



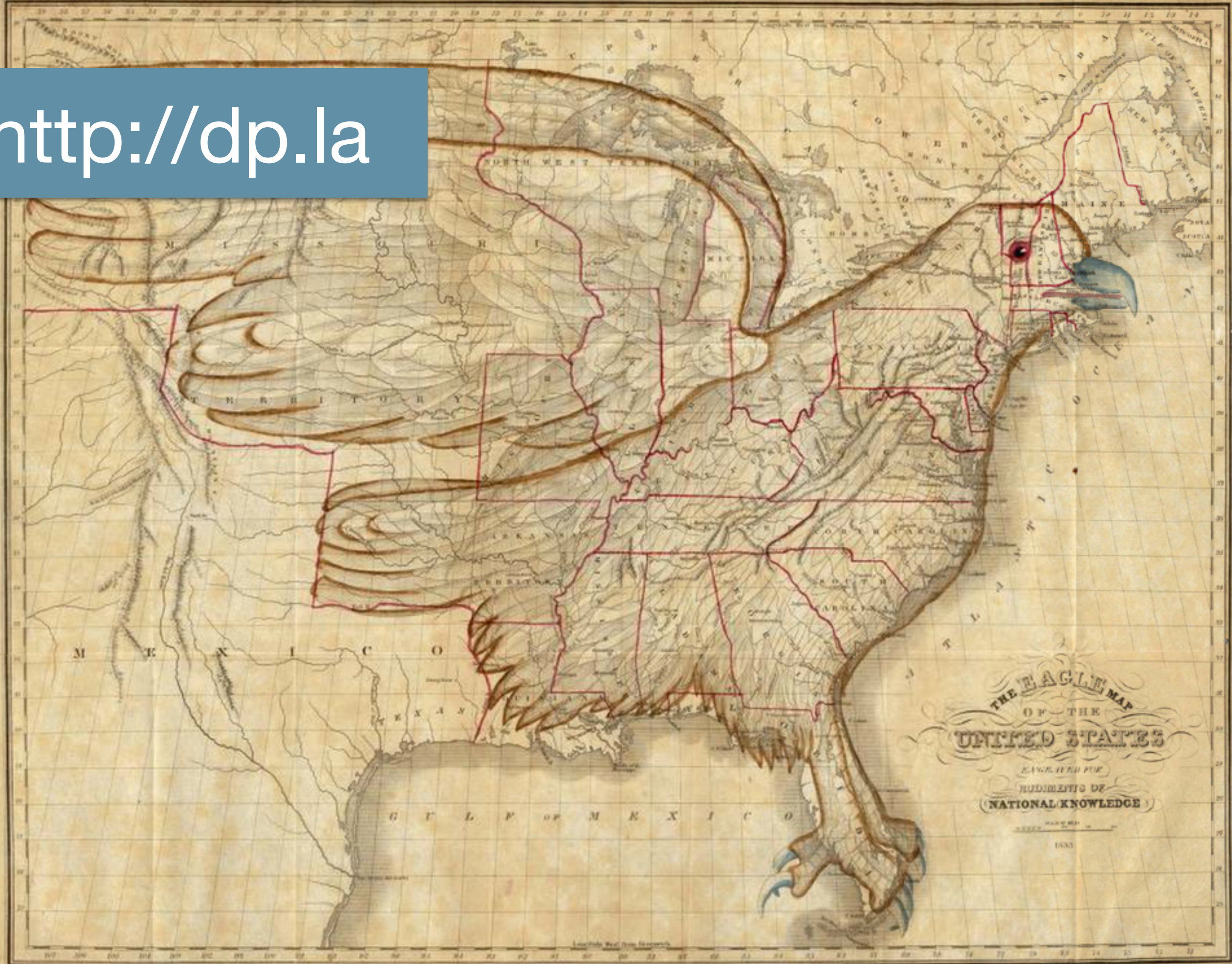
# **DPLA: Partnering for Discovery, Reuse, and Metadata Quality**

Mark A. Matienzo <[mark@dp.la](mailto:mark@dp.la)>  
Digital Public Library of America

University of Maryland INST643: Curation in Cultural Institutions  
October 13, 2015



<http://dp.la>







## A Wealth of Knowledge

explore 11,029,969 items from libraries, archives, and museums



## Exhibitions

[View all »](#)

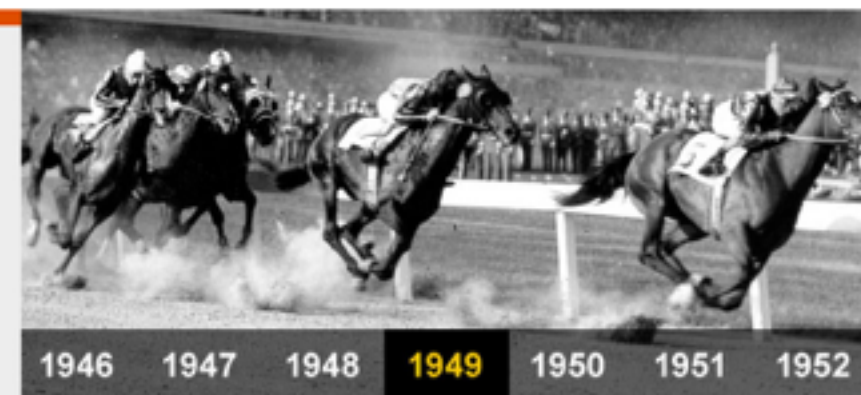


Explore  
by Place

[Map »](#)

Explore  
by Date

[Timeline »](#)



1946 1947 1948 **1949** 1950 1951 1952

## Apps

The DPLA is a platform. Developers make apps that use the library's data in many different ways. Here are just a

## News



[New DPLA Contract Opportunity: Metadata Ingestion](#)





11 Million resources and growing

L-R Minnesota DL, Portal to TX History and  
Artstor



## Refine

### By Format

text	333
image	62
moving image	1

### Contributing Institution

St. Cloud State University Archives	266
University of Michigan	16
Utah State University - Merrill-Cazier Library	15
University of California	12
The Miriam and Ira D. Wallach Division of Art, Prints and Photographs: Print Collection. The New York Public Library	11

[More »](#)

### Partner

Minnesota Digital Library	270
HathiTrust	48
The New York Public Library	29
Mountain West Digital Library	20
Smithsonian Institution	15

[More »](#)

### By Date

From

Month  Day  Year

To

Month  Day  Year

TEXT

### Letter from Sinclair Lewis to Marcella Powers, November 19, 1943

Lewis, Sinclair, 1885-1991

Letter written from the Hotel Nicollet, Minneapolis, Minnesota, regarding Lewis' lecture tour.

[View Object](#) 



TEXT

### Letter from Sinclair Lewis to Marcella Powers, May 14, 1944

Lewis, Sinclair, 1885-1991

Letter written from the Hotel Nicollet, Minneapolis, Minnesota, regarding Lewis' social life.

[View Object](#) 



TEXT

### Letter from Sinclair Lewis to Marcella Powers, May 12, 1944

Lewis, Sinclair, 1885-1991

Letter written from the Hotel Nicollet, Minneapolis, Minnesota, regarding Lewis' research on the legal system and his upcoming move to Duluth, Minnesota.

[View Object](#) 



TEXT

### Letter from Sinclair Lewis to Marcella Powers, August 4, 1943

Lewis, Sinclair, 1885-1991

Letter written from the Chateau Marmont, Los Angeles, California, regarding Lewis' wish that Powers meet with Eve Doyle March for lunch in New York.

[View Object](#) 



TEXT

### Letter from Sinclair Lewis to Marcella Powers, October 27, 1943

Lewis, Sinclair, 1885-1991

Letter written from the Hotel Broadview, Wichita, Kansas, regarding Lewis' journey to Kansas by train.

[View Object](#) 









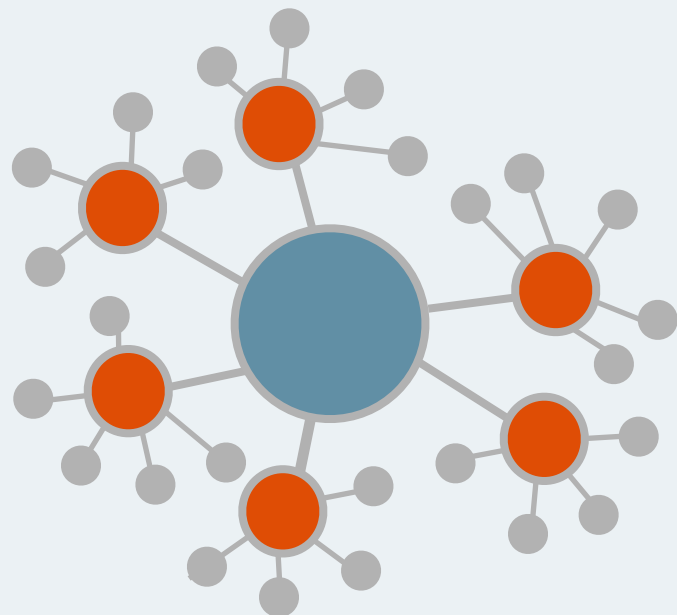
# DPLA is partnerships





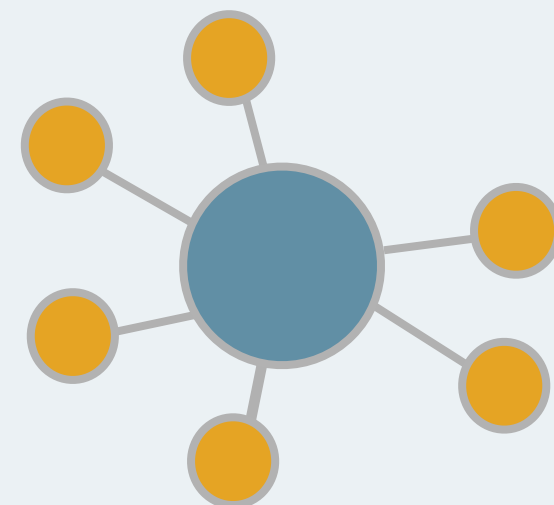
## Service Hubs

Mountain West Digital Library  
South Carolina Digital Library  
Empire State Digital Network  
Digital Commonwealth (MA)  
NC Digital Heritage Center  
The Portal to Texas History  
Digital Library of Georgia  
Minnesota Digital Library  
Kentucky Digital Library  
Indiana Memory  
Missouri Hub

