Methodological Proposals for Designing Federative Platforms in Cultural Linked Open Data: the exemple of ModRef

Linked Data in Libraries: Let's make it happen!

14 août 2014, Bibliothèque nationale de France

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I. ModRef
   - Objectives / Projects
   - Methodology

II. Analysis of the existing
   - Five dimensions analysis
   - Twelve variables
   - Analyzes

III. Choices and Challenges
   - Exposure modes of data
   - From a model to models
   - URIs
   - Vocabulary

IV. Proof of concept
   - Objectives and milestones
   - Tools
   - First initiative
Methodological Proposals for Designing Federative Platforms in Cultural Linked Open Data: the exemple of ModRef
The objective of this collective project is, first, to inventory the characteristics of each digitization project in the cluster, to establish a panorama of innovative systems that could be implemented for these digitization projects, and to complete a study of the actual uses of these innovative systems by cultural institutions.

Second, the project will engage thinking about digital culture and its interconnection with the production and the circulation of cultural contents. It will tackle the question of the role played by digital technologies and the media in modes of diffusion and exchanges by linking digital culture to the evolutions of social, cultural, and political mediations. We will notably study the impact of frames of reference (thesaurus, ontologies, taxonomies) on the process of appropriation of concepts and ideas as much by the large audiences as by specialists.
<table>
<thead>
<tr>
<th>Project Names</th>
<th>Acronym</th>
<th>Institutions engaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digitized collections of the BNF's Departement of Medals</td>
<td>ObjMythArcheo</td>
<td>BnF, MAE, ARSCAN</td>
</tr>
<tr>
<td>The Scholia to Homer's Iliad: from texto to hypertext</td>
<td>SchoHomère</td>
<td>ARSCAN, Partenaires associés hors du Labex</td>
</tr>
<tr>
<td>European poster (1914-1945)</td>
<td>AffichEuro</td>
<td>BDIC, ISP, Partenaires associés hors du Labex</td>
</tr>
<tr>
<td>Photographs from the First World War, « Valois Albums »</td>
<td>AlbValois</td>
<td>BDIC, ISP, Partenaires associés hors du Labex</td>
</tr>
<tr>
<td>Memories of the decolonization (collection of oral archives)</td>
<td>CorpuOraux</td>
<td>BDIC, ISP, Partenaires associés hors du Labex</td>
</tr>
<tr>
<td>Sources of ethnomusicology</td>
<td>MusicoSource</td>
<td>BnF, MAE, MQB</td>
</tr>
<tr>
<td>Comedie-Française Register Project</td>
<td>Comédie</td>
<td>HAR-UPO, Partenaires associés hors du Labex</td>
</tr>
<tr>
<td>Paris guidebooks (historians of art and digital collections)</td>
<td>ParisGuide</td>
<td>HAR-UPO, BnF, MQB</td>
</tr>
<tr>
<td>The birth of French ethnology. The first ethnographic missions to Africa</td>
<td>NaisseEthno</td>
<td>MAE, BnF, MQB</td>
</tr>
<tr>
<td>Archives of archeological digs at prehistoric and ancient sites</td>
<td>ArchiFouilles</td>
<td>MAE, ARSCAN, Autres partenaires hors du Labex</td>
</tr>
<tr>
<td>The Commissions of « Topographie des Gaules » (1858-1879)</td>
<td>TopoGaules</td>
<td>MAN, BnF, Autre partenaires hors du Labex</td>
</tr>
<tr>
<td>Putting online experimental and ethnoarcheological frames of reference on archeological techniques</td>
<td>EthnoArchéo</td>
<td>MAE, Autre partenaires hors du Labex</td>
</tr>
</tbody>
</table>
Analysis of the existing
Modeling, Frames of Reference and Digital Culture
Five dimensions analysis

Organizational

Legal

Technological

Conceptual

Uses / Public

ModRef Project
Twelve variables

- **Ultimate goal** of publication materials (corpus) or editorialisation content (virtual exhibition with scientific discourse)?
  - **Target audience** (and uses)

- **Disciplines involved**: history, art history, archeology, ethnology,…
  - **Multimodal aspects** of digital objects: text, images, sounds, 3D files,…

- **Number of partners** and their location
  - **Institutional source projects**: research institutes (CNRS, University, museums, libraries, archives,…)

- **Volume** of digitization and metadata
  - **Conceptuel model** (origin and desired)
  - **Choice of standards**
  - **The issue of licences**

