



The Share Family initiative
Cooperation and interconnection
for a sustainable Linked Open Data ecosystem

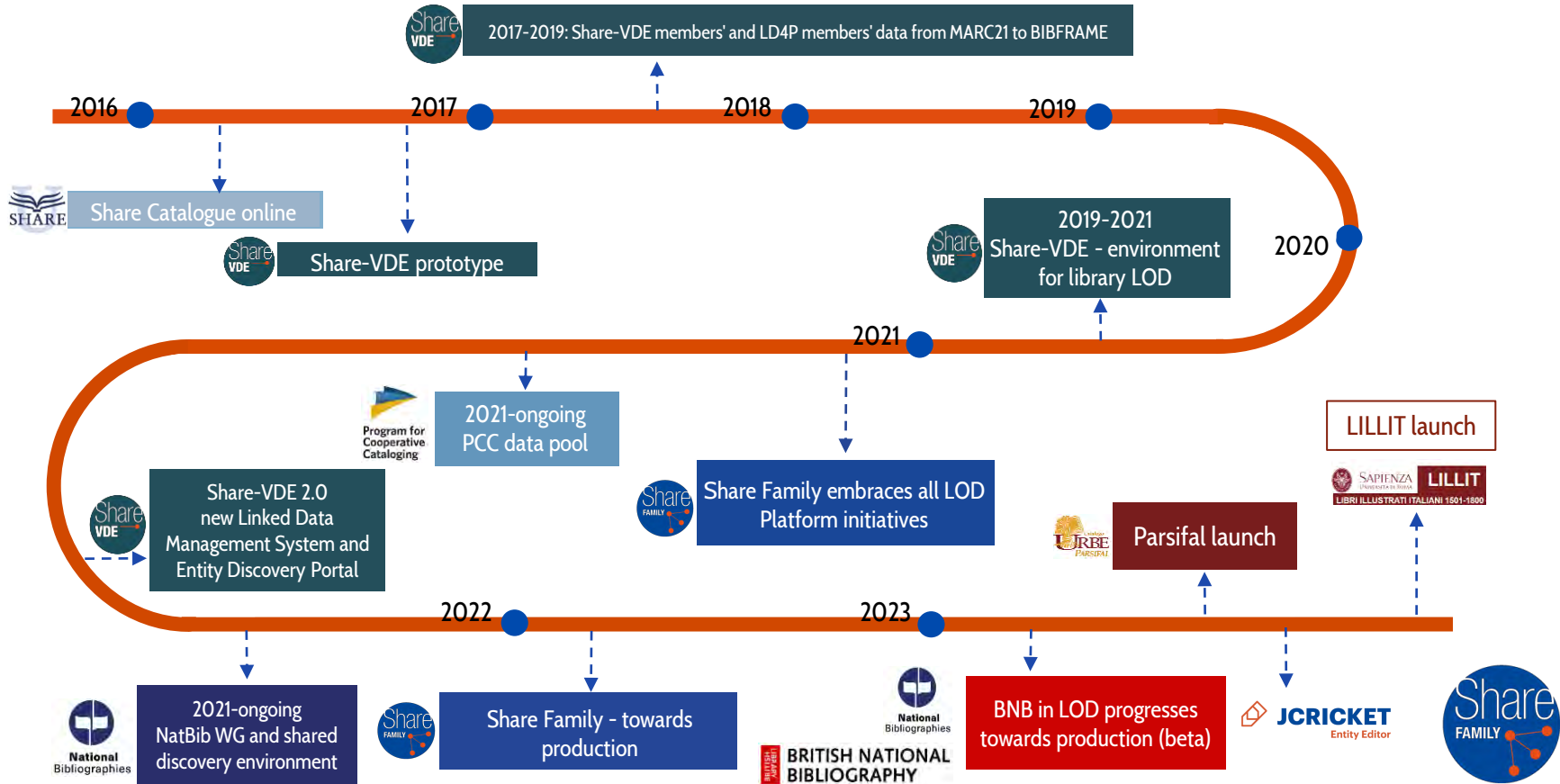
DGBSDI-UNAM Forum *Conectando conocimiento: datos vinculados en bibliotecas universitarias*
30 de mayo de 2024

<https://www.share-family.org/>
<https://wiki.svde.org>
info@svde.org

Share Family background



Stepping stones



Share Family Linked Data Ecosystem values



CO-OPERATIVE

Developed and driven by libraries, for libraries, the Share Family is a growing international community built on collaboration. Participating institutions play an active role in defining the vision, aims and progress of the Share Family and its tools.

The Share Family opens the door to a flexible, sustainable, interoperable and co-operative approach to resource description, with time, expertise and costs shared across the community for the benefit of all members.



SUSTAINABLE



INTEROPERABLE

By implementing the RDF-based BIBFRAME data model and facilitating interoperability with different data models and data pools, resource description can be transformed into Linked Data, increasing the visibility of research and encouraging greater engagement with library, archive and museum collections.

We strive to encourage open access to data, and support diversity by freely sharing information. We apply and support open metadata policies as part of our commitment to enhancing the discovery of library and cultural heritage resources.



