QUALITY METADATA: REINVENTING SERVICE

MISSOURI LIBRARY ASSOCIATION
2014 CONFERENCE
OCTOBER 10, 2014

FELICITY DYKAS
HEATHER LEA MOULAIISON
KRISTEN GALLANT

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iSchools
School of Information Science
& Learning Technologies
University of Missouri

MU Libraries
University of Missouri

WHY DOES QUALITY MATTER TO SERVICE?

"Metadata ultimately supports retrieval and use, but if records do not contain quality metadata, the content that they describe will be hidden from end-users" (Moulaison, 2014, p.4).

➤ Quality metadata IS important to Missouri libraries.
WHAT IS QUALITY?

• “Quality judgments are by definition subjective and incomplete” (Conway, 2011, p. 299)
• Not one size fits all; based on needs
• Some characteristics (Bruce and Hillmann, 2005, p. 243) ...
  • completeness
  • accuracy
  • provenance
  • conformance to expectations
  • logical consistency and coherence
  • timeliness
  • accessibility

AGENDA

• Background and key concepts
• Study
• Method
• Results
• Implications for users
• Repositories in Missouri
• Reflections
• Next steps
DIGITAL REPOSITORIES FOR LOCAL CONTENT

- Digital Libraries (DL) → Provide storage, preservation, and access for digitized and born digital content.

- Institutional Repositories (IR) → Primarily at research institutions; hold electronic theses and dissertations (ETDs), faculty publications, etc.

DIGITAL REPOSITORY SOFTWARE

Depending on the type of repository, a wide selection of software products are available for data creation and sharing.
Characteristics: open access, customizable, hosted or installed locally, search engine friendly, support variety of media types
Some of the more common products being used are:

- Dspace
- Digital Commons / bepress
- CONTENTdm
THE DIRECTORY OF OPEN ACCESS REPOSITORIES - OPENDOAR

Is an international directory of academic, open access repositories.

- Authoritative
- Repository lists
- Search for repositories
- Search for repository content

http://www.opendoar.org/

WHAT WE DID

We surveyed 50 randomly-selected U.S. digital repositories that were listed in the OpenDOAR directory. There are a total of 328 U.S. repositories included in OpenDOAR.

We asked administrators about their repositories and about practices and approaches for creating and evaluating metadata in digital repositories.

Conducted May-June 2014.
RESULTS

- Respondents: 23
- Repository demographics
- Metadata practices
- Metadata creation and environment
- Quality control

REPOSITORY DEMOGRAPHICS:
REPOSITORY SOFTWARE

<table>
<thead>
<tr>
<th>Repository/Software</th>
<th>Number Using (N=23)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSpace</td>
<td>10</td>
<td>43%</td>
</tr>
<tr>
<td>Digital Commons / bepress</td>
<td>6</td>
<td>26%</td>
</tr>
<tr>
<td>Fedora</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Ex Libris Digi Tool</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>Hydra</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>Islandora</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Omeka</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>CONTENTdm</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Locally developed software</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>9%</td>
</tr>
</tbody>
</table>
### Kinds of Content

<table>
<thead>
<tr>
<th>Kinds of Content</th>
<th>Number Using (N=23)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Images</td>
<td>18</td>
<td>78%</td>
</tr>
<tr>
<td>Individual articles</td>
<td>18</td>
<td>78%</td>
</tr>
<tr>
<td>Student projects</td>
<td>18</td>
<td>78%</td>
</tr>
<tr>
<td>Photographs</td>
<td>17</td>
<td>74%</td>
</tr>
<tr>
<td>ETDs</td>
<td>15</td>
<td>65%</td>
</tr>
<tr>
<td>Presentations</td>
<td>14</td>
<td>61%</td>
</tr>
<tr>
<td>Reports</td>
<td>14</td>
<td>61%</td>
</tr>
<tr>
<td>Digitized books</td>
<td>14</td>
<td>61%</td>
</tr>
<tr>
<td>Video</td>
<td>14</td>
<td>61%</td>
</tr>
<tr>
<td>Journals</td>
<td>14</td>
<td>61%</td>
</tr>
<tr>
<td>Newspapers</td>
<td>12</td>
<td>52%</td>
</tr>
<tr>
<td>Audio</td>
<td>11</td>
<td>48%</td>
</tr>
<tr>
<td>White papers</td>
<td>9</td>
<td>39%</td>
</tr>
<tr>
<td>Research data/datasets</td>
<td>8</td>
<td>35%</td>
</tr>
<tr>
<td>Born digital books</td>
<td>6</td>
<td>26%</td>
</tr>
<tr>
<td>Databases</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>Websites</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Other: government documents</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Other: University Archive items</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Other: collective bargaining agreements</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

