

The Cross-Search and Context Utility:
Contextualizing Digital Content
and
Associated Encoded Archival Description
Finding Aid Metadata
in the Northwest

Sam Meister
University of Montana

Digital Frontiers 2013
September 20, 2013

Problem

Online Finding Aids

Historical Note



The first survey for a northern route to the Pacific was conducted by the War Department in 1853. The Northern Pacific Railroad Company was organized in 1864 with Josiah Perman as president. Construction began at Carlton, Minnesota, in February 1870, with an initial operation of 125 miles. That same year, construction began at Kalama, Washington Territory, near Portland, Oregon, and that line was extended to New Tacoma, Washington Territory, by 1873. The company was reorganized in the wake of financial troubles in 1875. The western and eastern lines joined at Gold Creek, Montana, in 1883. The real completion date was 1888 when the tunnel through Stampede Pass, Washington, was opened, replacing a switchback line over that pass. The company was reorganized for a second time in 1896 as the Northern Pacific Railway Company.

The company's lines were organized into divisions. According to the 1881 annual report, the divisions were as follows:

Wisconsin Division: Brainerd, Minnesota to Dulluth, Minnesota

Minnesota Division: Minnesota/North Dakota border to Great Lakes

Dakota Division: Bismarck, North Dakota to North Dakota/Minnesota border

Missouri Division: Bismarck, North Dakota to Miles City, Montana

Yellowstone Division: Miles City, Montana to Livingston, Montana

Rocky Mountain Division: Livingston, Montana to Missoula, Montana

Clark's Fork Division: Missoula, Montana to Montana/Idaho border

Pend D'Oreille Division: Montana/Idaho border to Ainsworth, Washington

Cascade Division: Ainsworth, Washington to Tacoma, Washington

Pacific Division: Tacoma, Washington to Portland, Oregon

The geographic boundaries of divisions changed over time. They were originally based on the distance an engine could go before it needed service and fuel, a distance that became greater with changes in engine technology.

Under its charter, the Northern Pacific could not build branch lines to feed into the main line. In order to meet its needs for feeder lines and other cooperative transportation ventures, the main company formed separate corporations to construct connecting lines. These small rail and other transportation lines were then sold to the parent company, which under its charter was able to acquire previously constructed lines.

The Astoria and Columbia River Railroad Company was incorporated on April 4, 1895. It operated between Seaside

The Astoria and Columbia River Railroad Company was incorporated on April 4, 1895. It operated between Seaside and Goble, Oregon, from May 1898 to March 1911. Its predecessor was the Seashore Railroad Company. By 1909 it was an operating subsidiary of the Spokane, Portland and Seattle Railway Company until the two companies merged in 1911.

The Camp Creek Railway Company was incorporated June 8, 1911, and built from Manhattan to Anceny, Montana. It opened its line in 1912, and sold to the NPRR in June 1914.

The Central Washington Railroad Company operated a line from Cheney to Coulee City, Washington.

The Chicago, Burlington and Quincy Railroad Company was incorporated on February 14, 1855. It operated main lines from Chicago, IL, to St. Paul, Minnesota, and to St. Louis, MO, and Cody, Wyoming. Like the Northern Pacific, it created and absorbed numerous branch and predecessor lines. Also like the NPRR, it became a part of the Burlington Northern Railroad Company in 1970.

The Clearwater Short Line Railway Company was incorporated on November 9, 1898, and sold to the Northern Pacific Railway Company on June 23, 1914. Its main lines were from Riparia, Washington, to Grangeville, Stites, and Headquarters, Idaho.

The Coeur d'Alene Railway and Navigation Company was incorporated on July 6, 1886, and was leased to the NPRR in 1888. Its main line ran from Cataldo, Idaho to the Montana state line near Mullan, Idaho. It was sold in foreclosure to the NPRR on January 26, 1897.

The Connell Northern Railway Company was incorporated on June 1, 1909. It operated between Connell and Adco, Washington, between in 1910 and 1914. It was sold to the NPRR on June 25, 1914.

The Drummond and Phillipsburg Railroad Company was incorporated on January 17, 1887 and sold to the Northern Pacific and Montana Railroad Company on September 7, 1888. It operated a line between Drummond and Phillipsburg, Montana. There was also an extension to Rumsey, Montana, that was abandoned in 1904.

The Dixon-Polson Line operated between Dixon and Polson, Montana.

The Gaylord and Ruby Valley Railway Company was incorporated on March 29, 1897 and sold to the NPRR on February 28, 1899. It started a line from Renovo, Montana, to Twin Bridges, Montana; construction was completed by the NPRR.

The Great Northern Railway Company was originally the St. Paul, Minneapolis and Manitoba Railroad Company (incorporated May 23, 1879); the St. Paul and Pacific Railroad Company (incorporated March 10, 1862), and the Minneapolis and St. Cloud Railroad Company (incorporated March 1, 1856). The first division of the St. Paul and Pacific Railroad Co. completed its first line from St. Paul to Minneapolis in 1862. The Great Northern Railway

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The Green River and Northern Railroad Company was incorporated on September 22, 1890 and was sold to the NPRR on April 21, 1898. It was a branch line that joined the NPRR system at Palmer Junction in western Washington state.

The Kootenai Valley Railroad Company was incorporated on October 19, 1898. Its main line ran from Bonners Ferry, Idaho, to Porthill, Idaho, on the Canadian border. It was sold to and merged into the Great Northern Railway Company in 1913.

The Livingston-Gardner Branch operated from Livingston to Gardner, Montana.

The Missoula and Bitter Root Valley Railroad Company was incorporated on January 4, 1887. It operated a line from Missoula, Montana, to Grantsdale, Montana, 1888. That same year, it was incorporated into the Northern Pacific and Montana Railroad Company.

The Missouri River Railway Company was incorporated June 13, 1906, in North Dakota. It built track from Glendive to Sidney, Montana, and from Cannon Ball to Stanton, North Dakota. It was sold to the NPRR on June 20, 1914.

The Northern Pacific and Montana Railway Company was formed of the Drummond and Phillipsburg Railroad Company, the Helena and Northern Railroad Company, the Helena, Boulder Valley and Butte Railroad Company, and the Missoula and Bitter Root Valley Railroad Company in 1888. Its main lines ran from Logan, Montana to Butte and from De Smet, Montana, to the Idaho state line. There were also numerous branch lines.

The Northern Pacific and Puget Sound Shore Railroad Company was incorporated on August 23, 1884. Its main line operated between Meeker and Seattle, Washington, with branch lines to Kennydale and from Kirkland Junction to Kirkland. It was sold to the NPRR on April 21, 1898.

The Peninsular Branch operated between Shelton and Gordonville, Washington.