OPEN



FLEXIBLE

Enriched and structured data can be re-used in local and external systems, across library types and ILS/LSPs, enabling each institution to maintain control of its own catalogue data.

The quality of data is guaranteed both through advanced technical processes and through collaborative data modeling, enrichment and sharing, handled collectively by member organizations.



AUTHORITATIVE



The Share Family Linked Data Ecosystem



The Share Family is a global community built on collaboration that brings together libraries, archives, museums, consortia and Library Service Platforms (LSPs) to join their knowledge in an ever-widening network of interconnected bibliographic data.

For further details please refer to <https://www.share-family.org> and [the dedicated Share-VDE wiki section.](#)

Share-VDE - Virtual Discovery Environment



<https://www.svde.org>

97,1 million bib. records

13 million aut. records

Berkeley Law Library - **600,000 bib.**

Duke University - **5,5 million bib.**

Library of Congress - **12 million bib. + 11 million aut.**

National Library of Finland - **16 million bib. + 220,000 aut.**

National Library of Norway - **2,3 million bib. + 2,3 million aut.**

National Taiwan University Library - **6 million bib. + 300,000 aut.**

New York University - **6 million bib.**

Smithsonian Libraries and Archives - **900,000 bib.**

Stanford University - **9 million bib.**

University of Alberta / NEOS Library Consortium - **6,3 million bib.**

University of Chicago - **12 million bib.**

University of Michigan Ann Arbor - **1 million bib.**

University of Pennsylvania - **6,5 million bib.**

Yale University - **13 million bib.**



Share Catalogue: Scholarly Heritage and Access to Research



[Share Catalogue discovery portal](#)

5 million records

Università degli Studi di Napoli Federico II

Università degli Studi della Basilicata

Università degli Studi del Sannio

Università degli Studi di Salerno

Università degli Studi di Napoli Parthenope

Università degli Studi del Salento

Università degli Studi di Napoli L'Orientale

Università degli studi della Campania Luigi Vanvitelli

Università degli Studi Suor Orsola Benincasa



National Bibliographies in Linked Open Data



<https://natbib-lod.org/>

5 million records

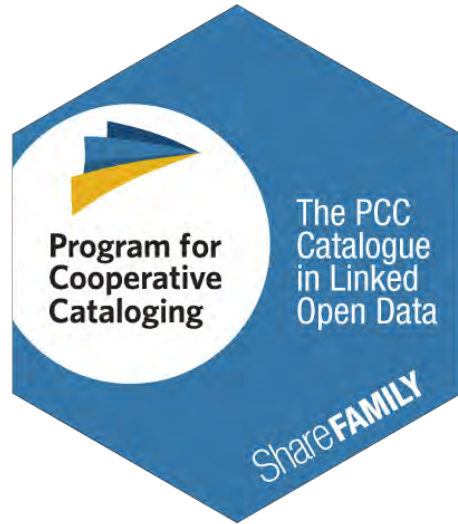
The aggregation of data from National Bibliographies in a shared entity discovery environment; the first of these is the BNB - British National Bibliography, soon to go into production.



The linked open data BNB beta website is available at

<https://bl.natbib-lod.org/>

PCC Catalogue in Linked Open Data



The Share Family hosts a dedicated tenant for the data of the PCC - Program for Cooperative Cataloging, to provide PCC-quality BIBFRAME data housed in an ad hoc data pool

<https://pcc-lod.org/>

5 million records

Parsifal - The URBE Integrated Catalogue in Linked Open Data



<https://parsifal.urbe.it/parsifal/?l=en>

3 million records

Accademia Alfonsiana

Centro Pro Unione

Pontificia Facoltà di Scienze
dell'Educazione "Auxilium"

Pontificia Facoltà Teologica
"Marianum"

Pontificia Università Antonianum

Pontificia Università della Santa
Croce

Pontificia Università di San
Tommaso d'Aquino (Angelicum)

Pontificia Università Gregoriana

Pontificia Università Lateranense

Pontificia Università Urbaniana

Pontificio Ateneo Sant'Anselmo

Pontificio Istituto Biblico

Pontificio Istituto Orientale

Pontificio Istituto Teologico
"Giovanni Paolo II" per le Scienze
del Matrimonio e della Famiglia

Pontificium Institutum Patristicum
Augustinianum

Università Pontificia Salesiana

Share Art, Share Music, Share MIA



Three pilot projects for shared Linked Open Data environments in the domains of Art, Music and Manuscripts, Incunabula and Ancient books