### Repository Demographics: Number of Kinds of Content per Repository

- **Frequency Distribution**
  - Number of kinds of content (e.g. images, articles, ETDs, etc.)
  - Frequency:
    - 8: 3
    - 2: 3
    - 1: 9
    - 0: 1

- **Number of Repositories**
  - Total: 23
  - Distribution:
    - 2: 2
    - 3: 1
    - 2: 11
    - 1: 9
**Repository Demographics: Number of Objects by Number of Kinds of Objects**

No. digital objects held in the collection

<table>
<thead>
<tr>
<th>No. of kinds of content (e.g. images, articles, ETDs, etc.)</th>
<th>1-499</th>
<th>500-9,999</th>
<th>10,000-19,999</th>
<th>20,000-39,999</th>
<th>50,000-100,000</th>
<th>100,000-1,000,000</th>
<th>1,000,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of kinds of content (e.g. images, articles, ETDs, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Metadata Practices: Controlled Vocabularies (6 Did Not Respond)**

<table>
<thead>
<tr>
<th>Controlled Vocabulary</th>
<th>Responses (N=17)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library of Congress Subject Headings (LCSH)</td>
<td>15</td>
<td>88%</td>
</tr>
<tr>
<td>Name authority file (NAF)</td>
<td>4</td>
<td>24%</td>
</tr>
<tr>
<td>Art &amp; Architecture Thesaurus (AAT)</td>
<td>3</td>
<td>18%</td>
</tr>
<tr>
<td>Medical Subject Headings (MeSH)</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>Thesaurus for Graphic Materials (TGM)</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>Library of Congress Genre/Form Terms (LCGFT)</td>
<td>2</td>
<td>12%</td>
</tr>
<tr>
<td>Getty Thesaurus of Geographic Names (TGN)</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>Union List of Artist Names® (ULAN)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Faceted Application of Subject Terminology (FAST)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>18%</td>
</tr>
</tbody>
</table>
### METADATA PRACTICES: ENCODING SCHEMA

<table>
<thead>
<tr>
<th>Encoding Schema</th>
<th>Responses (N=23)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dublin Core</td>
<td>12</td>
<td>52%</td>
</tr>
<tr>
<td>Qualified Dublin Core</td>
<td>11</td>
<td>48%</td>
</tr>
<tr>
<td>MODS</td>
<td>6</td>
<td>26%</td>
</tr>
<tr>
<td>MARC</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>PREMIS</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>EAD</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>ETD-MS</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>MIX</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>MADS</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>CDWA</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>PBCore</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>TEI</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>TextMD</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>VRA</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>26%</td>
</tr>
</tbody>
</table>

### METADATA CREATION ENVIRONMENTS

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Creates DESCRIPTIVE metadata</th>
<th>% out of 19</th>
<th>Creates ADMINISTRATIVE metadata</th>
<th>% out of 19</th>
<th>Reviews metadata</th>
<th>% out of 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarian (master's level)</td>
<td>16</td>
<td>84%</td>
<td>14</td>
<td>74%</td>
<td>15</td>
<td>79%</td>
</tr>
<tr>
<td>Paraprofessional</td>
<td>10</td>
<td>53%</td>
<td>3</td>
<td>16%</td>
<td>6</td>
<td>32%</td>
</tr>
<tr>
<td>Administrator (outside department)</td>
<td>7</td>
<td>37%</td>
<td>3</td>
<td>16%</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>Department head</td>
<td>3</td>
<td>16%</td>
<td>3</td>
<td>16%</td>
<td>4</td>
<td>21%</td>
</tr>
<tr>
<td>Subject specialist</td>
<td>4</td>
<td>21%</td>
<td>2</td>
<td>11%</td>
<td>3</td>
<td>16%</td>
</tr>
<tr>
<td>Student worker</td>
<td>4</td>
<td>21%</td>
<td>2</td>
<td>11%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Volunteer</td>
<td>2</td>
<td>11%</td>
<td>1</td>
<td>5%</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>IT</td>
<td>0</td>
<td>0%</td>
<td>2</td>
<td>11%</td>
<td>2</td>
<td>11%</td>
</tr>
</tbody>
</table>
### Metadata Creation Environment: Best Practices Documentation

<table>
<thead>
<tr>
<th>Best Practices</th>
<th>Number (N=18)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best practices: homegrown</td>
<td>11</td>
<td>61%</td>
</tr>
<tr>
<td>Best practices: RDA</td>
<td>4</td>
<td>22%</td>
</tr>
<tr>
<td>Best practices: other</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>Best practices: Western States</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>None mentioned</td>
<td>6</td>
<td>33%</td>
</tr>
</tbody>
</table>

