Publication of bibliographic and authority metadata as LOD from a library management system

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Libraries facing the Semantic Web era

“For libraries, this means yet another evolutionary step in the library of our catalog: from metadata to metaDATA”. Karen Koyle
Libraries facing the Semantic Web era

“Semantic Web standards and Linked Data principles can be used to make the valuable information assets that library create and curate — resources such as bibliographic data, authorities, and concept schemes — more visible and re-usable outside of their original library context on the wider Web”

W3C Library Linked Data Incubator Group
Adding Linked Data features to the current LMS

- Librarians are not experts in Semantic Web technology
- Library metadata are created according to specific standards and conceptual models (MARC, FRBR...)
- Most of the current LMS are not Linked Data compliant
- Main purposes: publish and re-use Linked Open Data (LOD)
- Published data should be 5 star linked data: available on the web, machine-readable structured data, data in non-proprietary format, RDF and SPARQL, and linked to other data to give context
- As public data, they should be open
Adding Linked Data features to the current LMS

Case study:
Adding Linked Data features to LibriSuite
Library Management System
Adding Linked Data features to the current LMS

LibriSuite LMS provides:
• bibliographic and authority metadata in MARC format
• export of those metadata as MARC XML files

ALIADA LLD publisher plugin for LS allows to automatically:
• convert those metadata into RDF statements according to the ALIADA ontology built on FRBRoo, SKOS and FOAF
• create and maintain a RDF data store and a SPARQL endpoint
• link the own dataset to other external datasets, such as Europeana, Dbpedia, VIAF, Freebase, ...
• publish on the Datahub-CKAN: RDF dumps, links, organization details, SPARQL endpoint....
Adding Linked Data features to the current LMS

Oracle database (SQL)

USER INTERFACE
Cataloguing module
Products module

Libri Suite

ALIADA
Metadata validation

ALIADA
RDFizer

ALIADA
Ontology

ALIADA
Publication

ALIADA
Linking and URI creation

Virtuoso RDF database (SPARQL)

Organization profile
RDF dumps
Links
SPARQL endpoint

ckan
datahub

Semantic Web
Machine-readable structured data (not documents), identified by a URI, about all sort of “things” and about the relationships between “things”

ALIADA module (RESTful API)

USER INTERFACE

Library

USER INTERFACE

Research

IT SME OR DEVELOPER

LIBRARY

Government

Oracle database (SQL)

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THANK YOU FOR YOUR ATTENTION!
ANY QUESTIONS?