IMLS grant #LG-02-03-0082-03

"A Testbed of Civil War-Era Newspapers"
http://dlxs.richmond.edu/d/ddr/index.html

University of Richmond

Final Report

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Purpose of the Project

The project included both a demonstration and a research component.

The demonstration component assessed the potential for storage and linking of historical newspapers in digital libraries of heterogeneous cultural heritage material—such as the Perseus Digital Library—and to encourage the dissemination of knowledge from these centers to institutions just embarking on a digital program—such as the University of Richmond. We acquired runs of two dailies, the Richmond *Daily Dispatch* and the Philadelphia *Public Ledger*, for the period 1857-1865. These provide a range of perspectives on national and local events from a Confederate and a Union vantage point, respectively. A complete run of William Lloyd Garrison's weekly, the *Liberator* (1831-1865) has also been digitized. The depth of access to these newspapers varies, reflecting the different processes each underwent in the project.

The project's research component collected comparative data on the tradeoff between cost of acquisition and quality of text transcription for newspapers. Additionally the team at Project Perseus did important work to enhance the specificity of data retrieval of named entities in full-text digital collections.

Work Carried Out in support of the Project's Purpose

As of 15 October 2007, the Richmond *Daily Dispatch* had been online in its current state for nearly a year. The collection incorporates the named entities identified by the Perseus Project's research component of the grant, as well as providing users with the opportunity to search three monographic resources: *Richmond at War*, a transcription of the city council minutes for the Civil War years; *Henrico Home Front*, an edited version of the Henrico County Court's minutes; and Richmond Prisons, a collection of prisoner stories and lists from various Confederate prisons in the city of Richmond. While none of these texts have been treated with named entity identification, they are all feature full text searching, table of contents browsing, and page images. Cross-collection searching is available for these monographs and the newspapers. The entire collection has been presented to a variety of users at the University of Richmond and beyond, to local librarians as well as to civic organizations.

Work on *Liberator* will continue at the University of Richmond. Since the optical character recognition output for this series was consistent and good overall, we plan to create a keyword searchable index for the newspaper with page level metadata included. Minimal TEI markup will be completed in-house, enabling the University of Richmond to produce a text-based collection similar to the *Daily Dispatch*. These texts will not be run through the entity identification process.

Work on the *Philadelphia Public Ledger* continues, with a test collection accessible from DLXS version 11a, the version currently installed on the project server. Since the output from the optical character recognition process on this historic newspaper was so poor, the collection is planned as an image collection only, with metadata headers embedded within page images. All pages of the newspaper will be browsable by date, and images will be provided at a high enough resolution for the human eye to read. Currently, testing is proceeding with DLXS version 13, which will provide added functionality for image collections, and plans are in place to make the *Public Ledger* accessible once this upgrade is completed.

Previous Project Reports

The regular semi-annual project reports to IMLS provide additional details on presentations made about the project, publications emanating from it, publicity the project has received, delays it encountered, and processes. These are available on the project web site at http://dlxs.richmond.edu/d/ddr/proinfo.html.

Output: Cost Analysis

Costs analysis of the three newspaper projects (Colorado, Utah, and Richmond) was very hard to do, as Colorado and Utah were a large scale production model that used proprietary zoning applications, and Richmond focused on more open source solutions with a smaller, finite collection.

As the table in Appendix, "Digitization Methods Comparative Cost Analysis," illustrates – costs for imaging, or scanning, has decreased – and become very competitive as more vendors have entered the market.

Services can range from basic uncorrected OCR, to corrected OCR, and single and double key services. Richmond utilized manual double rekey as opposed to OCR. The rationale behind this decision was previously reported. This also skews cost comparison

Costs of support also are disparate.

The cost of digitizing of 1 page using methods employed at Utah was $3.00, at Colorado $1.57 and at Richmond, one page came in at over $13.00 per page. It is worth noting that both Colorado and Utah did not hire for metadata encoding in their cost. Newspaper content was retrieved by key word indexing. Richmond paid for TEI metadata encoding and name entity encoding. As collections grow, the accuracy of keyword searching decreases if name entity tagging is not used. For example, in the Colorado collection, if you search the term "Kit Carson," you will retrieve items referring to the person, a county, a bridge and several other items that have "Kit Carson" in the name. If you search for a particular person in the Richmond collection, you can limit the search to only a person search – making the search more accurate. Furthermore, newspaper data can be extracted based on named entity entries. For example, we could extract all the articles that are encoded with "Railroad" as the organization code. Through metadata encoding Richmond successfully separated the content from the container. Utah and Colorado have tied their content to the newspaper container, offering visitors only the image of the text. Additionally, Richmond data is not tied to a specific vendor product or process. Both Utah and Colorado depend on either a vendor process or platform to deliver their content. Richmond, because the text is encoded with TEI without the zoning, can move its data to a variety of platforms and does not depend on one vendor for processing data. In fact, we used two different vendors--three, if you include the encoding Tufts supplied. With our resulting vendor specs document, we can confidently employ a different vendor for future issues and still get the same results. Does this justify the 10 times cost per page? That can be determined only over the course of time and future use of the content.

Cost of digitization using methods Richmond applied to the Richmond *Daily Dispatch* was $13.46 per page. The *Daily Dispatch* was a four-page daily paper with an average 89,000 characters per page. This figure includes not only original text character count, but also basic TEI level encoding.

Output: Improved Data Retrieval of Named Entities

Project Perseus at Tufts University used the Richmond Daily Dispatch as a testbed for its named entity recognition software. This software was applied to all issues of the Richmond *Times Dispatch* that were digitized as a part of the project. This work has greatly enhanced the level of specificity in and, therefore, allows more precise search and retrieval than ordinary keyword searching. The named entities software distinguishes homophonic terms from one another (e.g., "corn" as a crop or commodity compared to "Corn" as a surname). It also generates tags for these entities; these tags have been integrated into the searchable Richmond *Times Dispatch* database. Project Perseus personnel have made a number of presentations about their work on named entity recognition. "The Challenge of Virginia Banks: An Evaluation of Named Entity Analysis in a 19th-Century Newspaper Collection" is among the papers Project Perseus personnel have published on this aspect of the project. This paper was presented at the 6th ACM/IEEE-CS Joint Conference on Digital Libraries in Chapel Hill, NC in 2006. It is available in PDF on the project web site.

Output: User Survey Data—Analysis of User Satisfaction Survey Results

After going live on 21 October 2006, the University of Richmond's Richmond *Daily Dispatch* website (http://dlxs.richmond.edu/d/ddr/index.html) offered users the opportunity to complete a site satisfaction and user input survey. While it is modeled closely to surveys produced by two other IMLS funded historic newspaper digital collections for comparison purposes (the University of Colorado's Historic Newspapers and the University of Utah's Utah Digital Newspapers), the intention is to keep the *Daily Dispatch* survey live in an effort to solicit constant feedback from users. During the one year span from 21 October 2006 –

21 October 2007, 127 responses to the survey had been submitted, although not all questions were answered in each survey.

Question 1: How did you first hear about the website?

Responses for this question are fairly evenly distributed among the five choices, with 23% answering that a "referral or link from another website" brought them to the collection, and 15% indicating that "word of mouth" made them aware of the site. Search engines and news media also produced site traffic, with response rates of 21% and 20%, respectively. Users also found the site in "other" ways (21%).

Question 1: How did you hear about the website?

|	Search engine	Word of mouth	Referral or link from another website	News media	Other
☐ Respondents	27	19	29	25	27
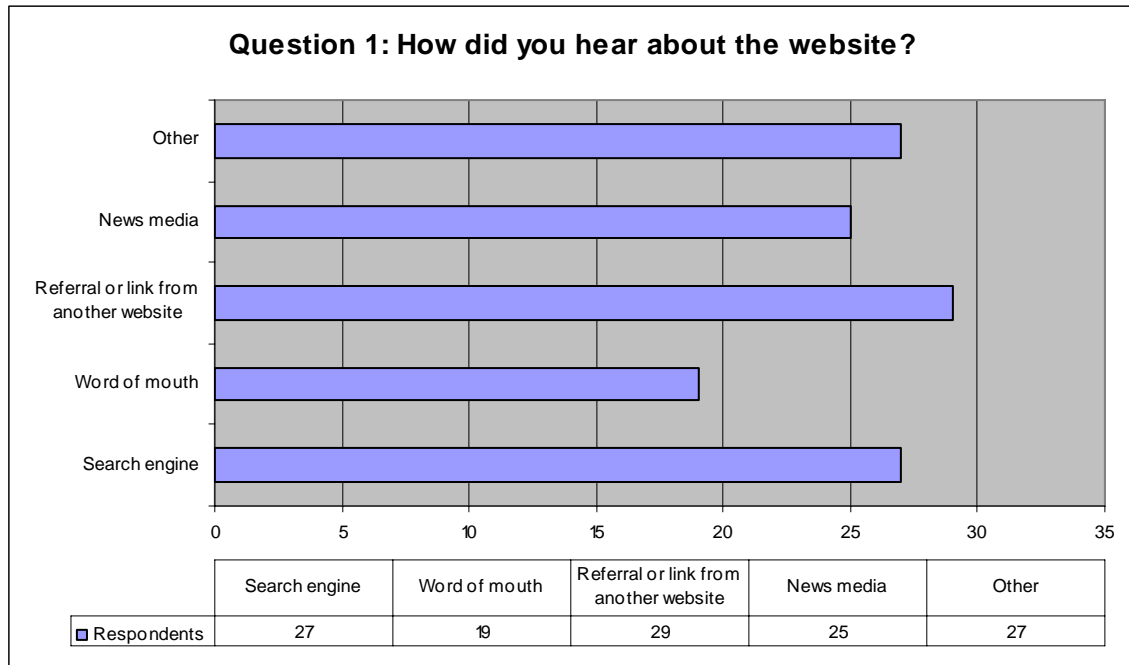
Question 2: How frequently do you visit?

The vast majority of respondents (74%) answered that this was their first visit. This may indicate that the survey link was placed conveniently for first time users. 11% answered that they visited the site weekly, and others indicated that they visited the site daily (6%), monthly (3%), a few times a year (3%) or once a year (3%).

Question 2: How frequently do you visit?

