

**Optimizing the User Experience
in a Rapid Development Framework**

**COLLIN COUNTY GENEALOGICAL SOCIETY:
FOCUS GROUP DISCUSSION**

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Kathleen Murray
940-369-8395
kathleen.murray@unt.edu

University of North Texas Libraries
PO Box 305190
Denton, TX 76203-5190

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Introduction

IOGENE Project

The University of North Texas Libraries received a National Leadership Grant from the Institute of Museum and Library Services in December 2007 for a two-year project¹ to identify the user interface requirements of genealogists interacting with the Libraries' Portal to Texas History. The Portal provides users with a digital gateway to collections in Texas libraries, museums, archives, and historical societies, as well as to private collections. It contains primary source materials, including maps, books, manuscripts, diaries, photographs, and letters.

The IOGENE project involves genealogists in the design process beginning with the initial assessment of their requirements and continuing through usability testing of the redesigned Portal interface. The results of this study will provide the library community with information about the needs and interface requirements of a little-studied group of lifelong learners who comprise a significant proportion of digital library users. During February and March of 2008, three focus group discussions were held with members of northeast Texas genealogical societies. This is a report of the findings from the March 15, 2008 focus group discussion with members of the Collin County Genealogical Society.

Participants

Nine members of the Collin County Genealogical Society participated in the discussion. Participants were primarily females ($n=8$) and over the age of 50 (Table 1).

Years	#
51 - 60	5
61 - 70	2
71 - 80	2

Table 1. Age of Participants ($N=9$)

On average, participants have been doing genealogical research for 25 years. Their experience ranged from eight to 45 years. Only one reported having a professional genealogical credential, which was membership in the Association of Professional Genealogists (APG). However, over half reported having memberships and affiliations with local, state, and national genealogical organizations, including the National Genealogical Society, the USGenWeb Project, the TXGenWeb Project, and other genealogical societies.

Data Collection

The group discussion was led by the IOGENE project manager, who obtained each person's written consent to participate. The discussion was recorded and the audio recordings were subsequently transcribed by the project manager.

¹ Since being funded, a more descriptive project name was created: IOGENE - Interface Optimization for Genealogists. <http://iogene.unt.edu>

A slide presentation was used to guide the discussion, which explored these areas of the user interface to the Portal to Texas History:

1. Search
 - a. Search: Basic
 - b. Search: Advanced
2. Search Results
 - a. Search Results: List View
 - b. Search Results: Grid View
 - c. Search Results: Facet View
3. Descriptive Metadata
4. Object Navigation

Participants completed a questionnaire (Appendix A) that identified demographic characteristics and captured their ratings of possible new features for the redesigned interface to the Portal to Texas History. Additionally, participants ranked their preferences from among five object navigation screen designs for the Portal (Appendix B).

Data Analysis

The discussion areas also provided the overall framework for analyzing the content: Search (basic and advanced), Search Results (list, grid, and faceted views), Descriptive Metadata, Object Navigation (photographs, maps, multi-page documents), and Browse. Within each of these areas, the discussion content was coded as it pertained to each of the following categories:

- Preferences
Ideas, expectations, and preferred ways participants identified both for interacting with the Portal and for the Portal to function
- Terminology
Terms used in the Portal's interface that were not understood by participants, caused confusion, or were in some manner problematic
- Help
Participants' ideas regarding "help" features
- Problems
Problems participants identified either with the Portal or particular to genealogical research
- Suggestions
Participants' ideas for additional features

One additional category, called Experience, emerged during the discussion. This category included content related to the range of people comprising "genealogists", in particular, demographic and research characteristics such as computer expertise, education, and age.

The project manager and another project team member categorized the focus group content and resolved any areas of disagreement. The findings of the content analysis are reported in the next

section. The findings are followed by a section reporting the ranked results for the prototype object navigation options and for the new feature options. The closing section includes a summary of the key findings.

Findings

Search: Basic

Preferences

- Offer options of 'basic' and 'advanced' search on initial screen
- Default to basic or simple search box, with option for advanced search
- Fulltext search, so that a first search attempt is broad

Terminology

- Creator
 - Creator, as a search term, is not sensible: "Who's the creator? Why would I search for the creator?"
 - Not clear about the meaning of 'creator' versus 'author'. Is creator the creator of the digital object or the author of the work?
 - Creator, as a concept, is a broader term that might include 'author'
 - Recognize the term 'author' but are unclear about what 'creator' means
- Metadata
 - A few people say they don't know the term
 - One wonders how/if it is related to metatags in HTML
 - Intimidating to non-technical people and new computer users

Help

- Explanations for terms on simple search drop-down menu needed for beginners (fulltext, metadata, title, subject, creator)

Problems

- Lack of description about the Portal's resources on the initial search screen resulted in confusion regarding how to select an appropriate search limit term (fulltext, metadata, title, subject, creator)

Suggestions

- Initial search screen: "I need more information on that page to tell me what's in there for me to want to look at it, to tell me why I would want one of those topics."

