Focus Group Review
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Background

To evaluate the two approaches for Grainger’s metasearch portal design, we conducted a focus group consisting of representative users from various engineering departments. We elected the focus group approach because it is an efficient way to assess first impressions and feedback from multiple users simultaneously. By using this technique we wanted to discover some of the potential problems with our proposed interfaces and also get a quick sense of their preferences, opinions, and initial reactions. Based on the feedback from the focus groups, our intention was to propose any necessary quick fixes to our interfaces and design more specific surveys and tasks for individual observations.

Goals

In our focus group, some of our goals were to understand how users approach their research using Grainger’s current homepage and how they react to the new, proposed interfaces. We were looking for things which users find confusing or frustrating with the layout and if there is any terminology that does not make sense. We also wanted to get ideas on what could be modified to improve the user experience.

Our main goal was to find out if the users had a preference for one approach over the other for the portal design. One of our designs was based on the use of multiple portlets <http://hades.grainger.uiuc.edu/szu-yu/portlet/gotop-33.asp> and the other design made of use of tabs <http://hades.grainger.uiuc.edu/brian/tabinterface_test/tabinterface.asp>. With the portlets approach, we were interested in viewing how users would respond to assessing multiple search areas on the
screen at once and whether they will be able to enter in search terms in the appropriate fields. Similarly, with the tabs approach, we were interested in knowing if the users could figure out to click on the appropriate tab to enter in the search terms.

**Participants**

The focus group consisted of 9 participants in total, including 1 undergraduate, 6 Master’s, and 2 PhD students from mechanical, electrical, computer and aerospace engineering and Materials Science. Each focus group participant was awarded a $20 gift certificate for the campus bookstore. These participants were recruited through advertising on bulletin boards at the Grainger Engineering library, postings at Engineering departments and emailing personal contacts.

**Format**

The focus group session was held for one hour in a conference room which had a laptop and projector. There were two mediators who led the discussion and three observers who took notes during the session.

At the start of the session, we provided a brief introduction about the purpose of conducting this focus group and introduced the present staff members. For the first 5-10 minutes, we showed the current Grainger site and asked for general feedback about usage and any relevant issues. We focused on asking the participants if they find anything difficult or frustrating and if there is anything that could be done to facilitate their research process.

For the next part of the session, rather than showing the participants our different versions for the portal design, we gave them a chance to interact with both interfaces in order to gauge more detailed feedback. We divided the participants into 2 groups and assigned one
computer to each group in a room adjacent to the conference room. Prior to the start of the session, we had bookmarked the interfaces on the computers to facilitate this transition as much as possible.

We provided each group with sample tasks (See Appendix) to ensure that they would test all of the main functions of each interface, in addition to encouraging them to try out other parts. We suggested one group to start off with the portlet approach and one group with the tabs approach. We asked them to switch after about 8 minutes. During this time, the observers walked around the room and made note of the participants’ reactions and discussion within their groups. We did not use any formal observational techniques, but paid attention to how the participants were interacting with the interfaces and how long they were taking to go through all the tasks.

After the groups had completed this part of the session, we asked them to reconvene in the conference room for discussion. We reviewed both interfaces on the projection screen and asked for their comments about their interaction with each. We asked them about their preferences and if they had any suggestions on what else we could do to improve both of these interfaces.

**Findings**

**The Current Grainger homepage**

Most of the participants mentioned that they tend to follow a routine when conducting research. They either start off with the UIUC Library’s Online Research Resources (ORR) site or the online catalog. Some go to a specific database, such as Web of Knowledge or EI Village, or some go directly to the AIAA site or www.ieee.edu. In addition, some participants mentioned
that they usually go to the Grainger library and consult the reference staff if they cannot locate materials online.

Only 3 of the participants mentioned that they use the Grainger library homepage. One participant mentioned that he had used “Journal Finder”. Most of the participants generally agreed that they often look for articles on a specific topic and don't care much about the name of the journal. Other participants had used the Grainger homepage to connect to Engineering Index and Inspec (and also to the aerospace database with an older version of the Grainger homepage). One of the participants completely bypasses the current Grainger page, and utilizes the Library Gateway navigation bar to access the library catalogs.

