

NC LIVE

# Website User Experience

Findings & Recommendations

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## 1. Objectives

The overall purpose of this engagement was to evaluate the user experience of the prototype NC LIVE website, assess how well it supports library users, and develop recommendations for improving its design, content, and functionality. Our objective was to elicit feedback from real users and identify opportunities for refining and polishing the current design to improve learnability and task flow. This research also yielded secondary insights into more strategic design opportunities, we did will not pursue these in great detail.

## 2. Research scope and methods

We focused on assessing the strengths and weaknesses of NC LIVE's prototype Web site design.

In particular, we sought to observe people interacting with the site to complete a variety of tasks, including:

1. First impressions and understanding NC LIVE's offerings
2. Exploration of personally-relevant information and functionality
3. Academic scenarios
  - a. Find information related to participant's own research or class assignments
  - b. Find a known item based on a citation
4. General scenarios
  - a. Consumer information
  - b. Genealogy

- c. eBook
- d. Health

See the complete [research guide](#) for further details.

## **Procedure**

### *Eliciting background and context*

Sessions began with a brief semi-structured interview, in which participants were asked to provide background on their interests, goals and their use of the library (and NC LIVE, if applicable). These prompts led into discussion of the participants' information-seeking process and use of resources in the library and on the Web. Based on the discussion, we identified a particular interest to focus on, such as an assignment in a current class, or a general research interest.

### *Usability testing and participants*

This qualitative research was structured to gather key insights on participants' experience with the Web site. Participants were given considerable leeway to choose their own tasks, explore, experiment, and make mistakes. Because of this approach we did not collect data on task efficiency or error rate, as these data would not be comparable across individuals.

NC LIVE recruited nine participants, with a range of backgrounds, academic interests, and information literacy skills.

We asked participants to use NC LIVE to perform both directed tasks (e.g., find an article based on this citation) and natural tasks (look for information on your research topic, as you would on your own). We alternated between directed and natural tasks as time allowed, seeking to have each participant use many of NC LIVE's key features. In some cases, this required prompting participants directly to use features they had not discovered.

Sessions were recorded in Morae and are available for review by NC LIVE staff.

### 3. Overall impressions

Participant	Type	Representative impression of new.nclive.org
Community College student, experienced NC LIVE user	female   academic	“very good”
Community College student, novice NC LIVE user	female   academic	“much easier and less confusing”
Community College faculty (landscape architecture)	male   academic	“not like a regular search engine,” not likely to use for his work
Guidance counselor at Apex High School & Ph.D. student	male   public/academic	“absolutely” would use and recommend
IT generalist, formerly at IBM, near retirement	male   public	“it’s useful”
Membership director for nonprofit	female   public	“a very good resource”
Graduate student	male   academic	“for daily life instead of academic work”
Sales representative	female   public	“it’s a great resource, especially for [students] doing research” but would personally tend to use general Web
Undergraduate student	female   academic	“pretty well put-together”

Six of nine participants said they would be disappointed if they could no longer use NC LIVE.

Six of nine participants said they would be recommend NC LIVE to a friend or colleague.

Most common perceptions of new design:

- pleasant
- organized
- comprehensive

## 4. User experience observations and issues

### Value proposition and framing

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An important goal for the Web site is helping new visitors understand the purpose, scope and value of NC LIVE. While participants generally perceived the site positively, and could describe it in their own words after using it, some important issues emerged.

Participants generally seemed to get little context or clarity from the prominent “What is NC LIVE?” text (“NC LIVE is a member-driven, library service organization dedicated to providing online library and information services that support education, enhance statewide economic development, and increase quality of life of all North Carolinians. NC LIVE is North Carolina's statewide online library.”). Instead, they learned about the site’s capabilities through the artbox, icon bar, and Discover pages.

Participants were not always clear on the link between NC LIVE and their public or academic library, and were sometimes confused by personalization-related labels such as “Top Databases @ my Library.”

An important strategic issue is clarifying the value NC LIVE provides versus general Web and social media resources. NC LIVE’s value-added access to proprietary databases and sources (including high-profile sources like the *Wall Street Journal* and *Consumer Reports*) seemed to escape most participants. Perhaps because of the “NC LIVE” name, some participants strongly associated the service with North Carolina-specific information.

The most obvious value for many users was access to academic research and journals.

#### *Opportunities.*

Provide stronger, clearer value proposition. Explore shorter phrases and taglines for explaining NC LIVE, e.g.