The Port Townsend and Southern Railroad was incorporated on September 28, 1887 and operated from 1890 to 1914. Its predecessor was the Olympia and Chehalis Valley Railroad Company. Its main lines from between Tenino and Olympia and between Port Townsend and Quilcene, Washington. The main line was sold to the NPRR in 1914; the line was then sold to Jackson Green in 1917.

“What is this? You want me to read
all of this?”

Online Finding Aids

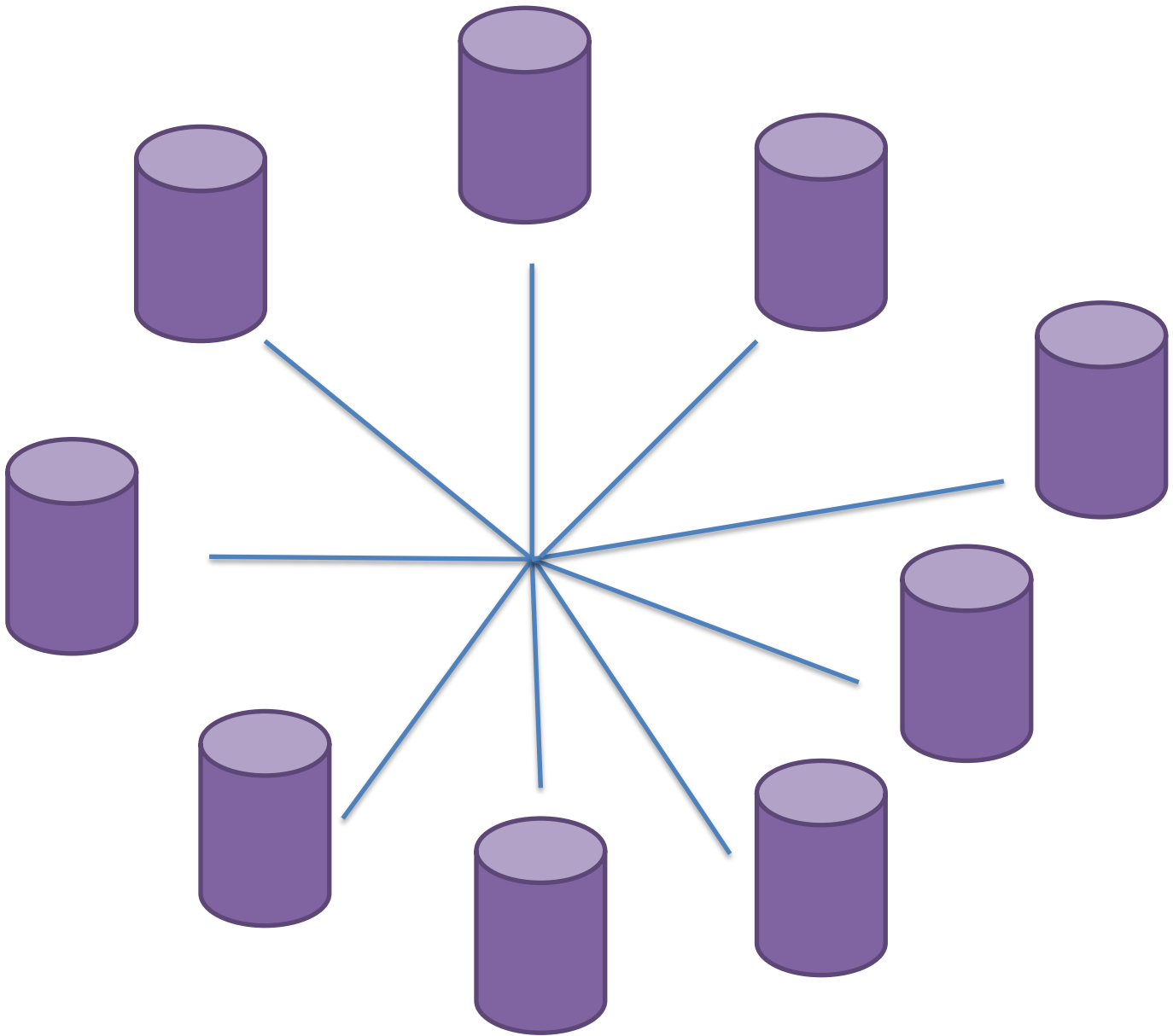
Hierarchical display is confusing / difficult

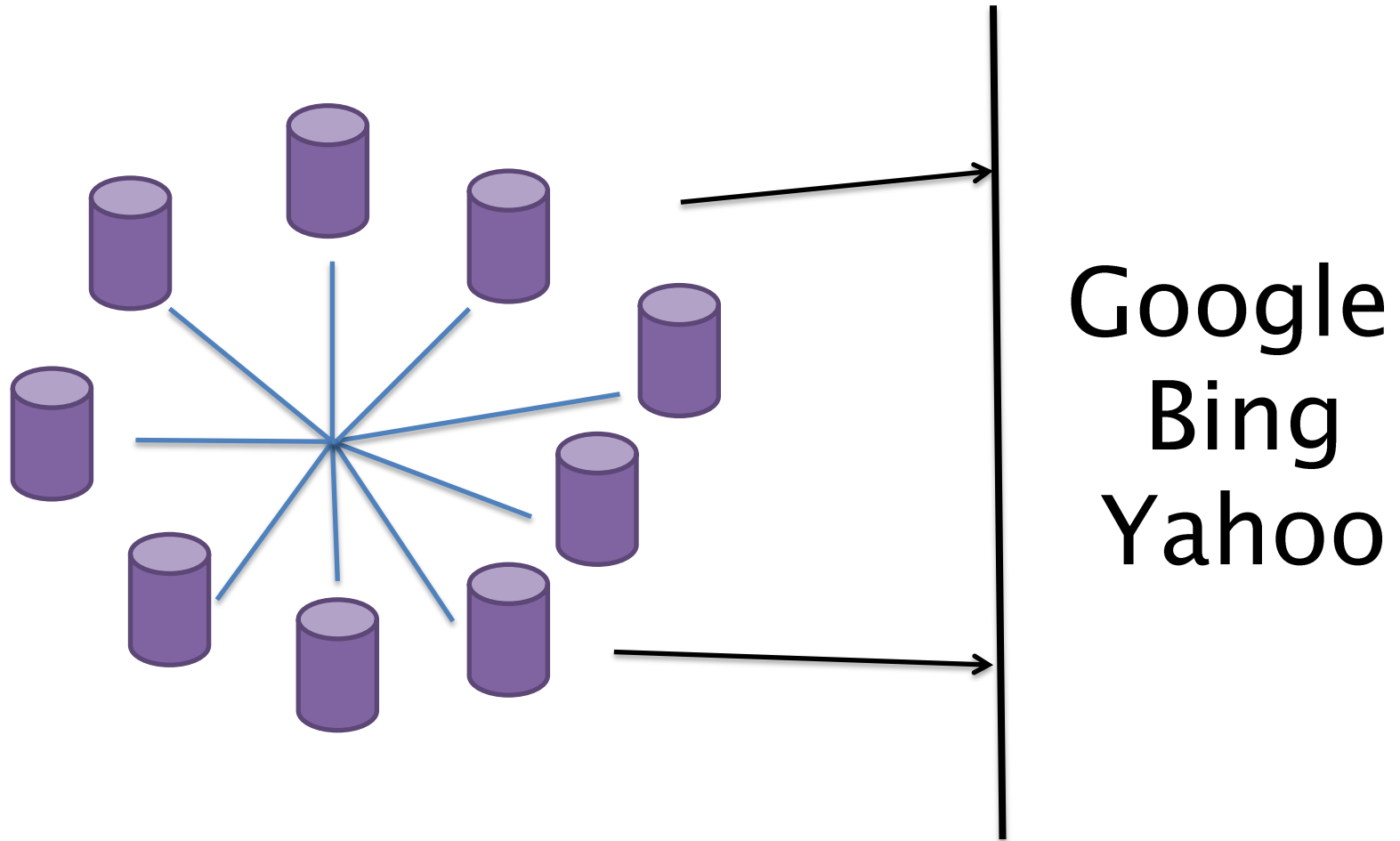
Users want to customize their experience