The other participants pointed out that they would like to see a “quick search” type of function on the homepage where they can just enter in keywords. One of the participants specifically noted that, "I prefer an interface where I can type the least amount of information in and retrieve the result".

When asked about Google Scholar, most of the participants did not have much experience with it. One of the participants mentioned that it is a good starting point because it can allow you to search across multiple areas. When asked about whether they spend more time looking for journal articles or books, 8 of the participants said they look for journals more than half of the time. Only one person said that he spends more time looking for books. A few of the participants wondered whether they could request articles through inter-library online (currently they talk to somebody at the front desk).

**Grainger Metasearch Portal using Portlets**

Through our observations when participants were playing around with this interface and through the discussion which followed, we discovered that the participants did not find this
interface to be very intuitive. They were confused with the number of text fields on the screen where they could enter in search terms, although they are divided into separate sections.

A couple of participants commented that it is good to “see everything at once” using this approach, but most participants agreed that this interface is way “too busy” and it is slower to find way around. One participant jokingly commented that this is sort of for “dummies” because it lays everything out together. The participants did find the descriptions through the hovering effect useful, but noted that when you scroll down to the “Find Other” or “Other Resources” sections, this effect is useless because you lose the text area at the top.

When asked about their preference for this interface over the tabs, only one participant voted for the portlets approach. Another participant was undecided during the vote, but said that he would be more inclined towards this approach.

**Grainger Metasearch Portal using Tabs**

The participants did not seem to have a problem in clicking on the appropriate tabs during the search. The majority of participants preferred this approach over portlets. They made comments such as, it “looks cleaner”, “tabs are more organized, less busy”, “works better on smaller screens”, etc. A couple of participants pointed out even if people don’t know notice the tabs initially, they can figure it out after one use.

The participants commented that the two “go” buttons are sometimes confusing - one “go” button would probably be preferable. They also mentioned that the tabs should be made more visible (look more like tabs) to enhance the overall presentation. One of the participants also mentioned that it will useful to save the entered information when hitting back from the search results page and to end up at the appropriate tab.
Six of the participants voted for the tab approach over the portlets approach, while another participant was undecided.

**Comments about Functionality**

All of the participants agreed that both of these approaches were certainly better than the existing Grainger library homepage. They would definitely be inclined to use this facility now that they know more about it. In particular, they were very impressed with the Full Text finder and previously had no idea about this kind of service being available through the library.

One participant suggested having a more extensive list of databases under “Choose Search Areas”, such as EI Village. A couple of participants suggested putting in a pull-down menu which says search by author, title, etc. accompanied with a single search box. One participant made a comment about the default checked boxes for the databases for metasearching - "it would be a waste of time to uncheck them, go ahead and let them search everything." Other participants argued that they like having the ability to limit their search to certain databases for faster searching.

There was some discussion about whether the search for conference proceedings is more appropriate with title, author instead of editor. There was some confusion about the purpose of the Conference Proceeding Finder - is it to find a conference article to look up a whole proceeding?

One participant mentioned that “Ask a Librarian” link is helpful as he had used this reference service earlier.

**Conclusion**

Overall, this focus group activity was a very useful activity and we got some valuable feedback in a short amount of time. One comment perhaps summarizes the general reaction of
the participants, “the difference between the two interfaces was like an organized office and a disorganized office - some people like everything out in the open where you can see it (multiple portlets), other like things organized and neatly packed away (tabs).” Based on the findings from the focus group, the users clearly preferred the tab interface over the portlets approach. But, we still recommend some one-on-one user testing with more graduate students and other representative users, such as faculty and undergraduate students. The current tab interface serves as a functional prototype – a live version can possibly improve and expand upon this implementation.

Appendix

Sample Tasks for Sub-groups:

1. You have just been assigned a paper on “underwater robotic arms”. How would you begin your search using Grainger’s website and what would you look for?

2. You have come across the following citation during your research:


   How would you find out if "Int J Num Meth Eng" is available in print or online?

3. Find the full-text (electronic version) of this article:


4. Does the library have the 2001 proceedings of the IEEE International Test Conference?