

Semantic Web in Libraries Conference (SWIB12) November 26-28, 2012

Conference Trip Report

Abstract

The aim of this trip was the participation in the 4th International Conference on Semantic Web in Libraries (SWIB12) taking place in Cologne, Germany on November 26-28, 2012. SWIB is a leading conference for experts and library professionals on Semantic Web and Library Linked Data.

This conference trip was made possible by a grant kindly provided by BI-International (Bibliothek & Information International)¹, covering conference registration fees and daily expenses. I sincerely thank BI-International for the support provided.

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Introduction

I arrived in Cologne on November 26 and used the time there to meet other conference participants and to work on my presentation. For the next two days I participated in the SWIB12 conference (after November 26 which was on the day of my arrival and consisted of workshops) where I presented a lightning talk about Linked Data developments at the National Library of Latvia (NLL).

The conference was organised by the North Rhine-Westphalian Library Service Center (hbz) and the ZBW - German National Library of Economics / Leibniz Information Centre for Economics. It took place in Bürgerhaus Stollwerck, Cologne.

Summary of the conference

The core topic of the conference was "Towards an international LOD library ecosystem" where LOD stands for Linked Open Data. An important question addressed by the conference was how to ensure the growth and sustainability

¹ <http://www.bi-international.de>

of Library Linked Data. It is important to make this technology work for library needs and to interlink data and services provided by various library institutions worldwide.

The main topics selected for the conference were:

- Lessons Learned from Linked Data publishing;
- Matching and linking of published datasets;
- Data enrichment through integration of data from the LOD cloud;
- Utilizing authority files for data enhancement;
- Integration of Linked Data into productive library environments;
- Identification of tasks for future development.

The conference highlighted current trends in the use of Semantic Web technologies in libraries. Linked Data projects are becoming more mature as, in addition to research projects, we are seeing an increasing number of practical deployments in libraries and other cultural heritage organisations.

Linked Data technologies are being used in a variety of ways, some of which were presented at the conference. Examples include metadata models based on Linked Data (e.g., the new Library of Congress Bibliographic Framework), the publishing of Linked Data from digital library applications (e.g., Chronicling America Historic Newspapers), authority databases (e.g., VIAF) and bibliographic catalogs.

My presentation

An important part of the conference for me was the opportunity to give a lightning talk "Linked Data from a Digital Object Management System" about the Digital Object Management system (DOM2) being currently developed for the National Library of Latvia. This talk took place on November 28 during the lightning talks session.

Figure 1 shows a slide from the talk. It describes the context of linked data work in the development of this new DOM2 system. Slides of the talk are available online².

The conference was a good place to get feedback about our Linked Data developments. The topic of building reliable and high performance Library Linked Data systems is important and it came up both in conference talks and discussions.

One of the recommendations mentioned by participants was not to run public SPARQL server interface if this data store is also required for other services. We address this issue in DOM2 by introducing a separate SPARQL server that DOM2 RDF data is put into and which we will make available as a public SPARQL interface, resulting in a hybrid system with the core DOM2 application running independently of queries to the SPARQL server. This

² <http://www.slideshare.net/CaptSolo/linked-data-from-a-digital-object-management-system>

architecture aims to ensure that the functioning of the core system will be independent from the potentially high volume of queries sent to the SPARQL server.

Context

- Core functionality
 - Must be reliable and with good performance
- Linked Data functions (added on)
 - Aim: bootstrap linked data at NLL
 - Linked data interface (URIs, HTTP conneg, RDF data)
 - SPARQL endpoint
- Developers
 - Lack of developers who have experience building production-level systems based on RDF stores

Figure 1. Slide form the "Linked Data from a Digital Object Management System", providing context for my talk about the DOM2 system.

Conference presentations

This section provides information about some of the talks presented at the SWIB12 conference. Full conference program, including presentation slides and video recordings, is available from the conference website:

<http://swib.org/swib12/>

Building a High Performance Environment for RDF Publishing

by Pascal Christoph, hbz, Germany

This talk presented an approach for high performance RDF publishing based on the experience with lobid.org (Linking Open Bibliographic Data project) which publishes approximately 16 million bibliographic records with ~700 million RDF triples. The presenter acknowledged the limitations of current RDF stores such as a low performance of string searches and described a hybrid architecture which combines SPARQL query capability of RDF stores with fast string searches provided by text search engines (such as elasticsearch).

The Library of Congress's Bibliographic Framework Initiative

by Kevin Ford, Library of Congress

This was an interesting presentation about the new Library of Congress Bibliographic Framework Initiative (BIBFRAME)³. It provided information about Linked Data as a foundation of BIBFRAME and described a transition from library data as MARC records into a Linked Data representation that provides a flexible data representation and reduces maintenance. This was a remote presentation using Skype and it had noticeable audio quality issues but the slides were excellent and greatly helped in understand the presentation.

Encoding Patron Information in RDF

by Jakob Voß, Common Library Network (GBV VZG)

This talk looked at current efforts in publishing Library Linked Data and identified patron information as an area which is not developed yet, partly because of a lack of data models to express this information (the other part being privacy questions which also need to be addressed). The author proposed a model for encoding library patron information in RDF that was developed for the GBV library network. Following best practices the proposed data model reuses existing RDF ontologies such as DAIA, FOAF and SIOC. It was especially interesting to me as one of the co-editors of the SIOC ontology specification⁴.

Conclusion

It was valuable to participate in the conference and to learn more about how other libraries are implementing Linked Data projects, how to integrate Semantic Web technologies with existing systems and other interesting topics.

Based on the experience of SWIB12, I would recommend library professionals and researchers to participate in future Semantic Web in Library Conferences as it proves to be a valuable for getting insights and exchanging information about Library Linked Data topics.

The information received at the conference is useful in my day-to-day work at the National Library of Latvia. In particular, I used this information when presenting a Library Linked Data tutorial at NLL in December 2012.

³ <http://bibframe.org/>

⁴ <http://rdfs.org/sioc/spec/>