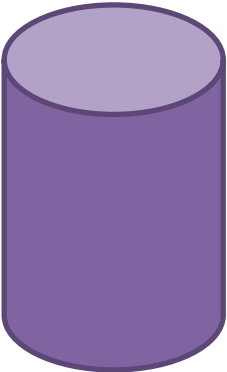
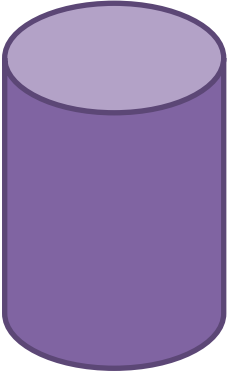
Users want direct access to content

Novice users struggle with archival terminology

Digital Content







Previous Studies & Research

Usability testing conducted by NWDA (2006-2008) and others on EAD finding aids systems.

Survey of Digitizing Initiatives (2007)
Researcher Type Survey (2007-2008)
Researcher Needs Study (2008-2009)

Literature on EAD and on digital representations of archival content

Recommendations / Requirements

Search across digital content and
online finding aids

Expose materials to search engines rather
than be new “portal”

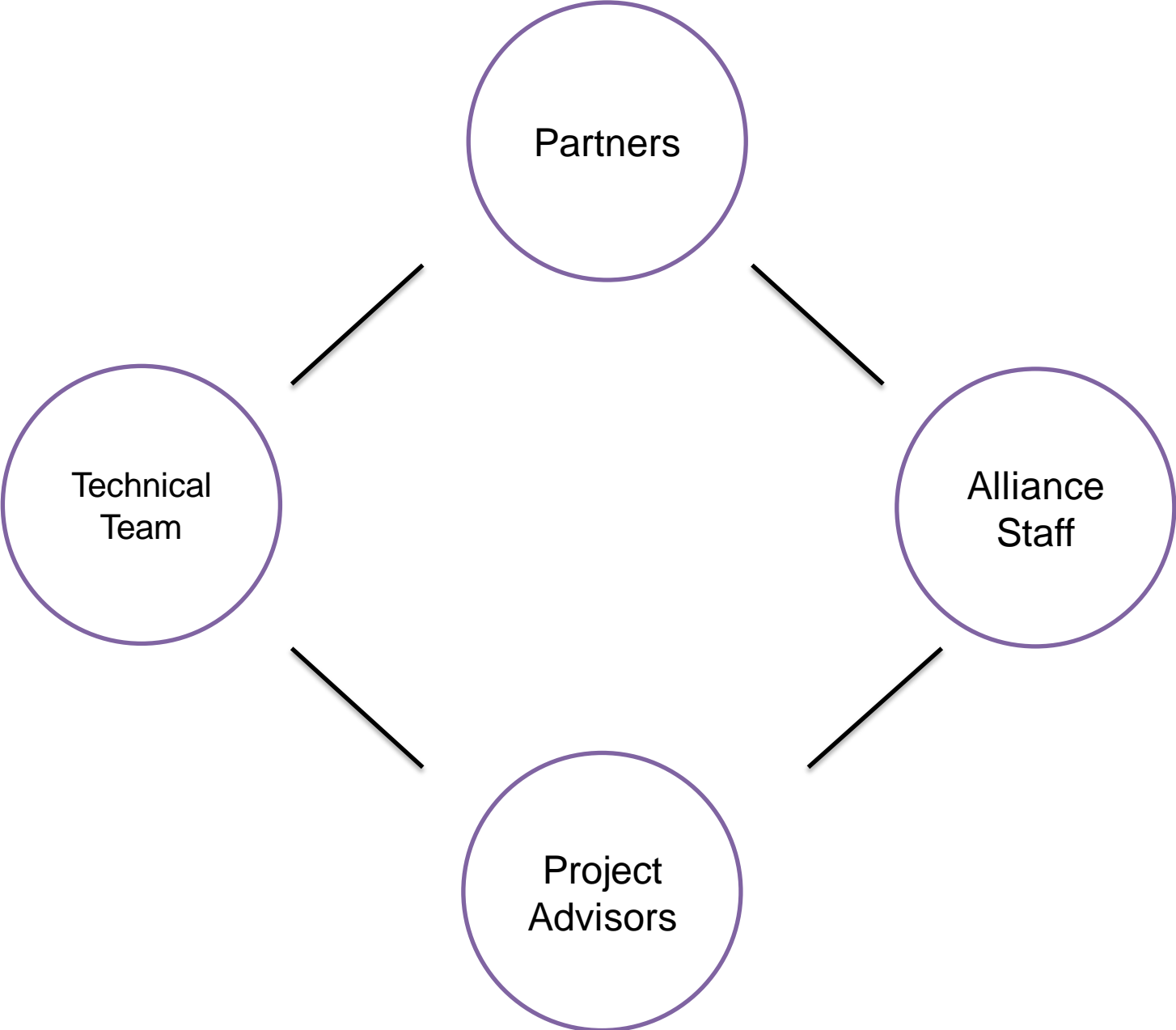
Combine digital content and all metadata
to provide context

