

# Share-VDE: interoperability in practice

DCMI 2021 - Panel: Bibframe Implementation

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#### Share-VDE in a nutshell

Since 2016, Share-VDE has carried on R&D work to facilitate libraries in the transition from MARC-based cataloguing to linked data

this expanded over time from a pilot project to Share-VDE and the Share family of initiatives

https://wiki.share-vde.org https://www.share-vde.org



## A cooperative initiative

Share-VDE is a collaborative endeavour based on the needs of libraries, developed and supported by:



the joint effort of the Share-VDE Advisory Council and of the Working Groups;



Casalini Libri, provider of bibliographic and authority data as member of the Program for Cooperative Cataloguing;



©Cult, provider of ILS, Discovery tools and Semantic web solutions for the cultural heritage sector;



the vision of Linked Data for Production initiative with special endorsement of Stanford;



with input and active participation from an international group of research libraries.



#### The diffusion in the worldwide communities

#### **Share-VDE members**

connecting university and national library catalogues in the US, Canada and Europe

Share-VDE institutions

#### **Share-VDE**

connections within the library community

Library of Congress BIBFRAME adopters IFLA LD4P OCLC FOLIO

#### **Share Family**

connections extend across sister projects

Share-VDE
Share-Catalogue
Share-Music
Kubikat-LOD
Parsifal
PCC data pool
Ancient books

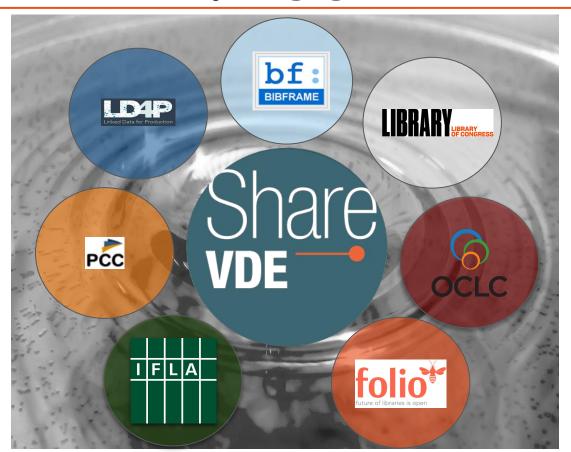
#### **Share Family**

connections with the wider web communities

Wikidata Schema.org IIIF GeoNames Getty LOD ISNI ISSN



## Community engagement: library community

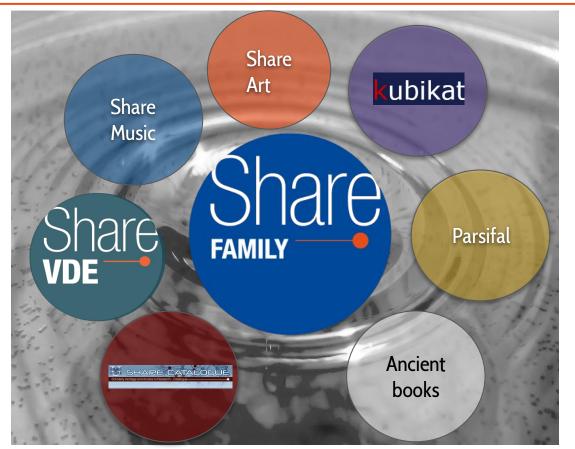


#### Extended community:

collaboration with heterogeneous initiatives and institutions in the library domain

Scientific value: sharing of data and services in different technological environments and diverse bibliographical and cultural context

# Community engagement: SVDE sister projects



Homogeneous community: collaboration with projects and institutions applying the Share-VDE principles and technologies

Scientific value: shared vision whereby each initiative contributes with tools and practices that benefit everyone

## Community engagement: World Wide Web



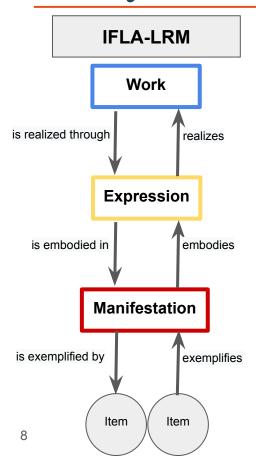
#### Mixed community:

