



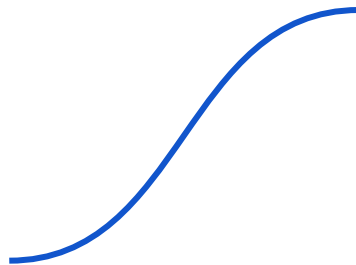
Tiziana Possemato
@Cult - Casalini Libri

Linking entities for connecting content

Facilities of linked open data



Linked
Data
Environment



*WHY
&
WHAT*

Knowledge is shared by member libraries

Why Share...



supports libraries, archives and museums in the transition from traditional cataloging environments to innovative models based on entity management



exploits the potential of linked open data to connect and present library information in enriched, integrated and dynamic ways



improves visibility of all resources, including those that may previously have remained hidden in a traditional catalogue

Knowledge is shared by member libraries

Why Share...



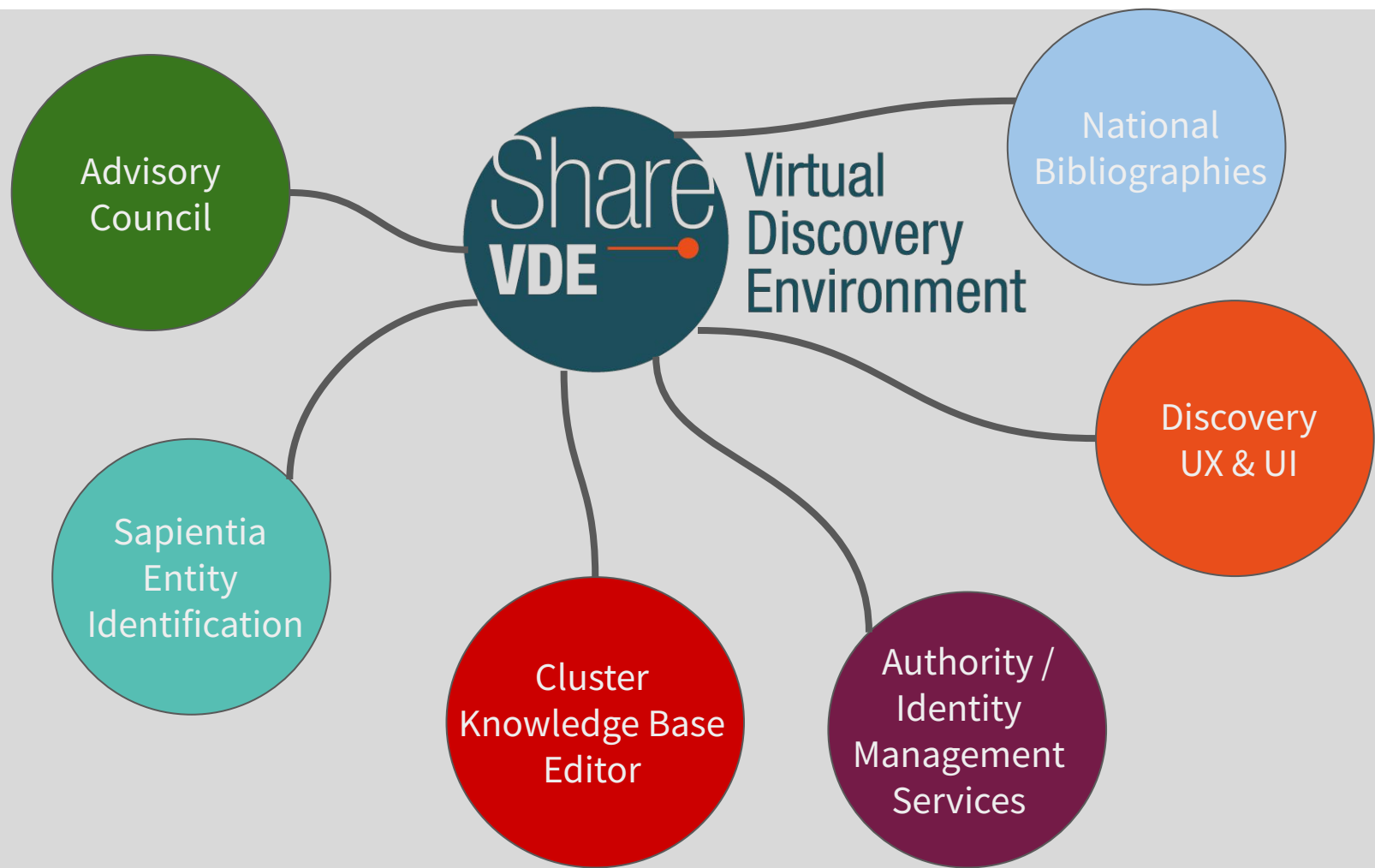
Establishes a library-driven initiative steered by member institutions, to share knowledge, experience and skills



provides librarians and information professionals with advanced tools that allow direct interaction with data, extending and enhancing metadata services, that can be provided locally or in a shared environment



enables libraries, archives and museums to keep pace with web technology as it evolves



The options for your library

Share Family Components

LOD Platform Technology



TECHNOLOGY

Advanced API layer

- GraphQL technology with advanced architecture and search API layer

TECHNOLOGY

Advanced entity model

- Advanced 4-layered entity model, based on BIBFRAME 2.0 and interoperable with multiple schemes (BIBFRAME, IFLA-LRM etc.)

TECHNOLOGY

Tenant infrastructure

- Data of member libraries are grouped by domain or similar characteristics in ad hoc tenants
- Suitable for library consortia willing to renovate their union catalogue

SERVICE

Triple store indexing

- Linked data descriptions created from the original MARC records and the clusters of entities in the CKB are published on a triple store and can be queried through SPARQL endpoint

SERVICE

Integration with other systems

- Development of APIs for interoperability and cooperation with third parties (e.g. LD4P - Linked Data for Production)

SERVICE

Authority services

- New generation of services for authority control
- Combination of automated and manual checks of data quality
- Creation of authority records

APPLICATION

J.Cricket Editor

- J.Cricket editor for updating and modifying linked data entities

APPLICATION

Discovery Portal 1.0

- Interface for the standard discovery system

APPLICATION

Discovery Portal 2.0

- Advanced entity discovery system based on BIBFRAME
- Customised UI (skin)
- Integration with local APIs
- Site mapping with additional meta-tagging
- Data conversion to Schema.org

DATA

Deliverable D1

- The library catalogue is converted according to BIBFRAME 2.0 (including additional vocabularies and ontologies as needed)
- The linked data descriptions created in the conversion are reconciled and linked to original Share URIs, and published on the discovery portal

DATA

Deliverable D2

- The library receives the file from the Cluster Knowledge Base with the clusters of linked data entities including original Share URIs, URIs from external sources and variant forms
- The data from the Cluster Knowledge Base is published on the discovery portal and on the triple store

DATA

Deliverable D3

- The original library records are converted to BIBFRAME 2.0 (including other vocabularies and ontologies as needed), enriched with URIs from external sources and delivered to the library