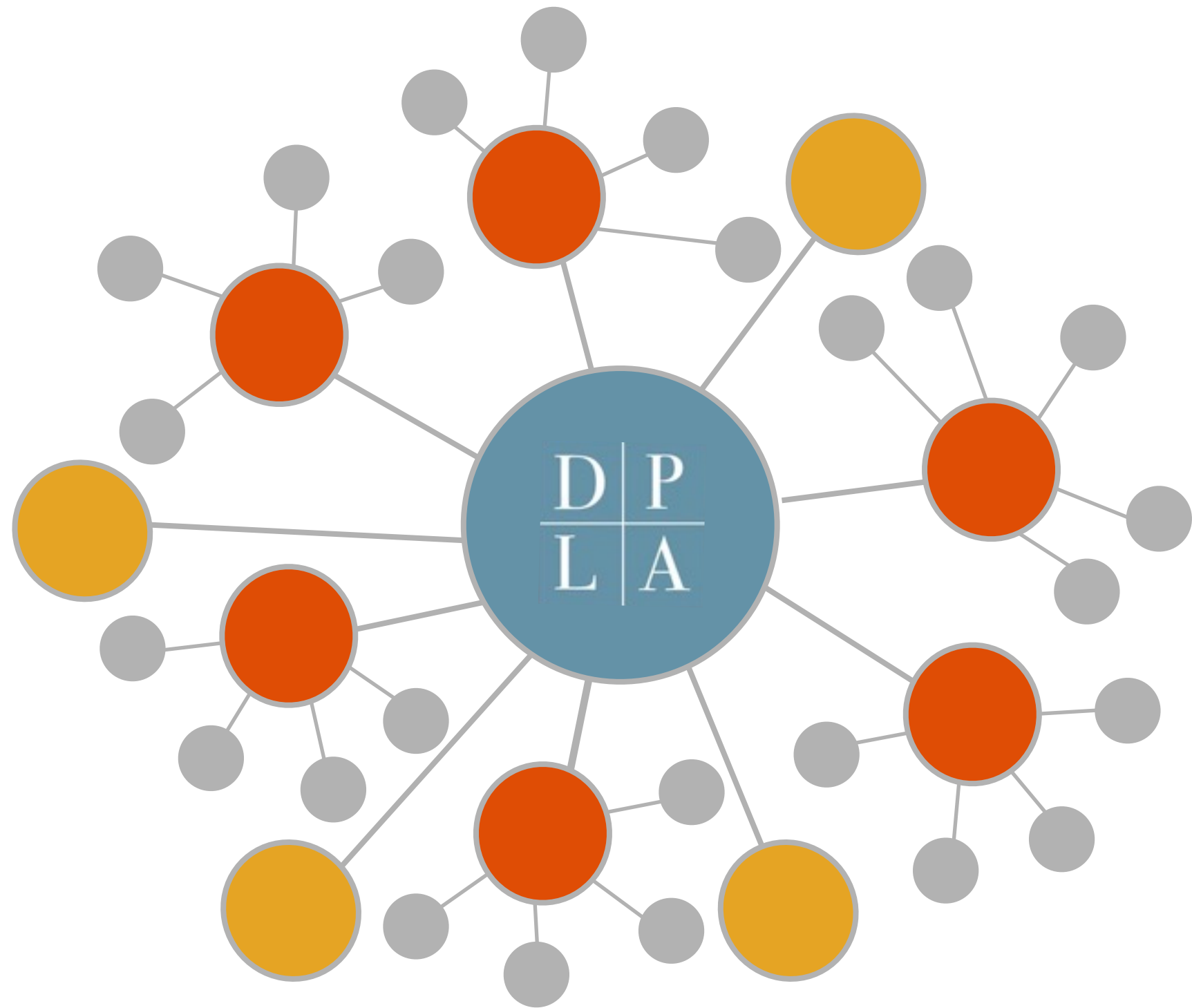


## Content Hubs

US Government Publishing Office (GPO)  
National Archives & Records Admin.  
University of Southern California  
Biodiversity Heritage Library  
U of I at Urbana-Champaign  
The New York Public Library  
Harvard University Library  
California Digital Library  
Smithsonian Institution  
University of Virginia  
J. Paul Getty Trust  
David Rumsey  
HathiTrust  
ArtStor



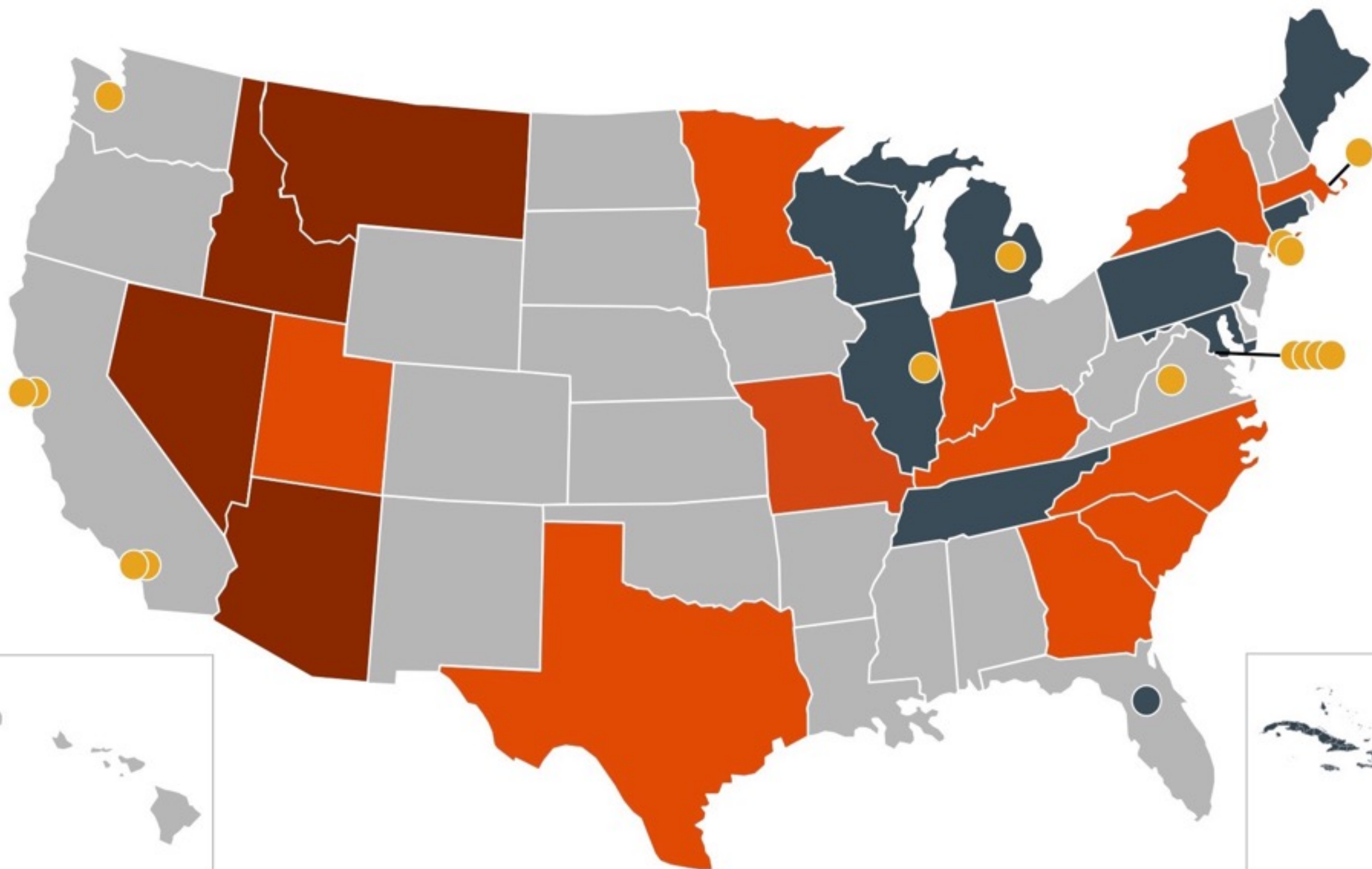






# DPLA Hubs locations

- Service Hubs
- Service Hub partner states
- Content Hubs
- Hubs in active development