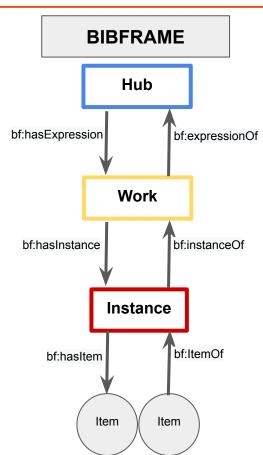
cross-domain cooperation across the Web community

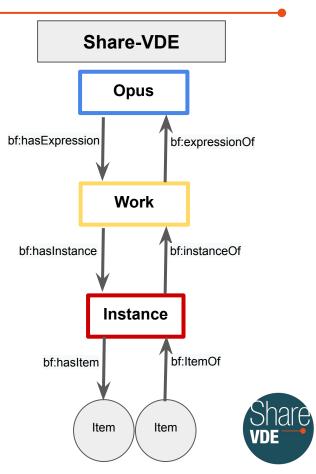
Scientific value: same solutions serve scopes of different communities, data reuse



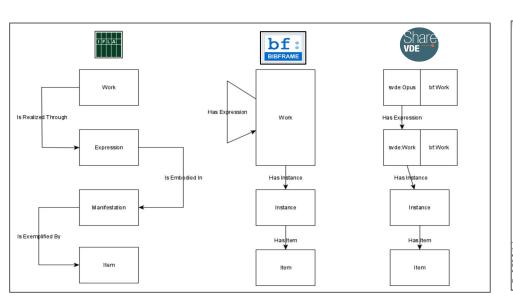
## Entity models harmonisation

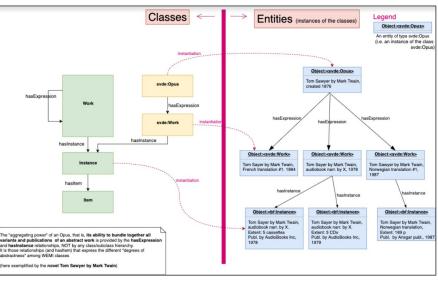






#### Facilitate interoperability between entity models





Participation in LD4P3: the challenge of data models interoperability between SVDE and Sinopia

See the <u>SVDE entity model compared to BF and LRM</u> and an <u>example of application of the model</u>



## Modeling entities: the Opus

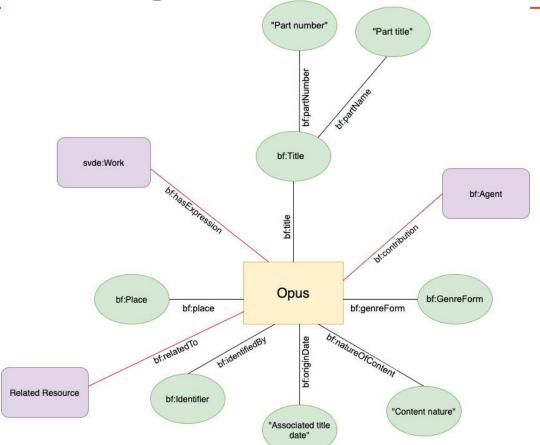
The Share-VDE Opus is a type of bf:Work.

This work type is similar to the Library of Congress Hub in the sense that it provides clustering features for bringing all the works under a canonical work type.

The SEI team have worked on defining properties that provide this clustering functionality for the related cluster of Works.