- “go beyond Google -- search top academic journals”
- “powerful knowledge, free of charge”

### Information access

#### **System model**

NC LIVE provides a broad array of databases and repositories, many of which have their own unique functionality and user interface. These resources can be accessed through a browsable hierarchy of topics (from “Books & Literature” to “Science and Technology”). Once a resource is

selected, the user passes through a proxy to the user interface of that resource, which loads in a new tab.

In addition, a meta-search function can process queries across numerous EBSCO resources, and collate the results. This function is presented in a search block at the top left of the page:

**Search**

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Select / deselect all

<input checked="" type="checkbox"/> Quick Search	<input type="checkbox"/> History
<input type="checkbox"/> Books	<input type="checkbox"/> Homework
<input type="checkbox"/> Business	<input type="checkbox"/> Help
<input type="checkbox"/> Current Issues	<input type="checkbox"/> Journals
<input type="checkbox"/> Education	<input type="checkbox"/> Nursing
<input type="checkbox"/> Health	<input type="checkbox"/> Philosophy
<input type="checkbox"/> Government	<input type="checkbox"/> Psychology
	<input type="checkbox"/> Science

The search block provides a default “Quick Search” option, which directs the meta-search engine to search a selection of EBSCO’s most popular databases.

Other checkboxes can be used to further customize the selection of resources being searched.

In addition, a separate “Journal Title Search” provides access to specific journals and magazines.

### **Mental models**

Overall, most participants were unable to fully understand the system model for search. This finding is consistent with previous research on academic library Web sites. In part, the realities of publishing and library acquisitions are simply in conflict with users’ expectations. Users familiar with Web search do not expect to scope or limit their search, or specify in what repository they want to search.

The “Quick Search” default fits this expectation, but only for certain types of searches -- primarily for academic usage, such as finding references for a pro/con essay in an introductory class. However, we observed participants attempt to use Quick Search for many different tasks, including accessing specific resources on NC LIVE (e.g. *Consumer Reports*). These searches

were often unsuccessful. When probed on the meaning of Quick Search, participants generally had no coherent explanation for its scope or purpose. As expected, most participants appeared to prefer a default search to specifying scope using the checkboxes. (Side note: Implementing checkboxes that are also links is nonstandard behavior and is generally not recommended without a compelling justification.)

Several participants also exhibited “section-specific” mental models. They expected to be able to select a section of the site, such as “eBooks,” and then search within that section using the search block. This isn’t possible with the current implementation, and users that tried this received irrelevant search results. In addition, a few participants expected to be able to click a checkbox to browse resources related to that topic. All participants ignored the “Search this site” function which might have been more helpful for finding specific resources.

Only one participant was able to use the “Journal Title Search” to find a specific resource. Others ignored this function.

### Implication

The search block is extremely prominent in the current design, contributing to its widespread use. But the search function is not effective for many information access tasks. And as discussed below, users often ignored the main alternative access point, the browsable hierarchy. In combination, these factors contributed to information retrieval difficulties.

### Opportunities

Given these observations, it may be worth deemphasizing and/or redesigning the search block. One direction to explore would be reframing “Search” as “Research” or “Find articles” to emphasize the scope of the tool.

Reconsider or deemphasize the checkboxes, as most users prefer not to scope their search.

Avoid generic terms such as “Quick Search,” which can be hard to interpret. Consider making Quick Search the default behavior while eliminating the label itself.

Redesign “Journal Title Search” to help clarify what it’s for and why to use it. Add autocomplete/search suggestions to make known-item searches more efficient.

Explore alternative interaction models for guiding users to resources. For example, a wizard could help users choose a resource appropriate to their information need.

## **Browsable hierarchy**

The browsable topic hierarchy uses a substantial portion of the page and is intended as a primary access point to resources. However, we observed several users having difficulty using

this access tool. Participants found the category labels and scope notes difficult to scan and parse. Many preferred to try search first, and only used the browse function when prompted to do so.

The second-level pages (resource directories) also appeared difficult to scan and parse.

### Implication

The design of the browse section could be improved through better labels, scope notes, and enhancing scannability and readability. But it is worth re-evaluating whether this section is sufficiently useful and usable to merit its real estate on the home page.

The second-level pages seem in many instances to rely on resource titles (e.g. ABC-CLIO) that are unfamiliar and uninformative to most users. The “Recommended for” text is often overly lengthy for typical Web usage behavior, which emphasizes scanning for keywords over word-by-word reading.