- Use 'category' instead of 'metadata'
- Simple searches limited to an object type, for example, photographs
- Simple search screen with search boxes for 'place' and for 'surname', possibly including explanations or examples of what to include in the boxes
 - Could be accomplished by additions to the current drop-down menu
 - Perhaps radio buttons for the options would work

Search: Advanced

Preferences

- Select the highest possible number of records in search results to display; like to quickly scan search results; one even suggested 200 records was OK
- Have basic search incorporate advanced search features in the manner that Google does
 - Quotation marks used for exact phrase search
 - Multiple words: results first list items with all words, then items with more than one word (if applicable), then items with only one word
 - Minus sign in front of a term to exclude it
 - Combined phrase, in quotes, and single word(s)
 - Quote: "I did it the way that I would do it in Google, which is put "cotton mill" in quotes and then put McKinney. So, I'm thinking that I'm telling it that I want to know about a cotton mill, any photograph, any statistics, anything you have about any cotton mill that existed in the town of McKinney."
- Wildcards searching, using both question marks and asterisks, versus stemming because it appears to have more search precision or flexibility
 - For example: "J*" or "S?ll*" using wildcards versus a stem of "Jam" or "Sull"

Terminology

- Assumed displaying the lists in drop-down boxes would provide explanation of box labels, i.e., institution, collection, language, type
- Stemming would have to be explained

Help

- Offer a contextual help feature for :
 - Unknown terms (e.g., metadata)
 - By hovering or clicking
 - Quote: “The hovering thing drives me nuts and, if it's done, it needs to be done with restraint. If you hover and you just give me the alt-text, which is just a very small amount of text, that's a very excellent thing.”
 - Suggestions and examples for using search options (e.g., doing Boolean searches)
 - Explanations under search boxes

Problems

- One person desires to use keyboard controls versus her mouse, especially when using a laptop
- Stemming might be of some use but could introduce problems for surname searches :
 - “Barn” as a stem could bring up objects related to farm structures that would not be relevant
 - In the absence of the ability to search ‘given name’ and/or ‘surname’ stemming searches could produce irrelevant search results based on first names: “And specify surname or given name so that he doesn't get Barney Smith.”
 - This problem might be reduced if searches could be limited to a surname field in object records
- Certain surnames are particularly problematic for genealogists when searching collections that do not allow them to limit searches to a surname field. Examples that illustrate this include these surnames: Spain, Germany, Quick

Suggestions

- Wildcard search for names, i.e., question marks
- Soundex code searches for surnames
 - Use a character, for example a tilde, in front of a name (~Smith), to indicate a soundex search
 - Option in drop-down box
 - Checkbox option, similar to box for Source Material checkbox

- Option for name searches for 'names beginning with'
- If allowed in simple search box, have 'Help Feature' to explain how to do "advanced" searches (i.e., minus sign, quotes, etc.)
- Ability to limit searches to places and to names, particularly to surnames
- Possibly include option for simple surname search and for Boolean search on the same page
- Ability to search by county

Search Results: List View

Preferences

- Ability to filter search results by :
 - First name
 - Locality
 - Time frame
- Display by relevance, meaning those at the top are the best matches for the search criteria; those at the top include all of the search terms progressing to those with only one search term listed last
- Range of results that can be displayed: Not all but more than 10
- Metadata Missing from Record
 - Include some estimate of the date
- Clicking on Thumbnails
 - Some simply expected the object to be displayed
 - One not clear what would follow
 - If a photograph, would expect a larger photograph
 - If a journal or book cover, not sure
- Clicking on Title
 - If a photograph, would expect a larger version of photograph with additional information about it

- If a journal or book cover, not certain what would follow, but would like to see the Table of Contents for the object
- Portal Contents
 - Agreement that they are of value to family history researchers
 - Quote: "I would rather search for primary source documents than someone else's genealogy."
 - Agreement that they are of high quality
- Sorting
 - Ability to sort by any field in the record that is displayed with an object: title, date, creator
 - Add sort by collection²

Problems

- Specifically searching Gammel's Laws, it is not clear how to find a known volume and page from the resulting search results³
 - Quote: "I've learned how to get around it [the Portal interface] but I don't know how to use it."
- Not obvious if clicking on thumbnails displays pages that match search terms
- Hits in Text
 - Inconsistent display of 'Hits in text' resulting in tedious navigation to find search term within a document
 - Quote: "It doesn't always say "view hits". Sometimes it just says "more info" in some of the books that are in there that have been digitized like the Grayson County Pioneer People. It doesn't have - it supposedly has an index -- but yet it doesn't. It doesn't take you to the hits. You have to scroll through 50 or 100 pages looking for what you're looking for."
 - Why would objects be listed in search results without an indication of 'hits in text'? It seems that either there were hits in the text and this should be indicated in the search

² Could be some confusion between 'collection' and 'institution'.

³ This is a similar problem to finding a known 'author' reference in PERSI.

results or there weren't hits in the text and the object should not be included in the search results.

