

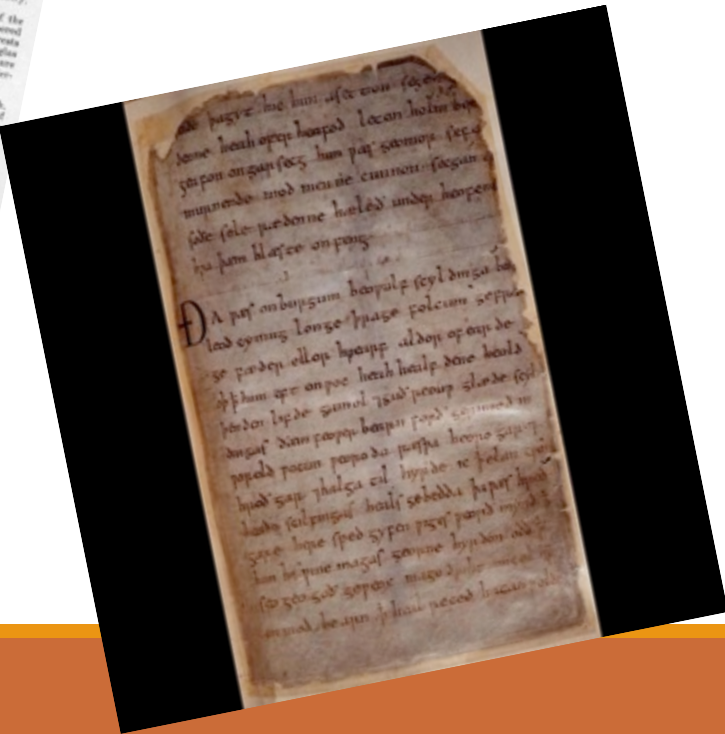
# Visual materials and the evolving nature of discovery

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# Images are fundamental information carriers



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So Where are we right now



# ...And we do a lot with that

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We utilize standards to make query easier

We utilize controlled languages to improve access

We are even starting to use standards like IIF that leverage linked data concepts to develop complex relationships between materials

# Development of a common digital strategy

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Using technology to make collections widely available

- Through Open Access Policies
- Data exchange and standards
- The development of open source tools and practices
- Leverage Linked Open Data when appropriate

# User Access to Content

The screenshot shows a web browser window displaying the 'Image Collections' page of The Ohio State University Libraries. The search term 'elections' is entered in the search bar. The results are sorted by relevance and show two items:

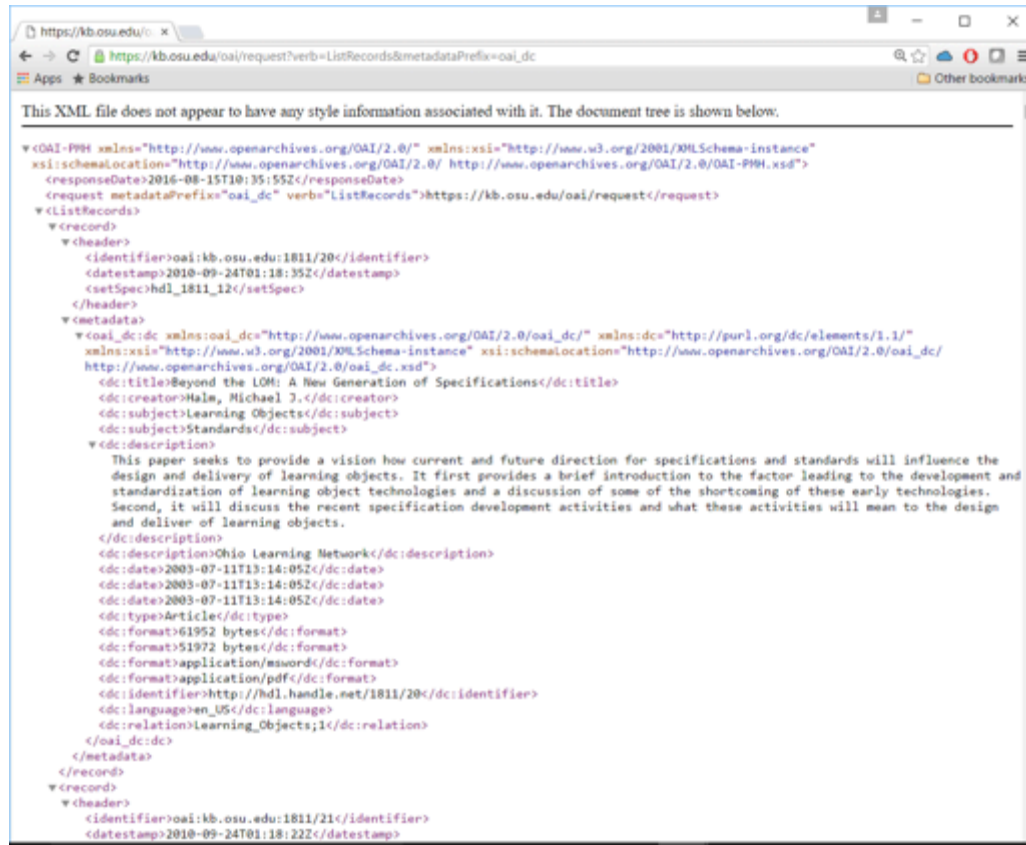
- 1 French Elections**: A political cartoon by Yves, Ralph, fl. 1981, dated 1968-06-26. The image shows a man in a suit standing next to a large ballot box.
- 2 A Dead Failure So Far**: A political cartoon by Dalrymple, Louis, 1961-1905. The image shows a man in a suit standing next to a large ballot box.