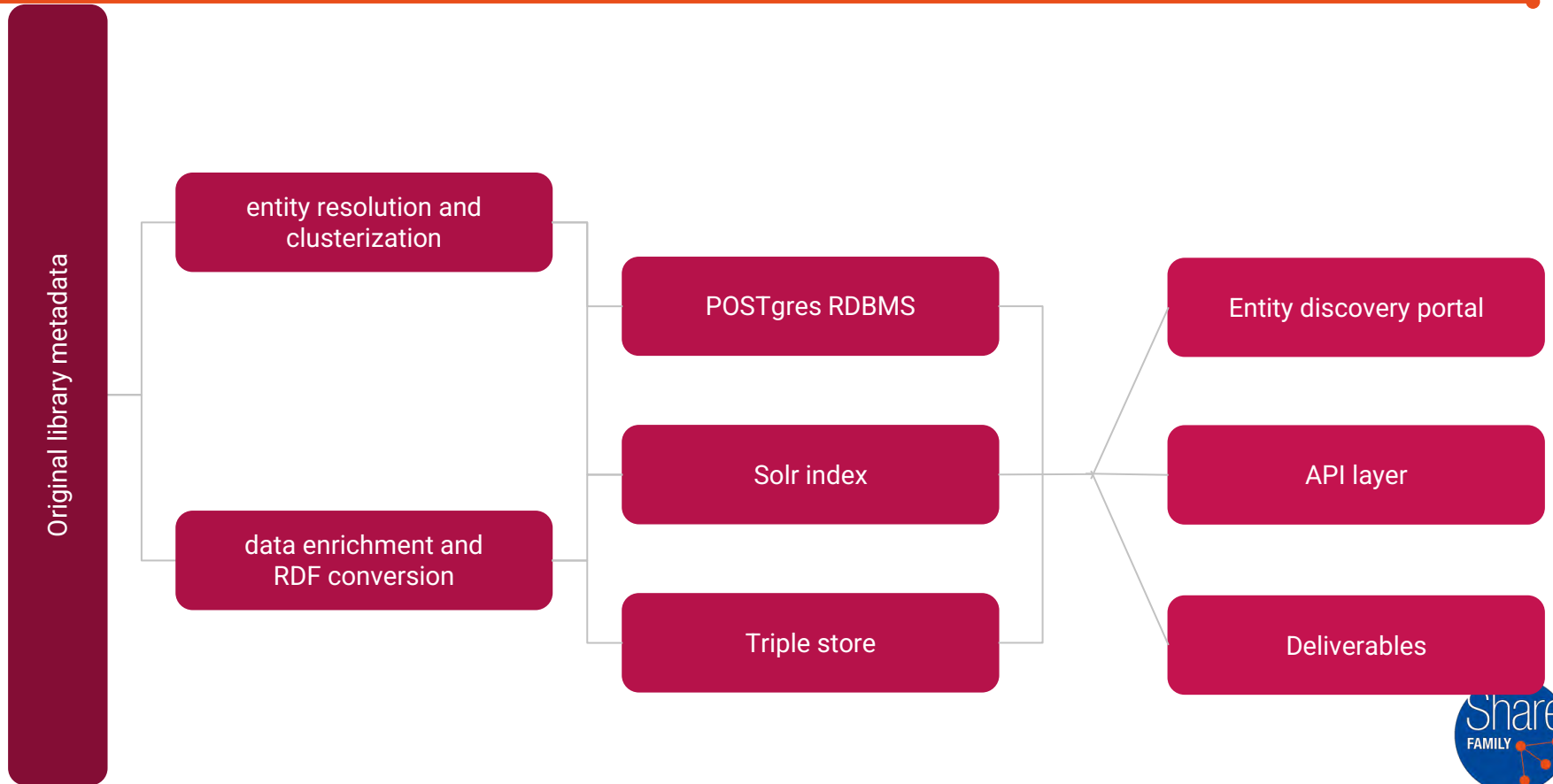
Share-VDE and Share Family Working Groups

Member institutions of Share-VDE and Share Family Working Groups and parallel projects are constantly contributing with their Subject Matter Experts to requirements gathering, functional analysis and feedback to developments.

Share Family Advisory Council and Working Groups:

- Share Family Advisory Council
- SVDE Sapiientia Entity Identification WG
- SVDE Authority/Identifier Management Services WG (currently on hold)
- SVDE Cluster Knowledge Base Editor WG (currently on hold)
- SVDE User experience/User Interface WG
- National Bibliographies Working Group involving SVDE members and external institutions
- Italian group for the conversion UNIMARC - BIBFRAME
- discussions in the field of photo libraries and audio-visual collections

Metadata management and output



Share Family – processes and output

DATA INPUT FROM INSTITUTIONS

MARC21 bib. and holding

MARC21 aut.

UNIMARC

RDF/BIBFRAME

Other formats (eg. FOLIO)



LOD PLATFORM SERVICES

Mapping

URI Enrichment

Reconciliation

Creation of

Linked Data Entities

Conversion to
RDF/BIBFRAME

=

RESULTS

[Data Publication]

- End user discovery portals for each initiative of the Share Family
- Search APIs for data consumption (GraphQL, REST, SPARQL)

+

[Data Distribution]

- API / protocols for third parties integration (eg. local LSPs and data editor such as Wikidata, Sinopia BIBFRAME editor, FOLIO etc.)
- Downloadable datasets (BIBFRAME/RDF, MARC enriched records)

+

[Shared Data Management]

- Editing of Share Family entities with JCricket
- Reuse of Share Family BIBFRAME data in local library systems
- Reuse of Share Family MARC representations in local library systems

+

[Additional Services]

- Authority control in MARC and BIBFRAME-based workflows
- SFI - Share Family Index: registry of entity URIs

Entity discovery portal



Person

Herman Melville

American writer and poet (1819–1891). Born in New York (N.Y.). Died in New York (N.Y.).

