Europeana and linked cultural heritage data

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Accessing European cultural heritage

Libraries, museums, archives…
  Dozens of providers, growing fast

Connecting to digital content on providers’ sites
  Now: 5.9M objects, target for 2010: 10M

Access via a web portal, for the moment

Community-driven
Challenge

Access to various objects
   Paintings, sculptures, books, videos…

What we can use: metadata

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**Studies of a Dog's Paw**

- **Title:** Studies of a Dog's Paw
- **By:** Leonardo da Vinci
- **Date:** 1452-01-01 00:00:00; 1519-12-31 00:00:00; c. 1480 probable date of execution 1452 - 1519 maker dates
- **Creator:** Leonardo da Vinci maker; National Galleries of Scotland
- **Description:** Drawing: Studies of a Dog's Paw.
- **Language:** en
- **Format:** 14.10 x 10.70 cm; image/jpeg; Metalpoint on paper coated with a pale pink preparation
- **Rights:** National Galleries of Scotland
- **Provider:** Scran ; Uk
Building a search engine on top of metadata is difficult
Intrinsic quality problems: correctness, coverage

Especially when data is so heterogeneous
100s of formats
From flat 5-fields records to 100-nodes XML trees
Language issue!

We currently use a simple interoperability format
Quick-win showing quickly its limits
We can better use institutions’ original metadata

Accommodate their different practices
  Data structures and semantics

Access objects via a semantic layer of vocabularies for subjects, persons, places…
Prototype: Europeana Thought Lab

http://europeana.eu/portal/thought-lab.html
Semantic auto-completion

This is a research prototype of Europeana's semantic search engine. Enter a search term, for example: Egypt, Rembrandt, window.
Clustering of results

works showing Egypte (14)

works showing Egypt (5)

works showing a more specific Egypte (11)
Baseline: matching concepts' label

Metadata for the object

Controlled place name from a vocabulary at the Rijskmuseum
A "more specific Egypte"?

- **works showing Egypte (5)**
  - Een Egyptische weduw... Alma-Tadema, Lawrence...
  - John Howard in een Egyptische Boer, Otto de... Bauer, Marius
  - Berglandschap in Egypte Bauer, Marius
  - Karnak Egypte Bauer, Marius
  - Landschap met ploeg... Bauer, Marius

- **works showing a more specific Egypte (11)**
  - Wapen van Haarlem Hooghe, Romeyn de
  - Inneming van Damiate Veringen, Cornelis...
  - Glasraam te Gouda me... Tanjé, Pieter
  - Veroevering van Damia... Hooghe, Romeyn de
  - Vertoevering van Damia... Luyken, Jan
  - Beleg van Damiate, 1219 Dubourg, Louis Fabri...

- **works showing a more specific Egypte (9)**
  - Pyramid van Chefren... Blanquart-Evrard, Lo...
  - De pyramiden van Giz... Frith, Francis
  - De pyramiden van Sak... Frith, Francis
  - De pyramiden van Sak... Frith, Francis
  - Cairo, gezien vanaf... Frith, Francis
  - Gezicht in Cairo Frith, Francis
A "more specific Egypte"?
A place more specific than the Egypt one

Semantic information on the Giza place in the Rijksmuseum Vocabulary

- **Property**: type
- **Value**: Place

- **Property**: sameAs
- **Value**: http://e-culture.multimedia.nl/ns/rijksmuseum/term92753

- **Property**: has_broader
- **Value**: Egypte

- **Property**: is_in_schema
- **Value**: Rijksmuseum locations

- **Property**: preferred_label
- **Value**: Giza
Enabling bits & pieces

Exploiting semantic links in CH vocabularies
   Rijksmuseum thesaurus:
      Concept “Giza” narrower than concept “Égypte”

Mapping/alignment between CH vocabularies
   Louvre’s “Égypte” equivalent to Rijksmuseum’s “Égypte”

Enrichment of existing metadata
   The string “Egypt” in a metadata record indicates the concept of Egypt defined in Rijksmuseum thesaurus
Linked open data?

Data publication via HTTP
Data structured using interoperable formats
Links available between different datasets
You can create data about resources held by others!

Leading assumptions
  More open data can be consumed more easily
  Data exploitation will benefit from interlinked data
Towards a web of data

http://linkeddata.org/
Encouraging open linked data adoption

From a movement initiated by W3C & Semantic Web
To much wider awareness
  Open government initiatives, libraries…

Continuing effort: show benefits of collaborating to a cultural heritage data web

Not only for established cultural heritage institutions!
Waisda @ Beeld en Geluid

http://www.waisda.nl

2.296 players, 340.551 tags
Bomb bay gasoline tanks for long flights of B-25 bombers await assembly in the plant of North American Aviation, Inc., Inglewood, Calif. This plant produces the battle-tested B-25 ("Billy Mitchell") bomber used in General Doolittle's raid on Tokyo, and th
Palmer, Alfred T., photographer.

Bomb bay gasoline tanks for long flights of B-25 bombers await assembly in the plant of North American Aviation, Inc., Inglewood, Calif. This plant produces the battle-tested B-25 ("Billy Mitchell") bomber used in General Doolittle's raid on Tokyo, and the P-51 ("Mustang") fighter plane which was first brought into prominence by the British raid on Dieppe.

1942 Oct.

1 transparency : color.

Notes:
Title from FSA or OWI agency caption.
Transfer from U.S. Office of War Information, 1944.

Subjects:
North American Aviation, Inc.
Airplane industry
Assembly-line methods
World War, 1939-1945
Gasoline
United States--California--Inglewood

Format: Transparencies--Color

Rights Info: No known restrictions on publication.

Repository: Library of Congress, Prints and Photographs Division, Washington, D.C. 20540
USA, http://loc.gov/pnp/pp.print

Part Of: Farm Security Administration - Office of War Information Collection 12002-38 (DLC) 93845501

General information about the FSA/OWI Color Photographs is available at http://loc.gov/rr/print/fseec/

Persistent URL: http://hdl.loc.gov/loc.pnp/fsse.1a35321

Call Number: LC-USW36-493

Commentaires

Hi, I'm an admin for a group called North American B-25 Mitchells, and we'd love to have this added to the group!

Posted 14 days ago (permation)
A web of cultural heritage data?
Success factor for Europeana
  Getting (back) rich data from all players!
  Both old school institutions & Web2.0 initiatives

A web of cultural heritage data would streamline
 interexchange between all expertise sources
  Enabling combinations for the benefit of all

Beyond Europeana
  Creating new forms of access and interaction with cultural material
  Re-organizing the cultural heritage sector itself?
Thanks!

Europeana.eu team
Web and Media lab @ Vrije Universiteit Amsterdam
http://wiki.cs.vu.nl/web-media
EuropeanaConnect project
http://www.europeanaconnect.eu/