

europæana
think culture



Data interoperability in cultural heritage: the Europeana approach

Nuno Freire
The European Library

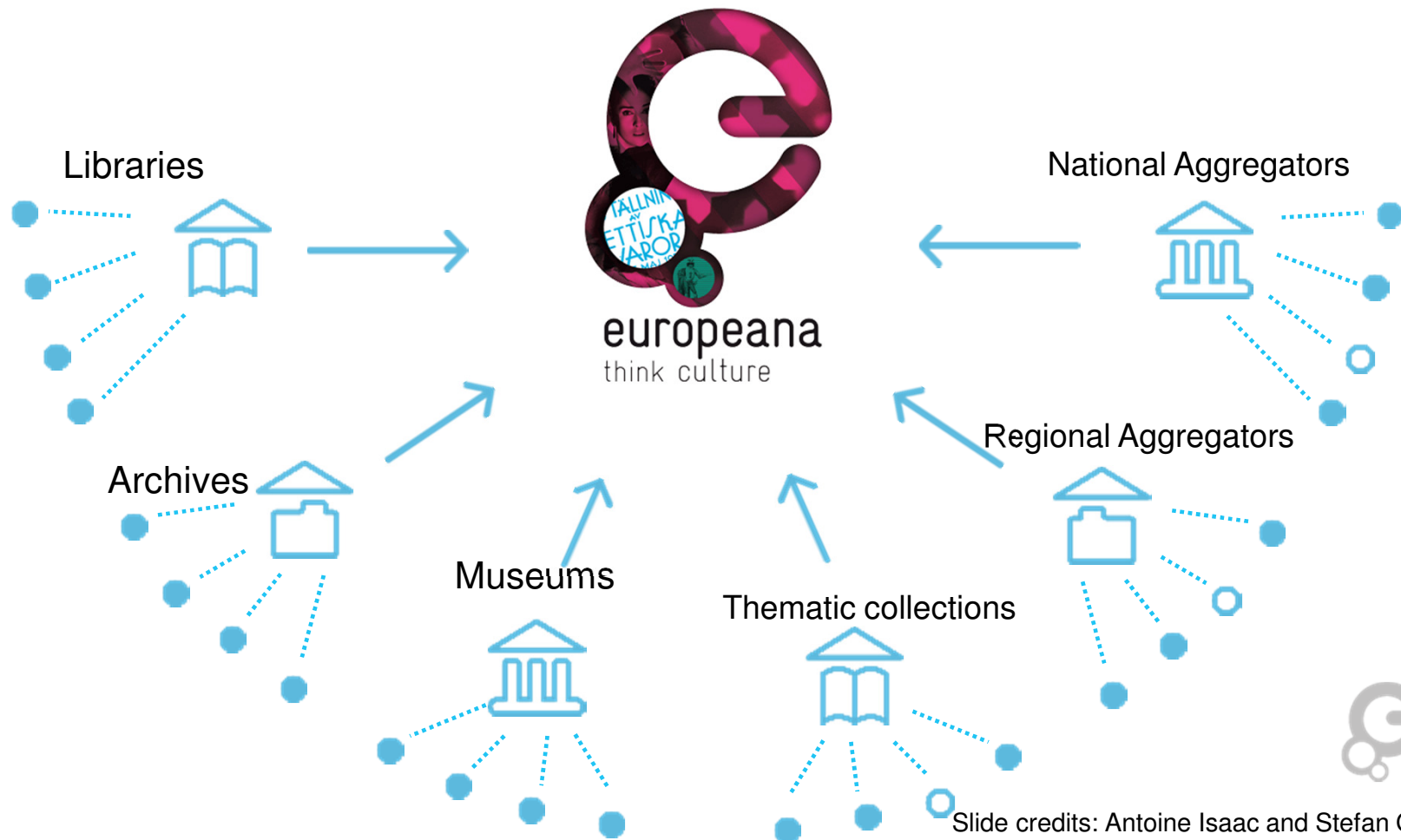
EUDAT Conference
Rome, October 2013

Presentation outline

- Introduction to Europeana
 - The portal
 - The network
 - The European Library
 - Metadata interoperability in Europeana
 - Europeana Data Model (EDM)
 - Ongoing projects with the research community - Digital Humanities
 - Europeana Cloud
 - CENDARI
 - DM2E
-

