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

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

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Digital collection records => linked data graphical representation

Guiding questions

Is it feasible to create a common approach to transform metadata into linked data given that digital collections commonly adopt different available standard sets?
Is it possible to learn the techniques necessary for digital collection metadata using linked data?
What model, if any, would be helpful in guiding this transformation?

Goals

Study the feasibility of transforming a common process that would allow the conversion of all available metadata used by digital collections to their original libraries' collections.

How we got started

Formed a Library Linked Data Study Group to perform the following activities:

- Watch linked data webinars and discuss concepts
- Find list of the data in the digital collection records
- Establish working groups charged to work on particular aspects of the metadata transformation
- Create a project proposal
- Participate in linked data discussion lists (lita-l and BIBFRAME-l)
- Create an internal wiki with an extensive list of linked data resources
- Watch linked data webinars and discuss concepts

UNLV Linked Data Project (exploratory study)

Project phases

Preparation Phase

- Evaluate, select or adopt technologies for:
  - Transforming metadata into linked data
  - Transforming linked data into artifactual and other linked data

Implementation Phase

- Technology being tested:
  - Europeana Data Model (EDM)
  - Purl.org
  - RDF
  - SPARQL
  - DASH
  - Mulple service (RESTful, UPnP, sparql)

Assessment Phase

- Evaluate benefits and challenges of transforming records into linked data
- Comparing results from additional records vs. linked data
- Reporting technology, methodologies, lessons learned: accuracy, completeness, and ease of implementation

Lessons learned so far

- Strategic lessons:
  - The project team should include professionals from various areas of the library as a way of conveying these concepts by testing various presentation of our project:
  - It is essential that the library as a whole, and administrators in particular, understand what linked data is and how it can be implemented in library systems.
  - Patenting knowledge into records and triplestores
  - Managing and maintaining linked data

- Technical lessons:
  - Our current system is not prepared to manage linked data
  - The European Data Model was not fully implemented at the time of this presentation
  - OpenRefine software is a flexible and powerful tool to support transformation of the digital collection records into triples
  - Evaluate, adopt or adapt technologies for:
    - Assessing technology solutions
    - Comparing query results from traditional records vs. linked data

- Lessons learned so far:
  - To be continued