MARC and EAD: Making Archival Surrogates Usable and Accessible

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Outline

• Background
• Research Questions
• Methodology
• Example Findings
• Conclusions
• Kudos
  • Funding
    • National Historical Publications and Records Commission (NHPRC)
    • Online Computer Library Center (OCLC)
  • Jihyun Kim and Rebecca Tremaglio
Manifesto #5: The real purpose of computing is to let people take part in shared representations.

(Malcolm McCullough, Assoc. Professor of Architecture, University of Michigan)
Research Questions

• Are there Shared Representations in Archival Material Presented Online?

• Why is “Taking Part” in these Representations and Primary Source Research so Difficult?
Research Questions

• How to users make sense of archival surrogates?
• How to researchers use surrogates to help solve problems using primary sources?
• What design features do researchers use? And how well do they use them?
• What functionalities do users want to assist them in their work
Purpose

• Understanding more about use of archival materials
  • Search patterns and strategies of researchers using primary sources
  • How people think about solving primary source research problems
  • Identification of optimal search strategies

• Usability
  • Usability concerns the interface design, the content, and the functionalities of the system
Methodology

• Experimental design
  • Laboratory Setting

• Pre-test questionnaire
  • Demographic data
  • Library experience
  • Archival experience
  • Computer skills (self-rated)

• Usability Test

• Post-test interview
Participants

• Four groups
  • Undergraduates
  • Experienced archival researchers
  • Genealogists
  • Academic reference librarians
• Compensated $25 per experiment
• Approved by the UM Institutional Review Board
Interfaces

• Online Catalogs
  • Mirlyn, University of Michigan
  • Library of Congress, OCLC
  • Library of Congress, RLG
  • RLG
  • OCLC

• EAD Sites
  • Online Archive of New Mexico
  • Bentley Historical Library
Four Usability Tests

• Each builds on the other to understand different dimensions of how researchers utilize and make sense of archival representations
  • Static MARC records
  • Searching online catalogs
  • EAD finding aids
  • Online catalogs to EAD finding aids
Testing

• Archival knowledge

• Searching skills

• Usability features
Piloting the Usability Tests

• Assessing the feasibility of the questions
• Refining the questions
• Making sure the questions tested what we intended
• Timing
• Managing the level of difficulty
Data Capture

- Videotape
  - Audio
  - Video
- Keystroke capture
  - Camtasia (also does back up audio capture)
- Researcher notes
Static MARC Records

• Users are presented with 2-5 screens with archival MARC records from different online catalogs and asked a series of questions
  • Focus: whether or not any of the records on the screens represented the same underlying collection
• How much do users understand about archival MARC records?
• Eliminates searching from the equation
• Undergraduates and Expert Archival Researchers
Static MARC Records Tests

• Archival knowledge
  • Ability to recognize key information elements
    • Author
    • Title
  • Understanding of key information elements
    • Dealing with inconsistencies between records

• Usability
  • Placement of information
  • Presentation of data elements
EAD Finding Aids

• Undergraduates and Academic Reference Librarians
• Presented with a series of scenarios / tasks in two interfaces
• Tasks based on interviews and observations with researchers.
• Task goals include:
  • Filling out a call slip
  • Utilizing various search delimiters
  • Generating terms for subject searches
  • Selecting / identifying suitable collections to answer the question
  • Identifying archival information
  • Linking to digitized materials attached to finding aids
Finding Aids Experiment

You are researching Rock and Roll in Detroit for a term paper.

1. Does the Bentley Library have any archival collections on this topic?
   • Yes ______  No ______

2. Name these collections that contain materials on rock and roll?

3. How confident are you that you have located all of the relevant collections?
   • (1 = very uncertain; 10 = very confident)
   _____
Rock and Roll Tests

• Archival Knowledge
  • Knowledge of information in Finding Aids
  • Knowledge of the Finding Aids structure
  • Ability to distinguish between context and content

• Searching Skills
  • Familiarity with simple and Boolean Searching
  • Ability to use delimiters
  • Knowledge of search strategies such as synonym generation, use of controlled vocabulary
  • Exhaustive search for “everything”

• Usability
  • Ability to use left / right frames
  • Ability to identify searching and navigational options at all points
  • Supportive of working memory
Rock & Roll: Searching (1)