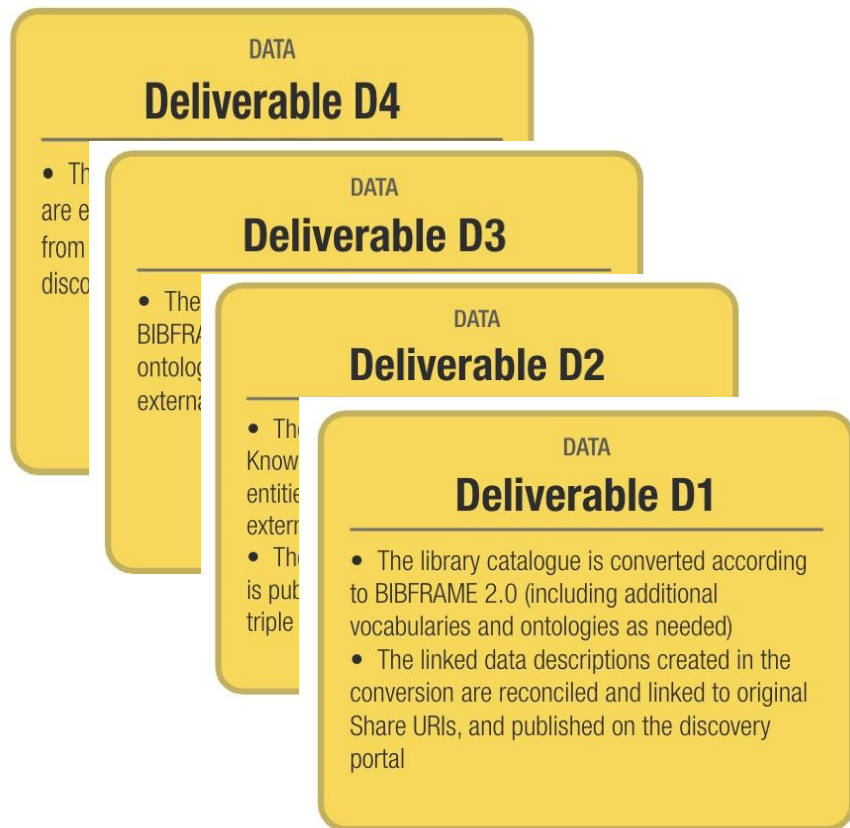
DATA

Deliverable D4

- The MARC records from the library catalogue are enriched with original Share URIs and URIs from external sources, and published on the discovery portal



Deliverables

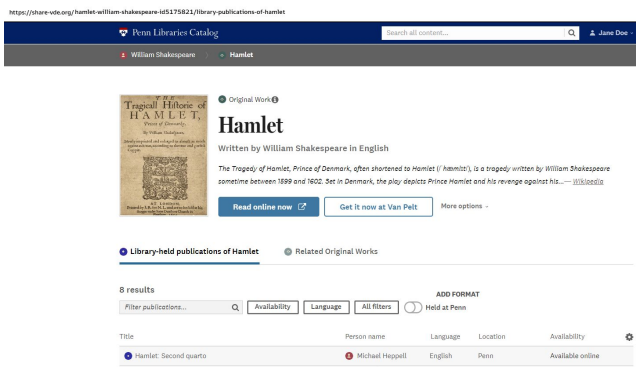


Data, enriched with information (URIs and values) from external authoritative sources and converted following the BIBFRAME data model, are available for the publication on the Share portal and for other library projects, both in Marc 21 enriched and in RDF.

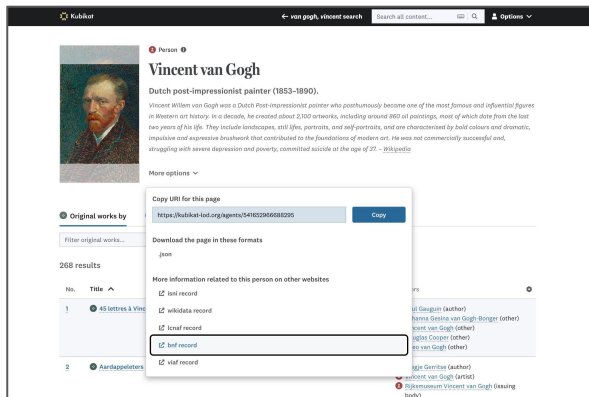
Data can be enriched with specific sources selected by each library, following their special and local needs

Entity Discovery Portal

SVDE 2.0 is supported by entity-based presentation layer reflecting BIBFRAME and the ad hoc SVDE extensions. The user experience is highly improved, hiding complexity to the end users



Each library can choose its own skin, to present a personalized image of its profile and its services, extending the functionality of the Portal from the shared environment to the local context

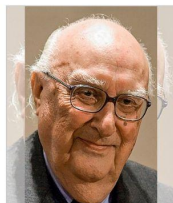


APPLICATION Discovery Portal 2.0

- Advanced entity discovery system based on BIBFRAME
- Customised UI (skin)
- Integration with local APIs
- Site mapping with additional meta-tagging
- Data conversion to Schema.org



Share portal - The entity based portal to consume linked data



Wikimedia

Person ⓘ

Andrea Camilleri

Italian writer. Born in 1925 in Porto Empedocle (Italy). Died in 2019 in Rome (Italy).

Andrea Calogero Camilleri was an Italian writer. - [Wikipedia](#)

More options ▾

Original works by

Publications by

Original works about

Filter original works... 🔍

Year

Creator

Genre

196 results

| No. | Title | Year | Genre | Creators |
|-----|---|------|---------------------------|---|
| 1 | Rete di protezione | | Fiction/Novel | Andrea Camilleri (author) |
| 2 | Novels | | Fiction/Novel | Andrea Camilleri (author) Salvatore S. Nigro (other) |
| 3 | Forma del acqua | | Fiction | Andrea Camilleri (author) |
| 4 | Essays. Selections | | | Andrea Camilleri (author) Lucio Caracciolo (editor) |
| 5 | Arlecchino o della sinistra | | | Andrea Camilleri (author) |
| 6 | Età del dubbio | | Fiction/Novel | Andrea Camilleri (author) Stephen Sartarelli (other) |
| 7 | Memoirs. Selections | | Autobiographies/Biography | Andrea Camilleri (author) |

<https://www.svde.org/andrea-camilleri-a891654264096406/original-works-by>



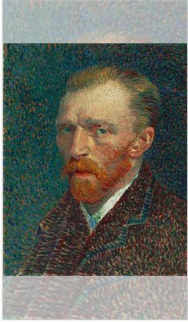
Entity Discovery: the value of external sources to enrich data

Kubikat

← van gogh, vincent search

Search all content...

Options



Person

Vincent van Gogh

Dutch post-impressionist painter (1853–1890).

Vincent Willem van Gogh was a Dutch Post-Impressionist painter who posthumously became one of the most famous and influential figures in Western art history. In a decade, he created about 2,100 artworks, including around 860 oil paintings, most of which date from the last two years of his life. They include landscapes, still lifes, portraits, and self-portraits, and are characterised by bold colours and dramatic, impulsive and expressive brushwork that contributed to the foundations of modern art. He was not commercially successful and, struggling with severe depression and poverty, committed suicide at the age of 37. – Wikipedia

More options

Original works by

Filter original works...