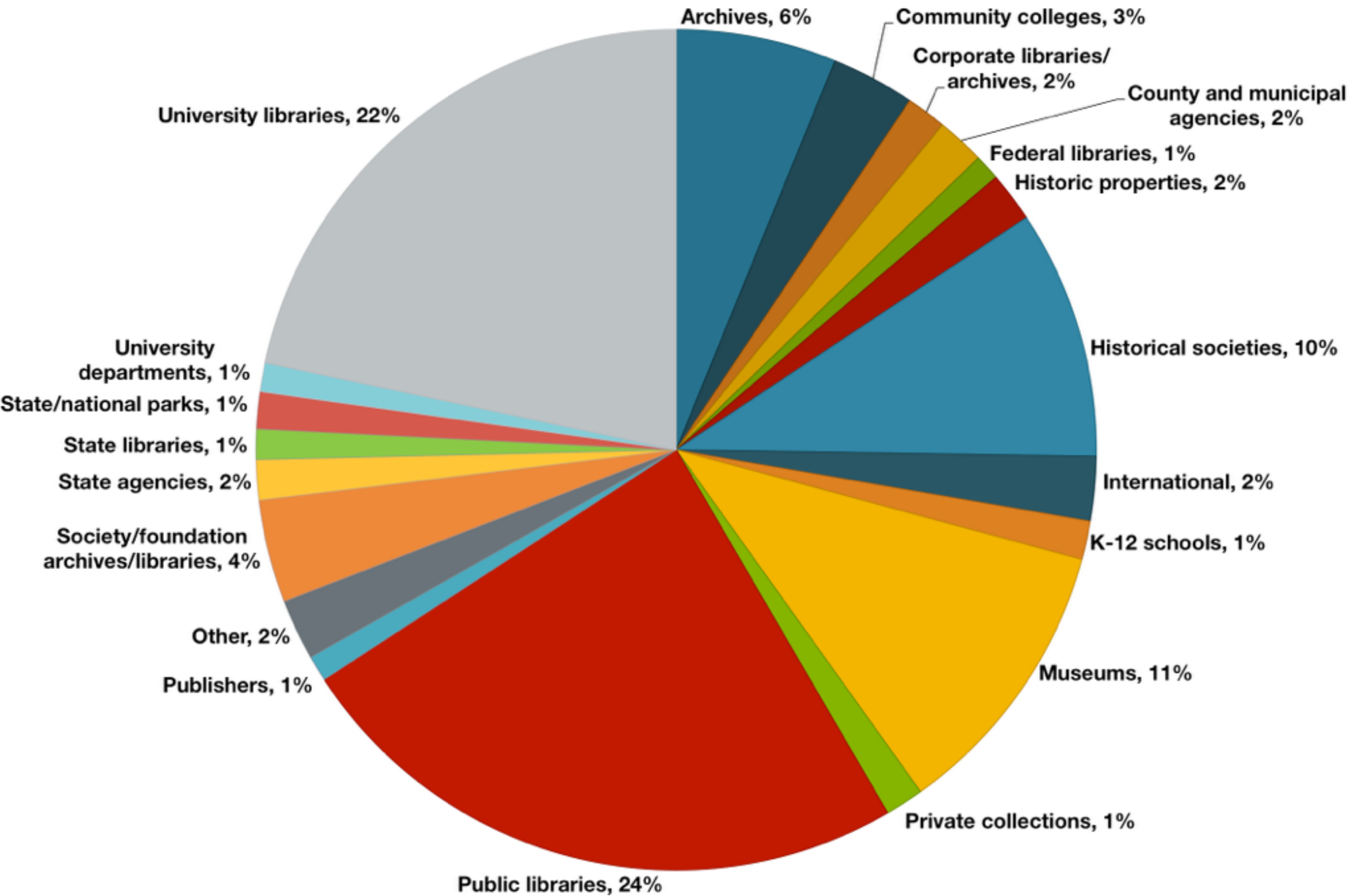


# Current Hub Math

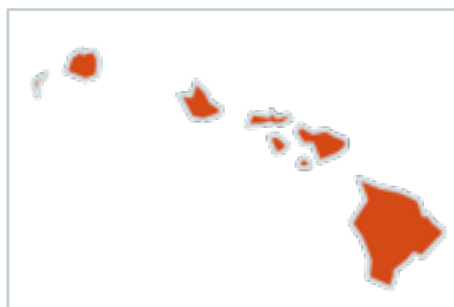
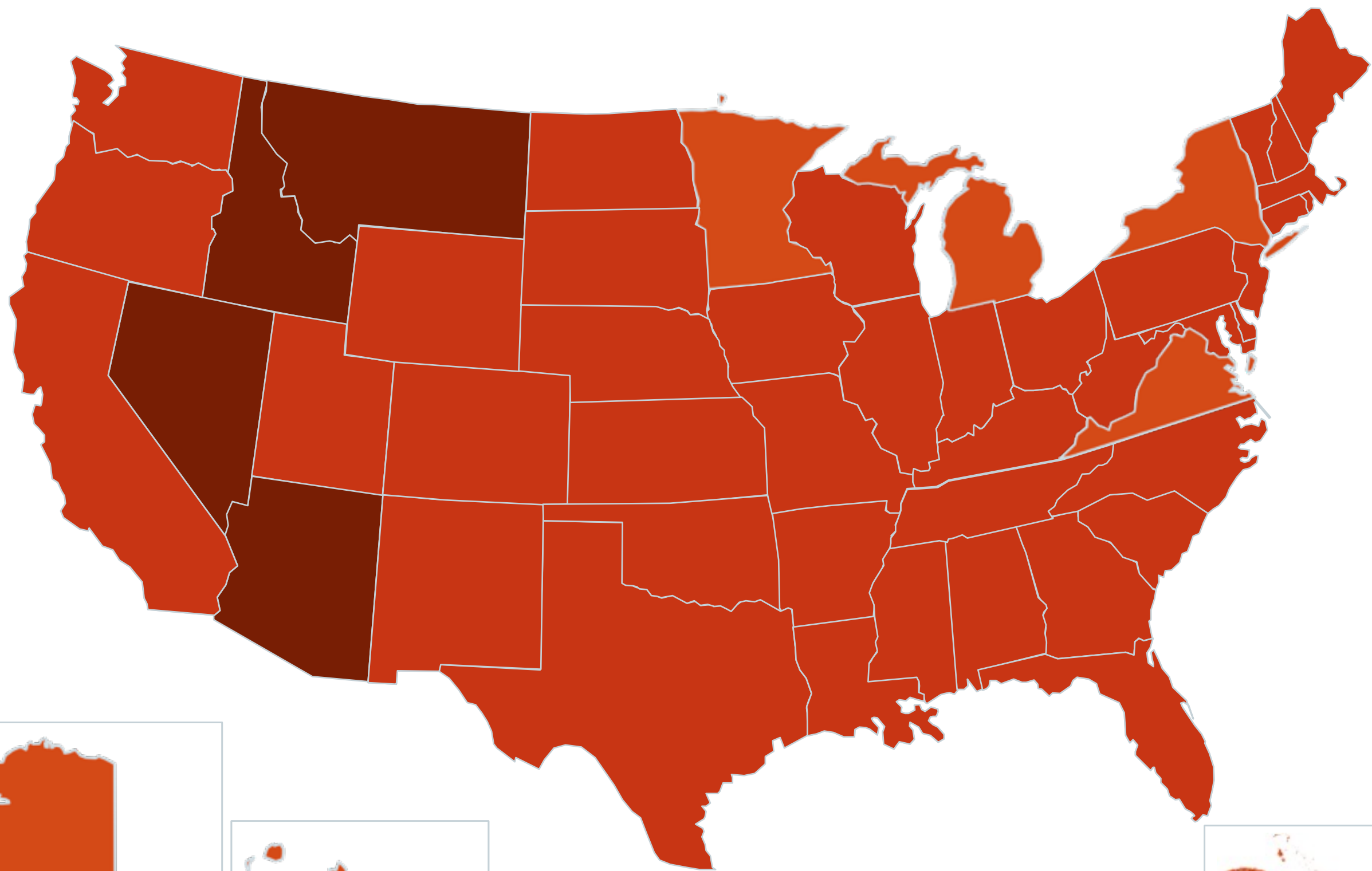
---

$$\begin{array}{r} 15 \text{ Content Hubs} \\ + 11 \text{ Service Hubs} \\ \hline 1,600 \text{ Partners} \end{array}$$

**Soon to be 19 Service Hubs and 16 Content Hubs**











# DPLA is a portal for discovery



## A Wealth of Knowledge

explore 11,029,969 items from libraries, archives, and museums



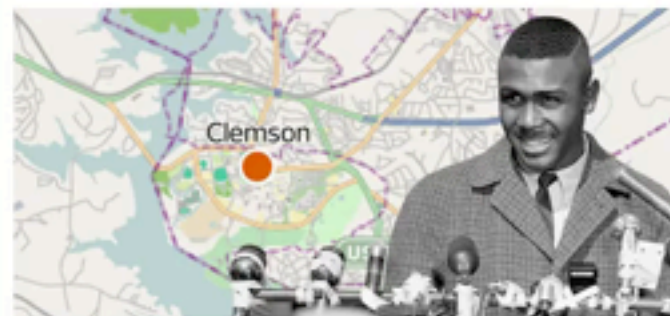


## A Wealth of Knowledge

explore 11,319,516 items from libraries, archives, and museums

## Exhibitions

[View all »](#)

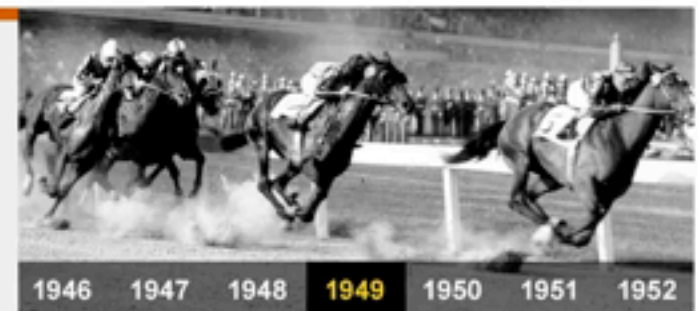


Explore  
by Place

[Map »](#)

## Explore by Date

[Timeline »](#)



1946 1947 1948 **1949** 1950 1951 1952

## Apps

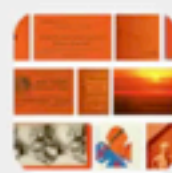
The DPLA is a platform. Developers make apps that use the library's data in many different ways. Here are just a few. [App Library »](#)



**WUD**

Medicine & Society chair at the  
University of Fribourg  
(Switzerland)

WUD is a customised search engine helping you to pull,  
link and organise data from two major cultural heritage



**Color Browse**

Chad Nelson

Color Browse lets you search the DPLA by hundreds of  
shades and hues. Pick a color to browse through results in

## News



[Humanities for All of Us: The NEH at 50](#)  
Sep 29

[Help the Copyright Office Understand How to Address Mass  
Digitization](#)  
Sep 25

[All News »](#)

[@dpla on Twitter](#)



DPLA is a **platform** to build upon



<http://dp.la/info/developers/>



- Machine actionable
- Available via bulk download







### Metadata Games

Tiltfactor Labs

Metadata Games is a digital game platform for gathering data on photo, audio, and moving image artifacts. The platform entices players to visit archives and explore humanities content while contributing to vital records. Metadata Games is fueled in part by digital materials contained in DPLA via its partners.

[App Home Page »](#)



### DPLA Search Widget

Dean Farrell and Josh Wilson

Search the DPLA right from your webpage in three easy steps! DPLA Search Widget allows you to easily install a DPLA search box on your website or WordPress pages.

[App Home Page »](#)



### EBSCO Discovery Service and DPLA Highlights

EBSCO

Include content from the DPLA in your EBSCO Discovery Service (EDS) profile in the form of a widget on the right side of your screen.

[App Home Page »](#)



### DPLA Discovery

Steven Anderson, Tom Morris, and Chris Strauber

DPLA Discovery is a widget that aims to provide multiple discovery interfaces in javascript that can be used in any website.

[App Home Page »](#)



### DPLA by County and State

Chad Nelson

DPLA by State and County allows you to see how well the DPLA represents each state and each county within a state.

[App Home Page »](#)



### Serendip-o-matic

One Week | One Tool, Roy Rosenzweig Center for History and New Media at George Mason University

Serendip-o-matic connects your sources to digital materials located in libraries, museums, and archives around the world, including the DPLA, Europeana, and Flickr Commons.

[App Home Page »](#)



### Culture Collage

Monique Szpak

Culture Collage is a simple tool that lets you search the Digital Public Library of America's image archive and view the results as a streaming river of images, just keep scrolling to fetch more.



### OpenPics

Say Goodnight Software / PJ Gray

An open source iOS application for viewing images from multiple remote sources. Available for iPhone/iPad on the app store, or get the source code on GitHub!

[App Home Page »](#)



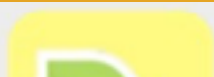
### DPLAbot

Mark Sample

@DPLAbot is a Twitter bot that tweets links to random items located in the vast collections of the Digital Public Library of America (DPLA).

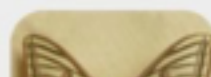
[App Home Page »](#)

apps



### MINT Services

National Technical University of Athens



### Search DPLA and Europeana

InfoDynamics



### WP DPLA

WordPress



mississippi

Go!

36090 results found.