The page includes a navigation menu with 'HOME' and 'ABOUT', a search bar with 'elections' and a 'Go' button, and a 'Limit your search' sidebar with filters for Unit, Collection, Sub-Collection, Date, Creator, Subject, Time period, Genre, and Format. The search results are displayed in a list format with a 'Start Over' button and pagination controls.

# Shared Tooling and experience



# Data Exchange



The screenshot shows a web browser window with the address bar displaying `https://kb.osu.edu/oa/request?verb=ListRecords&metadataPrefix=oai_dc`. The main content area displays the XML document tree for the response. The root element is `<OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">`. The tree is expanded to show the `<listRecords>` element, which contains a `<record>` element. The `<record>` element has a `<header>` and a `<metadata>` child. The `<header>` element contains `<identifier>`, `<timestamp>`, and `<setSpec>` elements. The `<metadata>` element contains `<oai_dc:dc>` element, which in turn contains `<dc:title>`, `<dc:creator>`, `<dc:subject>`, `<dc:description>`, `<dc:identifier>`, and `<dc:relation>` elements. The `<dc:description>` element contains a paragraph of text: "This paper seeks to provide a vision how current and future direction for specifications and standards will influence the design and delivery of learning objects. It first provides a brief introduction to the factor leading to the development and standardization of learning object technologies and a discussion of some of the shortcoming of these early technologies. Second, it will discuss the recent specification development activities and what these activities will mean to the design and deliver of learning objects."

```
<OAI-PMH xmlns="http://www.openarchives.org/OAI/2.0/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
  <responseDate>2010-09-24T01:35:55Z</responseDate>
  <request metadataPrefix="oai_dc" verb="ListRecords">https://kb.osu.edu/oa/request</request>
  <listRecords>
    <record>
      <header>
        <identifier>oai:kb.osu.edu:1811/20</identifier>
        <timestamp>2010-09-24T01:18:35Z</timestamp>
        <setSpec>hdl_1811_12</setSpec>
      </header>
      <metadata>
        <oai_dc:dc xmlns:oai_dc="http://www.openarchives.org/OAI/2.0/oai_dc/" xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/oai_dc/
http://www.openarchives.org/OAI/2.0/oai_dc.xsd">
          <dc:title>Beyond the LOM: A New Generation of Specifications</dc:title>
          <dc:creator>Halm, Michael J.</dc:creator>
          <dc:subject>Learning Objects</dc:subject>
          <dc:subject>Standards</dc:subject>
          <dc:description>
            This paper seeks to provide a vision how current and future direction for specifications and standards will influence the
            design and delivery of learning objects. It first provides a brief introduction to the factor leading to the development and
            standardization of learning object technologies and a discussion of some of the shortcoming of these early technologies.
            Second, it will discuss the recent specification development activities and what these activities will mean to the design
            and deliver of learning objects.
          </dc:description>
          <dc:description>Ohio Learning Network</dc:description>
          <dc:date>2003-07-11T13:14:05Z</dc:date>
          <dc:date>2003-07-11T13:14:05Z</dc:date>
          <dc:date>2003-07-11T13:14:05Z</dc:date>
          <dc:type>Article</dc:type>
          <dc:format>61952 bytes</dc:format>
          <dc:format>51972 bytes</dc:format>
          <dc:format>application/msword</dc:format>
          <dc:format>application/pdf</dc:format>
          <dc:identifier>http://hdl.handle.net/1811/20</dc:identifier>
          <dc:language>en_US</dc:language>
          <dc:relation>Learning_Objects;1</dc:relation>
        </oai_dc:dc>
      </metadata>
    </record>
  </listRecords>
  <record>
    <header>
      <identifier>oai:kb.osu.edu:1811/21</identifier>
      <timestamp>2010-09-24T01:18:22Z</timestamp>
```

OAI-PMH

Linked Open Data endpoints



# Supports aggregations

The screenshot shows a search results page for 'jesse owens' on a platform like Digital Public Library of America (DPLA). The page displays 165 results from 41 contributing institutions. The search interface includes a search bar, a results count, and options to refine the search by subject, location, and language. The results are presented in a list format, with each item showing a thumbnail image, a title, and a brief description.