268 results

| No. | Title |
|-----|-------------------|
| 1 | 45 lettres à Vinc |
| 2 | Aardappeleters |

Copy URI for this page

<https://kubikat-lod.org/agents/541652966688295>

Copy

Download the page in these formats

[.json](#)

More information related to this person on other websites

[Isni record](#)

[wikidata record](#)

[Icnaf record](#)

[bnf record](#)

[viaf record](#)

ul Gauguin (author)

hanna Gesina van Gogh-Bonger (other)

vincent van Gogh (other)

uglas Cooper (other)

eo van Gogh (other)

egje Gerritse (author)

vincent van Gogh (artist)

Rijksmuseum Vincent van Gogh (issuing body)

Share portal - The *skin* to enhance the *identity* of the single library



Wikimedia

Person ⓘ

Ian McEwan


British author. Born in 1948 in Aldershot (England).

Ian Russell McEwan, is an English novelist and screenwriter. In 2008, *The Times* featured him on its list of "The 50 greatest British writers since 1945" and *The Daily Telegraph* ranked him number 19 in its list of the "100 most powerful people in British culture". – [Wikipedia](#)

More options ▾

<https://bl.natbib-lod.org/ian-mcewan-a771652950542530/original-works-by>

Original works by • Publications by • Original works about

Filter original works... 

Creator

Genre

33 results

| No. | Title | Year | Genre | Creators | ⚙ |
|-----|------------------------|------|-----------------------|---|---|
| 1 | Essays. Selections | | Fiction/Novel |  Ian McEwan (author) | |
| 2 | First love, last rites | | Fiction/Short stories |  Ian McEwan (author) | |
| 3 | Amsterdam | | Fiction/Novel |  Ian McEwan (author) | |
| 4 | Child in time | | Fiction/Novel |  Ian McEwan (author) | |
| 5 | Other minds | | Fiction |  Ian McEwan (author) | |
| 6 | Soursweet | | Drama |  Ian McEwan (author) | |



 CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web CoaxialLibri Authority Services Web

-
- CoaxialLibri Authority Services Web

Cooperation & Interoperability

Cooperation and interoperability are key to Share technology: the use and the reuse of data, tools, ideas maximizes results and minimizes efforts

Tools and protocols are being set-up for third parties' usage and data harvesting, including OAI-PMH, Atom feeds and Activity stream

SERVICE

Integration with other systems

- Development of APIs for interoperability and cooperation with third parties (e.g. LD4P - Linked Data for Production)

Triple store publication - an open query endpoint

SVDE data are open, and usable through an open endpoint to retrieve them in RDF format through SPARQL queries

SERVICE

Triple store indexing

- Linked data descriptions created from the original MARC records and the clusters of entities in the CKB are published on a triple store and can be queried through SPARQL endpoint

```
<http://id.loc.gov/vocabulary/mstatus/c> <http://www.w3.org/2000/01/rdf-schema#label> "changed" <https://svde.org/agents/UPENN> .
<https://svde.org/AdminMetadata/upenn9916551383503681>
<http://id.loc.gov/ontologies/bflc/encodingLevel> <http://id.loc.gov/vocabulary/menclvl/f>
<https://svde.org/agents/UPENN> .
<http://id.loc.gov/vocabulary/menclvl/f> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://id.loc.gov/ontologies/bflc/EncodingLevel>
<https://svde.org/agents/UPENN> .
<http://id.loc.gov/vocabulary/menclvl/f> <http://www.w3.org/2000/01/rdf-schema#label> "full" <https://svde.org/agents/UPENN> .
<https://svde.org/AdminMetadata/upenn9916551383503681>
<http://id.loc.gov/ontologies/bibframe/descriptionConventions>
<http://id.loc.gov/vocabulary/descriptionConventions/aacr>
<https://svde.org/agents/UPENN> .
<http://id.loc.gov/vocabulary/descriptionConventions/aacr>
<http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
<http://id.loc.gov/ontologies/bibframe/DescriptionConventions>
<https://svde.org/agents/UPENN> .
<http://id.loc.gov/vocabulary/descriptionConventions/aacr>
<http://id.loc.gov/ontologies/bibframe/code> "aacr" <https://svde.org/agents/UPENN> .
<https://svde.org/AdminMetadata/upenn9916551383503681>
<http://id.loc.gov/ontologies/bibframe/identifiedBy>
<https://svde.org/UPENN9916551383503681_Local_001/83d25d24-2db9-4d7a-868e-8d7d11827a4b> <https://svde.org/agents/UPENN> .
<https://svde.org/UPENN9916551383503681_Local_001/83d25d24-2db9-4d7a-868e-8d7d11827a4b> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
```

The core of SVDE integrated catalogue, ie. the Cluster Knowledge Base of linked data entities created from SVDE institutions' data, is published on a public query interface



Advanced API layer - Easily use our data!

SVDE 2.0 back-end infrastructure leverages an advanced API layer orchestrating queries to SVDE data from the web discovery portal and from machine to machine applications

The API layer is designed to respond to the increasingly complex search logic, the update to the entity model and the enhancement to the Cluster Knowledge Base

- Two API protocols: GraphQL API and REST API
- All Share-VDE entities are exposed through (read-only) API
- Search API provide several shapes / context behaviour (e.g. simple, advanced search, partial or full match, exact matches suggestions, terms modifiers, results explanation)
- Three query languages: TermsQL, SVDEQL, StructQL



Tenant infrastructure - Community and autonomy

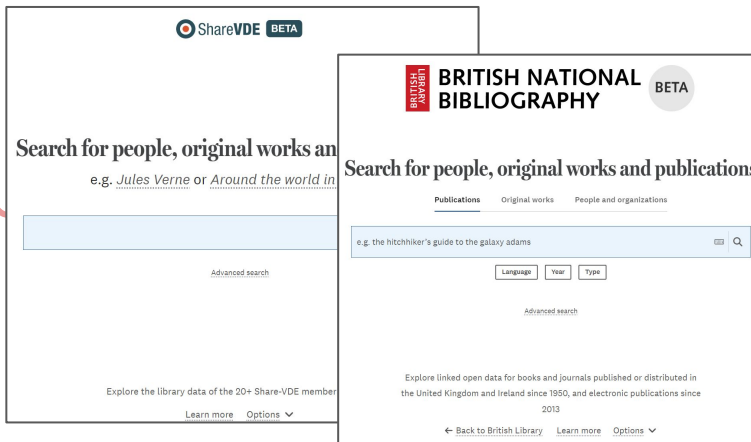
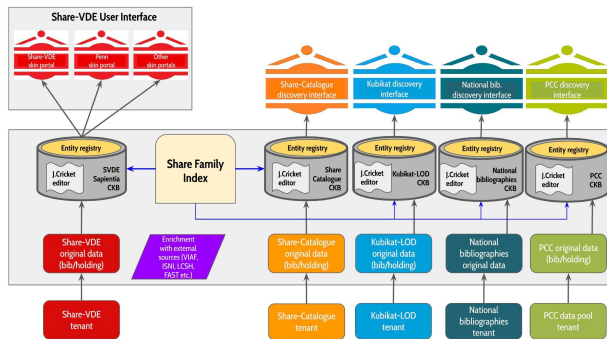
TECHNOLOGY

Tenant infrastructure

- Data of member libraries are grouped by domain or similar characteristics in ad hoc tenants
- Suitable for library consortia willing to renovate their union catalogue

The Share Family community includes different branches and sister projects, supported by the same technology. Each branch is hosted in a specific tenant of the system, ie. a group of institutions contributing to the same data pool.