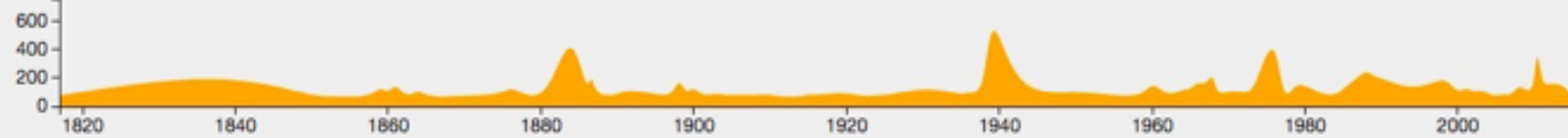
24090 images

10172 texts

#### Subjects

World War, 1939-1945--Indiana--Evansville -- 2269  
Shipyards--Indiana--Evansville -- 2269  
Shipbuilding--Indiana--Evansville -- 2269  
Portrait photographs -- 1416  
Anthropology -- 1406  
Archaeology -- 1379  
Mississippi River -- 1324  
Facilities -- 1277  
People -- 1203  
Mississippi -- 1141  
Stream -- 1101  
Rivers -- 1087  
Women -- 1058  
Animalia -- 1046  
African Americans -- 971  
MPR News -- 891  
United States--History--Civil War, 1861-1865 -- 877  
Bureau Of American Ethnology -- 873  
Dwellings -- 852  
Hurricane Katrina, 2005 -- 842  
Hurricanes -- 841  
Group portraits -- 833  
Housing areas -- 721  
Nature -- 698  
Oxford (Miss.) -- 695  
Older people -- 684  
Mississippi River. -- 611  
African Americans--Mississippi -- 600  
Authors -- 548  
Texas A & M University -- 520  
Continental Shelf Associates for BLM/ MMS -- 520  
Vicksburg (Miss.) -- 468  
Musicians -- 433  
Demonstrations--Mississippi--Jackson -- 417  
Civil rights demonstrations--Mississippi--Jackson -- 401  
United States -- 388  
Transportation. Water. River and lake. Steamboats. -- 386  
Photographs -- 383  
Objects -- 379  
African American musicians--Mississippi -- 363  
Dams -- 362  
Bridge -- 357  
Civil rights movements--Mississippi--Jackson -- 347  
Freedom Rides, 1961 -- 344  
Buildings -- 343  
Animals -- 340  
Passive resistance--Mississippi--Jackson -- 339  
Cnidaria -- 337  
Religious facilities -- 334  
Anthozoa -- 334  
Arrest--Mississippi--Jackson -- 329  
Hats -- 328  
Stereoscopic views -- 326  
Identification photographs--Mississippi--Jackson -- 324  
Bodies of water -- 320  
Disaster relief -- 302  
African American musicians -- 301

#### Date range



[\["Mississippi"\]](#)

T

University of Washington



[\["Mississippi"\]](#)

[\["Dorothea Lange"\]](#)

ca. 1938

California Digital Library



[\["Mississippi"\]](#)

[\["C.S. Hammond & Company"\]](#)

[1905..1925]

Map shows early twentieth century Mississippi railroads, rivers, cities and towns. Relief shown by hachures. Scale [ca. 1:3,200,000].

The Portal to Texas History



[\["Mississippi"\]](#)

1985

Approved effective, September 4, 1980; current through August 12, 1985.

HathiTrust



[Mississippi](#)

[\["Tilden, Samuel J. \(Samuel Jones\) \(1814-1886\)"\]](#)

1876-1876

The New York Public Library



[On the Mississippi](#)

The New York Public Library

[Mississippi](#)

United States. Railroad Administration

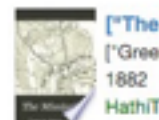
Biodiversity Heritage Library



[\["On the Mississippi"\]](#)

[\["Carroll, Harry, 1892-1962 \(composer\)"\]](#)

South Carolina Digital Library



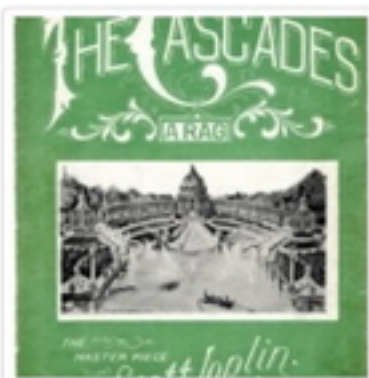
[\["The Mississippi"\]](#)

[\["Greene, F. V. \(Francis Vinton\), 1850-1921"\]](#)

1882

HathiTrust



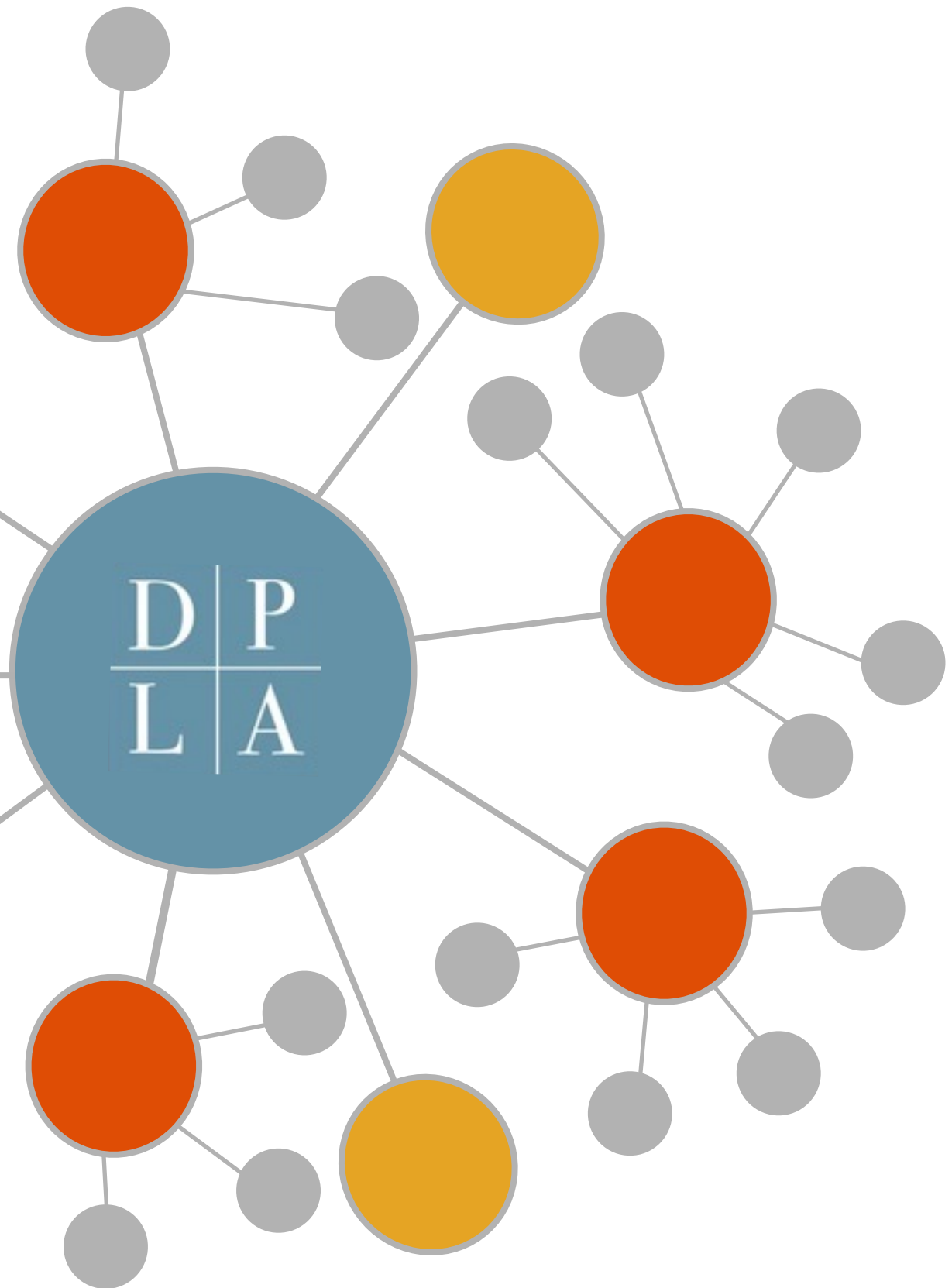





←  
Endless possibilities

←  
JSON-LD out

←  
Metadata in



A close-up portrait of Dr. Rufus Pollock, a man with dark hair and a slight smile, wearing a green jacket. The background is blurred, showing what appears to be a bookshelf.

“The best thing to  
do with your data  
will be thought of  
by someone else”

*Dr. Rufus Pollock, Open Knowledge Foundation*



DPLA is an advocate for a strong **public option**



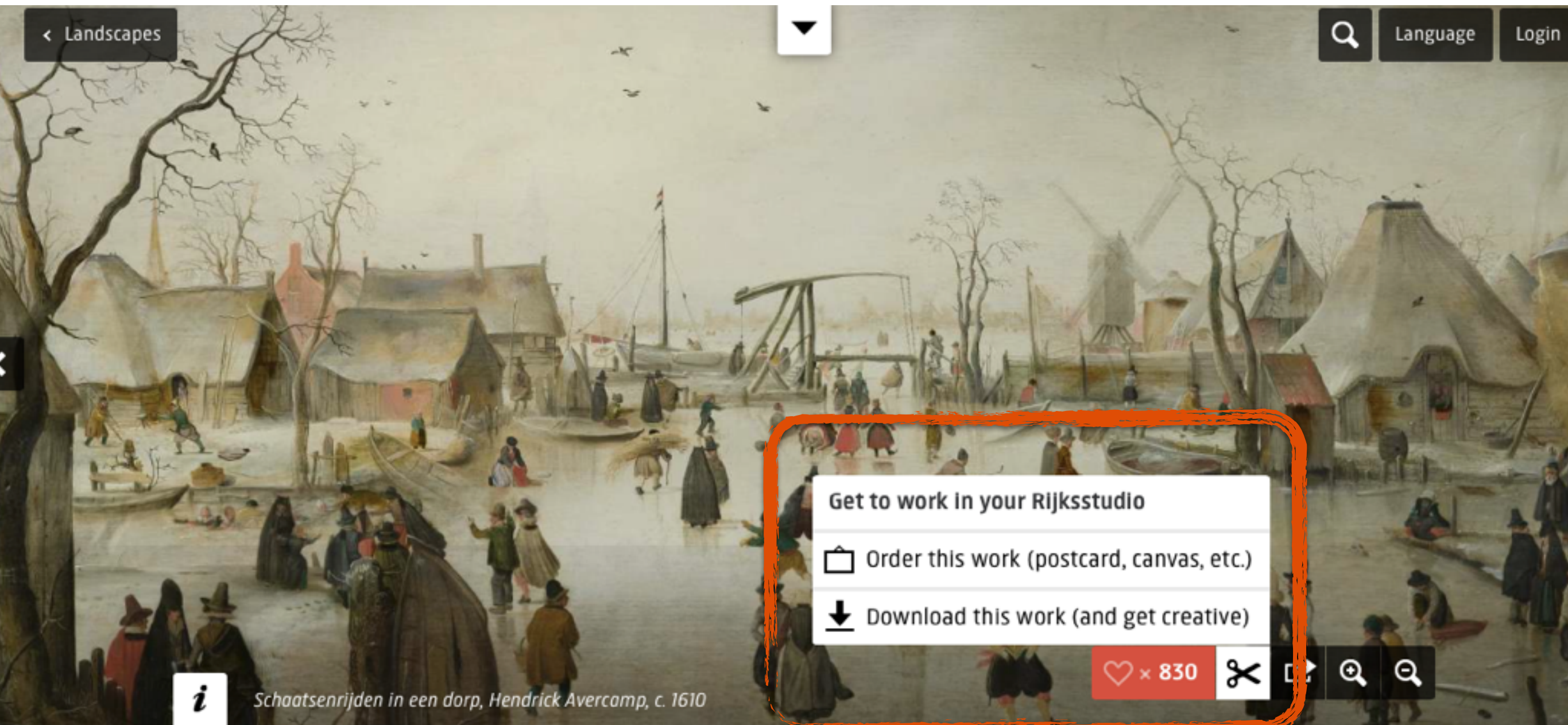
DPLA believes in being a voice for **best practices in GLAMs** and

we want our partners to join us through **advocacy and implementation.**

Together, we want to promote **maximal openness and reuse.**



What  
**delivery expectations**  
do our users have?

