



# The Share Family initiative to bring Linked Open Data into practice

**Tiziana Possemato**

IFLA Midterm Meeting, Vatican City  
22nd March 2024

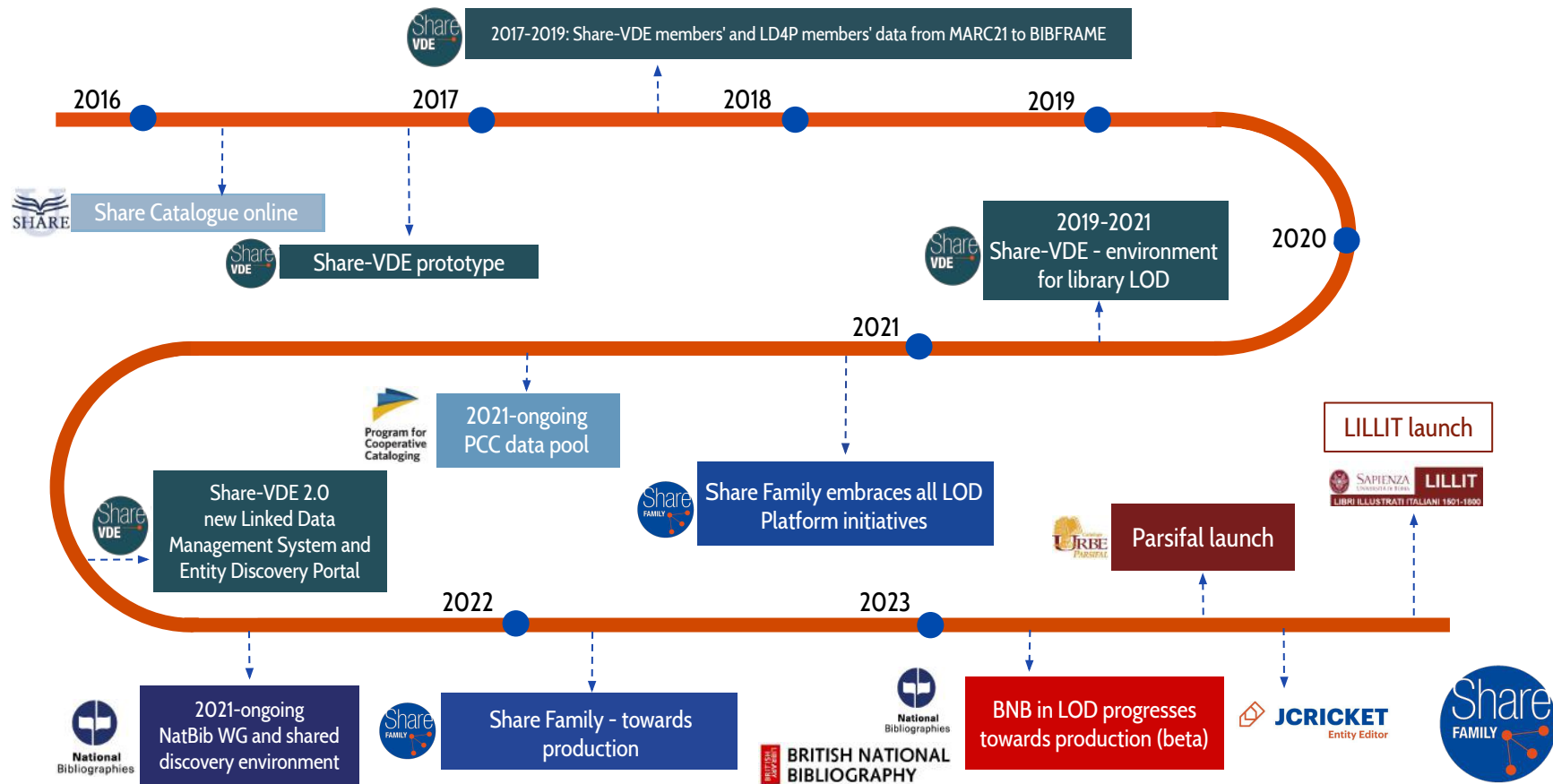
<https://www.share-family.org/>  
<https://wiki.svde.org>  
[info@svde.org](mailto:info@svde.org)