- **Team formation**
  - The **Initial status** of projects
Analyzes: organizational complexity

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14 août 2014
#iflaLLD
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Analyzes : time complexity
Analyzes: conceptual complexity
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Analyzes: technological complexity

<table>
<thead>
<tr>
<th>Platform Type</th>
<th>Current software solutions</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plateforme OpenSource</td>
<td>Webmuseo, Flora, ALEPH, FileMaker, Divers (DBB, editeurs XML, etc.)</td>
<td>ObjetMythArchéo, AffichEuro, AlbValois, CorpuOraux</td>
</tr>
<tr>
<td>Plateforme OpenSource développée en interne</td>
<td>TELEMETA, Arkeotek, HyperStudio, FLEADE, ICA-ATOM</td>
<td>ObjetMythArchéo, SchoHomère, ParGuide, MusicoSource, EthnoArchéo, Comédie, NaisseEthno, ArchiFouilles</td>
</tr>
<tr>
<td>Plateforme propriétaire</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analyzes: ModRef’s sphere
Methodological Proposals for Designing Federative Platforms in Cultural Linked Open Data: the exemple of ModRef

Analyzes: ModRef's sphere

URI - Lieux
URI - Concept
URI - Personne
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Methodological Proposals for Designing Federative Platforms in Cultural Linked Open Data: the exemple of ModRef

Analyzes: ModRef’s sphere
Analyzes: For which public?
Choices and Challenges
Modeling, Frames of Reference and Digital Culture
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Exposure data

DUMPS
- ObjMythArcheo

OAI-PMH
- SchoHomère
- AffichEuro
- AlbValois
- CorpuOraux

API
- Comédie
- ParisGuide

SPARQLEndpoint
- MusicoSource
- NaissEthno
- ArchiFouilles
- TopoGaules
- EthnoArchéo
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Legal position

- Open licensing (contents)
  - AffichEuro
  - AlbValois

- Open licensing (data)
  - TopoGaules
  - ArchiFouilles
  - NaissEthno
  - EthnoArchéo

- Closed licensing (contents)
  - Comédie

- Closed licensing (data)
  - MusicoSource
  - ObjMythArcheo
  - CorpuOraux

Exposure mode data
- Sparqlendpoint
- Dumps

Closed licensing
- NaissEthno
- MusicoSource
- CorpuOraux
- TopoGaules
- ParisGuide
- ArchiFouilles
- SchoHomère
- EthnoArchéo

Open licensing
- ObjMythArcheo
- AffichEuro
- AlbValois
- Comédie
One and more models?

British Museum: CIDOC-CRM

Europeana: EDM

Smithsonian: EDM + Extensions

BNF: Modèle propre découlant de FRBR

Les possibilités offertes par RDF/RDFS/OWL offrent une bonne adaptabilité
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URI: the choice

Exemples

British Museum: local URI
Smithsonian: URI locales + links with DBPEDIA

Quelques éléments de réflexion

Requires an integration process
One or more URI
Delegation of Authority
Enrichment uncontrolled properties
Inserts warehouse in the LOD
Network effect (attractor or unattractive)

Globalization of URI
Search engines and recommendation engines
Vocabulary

Current Status: Linked Open Data (LOD)

- We plan to publish all Getty vocabularies to the LOD cloud
- Implementation project begins July 2013
  - We will begin with AAT and then move on to TGN, ULAN, and finally CONA, from late 2013 through 2015
  - Sequence was chosen to take advantage of the way the vocabularies are connected: AAT is linked to itself; TGN pulls from AAT; ULAN from AAT and TGN; and CONA from all three
  - We also intend to publish LOD versions of our lookup lists (e.g., languages, roles, nationalities, place types, and bibliographic sources)
- We anticipate that the data will be published as SKOS and SKOS-XL formats under the ODC-BY 1.0 license

- We are fairly confident that our base URI will be http://vocab.getty.edu/
- Examples from the prototype - with other classes falling into place accordingly:
  - http://vocab.getty.edu/resource/aat/subject/300028576 [content-negotiated 303 (See Other) redirect to...]
  - http://vocab.getty.edu/data/aat/subject/300028576 [200 (OK) - application/rdf+xml]
  - http://vocab.getty.edu/page/aat/subject/300028576 [200 (OK) - application/xhtml+xml]
IV Proof of concept
Modeling, Frames of Reference and Digital Culture
Objectives and milestones