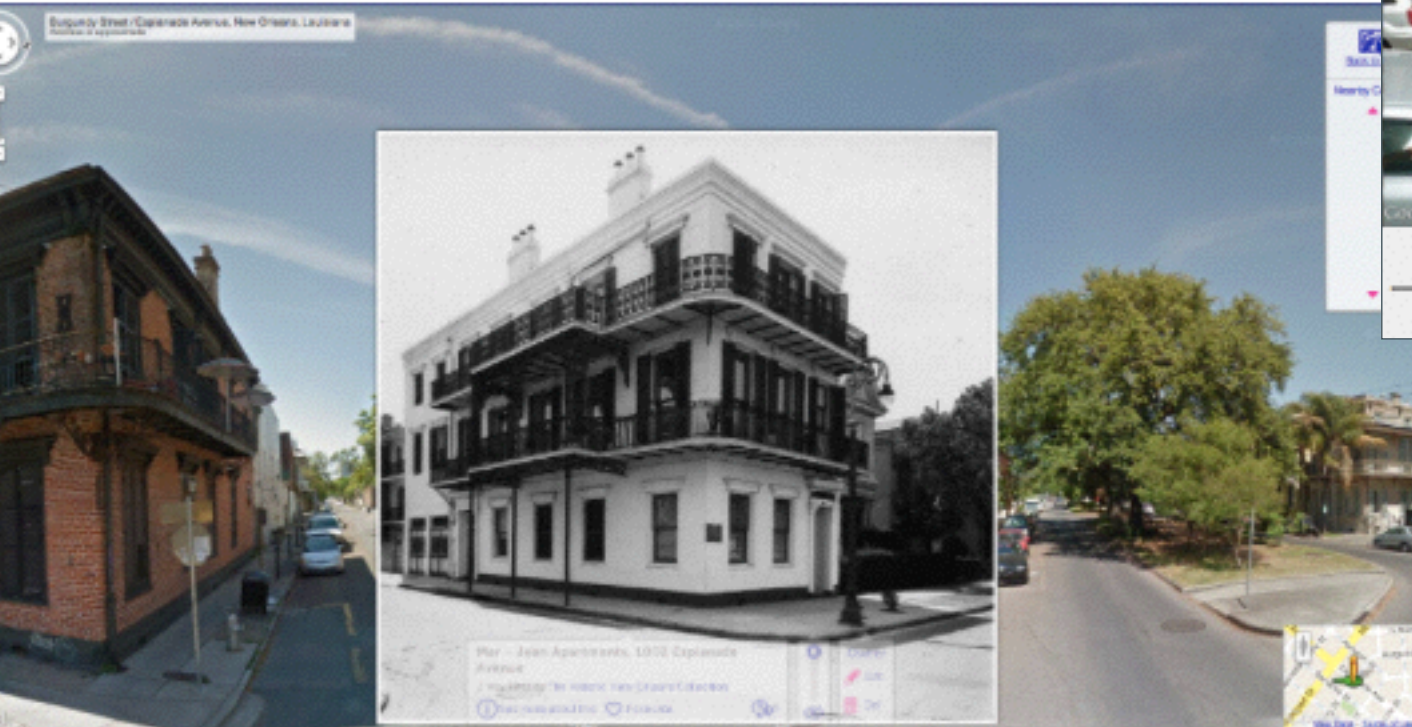


<https://www.rijksmuseum.nl/en/explore-the-collection/works-of-art/landscapes/objects#/SK-A-1320,3>



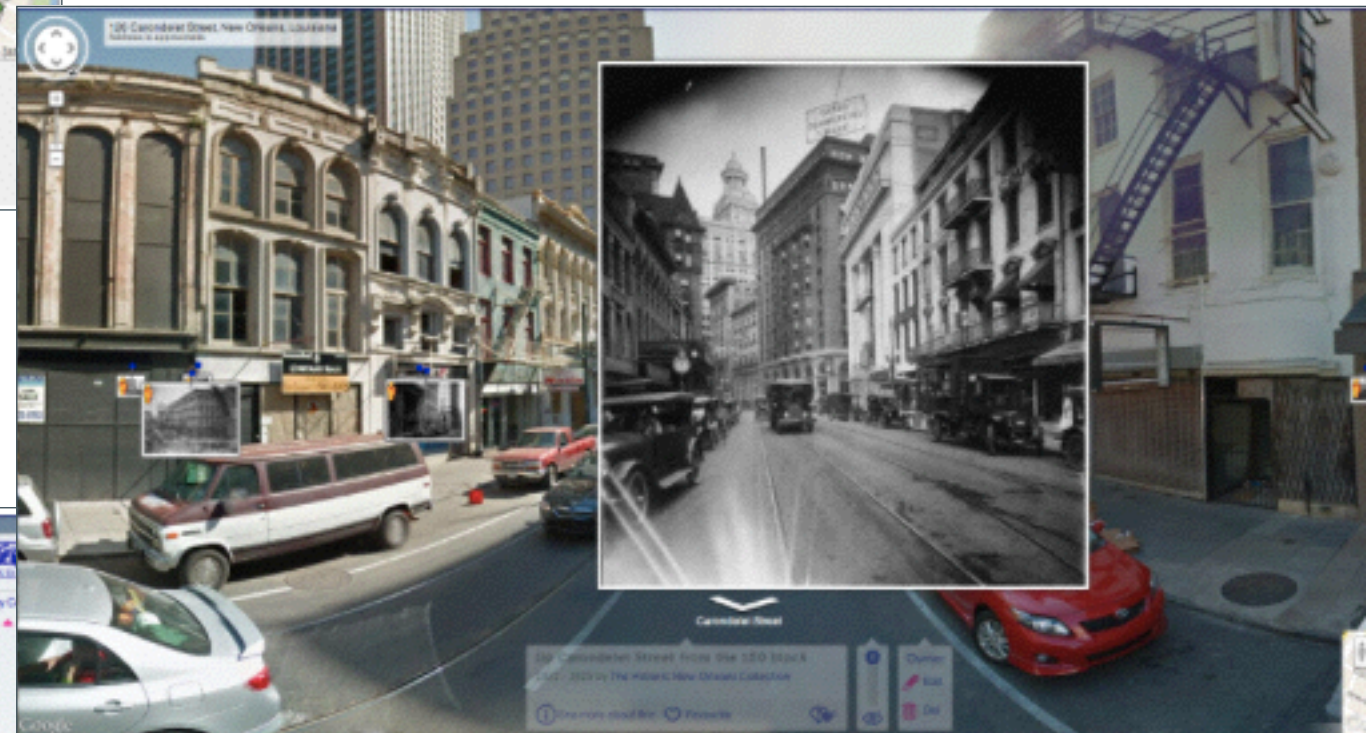


Central Fire Station, 300 Block Decatur Street, 1928-1932.



Mar - Jean Apartments, 1002 Esplanade Avenue, 1941.

the power of reuse

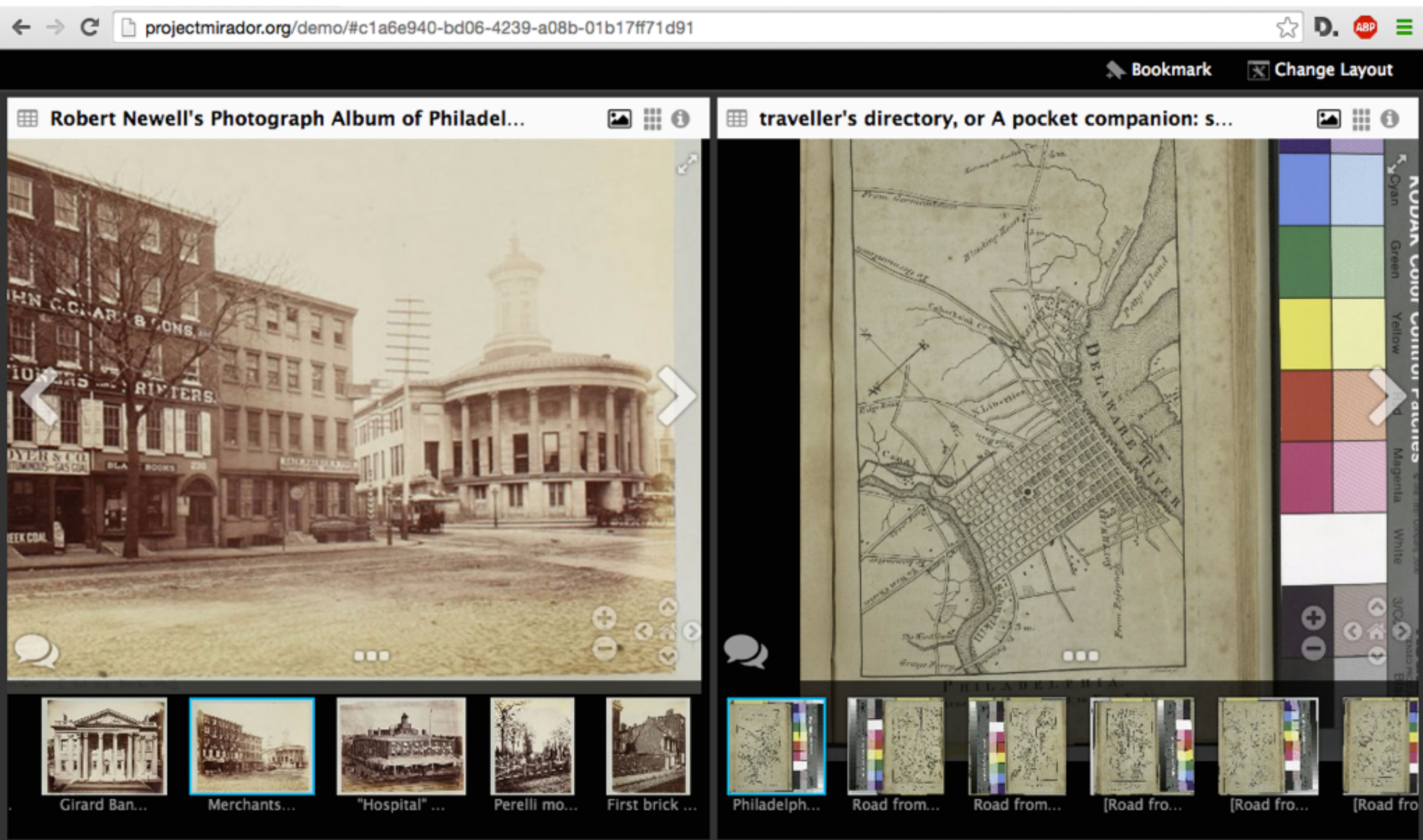


Up Carondelet Street from the 100 Block, 1921-1925.

