Publishing Aleph data as Linked Open Data

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Agenda

1. Background
2. Four Steps to Publishing Linked Open Data
3. What's Ex Libris supposed to do?
1. Background
Motivation

- Use of international and cross-domain **web standards** leads to
  - Increased **discoverability**
  - **Multiple usability** of one dataset
  - Maximized **interoperability & re-usability**
  - **Flexible** data model
Expected ROI

➡️ **Synergy effects** through standardization of technology stack:

- **Quantitative**: saved resources
- **Qualitative**: improved services
A **sustainable** and consequent strategy of **publishing and linking data** on the web requires the data to be open*. 

* [http://www.opendefinition.org/](http://www.opendefinition.org/)
2. Four Steps to Publishing Linked Open Data
Step 1: Find cooperating libraries

- hbz provides technology for union catalog
- Data is created cooperatively
- hbz didn’t publish all data on its own because of legal uncertainties
- Four union libraries joined the initiative
Step 2: Export Data

→ Using Aleph Publishing module

→ Concept: bibl. records are enriched with authority & holdings Data and written to Oracle table Z00P (XML structure)

→ Problems:

→ Performance issues with incremental updates

→ disproportion between incoming/outcoming data updates

→ workaround: irregular updates as full dumps
Raw Data Now!

http://www.ted.com/talks/tim_berners_lee_on_the_next_web.htm
Step 3: Publishing raw data

- Load to **HTTP server**
- **Describe** published datasets
- Attach an **open license**
  (for recommended open data licenses see [http://www.opendefinition.org/licenses/#Data](http://www.opendefinition.org/licenses/#Data))
- **Register** datasets at CKAN.net
- Problem with serving consistent, standardized MAB-coded data
Recently published Open Data exports

On this wiki page you'll find up-to-date information about available Open Data exports from the hbz union catalog. If you have any questions please contact serweb[at]hbz-nrw[dot]de or post a comment on this page. (You'll have to login/register first.) Since April 2011 there is a changelog. Informations about older data exports from March 2010 can be found here. There is also a download statistic site.

All data which is available for download here is published under a Creative Commons CCO license. The data thus is in the Public Domain which means it belongs to everybody and can be used without restrictions for any purpose.

Recent Open Data publications

Linked-Open-hbz-Data

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<tr>
<th>Name</th>
<th>Open hbz data as Linked Data</th>
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<tr>
<td>Download URL</td>
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Duisburg-Essen University Library Catalog, Campus Essen

| Name               | hbz records with Dortmund University Library holdings |

Source: [https://wiki1.hbz-nrw.de/display/SEM/Recently+published+Open+Data+exports](https://wiki1.hbz-nrw.de/display/SEM/Recently+published+Open+Data+exports)
Step 4: Identifiers & data conversion

- **Choose** suitable RDF **vocabulary** for representing bibliographic data: Bibo
- **Map** and **convert raw data** to RDF
- **Mint HTTP URIs** for described resources: [http://lobid.org/resource/{internalID}](http://lobid.org/resource/{internalID})
- **Publish RDF**
  - Triple store (4store) with SPARQL interface
  - Pubby framework for HTML representation
3. What is Ex Libris supposed to do to promote Linked Open Library Data?
Provide open interfaces for legacy and future systems

- **Provide streaming interface** (event driven => real time) for all library data
- **Use open standards** (like XMPP) for interfaces
Enable Open Data

▶ Don’t use ‘open’ as marketing term but in the clear sense of open definition

▶ Alma in general:
  ▶ Provide possibility to export all data (e.g. statistics, user data) in open formats

▶ Alma’s community zone:
  ▶ Openly licensed & accessible as a whole by everyone
SWIB11

”Semantic Web in Libraries” (SWIB)
hosted by hbz and ZBW – Leibniz Information Centre for Economics

Hamburg, 28. - 30.11.2011
Web stream will be available
http://swib.org/
Thanks.

Questions?

With pleasure now/her or also later to semweb@hbz-nrw.de