# Share-VDE background and the Share Family

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# Stepping stones



# 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

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[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

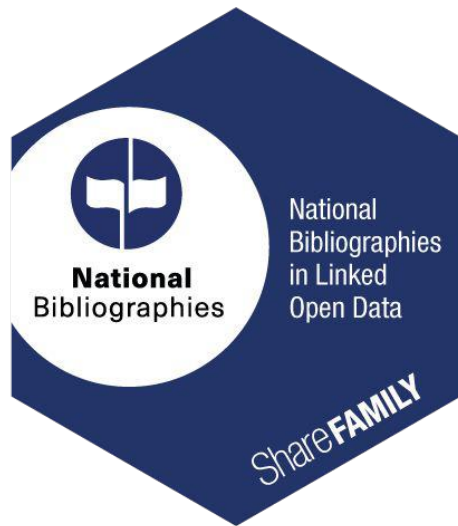
Università degli Studi di Napoli L'Orientale

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.

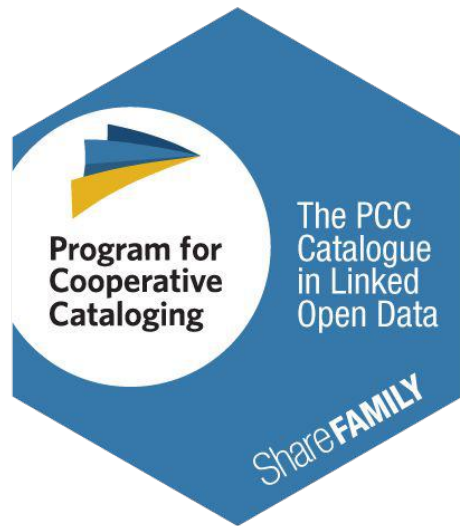


The linked open data BNB beta website is available at

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

# PCC Catalogue in Linked Open Data

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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