historypin



# Project to watch out for



IIIF - <http://iiif.io/>

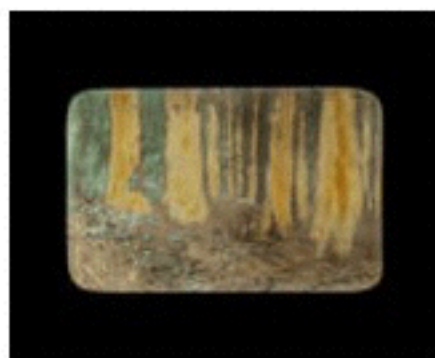


# 90,000+ different rights statements

[illegible]



# Moose Creek (Idaho)



[View Object](#) 

Creator	Shattuck, C. H
Created Date	1904-1910
Partner	Mountain West Digital Library
Contributing Institution	University of Idaho Library

## Description

Mature Cedar, Moose Creek, Idaho. Some photographs appear in a report from C. H. Shattuck, University of Idaho, Dept. of Forestry to Major F.A. Fenn, Supervisor, Clearwater National Forest (Day-NW SD428.C55S5) and in an article by C. H. Shattuck at the UI Agricultural Experiment Station Bulletin no. 91, Dec. 1916 (Idaho S 53 E416). Jp2 grayscale, enhanced image displayed. Scanned with Epson Expression 1640XL scanner. Master file is a 1000 dpi ... [more](#) ▼

Location United States--Idaho

Type image

Subject ~~Native Plant Forest (Idaho)~~

Rights Digital image copyright 2010, The University of Idaho. All rights reserved. For more information contact Special Collections and Archives, University of Idaho Library, Moscow, ID 83844-2350; <http://www.lib.uidaho.edu/special-collections/>.

URL [http://utah-primoprod.hosted.exlibrisgroup.com/primo\\_library/libweb/action/diDisplay.do?vid=MWDL&afterPDS=true&docId=digcoll\\_uid\\_36spec\\_cs/36](http://utah-primoprod.hosted.exlibrisgroup.com/primo_library/libweb/action/diDisplay.do?vid=MWDL&afterPDS=true&docId=digcoll_uid_36spec_cs/36)



# Copyright Term and the Public Domain in the United States

## 1 January 2015<sup>1</sup>

### Never Published, Never Registered Works<sup>2</sup>

<i>Type of Work</i>	<i>Copyright Term</i>	<i>What was in the public domain in the U.S. as of 1 January 2015<sup>3</sup></i>
Unpublished works	Life of the author + 70 years	Works from authors who died before 1945
Unpublished anonymous and pseudonymous works, and works made for hire (corporate authorship)	120 years from date of creation	Works created before 1895
Unpublished works when the death date of the author is not known <sup>4</sup>	120 years from date of creation <sup>5</sup>	Works created before 1895 <sup>5</sup>

### Works Registered or First Published in the U.S.

<i>Date of Publication<sup>6</sup></i>	<i>Conditions<sup>7</sup></i>	<i>Copyright Term<sup>3</sup></i>
Before 1923	None	None. In the public domain due to copyright expiration
1923 through 1977	Published without a copyright notice	None. In the public domain due to failure to comply with required formalities
1978 to 1 March 1989	Published without notice, and without subsequent registration within 5 years	None. In the public domain due to failure to comply with required formalities
1978 to 1 March 1989	Published without notice, but with subsequent registration within 5 years	70 years after the death of author. If a work of corporate

<http://copyright.cornell.edu/resources/publicdomain.cfm>

# rightsstatements.org

**Launch Date Expected Dec 31, 2015**





## Matches for:

where: Chicago ✕

## Refine your results:

▼ Add more keywords

+ Add

▼ By media type

- ☐ IMAGE (664)
- ☐ TEXT (341)
- ☐ VIDEO (23)
- ☐ SOUND (3)

► By language of description

► By year

► By providing country

► Can I use it?

▼ By copyright

- ☐ Restricted Access - Rights Reserved (82)
- ☐ Paid access - no re-use (73)
- ☐ Public Domain marked (54)
- ☐ Unknown copyright status (37)
- ☐ CC BY-NC-SA (49)
- ☐ CC BY-SA (13)
- ☐ CC BY (5)
- ☐ CC0 (3)

► By provider

► By data provider

Results per page: 24 ▼


Results 1 - 24 of 1,031

1 of 43 > >>




Conventie van Rep.  
Party te Chicago 




Frederic Berbigier  
(links), commiss... 




"Kapitein Sander Klein,  
gezagvoerder va... 




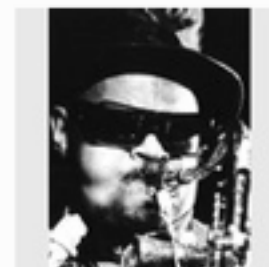
Water-motorfiets,  
demonstratie va... 




Skien, Gemotoriseerde  
skis uitgevonden... 



Richard Daley van  
Chicago, die lan... 




De Amerikaanse blinde  
Jazz-musicus R... 




Intercontinental ballistic  
Missile U.S. Air ... 



Championship  
Baltimore-Oricle... 



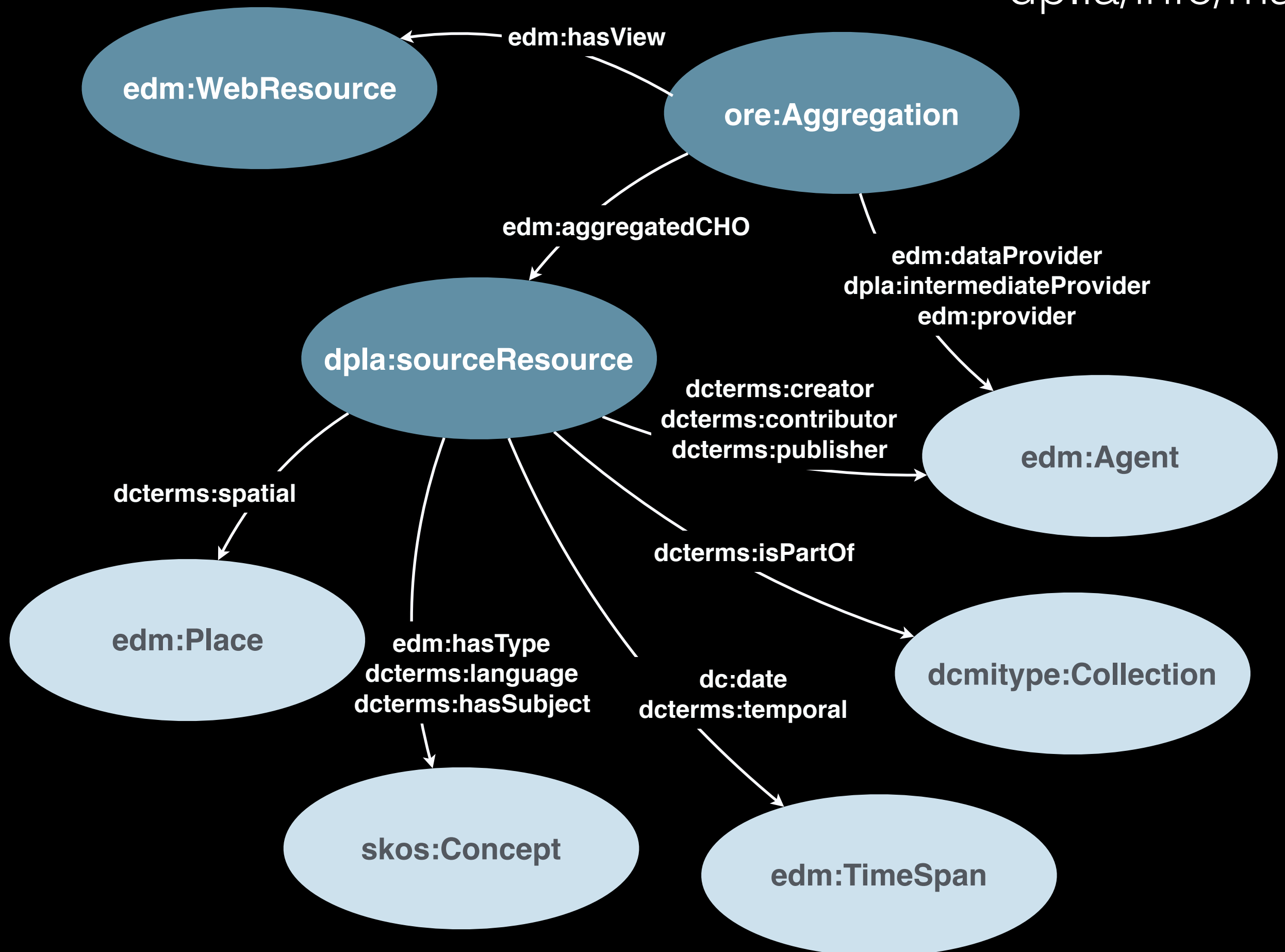
In de nacht van  
maandag op din... 



Leider van de Zwarte  
Moslims Elijah ... 