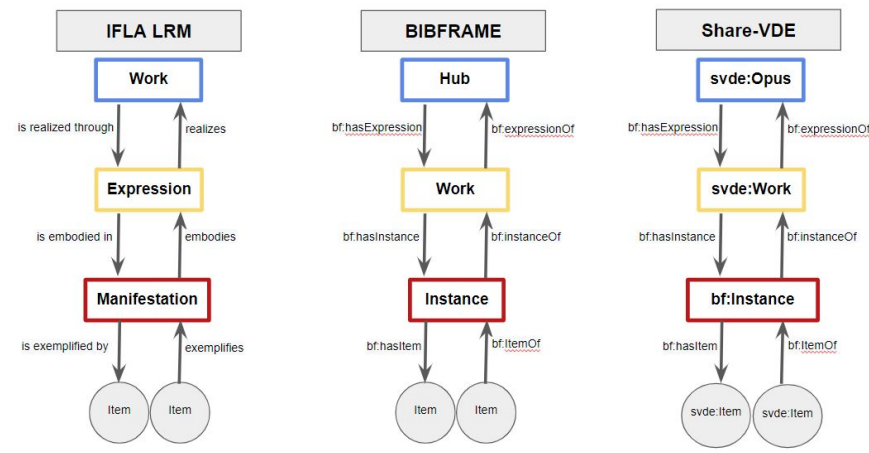
This structure ensures autonomy of approach to data management for each tenant, but also cooperation, because all tenants are connected as part of the same “family”, and long term sustainability.



Interoperable entity model

The approach to the SVDE entity model is to make it as much interoperable as possible, to facilitate data exchange with other systems.

It is based on BIBFRAME ontology, with ad hoc extensions to support interaction with IFLA LRM-based models.

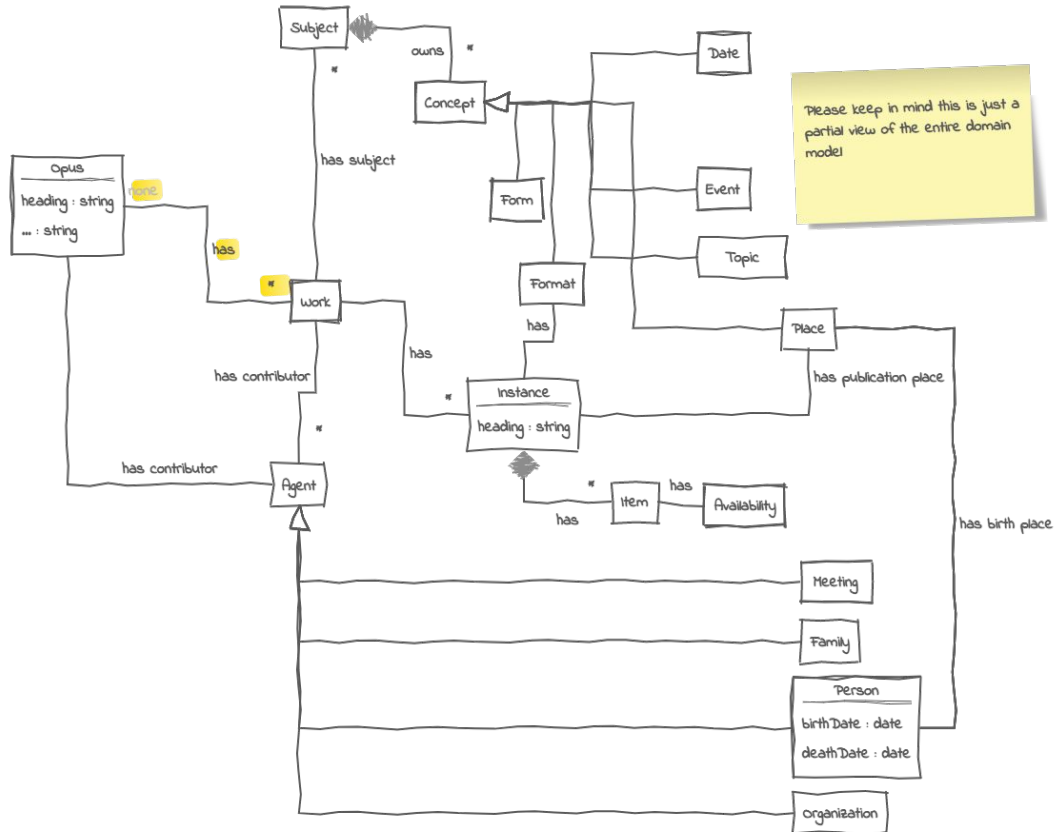


TECHNOLOGY

Advanced entity model

- Advanced 4-layered entity model, based on BIBFRAME 2.0 and interoperable with multiple schemes (BIBFRAME, IFLA-LRM etc.)

Share-VDE: the Domain Model



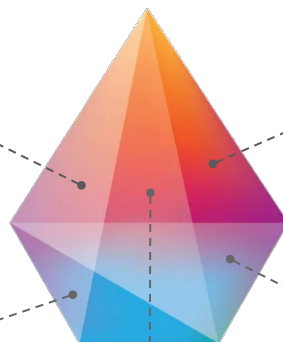
The Entity as a “Prism”




Share-VDE Cluster: the Prism

| | |
|--|---|
|  UNIVERSITY OF ALBERTA LIBRARY | |
| title | Alice in wonderland |
| titleAlternative | Alice's adventures under ground |
| author | https://svde.org/people/201 |

| | |
|---|---|
|  Stanford | |
| title | Alice in wonderland |
| titleAlternative | Alice's adventures under ground |
| author | https://svde.org/people/201 |

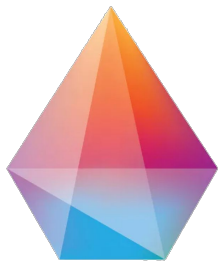





| | |
|--|---------------------|
|  LIBRARY LIBRARY OF CONGRESS | |
| title | Alice in wonderland |

| | |
|---|---|
|  National Library of Norway | |
| title | Alice's adventures under ground |
| titleAlternative | Journeys in Wonderland |
| author | https://svde.org/people/201 |

| | | |
|--|---|----------|
|  (links) | | |
| sameAs | http://dbpedia.org/resource/Alice&#39;s_Adventures_in_Wonderland | Dbpedia |
| sameAs | https://www.wikidata.org/wiki/Q189875 | Wikidata |
| sameAs | https://data.bnf.fr/ark:/12148/cb358500385#about | bnf |

Properties: Attributes, Relationships, Links





| Name | Value | Provenance |
|------------------|---------------------------------|---|
| title | Alice in wonderland |  LIBRARY OF CONGRESS  Stanford |
| titleAlternative | Alice's adventures under ground |  LIBRARY OF CONGRESS |
| titleAlternative | Journeys in Wonderland |  National Library of Norway |