### Opportunities

Explore using task-based navigation on the home page. For example, provide common tasks (such as, “explore your ancestry and genealogy”) on the home page, and move the comprehensive topical hierarchy to a secondary page.

Develop more curated browsable content, as participants generally had positive reactions to curated pages such as the Jobs Portal and Surviving a Layoff page.

Explore prioritization of important content/resources. Participants struggled to find commonly-used resources, such as *Consumer Reports* and *The New York Times*, amid the dense and diverse links and text. Relatively obscure topics, such as ‘schizophrenia,’ are currently given equal prominence to popular resources and topics, which makes common tasks less efficient.

Develop alternative ways to describe resources, such as task- or topic-centric labels rather than resource titles. For example, “American World History” instead of “ABC-CLIO”.

Consider using representative items to extend or replace resource-level descriptions. For example, instead of...

*Online books on a variety of topics including language learning, medical, health, history, and more*

try...

Includes:

- *Learning Spanish in 21 Days*
- *Eating Healthy*
- ...

These descriptions could be further enhanced with thumbnails or other visual aids where appropriate.

## Communication

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### Social media

#### Twitter

about an hour ago we said, YALSA » If  
You Tweet It, They Will Come:  
<http://idek.net/1kly>



Most participants were confused by the Twitter block and social media bar and had difficulty interpreting the purpose and content of the latest Tweet. This may reflect limited familiarity with Twitter conventions.

Only relatively social media-savvy participants were able to interpret the icon bar. Facebook and YouTube were the most commonly-recognized icons.

#### Opportunities

Use more engaging and informative previews of social media content, such as thumbnails and descriptions of YouTube videos...

*Get started fast with video intros from NC LIVE...*



Use richer visual design to engage visitors in social media streams/conversations and help them understand the underlying model and conventions. See Engadget's or Hesketh's approaches to displaying Tweets for examples...

# EDITORS @TWITTER

Correspondences from Team Engadget out into the Twitterverse.

*Return of the Star Wars Kid  
<http://bit.ly/9VXbMb>  
"bullying so severe [he was  
forced to drop out and]  
enter a psychiatric ward for  
children"*

THOMAS RICKER



*TUSK!*

JOSEPH L. FLATLEY

*Now, this is the sort of  
Microsoft UI I can get  
behind on tablets  
<http://bit.ly/d5Zjmg>*

JOANNA STERN



SEE ALL

Consider hiding specific tool names (e.g. Twitter, FourSquare, Delicious) that have lower public awareness and may confuse visitors. Explore alternatives such as "Quick updates from NC LIVE," or other plain language.

## Chat

Participants who were more familiar with IM, such as the college freshman, recognized the chat box quickly and were interested in this service. Others were more likely to ignore this function.

*say what?*

Follow [heskethdotcom](#) What's this? »

“

Do u create Architecture, Graphic, Industrial, Interior, or Furniture Design, Landscape Architecture? DesignSpark beckons  
<http://ow.ly/1Tz3w>

03 Jun 10:25 am

Heather Hesketh  
Chief Executive Officer



“

RT [@nonprofitorgs](#): Very interesting. [@Google](#) Asks: If you are a nonprofit, what would you want [@GoogleGive](#) to do for you?

27 May 09:42 am

Heather Hesketh  
Chief Executive Officer



“

See how usability testing can improve your site - without breaking your bank. From the expert - Steve Krug - <http://bit.ly/87QnCF>

26 May 5:22 pm

Barb Baranski  
Account Manager

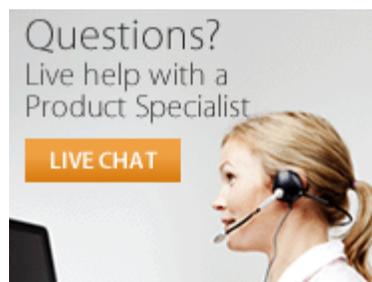


The green circle may be insufficient as a cue to indicate that the chat service is online and librarians are available to help.

### Opportunities

Develop stronger language/framing for the chat block to clarify its purpose and value, especially for people who don't use IM regularly.

Develop clearer cues to indicate that a librarian is online and ready to help.



## Content

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### Finding eBooks



Many participants described the resource icons as "self-explanatory" and easy to use. However, selecting the eBooks category leads to a secondary page...