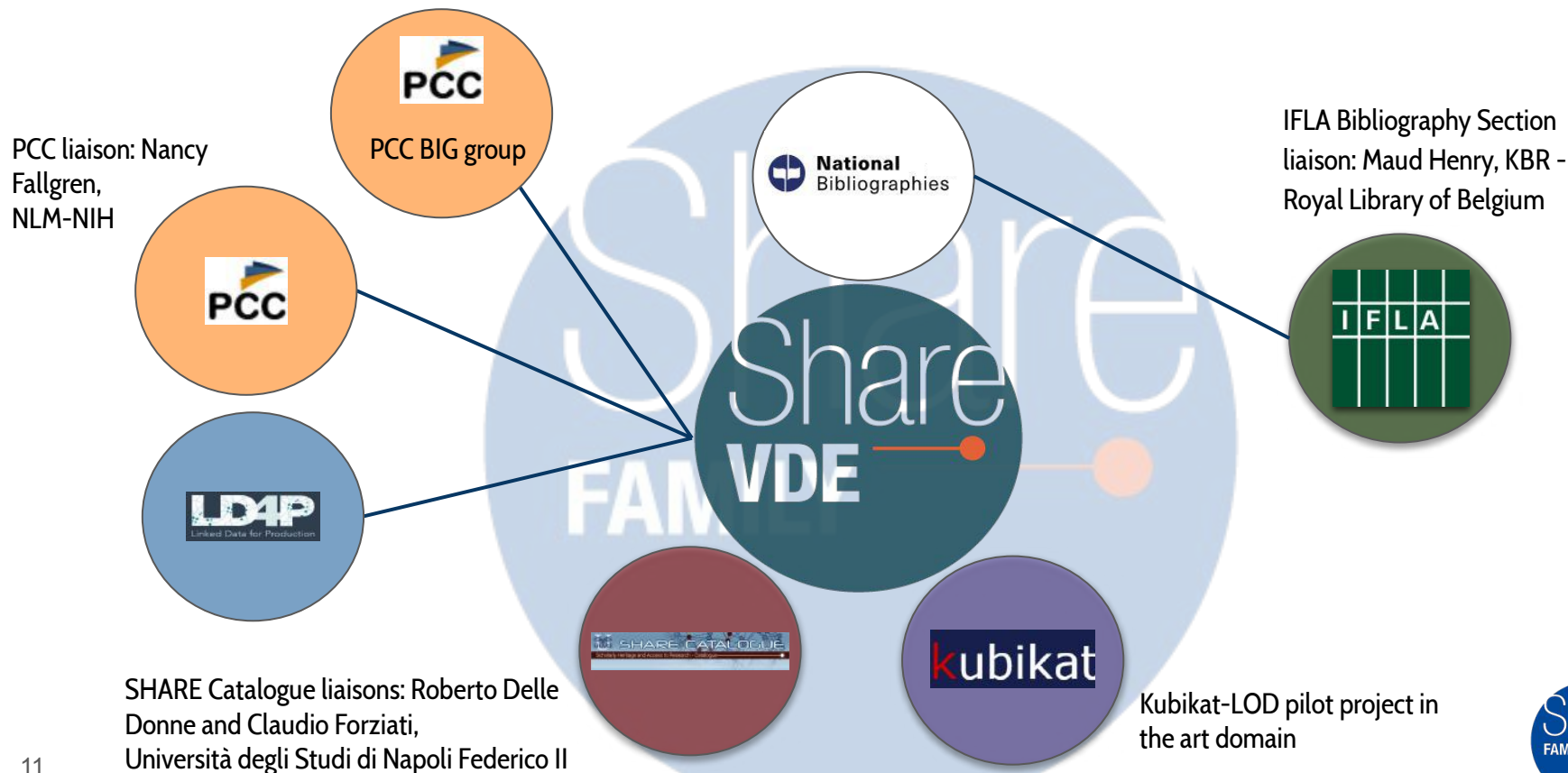
# Share Art, Share Music, Share MIA

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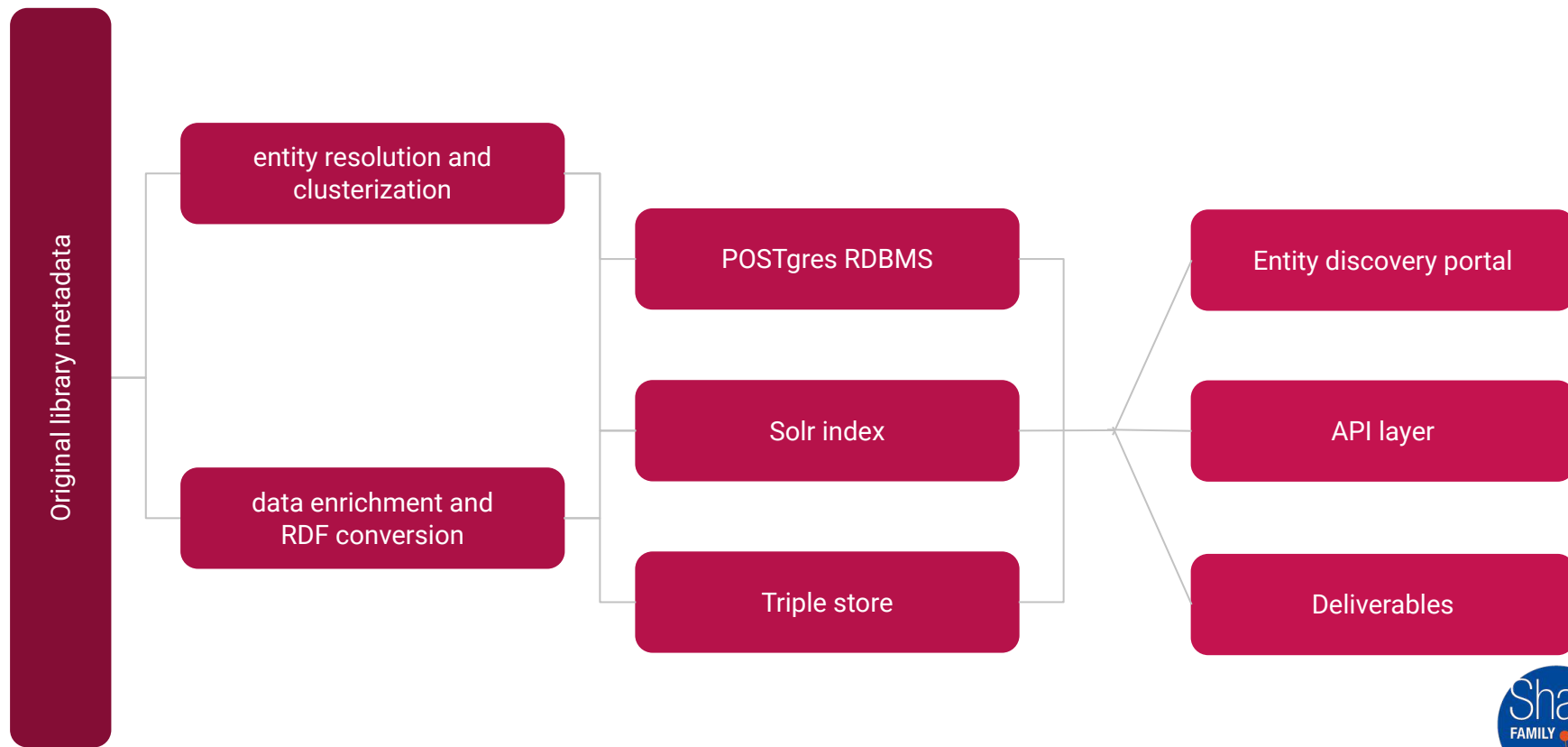


Three pilot projects for shared Linked Open Data environments in the domains of Art, Music and Manuscripts, Incunabula and Ancient books