An attribute is a data property, having a literal as value

| | | |
|---|---|----------|
|  | | |
| sameAs | http://dbpedia.org/resource/Alice&#39;s_Adventures_in_Wonderland | Dbpedia |
| sameAs | https://www.wikidata.org/wiki/Q189875 | Wikidata |
| sameAs | https://data.bnf.fr/ark:/12148/cb358500385#about | bnf |

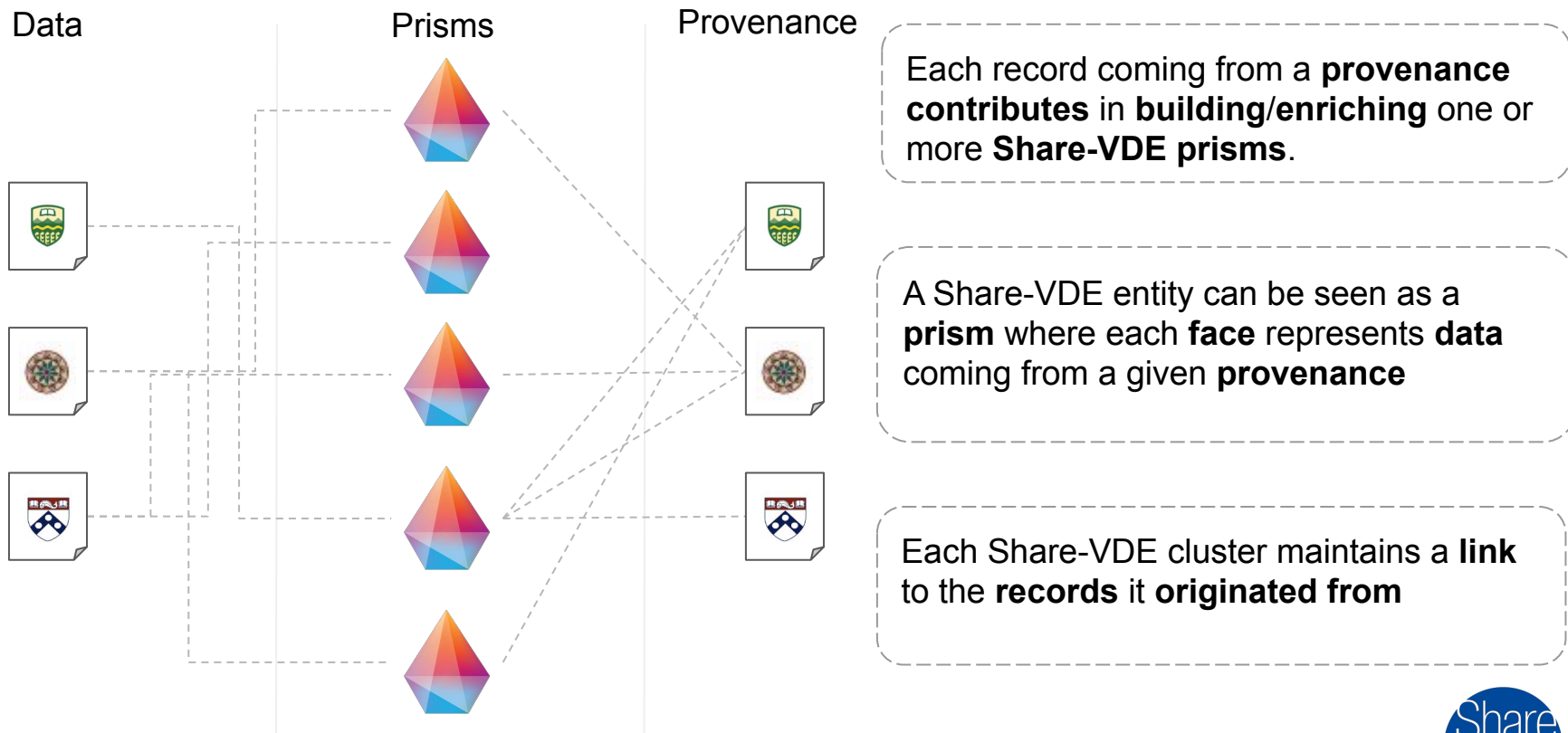
A link is a connection between a Share-VDE Prism and an external reference

| Name | Provenance |
|--------|--|
| author |  LIBRARY OF CONGRESS  Stanford |

A relationship is a connection between two Share-VDE Prisms

| Name | Value | Provenance |
|-----------------|---------------------------|--|
| name | Carroll, Lewis |  LIBRARY OF CONGRESS  Stanford |
| nameAlternative | Dodgson, Charles Lutwidge |  LIBRARY OF CONGRESS  Stanford |
| nameAlternative | Karol, Luis |  National Library of Norway |

Prism: Record-Level Provenance



Sapientia Edit API: JCricket



JCricket Editor - The Entity Management System

JCricket is an entity editor that carries out the transition from Marc to a real Entity Management System.

JCricket acts on the entity database (CKB) created through Entity Resolution and clustering processes

"The more the merrier" it's a perfect vision in a collaborative community. But each library has also local needs: the architecture of J.Cricket allows to operate locally or centrally, creating a collaborative group that does not forget local specificities.