Herman Melville was an American novelist, short story writer, and poet of the American Renaissance period. Among his best-known works are Moby-Dick (1851); Typee (1846), a romanticized account of his experiences in Polynesia; and Billy Budd, Sailor, a posthumously published novella. At the time of his death, Melville was no longer well known to the public, but the 1919 centennial of his birth was the starting point of a Melville revival. Moby-Dick eventually would be considered one of the great American novels. - Wikipedia

More options

Wikimedia Commons

Original works by Publications by Original works about

Moby Dick

Year

Creator

Genre

61 results

No.	Title	Year	Genre	Creators
1	Works, Selections	1987	Autobiographies/Fiction/Short stories/American literature	<ul style="list-style-type: none">Herman Melville (author)A. Grove Day (other)Jay Leyda (other)Robert A. Sandberg (editor)Alma A. MacDougall (editor)Raymond M. Weaver (other)Harrison Hayford (other)Howard C. Horsford (other)Lynn Horth (other)G. Thomas Tanselle (editor)
2	Aspects of whiteness		Cantatas	<ul style="list-style-type: none">John McCabe (author)Herman Melville (other)

[Herman Melville](#) in Share-VDE, with works by him, publications, works about him

Entity discovery portal

ShareVDE BETA

Search all content...



Options



Wikimedia Commons

Volume 1

Moby Dick

1851 novel by Herman Melville. Academic theses/biography/fiction/novel.

Moby-Dick; or, *The Whale* is an 1851 novel by American writer Herman Melville. The book is the sailor Ishmael's narrative of the maniacal quest of Ahab, captain of the whaling ship *Pequod*, for vengeance against Moby Dick, the giant white sperm whale that bit off his leg on the ship's previous voyage. A contribution to the literature of the American Renaissance, *Moby-Dick* was published to mixed reviews, was a commercial failure, and was out of print at the time of the author's death in 1891. Its reputation as a Great American Novel was established only in the 20th century, after the 1919 centennial of its author's birth. William Faulkner said he wished he had written the book himself, and D. H. Lawrence called it "one of the strangest and most wonderful books in the world" and "the greatest book of the sea ever written". Its opening sentence, "Call me Ishmael", is among world literature's most famous. - [Wikipedia](#)

This is part of the series [Wright American fiction](#), [Wright American fiction, 1851-1875](#), [Digitalia e-books collection](#), [Writings of Herman Melville](#), [American Fiction, 1774-1920](#), [Collectors' library](#), [Wright American fiction. 1851-1875 . V. 2](#), [First Avenue Classics \(tm\) Ser](#), [Modern library](#), [Verdensbiblioteket](#), [Kunstforlagets illustrerte klassikere](#), [Lommelydbok](#), [Klassiker](#), [Beramte klassikere fra Ex libris](#), [Purūn pada esō p'yōlch'yō chinūn kikum kwa pohōm](#), [Äventyrsklassiker](#), [Vershyny svitovoho pysmenstva](#), [Storie di mare](#), [Shi jie wen xue ming zhu zhen cang ben](#), [Great books of the Western world](#), [First Avenue classics](#), [Collection Folio classique](#), [Riverside editions](#), [Azbuka-klassika](#), [Aschehoug pocket](#), [Helikonbiblioteket](#), [Barnes & Noble classics](#), [Oxford world's classics \(Oxford University Press\)](#), [Project Gutenberg](#), [Complete works](#), [Ignatius critical editions](#), [Library of America paperback classics](#), [Grandi scrittori di ogni paese. Serie americana](#), [Barnbiblioteket Saga](#), [Akai bolsillo. Serie Clásicos de la literatura inglesa](#), [Modern Library classics](#), [Biblioteca Adelphi](#), [Modern Library giants](#), [World's classics](#), [100 greatest masterpieces of American literature](#), [Library of literature](#), [Modern library of the world's best books](#), [Penguin classics](#), [Longman critical edition](#), [Wai guo wen xue ming zhu cong shu \(Shanghai yi wen chu ban she\)](#), [Akai bolsillo](#), [Rinehart editions](#), [Vershyny svitovoho pysmenstva](#), [Vintage classics](#), [Great books of the Western World \(Franklin Center, Pa.\)](#), [Works](#), [Norton critical edition](#), [Bibliothèque de la Pléiade](#), [Oxford world's classics](#), [Avant-scène](#), [Théâtre](#), [Armed Services editions \(Series\)](#), [Everyman's library. Fiction](#), [100 greatest books ever written](#), and [Penguin classics deluxe edition](#).

More options

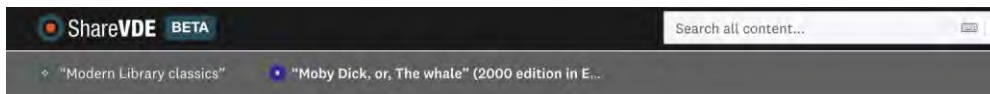
Publications of this

Related agents

[Moby Dick](#) work in Share-VDE



Entity discovery portal



Publication ⓘ

Moby Dick, or, The whale

Volume. Published in English in 2000 in New York.