**Undergraduates**
- Types of search
  - 5 started with simple search
  - 7 used Boolean search at least once
  - 4 used only simple search
- Search terms
  - Detroit, Detroit music, Detroit and Entertainment, Music, Rock, Rock and Roll, Rock and Roll in Detroit, Rock and Roll history

**Librarians**
- Types of search
  - All started with Boolean search
  - 1 used simple search
- Search terms
  - Detroit, music, Motown, Rock, Roll, Rock and Roll
  - Subject headings
    - Rock music – Michigan
    - Music – Michigan -- Detroit
Bentley Historical Library Finding Aids - Microsoft Internet Explorer

Basic Search

Other searches: Boolean search

Search for: 

within Entire Finding Aid

Search

Powered by DLXS
To comment or inquire about content, contact Bentley Historical Library
To report errors, contact University of Michigan Digital Library
Rock & Roll: Searching (2)

Undergraduates
- Number of searches
- Use of delimiters
  - All used a default delimiter

Librarians
- Number of searches
- Use of delimiters
  - Varied
R & R: Views Selected

**Undergraduates**
- Use of
  - “Search Terms in Context”
  - “Standard View”
  - “Full Text”
- 2 never went beyond the abstract to answer the question

**Librarians**
- Use of
  - “Search Terms in Context”
  - “Standard View”
  - “Full Text”
- 2 never went beyond the abstract to answer the question
Search results

Your basic search for "detroit rock and roll", unsorted in Bentley Historical Library Finding Aids resulted in 2 matching terms in 1 entire finding aid.

Refine this search

1 of 1 record

Title: John and Leni Sinclair papers

Creator: Sinclair, John, 1941-

Extent: 60.5 linear ft. (76 boxes), 1 oversize folder (UAI), and 1 oversize v.

Abstract: John and Leni Sinclair were leaders of the counterculture movement in Michigan, organizers of radical social, political, and cultural endeavors primarily in the areas of music, poetry, graphic design, and community welfare projects. Papers and photographs (1957-1979) relating to all phases of their careers, including participation in the Artists' Workshop in Detroit, the Rainbow Multi-Media Corporation, the White Panther Party and its offshoot, the Rainbow Peoples Party; also materials concerning the legalization of marijuana, radical politics, and prison reform. Also material, 1979-2000, relating to John Sinclair's work as a writer, performer, radio show host and music promoter.

Search results: 2 matches in entire finding aid

search terms in context | standard view | full text (443 K bytes) | add to bookbag
John and Leni Sinclair papers 1957-1999

search terms in context | standard view | full text (443 K bytes) | add to bookbag

Contents List

subgrp: Textual Records
series: Topical File
otherlevel: 1978-1999
  • "ou, You Rip Me," 1998 (Exhibition on Detroit Rock and Roll, Rotterdam, the Netherlands) / ...

series: Film and Television Projects
  • "Motor City Shakedown: A Detroit Rock and Roll Reunion," 1987 ...
Rock & Roll: Time and Completeness

**Undergraduates** (10)

- Time
  - Average time on task
  - Range
- Task completion rate

**Librarians** (9)

- Time
  - Average time on task
  - Range
- Task completion rate
Terrazas Wedding Photograph

You are a descendant of Antonio Terrazas. You have heard that there is a 1909 wedding photograph of him. Can you locate a digital copy of the photograph?

1. What is the URL?

2. In what collection, box and / or folder is the original (analog copy) located?

3. Are there any unfamiliar terms, abbreviations or symbols in this display? Please list there.
Terrazas Photograph Tests

- Archival knowledge
  - Deep web: What happens when people search for someone who is not named as the author or whose name appears in the title
  - Ability to find digital documents linked to the finding aid
  - Known item search
Terrazas Photograph Tests

• Searching skills
  • Use of delimiters
  • Understanding of how browser functions can be used in conjunction with EAD sites
    • Use of find function in browser helps search

• Usability
  • Navigation of the finding aid
  • Ability to expand / collapse left frame
  • How much scrolling users will do
Terrazas: Searching

**Undergraduates**
- Number of searches
  - Average
  - Range
- Use of delimiters
  - 1 used ‘This phrase’
  - Collection parameters

