Share-VDE: linked data for libraries

Share-VDE (SVDE) is a library-driven initiative which brings together the bibliographic catalogues and authority files of a **community of libraries in a shared discovery environment** based on linked data. Share-VDE expanded its scope to embrace a wider community of over thirty institutions **also from the art and music domains**, building the **Share Family**.

The collaborative endeavour, based on the requirements and perceptions of libraries, is promoted by **Casalini Libri**, international bibliographic agency and member of the Program for Cooperative Cataloging; **@CULT**, provider of ILS, Discovery tools and Semantic Web solutions for the cultural heritage sector, with input and active participation from an international group of national and research libraries and influenced by the vision of the **LD4P project**.

After two successful research & development phases launched in 2016 and with the cooperation of the Library of Congress, Share-VDE and the Share Family are now going progressively into production **connecting the catalogues of libraries in the US, Canada and Europe**. The collaborative initiative is potentially open to any library and is steered by the library community.

Contents

1 How it works 2
2 Main areas of focus 2
3 Benefits 3
4 Being part of Share-Art, Share-Music, Share-Catalogue 3
5 Info and contacts 3

How it works

The SVDE **advanced discovery interface** harnesses the potential of linked data to offer an **easy and intuitive user experience** and deliver ever more wide-ranging and detailed search results to library patrons. Library catalogues of participating institutions are converted from MARC to RDF (Resource Description Framework) using the BIBFRAME vocabulary and other ontologies, through a process of **entity identification, reconciliation, and data enrichment** also from external sources, in order to form clusters of entities such as Person, Work etc. The network of resources created is published as linked data on SVDE platform and a common knowledge base of clusters accessible in RDF, open to the entire SVDE community, has also been compiled. **The Cluster Knowledge Base (named Sapientia) uses the model of the Semantic Web** while allowing participating libraries to continue handling their own data as independently as possible. In addition to inclusion in the Share-VDE database, each individual library receives their original records converted into linked data; this may be re-used according to local requirements and with no restrictions.

The technological components underlying the SVDE infrastructure are orchestrated by the **LOD Platform**, that is a highly innovative technological framework, an integrated ecosystem for the management of bibliographic, archive and museum catalogues and their conversion to linked data, extensible as needed for specific purposes. The LOD Platform was designed with the idea of creating **scalable and configurable linked data management systems and discovery interfaces** able to adapt to ontologies from different library, archive and museum (LAM) domains, capable of automating the processes of creating and publishing linked open data, regardless of the data source format.

Main areas of focus

Building on the foundations laid by the previous project phase started in October 2016 and on continuous R&D activities carried on by ad hoc working groups, SVDE is now implementing **production-level processes** and additional workflows according to priorities determined by the Share-VDE community. The main areas of focus are: **enrichment of MARC record with URIs**; **conversion from MARC to RDF using the BIBFRAME vocabulary** (and other additional ontologies as needed); **creation of a virtual discovery platform** with an adaptation of the BIBFRAME data model developed to provide a linked data discovery option; **creation of a database of relationships and clusters** of entities (Sapientia Cluster Knowledge Base) accessible in RDF; implementation of **tools for direct interaction with the data**, permitting the validation, update, long-term control and maintenance of the clusters and of the URIs identifying the entities; **batch/automated data updating** procedures; **batch/automated data dissemination** to libraries; progressive implementation of **further use cases** in the priority order defined by the community.

Benefits

The shared platform **increases discoverability** of resources in library catalogues, allowing end users to access a wealth of information that may be both imported and exported by participating institutions. This approach fully harnesses the potential of linked data, connecting library information to the advantage of scholars, patrons and all library users in a dynamic research environment that unlocks new ways of accessing knowledge. Among the main benefits: **enrich library data with URIs** and additional information previously unexpressed under MARC21; allow librarians a **wider and direct interaction with and editing of bibliographic data** expressed in linked data **through the Cluster Knowledge Base Editor**; **deliver richer search results to library patrons** thanks to the potential of linked data and advanced discovery interfaces; **keep pace with Semantic Web** applications; **collaborate with the linked data for Production (LD4P) initiative and the Program for Cooperative Cataloging (PCC)** on the application and understanding of linked data; **follow developments relating to** the original production of data in **BIBFRAME** format and workflows based on linked data.

Being part of Share-Art, Share-Music, Share-Catalogue

The creation of **more branches in the Share Family** stems from the need to gather institutions with a similar scope or from the same domain in consistent groups of members sharing the same areas of focus as far as the type of bibliographic information conveyed in their library catalogue. This means, for example, that libraries specialized in the cataloging of visual materials (paintings, art works, photos etc.) can be grouped in the Share-Art branch. This approach is reflected in Share software architecture, that is based on **tenants infrastructure**, and in the management of library data, that are treated according to similar requirements and characteristics.

From the technical perspective this allows **more efficient data management and technological sustainability**. From the service perspective this means that dedicated applications that are out of scope for certain branches can be developed for other groups of institutions. From the users perspective this enables richer and specialized sets of resources to be consulted.

Info and contacts

For more information about SVDE please refer to:

- Share-VDE brochure
- Video introducing Share-VDE
- Share-VDE short overview
- Share-VDE webinar
- Linked data and Share-VDE Executive Summary

The Share-VDE Online portal user guide explains how to interact with the platform. A preview of the next version of the online portal is also available of the online portal is also available. Being an initiative promoted by Casalini Libri, also Share-VDE takes into account its accessibility manifesto.

For more information on **how to participate** in Share-VDE, browse the Share-VDE section or **contact us at info@share-vde.org**.

To have a tour of the broader Share Family please see:

- Share Family map
- The Kubikat-LOD prototype that has been concluded in 2019, along with a demo video showing the preview of its next version