Contributors

Herman Melville (author), *Barry Moser* (artist), *LeRoy Neiman* (artist), *Fred Benenson* (editor), *Sarah Shute* (editor), *Hershel Parker* (editor), *Harrison Hayford* (editor), *G. Thomas Tanselle* (editor), *Tony Tanner* (editor), and *Amazon Mechanical Turk* (translator)

ISBN: 067978327X

Identifier: p1241654873703306

Notes: ill. ;

Bibliographic level: Monograph

Cataloging source: DLC

Credits: Read by Paul Boehmer.

Descriptive cataloging form: AACR

Dimension: 21 cm.

Edition statement: 2000 Modern Library pbk. ed.

Encoding level: Full

Extent: xl, 851 p. ;

Record status: Corrected or revised

Responsibility statement: *Herman Melville* ; introduction by *Elizabeth Hardwick* ; illustrated by *Rockwell Kent*.

Series statement: *The Modern Library classics*

System control number: (OCoLC)ocm44541812

Borrow a copy at UPenn Libraries [↗](#)

Publisher description

More options ▾

One of many editions of [Moby Dick](#), published in New York in 2000.



API layer

ShareDoc PublicDocumentation ▸ APIs

APIs

This section provides a comprehensive collection of documents detailing the various APIs integral to the Share Family ecosystem. These APIs serve platform, facilitating seamless integration, data retrieval, and interaction with Share Family services and resources.

Please contact info@svde.org for any additional information.

Contents [hide]

- 1 General
- 2 REST
- 3 GraphQL
- 4 SPARQL

Deliverables

Linked Data Descriptions and Enriched MARC Records

- The Library catalogue is converted in linked data entities according to BIBFRAME 2.0. The entities are then enriched both with native and persistent SVDE URIs and URIs from external sources.
- MARC records from the original library catalogue are enriched both with native SVDE URIs and URIs from external sources.

Authoritative Services

- Innovative solutions that facilitate and improve authority control through automatic and manual procedures.
- Libraries to receive constantly updates on their bibliographic and authority records from authoritative sources.
- Authority Services currently available for MARC-based workflows offer automated URI enrichment, reconciliation and validation of library data.

Metadata policies



Share-VDE Open Metadata Policy

Approved by the Share-VDE Advisory Council on March 15th 2023

Share-VDE strives to encourage open access to data, and support diversity by freely sharing information. We are committed to making our metadata as open as possible to enhance the discovery of library and cultural heritage resources and allow users to repurpose metadata with clearly defined license conditions.

- Share-VDE data, including participant data hosted by Share-VDE may be used under an CC0 license unless expressly stated otherwise.
- Listed below are tenants adhering to other open data policies:
 - PCC Data Pool: [CC BY-NC 4.0](#)If using data from one of these tenants, one must attribute the source of the metadata as outlined in the appropriate policy.

Share-VDE data are hosted and maintained by supported systems, which also benefit from the network effects of a data quality community. The Share-VDE Open Metadata Policy ensures access to Share-VDE data to the wider community. The Share-VDE Open Metadata Policy does not give access to tools and services developed by the Share-VDE membership.

For further information on Share-VDE please see our [Executive Summary](#).

<https://bit.ly/SVDE-Open-Metadata-Policy>



Sapientia Entity Identification WG

The [SEI WG](#) reviews the use of entities, identifiers, and associated modelling in the Sapientia CKB; evaluates and refines processes for Sapientia entity clustering in Share-VDE and the creation of associated open and stable URI for use in Share-VDE and in the library community; reviews MARC to BIBFRAME and BIBFRAME to MARC conversion; engages with the library community to outline and/or develop best practices for use of Sapientia identifiers in BIBFRAME and MARC data.