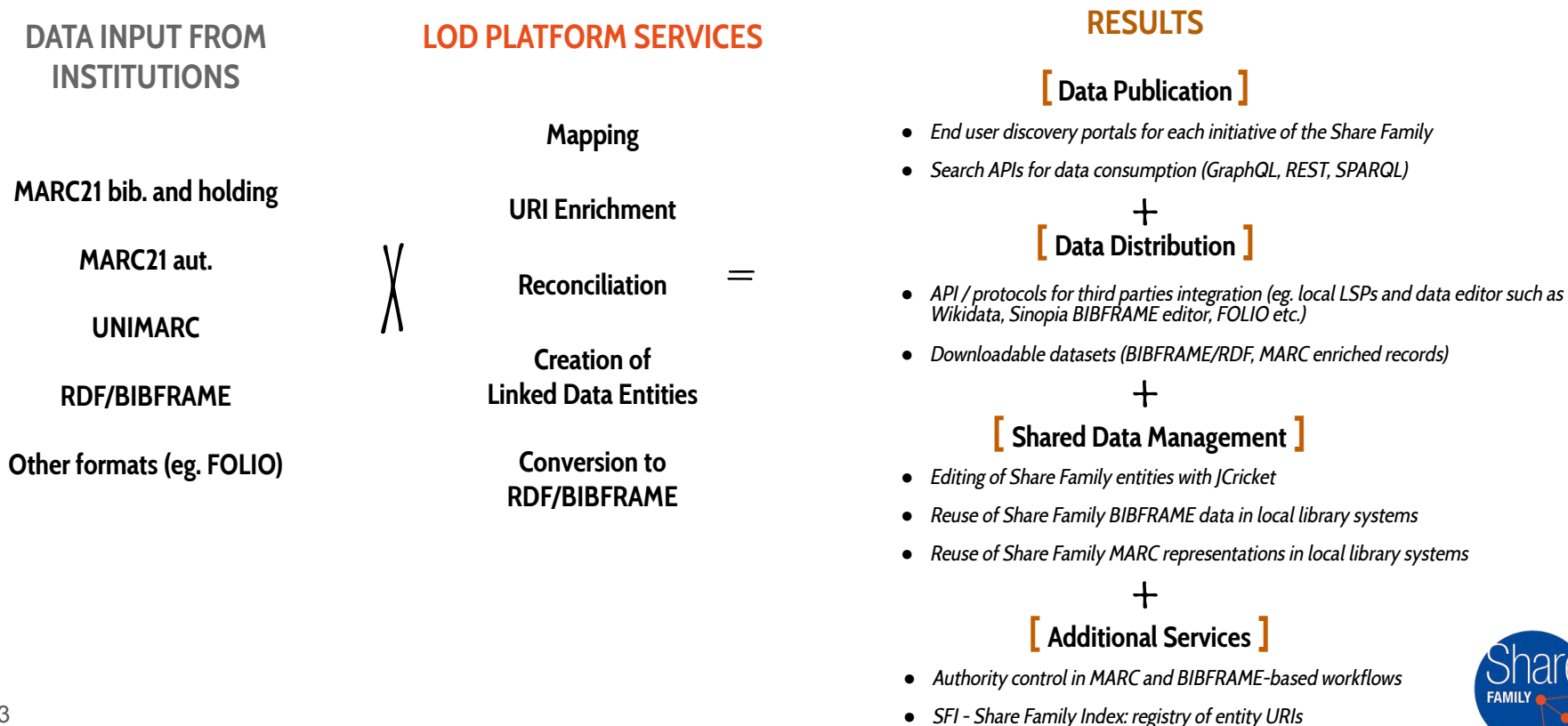
# Share Family and Share-VDE liaisons



# Metadata management and outputs



# Share-VDE and Share Family – Linked Data Ecosystem: Processes



# Entity discovery portal



Wikimedia Commons

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 ▾

Original works by Publications by Original works about

Moby Dick

X

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"><li>Herman Melville (author)</li><li>A. Grove Day (other)</li><li>Jay Leyda (other)</li><li>Robert A. Sandberg (editor)</li><li>Alma A. MacDougall (editor)</li><li>Raymond M. Weaver (other)</li><li>Harrison Hayford (other)</li><li>Howard C. Horsford (other)</li><li>Lynn Horth (other)</li><li>G. Thomas Tanselle (editor)</li></ul>
2	Aspects of whiteness		Cantatas	<ul style="list-style-type: none"><li>John McCabe (author)</li><li>Herman Melville (other)</li></ul>

Herman Melville in Share-VDE, with works by him, publications, works about him



# Entity discovery portal

ShareVDE BETA

Search all content...

Options

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](#), [Vardensbiblioteket](#), [Kunstforlaget's illustrerte klassikere](#), [Lommelydbok. Klassiker](#), [Berømte klassikere fra Ex libris](#), [Purân pada esô p'yôich'yô chinûn kkum kwa pahôm](#), [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](#), [Azбука-классика](#), [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 cang 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

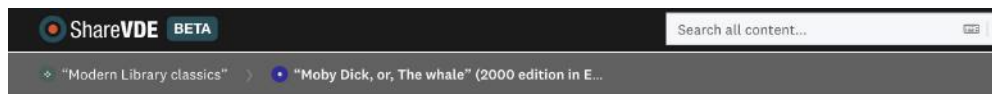
Wikimedia Commons

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

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](mailto:info@svde.org) for any additional information.