	First time	Once a year	Few times a year	Monthly	Weekly	Daily
▣ Respondents	90	3	4	4	14	7
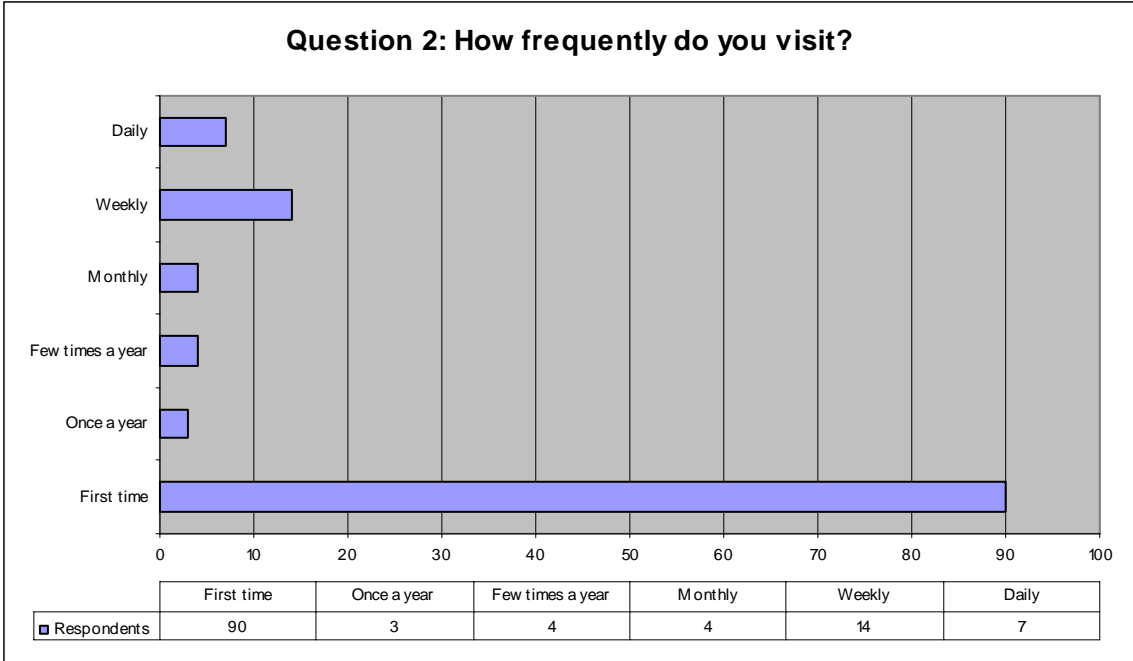
Question 3: What is the purpose of your visit today?

Two responses to this question, "Civil War and/or Richmond research" (42%) and "Genealogical research" (33%), accounted for a combined 75% of all responses. 10% of visits were educational in nature from students or teachers, and 9% of respondents answered that they were "just curious."

Question 3: What is the purpose of your visit today?

|	Civil War and/or Richmond research	Genealogical research	Educational (student and teacher visits)	Just curious	Other
▣ Respondents	53	42	13	12	7
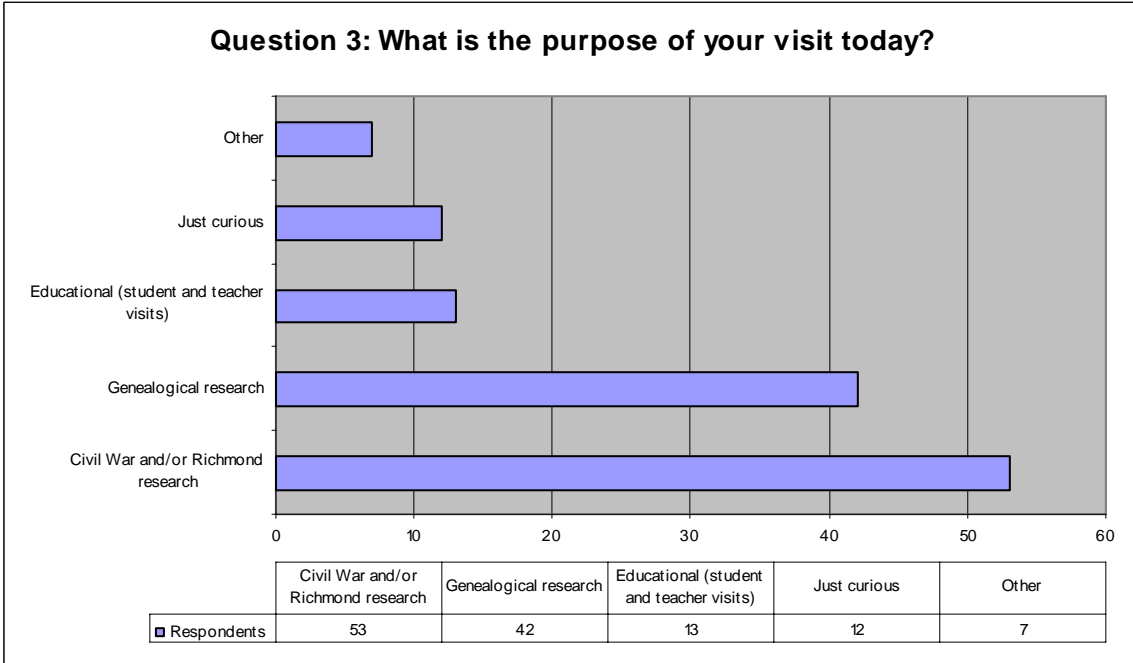
Question 4: How relevant and accurate are the search results?

While 74% of responses indicated that the search results were either "good" or "excellent" in accuracy, over a quarter of the sample of users that felt that the results were "average" (11%), "fair" (7%) or "poor" (9%).

Question 4: How relevant and accurate ar search results?

|	Excellent	Good	Average	Fair	Poor
Respondents	51	35	13	8	10
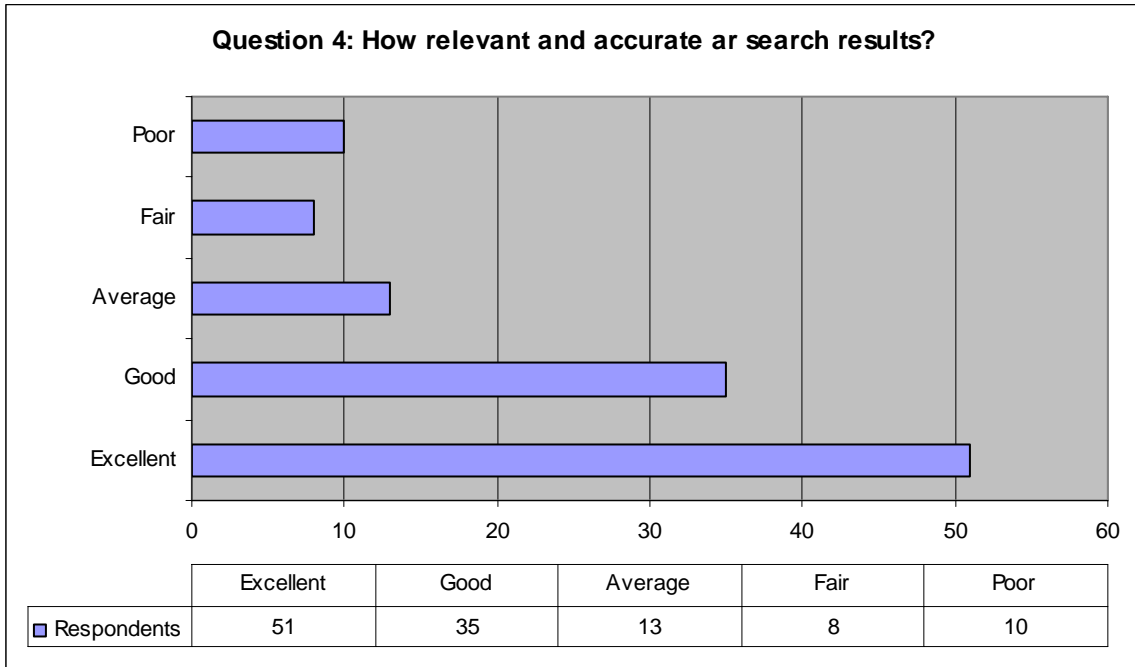
Question 5: How would you rate the response time of the website?

A vast majority (89%) of users felt that the speed that results were delivered was either "excellent" (59%) or "good" (31%). Other responses included "average" (8%), fair (2%) and "poor" (1%). We cannot tell how much the speed of the users' Internet connection affected their judgments.

Question 5: How would you rate the response time?

|	Excellent	Good	Average	Fair	Poor
Respondents	71	37	10	2	1
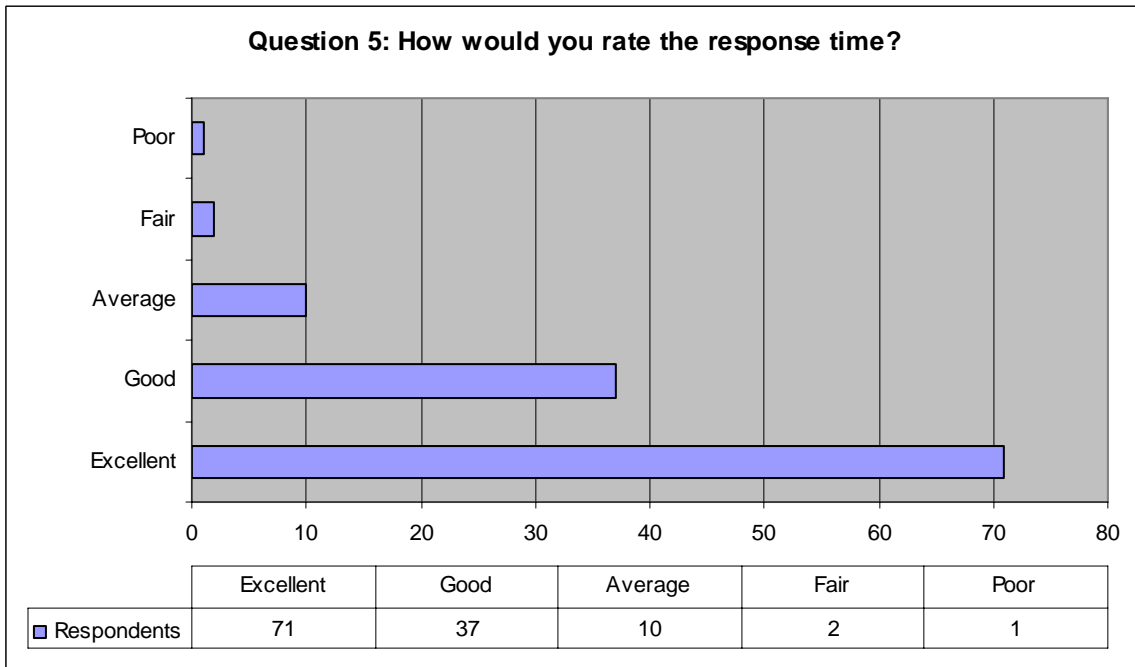
Question 6: What type of Internet connection do you have?

Twenty-one percent of respondents indicated that they used a dial-up service to access the collection. Other higher speed services included DSL (35%), cable (27%), T1 (8%) and other high speed access mechanisms (9%).

Question 6: What type of Internet connection do you have?