![Frequency of Best Practices Resources Use](image)

### Metadata Creation Environment: Other Resources Used in Metadata Creation

<table>
<thead>
<tr>
<th>Other Resources</th>
<th>Number Using (N=18)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCLC Connexion</td>
<td>8</td>
<td>44%</td>
</tr>
<tr>
<td>oXygen XML editor</td>
<td>4</td>
<td>22%</td>
</tr>
<tr>
<td>RDA Toolkit</td>
<td>4</td>
<td>22%</td>
</tr>
<tr>
<td>Cataloger’s Desktop</td>
<td>3</td>
<td>17%</td>
</tr>
<tr>
<td>Classification Web</td>
<td>3</td>
<td>17%</td>
</tr>
<tr>
<td>MARCedit</td>
<td>3</td>
<td>17%</td>
</tr>
<tr>
<td>VIAF</td>
<td>3</td>
<td>17%</td>
</tr>
<tr>
<td>Id.loc.gov</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>DublinCore Generator.com</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>ORCID</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>None mentioned</td>
<td>5</td>
<td>28%</td>
</tr>
</tbody>
</table>
Q.C. IN THE REPOSITORY

- In response to a question about quality control for collections or the overall repository, the following were mentioned:
  - Developing workflows
  - use of an application profile or core data dictionary
  - authority control
  - Templates
  - use of metadata schemes.
HOW ADMINISTRATORS WOULD IMPROVE QUALITY

In a perfect world... (N=21)

![Bar chart showing responses](chart.png)

Coded responses based on 19 free-text survey answers.

SAMPLE RESPONSES: HOW ADMINISTRATORS WOULD IMPROVE QUALITY

- **Staff:** Hire somebody who has time to do this instead of tacking it onto the schedule of somebody who already has a full time position (#1)

- **Metadata:** I would have all records described in qualified Dublin Core (#28)

- All of the concerns (staff, metadata, system, stakeholders):
  1. Much more outreach about it - particularly in the context of workflows that mean something to researchers - and thus more willingness from non-metadata librarians, such as liaison librarians, to learn some metadata basics that they could consult with researchers on. / 2. More controlled vocabularies & authority standards connected to our fields, so that users could select, rather than type in, what applies to their objects. / 3. Dedicated metadata expertise for the repository service as it develops (particularly strategic thinking around metadata) (#17)
## Obstacles to Making the “Perfect World” Scenario Happen

<table>
<thead>
<tr>
<th>Response</th>
<th>No. Responses (N=20)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time limitations and staff hours</td>
<td>17</td>
<td>85%</td>
</tr>
<tr>
<td>Repository software limitations</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>Institutional priorities</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Skill levels of staff</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Nature of legacy data</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>Concerns about interoperability</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>Current standards meet user needs</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Lack of necessary tools</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>20%</td>
</tr>
</tbody>
</table>

## Broad Applications for Quality Metadata

**Big Picture Perspectives, Or, The View from 30,000 Feet**
USER TASKS

• In the bibliographic universe, the conceptual model Functional Requirements for Bibliographic Records (FRBR) tells us that our metadata records should allow users to:
  • Find
  • Identify
  • Select
  • Obtain

library content. Quality metadata is how this happens.

FROM THE USER’S POINT OF VIEW:

• Quality metadata means retrieval
  • If users can’t find electronic content, they don’t know it’s there
  • If users can’t identify and subsequently select content based on the metadata, they won’t know if it meets their needs

• Quality metadata enables sharing
  • Retrieving across a number of platforms is possible when the metadata is good
  • OpenDOAR is a great example of this

• Quality metadata means access
  • Once users find content and evaluate it based on the metadata, they will be able to proceed to access it
REINVENTING PATRON SERVICES

- Quality metadata is key to a number of automated services libraries promote
  - Federated Search/Discovery (i.e. retrieval)
    - Library discovery layers – combining repository content with ILS content for search
    - DPLA and the new STL hub!
  - Community Engagement
    - Soliciting digital content that appeals to a variety of stakeholders – and that content’s metadata
    - Serving up content through automated means
      - “Library as platform”

REFLECTIONS

- Shareability is a major goal of metadata, with interoperability a dimension of quality that can be reported
  - Whereas high quality might be context-dependent, changing from repository to repository, shareable metadata is consistently interoperable across databases and systems
  - Yet not everyone is using the same best practices documentation
  - Hillmann (2008) discusses the differences between traditional cataloging and work done in digital libraries. She observes that in digital libraries, “few communities of practice have been able to define their needs as a community” (p. 68).
  - Given that repositories are not sharing records, the need for shared best practices does not occur at the repository level and the need for a community of practice may not be perceived as important.
  - On the other hand, a large number of respondents are using controlled vocabularies with at least some of their repository material.
REFLECTIONS, CONTINUED

- **Size Matters**
  - In comparison to the traditional holdings of large academic libraries, digital repositories are still small.
  - 82% of respondents answering the question indicated that their repositories held fewer than 20,000 items, and 37% reported fewer than 5,000 items.