### Contents [hide]

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

# Deliverables

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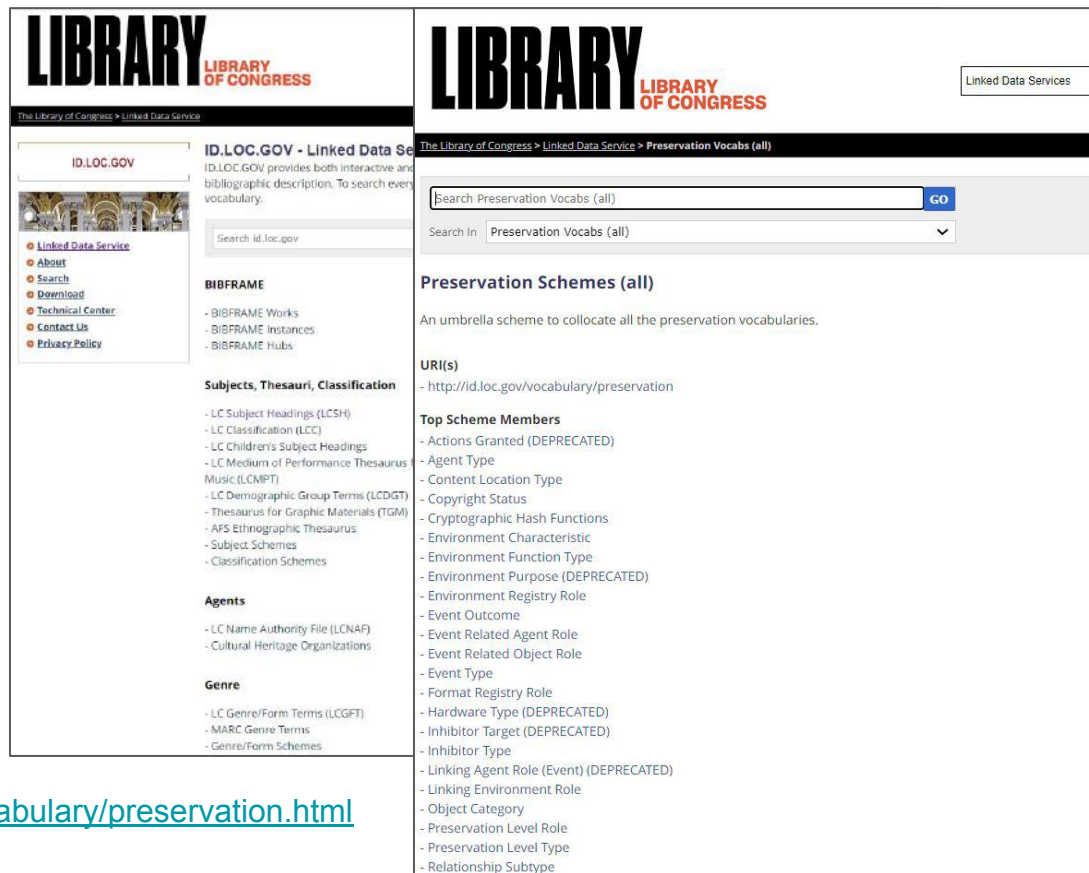
## Linked Data Descriptions and Enriched MARC Records

- 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.

# 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

Linked Data Services

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

# Metadata policies



## Share-VDE Open Metadata Policy

Approved by the Share-VDE Advisory Council on March 15<sup>th</sup> 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>