	Modem/Dial-up	DSL	Cable	T1	Other high speed
Respondents	26	43	34	10	11
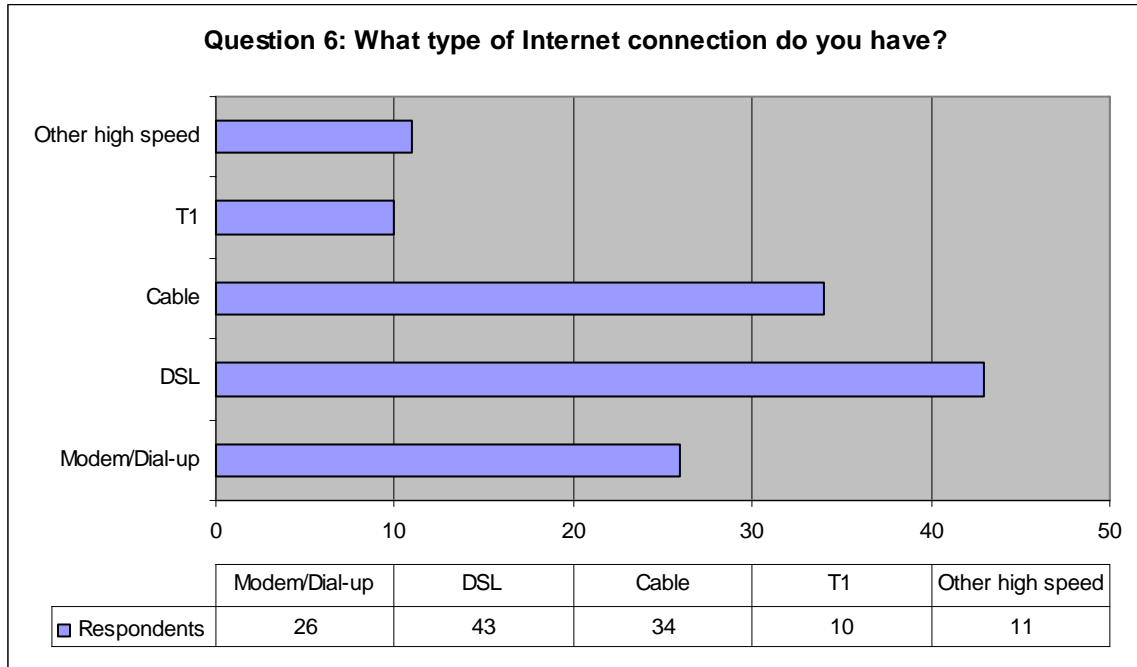
Question 7: What overall rating would you give the website?

The site's overall impression on users was very positive, with 90% of survey responses indicating an "excellent" (%) or "good" (%) response. Other respondents answered "average" (5%), "fair" (1%) and "poor" (4%).

Question 7: What overall rating would you give the site?

	Excellent	Good	Average	Fair	Poor
Respondents	66	39	6	1	5
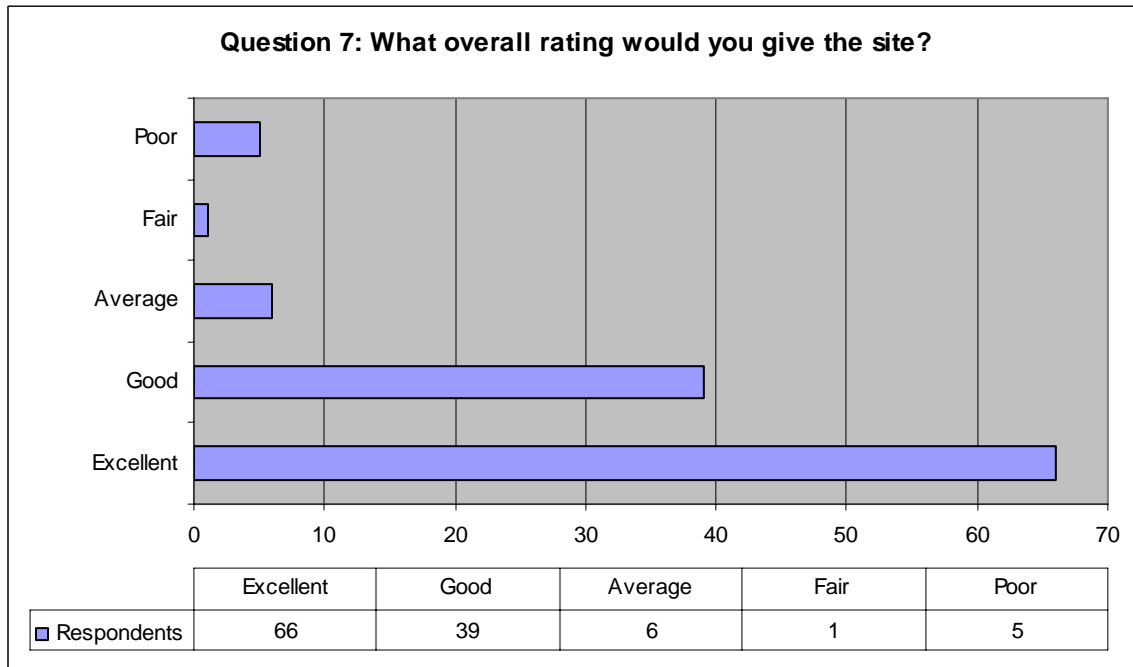
Question 8: How does the site compare with other online Civil War resources?
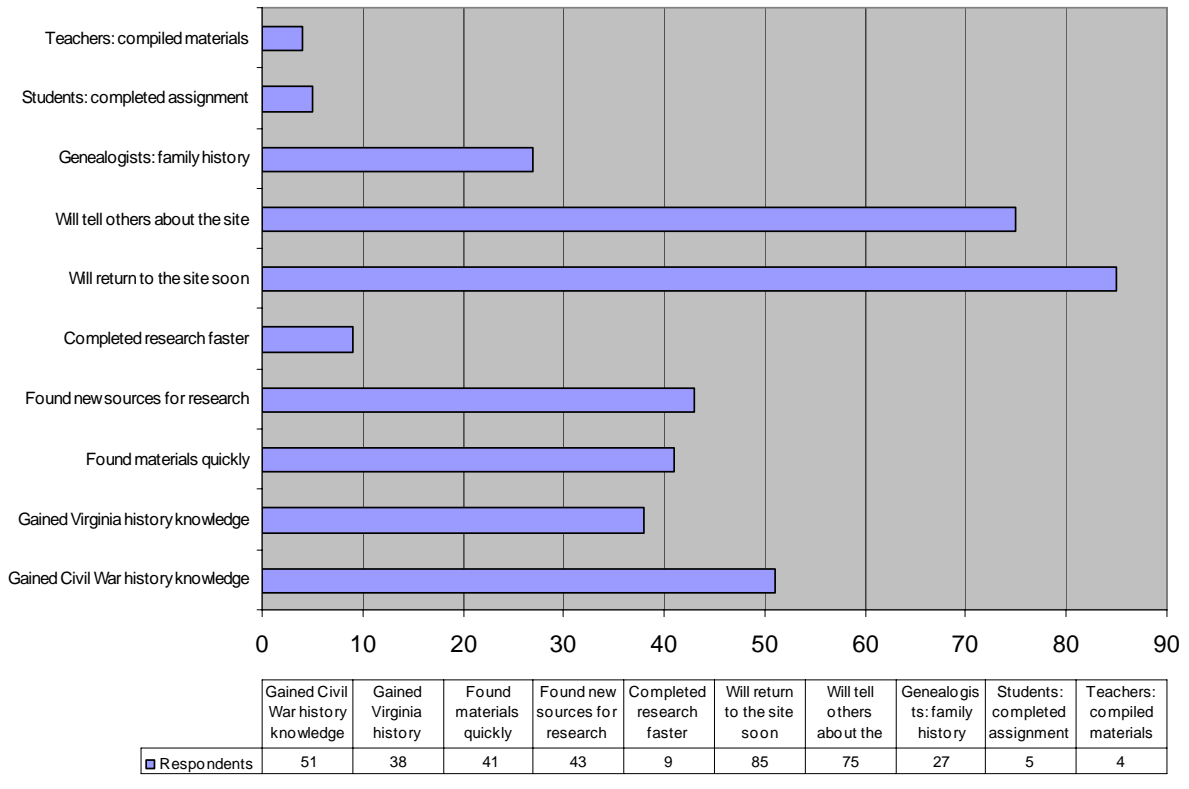
A large percentage of users (83%) indicated that the site compares favorably to other Civil War online resources, with 71% responding "Among the better ones," and 12% making it their "first choice." Two percent of users felt that the site was "not useful," and 15% indicated that "it's just okay."

Question 8: How does the site compare to similar resources?

	Not useful	It's just okay	Among the better ones	My first choice
☐ Respondents	2	17	80	13
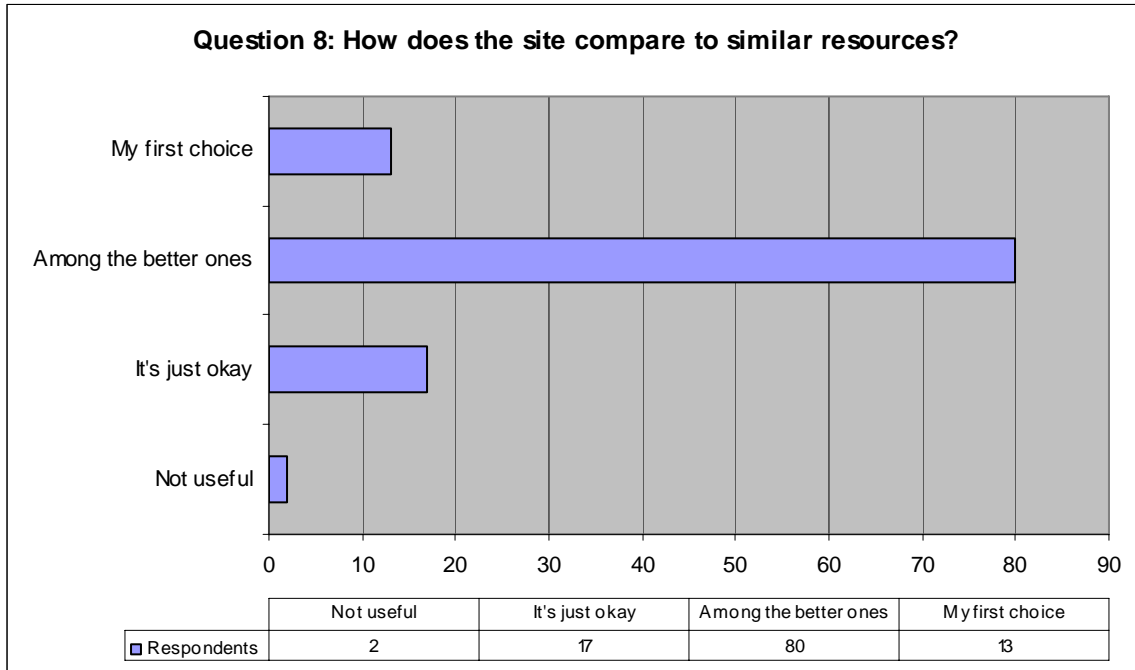
**Question 9: As a result of using this website…**

This question was a multi-response question measuring the results users felt after exploring the website. By checking each of the ten possible options that applied to them, users were able to provide a fuller picture of their perceived outcomes. In the 127 surveys completed, 378 options were checked, or almost three choices per survey. Sixty-seven percent of users indicated that they would return to the site soon; 59% would tell others about the site; 40% gained knowledge of Civil War history; 34% found new sources for their research; 32% found materials quickly; 30% gained knowledge of Virginia's history; 21% identified themselves as genealogists and indicated that they found resources for family history; 7% completed research faster; 4% identified themselves as students (K-12, undergraduate or graduate specificity was not requested) and indicated that the website helped them complete an assignment; and 3% identified themselves as teachers (K-12 or higher education specificity was not requested) and responded that they used the website to compile materials for teaching.

Question 9: As a result of using this website...

	Gained Civil War history knowledge	Gained Virginia history	Found materials quickly	Found new sources for research	Completed research faster	Will return to the site soon	Will tell others about the	Genealogists: family history	Students: completed assignment	Teachers: compiled materials
■ Respondents	51	38	41	43	9	85	75	27	5	4

Question 10: Where do you live?