Items per page: 20 | Sort by: Relevance | 1 2 3 ... 8 9

### Refine search

Subject	Count
Sternwheel packets	26
Salvage	26
Packets—Missouri River	26
People	23
Memphis World	20
More »	

Location	Count
Memphis (Tenn.)	20
Los Angeles (Calif.)	17
Mississippi	11
Jackson	11
Canton	11
More »	

Language	Count
Jesse Owens	1

**Result 1:**  
IMAGE  
[Jesse Owens](#)  
Leni Riefenstahl, 22 Aug 1902 - 8 Sep 2003  
1936-1936  
Born Oakville, Alabama. Adolph Hitler intended the 1936 Berlin Olympics to be a grand statement celebrating "Deutschland Uber Alles." But Jesse Owens, a grandson of slaves, heroically interrupted Hitler's intention to make the games a showcase for Aryan supremacy. A track and field star at Ohio State, Owens had broken five world records in 1935, but these were just a prelude for his Olympian performance a year later. Photographed by documentar...  
[Get full image from National Portrait Gallery](#)

**Result 2:**  
IMAGE  
[Jesse Owens](#)  
[Get full image from George Arenas Collection. The New York Public Library](#)

**Result 3:**  
IMAGE  
[Jesse Owens](#)

jesse owens - Europeana

www.europeana.eu/portal/en/search?q=jesse+owens

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Spoken word recordings  
[View at Internet Culturale](#)  
Sound

Dreifacher Olympia-Sieger Jesse Owens | Anonym  
Der Leichtathlet und dreifache Olympia-Sieger Jesse Owens wird in seiner Heimatstadt Cleveland begeistert empfangen. Rechts der Bürgermeister von Cleveland Harold Burton. 1. September 1936. Photographie.  
Photography, Photographic prints, photograph, documentation  
[View at IMAGNO brandstätter images GesmbH](#)  
Image

Olympische Spelen 1936, Jesse Owens. (1936)  
Olympische Spelen 1936, Jesse Owens.  
[View at NIOD](#)  
Image

Anne Byrne and Jesse Owens, group, 1965 (1965 and 1965) | Unidentified photographer  
[View at Irish Traditional Music Archive](#)  
Image

ITMA FEEDBACK

<http://www.europeana.eu/portal/en/search?q=jesse+owens>

# Enabled collaborative Research and Preservation

est aujourd'hui mutilé, car quatorze des vingt-huit miniatures qui l'illustraient en ont été extraites à une époque inconnue, en découpant les feuillets aux emplacements concernés. Cependant, la majeure partie des vignettes supposées disparues (onze sur quatorze) existent toujours. Après un passage à l'abbaye de Chelles, elles furent collées dans un **recueil factice**. Ce recueil est entré au Cabinet des Estampes de la Bibliothèque royale en 1835, par acquisition auprès de Gabriel Deland, alors jeune auxiliaire au Cabinet, où il fit toute sa carrière jusqu'en 1870. Puis il fut relié de maroquin rouge, aux armes de Louis Philippe.

Grâce à un signalement de l'historien d'art Eberhard König en 1982, puis aux travaux universitaires menés par Janine Péricard-Michel et Séverine Lepape, grâce aussi au fait que les vignettes ont été décollées du recueil du XIXe siècle, ce qui a fait apparaître le texte écrit au verso, il est aujourd'hui possible de replacer ces images dans le manuscrit d'origine.

La numérisation des vignettes d'un côté, du manuscrit de l'autre, permet un repositionnement virtuel, facilité par certaines avancées technologiques en matière de visualisation et d'interopérabilité des images.

### Recueil et miniatures (BnF)

- [Recueil numérisé](#) (Gallica)
- [Miniatures numérisées au détail](#) (Gallica)
- [Notice du recueil](#) (Catalogue général BnF)

### Visualisation des documents (BVMM + Gallica)

Démo Mirador permettant de consulter le manuscrit complet et les miniatures côte à côte

### Reconstitution virtuelle du manuscrit

Démo de visualiseur reconstituant les pages mutilées (texte + miniature)

<http://demos.biblissima-condorcet.fr/chateauroux/>



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*Algorithms, not metadata, will dictate how we search, discovery, and interact with visual resources in the future.*

# Moving Beyond Metadata

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Using image analysis and characteristics for discovery, aggregative research, and increased access to collections

Using technology to fill in the gaps where traditional metadata analysis is failing

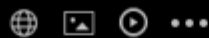


Search bar with Bing logo and search icon



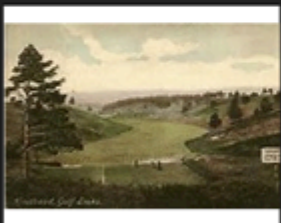
...HEIGHT=408&DMX=0&DMY=0&DMTEXT=&DMROTATE=0

512 x 408 · jpeg Image may be subject to copyright.