- Quote: "Well, I was going to say . . . for a beginning person, and even for a more experienced researcher, they're gonna say: It says "more info" but doesn't say "hits in text". So, they might assume, "Well, there's nothing there on what the surname or the search term" that they searched on, when in fact there is. I found tons of stuff when I was doing that. But you have to scan through it [the object] because it doesn't always take you to it. If there's no index, you really have trouble finding your page in the document."
- Use of 'hits' navigation in Heritage Quest is problematic as well in that HQ includes as a hit each occurrence of any search term, which can result in a number of irrelevant hits
 - Example: Searching for Sullivan and Mississippi returns hits for each term when the researcher is only interested in "Sullivans in Mississippi". Person would like to see hits only when these two search terms are in proximity to each other, or at a minimum on the same page.

Suggestions

- Descriptive metadata elements to include:
 - Collection object came from⁴
 - Size and download time
 - Type of document (newsletter, quarterly journal, diary, etc.); But one cautions not to do this for obvious types, like photographs
 - Quote: "I don't need to have 50 icons of cameras or 50 little books."
 - Faceted search results might address this
 - Date object last modified, which initially would be the date added to collection
- Highlight search terms in the search results
- Include a search box listing search terms on search results display so that searches can be modified
- Include option to search within search results
- Include ready access to the Index for any object that has an Index⁵

⁴ It is possible this participant confused 'collection' with 'institution'.

- Collections and multi-volume manuscripts
 - Ability to easily navigate to a display of all the volumes within a title or all the volumes within a collection (e.g., the Collin Chronicles)
 - Ability to view Table of Contents or Index for any volume
 - Example: The quarterly journals typical of genealogical societies provide indexes differently, some in the 4th quarterly journal and others in each journal
 - Good example: JSTOR
- Include “Back to Results” link to search results from individual objects or pages within objects
 - Quote: “That is such a frustration to where you're havin' to do your back-back-back-back and then occasionally you'll hit one of those funky websites that times itself out.”
- Indicate the number of hits in each text in the search results, not just a generic “hits in text”
- Add the ability to navigate objects with hits by selecting ‘first hit’, ‘next hit’
- Add the ability to browse multi-page objects
 - Quote: “Maybe your hit is on page 10 but the beginning of the paragraph or the beginning of the chapter is on a previous page. So, you need to be able to go back and see what it's talking about to get to your hit.”
- One participant would like to see search results include a larger thumbnail, a more prominently displayed description with search terms highlighted, and other metadata elements in a less prominent position with labels. It is important to this participant and others that search results be presented in an easy-to-visually-scan manner with enough descriptive information to evaluate them. If user selects an object in order to view more detailed information about it, include a feature to return to the search results.

Search Results: Grid View

Preferences

- Some have a preference for list view versus grid view
 - Quote: “I think I would prefer the list but I would prefer the list to be visually laid out in a much nicer layout.” Also, the critical information needed to evaluate objects has to be

⁵ This might be a navigational option on each page display.

included or time saved being able to scan a large number of objects will be lost in trial and error viewing.

- This critical information may be different for different people but seems to include title, date, creator/author, collection, number of hits.
- Some think the display needs to clearly list and indicate relevance and many want the search terms highlighted in the search results.
- Some prefer grid view because more results are visible
- No need to display field with blank value for missing data from object's record
- Number of thumbnails displayed
 - Some prefer a very high number (50 or 100) of thumbnails displayed in grid view because they can quickly scan certain object types, for example, photographs
 - Want option to select the number to display; not certain of optimal default number
 - Load time could be an issue
 - Monitor/display sizes vary and could be a factor
 - Vision disabilities are an issue for some people
- Format the search results for printing
 - Printer-friendly view need not include the icons
 - Quote: "But I didn't have any problems. And it captured the whole page of the results. I did not print the grid results."

Problems

- Uncertainty regarding what grid view was: "I didn't really know what it was about"
- When data is missing in an object's record it raises questions. Participant could not quite "accept" that at least a publisher, creator, or date could not have been ascertained for the following:
 - Quote: "Well, on the Mineral Wells guide: Guide to what? Guide to genealogy research? Guide to the city? Guide to the restaurants?"
- Not clear how relevance is displayed: left to right or first column top-to-bottom
- If the critical information for evaluation of search results is not included with objects, then what is gained by being able to quickly scan a number of objects is lost. This is because user must

select objects from the list and view their detailed information to evaluate them and then return to the results. This back-and-forth navigation is time-consuming and not desirable.