**Librarians**
- Number of searches
  - Average number of searches
  - Range
- Use of delimiters
  - 6 used ‘this phrase’
Terrazas: Search Terms

Undergraduates

- Names: Antonio Terrazas, Terrazas, Terrazas, Antonio
- Others: Antonio Terrazas and wedding, Marriage Records, weddings, wedding photographs

Librarians

- Names: antonio terrazas
- Date: antonio terrazas 1909
- Others: antonio terrazas wedding, antonio terrazas and wedding photograph
- Through IE Find function: wedding, terrazas
Results of Search

The exact phrase: "Antonio Terrazas"

2 Finding Aids Retrieved

<table>
<thead>
<tr>
<th>Hits</th>
<th>Finding Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td><strong>Amador Family Papers, 1836-1949</strong></td>
</tr>
<tr>
<td></td>
<td>Repository: <em>Rio Grande Historical Collections</em></td>
</tr>
<tr>
<td></td>
<td>Collection Size: ca. 52 linear ft.</td>
</tr>
<tr>
<td></td>
<td>Abstract: Papers of the Amador family, entrepreneurs and community leaders of Las Cruces, New Mexico. Martin Amador, with his wife Refugio Ruiz de Amador, operated several businesses in Las Cruces, including the Amador Hotel, a general store, a livery stable, and a business hauling freight and goods from Chihuahua, Mexico, to Santa Fe, New Mexico. The hotel also housed a theater, the local jail, a courtroom, and post office. The Amadors owned several farms in the area. Included in the collection are the ...</td>
</tr>
</tbody>
</table>

| 1    | **Fabian Garcia Papers, 1886-1948 (1899-1948)** |
|      | Repository: *Rio Grande Historical Collections* |
|      | Collection Size: 2.5 linear feet |
|      | Abstract: Horticulturist, Professor of Horticulture and Director of the Agricultural Experiment Station at New Mexico College of Agriculture and Mechanical Arts (now New Mexico State University) in Las Cruces, New Mexico. Consists of correspondence, notebooks, speeches, manuscript for publications and other materials related to his career, civic service, and personal life. Includes the extant papers of Alfredo M. Sanchez, an Assistant Superintendent of Public Instruction for the Territory of New Mexico |
Photographs, 1869–ca. 1940, n.d.

(ca. 4 linear ft.)

Images include four generations of the Amador family, Las Cruces area and Mexico, primarily from late 19th and early 20th centuries. Some images are unidentified. The series also contains stereo cards and company picture cards collected by Amador family members, in addition to four postcard albums maintained by Clotilde and Juliesta Amador. The albums contain a diverse collection of postcards, and additional correspondence between the sisters and their friends.

<table>
<thead>
<tr>
<th>Box Folder</th>
<th>Contents</th>
</tr>
</thead>
</table>
| 46:1       | Martin Amador family, 1869–ca. 1920  
Example: Amador family, Las Cruces, New Mexico, ca. 1900-1902 |
| 46:2       | Emilia Amador Garcia family, ca. 1915–ca. 1917 |
| 46:3       | Juan E. Amador family, 1896–ca. 1935 |
| 46:5       | Clotilde Amador Terrazas family, ca. 1890–ca. 1916  
Example: Wedding photo of Antonio Terrazas and Clotilde Amador Terrazas, 1909 |
| 46:7       | Corina Amador Campbell Family, ca. 1900–n.d. |
Terrazas: Time, Completeness & Correctness

Undergraduates (n=11)
- Time
  - Average time to completion
  - Range
- 5 completed the task

Librarians (n=9)
- Time
  - Average time to completion
  - Range
- All completed the task
Findings: Experts and Novices

• Use of classic search strategies
  • Synonym generation
  • Use of official subject headings

• Use of delimiters

• Differences in known item and total recall searches
Findings

• Shared representations:
  • Archival knowledge
    • Ability to distinguish between content and contextual information
    • Nature of authorship
    • Terminology
Taking part:

• Searching
  • Low use of delimiters

• Navigating
  • Browse / Search

• Usability
  • Attention
  • Navigation
Conclusions

• Shared representations
  • Implicit meanings and archival paradigms exist in digital archives

• Taking part
  • Researchers have little opportunity to take part in the representations and own them

• Next generation tools