Transforming digital collections into linked data: The rise of missing links

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Association of College and Research Libraries National Meeting

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Lessons learned so far

Europeana Data Model (EDM)

Sample of possible triples:

- Title is “Frank Sinatra in Las Vegas, 1954”
- Date: August 5, 1954

UNLV Linked Data Project (exploratory study)

Project phases

Preparation Phase

- Evaluation, select or adapt technologies for:
  - SPARQL
  - OpenRefine/Manual
  - SPARQL

Implementation Phase

- Technology being tested:
  - OpenRefine
  - OpenRefine/Manual
  - SPARQL

Assessment Phase

- Evaluate benefits and challenges of transforming records into linked data
  - Comparing results from additional records vs. linked data
  - Assessing technology aspects
  - Analyzing lessons on workflow and metadata design

Technological lessons

- Our current system is not prepared to manage linked data
- The implementation project was initially focused on the transformation of our cataloging data
- The project team needs to have a solid and powerful tool to support transformation

Implementation

- Several steps to be used for converting digital collection records into linked data

Guiding questions

- Is it feasible to create a common approach to transform records into linked data given that digital collections commonly adopt different metadata sets?
- Is it possible to keep the technical and semantic of digital collections metadata using linked data?
- What tools, if any, would be helpful in guiding this transformation?
- What software or API would be useful to transform our collections?
- How can we evaluate the generation of linked data and link curatorial workflows for managing digital collections?

How we got started

- Formed a Library Linked Data Study Group to perform the following activities:
  - Define criteria for selecting a sample of records from our digital collections
  - Develop a process to identify the transformation of metadata into linked data
  - Create a project proposal
  - Participate in linked data discussion lists (lita@lists.rlyeh.net)
  - Attend workshops and presentations on linked data
  - Monitor literature in the linked data area and collect relevant documents
  - Watch linked data webinars and discuss concepts

- The project team should include professionals from various areas of the library as a way of raising awareness of this work and its potential impact on library systems

- The project team included professionals from various areas of the library

- Created working group charts and workshops on specific aspects of the metadata transformation process

- Developed concepts of the complete project and agreed to define 28% of records as metadata, mapping metadata of our collections into a single world

- Final working group included the following professionals:
  - Head of Digital Collections
  - Managing Librarian
  - Future librarian
  - Metadata Librarian
  - Researcher

- Project phases

- Description of possible triples:

- Three things:
  - has title
  - includes person: Frank Sinatra
  - added by: Sands Hotel

- Attributes:
  - genre = general music
  - performance = live
  - location = Sands Hotel
  - date = 1954

- Implementation

- Export records
- Assign URIs
- Map Application Profile to the Europeana Data Model (EDM)
- Attribute URIs to subjects
- Create records into triples
- Evaluate, adopt or adapt technologies for:
  - Analyzing impacts on workflow and metadata design
  - Assessing technology solutions
  - Comparing query results from traditional records vs. linked data

- Lessons learned so far

- Technical lessons

- Technical lessons

- Technical lessons