APPLICATION

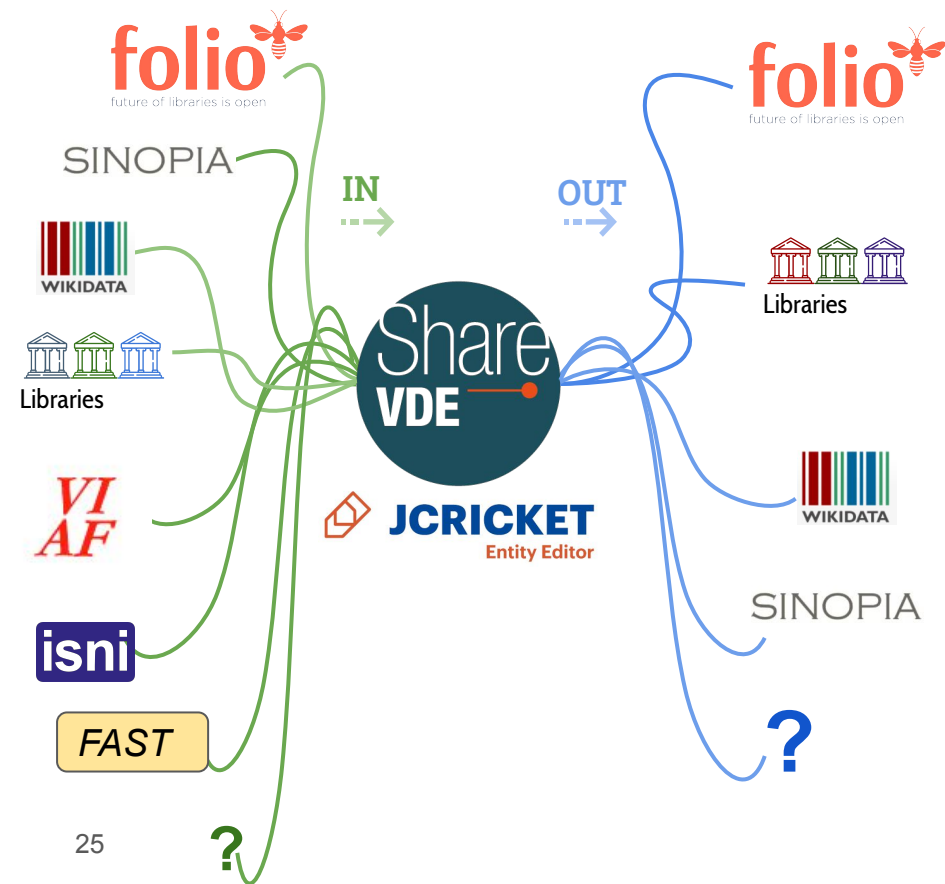
J.Cricket Editor

- J.Cricket editor for updating and modifying linked data entities

The screenshot displays the JCricket Editor interface. The top window, titled 'Edit: "Isaiah Thomas" - Share-VDE', shows a 'Share-VDE' header with a search bar and a 'Manual review needed' message. Below is a profile for 'Isaiah Thomas' with a placeholder image. The 'Cluster metadata' section contains a table with columns: Source, ID, Name, Born, Died, Confidence. The table lists three entries for Isaiah Thomas from sources OCLC, VIAF, and LC. The 'Connected external IDs' section shows a list of external IDs for Isaiah Thomas, including Wikidata (Q5532233) and Wikidata (Q5532233). A 'Done' button is at the bottom.

| Source | ID | Name | Born | Died | Confidence |
|--------|----------|---------------|------|------|----------------|
| OCLC | Q5532233 | Isaiah Thomas | 1989 | | Manually added |
| VIAF | Q5532233 | Isaiah Thomas | 1989 | | Automatic |
| LC | Q5532233 | Isaiah Thomas | 1989 | | Automatic |

Share-VDE: Share Virtual Discovery Environment



In a Nutshell

Share-Virtual Discovery Environment is a **library-driven** initiative which brings together, in a shared discovery environment, the **bibliographic catalogues** and **authority files** of a growing number of leading **academic** and **national libraries** from across **North America** and **Europe**.



The Big Picture: from Genesis to Edit

Data flows into Share-VDE from libraries, institutions and third-party sources (e.g. VIAF, ISNI, FAST)

The Share-VDE knowledge base (**Sapientia**) contains the integrated/clustered/enriched entities.

Data is mainly edited through JCricket, the Share-VDE entity editor.

Edit API

JCRICKET
Entity Editor

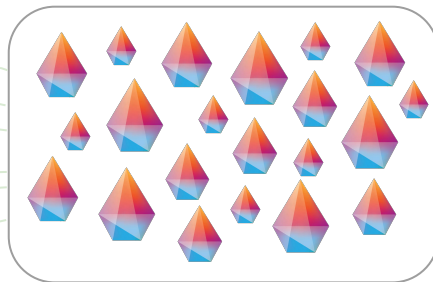
but...

Third-party Applications

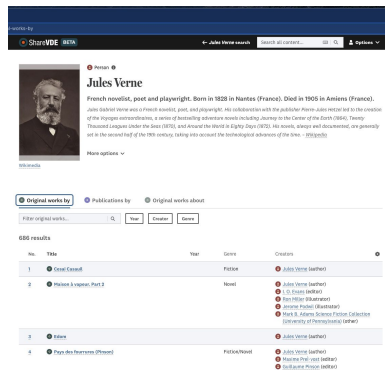
Any third-party, authorized application can be a Share-VDE editor or reader

but...

Data is mainly searchable through the entity discovery portal.



Search API



JCricket: Edit Scenarios

Edit: a property* of a prism is added/updated/deleted



~~Lewis Carroll~~



Lewis Carroll

is author of

~~<https://svde.org/opuses/1827349>~~



<https://svde.org/opuses/920302>



properties can be

- attributes
- relationships
- links

Merge: multiple prisms are merged into one



For example, the editor detects multiple prisms that belong to the same entity.

Split: a prism is split into multiple prisms



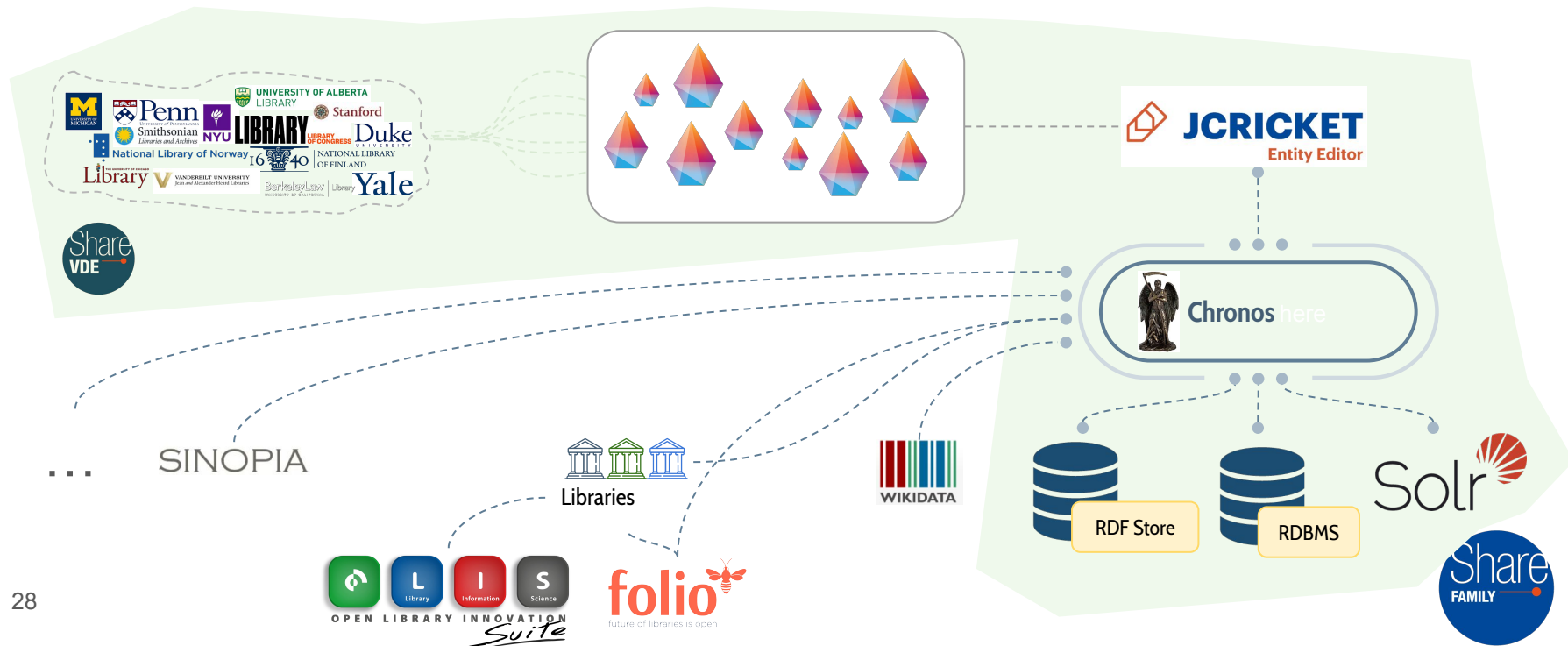
Several entities have been (wrongly) clustered into one.

