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

**DALLAS GENEALOGICAL SOCIETY:
FOCUS GROUP 2 DISCUSSION**

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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 project[1] 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 30, 2008 focus group discussion with members of the Dallas Genealogical Society.

Participants

Six members of the Dallas Genealogical Society participated in the discussion. Four participants were females and two were males. All participants were over the age of 50 (Table 1).

Years	#
51 - 60	2
61 - 70	1
71 - 80	3

Table 1. Age of Participants (*N*=6)

On average, participants have been doing genealogical research for 20 years. Their experienced ranged from 12 to 33 years. Only one reported having a professional genealogical credential, which was membership in the Association of Professional Genealogists (APG). Over half reported having memberships and affiliations with local and national genealogical organizations, including the National Genealogical Society and other genealogical and historical 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.

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[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
3. Descriptive Metadata
4. Object Navigation
5. Browse

In contrast to two earlier focus groups, participants in this group were shown slides depicting prototype displays and features as part of the overall discussion. These included a basic search screen, both timeline and map displays of search results, limited and full metadata displays, a book navigation feature, and an object rating feature.

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 facetted 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

- New Features
  Participants' ideas and reactions to prototype displays of new features

One additional category, called Experience, emerged during the initial focus group discussion and was added to subsequent analyses. 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

- Many prefer to start with an 'advanced' search versus a 'basic' search

    o Example: Search on a surname and limit the search to a state and a county or to a county and surrounding counties.

- Three primary search parameters:

    o Name: primarily surname, also full name

    o Location: primarily county, also town or township; including :

        ▪ place names that are commonly known or used but may not be actual cities, towns, or townships

        ▪ defunct cities and towns

            • Quote: "Like the Handbook of Texas - if you put a defunct town in there, it will come up and tell you everything that they have pertaining to that name."

    o Date: time period, i.e., a date range

- Ability to select a collection (e.g., Collin County Chronicles or STIRPES) and then search within the collection for a particular county

- Ability to search within search results (e.g., for a town within results for a county)

    o Quote: "So, if I start out with Dallas County but I'm really wantin' to whittle it down to Mesquite. Then I take the search that I've already got active there and refine it by looking for the keyword 'Mesquite'."

- Perform a phrase search, whether or not user encloses the phrase in quotes

    o Example: When a first name/last name pair are entered in basic search box, search results should include both names appearing adjacent to each other and not simply any appearances of either name

Terminology

- Creator

    o Not certain many would use this

- o Not certain who created the record, so, not certain what they would be searching by selecting 'creator'

- Metadata

    - o While some people know what this means, most people don't

    - o Example of confusion:

        - ▪ "Well, most people think of metadata as keywords." "I don't think of metadata as keywords at all. Metadata is something that's attached to an image."

- Fulltext

    - o Seemed to be understood: "somewhere in the document"

    - o There was some general confusion regarding fulltext searches when a full name (e.g., Martin Varner) was entered in the basic search box: Does the Portal do a fulltext search using both names appearing adjacent to one another, whether or not the two names are enclosed in quotation marks? Some thought yes; others thought no; others were uncertain[2]

        - ▪ Quote: "It treats it as separate Boolean objects."

        - ▪ Quote: "It gives you the same thing. I searched for Martin Varner. It found all the Martins and all the Varners and a few Martin Varners."

- Some agreement to using 'keyword' to replace both 'fulltext' and 'metadata'; keyword is familiar to most people from other search sites

Problems

- Searching for a town or community name and the county it is in results in too many results not related to the specified town or community name, for example, searching for 'Mesquite, Dallas County'

- One person seemingly expected the sort parameters on the search results page to change the results of the search

Suggestions

- Identify other web-based resources, like the Handbook of Texas, and submit search criteria to those sites. If that search produces results, alert Portal user and allow user to easily switch between the Portal and the external site(s)

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[2] Participants experience and related opinions might be based on whether their particular name pair actually appears together in any of the Portal's objects, versus only appearing separately.

- o Handbook of Texas Online
  http://www.tshaonline.org/handbook/online/

- o Quote: "Just link to the Handbook of Texas with that town name and more than likely it already has something about that town there."

Search: Advanced

Preferences

- Perform 'exact phrase' searches from basic search page, whether or not the search terms are enclosed in quotation marks

- Liked the ability to include and also exclude certain search terms

- Ability to enter two exact phrases, for example, by enclosing separate phrases in quotation marks

  - o Provided example of this ability: Library of Congress – OCLC – Advanced Search

    - ▪ http://www.loc.gov/coll/nucmc/oclcsearch.html

- o Add 'surname' field

  - o Soundex searching; definitely for surnames; possibly for place names

    - ▪ Quote: "Any foreign name that you could do. I mean, it can be an option on the list."