Ojciec Świety z dziećmi 



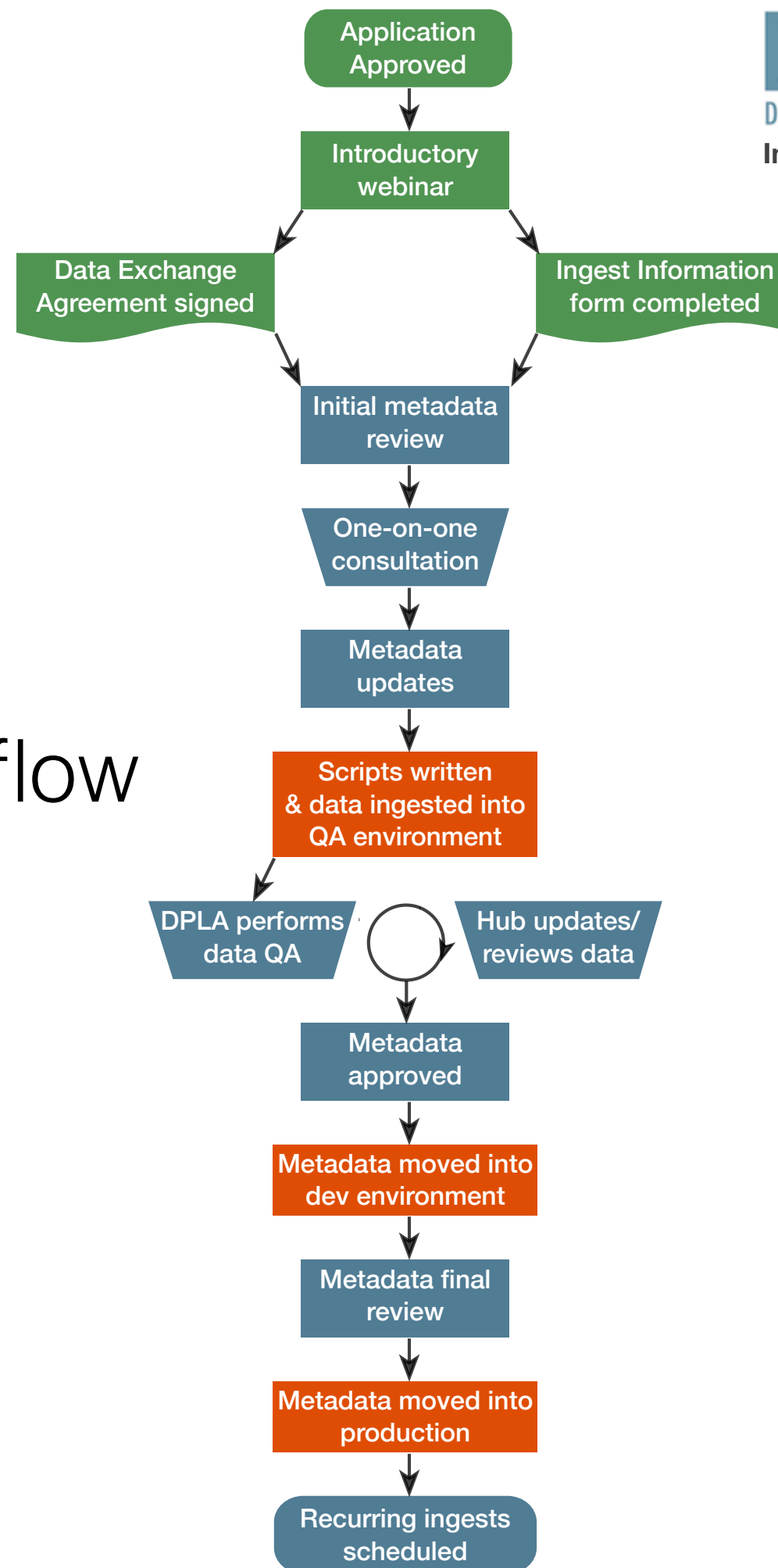




03:42



# DPLA Hub Workflow





# Getting your data ready

## Bernardia dodecandra McVaugh

[Save To...](#)[Share](#)

Partner Smithsonian Institution

Contributing NMNH - Botany Dept.  
Institution

[View Object](#) 

### Description

1. Available for transcription. 14 Jul 2015.

Location Mirador, Mexico, North America

Type image

Subject [Euphorbiaceae](#)  
[Euphorbiales](#)  
[Crowdsourcing Project](#)  
[Bernardia dodecandra McVaugh](#)  
[Liebmann,--](#)  
[Dicotyledonae](#)  
[Plantae](#)

URL [http://collections.si.edu/search/results.htm?q=record\\_ID%3Anmnhbotany\\_11455013&repo=DPLA](http://collections.si.edu/search/results.htm?q=record_ID%3Anmnhbotany_11455013&repo=DPLA)

# Getting your data ready

## By Location

Washington x

Washington x

Washington (D.C.)	6193
Washington, D.C.	3304
Washington (State)	2286
District of Columbia	1984
Washington, DC	1493



# Getting your data ready

## Achillea millefolium L

[Save To...](#)[Share](#)[View Object](#)

**Created Date** Jul 1833

**Partner** Smithsonian Institution

**Contributing Institution** NMNH - Botany Dept.

**Description**  
1. 20 Sep 2012.

**Created Date**  
Jul 1833

[View on timeline »](#)



**Location** Germany

**Type** image

**Subject**

- Common Yarrow
- Achillea millefolium L
- Medicinal Plants of Antiquity
- Common yarrow (red)
- Sereno de invierno
- Asterales
- Daz-roh
- Yarrow
- Asteraceae
- Dicotyledonae
- Plantae

**URL** [http://collections.si.edu/search/results.htm?q=record\\_ID%3Anmnhbotany\\_2836858&repo=DPLA](http://collections.si.edu/search/results.htm?q=record_ID%3Anmnhbotany_2836858&repo=DPLA)

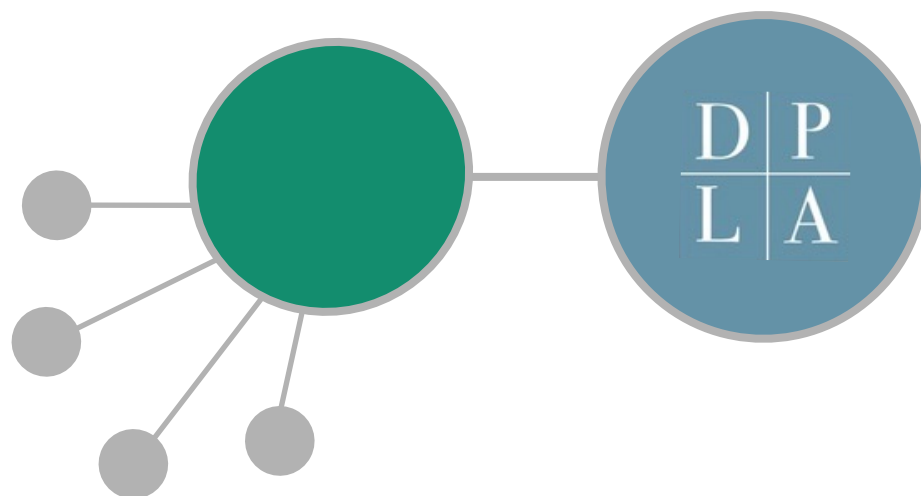
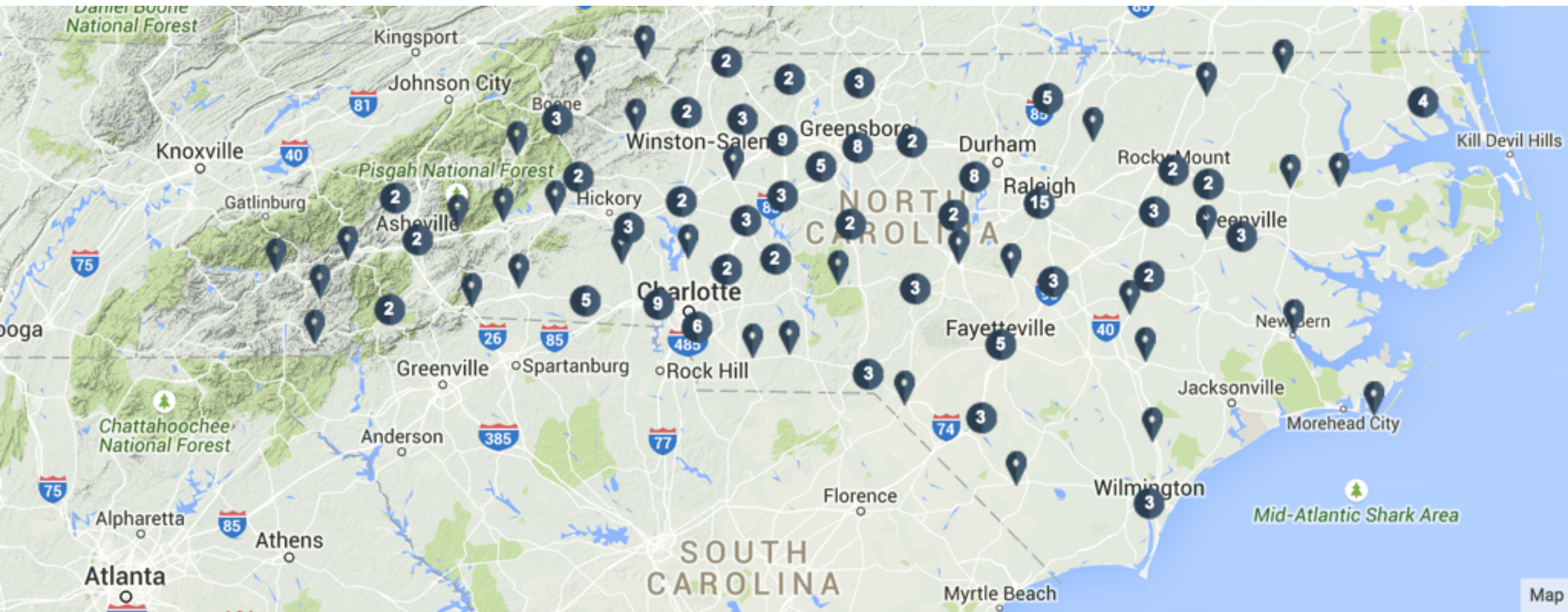
# Getting your data ready

```
{
  id: "ea8abace23b11807d011b4b29c7940e5",
  - sourceResource: {
    title: "Honor Guard Carrying Harry S. Truman's Casket",
    - contributor: [
      "Schrepfer, Cecil (Cecil H.), 1913-1989"
    ],
    - subject: [
      - {
        name: "Ex-presidents"
      },
      - {
        name: "Funeral rites and ceremonies"
      },
      - {
        name: "Military funerals"
      },
      - {
        name: "Presidential libraries"
      }
    ],
    - rights: [
      "Unrestricted"
    ],
    - relation: [
      "Photographs Relating to the Administration, Family, and Personal Life of Harry S. Truman, 1957 - 2006"
    ],
    - collection: {
      id: "c1341cba2584541880f87fb2aebff201",
      title: "Audiovisual Collection, 1957 - 2006",
      @id: "http://dp.la/api/collections/c1341cba2584541880f87fb2aebff201"
    },
    - stateLocatedIn: {
      - name: [
```





# Getting your data ready



# Getting your data ready

---





# Getting your data ready

---

## Rights Statements

A project of DPLA and Europeana.