## eBooks

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Look in these databases to find eBooks

Title	Recommended for
<a href="#">ABC-CLIO eBook Collection</a>	Literary analysis and criticism of American and British literature including Dickens, Shakespeare, Austen, Bradbury, Morrison, Steinbeck, Hemingway, & more.
<a href="#">LearningExpress Library</a>	Interactive practice tests, eBooks, and self-paced courses for students & adult learners. ASVAB, GED, GRE, SAT, resume and cover letter writing courses and more.
<a href="#">Literary Reference Center</a>	Articles and criticisms, including peer-reviewed, bios and interviews, novels, short poems, and literary magazines.
<a href="#">MyiLibrary</a>	Online books on a variety of topics including language learning, medical, health, history, and more.
<a href="#">NetLibrary</a>	Online books on a variety of topics. Includes literary criticism (Bloom's Notes), Cliff Notes, full-text of Hemingway, Austen, Shakespeare, Faulkner, Chopin, Frost, Gilman, & more.
<a href="#">OAlster</a>	Catalog of digital resources including books, articles, audiofiles, images and more.
<a href="#">WorldCat</a>	Catalog of books and other materials worldwide.

On the secondary page, most users had difficulty understanding the different eBook databases, and selecting one appropriate to their interests.

Some users expressed concerns that eBooks would cost them money to use.

### Opportunities

Reconsider “eBooks” as a category, since the resources in the category are so disparate. One option would be to associate “eBooks” with NetLibrary only, and then provide access to the other resources through other entry points (categories, tasks). Another approach would be to chunk out this section into subcategories, with clearer and briefer descriptions of which resources are useful for which needs.

Provide clear branding/framing to establish eBooks as a free resource, so as to better appeal to cost-conscious visitors.

## Discover pages

Overall, the Discover pages received positive feedback based on first impressions and exploration. The most common negative comment was that the “Southern Literature” topic seemed unrelated and out of place.

The Discover icons on the home page were frequently judged to be hard to read, perhaps because of the small size of the type, and lack of contrast between the text and background image.

### Opportunities

Continue to develop and refine curated content.

Redesign the Discover icons with a focus on readability.

Improve visual design of individual Discover pages. Look at white space, wrapping of text around images, etc.

## Portals

Like the Discover pages, Portals were received positively and appear to be a promising alternative to the topical hierarchy.

Some participants expressed interest in career and resume help, while glossing over relevant resources such as the Job and Career Accelerator. This disconnect suggests that individual listings could continue to be refined, simplified, and better matched to user tasks. For example, Job and Career Accelerator actually maps to two very different tasks: 1) exploring career/occupation options, and 2) searching job postings.

### Opportunities

Clarify the use and value of each item in the portal. Map items to users’ mental models and tasks.

Be careful with generic subcategories, such as “Other” and “Read more about...” -- these are unlikely to help users scan and browse.

Improve visual design of individual Portal pages. Look at white space, wrapping of text around images, etc.

## Navigation

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### Global navigation



While some participants explored the global navigation, none used it to complete tasks, and the navigation seemed irrelevant to the bulk of participants' information needs. From a general IA perspective, options such as "Browse A-Z," "Newsroom" and "About" are unlikely to be used much, and could likely be demoted to secondary navigation without ill effects.

#### Opportunities

Rethink or remove the global navbar.

Prioritize key information currently hidden in the navbar, such as FAQ's and Resource Tutorials. Some participants mentioned an interest in or need for help and introductory information, but none used the "Need Help?" menu.

### Background tabs

Resources load in browser tabs. Participants frequently paused and seemed confused as they built up multiple tabs over the course of their session and had to navigate among them. In particular, users had difficulty getting back to the NC LIVE after exploring a resource. Some participants attempt to click the NC LIVE logo in EBSCO. Others used the back button, which was ineffective in a new tab.

#### Opportunities

Allow all links to open in the primary browser tab, and provide a [HootSuite-style overlay bar](#) to provide context and allow users to return to NC LIVE. This bar could also be used to provide social sharing tools or other capabilities.