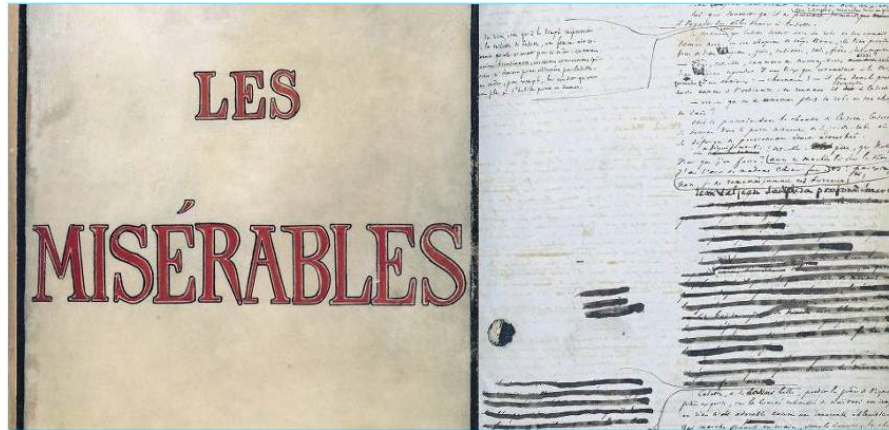
Europeana.eu, Europe's cultural heritage portal

29M objects from 2,200 European galleries, museums, archives and libraries



Europeana.eu, Europe's cultural heritage portal

Text



Video



Image



3D



Sound



Slide credits: Antoine Isaac and Stefan Gradmann

What data is submitted to Europeana?

Item details

2. Thumbnail



1. Metadata

A.B.C. for soldiers on leave

Title: A.B.C. for soldiers on leave

Date: [1945]

Creator: Max Lowland preud. van Max Schuchart

Description: KB: 2299 F 33 Een groot deel van de Canadese soldaten kan niet direct terugkeren naar huis vanwege een gebrek aan scheepsruimte. In de tussentijd leggen ze contact met de Nederlandse bevolking. 'A.B.C. for soldiers on leave' is speciaal gedrukt voor de geallieerde soldaten. Bij elke letter staan rijmende teksten in handschrift en karikaturale tekeningen in zwart-wit of met rood en bronskleur. Op deze manier kunnen ze met de Nederlandse bevolking communiceren. Verschillende onderwerpen komen aan bod: Amsterdam, geallieerde soldaten en Nederlandse vrouwen, Hitler en drank.

'A.B.C. for Soldiers on Leave' was printed specifically for the allied soldiers. It especially appealed to the Canadians who could not return home straight away due to limited space on ships. Each letter is designed to help the soldiers interact with the Dutch population. They're accompanied by handwritten texts in rhyme, and caricatures in black and white, or red and bronze. Several subjects were covered including Amsterdam, allied soldiers and Dutch women, Hitler and beverages in order to help the men communicate with the locals.



Free Access

3. Access and rights information

: eng

oninklijke Bibliotheek - Nationale bibliotheek van Nederland
Bibliotheek - National library of The Netherlands