- **Content Is King**
  - The smaller repositories also reported having fewer kinds of content.
  - Stivilia and Gasser (2008) observe that large repositories may receive greater use than smaller repositories and their need for quality metadata may be greater, but, in what they call the "cycle of diminishing returns," larger repositories may have "greater difficulty in providing those metadata with limited resources as the metadata collection continues to grow and becomes increasingly diverse" (p. 67).

UNIVERSITY OF MISSOURI: MOSPACE
UNIVERSITY OF MISSOURI: MOSPACE

- Institutional Repository
  - Content is mostly born digital and includes electronic theses and dissertations, faculty papers and presentations, videos, podcasts, MU publications, and a few sets of research data
  - Dspace
  - Qualified Dublin Core
  - OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting)

- Digital Library
  - Content is mostly material that was digitized locally: books, maps, posters. Also we are starting to add born digital videos.
  - Islandora
  - MODS (Metadata Object Description Schema) and Dublin Core

REPOSITORY MANAGER PERSPECTIVE, PART 1

- We have great resources and want to make them available to the others outside MU
- The resources in our institutional repository are the work of faculty and students and we want to support and promote that work
REPOSITORY MANAGER PERSPECTIVE, PART 2

- Resources are tight
- What will help users to find, identify, select, and obtain resources in the MU digital repositories?
- This is a local repository. How closely do we need to adhere to shared standards?

IN PURSUIT OF ANSWERS ...

- Current research project
- Looked at other Missouri repositories
- Considered how metadata in the repositories travel and is used elsewhere
- Identified some next steps
MISSOURI DIGITAL REPOSITORIES

- What metadata fields are included?
- What search options are available?
- Where else is the metadata used?

Quality criteria
- Find
- Identify
- Select
- Obtain
BOTANICUS: THE PROJECT UNDERTAKES FOUR AIDS:

3. “Capture a robust, targeted subset of systematic botanical literature as images and associated defining metadata for those references, and employ automated OCR and XML markup protocols to convert the image to text and embed links to external data sets.”
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Subject</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Correspondence, Austin (Coe) and Engelmann (George).</td>
<td>Publication Info:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Correspondence, Buchenau (Franz) and Engelmann (George).</td>
<td>Publication Info:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Correspondence, Frémont and Engelmann.</td>
<td>Publication Info:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tags: 1796-1873 1809-1884 1813-1890 Correspondence, Discovery and exploration, Engelmann, George, Explorers, Frémont, John Charles, Torey, John, West (U.S.), West (U.S.),</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Correspondence, Gerst (Karl) and Engelmann (George).</td>
<td>Publication Info:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Full Title: Correspondence: Vasey (George) and Engelmann (George).

By: Vasey, George, 1822-1893.

Publication info:
Call Number: Archives Collection 1 RG 4/1/5/1

Bibliographic Details:
View in MBG Library online catalog.
Find in a local library

Author: Vasey, George, 1822-1893.
Title: Correspondence: Vasey (George) and Engelmann (George), 1849-1883.
Click on the following to View digitized version of this work at Botanicus.org
View digitized version of this work at Biodiversitylibrary.org

Copies
Location Call No. Status Message
MBG Archives Archives Collection 1 RG 4/1/5/1 Vasey to Engelmann, 1849-1875 AVAILABLE
MBG Archives Archives Collection 1 RG 4/1/5/1 Vasey to Engelmann, 1876-1883 AVAILABLE

Description: 2 folders 54 letters (39 linear feet)
Arranged chronologically.

Access: The collection is open for research.

Summary: Incoming correspondence to George Engelmann from George Vasey, for 1849-1883. The correspondence relates to a desire to exchange rare Illinois plants for Texas, northwest of California plants; associated with the Chicago Academy of Science, "Prairie Farmer" and Illinois Natural History Society in connection with the State Normal University; wish for job of botanist of the Natural History Survey of Missouri. Collections for Rocky Mt. expedition; Maj. Powell's report of the botany. Deposit of wood specimens in the St. Louis Academy of Science. Changes in the Department of Agriculture; Vasey's work there. Forest tree collections and exhibit for the Centennial and Engelmann's collaborations on the conifers and oaks. Folder contains original letters.