Sixty-three percent of survey respondents lived outside Virginia, while 37% were Virginia residents.

Question 10: Where do you live?

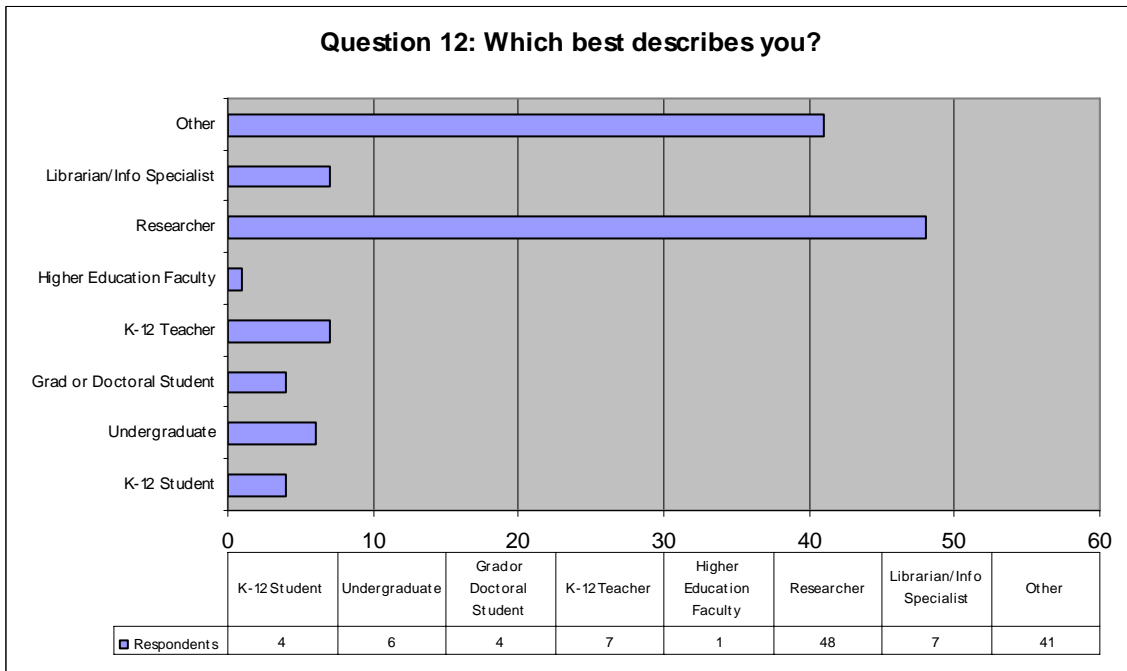|	Richmond, Virginia	Virginia, other	US, outside Virginia	Other
■ Respondents	17	25	69	4
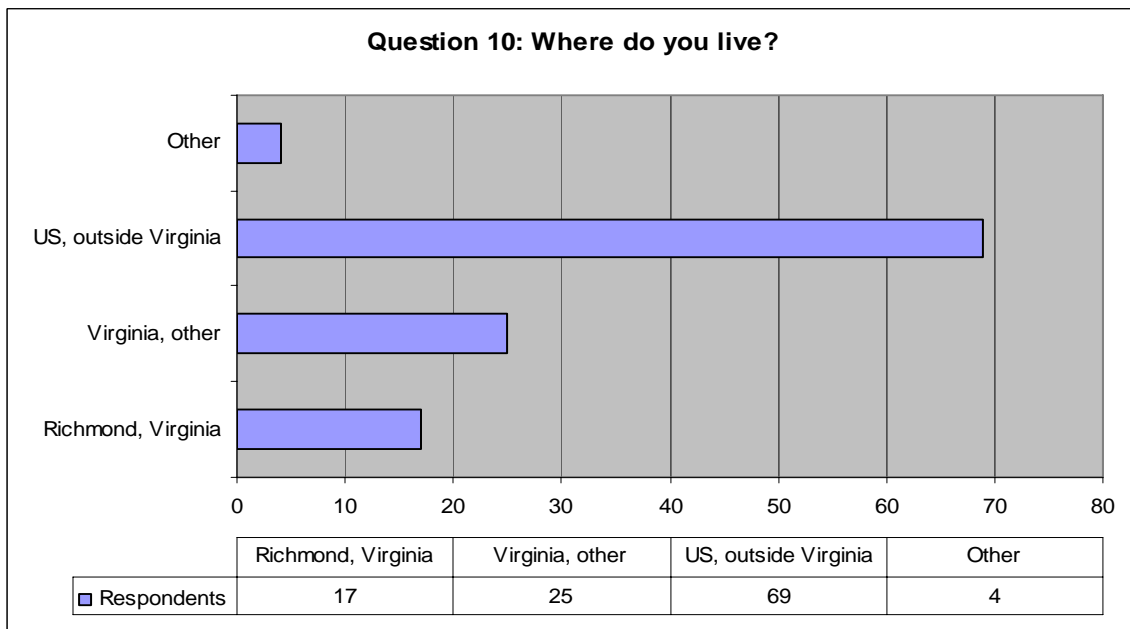
Question 11: What is your age?

Of the 118 respondents who answered this question, 36% were 61 years old or above, and 49% were aged 41-60. Twenty- to forty-year olds comprised 9% of respondents, and only 5% indicated that they were less than 20 years old.

Question 11: What is your age?

	Less than 20	20-40	41-60	61 or older
■ Respondents	6	11	58	43
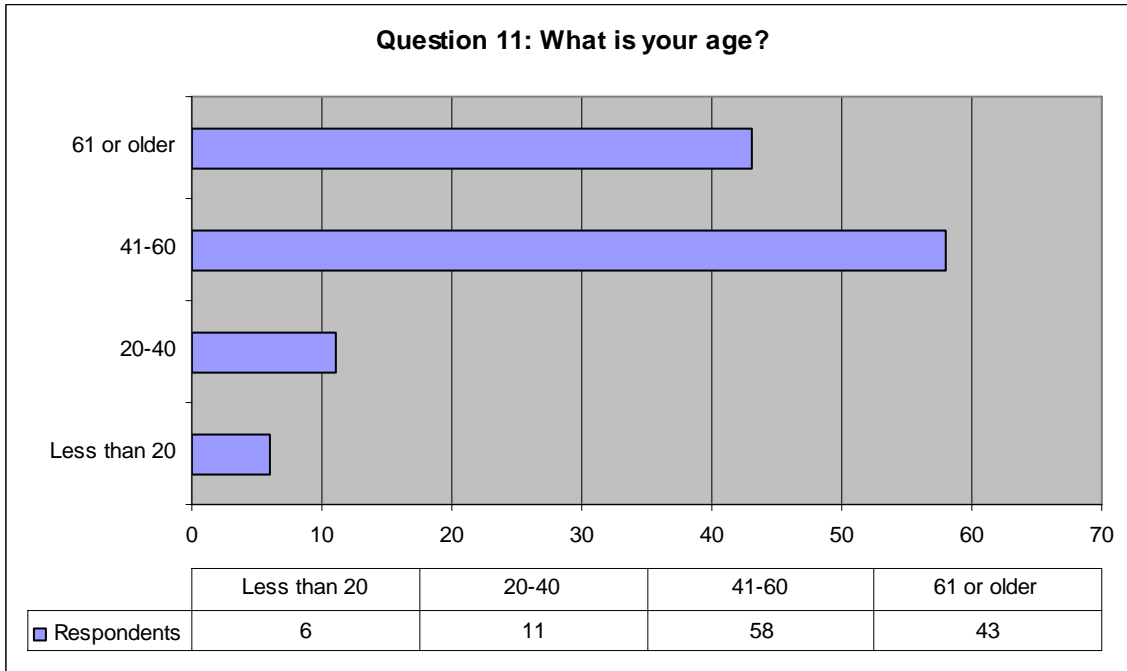
Question 12: Which best describes you?

Seventy-six percent of respondents identified themselves as either researchers (41%) or "other" (35%). All other options were represented by 6% or less of the remaining respondents.

Question 12: Which best describes you?

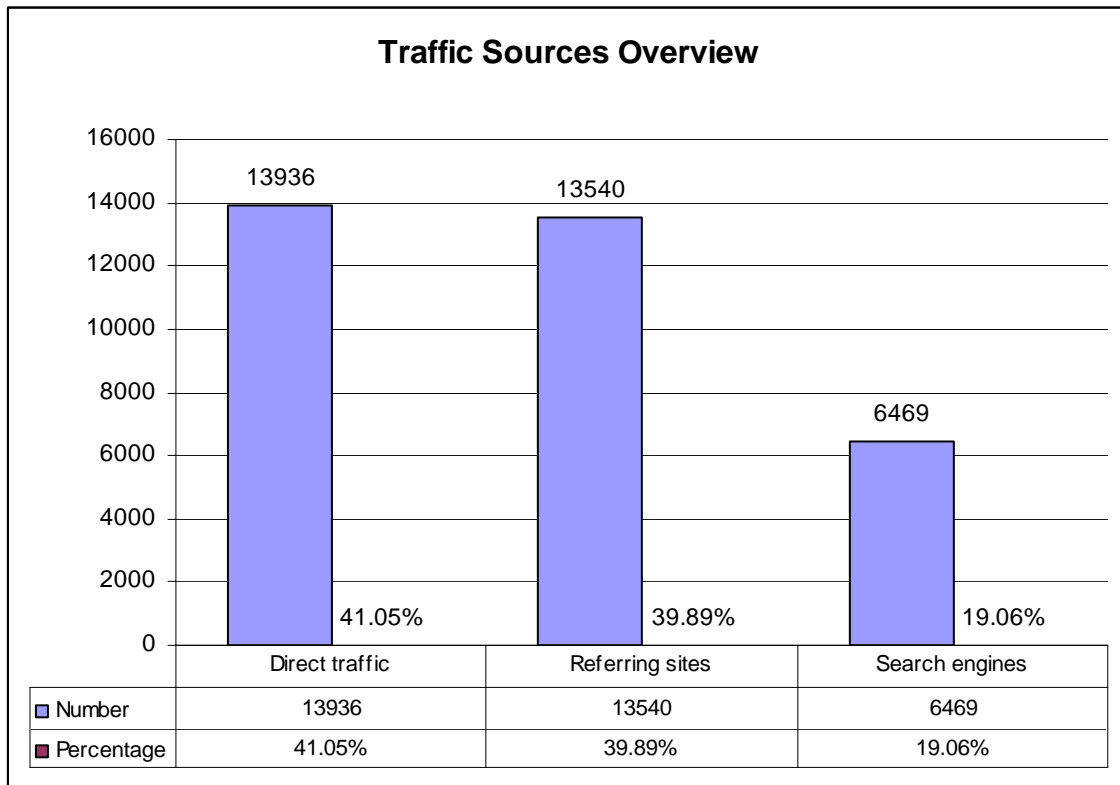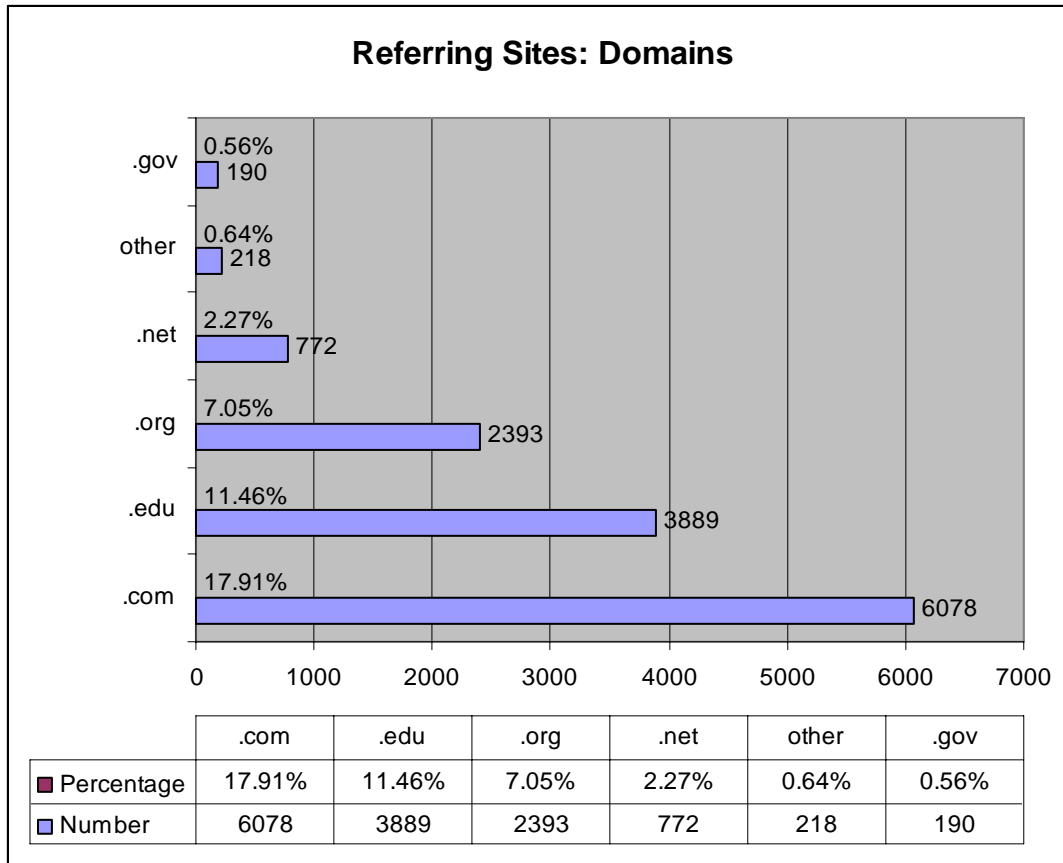|	K-12 Student	Undergraduate	Grad or Doctoral Student	K-12 Teacher	Higher Education Faculty	Researcher	Librarian/Info Specialist	Other
■ Respondents	4	6	4	7	1	48	7	41

