website's functionality) was explained. We asked the users to freely tell us what they were thinking about the website, and not to worry about hurting our feelings. After some introductory conversation to put the participants at their ease and to find out what we could expect from them in the way of pre-knowledge, the users were asked about their first impression of the homepage. This was followed by three to four specific questions that varied between test sessions (Table 1). The questions were chosen to address the main services of our library and to reflect the different departments (services, subject-specific contents, e-media, open access).

The web relaunch team would write down the observed strengths and weaknesses of the website during the test. Subsequently, these notes were compared, discussed, prioritized, and measures to be taken until the next test round were decided (thus, our website was constantly evolving). Test persons were rewarded with a voucher, a give-away from our 3-D-printer, and Swiss chocolate.

Results and Discussion

It was not always easy to get the participants to think aloud. Sometimes the team member had to prod them with questions as: "I see you are hesitating. What are you thinking now?"

Some of the main findings were:

- although the content management system allowed the use of three columns, users would seldom pay attention to the third column;
- longer texts would not be read, and information within long texts would not be noted. Users preferred short and highly structured texts on one page and not having to scroll;
- links within sentences were sometimes missed;
- users would screen the pages for relevant terms rather than read everything from top to bottom;
- terms were sometimes not clear to the customers.

For our website, this meant to:

- put the main information in the middle column and a few links in the left column (and avoid placing important contents in the right column);

Question	Relates to
1. What is your first impression of our homepage? What services do we offer?	Homepage
2. How can you borrow books from the library?	Using the library
3. Can you find and reserve a suitable room for your study group tonight?	Using the library
4. You work for a company or are self-employed and want to order a journal article. How do you do that, and how much does it cost?	Using the library
5. How can you find a specific textbook in your subject, possibly an e-book?	Electronic resources
6. Which e-media does the university offer in your subject? Which are the most important databases?	Electronic resources
7. Do you find an overview over the most important e-books in your subject? Can you use e-books from home? What are the limitations for using e-books?	Electronic resources
8. You want to publish an open access article. Which journals would be suitable?	Open access
9. You want to publish with Frontiers. Are there ways to get financial support?	Open access
10. How do you become a submitter to ZORA (Zurich Open Repository and Archive)?	Open access
11. Do you find a course that helps you with correct citation?	Courses
12. You are unsatisfied with your database search. Can you get help from us?	Courses

Table 1. Questions for usability tests, from which three or four were chosen on each test date (apart from the question about the homepage, which was always asked).

Award for the best first-timer poster presentation

- omit useless words and sentences, e.g., “Here we explain...”;
- give the text a visual structure;
- present the information in a compact way. Do not hide important links within continuous text (*Figure 1*);
- avoid library jargon. (We exchanged “virtual book shelf” for “e-media, access by discipline”, or “online resources” for “e-media”).

The test users liked the colour on the homepage, used for indicating if the library was open or closed (“the old site being so black and white”) and the prominently placed search box (“Here, the user is being supported when searching. I mean, there are a lot of people, like me, who simply go to Google scholar or directly to the respective journal for searching.”). However, they had difficulties differentiating between the key word search in the catalogue (Question 5 from Table 1) and a thematic search for disciplines (Questions 6 and 7). People expected the search to work as it would with Google and the presentation of results like the one that they are used to on Amazon. However, we did not follow up on the questions whether we should try to meet these expectations, because we share the library catalogue with other institutions. Changes to it would affect them too and were therefore outside the scope of our project.

Other libraries that performed usability testing have reported similar findings regarding the importance of understandable terminology (3, 4), the visibility of links (3-5), or the use of colour (3, 5). Kupersmith reviewed studies evaluating terminology and provides lists of “what didn’t work”, “what did work” and best practices (6).

Conclusions

The usability tests revealed an insight into our customers’ behaviour and expectations, which helped us to improve our website. We sometimes received surprising feedback. These tests were cheap and easy to do (we estimated that the tests took 100 hours of work altogether, but this could be reduced for future tests, since the initial efforts could be omitted). No sophisticated software (e.g. eye-tracker systems) was needed – a simple, cheap TeamViewer licence was sufficient. Hardware (one PC, one beamer, audio-boxes, and one laptop) were taken from stock and could be put to other uses afterwards. Three persons per test were sufficient to find out what had to be

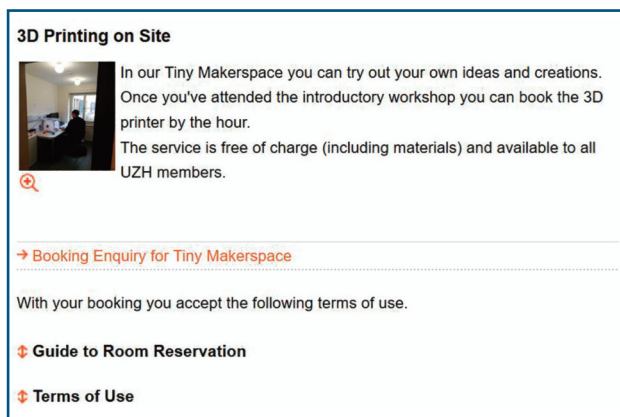


Fig. 1 Example for space-saving presentation of contents with pull-out paragraphs and accentuated link.

improved on the website (and were more helpful than hours of discussions among the team). We would definitely recommend performing this kind of usability testing to any library renovating its website. Apart from being helpful, it was entertaining and a novel way of interacting with our customers.

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