Cite As: George Engelmann Papers, 1831-1914 / Correspondence (Collection 1 RG 4/1/5/1), MBG Archives.
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<thead>
<tr>
<th>Title</th>
<th>Soybean field in Charleston</th>
</tr>
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<tbody>
<tr>
<td>Subject</td>
<td>Charleston (Mo.); Soybean Agriculture—Missouri—Charleston</td>
</tr>
<tr>
<td>Description</td>
<td>A soybean field in Charleston, Missouri.</td>
</tr>
<tr>
<td>Creator</td>
<td>Rafferty, William R., 1932—</td>
</tr>
<tr>
<td>Date</td>
<td>1975-04-06</td>
</tr>
<tr>
<td>Source</td>
<td>35mm photographic slide: Hilton Rafferty Slides Collection (WHS), &quot;Ozarko Agriculture&quot;</td>
</tr>
<tr>
<td>Rights and Usage</td>
<td>Use of digital images found on this website is permitted for private or personal use only. This material is Copyrighted (Title 17, U.S. Code). Copyrighted materials may be used for research, instruction, and fair use, outlined in section 107 of copyright law. Publication, commercial use, or reproduction requires prior written permission from the copyright holder. User assumes all responsibility for obeying all applicable copyright laws.</td>
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<td>Collection</td>
<td>library.missouri.edu/archives/parwell/m009.htm</td>
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<td>Digitization Specifications</td>
<td>Scanned using a Hewlett-Packard Scanjet 5370C scanner with slide adapter at 200 dpi in JPEG format.</td>
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<td>Publisher</td>
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- Title
- Subject
- Description
- Creator
- Date
- Source
- Collection
- Format
- Type
- Plus rights and Preservation info

Google search results for "soybean fields missouri charleston" show:

1. Mississippi County, Missouri
   - website: missouri.com
   - "...it creates seemingly endless fields of corn, soybeans, wheat and other various..."
   - Charleston is also known as the home of former Missouri Governor Warren E.

2. Digital Collections - Missouri State University
   - website: digitalcollections.missouristate.edu
   - Item 201 - 205 of 259 - 263. Soybean field in Charleston, Charleston (Mo.); Soybean Agriculture—Missouri—Charleston. A soybean field in Charleston, Missouri.

3. 2014 SPRING - Missouri Crop Improvement Association
   - Soybeans, Spring Oats, Rice, Warm Season Grasses, Native Grasses & Forbs... All producers listed in this directory have affirmed that seed planted on fields for which certification... Fred Mosley Seeds, LLC Charleston, MO (573) 683-0075...
TRUMAN STATE DIGITAL LIBRARY

Browse options
(varies by collection)
• Collection
• Title
• Author
• Date
• Location
• Time period
• Category
• Composer
• Instrument

Advanced search
• Keyword for some or all words entered in the search box

http://digitallibrary.truman.edu/
Item information

<table>
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<tr>
<th>Object Title</th>
<th>College Mound School, ca. 1950s</th>
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<tbody>
<tr>
<td>Creator</td>
<td>Williams, Clarence</td>
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<tr>
<td>Date Original</td>
<td>1950-1960</td>
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<tr>
<td>Location</td>
<td>Walnut Township, Adair County, Missouri</td>
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<td>Description</td>
<td>Black &amp; white photo depicting College Mound School, Adair County, Missouri</td>
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<tr>
<td>Pages</td>
<td>1</td>
</tr>
<tr>
<td>Object Type</td>
<td>Photographs</td>
</tr>
<tr>
<td>Subject</td>
<td>One-room schools -- Missouri, School buildings; Rural schools -- Missouri -- Adair County</td>
</tr>
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<td>Language</td>
<td>English</td>
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<td>Collection</td>
<td>Schools and Churches of Adair County Digital Collection</td>
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</tbody>
</table>

Notes

http://www.kchistory.org/
Charles Fletcher (Fletcher) Taylor - Missouri Valley Special Collections...
www.kchistory.org/cdm4/item_viewer.php?CISOROOT=/48...
After the war he became a wealthy and respected citizen as vice president and general superintendent of the Joplin Mining and Smelting Co. Date of death is
Sanborn Fire Insurance Maps, Kansas City, Missouri, 1895-1957

The Kansas City Sanborn Fire Insurance maps in the Missouri Valley Special Collections Digital Gallery consist of over 1200 individual pages or images. The large-scale maps provide an invaluable resource for historians, genealogists, geographers, students, environmentalists, and others researching buildings, neighborhoods, and the individuals that lived and worked in them.