Reach of the Project

Early in the project James Rettig and Rachel Frick participated in an outcomes assessment workshop sponsored by IMLS. The outcomes assessment logic model that emerged from that workshop depended very heavily on survey results from participants in a fall 2004 one-day conference held at the University of Richmond. Nearly all of the participants of theta conference were historians; some high school history teachers were also included. Change in personnel and the departure of the staff member who organized invitations and follow-up to that conference had the unfortunate byproduct of the loss of the invitation and attendance lists.

The user survey results show that the project's most visible accomplishment—the searchable Richmond *Daily Dispatch* on the web—appeals to a much broader audience. Data gather from applying Google Analytics to the site is more informative than survey data targeted to fewer than 100 people, nearly all of whom live in a 60 mile radius of Richmond, Virginia. That data follows:

1. Number of sites that have linked to the project site: 321, This number includes links from blogs, message boards, web directories, social bookmarking sites, and direct links from library and genealogical research websites

2. Number of hits since the day the site went live through 30 September 2007: 33,945 from 82 countries or territories.

Traffic Sources Overview

	Direct traffic	Referring sites	Search engines
■ Number	13936	13540	6469
■ Percentage	41.05%	39.89%	19.06%

For the purpose of comparing domain hits and getting a true feel for where the majority of the site's traffic is coming from, looking at the "referring sites" subset makes more sense. Referring sites are those that contain (or contained) a hard coded URL link to the Daily Dispatch site. The following is tabulated for referring sites only – hits via direct link (instant message, email or listserv posting) are not included. Neither are hits from search engines, which are fundamentally different types of hits than referring sites.

Referring Sites: Domains

	.gov	other	.net	.org	.edu	.com
Percentage	0.56%	0.64%	2.27%	7.05%	11.46%	17.91%
Number	190	218	772	2393	3889	6078

	.com	.edu	.org	.net	other	.gov
Percentage	17.91%	11.46%	7.05%	2.27%	0.64%	0.56%
Number	6078	3889	2393	772	218	190

Conclusions

To date, the results of the survey have been reasonably predictable and have not varied widely from expectations. The ways users are being routed to the collection has been relatively consistent with projections. However, in the responses to question #1 concerning resource discovery, users who selected "other" as their means of access were given the opportunity to indicate how they heard about the site. Of those responses, 48% of them revealed in some way that they had found a link to the *Daily Dispatch* at another website. This indicates that the overall percentage of links or referrals from other sites was actually 10 percentage points higher, closer to 33% of all respondents.

Due to the narrow focus of the collection and the precision with which searches can be executed upon specific entity types, the website has been used mostly by researchers and genealogists. Seventy-five percent of answers to question #3 regarding the respondent's purpose for visiting the site indicated that they were there for historical or genealogical research, although the survey was not structured adequately to produce consistent data. In an effort to get a better feel for the kinds of visitors the website is getting, it may be helpful to add the option of "genealogist" to question #12, which asks respondents to identify themselves. While users who select "other" had a chance to describe their choice (and often did identify themselves as genealogists), some respondents may have selected "researcher" when they visited the site for genealogical research purposes.

While the responses to question four regarding accuracy and relevancy of results are encouraging (74% positive), the fact that one quarter of this sample of users was dissatisfied in some way with the performance of the site must be addressed. While some of this dissatisfaction may be indicative of errors with re-keyed text, or mistakenly identified named entities, perhaps the search interface needs to be adjusted, or the help documentation be made more obvious.

Several write-in responses for question #8 (How does the website compare with other Civil War resources online?) indicated that the question was unclear to some users. The distinction between general Civil War history websites and Richmond-specific Civil War websites was made by two respondents. Still, the high percentage (83%) of responses indicating that the *Richmond Daily Dispatch* collection is a high-quality site compared with others is encouraging.
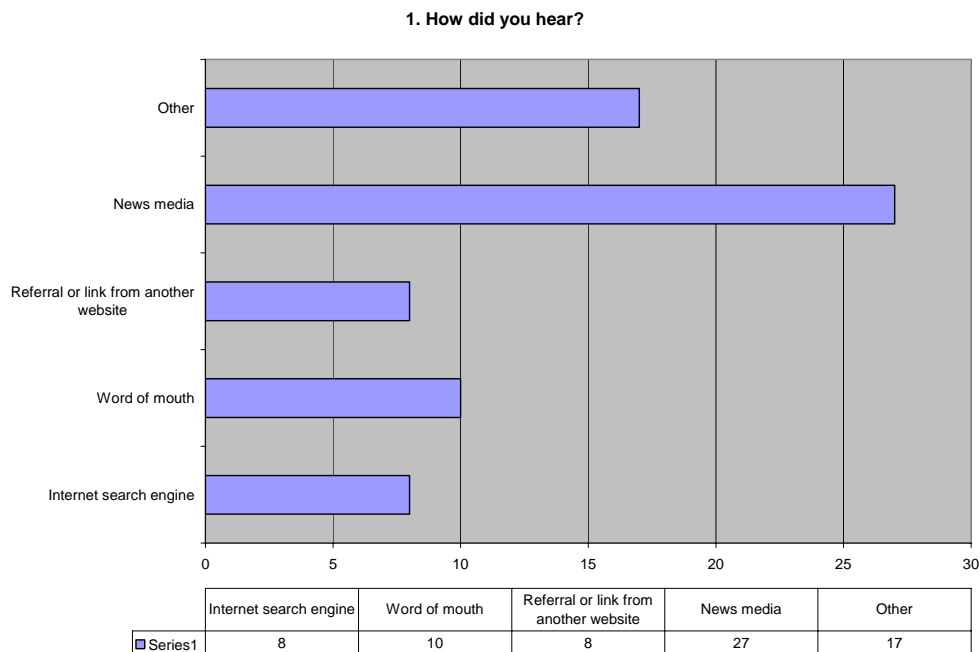
The results obtained from this survey have already influenced the layout and content of the website, with the creation of detailed help documentation, and the formulation of custom searches based on wedding announcements and obituaries. The next version of the survey will focus largely on soliciting detailed feedback from users, perhaps exploring a need for a support/discussion forum as part of the help documentation.

Colorado

Results of User Satisfaction Survey

Colorado's Historic Newspaper Collection provided an opportunity for users to fill out an online User Satisfaction Survey during August and September 2005. For comparison purposes, the same survey that the University of Utah is using for their IMLS newspaper digitization project was used with only minor modifications to remove references to Utah. The Colorado survey is still mounted and available for viewing at: www.coloradohistoricnewspapers.org. During the two month period, 70 users responded to the survey, although not all respondents answered every question.

In answer to the question, "How did you first hear about Colorado's Historic Newspaper Collection?", 30% answered "News media"; 24% answered "Word of Mouth." Search Engine and Referred from Other Site each accounted for another 8%, and 24% indicated that they learned of the resource through other means.

1. How did you hear?

	Internet search engine	Word of mouth	Referral or link from another website	News media	Other
Series1	8	10	8	27	17

In answer to the question, "How frequently do you visit?" 59% indicated that this was their first visit; 20% indicated that they visited weekly. Other respondents indicated they visited daily (10%), weekly (6%), or a few times a year (6%).

2. Frequency of visits?

|	First Time	Once a Year	Few Times a Year	Monthly	Weekly	Daily
Series1	41	0	4	4	14	7
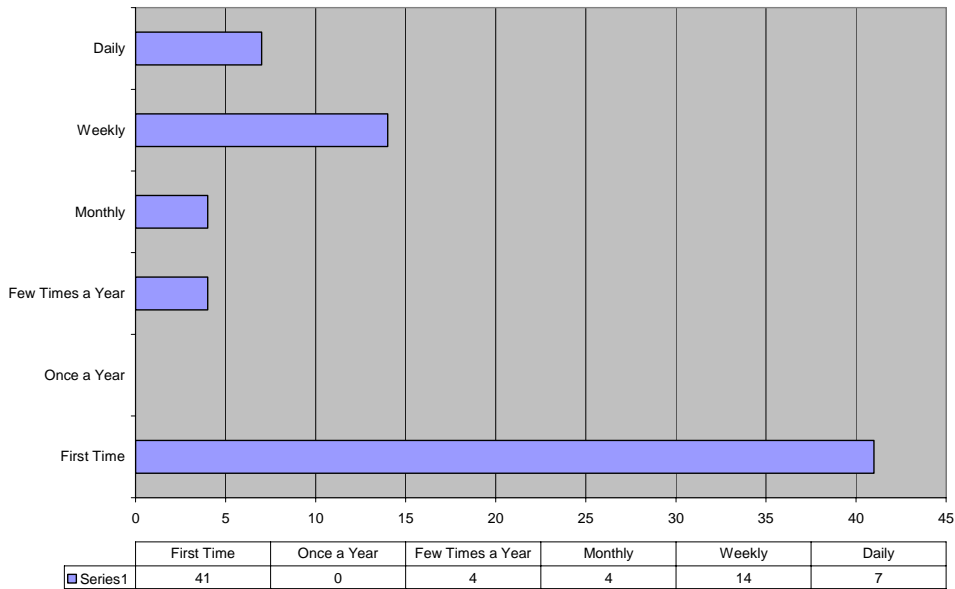
In answer to the question, "What is the purpose of your visit today?", 44% indicated that they were seeking genealogy/family history and 39% indicated that their purpose was related to general and/or historical research. Other respondents indicated they were simply curious (6%), were there due to a school assignment (1%), or had other reasons for visiting (10%).