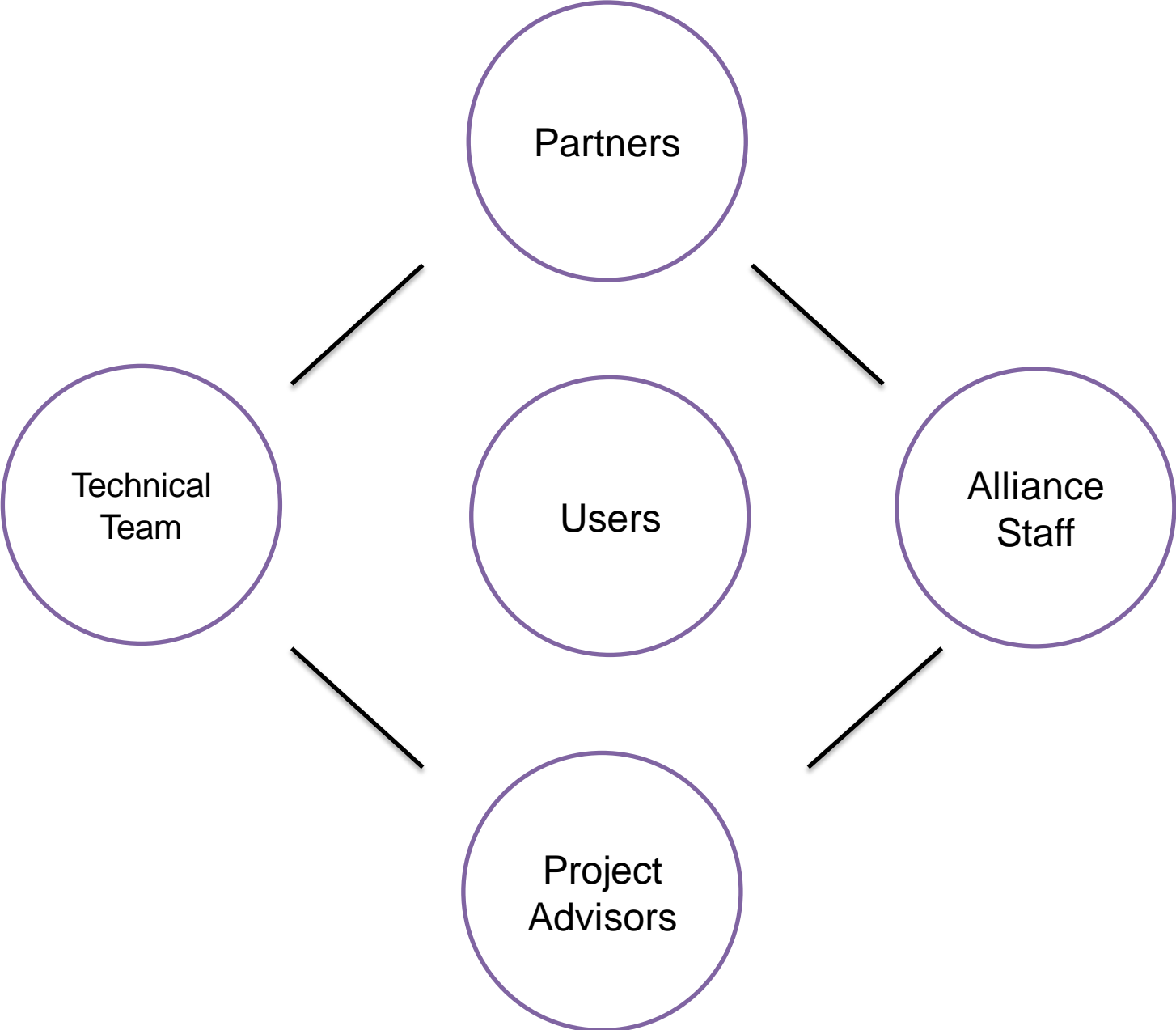
Give users a way to quickly sort and
limit results

Give users a clear way to contact
institutions

Give users information on getting copies,
permissions, and more information from
archivists

Provide contextual information that's
not long, hierarchical, and full of
archival terminology





and the poets lay,
Empires passed away,

The world's great drama, will thus unfold,
And yield a pleasure better than gold.



Not about metadata and systems

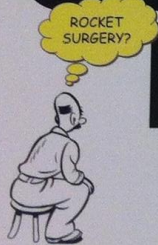


Methodology / Training

The how-to companion to the bestselling Don't Make Me Think!
A Common Sense Approach to Web Usability

Steve Krug

ROCKET SURGERY MADE EASY



SO, WHAT
ARE YOU
THINKING?



The Do-It-Yourself Guide to Finding
and Fixing Usability Problems

Steve Krug

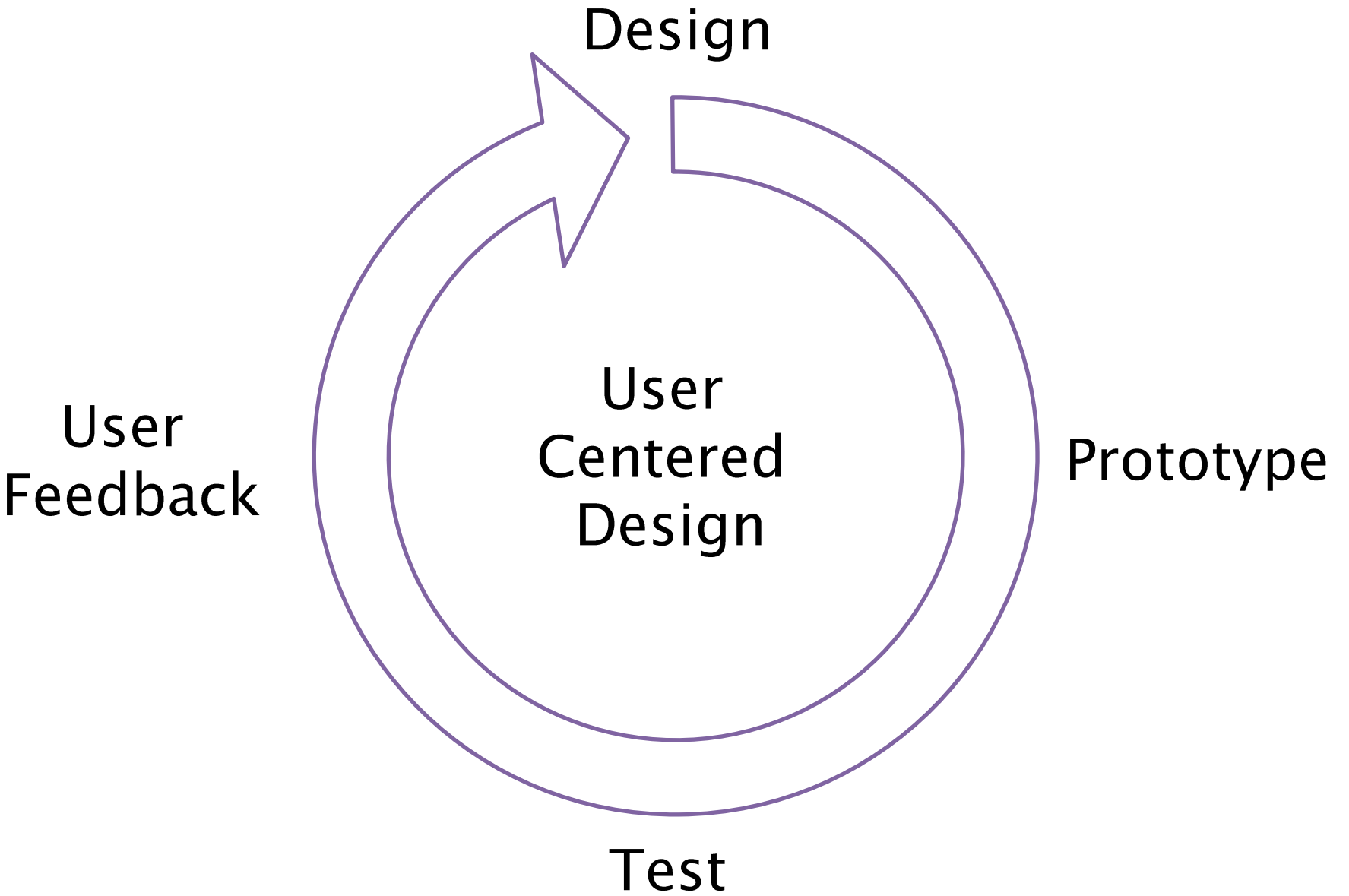
UPDATED
with three
new chapters!