Suggestions

- Visual layout could be improved:
 - color scheme
 - placement of “sort” feature on right makes it easy to overlook
- A visual indication of the direction to “read” relevance: top to bottom v. left to right
 - Arrows
 - Stars with most stars in top row, followed by decreasing number of relevance stars in rows
- If user sorts by other than relevance limit the number of objects displayed
 - Quote: “For instance, if I've got 13,000 Smiths and I've sorted on relevance, that's great: I start at the top and work down. But if I sort on date, the most relevant one might be on the last page.”
- Ability to print or save search results for later use
- Ability to save selected search results for later use, including combining them with the results from a future search ; similar to ancestry.com’s “shoebox”
 - Quote: “The shopping cart feature where you can collect things to go back to.”
- Registration
 - If optional, then OK
 - Many prefer not to register at web sites
 - Summary Quote: “Registration is obviously a 'no-no', in my opinion. But if I did want to save, which I probably never would, but I think if the registration is set up being like a registration with multiple fields I had to fill out -- I think you should ask only for their email address, which is the simplest thing to identify the person and for them to be able to remember when they come back in, as opposed to a formal registration process.”
 - Only require email address to register; no password
 - In regard to adding comments, which most see as useful when monitored, some do not want to register in order to provide comments, while others think that is OK

- “Quote: “You all are missing it. What if it's somebody, a relative, and they could post a comment where you go under like a registered user, not where you have to have 20 jillion comments but if you were related to somebody in that picture and, hey, you wanted, you're trying to find people of that family, find people who went to that school.”
- Table layout for search results with clickable headings to sort the results
 - Enables quick scanning of results, which is important for many

Search Results: Faceted View

In the discussion, participants were shown a screen image of search results from Calisphere⁶. The results were sorted into 3 categories by type: images, text, and websites. They were also shown the following list of descriptive metadata elements and asked to consider how useful these elements would be as possible facets for grouping their search results.

- Place
- Creation Date
- Type/Format
- Collection
- Institution
- Creator/Contributor/Publisher
- Subject

Preferences

- Display results by:
 - Subject
 - Place
 - Type and format
- Seems just a different scheme for presenting results
- If ‘creation date’ is used, possibly expand this to include date the object was created originally and the date the object was included in the digital library

Terminology

- Creation date is not clear: does it refer to the date the object was created in its original type or the date when it was added to the digital library

⁶ <http://www.calisphere.universityofcalifornia.edu/>

Metadata

Preferences

- Size of thumbnail in metadata record display is fine
- Expected to be able to download photographs by right-mouse clicking on them
- Layout ideas from one participant
 - Navigate easily to an object's collection by clicking on the collection name
 - Locate image of object on the left of display
 - Make 'description' bigger and more prominent
 - No need to use term 'description'; it's obvious in context of display
 - Display more detailed metadata with labels lower than the more prominent fields, like 'description'
- Display source citation; can copy and paste
 - Text format; no standard but include where viewed and date viewed
 - Genealogy research standard for documenting websites as sources requires the URL and the date accessed
- Printer-friendly option for readily copying and pasting citation information or specific fields in the metadata record so that it does not have to be removed from a table prior to pasting into another application
 - Not sure what specific fields should be included in such a printer-friendly view, likely the URL
 - One participant indicated image and description could be in one table cell and this would make it simpler to cut and paste
 - Need to make key metadata elements easily available for cutting and pasting; not certain what those elements are; these should be made available in a 'printer friendly' version
- When printing an object, include the "documentation", for example, beneath a printed photograph
 - In particular, include the permalink and the date the object was accessed/printed

- One thought the permalink did print with the object as well as the date it was accessed; saved these print-outs for later work
- Comments
 - For a photograph, ability to comment regarding the content as well as any errors in the metadata record
 - One participant cautions: keep the Portal easy to use for less experienced users
 - Provide guidance for types of comments desired and have these monitored prior to publicly posting
 - Quote: "You don't want to be reading through 430 comments that says: "Great picture!" "Wow" "That's really great!" or "I was at that picnic in 1961 and I didn't get my picture taken."
 - Most do not want to page through a great number of relatively insubstantial comments
- Most do not want to change the metadata record directly
- They make a distinction between adding comments and reporting errors. The former, with monitoring, allows for connections among users, while the latter informs UNT directly of mistakes that they can review for correction

Terminology

- Metadata
 - Quote: "This is kind of a revelation because I've been seeing metadata for the last hour that we've been here and I really didn't get what it really was [lost words] a catalog."
- Permalink
 - Only recently encountered by one participant
 - Quote: "I think it's going to need more explanation. Like, "Please use this URL for external references", that makes sense to me but only because I already know what a permalink is. If I didn't know what it was, I wouldn't know why I would care, why I would use it, and that one sentence there isn't going to be enough to explain it to me."

Help

- Include a "What's This?" feature next to terms, like permalink, to provide definitions in pop-up windows

Problems

- Quote: “I find that there's probably useful information in there that I might be interested in, but I've got to really struggle to read those labels and really struggle to find the one particular one that I'm interested in.”
- One user was not aware that they could navigate to a collection from the metadata display for an object
- Copying metadata information from a table requires pasting it in another application and removing the table structure

Suggestions

- Copyright information field ; seem to understand its importance for object reuse
- Indicate what image sizes are available for download; include a high resolution option
- Include a clickable ‘comments’ feature that provides two options: “read comments” and “leave a comment”
- Perhaps include a clickable ‘report errors’ feature – as a separate feature from the commenting

Object Navigation

Preferences

- Metadata fields to include with object on initial display:
 - Date of the item (versus date added to the collection)
 - Brief description
 - Location⁷
 - Quote: “I would repeat a little bit just so that I refresh my memory but not try to duplicate.”
- Ability to print or capture the object with the minimal/key descriptive metadata elements
 - This would be a particular value to naïve computer users who will likely just print the web page from their browser because they do not have skills to copy and paste the desirable metadata fields for documentation

⁷ Discussion slide was a photograph.