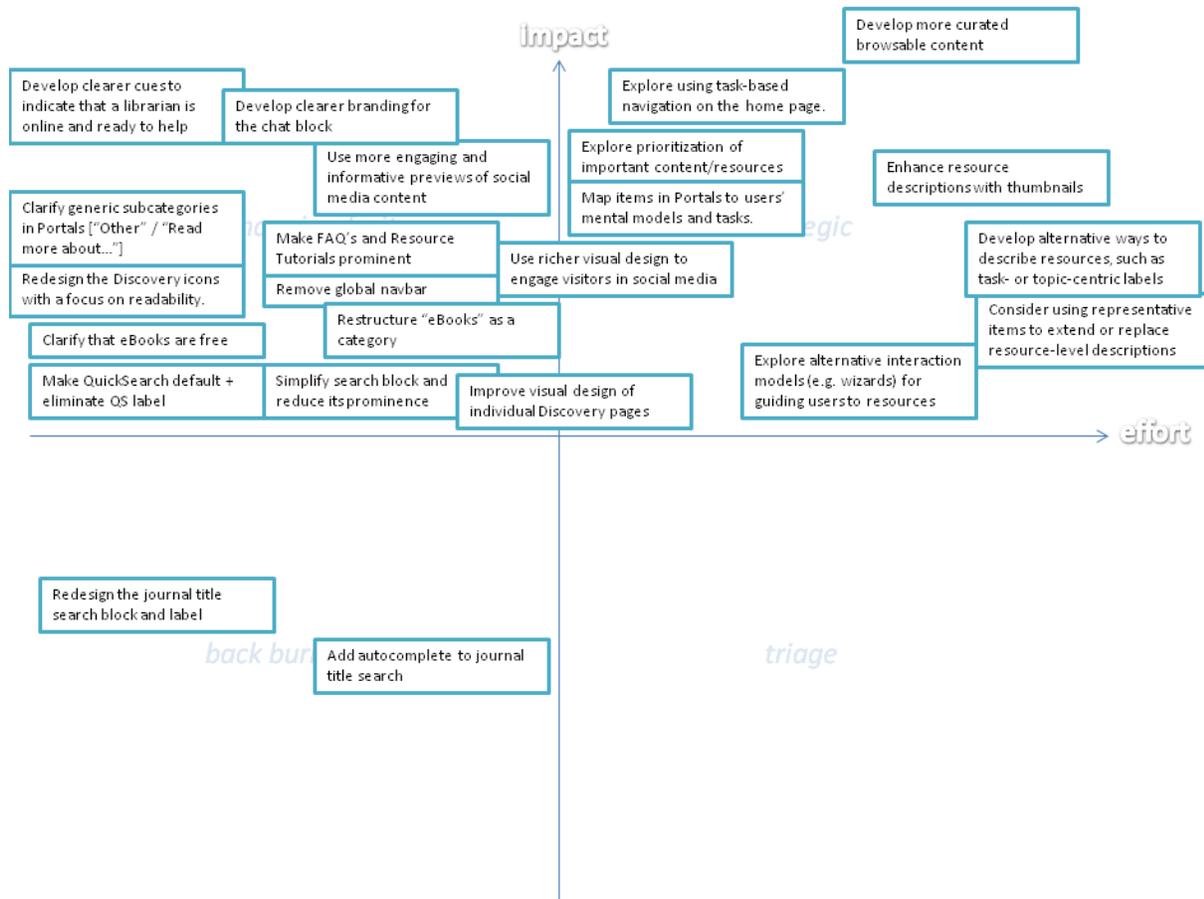
## 5. Next steps

Our recommendation is to prioritize the design opportunities identified in this research, and develop a roadmap for improving the website's design and functionality.