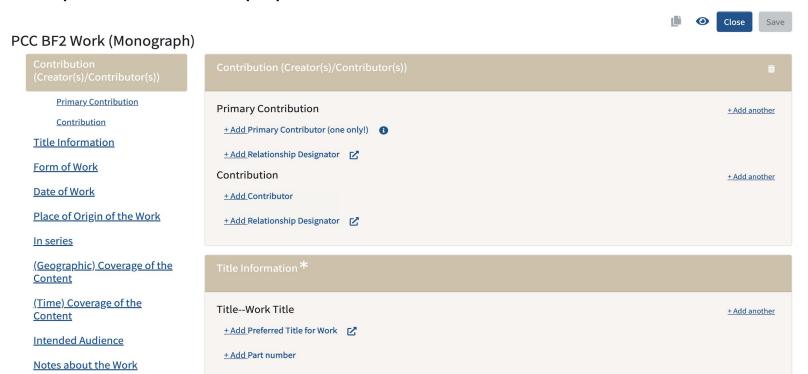
# Opus modeling





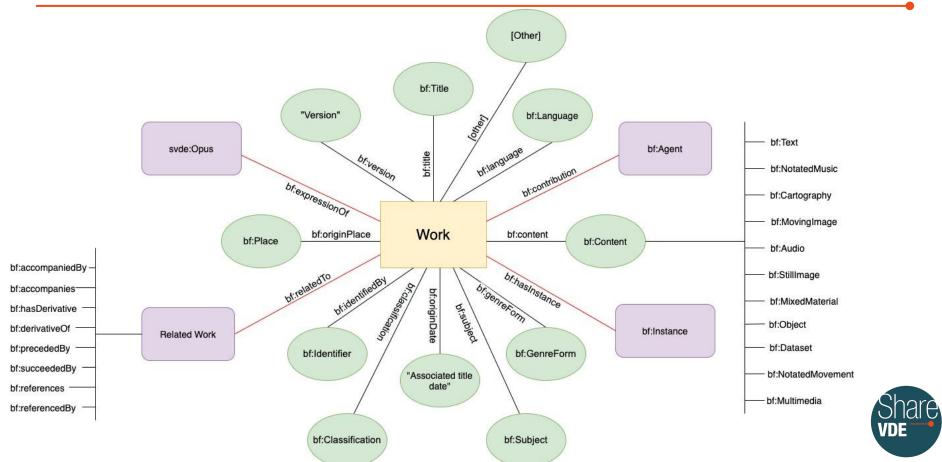
#### Work

Share-VDE Work maps to BIBFRAME Works and are compatible fully with BIBFRAME correspondances for Work properties.





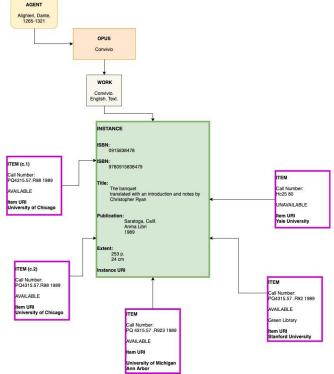
## Work modeling



#### Instance

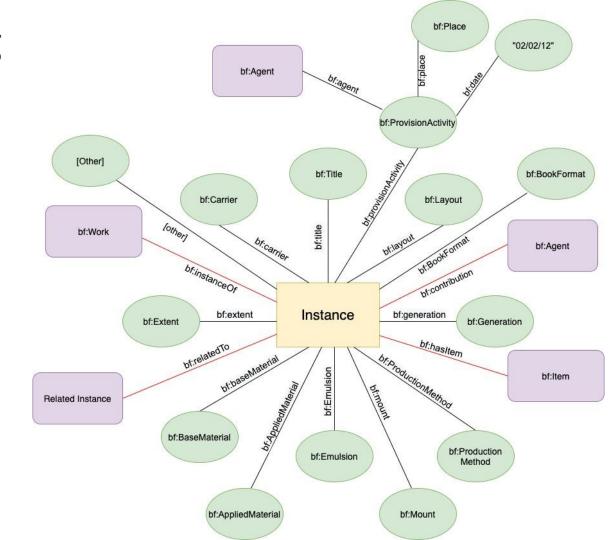
Development of Instance Clustering Process, Introducing the canonical Instance. The SEI team has worked on defining properties that provide this clustering functionality for the

related Instances.





