A data infrastructure for digital cultural heritage: characteristics, requirements and priority services

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Sofia, 21/11/2011
Table of content

• 10 years of European projects: 2001 - 2011
• The Digital Cultural Heritage sector (DCH): characteristics and needs
• The vision towards a DCH data infrastructure
• Three inter-related projects: DC-NET, INDICATE and LINKED HERITAGE
• The next steps
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DATA MODEL, ORGANISATION, GOVERNANCE

EUROPEANA

Linked Heritage

NATIONAL & REGIONAL INITIATIVES


RECOMMENDATIONS & GUIDELINES

DIGITAL CULTURAL HERITAGE e-INFRASTRUCTURE

E-INFRASTRUCTURES for the citizens and for the researchers

INDICATE
Digital cultural content

The **amount of digitised material** in the European Cultural sector is growing very rapidly

- **National, regional and European programmes** support the digitisation of the content of Museums, Libraries, Archives, Archaeological sites and Audiovisual repositories
- The generation of digital cultural heritage is accelerated also by the impulse of **Europeana** that is fostering the European cultural institutions to produce even more digital content
- Digital cultural heritage content are **complex and interlinked** through many relations
THE VISION

NATIONAL PROGRAMMES
REGIONAL PROGRAMMES
EUROPEAN PROGRAMMES

Data Continuum
Digital cultural content

National portals
Regional portals
Thematic portals

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The needs of the DCH sector

1. high quality information technology management, to ensure trust, availability, reliability, long term safety of content, security, preservation and sustainability;

2. access facilities to the final users (the researchers) who will search into the DCH e-Infrastructure for their research and to the cultural institutions that will deliver their data to the DCH e-Infrastructure;

3. interoperation among existing cultural heritage repositories and of cultural heritage data with research data.
The e-infrastructure for DCH

It is not a “new infrastructure”, but it is instead a “new approach”
- based on national and regional systems
- Valorising existing resources

The keyword is INTEROPERABILITY
DCH and the e-Infrastructures

• To focus on the use of existing e-infrastructures as a channel for digital cultural heritage data

• Storage, computing, connectivity together with authentication, authorisation and accounting mechanisms offered by the e-infrastructures can well serve the needs of the sector: the issue here is to establish factual cooperation among two sectors (the research and the cultural heritage) that are not used to work together

• DCH: Ministries of Culture and cultural institutions

• Cross-domain: museums, libraries and archives together
Actions

• To improve **awareness** (needs v/s offers, standards, who-is-who, …)

• To promote **trust building** (experiments, pilots, use case studies, …) covering different aspects and including organisational, operational and legal issues

• To establish **priorities** among the services to be deployed

• To consult with **stakeholders** and to engage of programme owners at national and regional level

• To open to the **international cooperation**, both to enlarge the market and to reuse best practice and successful solutions

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Today: 3 integrated projects

1. **DC-NET**: joint programming for DCH e-infrastructure implementation
2. **INDICATE**: international cooperation, use case studies, pilots
3. **LINKED HERITAGE**: a best practice network on metadata and standards, linked data and persistent identifiers, multilingual vocabularies, aggregation of content to Europeana

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DC-NET ERA-NET

A Network for the European Research Area:

- Composed by Programme Owners and Programme Managers in the cultural sector
- To agree common perspectives & priorities across EU Member States
- To establish an operative dialogue between cultural heritage and e-Infrastructures communities in Europe,
- To identify constraints and capabilities in order to establish a plan of joint activities

Started in December 2009, it will last until February 2012
A project funded by EC FP7 e-Infrastructures

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A concrete approach within an international dimension

- Stimulating the **international cooperation** of eInfrastructures providers and cultural heritage users

- **Target areas:**
  - Mediterranean region, (Egypt, Turkey and Jordan)
  - Cooperation with China in liaison with the EPIKH Grid School
  - Exchanges with South America in the frame of experiments for live distributed performances

- **Case studies:** preservation, virtual exhibitions, GIS

Started in September 2010, it will last until August 2012
A project funded by EC FP7 e-Infrastructures
A network of Best Practices about aggregation of cultural heritage content:

- Establishing best practices in the fields of linked data, persistent identifiers, multilingual vocabularies, metadata standards
- 38 partners from 24 countries
- Aggregating 3 million new items to Europeana

Started in April 2011, it will last until October 2013
A project funded by EC CIP ICT-PSP Digital Libraries
The three projects share the same coordinator and have many partners in common.

The e-infrastructure programmes identified in DC-NET will be at the basis of the sustainability of the results of INDICATE.

The e-infrastructure studied in DC-NET and INDICATE will be populated with content from LINKED HERITAGE.

The three projects represent the same **DCH community**.
Services priority ordering

A prioritised list of the most immediately important services has been agreed:

1. **Long-term preservation**
2. **Persistent identifiers**
3. **Interoperability and Aggregation**
4. **Advanced search**
5. **Data resource set-up**
6. **User authentication and access control**
7. **IPR and digital rights management**
Cooperation and coordination among these three sectors is at the core of the DCH e-infrastructure.
The network of common interest

It combines:
– regional, national and international levels,
– bottom-up (working groups) and top-down (Joint Programming) approaches

Working groups: experts seconded by their cultural, research and infrastructure organisations

Joint programming: the JPI on Cultural Heritage
Joint Programming Initiative on Cultural Heritage
Towards Horizon 2020

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Liaisons with EU strategic bodies

Factual cooperation is established with:

- **e-IRG** e-Infrastructure Reflection Group
- **ESFRI** European Strategy Forum on Research Infrastructures (SSH thematic working group)
- **EGI** European Grid Initiative
- **TERENA** Trans-European Research and Networking Association
- **MSEG** Member States Expert Group on digitisation
# DCH e-infrastructure and Europeana

## Positioning

<table>
<thead>
<tr>
<th>The targets:</th>
<th>Europeana is for final users</th>
<th>The vision for a digital cultural heritage (DCH) e-infrastructure is an infrastructure for the research in the digital cultural heritage</th>
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</thead>
<tbody>
<tr>
<td>The initiators:</td>
<td>Europeana is an initiative of the EC supported by Member States</td>
<td>The DCH infrastructure is an initiative of the Member States, with the support of EC</td>
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<tr>
<td>Focus</td>
<td>Europeana is focused on access and re-use</td>
<td>The DCH e-infrastructure addresses the whole value-chain: Digitisation – Access - Preservation</td>
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<tr>
<td>Content</td>
<td>Medata registry</td>
<td>Federated data continuum</td>
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The DCH e-infrastructure will offer tools and services to Europeana, such as, for example the long term digital preservation which is the first priority in the study from DC-NET.

Common work with Europeana is expected to be carried out on metadata and standards.

There is a natural link through projects and political/strategic and technical groups.
Next steps

January 2012: to release the DC-NET **Joint Activities Plan**

2011-2012: to complete the first run of DC-NET **informative seminars**

2012: to validate the INDICATE pilot on **e-culture science gateway** (ref. last issue of ISGTW) and to complete the INDICATE **use case studies** on long-term preservation, virtual exhibitions and geo-coded cultural content

2011-2014: to ingest 3 million content into **Europeana** and to develop best practice on multilingualism, persistent identifiers, linked data, PPP

2014 – 2020: **R&D and innovation** projects towards the Open Science Infrastructure for DCH, participating to **Horizon 2020**
Thank you

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www.dc-net.org
www.indicate-project.org
www.linkedheritage.eu

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