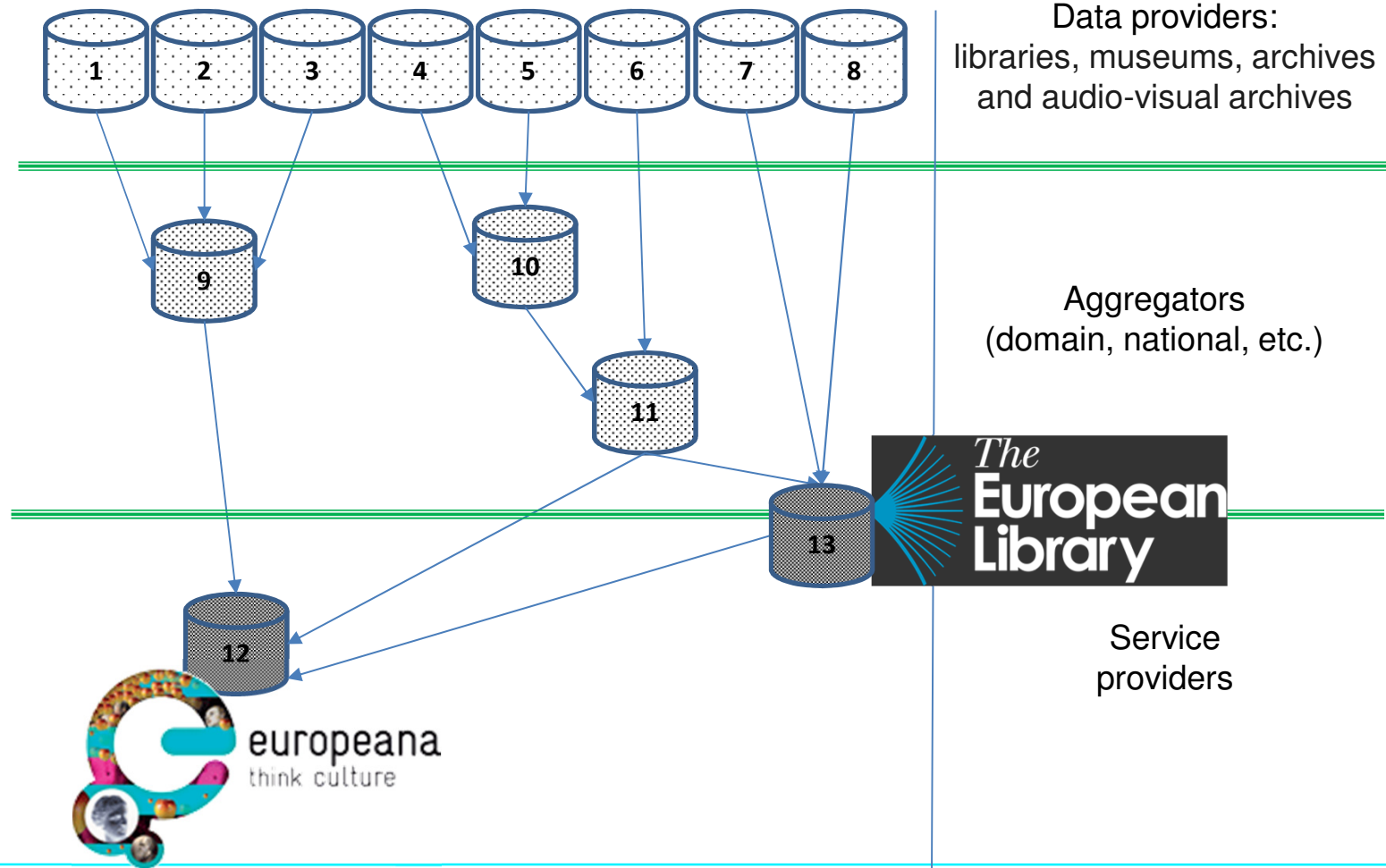
ean: [Rights Reserved - Free Access](#)

ider: Koninklijke Bibliotheek - National library of The Netherlands

Provider: The European Library ; Europe

[More](#)

Structure of the Europeana Network



The European Library



- *The European Library* provides access to research materials from of Europe's national and research libraries
 - Its most visible service is a portal
 - Provides data services based on aggregated library resources

The European Library
Connecting knowledge

HOME DISCOVER SERVICES FOR RESEARCHERS

Search... GO Advanced search

Designed to meet the needs of the **research community worldwide**, our online portal offers quick and easy access to the collections of the **48 National Libraries of Europe** and leading **European Research Libraries**.

Users can cross-search and reuse over **9,944,149 digital items** and **194,156,123 bibliographic records**.

To facilitate further research, links are also provided to other websites in the **Europeana** group.

In omnem terram
Map of franciscan missions in the world

FEATURED COLLECTIONS

- Reading Europe (1099)
- Exhibition Foyer
- Manuscripts and Prince... (34)

DISCOVER BY DISCIPLINE

- Humanities (10,617,555)
- Social Sciences (6,134,742)
- Natural sciences and m... (1,225,757)
- Biomedical sciences (1,120,937)
- Technological sciences (1,580,175)

RECENTLY ADDED

- Valmierā Krīstjānis Vībars
- Enbāites literāri baznīca Eduards Hūns
- Enbāites mūza Eduards Hūns
- Lejaciens. Tīls pā Tīzas upi E. Vasīļevs, 1921.

DISCOVER CONTRIBUTORS

More contributors

DISCOVER COLLECTIONS

More collections

NEWS

- 2012-08-12
The European Library is delighted to be at this year's IFLA World Library and Information Congress in Helsinki, Finland (11-17 August).
- 2012-08-12
Learn more about the new European Library website in our Press Room. You can download the press release and watch a video about the

The European Library
Connecting knowledge

Inicio → Detalles del objeto

EL INGENUOSO HIDALGO DON QUIJOTE DE LA MANCHA

LOCALIZACIÓN DEL PROVEEDOR

The ingenious hidalgo Don Quixote of La Mancha. El ingenioso hidalgo don Quixote de la Mancha

Cita en estilo Harvard
Cervantes Saavedra, Miguel de (1547-1616), n. d. The ingenious hidalgo Don Quixote of La Mancha. (s.l.): Con Privilegio de Castilla, Aragon y Portugal en Madrid por Juan de la Cuesta vendese en casa de Francisco Robles, librero del Rey nro señor