Details on the maps include building footprints and numbers (addresses), street names and elevations, construction material, number of stories, and items like hydrants, fire alarms, and water mains. The locations of underground gasoline or oil tanks and water pipes are also indicated. The maps show rivers, railroad tracks, bridges, and types of buildings, like greenhouses, theaters, stables, etc. They identify businesses, schools, churches, hospitals, and other buildings by name.

By combining the maps with other resources in the Missouri Valley Room, like city directories, the Digital Gallery of images, and the newspaper clipping index, one can:

- Research the history of a building and surrounding area
- Learn little known facts regarding a residence, school, church, park, business, and more
- Trace neighborhood change and development
- Provide clues for renovating a building
- Make your ancestors come alive by tracing school, a business, or church
- And much more!

Collection level description

University of Central Missouri
http://centralspace.ucmo.edu/xmlui/

- Advisor (4)
- Author
- Date submitted
- Description
- Abstract
- Extent
- Language
- Subject
- Subject, LCSH
- Title
- Type
- Degree, Discipline
- Degree, Grantor
- Degree, Name
- Degree, Level

Pre- and Post-perceptions of proper pharmaceutical disposal
Collection level metadata at Southeast Missouri State University

About this collection
Confluence and Crossroads - The Civil War in the American Heartland is a digital repository through which researchers, students, scholars, genealogists, historic interpreters, authors, and members of the general public can access information pertaining to the Civil War in southeast Missouri and southern Illinois. The chronological scope of the project is 1854-1877, which represents the time period between the passage of the Kansas-Nebraska Act and the end of Reconstruction. The geographic scope of the project includes the following counties in Missouri: Butler, Cape Girardeau, Carter, Crawford, Dent, Dunklin, Iron, Madison, Mississippi, New Madrid, Oregon, Pemiscot, Perry, Reynolds, Ripley, St. Francois, St. Genevieve, Scott, Shannon, Stoddard, Washington, and Wayne, and, the following counties in Illinois: Alexander, Jackson, Putnam, Randolph, and Union.

This is a collaborative project between Special Collections and Archives, Southeast Missouri State University, the Special Collections Research Center, Southern Illinois University Carbondale, the Cape Girardeau County Archive Center, Jackson, Missouri; the Center for Regional History, Southeast Missouri State University, and the Department of History, Southeast Missouri State University as an initiative to commemorate the Civil War sesquicentennial. Funding for Confluence and Crossroads is provided by a digital imaging grant from the Institute of Museum and Library Services under the provisions of the Library and Services and Technology Act as administered by the Missouri State Library, a division of the Office of the Secretary of State.

Project staff: Dr. Lisa K. Sper, Ellen M. Bryan, Alan J. Medlock, Student Workers, Volunteers, and Interns: Adam Al-Sayed, Amber Casor, Staci Cox, Elaine Hendric, Robert Kerugh, Christopher Kender, Jia King, Aaron Liver, Saylor Magnus, Eden Mays, Andrew Neiber, Amy Nickles, Nicholas Powell, Jessica Reschetter

The following institutions have generously contributed materials for this project:
Abraham Lincoln Presidential Library and Museum, Springfield, IL
Cape Girardeau County Archive Center, Jackson, MO
Cape River Heritage Museum, Cape Girardeau, MO
Carlo Custom House, Carly, IL
Clements Library, University of Missouri, Ann Arbor
Current River Heritage Museum, Doniphan, MO

The State Historical Society of Missouri
http://shs.umystem.edu/oralhistory/collections/digital.html

- Rating
- Title
- Creator
- Date, Original
- Temporal Coverage
- Description
- Subject, LCSH
- Keywords
- Original Format
- Collection Number
- Language
- Contributing Institution
- Publisher
- Rights
- Transcription
<table>
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<th>TITLE</th>
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<tbody>
<tr>
<td>DATE OF ORIGINAL</td>
<td>1902-1913</td>
</tr>
<tr>
<td>DATE OF DIGITAL</td>
<td>2008-2</td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>THE PLAN - This view is taken north to the Rock House. Scaffolding is up. Temporary \nbarrier and a plaster, eggshell is waited.</td>
</tr>
<tr>
<td>CREATOR</td>
<td>Atlas Portland Cement Company (Rasco, Mo.)</td>
</tr>
<tr>
<td>CONTRIBUTOR</td>
<td>Continental Cement Company (Rasco, Mo.)</td>
</tr>
<tr>
<td>PUBLISHER</td>
<td>Hannibal Free Public Library (Hannibal, Mo.)</td>
</tr>
<tr>
<td>SUBJECT</td>
<td>Atlas Portland Cement Company (Rasco, Mo.) - Physical Plant - Construction</td>
</tr>
<tr>
<td>ORIGINAL FORMAT</td>
<td>Back and white photograph, 5 1/2&quot; x 7 1/2&quot; - Tracing and listing paper on lower right corner. The number &quot;60&quot;, emblazed and bled by a pencil, is written on the upper right corner. A faint, vertical line with a number &quot;27&quot; is visible in the material background that extends beyond the left side of the picture. The material has several small sections that extend into a border.</td>
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<td>BMP</td>
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Hannibal Free Public Library
http://www.hannibal.lib.mo.us/digital_collections.htm