DON'T MAKE ME THINK

A white hand cursor icon with a black outline is pointing upwards at the word "THINK" in the title.

A Common Sense Approach to Web Usability

SECOND EDITION





Administrator



Avocational



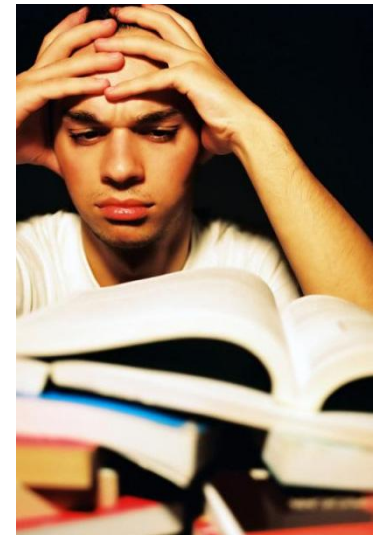
Research
Faculty



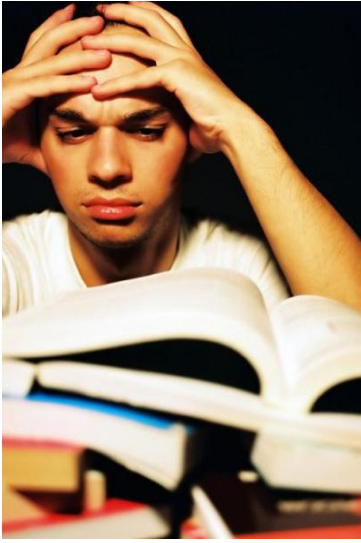
Teaching
Faculty



Genealogist



Student



Stanley Brubaker, Student

Senior, Clark Fork College

Demographics

- Age: 18-24
- Income level: \$8/hour
- Education: high school, some college

Technology Comfort

- High
- Socially focused
- Low archival experience; some instruction from faculty

Motivations

- Find resources for assignment
- Complete required (or practical) steps.

Scenarios

- Writing a research paper using at least one primary source from an archive.
- Assigned to profile an archival collection or sources on a topic.

- Working on Senior Thesis--needs depth of resources.
- Timeline for paper: A week, a few days, or deadline.
- Timeline for Senior thesis: A few months or a term.

Features

- Clear access. Immediate online access or obvious information about access

Needs

- Mobility/digital access
- Narrow ("good enough") results from broad topic search
- Low barrier to item level access
- Information for citation/citation generation
- Meet faculty requirements for assignment(s)
- Fast results; little time to spend on these tasks

Quote

"What's Special Collections?"

requirements.

- Assurance that this "counts" as a primary source (meets instructor's requirements).
- Citation generation
- Little or no notion of expertise of archivist

Behaviors

- Always starts research at a search engine
- Uses keyword searches
- Wants to access resource directly from search results

Image credit:

http://alt.coxnewsweb.com/shared-blogs/palmbeach/extracredit/upload/2008/07/stressed_students_wanted/stressed.jpg