- Stemming

  - o Useful for names to find variations in spelling of names

  - o Not useful for finding common abbreviations of names (e.g., Wm. for William)

- Selecting an institution from the drop-down menu limits the selections in the 'collection' drop-down menu to the collections held by the selected institution

- Expect publications of genealogical societies (e.g., Collin Chronicles and STIRPES) to be listed as 'collections'

- Name Searches

  - o Definitely include field for 'surname'; optionally include given or first name; optionally include middle name

- o If user provides both a surname and a given name, join the two names and **only** do an exact phrase-type search

    - If no middle name or middle initial is specified, include any in search results; the important point is to only return the specified given name – surname pair

    - Do not 'automatically' produce results based on the appearance of either name in objects

    - Quote: "Because I've been to some databases that have a box for 'given' and 'surname' and they don't put 'em together."

    - Quote: "When you're looking for 'Gene Bowen' you want 'Gene Bowen' to come up and no one else."

Problems

- Expected both 'Collin Chronicles' and 'STIRPES' to be listed as collections; neither is in the collection drop-down menu on the advanced search page nor in the 'browse by collection' page

Suggestions

- One participant identified the following site as having a 'better than Soundex' feature for name searches: Name Thesaurus – site includes a demo for surnames

    - o http://www.namethesaurus.com

New Features

Initial Search Display
- Genealogists search by: name, location, timeframe

- Some rarely use basic search; preference for advanced search

- Object 'type' follows these three as a priority for searching

Search Results: List View

Preferences

- Sorting Categories

    - o Relevance category is important

        - How 'relevance' is determined is key to its usefulness to researcher(s)

            - Quote: "It depends on the kind of researcher you are. That's why I said the weighting is important."

- ▪ Weighting for genealogists:

    - • First: Surname

    - • Second: Location

    - • Third: Date

  - ▪ For genealogists: 'title' and 'creator' do not matter (in the sense of determining relevance)

  - o One person found sorting by date (oldest) helpful in quickly discovering items of interest

- • Display of 'empty' 'date' and 'creator' fields

  - o One inferred that the object had no date

  - o One felt 'awkward' and suspected they were "not getting good information"; questioned the quality of the metadata but acknowledged this was an initial emotional response to the empty fields

  - o Another understood that some objects would not inherently be dated but stated "creator means nothing at all"

  - o When objects are missing dates, attempt to date them in some way. For example, photographs could be dated by the photographer's life span.

  - o Omitting the date field in the display suggests that 'date' was not included in a search; dates are a top priority search parameter for genealogists so populating the date field in metadata records is very important

  - o A few preferred to omit empty fields from the display; one offered the opinion that sorting the results would put those objects with empty fields at the bottom of the results

- • Display search parameters with the search results

  - o This is a key feature; nice to know entire search history but very important to know what the current search terms were

- • Ability to access previous search history and re-run searches

  - o Seems particularly important to genealogists who conduct name searches using a number of variations for a single name

  - o More critical when search session extends over several hours or when there are interruptions in the search session

- o Quote: "I can't tell you how many times I've done a search and couldn't remember how to spell the last name."

- o Quote: "Actually I can do 20 at a time, in 20 different windows, and I need that search criteria."

- General agreement that clicking on either the thumbnail or the title will bring up the front page of the object

- There is no need for the ability to 'search within search results' if the advanced search screen has the necessary features to limit searches (e.g., searching using two exact phrases and searching by name, location, and date range)

- Ability to refine the current search, possibly by having a link to return to the current search screen

- Highlighting search terms where they appear in the metadata displayed in the list view of the search results is desirable; one understood that it seemed unlikely that there would be many matches in that brief display

- Number of items to display

  - o correlates with speed of Internet connection; faster connection-more items; slower connection-fewer items

    - ▪ Quote: "Most people do not have high speed."

  - o Provide options for users to select

- Opening objects from search results

  - o Always open objects from any type of search results display in a new window or a new tab

- Hits-in-Text

  - o Many thought it desirable to indicate the number of hits in each object

  - o One thought it OK that clicking on 'hits-in-text' would display a table identifying pages with hits, similar to Net Library

  - o Another thought it OK for thumbnail not to open to first page with hits as long as there was a hits-in-text link in the search results

  - o Quote: "Heritage Quest offers goin' to the book, goin' to the hits', and it's very confusing which link to really hit on to get to where you're going the fastest."

- The primary goal of searching is to find objects containing search terms of interest to the researcher

    o Design navigation to easily display terms found in objects: Search → Search Results (with number of hits displayed) → Display of first hit

    o Quote: "The most information in the least amount of clicks."

    o Quote: "My pet peeve with web sites is if you have to click through more than three screens to get to the end result. It's one too many."

Terminology

- Relevance

    o Has no meaning: "Relevance to what?"

    o One person suggested that "Relevance might be number of occurrences rather than relevance."