Servicios
Acceder en línea
Registros similares
Añadir a Mendeley
Añadir a ZOTERO

Descripción
(English) It was in 1829 when Vicente Salvá determined that this was the true edicipo princeps of El ingenioso hidalgo don Quijote de la Mancha (The Ingenious Gentleman Don Quixote of La Mancha), as up until that point it was considered to be a second edition, printed that same year. In the copy kept in the Biblioteca Nacional, the cover and four preliminary pages, which did not exist when it arrived in 1825, were replaced by photolithographic copies from the copy belonging to the Real Academia Española (Royal Spanish Academy), made by López Fabra. Printing began at the end of September 1604, close to the date of the licence, and some copies were even printed in Valladolid. They were sold previously at court in Madrid, where they came out in January 1605. This copy which is kept in the Biblioteca Nacional was received in 1825 from a private donor, as Hartztenbusch says in his Report as director of the Library from the same year.
(español) Fue en 1829 cuando Vicente Salvá determinó que esta era la verdadera edición princeps de El ingenioso hidalgo don Quijote de la Mancha, ya que hasta entonces se había tenido como tal una segunda edición, impresa el mismo año. En el ejemplar conservado en la Biblioteca Nacional, la portada y cuatro hojas de preliminares, de los que carecía cuando ingresó en 1825, fueron sustituidas por reproducciones fotolitográficas del ejemplar de la Real Academia Española, realizadas por López Fabra. La impresión comenzó a finales de septiembre de 1604, fecha cercana a la del privilegio, e incluso algunos ejemplares se imprimieron en Valladolid, vendiéndose antes en la corte que en Madrid, donde salieron a la luz en enero de 1605. Este ejemplar que alberga la Biblioteca Nacional ingresó en 1825 como donativo de un particular, según cuenta Hartztenbusch en su Memoria del mismo año como director de la Biblioteca.

Creador
Cervantes Saavedra, Miguel de (1547-1616)

Publicado
Con Privilegio de Castilla, Aragon y Portugal en Madrid por Juan de la Cuesta vendese en casa de Francisco Robles, librero del Rey nro señor, 1605

Proveedor
Robles, Francisco de ed.

Fuente
Biblioteca Nacional de España

Lengua
español

ACERCA DEL REGISTRO

Colección Típo

<http://www.theeuropeanlibrary.org>

The European Library



- The European Library's main activities
 - Provision of access to research materials from national and research libraries
 - Providing a portal, an API, and linked open data
 - Library domain aggregator for Europeana
 - Provision of services based on exploiting the centralization of pan-European bibliographic data and digital content
 - Promoting the re-use of these digital resources in many contexts

Resources Aggregated by The European Library



- Bibliographic data:
 - National bibliographies
 - Comprehensive databases of all publications in a country
 - Research collections from national and research libraries
 - Research materials such as letters from prominent thinkers, historical pamphlets , photographs, manuscripts, etc.
 - May refer to digital and non-digital materials
 - Traditional library catalogues
 - Open access research publications
 - A total of 200 million resources

Metadata in the Europeana Context

- Provides a portal for users to access that data
 - Metadata, previews and links to source

- Makes the metadata freely available for anyone to re-use
 - Under Creative Commons Zero (CC0) -public domain dedication

- Makes metadata available via an API

- Makes metadata available as Linked Open Data
 - <http://data.europeana.eu/>



Europeana Data Model: a Collaborative Effort

Cross-community development

- Involving library, archive and museum experts
- Ca. 60 participants

<http://pro.europeana.eu/edm-documentation>



Europeana Data Model: general principles

- A cross domain approach
 - Supporting the common semantics of cultural domains
 - Addressing the requirements of the Europeana portal
- Adheres to the modeling principles of the Web of Data
- Available as an OWL ontology and XML schema
- Allows finer-grained models of the different domains to be at least partly interoperable at the semantic level
- Allows metadata to retain their original expressivity and richness





EDM: an example



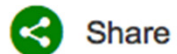
View



 Attribution-NonCommercial-ShareAlike 

View item at

[Cité de la musique](#) 



Share



Cite on Wikipedia

Clavecin

Description: 2 claviers : C / E à C^{'''}, 45 notes * 3 rangs de Cordes : 2 x 8" + 1 x 4" * Table en épicéa (?) * T * Collection Geneviève Thibault de Chambure

Creator: <http://www.mimo-db.eu/InstrumentMaker/Person/593>;
Cristofori

Coverage: <http://sws.geonames.org/3176959/>

Date: fin 17e

Type: <http://www.mimo-db.eu/InstrumentsKeywords/2251>;
<http://www.mimo-db.eu/HornbostelAndSachs/6461>

Identifier: #CM:0161930

Data provider: Cité de la musique

Provider: MIMO - Musical Instrument Museums Online

Providing country: MUL

[Auto-generated tags](#) ▶

Search also for:

Title

[Clavecin](#) (1308)

Who

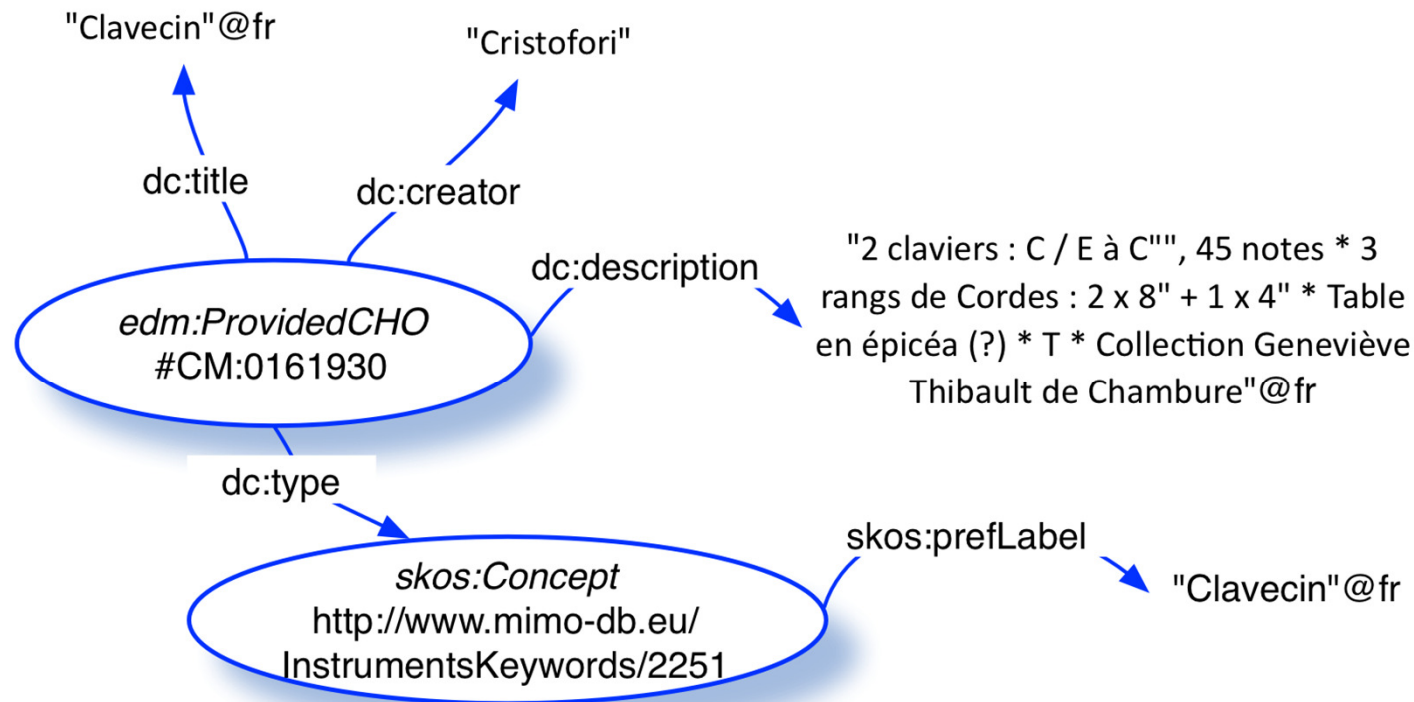
[Cristofori](#) (46)

Provider

[Cité de la musique](#) (23075)
[MIMO - Musical Instrument Museums Online](#) (36390)