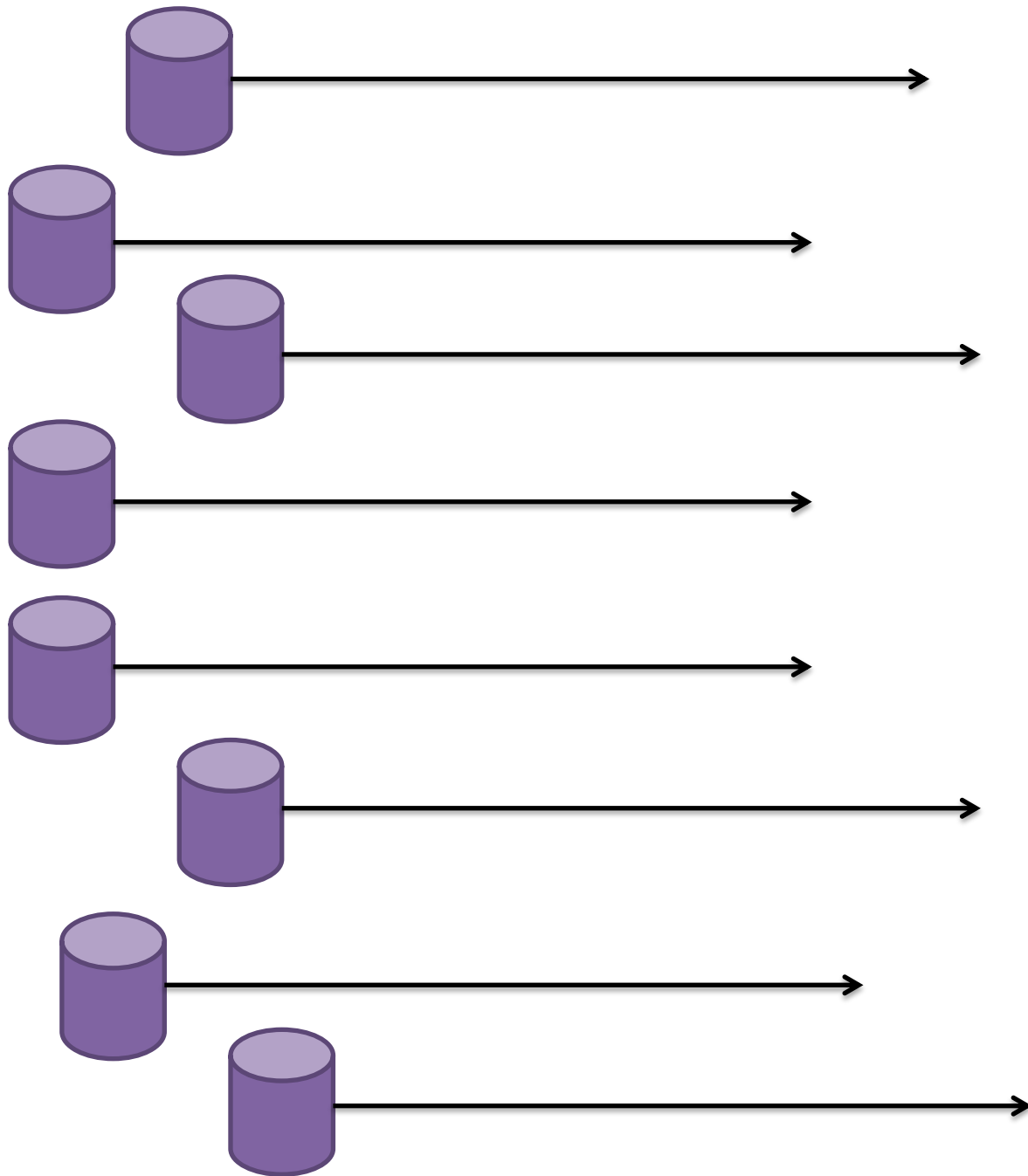
Technical Development



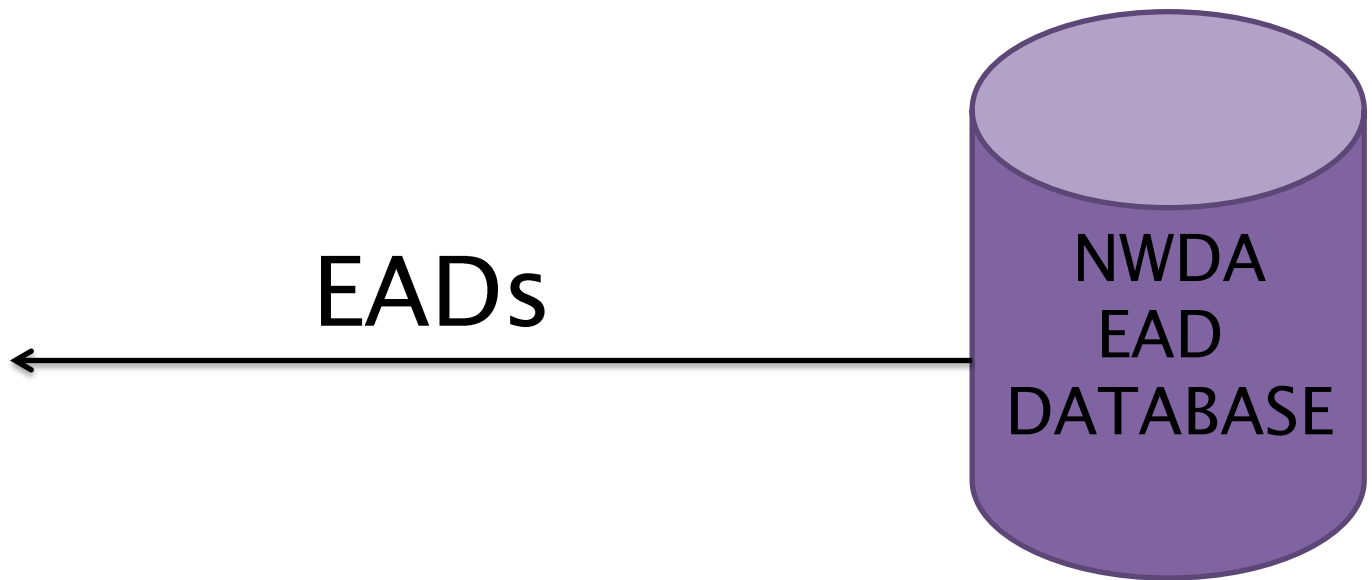
IATH

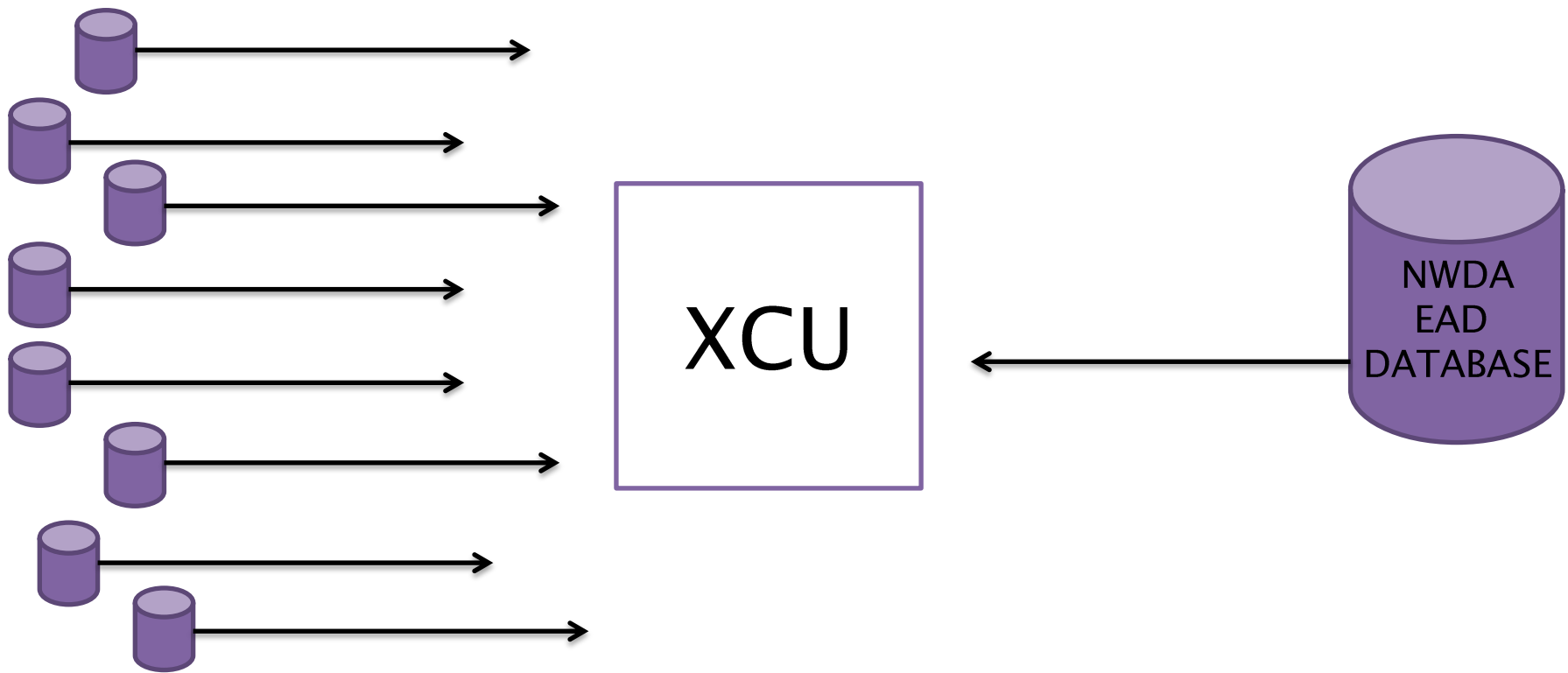
The Institute for Advanced Technology in the Humanities