        ▪ Several agreed with this

        ▪ One, who seemed to be knowledgeable of how relevance was determined, only agreed somewhat

- The meaning of 'more-info' is not intuitive

    o A few thought this was a link to the objects, specifically to the appearance of the search term(s) in objects

    o Some understood that it linked to more information about the object

    o Familiarity with the Portal seemed to be a determining variable for understanding what 'more-info' implied

    o One confused 'more-info' with 'hits-in-text'

Problems

- Date Field

    o Formatted as 1961-12; this is confusing

    o Quote: "Now, a genealogist would say: "1961 – 2012.""

- Getting to the appearance of search terms in objects

    o Several expected to get there from 'more info' link

- o Most expected title and thumbnail to link to object's cover page, not to appearance of search terms in object

- o Quote: "What gets you to the results of the search?"[3]

- Display of objects from any search results

    - o Many expressed a strong preference for objects to open in new windows or tabs and a corresponding frustration with sites that do not do this

        - ▪ Having to use the back button many times to return to search results

        - ▪ Displaying objects on top of search results page; unable to switch between search results and object display

- Hits-in-Text indication

    - o The results for some objects indicate hits-in-text but not for all objects; this begs the question: "Well, if there're no hits, why are we even seeing it?"

Search Results: Grid View

Preferences

- One user stated a preference for both list view and grid view of search results

    - o Grid view useful for quickly reviewing a large number of results; image often gives enough clues for quick evaluation

    - o List view useful for more in-depth review of results

- Descriptive metadata displayed

    - o One thought it was insufficient because the hits in text would still have to be viewed

    - o Several agreed that displaying the number of hits would be good to include

Search Results: New Features

Texas Map View
- Several thought a map view of search results by county would be useful

    - o In particular for a name search when a county of residence was unknown

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[3] 'Results' meaning the actual appearance of search terms, not the search results page.

- Would identify the geographical location of counties within the state

- Would identify the county in which a city was located

Timeline View
- Clicking on the bars in the timeline to view results appears to be intuitive and desirable to many

- Ability to select multiple 'bars' (to display their results)

- Have results associated with a bar open in a new window or a new tab

- Include functionality to right-mouse click on a bar and display the results associated with it in a new window

Search Results Page
- One liked this proposed presentation of search results; most indicated they liked the icons

  o Quote: "To me, it's more user-friendly."

- Indicate the number of hits in each object

- Replace 'metadata' with another term, perhaps 'item information'

  o Quote: "Because you're talking about the specifics of the item, the photo you're getting, when it was taken, where it was taken."

  o For the most part, people do not know what metadata is/means

  o Quote: "It's far more technical and in terms of verbiage you want to be able to communicate with the broadest audience possible."

Metadata

Preferences

- Metadata to display along with objects in search results depends on the object type and the search results view

  o Date and location seem important for all objects

  o People and place names are important for images: photos and maps

- Prefer not to allow users to edit metadata but would like a place on Portal to:

  o report errors

  o identify people in photographs

- Links in metadata

  - Include key for any notations on the page

  - Use a commonly used convention

    - Quote: "I think that would be preferable. I mean, some people might still have to learn what it means."

  - Have any linked content open in a new window

    - Quote: "That's what gets you lost in navigation."

- Citation

  - Providing citations is useful and genealogists are moving to standardize their citations

  - Both Chicago Manual style and Elizabeth Shown Mills style guide are in use

  - Citation should accompany objects when they are downloaded

    - Some might prefer to have all of the descriptive metadata downloaded with the object

- Get Objects: Download, Print, Save, Purchase

  - General agreement that users want to download images

    - Quote: "Because of, say, one of those people in that photo was one of your ancestors, you would want to be able to add that to your collection - that photo."

  - Assumption that a user can 'right mouse click – save as'

  - Suggest having ability to download images in various formats (gif, jpeg, tif) and both low and high quality resolutions, or a range of sizes

  - Include a 'download link' that allows users to select the format and type they want to download

    - Have a default format that is optimized for lower speed Internet connections

  - Recommended example: Bureau of Land Management

    - US land records: jpeg, small TIF, large TIF, and PDF

    - http://www.glorecords.blm.gov

- Copyright

    o General interest in knowing copyright information for objects

    o Provide the contact information for request to publish objects

    o Genealogists deal with both personal family-owned information sources and published sources

        ▪ Quote: "That whole area is a real confusing area for genealogy."

    o Copyright information should be downloaded with objects

    o Only one person had heard of Creative Commons

Terminology

- Permalink

    o Most genealogists won't know what that term means

    o It is important, however, and should be included as part of the citation for each object and downloaded with the object.

Problems

- Metadata for many photographs does not include names of people or dates, only locations are specified

    o Such photographs are of little or no value to genealogists

    o Quote: "It's nice to have photos but if you don't know who's in them, they don't do a lot of good."