- Genealogists want to capture objects of interest to their research. They also want to document their sources. Depending on their computer skills, they accomplish this by cutting and ‘pasting special’ or by other means or by simply printing hard copies. The following would be useful to genealogists⁸:
 - Printer-friendly objects with critical descriptive metadata, the permalink, and the date accessed or printed.
 - Image download capability, including critical descriptive metadata, the permalink, and the date accessed/downloaded.
 - The critical descriptive metadata needs to be confirmed
- Zooming in to view the detail in maps and photographs is important
 - This is preferable to viewing static images in small and larger sizes
 - Quote: “For instance, if there's a little lapel pin on a military guy or something [and] you wanna see what regiment he's in, then you go down on that.”
- Several participants would like a printing option to only print the area of an image that is on the screen, which could be part of a map or a name on a document like the census
- Rotating images might be important for printing
- Regarding the size of an image on the screen :
 - As printing options sometimes have a ‘print to page’ option, have a viewing space option for “fit to screen”
- Size of the viewable image did not seem too material; zooming in was a key feature
- Navigational controls on map
 - Move them one side of the image
 - Don't include in printout
 - Option for user to move them on screen
- “Return to results” link on object display
- Return to view of all pages for a multi-page object

⁸ This point is a summary point from the discussion.

- Original pages without page numbers should have some text listing in the page listing, for example, title page or cover
- Participants see value in using page numbers to jump to certain pages
 - Example: A known page reference, perhaps found in the Table of Contents
- One participant prefers to have clickable page number navigation at top and bottom of multi-page objects, versus the drop-down menu
 - Quote: For objects with alphabetized content (e.g., burial lists), “I can kind of estimate that, well if there's 33 pages total and the name I want starts with an "I", I go to page number 12, and then see am I close to the "I's" or not and then maybe back up then go forward.”
- Navigating multi-page documents by clicking on sides for forward and reverse paging is a desirable feature; this feature could be made more obvious
- Using arrow keys to navigate multi-page documents is preferable for a person who wants/needs to limit their mouse use
- Including a navigation option by adding ‘hits in text’ for “first hit”, “next hit” on the initial display of a multi-page document is desirable
- Participants desire to have search terms highlighted in description on Search Results page. When they navigate to a page with a search term ‘hit’ they like to have their search term(s) highlighted.
 - When printing pages with highlighted on-screen content, remove the highlighting so that text is not blotted out in printout [Note: One participant indicated the highlighting was a slight graying that did not interfere with reading Portal objects.]
- Preference for label of drop-down menu for multi-page objects to be “page” instead of “sequence”

Terminology

- Sequence
 - One participant said they ‘didn’t know what that meant’; preferred ‘page’

Problems

- Downloading objects:
 - Quote: “One of the biggest frustrations in teaching new users is they download stuff and then they never find it again.”

- Navigating to a multi-page object from search results
 - Participant was confused about what to click to get to the multi-page document display
 - Quote: “Is this what you get when you click on the 'more hits' or the 'more info'? Is this where it would go?”
- Could not get to a page listed in the Index of a multi-page document object. The Index itself was accessed from a search results page
- Discrepancy in use of ‘page’ and ‘sequence’ as labels for drop-down page numbers for multi-page objects

Suggestions

- If a multi-page object is organized alphabetically, allow page access by a alpha list in addition to a page number list
- Identify the Index in the page list if one exists for an object
- Identify the Table of Contents in the page list, if one exists for an object
- Participants commented that their preference for ‘larger object, limited metadata’ versus “smaller object, richer metadata” depended on both the type of object and the user’s research purpose. For example, users would in general like to see larger map displays with limited metadata but recognize this might not be the preference of a map collector.

Experience

- Initial search screen: Beginners need explanation of what terms mean, for example, fulltext, metadata, title, subject, creator
- Metadata is an intimidating word to new computer users
- Wide range of education among genealogists, from highly degreed to no college education
- Beginning researchers/searches will not be familiar with using Boolean search terms or Google-like shortcuts (+, -, “”) in the simple search box. They need more help.
- Pasting citation information from tabular formatted data on webpage
 - Quote: “I do a 'paste special' and you can format it to text. But new people on the computer aren't going to know that they can do that.”
- In regard to adding comments, keep the interface user friendly; be careful not to make it too complex

- Quote: "I mean we've got people in here that are all different steps of being able to do things. But I think that we need to make it user-friendly because it's such a wonderful thing."
- In regard to capturing objects from object display screen:
 - Quote: "For new users, because I've trained a lot of new users in genealogy stuff, and one of the things that they don't have a lot of savvy in is: "How do I download a picture?" "How do I download this?" "How do I copy/paste something?" So, they will just go up and do a print and print the picture so they can just put it in their binder or whatever. So, at least the date and location would be good information."