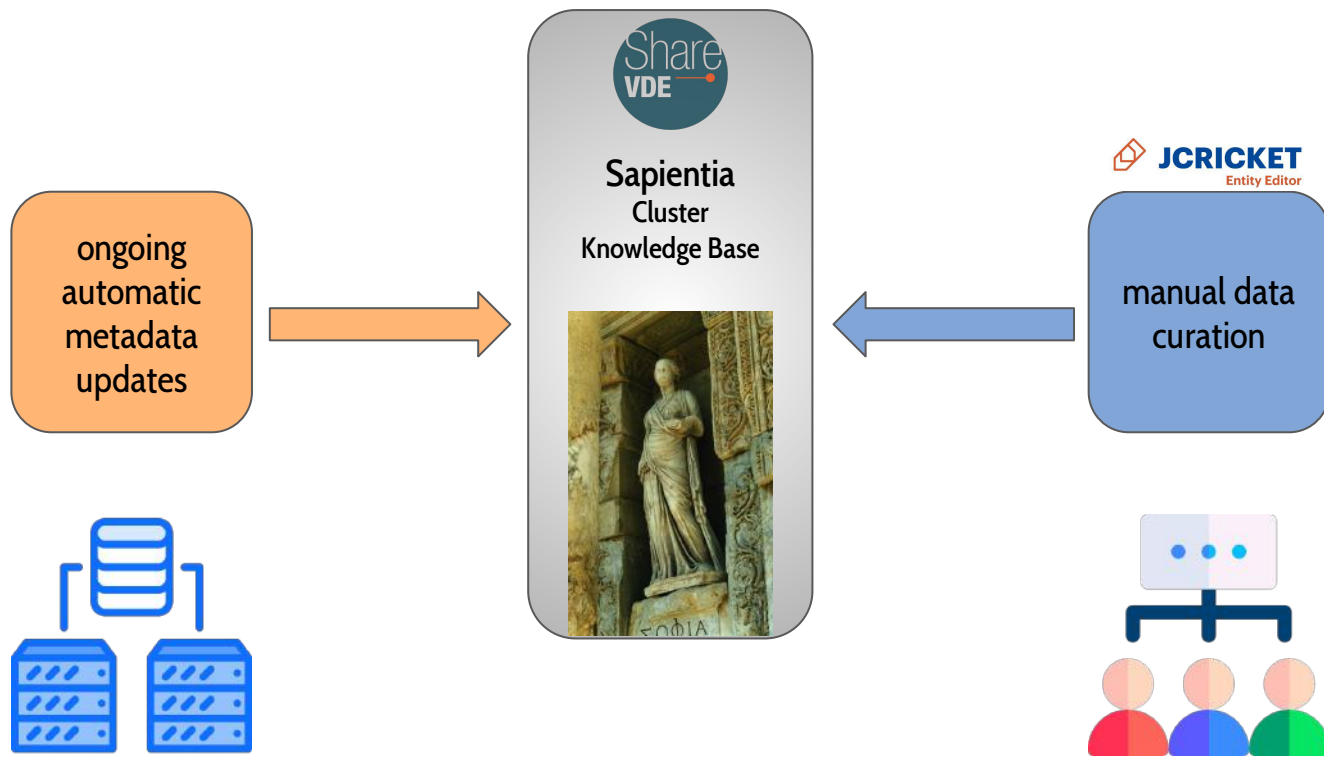


# The Entity Management System

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



The screenshot shows the JCricket UI interface. On the left, there's a sidebar with 'Overview' and 'Lewis Carroll' sections. The main area displays the 'Basic info' tab for 'Lewis Carroll'. The 'Agent type' field is set to 'Person' with a URL. The 'Name' field is set to 'Carroll, Lewis'. The 'Birth year' field is empty. A yellow callout box points to the 'Person' field with the text 'Step 3: Click on the edit action and enter the JCricket UI'.

## Step 2: Enter the entity details page

**Step 3: Click on the edit action and enter the |Cricket UI**



# Work together to take care of your data

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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



# Share-VDE and Share Family – Linked Data Ecosystem: Principles



## CO-OPERATIVE

Cooperation is the founding principle of the initiative. The community of experts meets regularly to discuss theories and practices of the application of semantic web technologies, and to study and create new cooperative tools.



## INTEROPERABLE

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



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

The Share initiative aims to encourage free access to data and supports diversity by sharing information freely. Libraries implement and support open metadata policies as part of their efforts to improve the discovery of library resources and cultural heritage.

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



## SUSTAINABLE



## OPEN



## AUTHORITATIVE





Thank you!

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