Suggestions

- Include defunct Texas cities and towns

    o Identified from within documents

    o Incorporated from existing lists, possibly on rootsweb or another website

- One person wondered if the Portal was looking to become a social networking application and indicated that, if that was the goal, then using features like comments would be dictated by social network application practices/features

- Have a standard footer for all pages in the Portal that includes a key to icons, for example, the icon for a hyperlink that accesses content external to the Portal or the link to download Adobe Reader.

New Features

Object – Metadata Dominance in Display
- One person preferred the metadata dominant display because the date of the object (a map) was displayed but found the next preference OK

- Another preferred to object dominant view, which displayed the metadata dominant view when mouse rolled-over object

    o Quote: "Metadata for most people is irrelevant. They want the object that they see [in the search results]."

Comments
- Suggest users need to offer proof to substantiate their identifications, additions, corrections, or comments

    o Quote: "They have to be able to prove that it's - what the information they're giving for correction is correct information."

    o Simply adding comments without "proof" is not of value

- Ability to add "sticky notes" to images

Personal Lists
- One person would like these; often research gets interrupted and lists are efficient way to resume work

    o List example: Personal profile with database provider (e.g., JSTOR through UNT) that emails lists of new articles/resources that match user's preferences (e.g., articles with keyword 'genealogy')

- Most do not use them; one acknowledged their usefulness to some researchers

User Rating of Significance of Object
- One person wondered: Significance "in relation to what?"

    o When it was suggested this could be a rating of historical significance, they had the same issue of "in relation to what?"

- Most agreed that one person's rating of significance would not matter to other people

    o Quote: "Because what's important to us is not going to be important to her."

    o Quote: "If it's a picture of our lost great-great-grandfather Abe that rates very high. If it's somebody else's great grandfather, forget it. I could care less about that."

- One thought rating objects was akin to a "popularity contest" and this did not characterize genealogical research

Registration

- Everyone is OK with a simple registration system that is required for adding comments or creating personal lists

  o Require email address or username only

    ▪ Ability to very easily change email address; within a 'user profile'

  o One wanted users' the physical addresses included in registration because that is presumably more enduring than email addresses, which can change outside of a user's control

    ▪ Quote: "They've [the ISP] changed four times and I haven't done anything. I've got four emails [likely means 'email addresses'] in the last three years. And I'm just settin' here minding my own business and they changed it for me."

Object Navigation

Preferences

- Quote: "The thing is getting to your information as quickly as possible."

- Highlighting search terms in the text of objects is desirable

- Photograph containing people

  o Most importantly, include names of people under the photograph, so users don't have to go back to the description in the metadata record to see names

  o Objects were found as a result of matching search terms, therefore the search terms should be included and highlighted with the displayed object; indication of why the object was included in the search results

  o Include names, location, date with object display

  o Title is not necessary

  o Quote: "You want: picture, names, place, date -- that's it. Everything else - even that title - can go bye-bye. You're more interested in the names of people, the date, and the place. It's that information. And then, if that is relevant to you, then you would go back to view the description and get all the [other information] and download that, or whatever, as a citation. And the library that had it - that would come up there."

- Ordering quality copies

  o A good deal of interest in ordering copies of high quality images

- o Willing to pay for high quality copies

    - Prices need to be reasonable

        - Example of unreasonable cost: EllisIsland.org – copies of ship records

        - Genealogists are traditionally retired and have limited disposable income

    - Images with one's ancestor(s) are of great interest

    - Quote: "Well, see, that's a ship record. Photographs, people have a lot more emotional attachment to."

- Identifying 'institution'

    - o Not interested in seeing this identity with object displayed

    - o Willing to access this information in the 'description' (i.e., the metadata record)

    - o Interested in traveling to institution if discover several items of interest are held there

- Map Objects

    - o Not sufficient to use magnifying glass and step between medium and larger view

    - o Quite desirable to zoom in to see map detail

    - o User experienced no problems with pixilation and was impressed with image resolution

        - Quote: "I mean it was great."

        - Quote: "Because when he zoomed in, [it] got bigger and bigger, [and] he could read the text and still move it around."

    - o Rotating maps would be helpful if the text is upside down or sideways "just so you could read it better".

- Image Types & Zooming In & Out

    - o While ability to zoom in related to the type of image, maps are one image type that users find benefit in zooming in to see detail

    - o Not certain if this is needed for photographs

        - Quote: "You wouldn't need that on a photo. But maps, you gotta have it on maps."

- Printing images

    o Would like to print locally exactly what's on the display as a result of zooming in and navigating an image

        ▪ Quote: "Yeah, I want to copy what I zoomed in."

        ▪ Quote: "You want that part where you can read it."