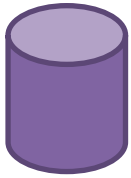
METADATA
+
DIGITAL
OBJECTS



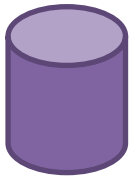


Challenge:

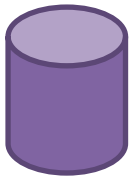
Variable Metadata



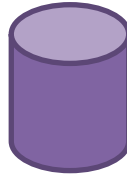
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MAGIC

**(aka a lot of custom work
and scripting)**



MODS

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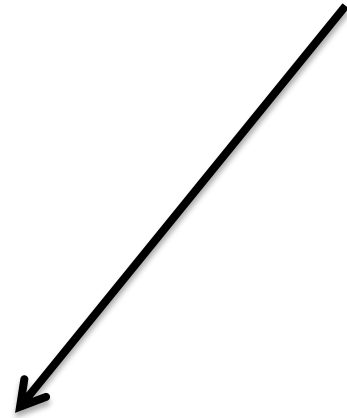
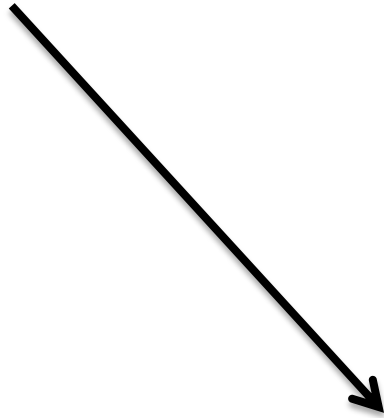
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  </originInfo>
```



+ MODS

EAD



XCU



Limit your search

Subject

Format

Collection

Repository

Welcome!

The Cross-Search and Context Utility

The Cross-Search and Context Utility will build a sustainable tool that brings together digitized content and detailed metadata from archival and manuscript collections. This will create access to digitized objects and their collections in context to better meet the needs of avocational researchers, college and university faculty, administrators, college and university students, and family historians.

You can start exploring the collections by typing a search term in the box above, or you can select a browsing option from the lists on the left.

[Collections](#)

[Contributing Institutions](#)



Limit your search

Subject

Format

Collection

[Frank S. Matsura Photographs](#)
(1628)[[remove](#)]

Repository

Search

Collection > [Frank S. Matsura Photographs](#) x

start over

Displaying items 1 - 10 of 1,628

Show 10 per page

« Previous

1

2

3

4

5

...

162

163

Next »

Select

1. A Boy and Young Lady Pose In a Parlor, ca. 1910

Collection [Frank S. Matsura Photographs](#)

Photographic prints depicting pioneer life in Okanogan County, Washington, including scenes of work and entertainment.

Date ca. 1910

Format photographic prints



Select

2. A Boy Harnessed His Dog to a Toy Wagon, ca. 1910

Collection [Frank S. Matsura Photographs](#)

Photographic prints depicting pioneer life in Okanogan County,





[New Search](#)
[Back To Results](#)
[Back to Item](#)

Frank S. Matsura Photographs

Select

Creator	Matsura, Frank S.
Dates	1907-1913
Quantity	2 containers. (2 linear feet of shelf space.) (1886 items.)
Collection Number	PC 35
Content Description	The photographs have been sorted into subject groupings and roughly organized into six series. Series I. People includes individual and group portraits, children, Judge William Compton Brown's animals, athletics, Indians, and horsemen; Series II. Places consists of photographs of the Columbia River and cities in Washington State such as, Conconully, Fort Okanogan, Malott, Okanogan, Omak, and Riverside; Series III. Things includes automobiles, homesteads and ranches, horse-drawn vehicles, houses, and orchards; Series IV. Activities includes scenes of farming, irrigation projects in Okanogan, construction of the Conconully Dam and the Elgin Canyon Road; Series V. Scrapbook includes mounted prints; and Series VI. Oversize consists of photographs of athletic groups.
Repository	Manuscripts, Archives, and Special Collections, Washington State University Libraries
Restriction	This collection is open for research use.
Languages	Collection materials are in English