This project is lead by the above organizations. Creative Commons is providing advice and support.

Statements at [rightsstatements.org](https://rightsstatements.org)

DPLA Label	Equivalent Element	Requirement
Alternative title	dcterms:alternative	Optional
Collection	dcterms:isPartOf	Recommended
Contributor	dcterms:contributor	Optional
Creator	dcterms:creator	Recommended
Date	dc:date	Recommended
Description	dcterms:description	Recommended
Extent	dcterms:extent	Optional
Format	dc:format	Recommended
Genre	edm:hasType	Optional
Identifier	dcterms:identifier	Optional
Language	dcterms:language	Recommended
Place	dcterms:spatial	Recommended
Publisher	dc:publisher	Recommended
Relation	dc:relation	Optional
Replaced by	dcterms:isReplacedBy	Optional
Replaces	dcterms:replaces	Optional
Rights	dc:rights	Required
Rights Holder	dcterms:rightsholder	Optional
Subject	dcterms:subject	Optional
Temporal Coverage	dcterms:temporal	Optional
Title	dcterms:title	Required
Type	dcterms:type	Recommended



<b>DPLA Label</b>	<b>Equivalent Element</b>	<b>Requirement</b>
Aggregated SR	edm:aggregatedCHO	Required
Data Provider	edm:dataProvider	Required
Digital Resource Original Record	dpla:originalRecord	Required
Has View	edm:hasView	Optional
Intermediate Provider	dpla:intermediateProvider	Optional
Is Shown at	edm:isShownAt	Required
Object	edm:object	Optional
Preview	edm:preview	Required
Provider	edm:provider	Required
Standardized Rights Statement	edm:rights	Required

**Metadata standards?**

**Different data**

**Insufficient granularity**

**Missing values**

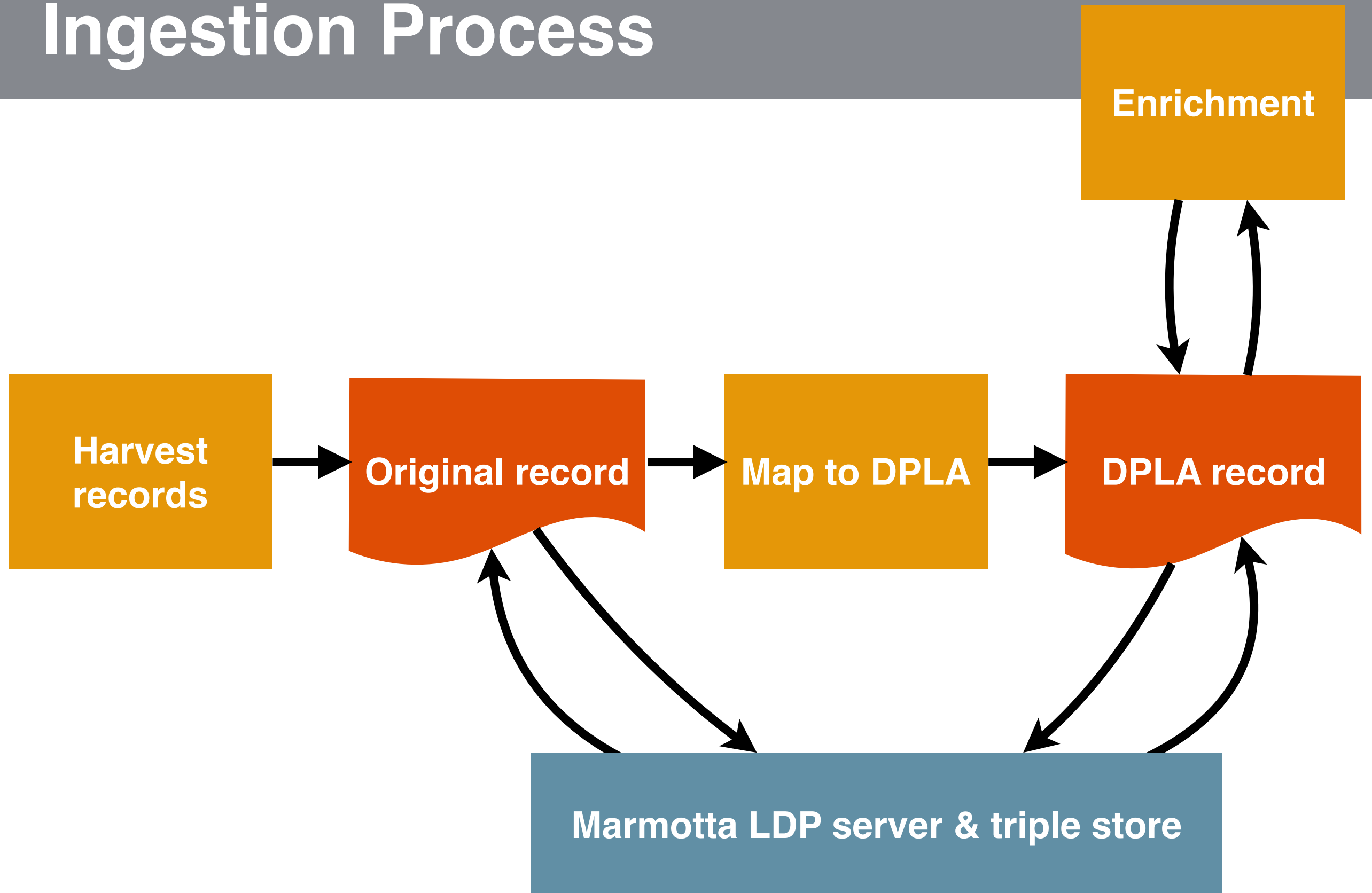
**Confusing values**

**Inappropriate field use**

**Rights statements**

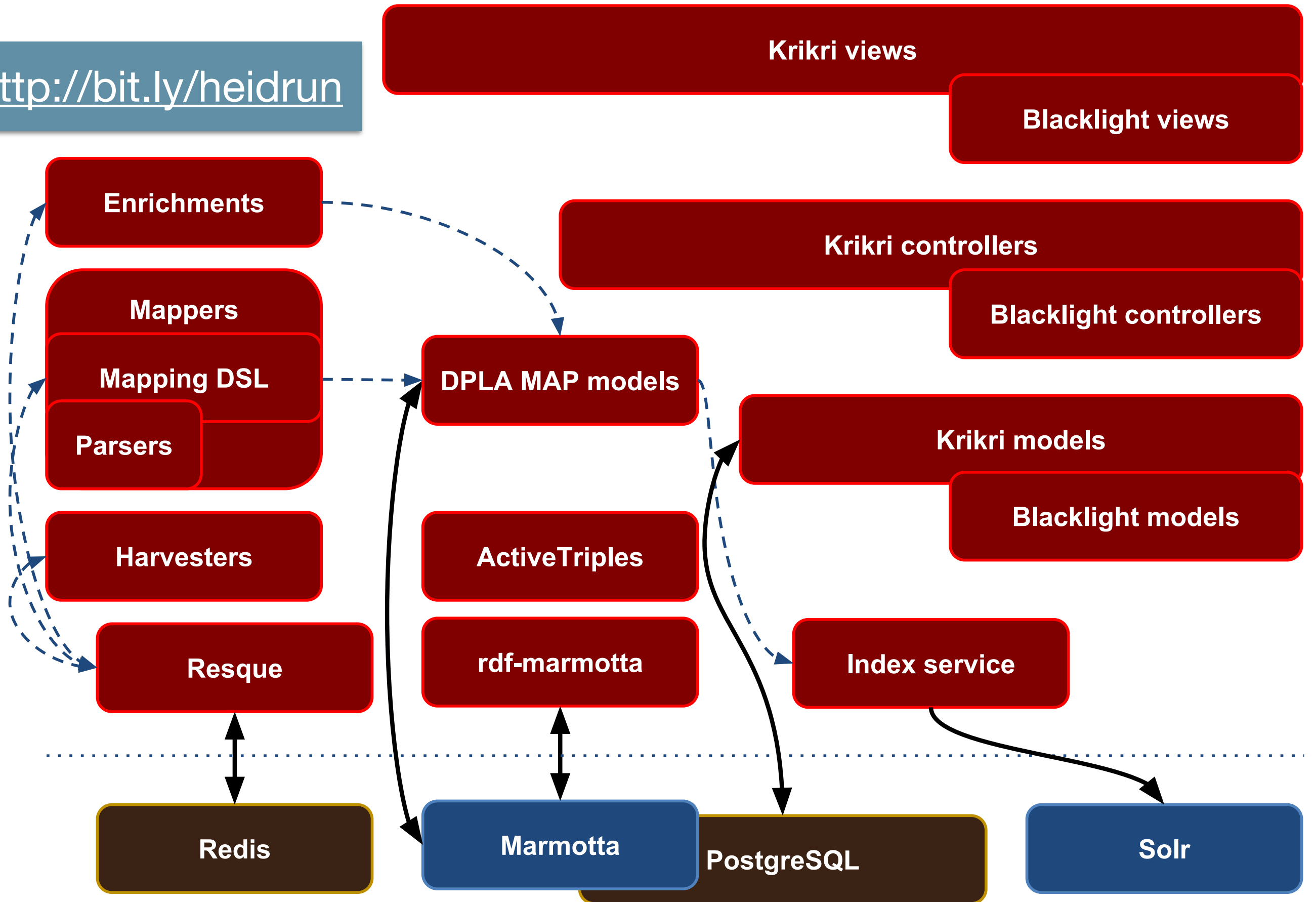


# Ingestion Process



# Krikri/Heidrun Architecture

<http://bit.ly/heidrun>





**Language to ISO**

**Spatial enrichments**

**Split at delimiter**

**Remove empty fields**

**Strip HTML**

**Strip whitespace**

**Strip leading  
punctuation**

**Strip ending punctuation**

**Strip line breaks**

**De-duplicate**

**Parse date**

**DCMIType map**

**MARCXML - genre**

**LCSH geographic**

**Parse DC:Coverage**

**Truncate DC:Description**

**Split coordinate sets**

**Convert all caps**



# Aggregation: Future plans

## **Tools to automate and ease workflow**

- QA reports that target common ingestion errors.
- Ingestion dashboard for scheduling and monitoring harvests.
- Map harvested metadata to your RDF model.
- Enrich metadata by linking to other RDF sources.

# Thank You!

Mark A. Matienzo <[mark@dp.la](mailto:mark@dp.la)>  
Digital Public Library of America