- Title
- Date of Original
- Date of Digital
- Description
- Creator
- Contributor
- Publisher
- Subject
- Original Format
- Digital Format
- Identifier

Bing search for "atlas portland cement company rock house"

5 RESULTS

Rock House - Hannibal Free Public Library
digital.hannibal.lib.mo.us/lasco/C010129.htm
This is a picture of the Rock House from its lowest point. ... CREATOR: Atlas Portland Cement Company (Rasco, Mo.) CONTRIBUTOR: Continental Cement Company...

History - Hannibal Free Public Library
digital.hannibal.lib.mo.us/lasco/history_rasco.htm
The Atlas Portland Cement Company of ... The next morning they noted a smallpox quarantine sign on a house near ... Fractures in the rock strata developed...

Northampton, Pennsylvania - Wikipedia, the free encyclopedia
en.wikipedia.org/wiki/Northampton,_Pennsylvania
Northampton was once a global center for the manufacturing of cement. The Atlas Portland Cement Company was based there, ... Glen Rock, Guildford; Guttenberg
Geography - Government - Demographics - History - Public education - Sister city

Cement museum nurtures nostalgia in Pennsylvania - Chicago
articles.chicagosuburbanhome.com/2004/01-07/story/20040116-1_news
Domestic Life During the Depression, 1928-1938, in Livingston County, Missouri
by James R. Nashan, 1974

A Research Paper Presented to The Faculty of the School of Arts and Sciences
Central Missouri State University
In Partial Fulfillment of the Requirements for the Degree Specialist, History
by James R. Nashan, May, 1974

The Great Depression of the 1930's which created unemployment, business and bank failures, farm bankruptcy and relief lines was a failure of our economic system. September 3, 1929 has been used by some as the start of the depression, because this was the day the Big Bull Market reached its peak. From this high point, the market tumbled (1) and America moved into a period of enormous economic and political transformation. (2)

President Hoover took several steps to change the financial crisis. The Reconstruction Finance Corporation was established to aid banks and business in trouble with the intent of safeguarding savings and securing worker's jobs. Hoover also started new public works projects for the improvement of rivers and harbors to put money into the economy. Several of President Hoover's proposals were defeated by the Democratic Congress, but those that were passed were inadequate to resolve the financial crisis. (3)

Franklin Roosevelt, campaigning in 1932, promised the nation a New Deal. Once he was elected, he began a process of experimentation to attempt to improve conditions in the nation. Hundreds of new policies were designed to pump money into the economy. Among these policies, some of the major ones were: The Agricultural Adjustment Act which provided help to farmers. The National Recovery Act for help in business. The Federal Emergency Relief Administration which provided for immediate help to those in need. The Works Progress Administration, Civil Works Administration and the Public Works Administration which provided jobs to the unemployed. (4)

The economic set back created by the depression influenced the social life of the American citizens. There were less marriages, less divorces and the number of children decreased. Young people, unable to find employment, took to the road to find work and to relieve the family from having another one to support.

The purpose of this paper will be to examine the influence of the depression on a rural county located in North Central Missouri. Livingston County was an area described as the place where the town of Chillicothe stayed open on Saturday night so that the farmers could flock in from every point to do their shopping. (5) The economic base of the county was agrarian.

Livingston County in 1930 boasted a population of 16,619. Though predominately rural, it followed the trend of the rest of Missouri as the urban population had increased during the preceding decade. (6) Chillicothe, the county seat and the largest city in the county had 8,177 residents. Even though the majority occupation was related to farming, the county also had numerous industries which included a brick plant, iron and steel works, steam and sheet shop and a number of smaller industries connected with the automobile. (7)

Residents in the urban areas had modern homes with water and electricity. Median value of the home was $2,222. (8) The average family consisted of three, and 744 of the homes were complete with radio sets.

Rural families in limited numbers also had radio sets. Their family size averaged 3.49, (9) but only 178 dwellings had water, 138 electric telephones, 447 telephones and 94 rural families had indoor bathrooms. Farm machinery was being
SUMMARY

Missouri cultural institutions are doing a great job cataloging material in their digital repositories!