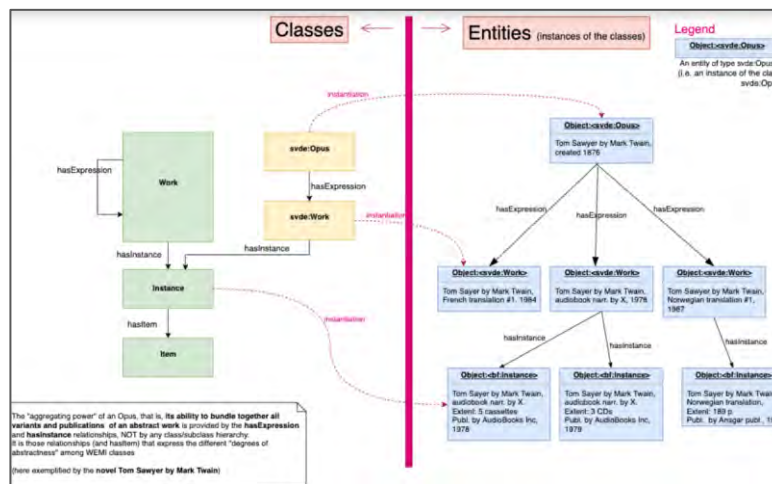
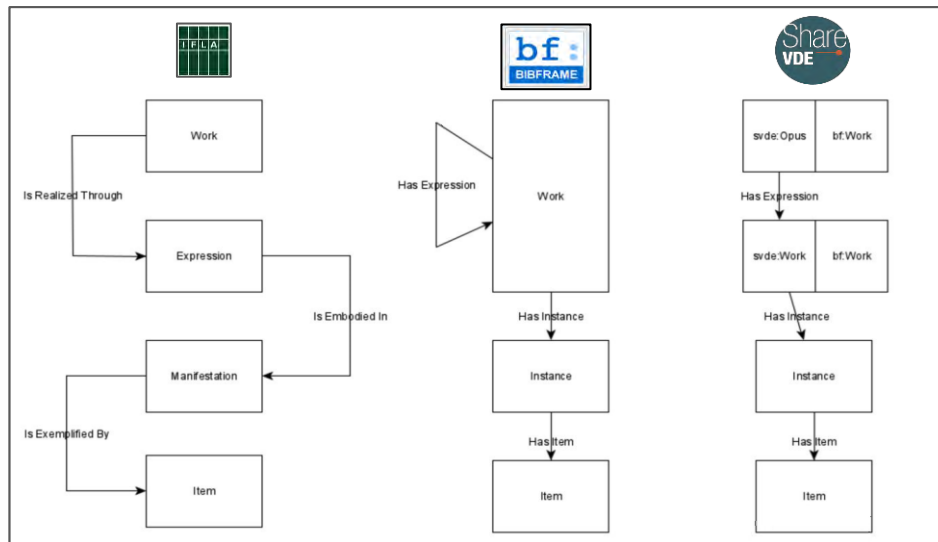
Among the latest outcomes:

- definition of the [SVDE Ontology](#); see also Jim Hahn's presentation at the [BFEW 2023](#);
- svde:Work is subclass of bf:Work → this ensures interoperability;
- review of clustering and conversion rules;
- cooperation in the IFLA context: the mapping UNIMARC-BIBFRAME is being prepared and a formal liaison with SVDE has been approved by the IFLA Bibliography Section Standing Committee.

The challenge of data models interoperability

Share-VDE Sapientia Entity Identification (SEI) Working Group decision of June 10th 2020

See the [SVDE entity model compared to BIBFRAME and IFLA-LRM](#) and an [example of application of the model](#).



Share-VDE Ontology

SVDE Ontology designed in the dedicated Sapiientia Entity Identification Working Group as an extension for BIBFRAME.

Core model:

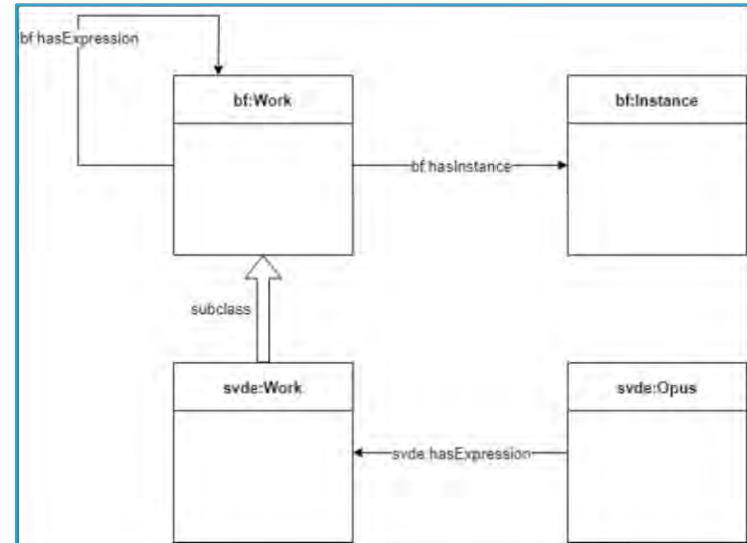
svde:Work

svde:Opus

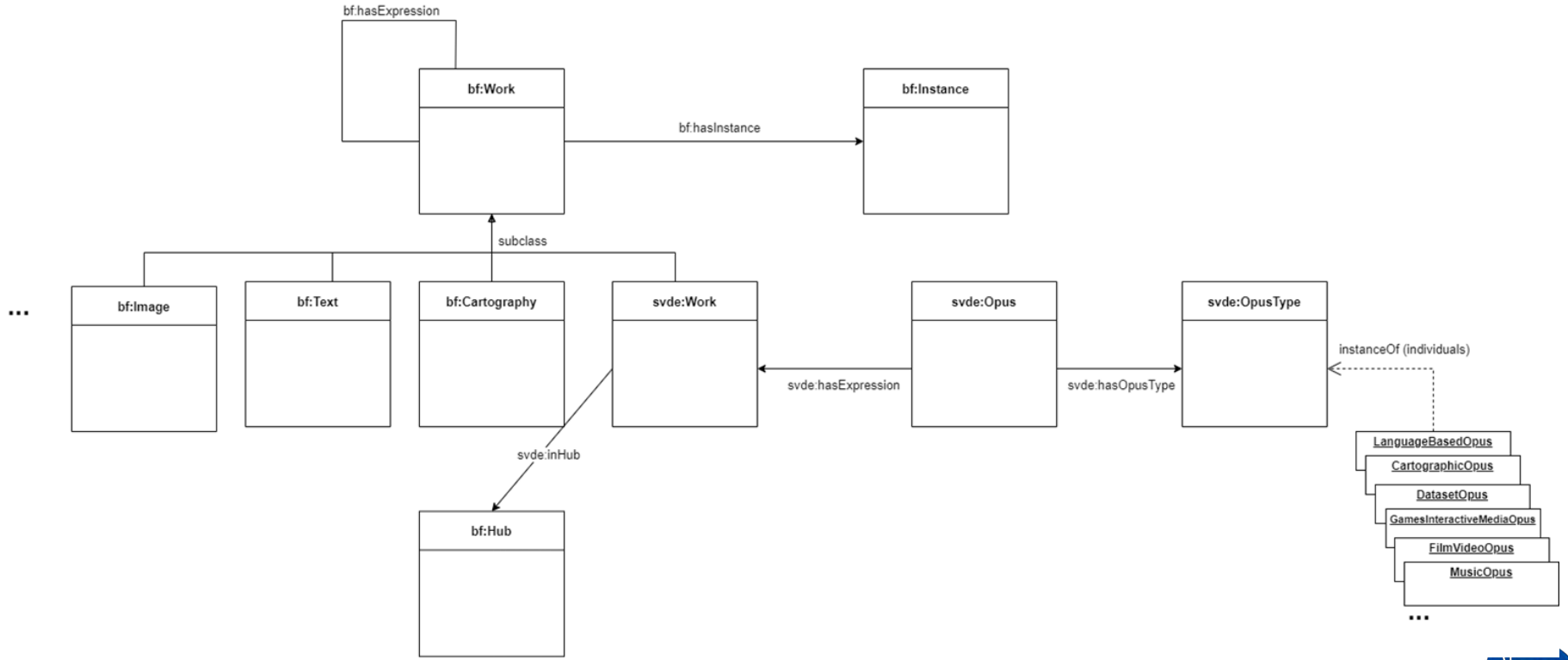
svde:hasExpression

SVDE ontology preliminary version

The Share-VDE ontology (presentation article): <https://doi.org/10.5281/zenodo.8332350>



Share-VDE Ontology model



Share-VDE Ontology re-use

While the ontology supports the discovery functionality of Share-VDE and the Share family search systems, it may be re-used in any system requiring a bridge among BIBFRAME, IFLA LRM and RDA.

Share-VDE Ontology Interoperability

The Share-VDE ontology achieves interoperability among the major bibliographic models by asserting that bibliographic entities are described by attribute sets.

The **attribute set modeling** approach is a departure from the conceptual modeling that has informed the development of nearly all modern linked data models.

Attribute set modeling

The **svde:Opus** is a parallel class to the IFLA LRM Work and the RDA Work. The set of attributes which comprise svde:Opus parallel those attributes in the IFLA LRM Work and the RDA Work.

The **svde:Work** is a subclass of the BIBFRAME Work. The set of attributes which comprise the svde:Work parallel those attributes in the IFLA-LRM Expression and the RDA Expression.

Share-VDE Ontology takeaways

Direct entity mapping of the familiar and ubiquitous conceptual approach was not utilized to achieve Share-VDE ontology concordances – rather, minimal ontological commitment is made by observing the set attributes that define an entity.

Each linked data model, be it RDA, BIBFRAME or IFLA LRM, has a useful perspective, and each of these contribute to the task of bibliographic description.

Data retention policies and item data treatment

LIBRARY LIBRARY OF CONGRESS

The Library of Congress > Linked Data Service

ID.LOC.GOV

ID.LOC.GOV provides both interactive and bibliographic description. To search every vocabulary.

Search Id.loc.gov

- Linked Data Service
- About
- Search
- Download
- Technical Center
- Contact Us
- Privacy Policy

BIBFRAME

- BIBFRAME Works
- BIBFRAME Instances
- BiBFRAME Hubs

Subjects, Thesauri, Classification

- LC Subject Headings (LCSH)
- LC Classification (LCC)
- LC Children's Subject Headings
- LC Medium of Performance Thesaurus Music (LCMPT)
- LC Demographic Group Terms (LCDGT)
- Thesaurus for Graphic Materials (TGM)
- AFS Ethnographic Thesaurus
- Subject Schemes
- Classification Schemes

Agents

- LC Name Authority File (LCNAF)
- Cultural Heritage Organizations

Genre

- LC Genre/Form Terms (LCGFT)
- MARC Genre Terms
- Genre/Form Schemes

LIBRARY LIBRARY OF CONGRESS

The Library of Congress > Linked Data Service > Preservation Vocab (all)

Search Preservation Vocab (all) GO

Search In: Preservation Vocab (all)

Preservation Schemes (all)

An umbrella scheme to collocate all the preservation vocabularies.