        ▪ One had a local application that would do this but preferred to do it as a function of the Portal

        ▪ One thought using the 'print screen' function would work, while another indicated that it does not always work

- Multi-page Objects

    o General agreement that ability to return to search results is needed

    o General agreement that objects need to open in new windows

    o Selecting an object from search results should take user directly to the page containing the first hit

    o Optionally, after selecting an object form the search results, hits should be highlighted in some way; it should be very obvious which pages have hits

        ▪ For example, on the existing drop-down navigation pages with hits could be highlighted

    o Digitization and page numbering

        ▪ One person understood that digitization involved exact replication of original source material, including blank pages and pages with no numbers

        ▪ Most found it confusing that sequence numbers were given to blank pages or pages without numbers; hard to find pages as listed in Indexes

        ▪ Quote: "Actually, one sequence I looked up, one page number I looked up was actually about 30 pages difference in the sequence."

        ▪ Some observed that many pages in books were off (between Index reference and sequence number) only a few pages

        ▪ When available in source objects, sequence list should identify:

            • front matter with labels, such as 'title page' 'table of contents'

- front matter numerals on page, such as 'i, ii, ii, iv'

- If source object has blanks, identify them descriptively in some way, if reasonable (e.g., title or table of contents); most people don't know what the blanks mean

o Index

- General agreement that it is important to identify the Index by label and page number

- Ensure the page number for the Index as listed in the drop-down menu matches page number in the object

- Quote: "Genealogists, when they go out and pull a book off the shelf, the first place they look is the back of the book for the Index."

- Quote: "And if your ancestor's not there, it goes back on the shelf."

o General agreement that the digitization quality of books is "great", "excellent"

o View of All Pages

- A few like it and had no problems with it

- Need ability to return to the search results

- Open pages in new window

- Highlight which pages contain hits

o Display of all 'hits-in-text' for an object

- Immediate positive response to this slide of icons with pages that contain hits, search term(s) identified and bolded with descriptive metadata

- Allow fast navigation to hits in book with subsequent browsing of book via the same drop-down sequence/page numbers as on the cover page

- Seems acceptable navigation might be:
  Search Results → Select 'hits-in-text' → View list of pages → Select a page

- Better to have 'hits-in-text' link on search results page than on this display of pages with hits

    o Display of page with a hit

        ▪ General agreement that it is helpful to have search terms highlighted on individual pages

            • Quote: "Oh, absolutely." "Oh, sure." "Oh yes, that's best." "Essential." "Saves a lot of time."

Terminology

- One person used the term 'notes' for the descriptive metadata or possibly for the 'description', which contained the names of persons in a photograph

- 'Sequence' numbers and 'page' numbers

    o Expect these to match, for example, page number listed in an Index to match the sequence number in both the drop-down menu and the number on the view of all pages in a book

Problems

- Photograph containing people: One person was unclear about what the 'title' being displayed was

    o Quote: "Is that the description of the 4-H club members?" "So, it's in the notes is where the description of this is at? Where the names of the three girls [are]?"

- One found navigating multi-page objects "terrible"

    o Sequence numbers don't match page numbers

        ▪ Quote: "if you go to the index and you find something and you're trying to look at the page, you gotta check several pages because they don't match up."

    o Blank pages have sequence numbers

        ▪ Quote: "Why have a blank page in there if there's nothin' on it?"

        ▪ Could see in the view of all pages that the backs of pictures that had no page numbers were given sequence numbers.

    o Worst of all, there is no way to return to search results without either using the browser's back button, which can be very frustrating, or repeating the original search

        ▪ Quote: "You can't get back to where you started without going all the way back and startin' all over again."

- Quote: "Because even if you've looked at several pages and you go back to the front of that book and you go back, it's gonna take you to the page you looked at before. It won't take you back to the name of that book - the thumbnail sketch."

Suggestions

- Track how many times objects are viewed

  - Would seem of interest to institutions "because they're looking to justify budgets as well as you guys are"

  - Would be of interest to individual user in terms of identifying an institution user might like to travel to in order to view their holdings

New Features

Page View with Sidebar for Books
- One person had an immediate positive response to this type of navigation

  - Quote: "Adobe works this way and, again, because so many people have access to Adobe Reader, then there's no learning curve for them."

- Need to have some indication of which pages have hits

- This view would "be great" for browsing a book; however, it would not work so well when user is looking for hits

  - Quote: "'Cause you don't know what page you want to go to."

  - Quote: "And those things [books] are huge."

Browsing

Preferences

- Main categories of importance

  - Timeframe

  - Location (County)

  - Collection[4]

  - Subject

- Ability to specify a range of years and browse within that timeframe

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[4] Participant(s) may have confused 'collection' with 'institution'.

- One made a distinction between 'era' and 'timeframe' and saw these as separate browse categories

Terminology

- Era

  o Not clear what era means on the Portal

  o Some thought eras do not always have date ranges, exclusively, but are generally related to significant historical events

    ▪ Examples: Great Depression; WWI; Vietnam Era

Problems

- Eras

  o Browsing by eras, as listed in the Portal, is not very useful to some; the range of years is too large; thought problem was with whomever determined these

    ▪ Quote: "If you went to browse by era, if you clicked on browse by era. That was one thing that I found least helpful. They talked about 'era' being 1900 to 1939."