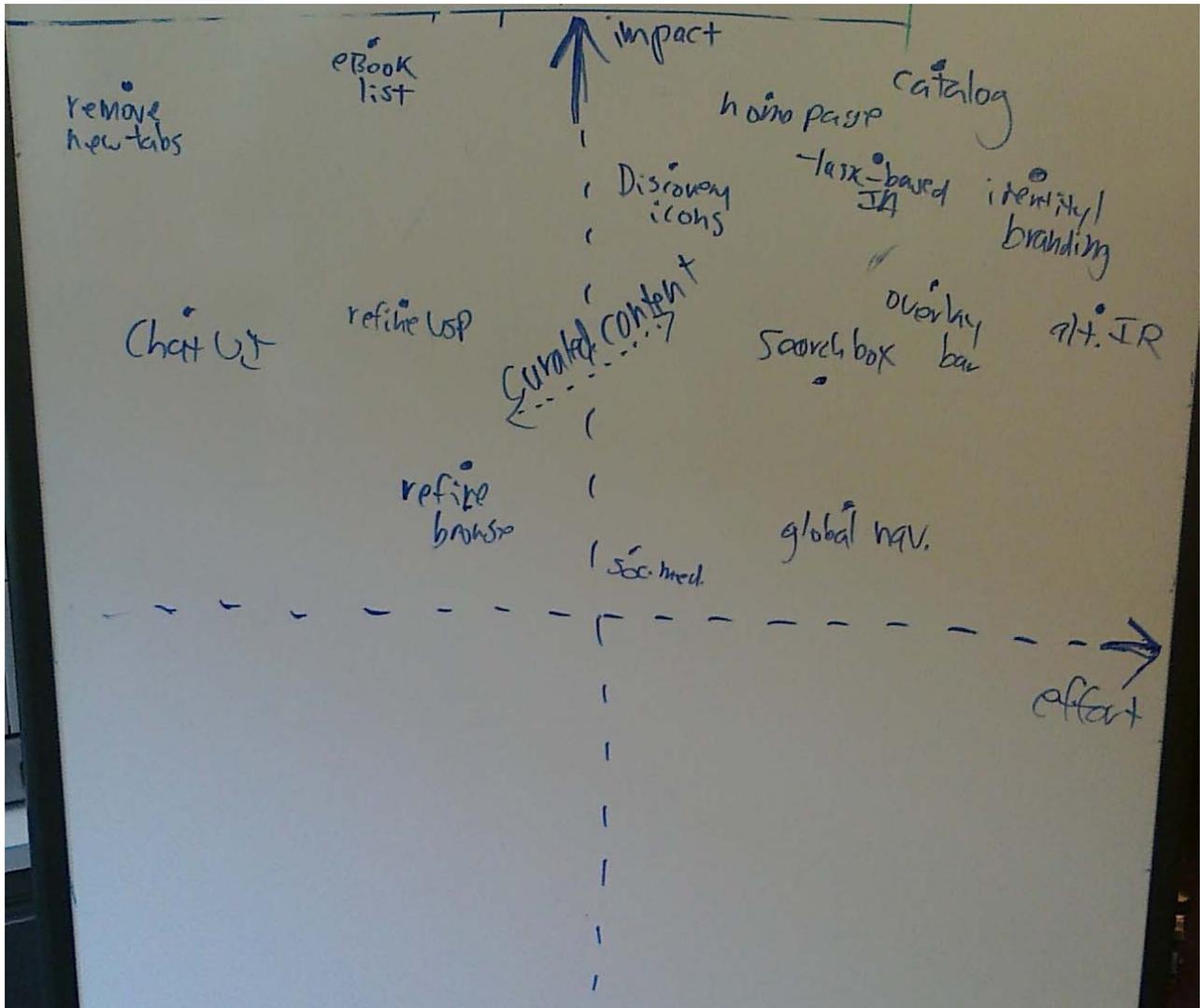
One approach for prioritization is to rank opportunities by the potential impact they will have on the user experience, and the effort they will likely require to implement.

We developed two rankings in this research.

The [first ranking](#) represents our own analysis:



The second ranking represents the brainstorming and rough consensus of the NC LIVE team:



The four quadrants in these rankings are often described in this way:

	High Impact	Low Impact
High Effort	Strategic/Long-term	Triage
Low Effort	Low-hanging fruit/Short-term	Backburner

Low-hanging fruit should be promptly addressed, while Backburner items can be filled in during the natural ebb and flow of the software development cycle. Strategic items should be analyzed by the design team to get clearer sense of the effort and complexity involved. Once a roadmap

for select strategic items is in place, following a user-centered design process (including early prototyping, and iteration based on user feedback) can help optimize the user experience of new features and design directions.

Items completed for launch include:

- Chat box widget improvements to clarify the purpose
- Browse changes in the main navigation: Removed A-Z & Discover, Added subjects with discover as sub-tree elements
- Category pages are now sortable by key concepts
- Text introducing NC LIVE is shorter and more meaningful
- Twitter feed renamed and expanded to 3 tweets to diversify content
- Social media icon bar moved to the bottom (less prominent)

Items pending further research & development:

- Reconfigure portal pages (jobs & business) to be less resource focused
- Find a new place for favorites on the category pages to highlight top resources in the category.
- Make updates to federated search to ease access.
- Explore new navigation methods, removing the navigation bar
- Improve FAQs & tutorials
- Explore prioritization of important content & resources
- Develop more curated, browsable content
- Map portals to users mental models & tasks
- Redesign access to journal & magazine titles