Ranking Results

In conjunction with the focus group discussion, participants ranked their preferences for five object navigation prototypes and for 10 potential new features. To provide perspective, results are reported for this group and for the aggregate of the three focus groups.

Object Navigation Rankings

Participants ranked screen images of the five object navigation prototypes included in Appendix B. Table 2 lists the results for this focus group (*N*=9) and for all three focus groups (*N*=19). The ‘Tabs and Widgets’ prototype ranked first (Figure 1), both for this group and all groups.

Option	Title	Group (<i>N</i> =9)		All (<i>N</i> =19)	
		Rank	Average	Rank	Average
6.5	Tabs & Widgets	1	1.3	1	1.7
6.4	Tabs & Collapsed Menu	2	2.9	2	2.7
6.1	Tabs	3	3.1	4	3.5
6.3	Widgets	4	3.8	5	3.7
6.2	Collapsed Menu	5	3.9	3	3.4

Table 2. Ranks for Object Navigation Options

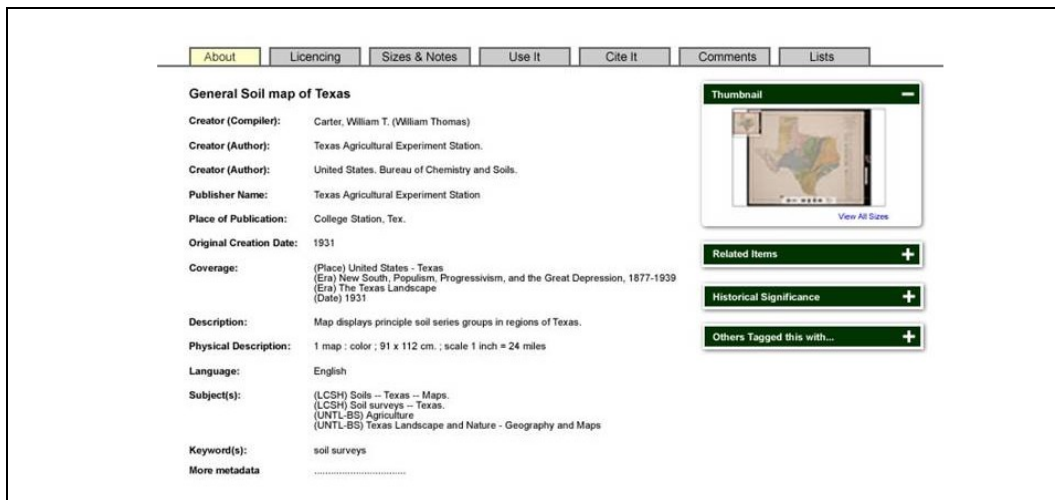


Figure 1. Tabs & Widgets Object Navigation Prototype

Feature Rankings

Participants were asked to indicate, by marking “yes”, “no”, or “don’t know” on a questionnaire, if they would like the Portal to Texas History to allow users to have each of the features listed in Table 3. The results were tabulated and the features were ranked by the percentage of users indicating “yes” for each feature. Table 3 lists the features in rank order, both for participant responses in this focus group (*N*=9) and for participants in all three focus groups (*N*=19).

Feature	Group (N=9)		All (N=19)	
	Rank ^a	%	Rank ^a	%
Save items (images, maps, letters, etc.)	1	100%	1	100%
Save search results	2	78%	2	94%
Access personal search history for an active session	3	67%	3	84%
Add items to personal “favorites”	3	67%	4	68%
Comment on items	3	67%	4	68%
Build and maintain lists of objects	6	56%	6	53%
Comment on comments written by others	7	44%	8	44%
Receive RSS feeds of search results	8	33%	9	42%
Annotate images (like Flickr)	8	33%	7	50%
Rate items on a historically significant scale	10	22%	10	29%

^a Some functions had tied ranks.

Table 3. Ranks for New Features

This group comprised roughly one-half of the total number of focus group participants. Their top three feature rankings matched the overall rankings and there is little variance between their remaining rankings and the overall rankings.

These results echo ideas from the group discussion, in particular participants’ strong interest in saving items. They also indicate their relative lack of interest in some features not specifically discussed, such as rating the historical significance of objects. The results also suggest participants may be interested in one feature that was not discussed: adding items to personal favorites.

Closing

Summary

A presentation of screen shots from the Portal to Texas History guided this focus group discussion through four topics: searching, search results, descriptive metadata, and object navigation. The participants indicated their preferences and made suggestions for optimizing the Portal's interface for genealogists. They also identified problems with the existing interface. The key findings follow.