3. Purpose of visit?

|	Genealogy/family history	General and/or historical research	School (teachers and students)	Just curious	Other
▣ Series1	31	27	1	4	7
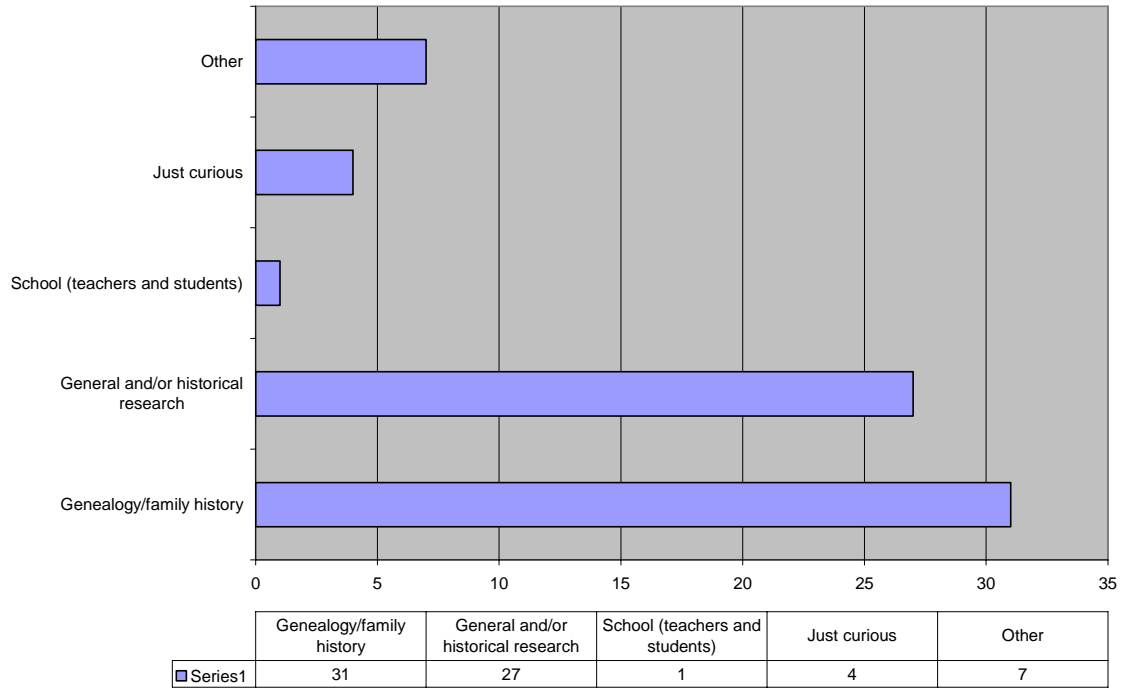
Question 4 asked, "How relevant and accurate are the results returned from your searches? Do your searches provide the information you expect?" The responses to this question were interesting because there was a significant amount in each category. 40% felt that the results were good; 27% felt that they were excellent; 17% indicated poor; and 16% indicated fair.

4. Relevant results?

|	Poor	Fair	Average	Good	Excellent
▣ Series1	12	0	11	28	19
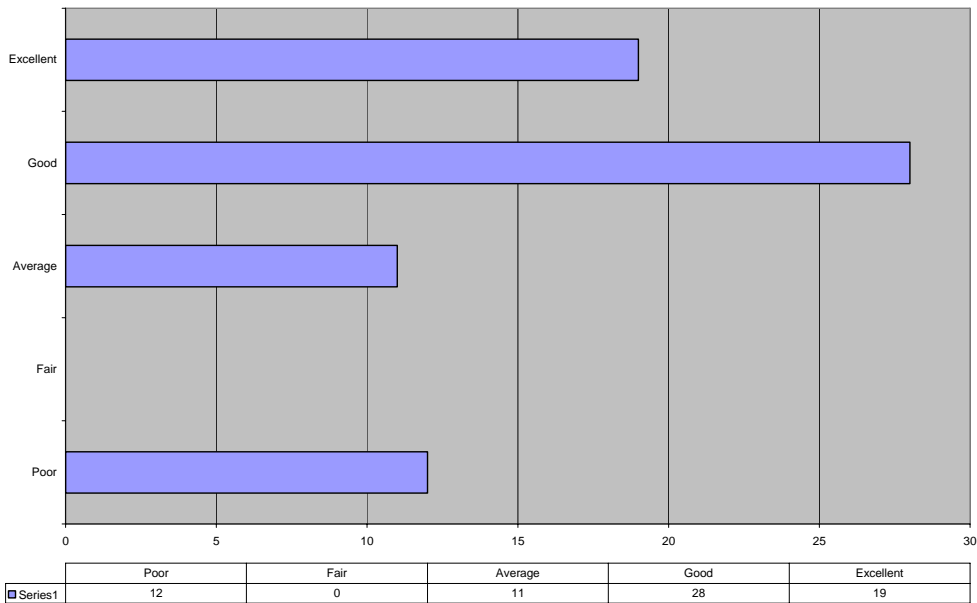
Users' perception of response time was probed in question 5. 50% indicated that the response time was good; 23% felt it was excellent; 13% felt it was average; and 6% indicated poor.

5. Response time rating?

|	Poor	Fair	Average	Good	Excellent
Series1	6	4	9	35	16
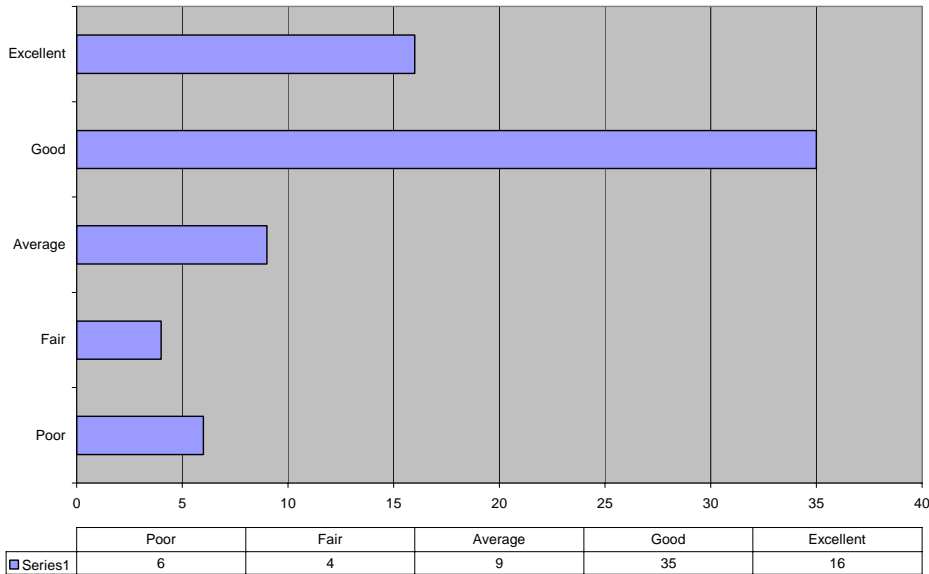
Question 6 asked users for their Internet connection type, with only 69 of the 70 respondents answering the question. The majority of users indicated that they had a dial-up connection: 42%. DSL and cable each accounted for an additional 24% of users. Together, Other and T1 accounted for only 9%.

6. Type of Internet connection?

	Modem/Dial-up	DSL	Cable	T1	Other
Series1	29	17	17	4	2
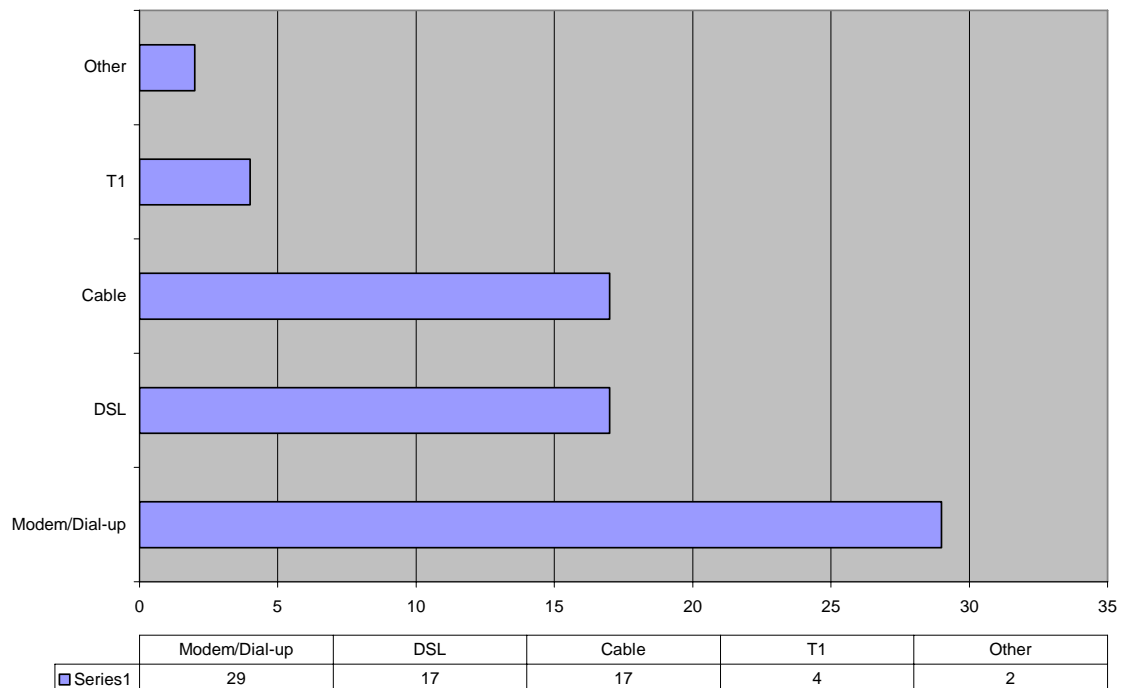
Users gave Colorado's Historic Newspaper Collection an overall rating in Question 7. Out of the 67 respondents who answered the question, 42% rated it Good, 39% rated it Excellent, 7% Poor, and 7% Fair, and 4% Average.
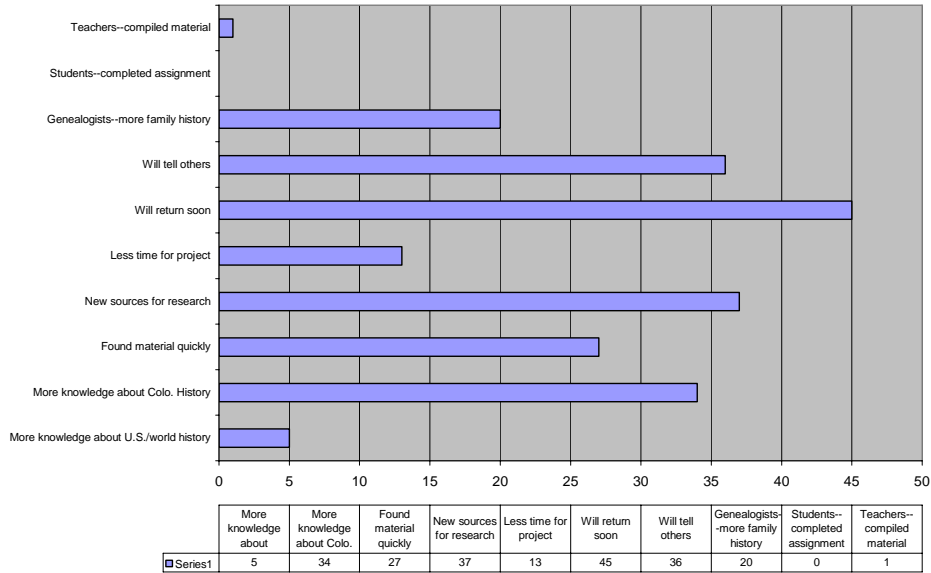
7. Overall rating?