Provided Cultural Heritage Object (CHO) and descriptive metadata



Web Resources – digital representations



edm:WebResource
<http://www.mimo-db.eu/media/CM/IMAGE/CMIM000030829.jpg>

edm:rights

<http://creativecommons.org/licenses/by-nc-sa/3.0/>

edm:WebResource
<http://www.mimo-db.eu/media/CM/IMAGE/CMIM000030828.jpg>

edm:rights

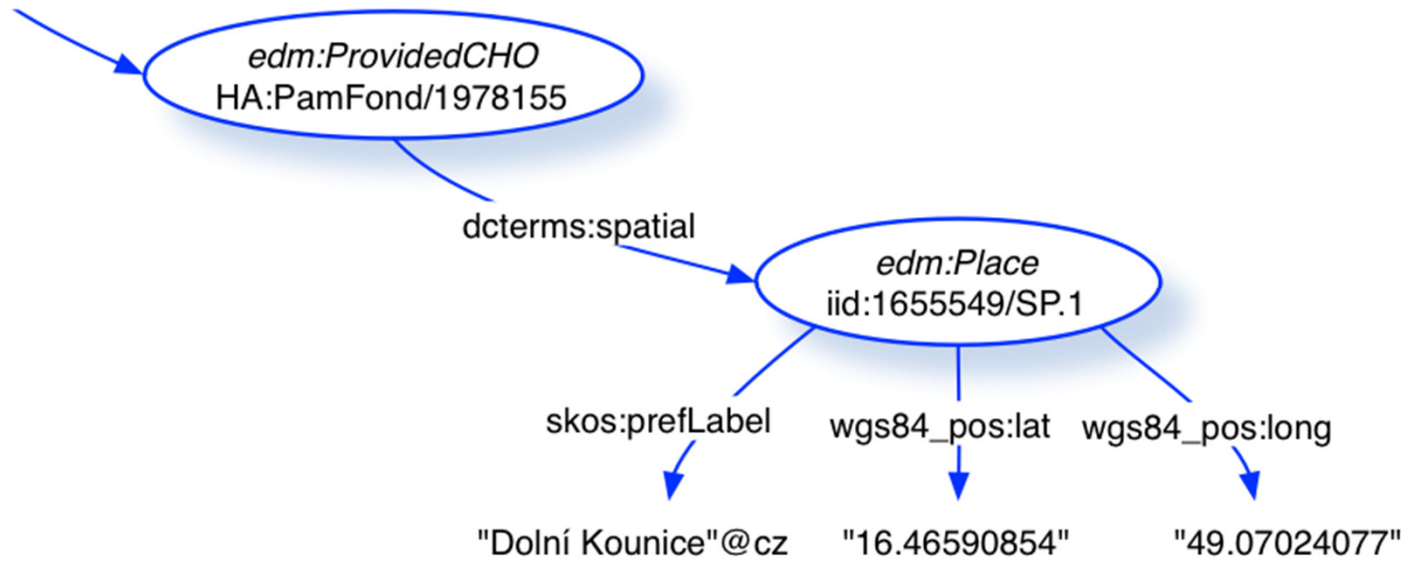
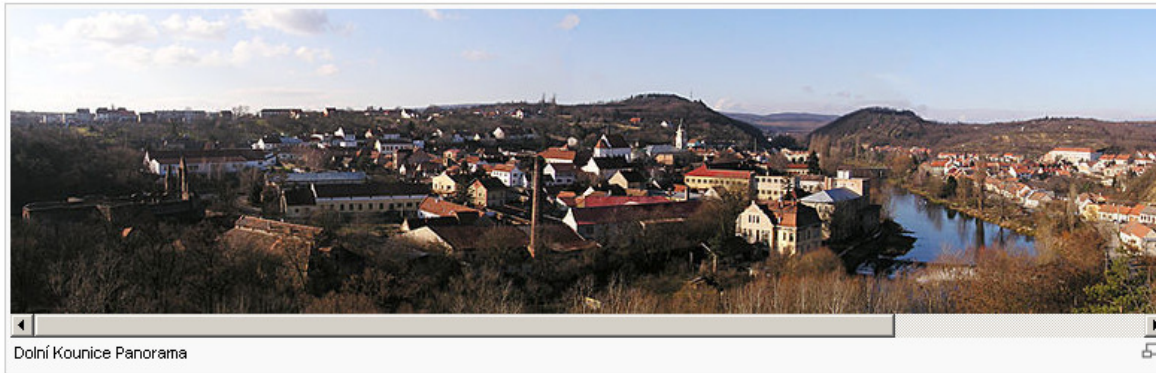
<http://creativecommons.org/licenses/by-nc-sa/3.0/>

Contextual Resources – Places

Dolní Kounice

From Wikipedia, the free encyclopedia

Dolní Kounice (Czech pronunciation: [ˈdɔlnɪː ˈkɔʊɲɪtse]; German: *Kanitz*) is a small town in the South Moravian Region of the Czech Republic. It has around 2,400 inhabitants.