More about this image

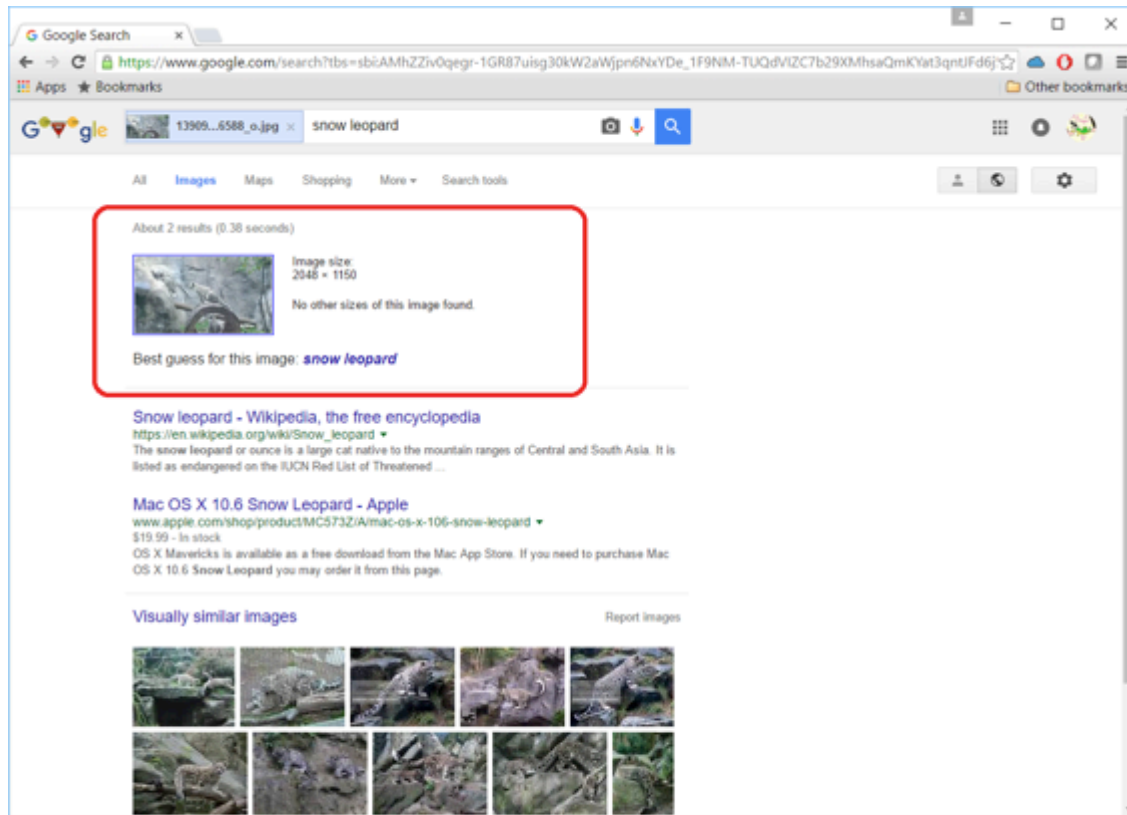
Related images



See more images



# Automated metadata generation



# Supporting the next generation of humanities research

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Whether text, images, audio, or video – the development and widespread use of computation algorithms will redefine humanities scholarship

Cultural heritage institutions, these approaches will enable broader access to content at scale.

Japanese Woodblock x


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## Japanese Woodblock Print Search

Ukiyo-e Search provides an incredible resource: The ability to both search for Japanese woodblock prints by simply taking a picture of an existing print AND the ability to see similar prints across multiple collections of prints. Below is an example print, click to see it in action.



**Search 223,128 prints:**

Search Search

**Search by Image:**

Upload a picture of a print to find similar prints across multiple collections.

Upload an Image [Paste image URL](#)


Choose File AN00602580\_001\_1.jpg Search by image

Better data, hundreds of thousands of additional images, and better search capabilities are forthcoming. Sign-up to be notified when additional features are ready.

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## Early Ukiyo-e (Early-Mid 1700s)



<https://ukiyo-e.org/>

Thank you

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