Outbound Connectors Architecture

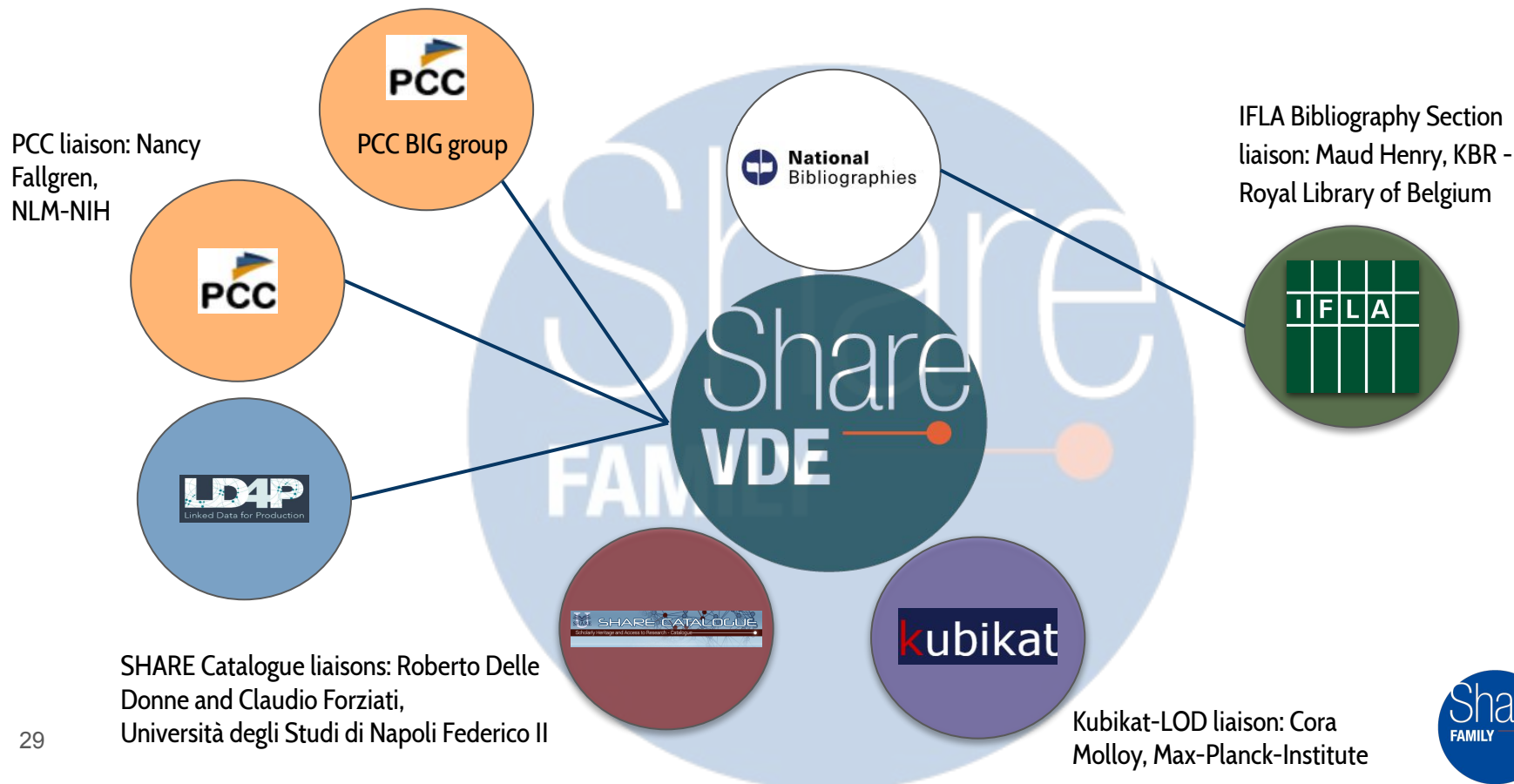
Data flows into Share-VDE from libraries, institutions and third-party sources (e.g. VIAF, ISNI, FAST)

The Share-VDE knowledge base (**Sapientia**) contains the integrated/clustered/enriched entities.

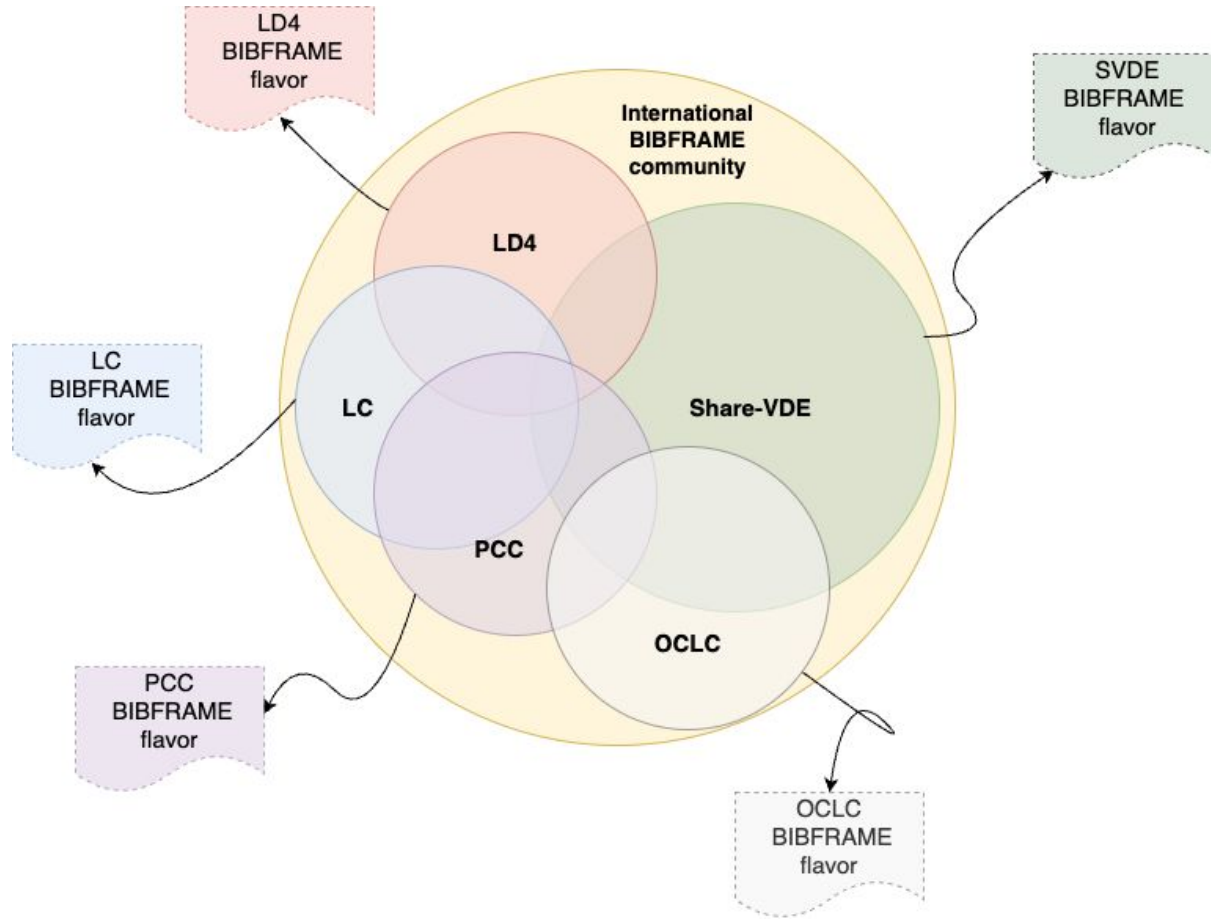
Data is mainly edited through JCricket, the Share-VDE entity editor.