Slide credits: Antoine Isaac and Stefan Gradmann

EDM is based on existing ontologies

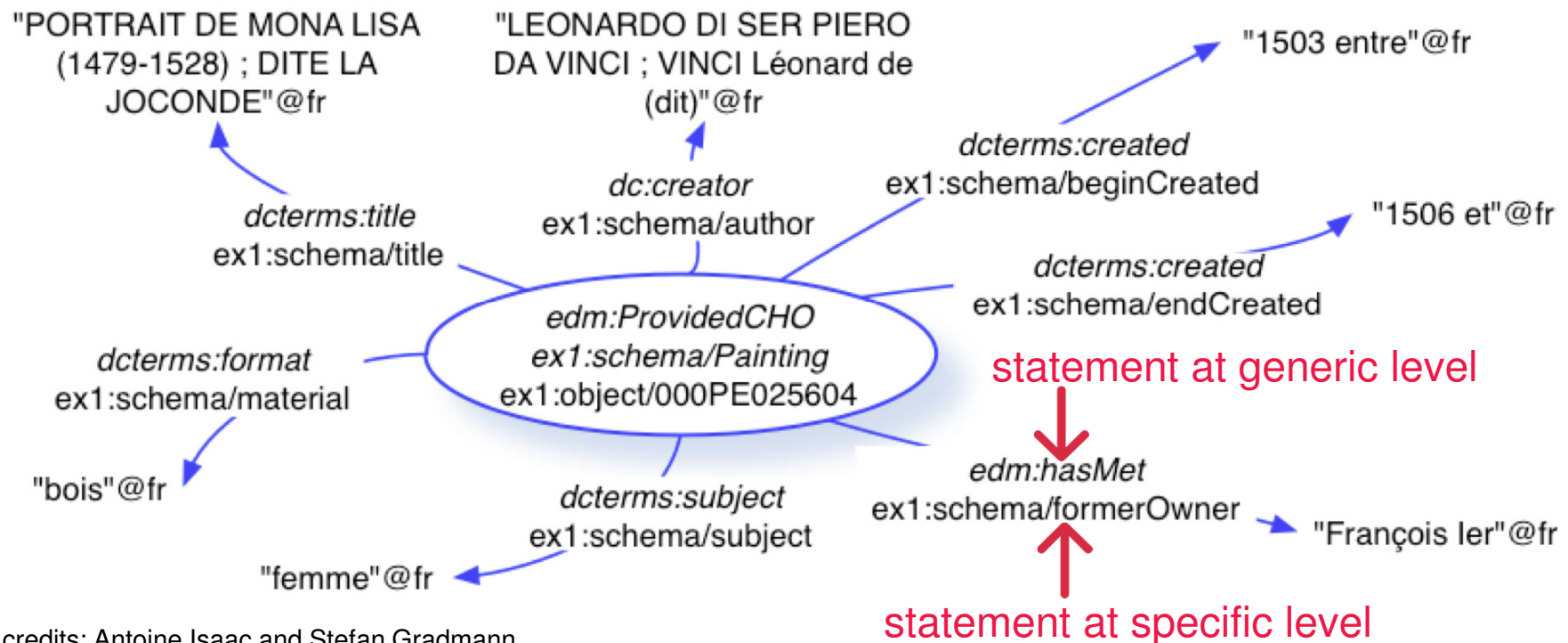
- OAI-ORE (Open Archives Initiative Object Reuse & Exchange): organizing an object's metadata and digital representation(s)
- Dublin Core : descriptive metadata
- SKOS (Simple Knowledge Organization System) : conceptual vocabulary representation
- CIDOC-CRM : event and relationships between objects



Allowing different semantic grains

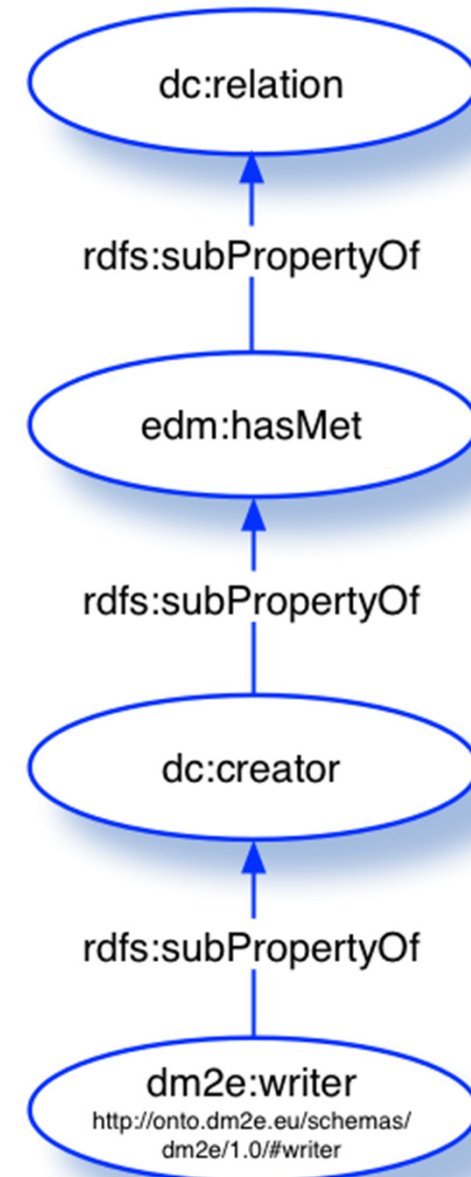
The theory:

- Providers provide data close to original models
- Using mappings to more interoperable level



Different semantic grains

- EDM uses specialization of classes and properties.
- It will enable the definition of extensions, “applications profiles” answering to the need of specific communities.