## Instance modeling

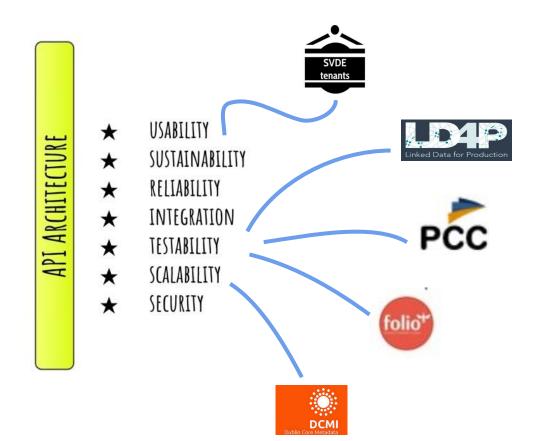


### RDA in BIBFRAME: Data example

- <a href="http://share-vde.org/sharevde/rdfBibframe/Instance/CORNELL10535218">http://share-vde.org/sharevde/rdfBibframe/Instance/CORNELL10535218</a>
- <a href="http://rdaregistry.info/Elements/m/P30004">http://rdaregistry.info/Elements/m/P30004</a>
- <a href="http://worldcat.org/oclc/1063710941">http://worldcat.org/oclc/1063710941</a>
- <a href="http://share-vde.org/sharevde/rdfBibframe/Provenance/CORNELL10535218">http://share-vde.org/sharevde/rdfBibframe/Provenance/CORNELL10535218</a>.