- A variety of search options used with good metadata help users find their material
- Authors, titles, dates, descriptions, etc., help users identify whether the resource is the item for which they are looking
- Summaries and subject headings are very useful in selecting relevant material
- Controlled vocabularies are as being used extensively in local
SUMMARY (CONTINUED)

Even if you have a small collection and may not need the detailed metadata in-house, the addition of it will make your digital material findable by a broader audience via internet searches.
A FIND, IDENTIFY, AND SELECT CHALLENGE

Record #1
Reality TV and interpersonal relationship perceptions

Record #2
Political reporting in the age of infotainment

METADATA

Record #1
Abstract    Advisor
Author      Collection
Date issued Date submitted
Description Identifier, OCLC
Language    Publisher
Subject, LCSH Subject, Keywords
Title       Type
Degree department
Degree grantor
Degree level
Degree name

Record #2
Author
Collection
Date issued
Date submitted
Language code
Publisher
SUMMON - KEYWORD SEARCH USING ALL THE WORDS IN THE TITLES

Record #1 😊  Record #2 😊

#1 in results list  #1 in results list

SUMMON - DESCRIPTIVE INFORMATION

Record #1 😊  Record #2 😊
GOOGLE SCHOLAR - KEYWORD SEARCH USING ALL WORDS IN TITLES

Record #1 😊

Direct hit!!!

Record #2 😞

Did not appear in the first four pages of the search results

---

GOOGLE SCHOLAR - KEYWORD SEARCH USING TERMS FROM TITLE, ABSTRACT, AND SUBJECT HEADINGS

Record #1 😞

#1 in results list

Used one term from title, plus terms from the subject headings and abstract: reality television shows viewing attachment love

Title: Reality TV and interpersonal relationship perceptions

Record #2 😊

#1 in results list

Used terms from title: political reporting infotainment

Title: Political reporting in the age of infotainment
OPENDOAR - KEYWORD SEARCH
USING TERMS FROM TITLE, ABSTRACT, AND SUBJECT HEADINGS

Record #1 😊

# 1 in results list

Used one term from title, plus terms from the subject headings and abstract: reality television shows viewing attachment love

**Title:** Reality TV and interpersonal relationship perceptions

Record #2 😊

# 1 in results list

Used terms from title: political reporting infotainment

**Title:** Political reporting in the age of infotainment

---

OPENDOAR - BROWSE DISPLAY

Record #1

**Reality TV and interpersonal relationship perceptions**
https://mospace.umsystem.edu/xmlui/handle/10355/6532

Watching for positive outcomes was positively related to reality TV viewing and ... view of relationships, and negatively related to an avoidant attachment style. ... of love, and watching half-hour network dating shows was positively related to ...

Record #2

**Political reporting in the age of infotainment**
https://mospace.umsystem.edu/xmlui/handle/10355/43855

Title: Political reporting in the age of infotainment. Author: Oribhabor, Melissa. Date: 2014. Publisher: University of Missouri–Columbia.
THE SCORE

Record #1

Record #2

SUMMARY (CONTINUED)

• Detailed metadata is effectively used by search engines and other sites
• Detailed metadata can effectively be used by people to find, identify, and select resources
• Metadata standards in local digital repositories are important
REINVENTING METADATA, OR, APPLYING WHAT CATALOGERS KNOW

What is important?
- Standards
- Cross-compatibility; looking at how metadata is used in other databases and searches
- Using the FRBR user tasks as guidelines for ALL our metadata work
  - Find
  - Identify
  - Select
  - Obtain
- We should catalog, not just for our local repositories, but also for the use of metadata by search engines and other repositories
- There is value in cataloging collections AND the items in the collections

NEXT STEPS

MU Digital Repositories
- Renewed commitment to full cataloging
- Explore various options, including FAST (Faceted Application of Subject Terminology)
- Become more aware of how metadata works outside MU

Research
- Continue to explore the need for shared standards for digital repositories
- Explore ways to create or get quality metadata in an environment with limited resources (systems, templates, etc.)
- Determine how to prioritize metadata elements for the greatest benefit
QUESTIONS AND DISCUSSIONS

- Felicity Dykas
  - MU Libraries
- Heather Lea Moulaison
  - MU iSchool
- Kristen Gallant
  - MU iSchool Graduate Student

REFERENCES


DOI: 10.1080/01639330802183008

Moulaison, H. L. (unpublished manuscript). The expansion of the personal name authority record under RDA: Current status and quality considerations.


Contents of this presentation based on:

View a PDF of the survey instrument through the MOspace repository:
https://mospace.umn.edu/xmlui/handle/10365/43653