    ▪ Quote: "For me, 'era' as it was defined by the designers there; it was browse by 'epic'.

Experience

- People with more technical expertise might know what metadata is; most people don't know

- Referring to the discussion of metadata, primarily:

  o Quote: "The terminology is more technical and genealogists are not necessarily technical."

  o Quote: "A lot of us aren't technical."

- Many people do not know what 'relevance' means; persons with some technical knowledge of how relevance is determined are the exception

- Only those with a "technological mindset" know what permalink means. Most genealogists would not

- There are quite a few genealogists who acquired their first PCs in the last three year.

  o Quote: "You have to cover that whole spectrum of researchers."

- o Quote: "You have researchers in their 70's and 80's that are working on computers for the first time. They're working on using the computer just for genealogy really. They're very savvy genealogists but not computer [savvy]."

- o Quote: "As a matter of fact, we just got an email from a lady. We'd sent them our genealogical newsletter out on the email. And she wrote and she said: "I don't know how to download.""

- o Quote: "I've actually run across one person who had never even used a typewriter before."

- Many less experienced users will not know the difference between image file formats (gif, jpeg, TIF). These same folks are more likely to have low speed Internet connections. They would benefit from image download defaults optimized for them.

- Genealogists search on three parameters:

    - o Name, primarily surname but sometimes full name

    - o Location: county, city, town, township, community

    - o Time Period: range of dates

- Genealogists will perform multiple trial-and-error searches based on variations in the spelling of names ; search history is important to recall which name variations have already been searched

- Genealogists deal with family information that may be owned by the family and in the family's possession or may be in some type of archive or repository. Because genealogists publish on behalf of clients they have to be in conformance with copyrights and permissions.

- Genealogists are encouraged to not rely solely on copies, or copies of copies, of source materials; they also travel to view source materials. If a researcher discovers that one institution holds a lot of resources of interest to them, they might well travel to that institution to see the originals.

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 'Collapsed Menu' prototype ranked first for this group (Figure 1) and the 'Tabs and Widgets' prototype ranked first overall (Figure 2).

Option	Title	Group (*N*=6)		All (*N*=19)	
		Rank	Average	Rank	Average
6.2	Collapsed Menu	1	2.5	3	3.4
6.5	Tabs & Widgets	2	2.7	1	1.7
6.4	Tabs & Collapsed Menu	3	2.8	2	2.7
6.3	Widgets	4	3.5	5	3.7
6.1	Tabs	4	3.5	4	3.5

Table 2. Ranks for Object Navigation Options
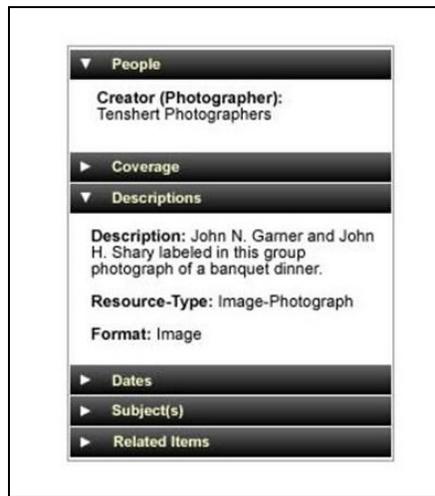
Figure 1. Collapsed Menu Object Navigation Prototype
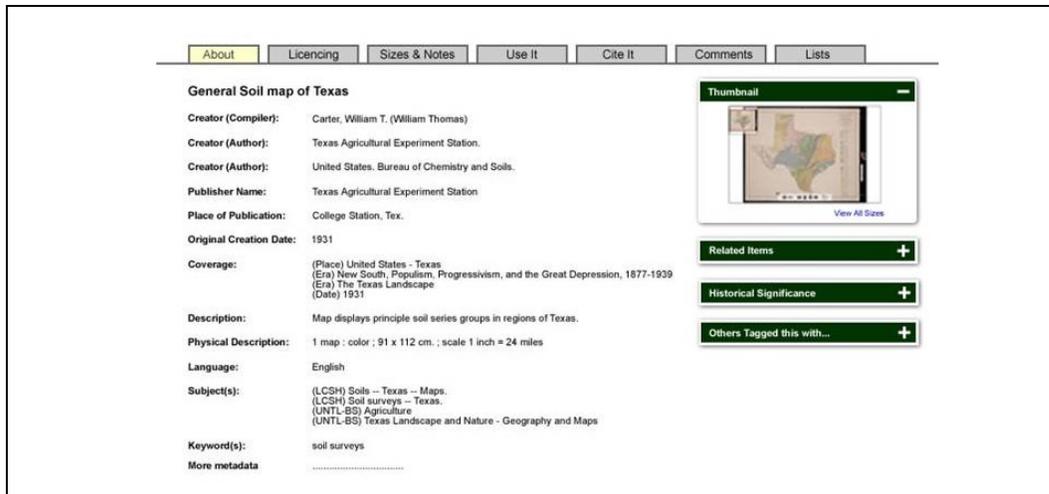
Figure 2. Tabs & Widgets Object Navigation Prototype

Feature Rankings

Participants in the focus groups 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=6) and for participants in all three focus groups (N=19).