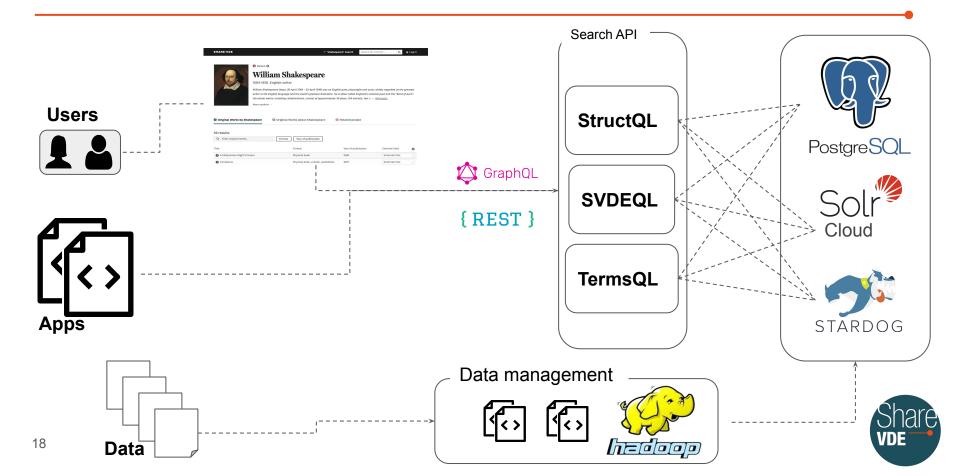


## API integration with other projects

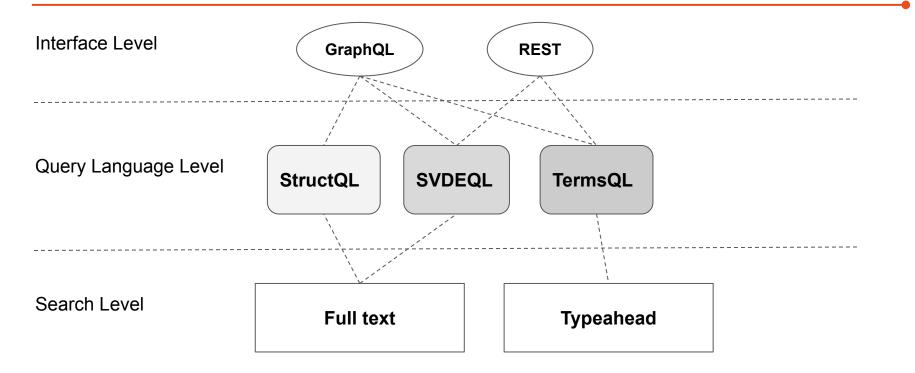




## Systems interoperability: Search APIs

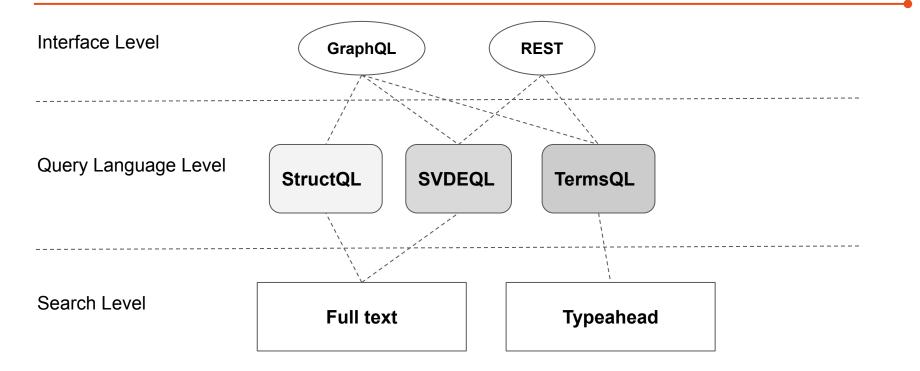


# **Query Languages**



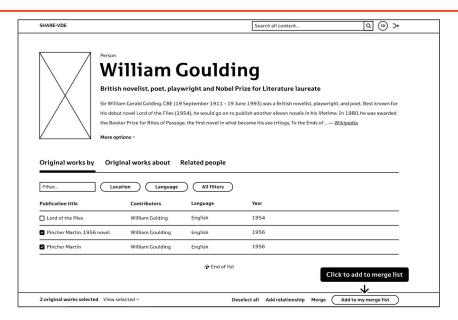


# **Query Languages**





## Integration - J.Cricket: the professional perspective



SVDE is evolving from a discovery platform that converts MARC data of libraries in Linked Open Data to an interactive authoritative source providing real services for libraries. This transition is happening through the editor named J. Cricket, that is the new application dedicated to the editing of SVDE data in a collaborative environment.

### Integration - Wikidata



Wikidata is increasingly authoritative and is used in the library community as a source for entity identification (SVDE property on Wikidata Share-VDE author ID)



Query the source and enrich SVDE data with Wikidata entities information and vice versa  $\rightarrow$  connection with <u>Casalini participation in the PCC Wikidata pilot</u>



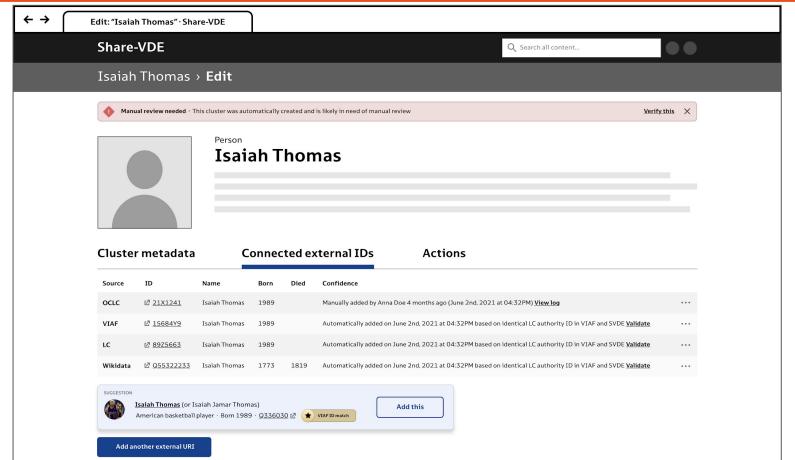
Ad hoc SVDE working group is studying the use cases for interaction (e.g. starting points for the analysis are <u>API:Main page</u> + <u>Wikibase/API</u>, and other documentation)