- More experienced users expect to do advanced searches from the basic search screen employing Google-like features for phrase and Boolean searches. Users want to use wildcards when searching and see this feature as more beneficial than stemming, which they anticipate might produce irrelevant results. Surnames are fundamental search terms for genealogists, who would like to have an option for surname Soundex searches.
- Participants expected search results to be listed in relevance order, that is, results with all search terms would be listed first. They would like search terms highlighted in search results and want search terms displayed with search results, optimally in a search box that could be used to modify searches. The critical descriptive information elements (i.e., metadata elements) to display with objects in search results were not definitively identified but might include title, date, creator/author, collection, and number of hits. However, name, location, and timeframe are also key information elements about objects and users would like to limit or filter search results by these elements.
- When users click on thumbnails and titles for images (e.g., maps and photographs) in the search results, they expect to see larger images. However, they were not certain what to expect by clicking on thumbnails and titles for books and journals. It was suggested that accessing either the contents page or the index would be desirable.
- Users often like to quickly scan search results and some prefer the grid view for this because more objects are included on a page than in the list view of search results. It is confusing that the search results do not provide a 'hits-in-text' indication for all text objects listed. Why would objects be listed in search results if the search terms were not found in the text? Problematically, one user reported finding search terms in documents even when the search result did not indicate there were 'hits-in-text'.
- Users want to cut and paste descriptive information elements for citations. At a minimum, genealogical citations should include an object's location and the date it was accessed. It is best if citation information is presented in a simple text format and not in a tabled format. Users would also like to access a printer-friendly view of object metadata and they want citation information printed along with objects. Additionally, saving objects locally is important to genealogists, who want minimal descriptive data saved along with objects.
- When viewing objects, zooming in is very important for many object types in order to see details. Likewise, participants indicated they would like to add and to view comments as well as to submit error reports. Some prefer not to have to register in order to do this. All agree that

any registration process should be very simple, for example, requiring only a user's email address.

- Users like to navigate easily among the hits in text objects. For all object displays, it is important to be able to easily return to search results. The use of sequence numbering for multi-page objects is very confusing as are empty values in page and sequence drop-down menus. Additionally, it is problematic when page numbers in an Index do not match numbers in navigational drop-down menus.
- Participants were sensitive to the range of computer experience characteristic of persons doing genealogical research. It would be helpful for first-time visitors to the Portal to immediately get a sense of what content is available. While having a simple search feature readily available is desirable, less experienced computer users will need more contextual help regarding formatting searches. They also need more obvious features to assist them with saving objects and citations. Many users would benefit from having contextual definitions for unfamiliar or ambiguous terms, such as creator, creation date, and permalink.

Future Work

The findings from this group were subsequently combined with the findings from the two other focus group discussions. An analysis of the combined findings resulted in the development of a set of functional requirements that will guide the redesign of the interface to the Portal to Texas History⁹. The redesign will be done in a series of releases in 2008 and 2009. Users from genealogical societies in northeast Texas will once again be involved in testing the usability of the redesigned interfaces. Their feedback will continue to guide the redesign efforts that are a core focus of the IOGENE project.

⁹ Murray, K. R. (2008). *Functional requirements for the Portal to Texas History*. Denton, Texas: University of North Texas, University Libraries, Information Technology Services.

Appendix A Participant Questionnaire

1. What is your gender? Female Male

2. What is your age group? (*check one*)

<input type="checkbox"/>	21 - 30	<input type="checkbox"/>	41 - 50	<input type="checkbox"/>	51 - 60	<input type="checkbox"/>	71 - 80
<input type="checkbox"/>	31 - 40	<input type="checkbox"/>	51 - 60	<input type="checkbox"/>	61 - 70	<input type="checkbox"/>	81 - 90

3. How many years have you been doing genealogical research? _____

4. Please indicate if you hold any of the following professional genealogical credentials.

	Yes	No
Membership in the Association of Professional Genealogists (APG)	<input type="checkbox"/>	<input type="checkbox"/>
Certification by the Board For Certification Of Genealogists (BCG)	<input type="checkbox"/>	<input type="checkbox"/>
Accreditation from The International Commission for the Accreditation of Professional Genealogists (ICAPGen SM)	<input type="checkbox"/>	<input type="checkbox"/>