	Poor	Fair	Average	Good	Excellent
Series1	5	5	3	28	26
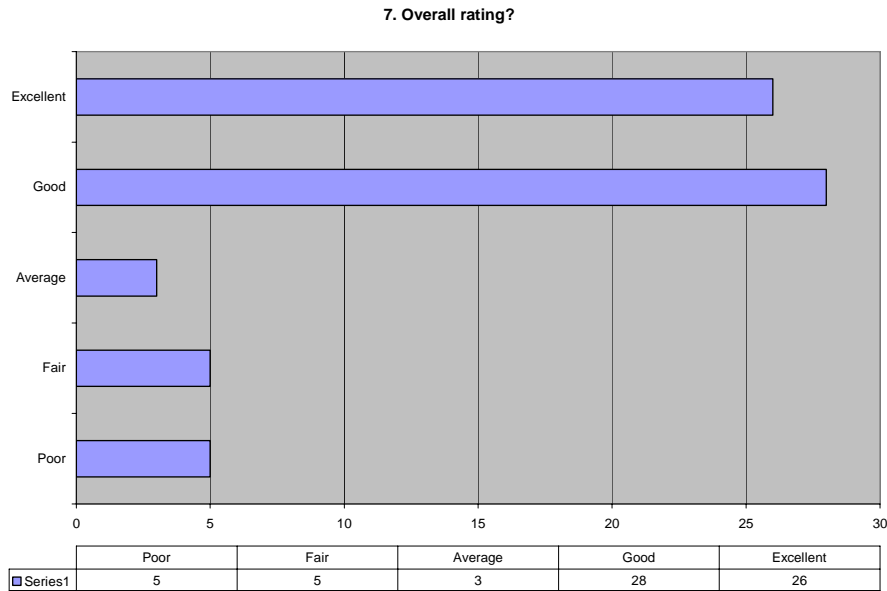
Question 8 asked, "How does the website compare with other sources on Colorado history?" Of the 61 respondents who answered the question, 59% rated the website Among the Better Ones, 23% indicated it would be their First Choice, 13% indicated it was Just Okay, and 5% found it Not Useful.

8. Compare website?

	Not useful	It's just OK	Among the better ones	My first choice
Series1	3	8	36	14
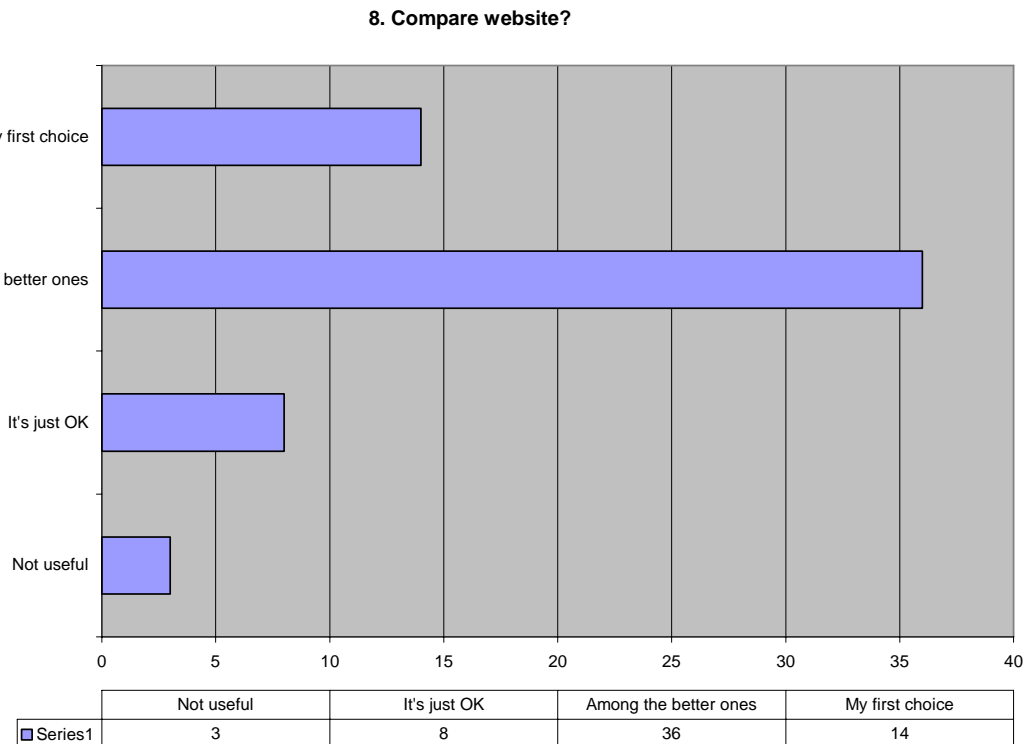
Question 10 was related to outcomes for using the resource. Users could check all that applied. 45 users indicated they would return soon, 37 indicated that they had found new sources for research, 36 said they would tell others, 34 indicated they now had more knowledge about Colorado history, 27 said the resource
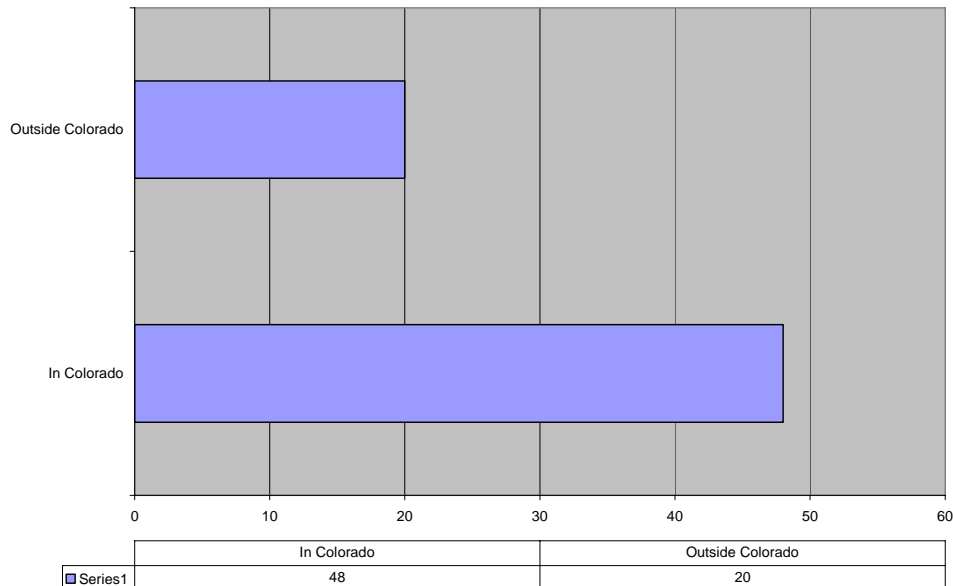
helped them find material more quickly, 20 who identified themselves as genealogists indicated they now had more information about their family history, 13 indicated it helped them take less time to complete a project, 5 said it helped them gain more knowledge about U.S./world history, and one who identified himself as a teacher indicated the resource helped them compile material for class. None of the respondents identified themselves as a student.

10. Results of using website

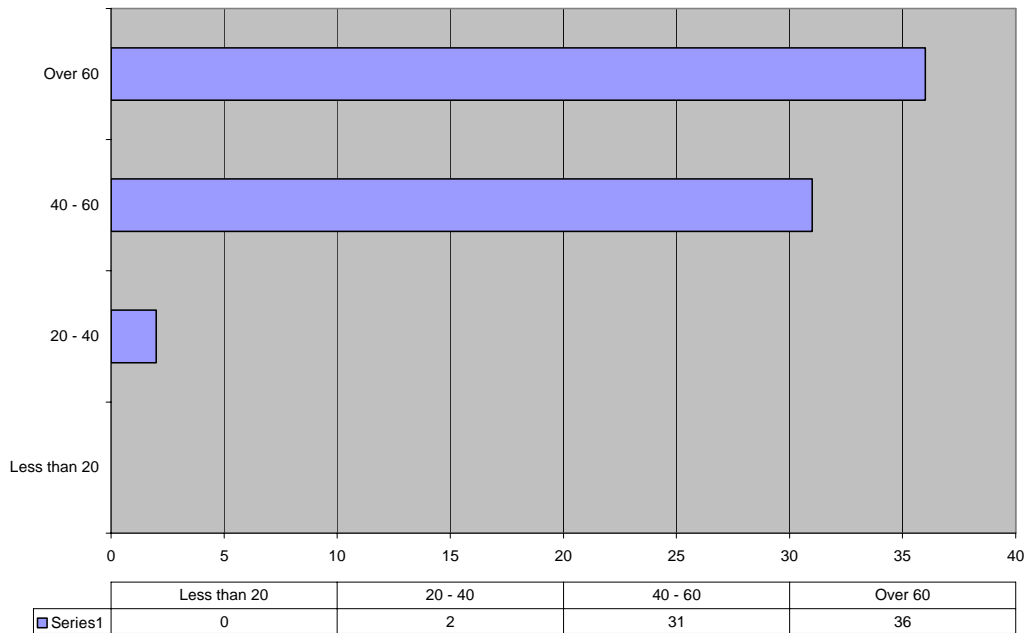|	More knowledge about	More knowledge about Colo.	Found material quickly	New sources for research	Less time for project	Will return soon	Will tell others	Genealogists--more family history	Students--completed assignment	Teachers--compiled material
Series1	5	34	27	37	13	45	36	20	0	1

Location and age demographic information was sought through questions 11 and 12 respectively. The answers to question 11 indicated that of the 68 respondents who answered the question, 71% live in Colorado and 29% live elsewhere. Of the 69 respondents who answered question 12, 52% were over the age of 60, 45% were between age 40 and 60, and only 3% were between age 20 and 40.