Major challenge: alignment between Wikidata and SVDE entities

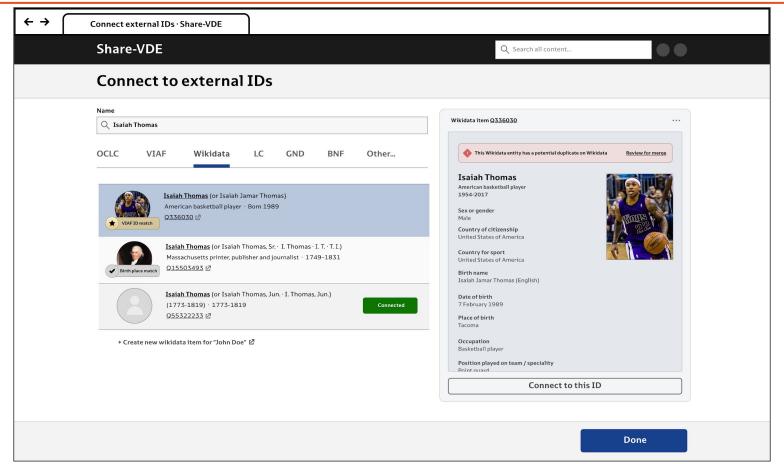


### How J.Cricket interacts with Wikidata





## Integration of Wikidata IDs in SVDE with J.Cricket





## Schema.org and web technologies

#### Three main tasks

Public User Interface (HTML)



# Schema.org Structured Data (Embedded in HTML)

```
<nlb-footer></nlb-footer>
<script type="application/ld+json">{
 "@id" : "http://eresources.nlb.gov.sg/ID/NLBDM/entity/3FuAzwpQ",
 "@type" : "schema:DefinedTerm",
 "schema:name" : "Fiction."
 "%id" : "http://eresources.nlb.gov.sg/ID/NLBDM/entity/3JTQRQPG",
 "@type" : "schema:DefinedTerm",
 "schema:name" : "Women executives"
 "@id" : "http://eresources.nlb.gov.sg/ID/NLBDM/entity/LD-DFMLe",
 "@type" : [ "schema:Product", "schema:CreativeWork" ],
 "schema:name" : "Habit of a foreign sky /
 "%id" : "http://eresources.nlb.gov.sg/ID/NLBDM/entity/X00cGnPO",
 "@type" : "schema:DefinedTerm",
 "schema:name" : "Chinese American women"
 "@id" : "http://eresources.nlb.gov.sq/ID/NLBDM/entity/mvOPV5VH",
 "@type" : "schema:Book",
   "#id": "http://eresources.nlb.gov.sg/ID/NLBDM/entity/X00cGnPO"
   "@id" : "http://eresources.nlb.gov.sg/ID/NLBDM/entity/3JTQRQPG"
 "schema:creator" : {
   "@id" : "http://eresources.nlb.gov.sg/ID/NLBDM/entity/ngGMon45"
   "@id" : "http://eresources.nlb.gov.sq/ID/NLBDM/entity/3FuAzwpO"
 "schema:inLanguage" : "eng",
```