5. List any other genealogical credentials or affiliations that you have:

6. Please indicate if you would like the Portal to Texas History to allow users to:

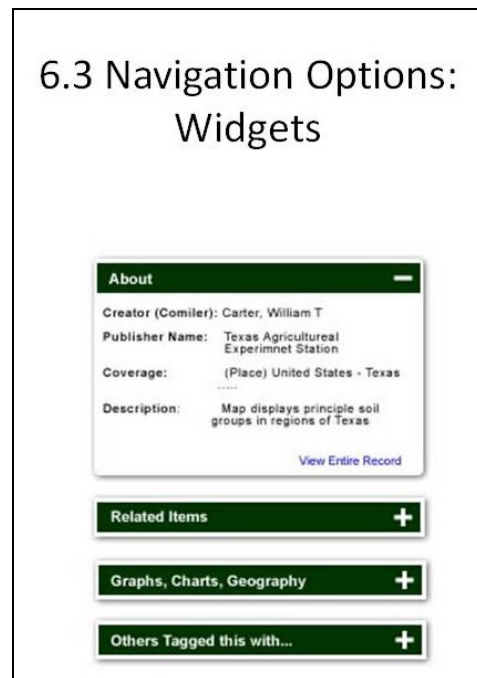
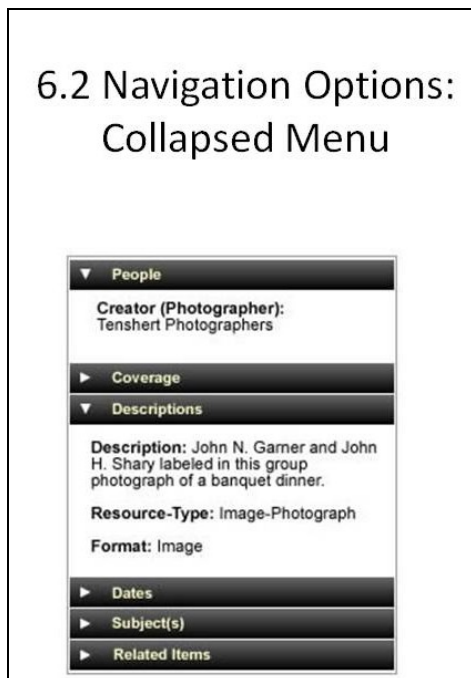
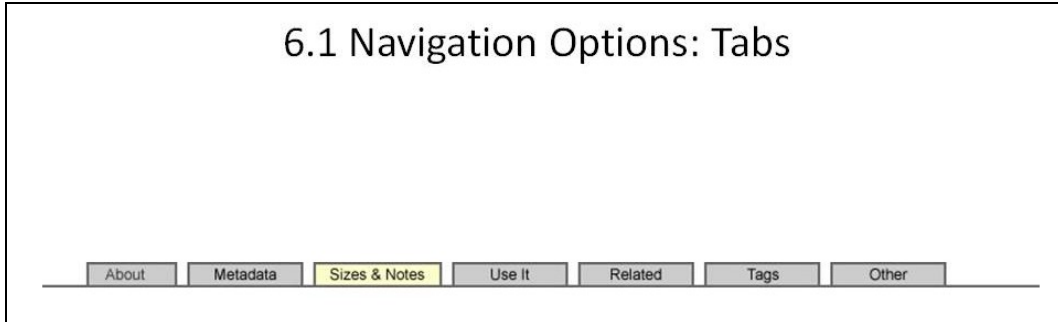
	Yes	No	Don't Know
Save search results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receive RSS feeds of search results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access personal search history for an active session	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Save items (images, maps, letters, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Add items to personal "favorites"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rate items on a historically significant scale	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annotate images (like Flickr)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Build and maintain lists of objects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comment on items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comment on comments written by others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Please indicate if your browser has:

	Yes	No	Don't Know
Flash installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
JavaScript enabled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Your additional comments are welcomed. (*Please use back if more space is needed.*)

Appendix B Object Navigation Options



6.4 Navigation Options: Tabs & Collapsed Menu

This image has notes. [Mouse over the image](#) to see them or [login](#) to add your own.

Available Sizes:

- [Square](#) 787px
- [Thumbnail](#) 475px
- [Medium](#) 940px

[Download the Original Size](#)

Collapsible Sidebar:

- ▼ People
 - Creator (Photographer): Tensher Photographers
- ▶ Coverage
- ▼ Descriptions
 - Description: John N. Garner and John H. Shary labeled in this group photograph of a banquet dinner.
 - Resource-Type: Image-Photograph
 - Format: Image
- ▶ Dates
- ▶ Subject(s)
- ▶ Related Items

6.5 Navigation Options: Tabs & Widgets

Navigation Tabs: About | Licencing | Sizes & Notes | Use It | Cite It | Comments | Lists

General Soil map of Texas

Creator (Compile): Carter, William T. (William Thomas)
Creator (Author): Texas Agricultural Experiment Station.
Creator (Author): United States. Bureau of Chemistry and Soils.
Publisher Name: Texas Agricultural Experiment Station
Place of Publication: College Station, Tex.
Original Creation Date: 1931
Coverage: (Place) United States - Texas
 (Era) New South, Populism, Progressivism, and the Great Depression, 1877-1939
 (Era) The Texas Landscape
 (Date) 1931
Description: Map displays principle soil series groups in regions of Texas.
Physical Description: 1 map : color ; 91 x 112 cm. ; scale 1 inch = 24 miles
Language: English
Subject(s): (LCSH) Soils -- Texas -- Maps.
 (LCSH) Soil surveys -- Texas.
 (UNT-BS) Agriculture
 (UNT-BS) Texas Landscape and Nature - Geography and Maps
Keyword(s): soil surveys
More metadata

Widgets:

- Thumbnail (with "View All Sizes" link)
- Related Items (+)
- Historical Significance (+)
- Others Tagged this with... (+)