A Collaborative Effort (2)

EDM makes Europeana ready to ingest metadata that is closer to specific community concerns

- But still mapped to common elements

Europeana & partners can develop EDM “profiles” upon which everyone could build specific functionality

- Based on best practices from sector or domain level



Projects Towards Enabling the Use of Cultural Heritage Objects for Digital Humanities

- Europeana Cloud
 - <http://pro.europeana.eu/web/europeana-cloud>

 - CENDARI
Collaborative European Digital Archive Infrastructure
 - <http://www.cendari.eu/>

 - DM2E
Digitised Manuscripts to Europeana
 - <http://dm2e.eu/>
-



Project Europeana Cloud

- This project builds up on the Europeana infrastructure to make cultural heritage materials available for research
- It will setup a research infrastructure providing discovery services and tools:
 - A cloud infrastructure for data and contents
 - The licensing framework for reuse of content
 - A new research platform: Europeana Research

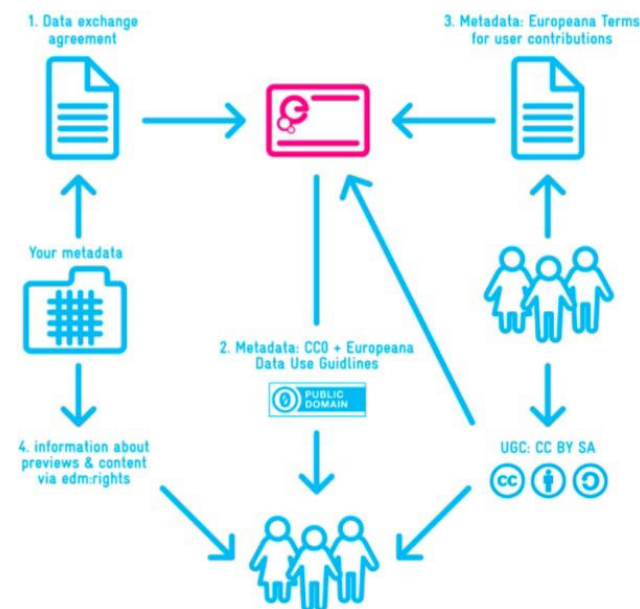
Project Europeana Cloud

The licensing framework for reuse of content



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- The current Europeana Licensing Framework covers only metadata and a simple license for content
 - It is being extended to be able to deal with content in a finer way
- The Europeana Content Re-Use Framework will be supported by technical specifications
 - Allowing machine readable transfer of rights data.



Project Europeana Cloud

A new research platform: Europeana Research



- A research platform will be created by extending the currently existing portal of The European Library
- The project will analyse how academic users work with data and how they perceive the value of the content in Europeana
- To be carried out jointly with:
 - DARIAH - Network of arts and humanities researchers
 - CESSDA - Council of European Social Science Data Archives

Project Europeana Cloud

A new research platform: Europeana Research



- The project will also address tools for scholars to interact with the content from Europeana Research.
- The areas to be approached are:
 - **Accessing and Analysing Data**
permitting scholars to download, manipulate and analyse data sets.
 - **Annotation**
allowing researchers to annotate documents and to share annotations
 - **Transcription**
allowing users to transcribe and interpret documents
 - **Discovery and Access**
ensuring that research material is discoverable, possibly with integration in other research infrastructures in the field of Digital Humanities.

Collaborative European Digital Archive Infrastructure



- Will provide access to existing archives and resources in Europe for the study of medieval and modern European history
- Challenges for CENDARI
 - Hidden Collections (Archives and Libraries)
 - Methodologies (Historians)
 - Enquiry Environment (e-Scientists)
 - Connectivity (Project Management)
 - Understanding of Humanities Research Infrastructure (Environment)

Digitised Manuscripts to Europeana (DM2E)



- WP1: Provide substantial amounts of **digital content** to Europeana with a focus on **digitised manuscripts**
- WP3: Explore usage scenarios of EDM metadata together with object data in a specialised RDF graph based platform for **humanities research** making available specialised visualisation and reasoning environments.
 - Goal: lower the barriers for **digital content curation** by providing an semantic based environment targeted to **digital humanities scholars**
- DM2E investigates effective ways to represent in EDM the material being worked on by researchers as well as the provenance of the scholarly annotations they produce.



Thank you for your attention!

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