Full Collection Description	http://nwda.orbiscascade.org/ark:/80444/xv57799
Items in this Collection (1628)	A Boy and Young Lady Pose In a Parlor, ca. 1910 A Boy Harnessed His Dog to a Toy Wagon, ca. 1910 A Boy Poses With His Lassie Dog Outside, ca. 1910 A Brother and Sister Pose at Matsura's Studio, ca. 1912 A Ruggy Ride Through Pleasant Valley, ca. 1910

[New Search](#)
[Back To Results](#)

Other items with these subjects:

- Children
- Organs
- Violins

Get more information:

[About this item](#)
[About this Collection](#)
[Contact the holding Institution to get a copy](#)

You searched for:

Collection > Frank S. Matsura Photographs x

Showing item 1 of 1,628 from your search.

[Next »](#)

A Boy and Young Lady Pose In a Parlor, ca. 1910

Select

Description A young lady in a white dress sits on an organ stool, her arm propped on the instrument's keys. A boy sits to her right, holding a violin in resting position. Behind them are portraits of family members and a collection of postcards. To their left is a small table and lamp. Rugs cover the wooden floor.

Collection [Frank S. Matsura Photographs](#)

Photographic prints depicting pioneer life in Okanogan County, Washington, including scenes of work and entertainment.

Repository [Manuscripts, Archives, and Special Collections, Washington State University Libraries](#)

Photographer Frank S. Matsura

Date Created ca. 1910

Original Resource <http://kaga.wsulibs.wsu.edu/u/?matsura,885>



[New Search](#)
[Back To Results](#)

Other items with these subjects:

- Children
- Organs
- Violins

Get more information:

[About this item](#)
[About this Collection](#)
[Contact the holding Institution to get a copy](#)

You searched for:

Collection > Frank S. Matsura Photographs x

Showing item 1 of 1,628 from your search.

A Boy and Young Lady Pose In a Parlor, ca. 1910

Sel

Description A young lady in a white dress sits on an organ stool, her arm propped on the instrument's keys. A boy sits to her right, holding a violin in resting position. Behind them are portraits of family members and a collection of postcards. To their left is a small table and lamp. Rugs cover the wooden floor.



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Repository [Manuscripts, Archives, and Special Collections, Washington State University Libraries](#)

Photographer Frank S. Matsura

Date Created ca. 1910

Original <http://kaga.wsulibs.wsu.edu/u/?/matsura,885>

User Testing



Administrator



Avocational



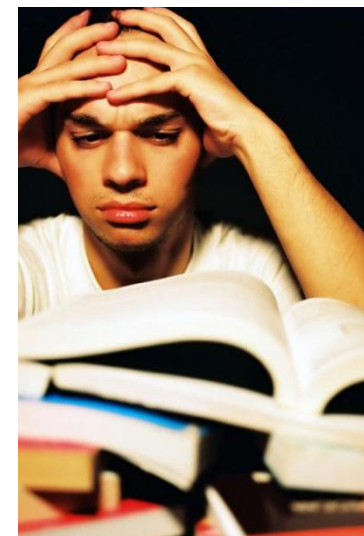
Research
Faculty



Teaching
Faculty



Genealogist



Student

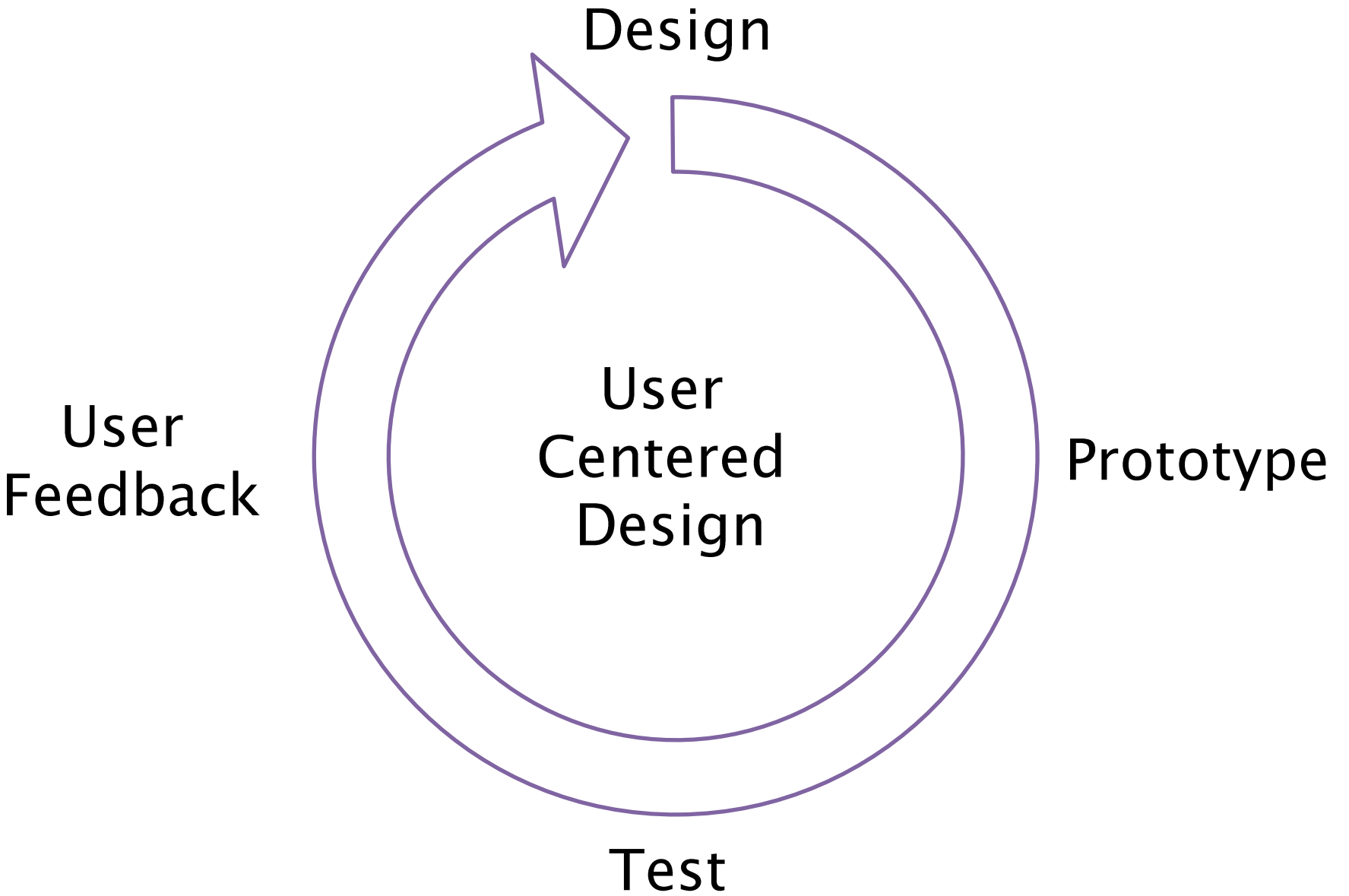


Tests:

1 user

30 – 60 minutes

3 – 4 tasks



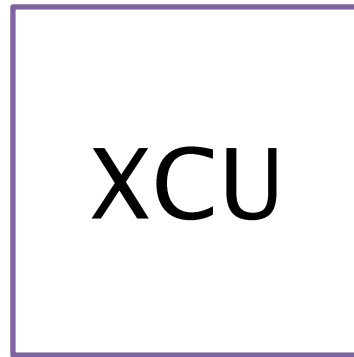
Results / feedback / lessons learned



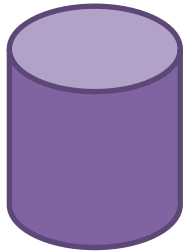
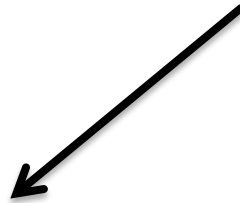
Is this an item or a collection?



Search Engine



XCU



Finding Aid

Issues / challenges

Harvesting







Finding Aid

Digital collections with EADs: 152

EADs without digital collections: 16,816

Digital collections without EADs: 705

Next Steps

More tests / feedback

Add graphic design

Name?

(hired a marketing firm to
help with this)

Summative Evaluation

Public Launch Date = October 17