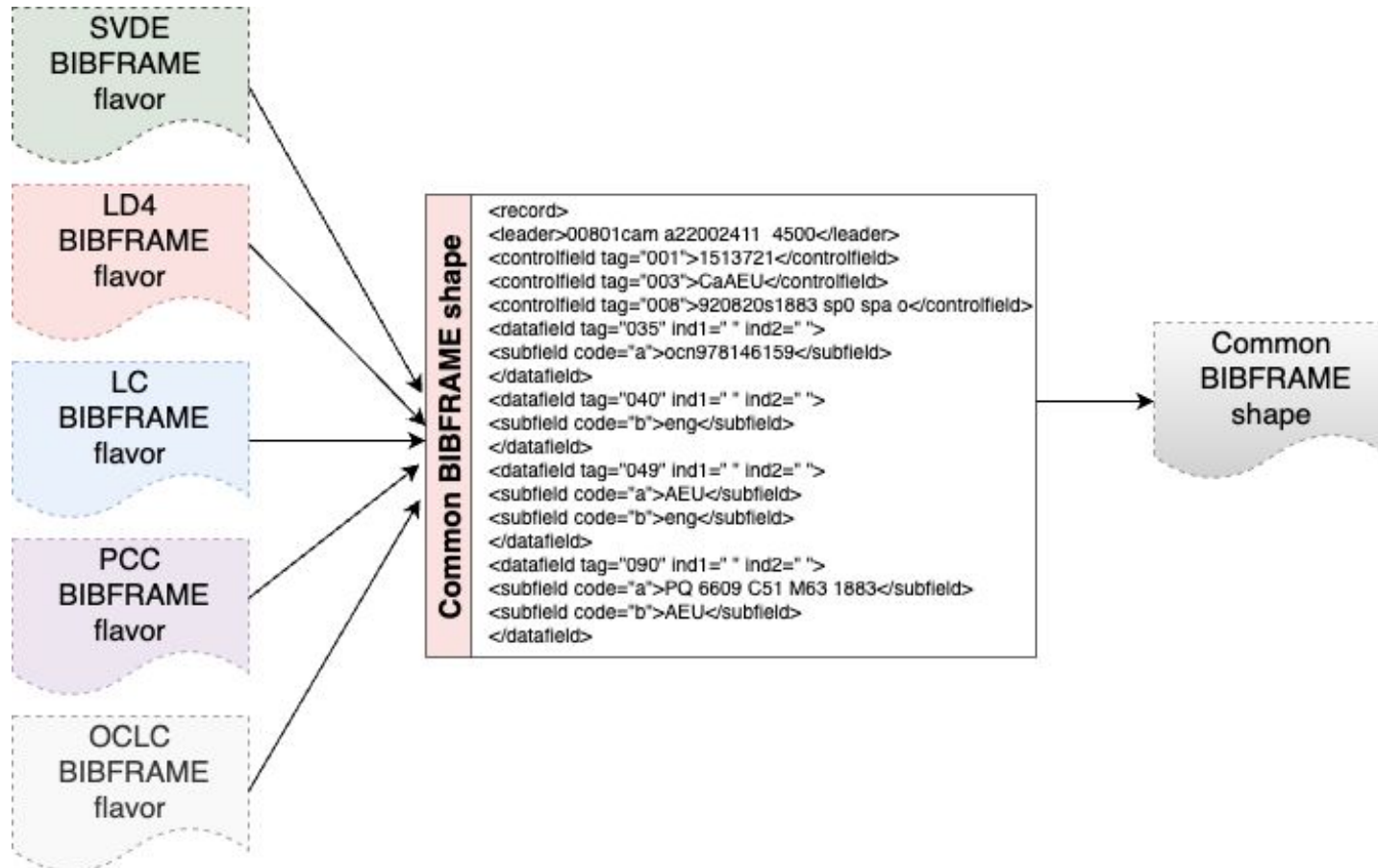
Share Family and Share-VDE liaisons



BIBFRAME communities engagement - Various BF flavors



BIBFRAME communities engagement - Various BF flavors



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://wiki.svde.org/>

<https://www.svde.org/about/about-share-vde>





Linked
Data
Environment

*“When someone asks:
what is Share-VDE? The
answer that comes to
mind is: Share-VDE is
many things together” [*]*

Share - News & Updates on Wiki

Share-VDE: linked data for libraries

About the Share Family

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Share VDE

Virtual Discovery Environment

Find ...

+

1

⚙

☰

ShareFamily: NewsAndUpdates

Page Discussion

🔗 No categories assigned

Share Family news and updates

🕒 Last edited 22 days ago by Anna Lionetti

Find out the latest news about the [Share Family](#) of initiatives🔗 and the most relevant updates on the developments going on within the various branches of the family.

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[hide]

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Share-VDE and Share Family Summer and Autumn 2022 events (September 2022)

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Share-VDE and Share Family periodic update (May 2022)

3

Share-VDE and Share Family New Year update (January 2022)

4

Share-VDE and Share Family periodic update (October 2021)

5

Share-VDE periodic update (November 2020)

6

Share-VDE achievements in 2019

Share-VDE and Share Family Summer and Autumn 2022 events (September 2022)

September and the coming autumn are continuing a rich set of conferences where Share-VDE and the wider Share Family community will contribute with presentations and speeches. As you might already know, on September 20th – 21st the BIBFRAME Workshop in Europe will take place in Budapest, with a pre-meeting on Monday 19th specific to SVDE.

After visiting Frankfurt, Florence and Stockholm, and two online editions, the 2022 workshop will be a free hybrid event, hosted by the National Széchényi Library. This year's focus will be on BIBFRAME in operation, new developments and interoperability.

The aim of the BIBFRAME Workshop in Europe is to be a forum for sharing knowledge about planning, practice and production relating to BIBFRAME implementation. The intention is to bring together the community working or interested in the transition from MARC to Linked Data

Highlights

Share-VDE: linked data for libr...

About this wiki

All pages

Share Family

About the Share Family

News and updates

Share-VDE

About Share-VDE

Share-VDE institutions

FAQ

Share-VDE resources

Activities

Strands of work

Working groups

Members area

Community work

Share-VDE workshop

How to

Materials for wiki administrators

Technical documentation

<https://wiki.share-vde.org/wiki/ShareFamily:NewsAndUpdates>





Thank you



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