URI(s)

- <http://id.loc.gov/vocabulary/preservation>

Top Scheme Members

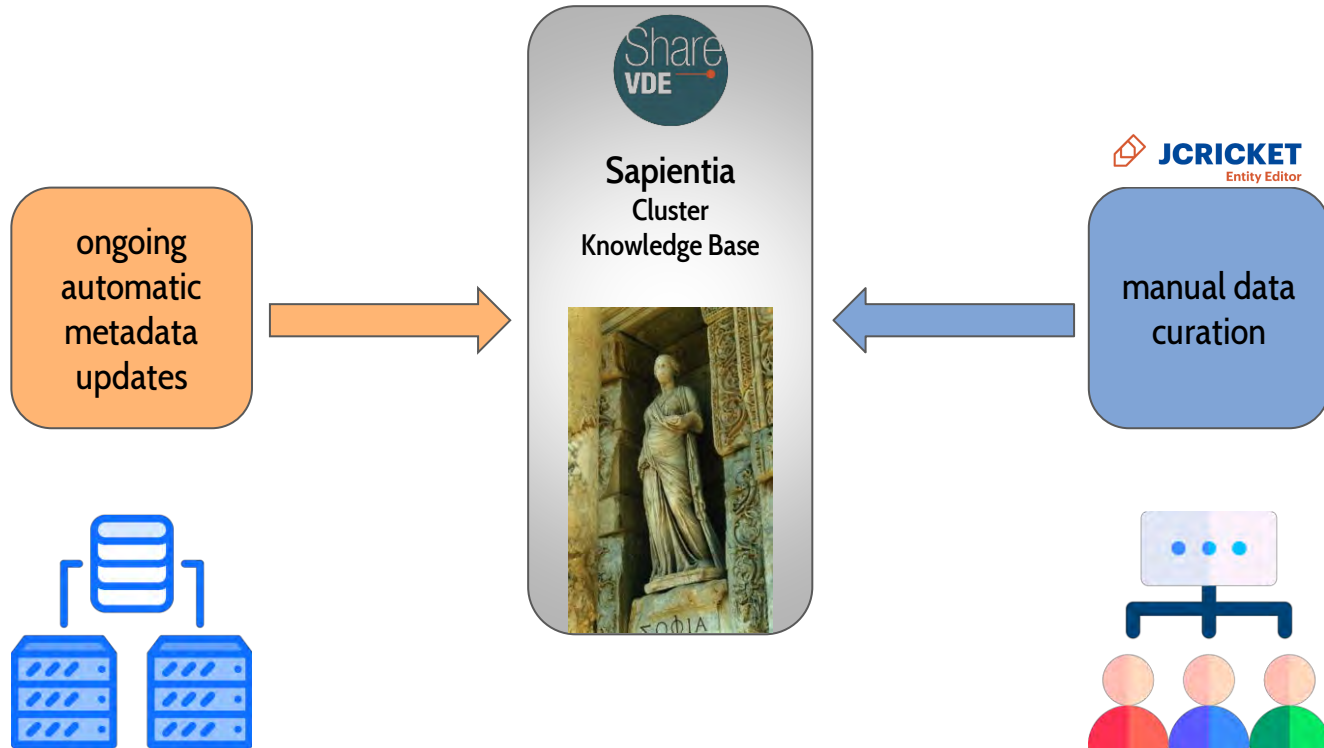
- Actions Granted (DEPRECATED)
- Agent Type
- Content Location Type
- Copyright Status
- Cryptographic Hash Functions
- Environment Characteristic
- Environment Function Type
- Environment Purpose (DEPRECATED)
- Environment Registry Role
- Event Outcome
- Event Related Agent Role
- Event Related Object Role
- Event Type
- Format Registry Role
- Hardware Type (DEPRECATED)
- Inhibitor Target (DEPRECATED)
- Inhibitor Type
- Linking Agent Role (Event) (DEPRECATED)
- Linking Environment Role
- Object Category
- Preservation Level Role
- Preservation Level Type
- Relationship Subtype



The Entity Management System



The data lake as a source of **living data**



Work together to curate your data



The JCricket editor is an example of how the LOD Platform technology, within the Share Family Linked Data Ecosystem, is pursuing a **new way of managing library cataloguing in a cooperative way**:

- ★ aggregation of data from multiple sources
- ★ managed through standard protocols (linked data)
- ★ in a collaborative and integrated environment
- ★ that makes available open data and resources
- ★ to end users and professionals (researchers, scholars etc.)
- ★ for reuse in the library community and beyond

Facing the future together



Facilitate information exchange and collaboration with other communities, cross-reference between resources



Transform catalogs in research tools providing structured access and visibility to research in original languages in all disciplines



Improve data publication, data analysis and reuse in other projects

Open up a new level of international cooperation to maintain the growing wealth of information, while preserving local practices



Serve as an authoritative data source, contribute to an ecosystem where data modeling, enrichment and sharing are handled collectively

Get involved!

Becoming part of the global Share Family means sharing data and co-operating with the greater international library community



The family continues to expand as more and more libraries worldwide embrace the opportunity to be involved in an international network of information, creating dialogue, participation and partnership

Get in touch with us to find out more about how the Share family can help your library:

info@svde.org

<https://share-family.org>

<https://wiki.svde.org/>





Thank you!

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Anna Lionetti anna.lionetti@casalini.it

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<https://svde.org>

<https://wiki.svde.org/>

<https://www.share-family.org/>