11. Live in Colorado?

	In Colorado	Outside Colorado
Series1	48	20

12. Age

	Less than 20	20 - 40	40 - 60	Over 60
☐ Series1	0	2	31	36

Conclusions

Overall, the results were not surprising. As expected, the majority of usage came from people who were interested in genealogy or general history research (83% total). In general, most genealogists tend to be older, and this was reflected in the large percentage of users over 60 (52%) and between 40 and 60 (31%). While a growing number of older users are becoming better connected to the Internet, according to national studies their age group still has the smallest percentage of Internet connections at home. This is reflected in the survey by the high percentage of dial-in use (42%). Because of the nature of the resource – images of newspapers that may take a significant time to load – dial-in users would naturally show some dissatisfaction with the site. While many respondents rated the response time as excellent or good (73%), there were still a significant number who felt it was only average, fair or poor (27%).

The results of this survey will be used, along with other input methods, to create a potential enhancement list for the next release. Some of the changes that will be considered include being sensitive to the response time dial-in users experience and finding ways to increase the speed for them, creating value-added tools that are of interest to genealogists and those interested in local history, creating marketing channels to reach those audiences.

Lessons Learned During and From the Richmond Project

Throughout the three- year process of this project University of Richmond learned as much from our project partners as from others involved in the area of digital libraries nationally. Major trends and themes emerged from our experience that correlate to other digital collection creation activities. Details about our lessons learned can be found in previous project reports posted at http://dlxs.richmond.edu/d/ddr/proinfo/repmin.html. In brief, listed below are lessons we will use in future projects:

- Planning and effective communication of project objectives prior to the start of a digitization project is essential

- Adherence to standards and workflow protocol is necessary and a baseline requirement of all digitization projects
- QA processes need to be built into workflow
- Collaborative efforts are required for successful digital projects. Collaboration within the library and with the digital library community at large
- Regular periods of evaluation and assessment are required – with an ability to respond and redesign work as needed
- Technology and standards are in a constant state of flux and how one starts a project, may not necessarily be the way it ends
- Constant state of knowledge transfer – no matter where you are placed, you can make a contribution to the global digital library effort
- Digital object containers are less important than the functionality that is built around the content
- Repositories are less important than the tools and services we develop to access their content
- Appropriate staffing and resources – whether at home or for hire are crucial; it is critical that proper and extensive project planning, needs assessment, reasonable work-plan, and assessment measures are established before a project begins
- Communication is essential for a successful digitization project

From Project to Program – Final thoughts

One of the original goals set by this project was the creation of a digital library program at the University of Richmond. In the past three years, we have converted a professional cataloging position to become a Head, Digital Initiatives position. This position has that has been held by two people, the first hired to with grant funding to work exclusively on the IMLS project. The current Head, Digital Initiatives is a recent library school graduate who had a number of years experience at Boatwright Memorial Library. After several failed attempts to have a new position added to the library organization through the University of Richmond program improvement process, the Director of Bibliographic and Digital services recommended taking advantage of a retirement and repurpose the position to lead digital library efforts, finding other ways to address the cataloging workflow issues that would arise from not filling the cataloging vacancy. The library budget now has an operations line dedicated to digital library expenditures.

Most recently, the library has reorganized staff and services to consolidate imaging and scanning services into one unit, providing images for interlibrary loan, e-reserves, digital library projects, and—in time—other clients throughout the university. It is the goal of this unit, after six months, to begin offering imaging services to the greater University of Richmond community, not just intra-library service units. We have consolidated equipment, student resources and have begun the process of establishing policies, standards and priorities for digitization jobs. A component of the digitization unit is to work collaboratively with preservation services staff. We are actively seeking ways to incorporate preservation treatment of materials as part of the digitization process, so that we only touch rare, fragile and unique items once. Another step in a positive direction for University of Richmond's digital library program was the acquisition of two scan back digital cameras and motorized copy stands, in order to provide a wider capacity of digital services. Within the larger organization structure of Information Services, two positions have been created to support faculty digital scholarship activities on campus. The library will be working with the new Digital Scholarship Lab in creating dynamic digital learning tools. The library has established growth needs for room on the University's network storage infrastructure and has obtained space commitments for the nest two years. Having an understanding from the network group and a commitment to preservation of data was a huge victory for the digital library working group. We have determined the need for a Digital Advisory group consisting of the head of networks and systems, head of center for teaching and learning with technology, and members of the digital library group. This advisory group will recommend ways to allocate Information Services resources for the support of digital scholarship on campus.

Although we have made great strides in the development of digital library collections and support, we digital activities with our public services units. This will change as librarians with liaison responsibilities encourage faculty to contribute their work to the institutional repository. Policies have been put in place the past two years to require all authors of master's theses and undergraduate honors theses to submit them electronically. Procedures supporting this policy strongly encourage students to grant permission for their work to be made freely available through the repository.

In the past three years, Richmond has made a positive contribution to the digital library community, as a leader and example for our peer organizations to follow, reaching our to build partnerships with local entities (we developed an IMLS grant proposal for a national leadership planning grant with several local cultural organizations), and by actively training existing staff in new skills so that they could contribute to the activities surrounding digital library. Andrew Rouner, our first head of digital initiatives, moved on to Washington University in St. Louis as the head of its digital library program. Rachel Frick has grown her skills and expertise to have been chosen to serve on several IMLS review panels, regional advisory groups, and has presented several times on digital library issues at local and regional conferences. These two individuals are examples of how this project enriched existing personnel, who then used their skills to contribute to the community at large. Richmond as an organization is also starting to "transfer knowledge" to its peer groups. For example, Richmond is taking part in a collaborative IR project with other NITLE organizations.

Civil War Newspapers Project—Outcomes Logic Model

The surveys identified in #2, #3, and #4 and the interviews in #5 below will be completed in the fall of 2007.

Organization Name:	University of Richmond	
Project Name:	A Test bed of Civil War Era Newspapers	
Date Created		Date Reviewed	

Program Influencers *(Key entities that help define the program or to whom the program will report results)*
Digital library community, U of Richmond Administration, Tufts University and Greg Crane, Historians and teachers, IMLS

Organizational Mission *(Organization's mission statement or key action words)*

Program Purpose	
We do what? *(Summary of key proposed services)*	*Digitizing Civil War-era newspapers from North and South using cutting edge processes to generate clear, useful images accompanied by consistent, easily searchable metadata and to transfer complementary knowledge between partner institutions*
For whom? *Target population(s)*	*The library digitization community so it can adopt new best practices and improve upon those practices. For scholars, students and teachers to have free access to newspapers*
For what outcome(s)? *(Benefits/changes in skills, knowledge, attitude or life condition.)*	*Other newspaper projects will adopt and improve our best practices We will establish a repository for 19th century newspapers and Newspapers will be used in university and high school curricula Knowledge (knowledge of what?) will be enhanced between project partner institutions.*

Inputs *(List items dedicated to or consumed by the program)*	Outputs *(Program products)*
New position	# of newspapers digitized
Equipment	Authority file
Newspapers	Website
Web site	DTD's
Outsource vendors	Raw data sets
Training consultants	Repository
Database admin.	# of images
% of various staff	metadata
historian	

Tufts staff space	

Program Activities *(List key activities needed to provide or manage services.)*	Program Services *(List services to be delivered directly to participants.)*
Digitalization DCR Metadata tagging Authority work Iterative testing Reports – IMLS and more Web design Confer with others Hire for position Purchase computers Establish DTD's	Website best practices Workshop for academics and teachers Access to papers Knowledge exchange

Target Population *(List specific characteristics of primary intended participants)*
Historians, library digitization community, teachers, students

Intended Outcomes *(Changes in skill, knowledge, attitude, behavior, life condition or status)*	Indicators (Measures) *(Concrete evidence, occurrence, or characteristic that will show the desired change occurred)*
Immediate:	
Intermediate:	
Long-term:	

Outcome #1 Digital library technologies peer group will demonstrate knowledge of The Civil War era Newspaper project

Indicator(s)	Data Source (Where data will be found)	To Whom (Segment of population to which this indicator is applied)	Data Intervals (Points at which information is collected)	Target (the number , percent, variation or other measure of change)
The # and % of those who attend conference presentation that articulate 2 project purposes and know one element they can apply to their projects	Presentation evaluation	Conference presentation attendees	Immediate—at conclusion of presentation	50%
The # of sites that link to our repository	WWW	Digital Technologist with repository projects	Every 3 months	5
The # of hits on web site after an announcement of project via a listserv	Web log	Members of listserv	Week after broadcast emails	20

Outcome #2 Digital library Technologists will adopt best practices in future newspaper digitization projects

Indicator(s)	Data Source (Where data will be found)	To Whom (Segment of population to which this indicator is applied)	Data Intervals (Points at which information is collected)	Target (the number , percent, variation or other measure of change)
The # of projects that reference any of the project's best practices OR	Survey project managers; Examination of project documentation	Known newspaper digitization projects	~~May 2005 October 2005~~, ~~January 2006~~ August 2006, then every 6 months	3
The # and % of staff from other projects who report they were influenced directly by the Civil War Newspaper project	Survey of project managers/staff	– staff involved	~~May 2005 October 2005~~, ~~January 2006~~ August 2006, then every 6 months	5

Outcome #3 Historians know about the Civil War Newspaper Repository

Indicator(s)	Data Source (Where data will be found)	To Whom (Segment of population to which this indicator is applied)	Data Intervals (Points at which information is collected)	Target (the number , percent, variation or other measure of change)
The # and % of historians who attended the workshops who can name the purpose of the project AND	Workshop evaluation	Those who attend workshop	At end of workshop	100%
The # and % of historians who attended the workshop who revisit the project Web site	Interviews and/or survey	Those who attend workshop	~~May 2005 October 2005~~, ~~January 2006~~ August 2006, then every 6 months	80%

Outcome #4 Historians use the Civil War Newspaper Repository

Indicator(s)	Data Source (Where data will be found)	To Whom (Segment of population to which this indicator is applied)	Data Intervals (Points at which information is collected)	Target (the number, percent, variation or other measure of change)
The # and % of historians who do at least 1 of the following: • Incorporate database in a class they teach • incorporate in their research	Interviews and/or survey	Those who attend workshop	~~May 2005~~ ~~October 2005~~, ~~January 2006~~ August 2006, then every 6 months	50%
The # and % of historians who attended the workshop who report one way in which they have used the repository in their work or research.	Interviews and/or survey	Those who attend workshop	~~May 2005~~ ~~October 2005~~, ~~January 2006~~ August 2006, then every 6 months	80%

Outcome #5 Project partner Institutions' contributors know new skills and technologies

Indicator(s)	Data Source (Where data will be found)	To Whom (Segment of population to which this indicator is applied)	Data Intervals (Points at which information is collected)	Target (the number , percent, variation or other measure of change)
The # and % of contributors at each partner institution can name 2 new ways the technology can be used or 2 new skills they learned	Interview	Grant participants at all organizations	~~March 2006~~ June 2006	100%
The # and % of partner institution contributors use new skills in other projects	Interview	Grant participants at all organizations	~~March 2006~~ June 2006	50%
The # or % of contributors that build on skills acquired during project	Interview	Grant participants at all organizations	~~March 2006~~ June 2006	25%