

Optimizing the User Experience in a Rapid Development Framework

INTERIM PERFORMANCE REPORT

December 2008

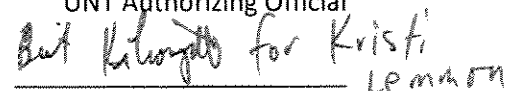
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This is the second interim performance report for the project titled: *Optimizing the User Experience in a Rapid Development Framework*. The reporting period is July 1, 2008 – December 31, 2008. The report includes three sections: Interim Goals and Accomplishments, Significant Findings and Accomplishments, and Project Achievements and Lessons Learned.

I. Interim Goals and Accomplishments

A. *Identification of the information context and information needs of genealogists – initial usability testing*

1. Transcription of the 10 interviews conducted earlier in the year with genealogists was completed in October 2008. Interview analysis is underway with an expected completion date in early 2009. The four dimensions discussed in the interviews provide the overall framework for the analysis. These include: general background and research practice characteristics; the settings in which genealogists work; the types of problems genealogists typically address; the genealogical research process; and the manner in which information resources are used in the research process.
2. An online survey of users who visit the Portal to Texas History was developed to measure users' baseline satisfaction with the Portal in regard to meeting their information discovery needs. Additionally, data is being gathered to estimate the demographic composition of Portal users. The survey is available at: <http://digital2.library.unt.edu/survey/>
3. Google Analytics was setup to log activities of Portal to Texas History users in an effort to understand several technology components of Portal users. Information of interest includes browser usage, internet connection, use of JavaScript, use of flash and screen resolution.
4. The usability tests with members of the Denton County Genealogical Society were analyzed. The results confirmed and illustrated many of the significant findings from the focus group discussions. The report is available at: http://iogene.library.unt.edu/wp-content/uploads/2008/12/ut_final_rpt_krm_18aug2008.pdf

B. *Implementation and refinement of the rapid development framework to support the iterative redesign process*

1. TKL2METS conversion script – Development and implementation of the conversion script to change the current Portal content model (TKL) to the METS model used in the rapid development framework was completed.
2. Setup static and metadata servers – Servers were configured for static media (image files, ocr text, bounding box information) and metadata (mets, dc, untl). The Pairtrees for Object Storage are being used for storing digital objects on the files ystem.
3. Migrate test data to static and metadata server - Initial conversion of Portal content has been completed for use in prototype of rapid development framework.

4. Convert ARK application to support Pairtree - Modifications were made to the ARK application to support the newly implemented Pairtree directory structure.
5. Create development environment - Development environment was defined for working with multiple developers each with different roles in the project. Pieces in this development environment have been put into service as needed for the project.
6. Branding application – Browsing application was defined and implemented for use in the rapid development framework.
7. Setup development Solr environment – New document scheme for Solr documents representing a digital object have been specified and are being reviewed before implementation.
8. Migrate IREX code to METS/UNTIL Model – Design specification for the conversion of the current IREX indexer to a new version which supports METS and the new UNTL metadata model has been completed and is awaiting implementation

C. *Implementation of user centered design process for user interface*

1. Wireframe design
 - a. A paper prototype for navigation structure and content layout for the redesigned Portal was developed. The design and development of this paper prototype was based on the usability testing results, an evaluation of the content structure of current Portal to Texas History site, and the functional requirements.
 - b. As the next step, an HTML-based online mockup was created. The purpose of this mockup creation was to visualize all interface related requirements and to expose potential user-interface related issues. Various storyline walkthroughs and revisions have been conducted.
2. Design and development of core features – Object metadata pages and navigation pages are being reviewed using the html mock-ups in preparation for implementation. These pages were informed by complex requirements and are an integral part of the display of every digital object in the Portal. Hence, great care is being taken to ensure that the features to be implemented will serve users' needs.
3. Search application design and development – See B.7 and B.8
4. A new team was created and charged with identifying and creating all informational and help-related content that will be available to users in the redesigned Portal. Relying on both the functional requirements developed earlier in the project as well as experience with users over the last four years, the team outlined the content areas, reviewed existing content, and began creation of new content.

II. Significant Findings & Accomplishments

1. Assessment

The following reports related to the data collection and analysis conducted earlier in the previous reporting period are available on the project web site:

- a. Functional Requirements for the Portal to Texas History
http://iogene.library.unt.edu/wp-content/uploads/2008/07/func_req_deliv_final_unt_24jul2008.pdf
- b. Collin County Genealogical Society Focus Group
http://iogene.library.unt.edu/wp-content/uploads/2008/07/ccgs_fg_final_rpt_krm_23jul2008.pdf
- c. Dallas Genealogical Focus Group 1
http://iogene.library.unt.edu/wp-content/uploads/2008/07/dgs1_fg_final_rpt_krm_23jul2008.pdf
- d. Dallas Genealogical Focus Group 2
http://iogene.library.unt.edu/wp-content/uploads/2008/07/dgs2_fg_final_rpt_krm_23jul2008.pdf
- e. Denton County Genealogical Society: Initial Usability Test Results
http://iogene.library.unt.edu/wp-content/uploads/2008/12/ut_final_rpt_krm_18aug2008.pdf

2. Development

- a. IREX conversion to support METS, UNTL and Pairtree:
http://digitalprojects.library.unt.edu:88/code/browser/documentation/aubrey/irex_2.0.rst
- b. Solr document structure for digital object:
http://digitalprojects.library.unt.edu:88/code/browser/documentation/aubrey/aubreySearch_object.rst
- c. Branding Application specification:
http://digitalprojects.library.unt.edu:88/code/browser/documentation/aubrey/branding_app.rst
- d. Digital Object URL mapping:
http://digitalprojects.library.unt.edu:88/code/browser/documentation/aubrey/URL_mapping.rst

3. Design

- a. Look and Feel Redesign Preference Summary for Portal Site
<http://iogene.library.unt.edu/wp-content/uploads/2008/12/design-specification.pdf>
- b. Interface Design: Paper Prototype
http://iogene.library.unt.edu/wp-content/uploads/2008/12/portal_wireframe.pdf
- c. Live HTML Mockup:
<http://web3.unt.edu/mmdl-dev/portal/browse-institution.htm>

- d. Live HTML Mockup with Design Skins Implemented
<http://web3.unt.edu/mmdl-dev/portal/index.htm>

III. Project Achievements & Lessons Learned

Achievements related to project management and communications during this reporting period are listed below.

1. Presentations
 - a. Murray, K. R. & Phillips, M. (2008, October). *User-centered design for humanities collections within a digital library*. Presented at the 2008 Library Information Technology Association National Forum, Cincinnati, OH.
 - b. Murray, K. R. (2008, October). *Roundtable discussion: Redesigning the Portal to Texas History*. Conducted at the 2008 Texas State Genealogical Society Conference, Abilene, TX.
2. A revised delivery date for the first release of the redesigned Portal to Texas History interface was established for early spring 2009. Original estimates proved to be too ambitious and care was taken to plan realistically for the spring release. This release will include the bulk of the design and development changes to the Portal. The planned second release is expected to be on target for early Fall 2009.
3. Project meetings have been held on a regular basis, usually every 2-3 weeks. Additionally, both formal and informal meetings between the development and design teams have been conducted as needed. Likewise, the content development team responsible for creating informational and help content has met on a routine basis.