Feature	Group (N=6)		All (N=19)	
	Rank	%	Rank	%
Save items (images, maps, letters, etc.)	1	100%	1	100%
Save search results	1	100%	2	94%
Access personal search history for an active session	1	100%	3	84%
Add items to personal "favorites"	4	67%	4	68%
Comment on items	5	50%	4	68%
Build and maintain lists of objects	5	50%	6	53%
Annotate images (like Flickr)	7	33%	7	50%
Receive RSS feeds of search results	7	33%	9	42%
Rate items on a historically significant scale	7	33%	10	29%
Comment on comments written by others	10	17%	8	44%

[a] Some functions had tied ranks.

Table 3. Ranks for New Features

This group comprised roughly one-third of the total number of focus group participants. The top three features for all the focus groups are included in the top-ranked features for this group. As with participants in the other groups, this group indicated a strong interest in saving items. Likewise the results suggest participants may be interested in one feature that was not discussed: adding items to

personal favorites. In contrast to the other groups, this group indicated relatively less interest in commenting on comments written by others.

Closing

Summary

A presentation of screen shots from the Portal to Texas History guided this focus group discussion through these topics: searching, search results, descriptive metadata, object navigation, browsing, and prototype features. 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.

- Genealogists generally search using three search criteria: name (primarily surname), location (primarily county), and date (usually a date range). Most prefer to use an advanced search interface, versus a basic search interface. However, from a basic search interface they expect multiple search terms to be treated by default as an exact phrase search, whether the terms are enclosed in quotes or not. In the absence of a search box specifically for names, this means assuming that two search terms might represent a given name and surname, which users expect to be treated as an exact phrase search. Relevance ranking for search results should also reflect this by positioning objects containing the two search terms adjacently at the top of the search results. Relevance ranking, in general, should also reflect genealogists' principal interest in surnames, locations, and dates.

- Users definitely want a search box for surname on the advanced search interface and would like to have a Soundex feature for surname searches. It would also be useful to limit searches by county name. Additionally, it is important to search using more than one exact phrase.

- It is very important to display the current search terms with search results and it would be nice to have access to one's entire search history. The ability to refine a search is quite desirable. The number of objects to display in search results correlates with the speed of a user's connection to the Web.

- A grid view display of search results, with minimal descriptive information, is useful for quickly evaluating results, while a list view of results affords more in-depth evaluation. Most users would like search results to indicate the number of hits for each object, both for the list view and the grid view. In using the current Portal, it is mystifying why some objects appear in search results without an indication of 'hits in text'.

- The information about an object to display in search results depends on the object type. Date and location seem important for all objects, while person and place names are more important for photographs and maps. Highlighting search terms in the list view of results is important.

- Users definitely want to download objects and would like to have a download feature that allows them to specify the format and resolution to download. They are willing to pay reasonable prices for high quality copies. Providing citations for objects is very important and it is quite desirable for citations to be downloaded with objects.[5] Copyright information is of interest to genealogists and it would be nice for this information to be downloaded with objects.

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[5] Current practice uses both the Chicago Manual style and *Evidence Explained* by Elizabeth Shown Mills.

- Users would like to comment on objects, for example, to identify people in photographs, but think comments should contain proof in support of a user's claim. People would also like to submit error reports. Most do not use list features on web sites. Everyone is OK with requiring a simple registration process in order for users to add comments or create personal lists.

- Opening objects from search results in a new window or tab is critical so that users can easily regain access their search results.

- Users expected that clicking on either the thumbnail or the title in the search results would display the front page of a multi-page object. Navigating readily to the hits in a multi-page object is a critical feature, as is easily navigating among hits. Most found it confusing that sequence numbers were given to blank pages and to pages without numbers. Because of this practice, people had difficulty finding pages as listed in indexes. Attempts should be made to identify pages without numbers in some meaningful way. Likewise, the exact location of an index in a multi-page document should be readily discernible.

- The key information elements to display with an object are name(s), location, and date(s). Search terms should be highlighted in object display pages. The ability to zoom in and out on maps is critical. All object display pages should have a 'return to search results' feature.