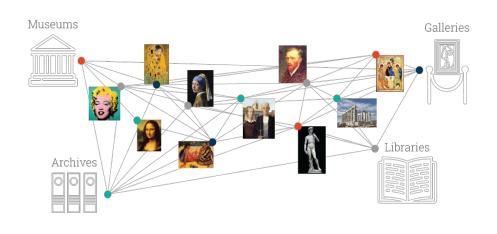
# Linked Open Data Source (Direct URI Requests)

```
@prefix schema: <http://schema.org/> .
<a href="http://bibframe.example.org/4507628#Item050-11">http://bibframe.example.org/4507628#Item050-11</a> a schema:Book,
           schema: CreativeWork,
            schema:IndividualProduct:
      schema:about <a href="http://bibframe.example.org/4507628#Topic650-19">http://bibframe.example.org/4507628#Topic650-19</a>,
           <a href="http://bibframe.example.org/4507628#Topic650-20">http://bibframe.example.org/4507628#Topic650-20</a>,
           <http://bibframe.example.org/4507628#Topic650-21>;
      schema:author <http://id.loc.gov/authorities/names/n92049003> ;
      schema:contributor <http://id.loc.gov/authorities/names/n91071805>;
      schema:description "A clever mouse uses the threat of a terrifying creature to keep from beil
      schema:exampleOfWork <a href="http://bibframe.example.org/4507628#Instance">http://bibframe.example.org/4507628#Instance</a>;
      schema:inLanguage "eng";
      schema:name "The gruffalo" ;
      schema:sdDatePublished "2021-03-09" ;
     schema:sdLicense <a href="https://creativecommons.org/publicdomain/zero/1.0">https://creativecommons.org/publicdomain/zero/1.0</a>;
     schema:sdPublisher <https://bibframe2schema.org> ;
      schema:sku "PZ8.3.D7235 Gr 1999" .
<a href="http://bibframe.example.org/4507628#Work">http://bibframe.example.org/4507628#Work</a> a schema:Book,
            schema:CreativeWork :
      schema:about <a href="http://bibframe.example.org/4507628#Topic650-19">http://bibframe.example.org/4507628#Topic650-19</a>,
           <a href="http://bibframe.example.org/4507628#Topic650-20">http://bibframe.example.org/4507628#Topic650-20</a>,
           <http://bibframe.example.org/4507628#Topic650-21>;
                                                                 ies/names/n92049003>;
      schema:author <a href="http://id.loc.gov/aut/">http://id.loc.gov/aut/</a>
      schema:contributor <http://id.loc/
                                                                   rities/names/n91071805> ;
```





#### Structured information and interconnections



We want to apply to library catalogues the same data structure and standards used by the web

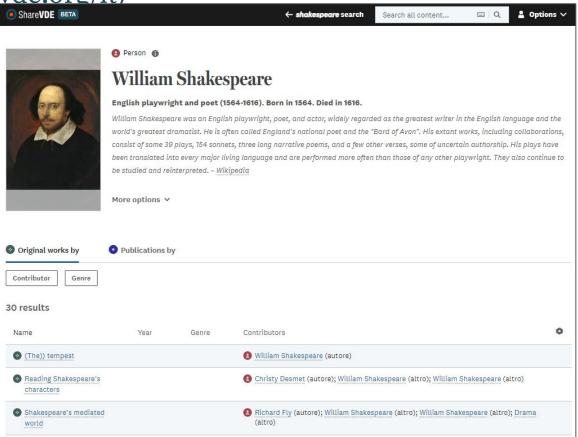
The library community is adopting LD solutions to support visibility of their catalogues

Source: Linked Open Data for Cultural Heritage

Catalogues of libraries, museums, archives etc. can be connected, and resources are related to each other

## The new Share-VDE portal

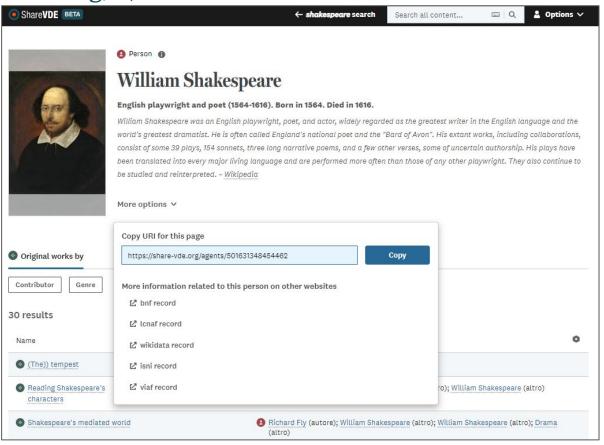
(https://www.svde.org/it)





### The new Share-VDE portal

(https://www.svde.org/it)





## The new Share-VDE portal

(https://www.svde.org/it)







# Thank you

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