- Team R & D
  - Coordination
  - Planning
  - Development

- Phd Students
  - Models
  - EVOI

- Partners

- Others institutions

Reflexion space
- Critical models
- Enrichment concepts
- Development of vocabulary

Integration Tools
- Proof of Concept
- Creating vocabulary in LOD
- Network visualisation

Support and training
- Personalized support
- Writing Help / specifications,
- Workshop (tools)
<table>
<thead>
<tr>
<th>Outils</th>
<th>URL</th>
<th>Créateur</th>
<th>Licence</th>
<th>Evaluation par rapport aux besoins</th>
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<tbody>
<tr>
<td>Antidot Information Factory</td>
<td><a href="http://www.antidot.net/produits-services/produits/antidot-information-factory/">http://www.antidot.net/produits-services/produits/antidot-information-factory/</a></td>
<td>Antidot</td>
<td>Propriétaire</td>
<td>****</td>
</tr>
<tr>
<td>Armadillo... ?</td>
<td><a href="http://www.armadillo.fr/app/photopro.sk/web/">http://www.armadillo.fr/app/photopro.sk/web/</a></td>
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<td>Propriétaire</td>
<td>***</td>
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<tr>
<td>D2RQ</td>
<td><a href="http://d2rq.org/">http://d2rq.org/</a></td>
<td>University of Mannheim</td>
<td>OpenSource</td>
<td>**</td>
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<tr>
<td>Datalift</td>
<td><a href="http://datalift.org/">http://datalift.org/</a></td>
<td>7 membres initiateurs: INRIA, LIRMM, Eurécom, Mondeca, Atos, IGN, INSEE</td>
<td>OpenSource</td>
<td>****</td>
</tr>
<tr>
<td>DataTank</td>
<td><a href="http://thedatastank.com/">http://thedatastank.com/</a></td>
<td>Antidot</td>
<td>Propriétaire</td>
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<tr>
<td>Intelligence Topic Manager</td>
<td><a href="http://www.mondeca.com/fr/Produits/Knowledge-Browser">http://www.mondeca.com/fr/Produits/Knowledge-Browser</a></td>
<td>Mondeca</td>
<td>Propriétaire</td>
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<tr>
<td>Karma</td>
<td><a href="http://www.isi.edu/integration/karma/">http://www.isi.edu/integration/karma/</a></td>
<td>Information Sicence Institute - University of Southern California</td>
<td>OpenSource</td>
<td>****</td>
</tr>
<tr>
<td>OpenRefine + Extension RDF</td>
<td><a href="http://refine.deri.ie/">http://refine.deri.ie/</a></td>
<td>Volontaires + DERI's pour l'extension RDF</td>
<td>OpenSource</td>
<td>***</td>
</tr>
<tr>
<td>OpenSemanticBus</td>
<td><a href="http://www.perfect-memory.com/nos-solutions/les-offres/">http://www.perfect-memory.com/nos-solutions/les-offres/</a></td>
<td>PerfectoMemory</td>
<td>Propriétaire</td>
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<td>OWLIM</td>
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<td>Ontotex</td>
<td>Propriétaire</td>
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<tr>
<td>Silk</td>
<td><a href="http://wifo5-03.informatik.uni-mannheim.de/bizer/silk/">http://wifo5-03.informatik.uni-mannheim.de/bizer/silk/</a></td>
<td>University of Mannheim</td>
<td>OpenSource</td>
<td>**</td>
</tr>
<tr>
<td>Talend</td>
<td><a href="http://www.mysql.fr/products/workbench/">http://www.mysql.fr/products/workbench/</a></td>
<td>Research Group Agile Knowledge Engineering and Semantic Web (AKSW) is hosted by the Chair of Business Information Systems (BIS) of the Institute of Computer Science (IfI) /University of Leipzig as well as the Institute for Applied Informatics (InfAI)</td>
<td>OpenSource</td>
<td>**</td>
</tr>
<tr>
<td>Triplify</td>
<td><a href="http://triplify.org/Overview">http://triplify.org/Overview</a></td>
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<td>**</td>
</tr>
<tr>
<td>Virtuoso Sponger</td>
<td><a href="http://virtuoso.openlinksw.com/dataspace/doc/dav/wiki/Main/VirtSponger">http://virtuoso.openlinksw.com/dataspace/doc/dav/wiki/Main/VirtSponger</a></td>
<td>Propriétaire</td>
<td>Propriétaire</td>
<td>**</td>
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<td>Workbench</td>
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<td>Propriétaire</td>
<td>Propriétaire</td>
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Thanks