- Most people were uncertain what is meant by 'creator' and by 'relevance' and some were uncertain how the 'eras' listing on the browse page were determined. It some instances it would be more helpful for a user to specify a range of years and browse within that timeframe than to select an era from the list provided. Some did not find the meaning of the 'more info' link intuitive. All agree that 'metadata' and 'permalink' are not commonly understood terms.

- Many genealogists have only recently started using a computer and do not know how to download objects. Many have lower speed Internet connections. The Portal needs to accommodate these persons with defaults regarding the number of objects displayed in search results and with default object sizes and formats when downloading.

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 History[6]. The redesign will be done in a series of releases in 2008 and 2009. Users from genealogical societies in northeast Texas will 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.

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[6] 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*)

	21 - 30		41 - 50		51 - 60		71 - 80
	31 - 40		51 - 60		61 - 70		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)		
Certification by the Board For Certification Of Genealogists (BCG)		
Accreditation from The International Commission for the Accreditation of Professional Genealogists (ICAPGen^{SM})		

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			
Receive RSS feeds of search results			
Access personal search history for an active session			
Save items (images, maps, letters, etc.)			
Add items to personal "favorites"			
Rate items on a historically significant scale			
Annotate images (like Flickr)			
Build and maintain lists of objects			
Comment on items			
Comment on comments written by others			

7.   Please indicate if your browser has:

	Yes	No	Don't Know
Flash installed			
JavaScript enabled			

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

# Appendix B   Object Navigation Options


6.1 Navigation Options: Tabs

6.2 Navigation Options: Collapsed Menu

6.3 Navigation Options: Widgets
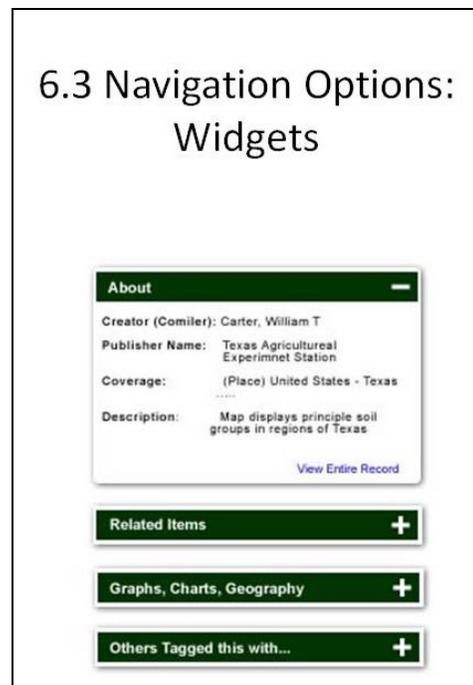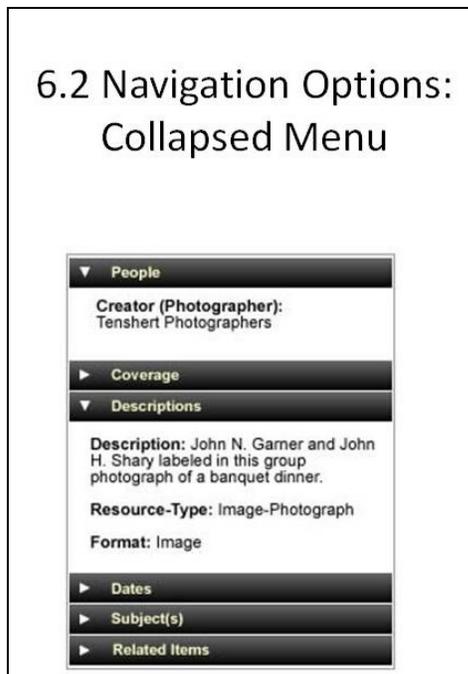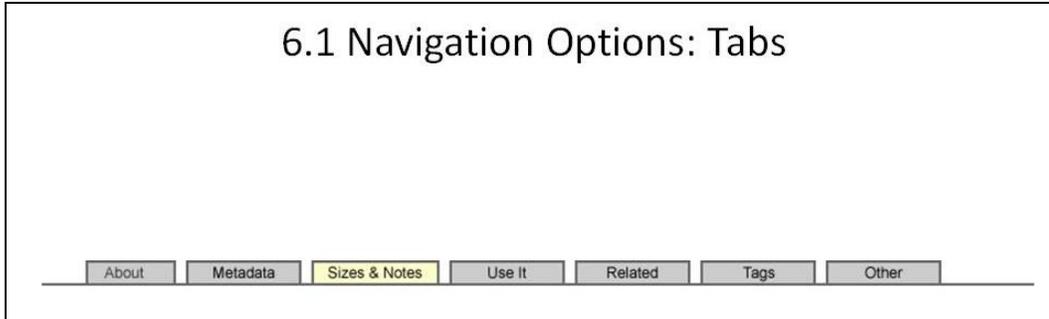
6.4 Navigation Options:
Tabs & Collapsed Menu

6.5 Navigation Options:
Tabs & Widgets