Linked Data in FOLIO: From Models to Workflows

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Tiziana Possemato

@Cult, Director, and Share Family Coordinator

A decade of developments

2015-2016

- **ALIADA**
- **BIBFRAME update Forum** at ALA Midwinter in Boston
- **Share catalogue** online (universities from southern Italy)
- **Share-VDE** prototype

2017-2019

- **Share-VDE** and **LD4P** members' data converted from MARC21 to BIBFRAME

2019-2021

- **Share-VDE** – virtual discovery environment for library linked open data
- **Share Family** embraces all LOD Platform initiatives

2021-2023

- Ongoing **PCC** data pool
- **Share-VDE** 2.0
- Ongoing **NatBib** working group and shared discovery environment
- **Share Family** towards production

2023-2025

- **British National Bibliography** in linked open data (beta version)
- **Parsifal** and **LILLIT** shared discovery environments launch
- **JCricket** collaborative cataloguing editor
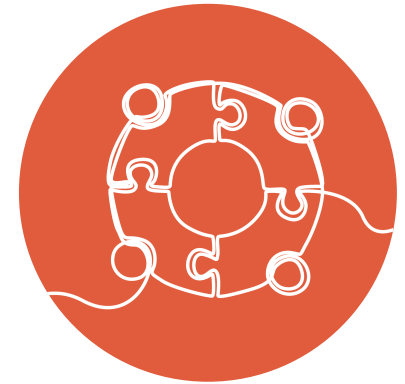- **LOD Platform** version 3

Share FAMILY Linked Data Ecosystem

# Developed and driven
by libraries, for libraries

Governed and steered by the **Share Family Advisory Council**, made up of representatives from member institutions.
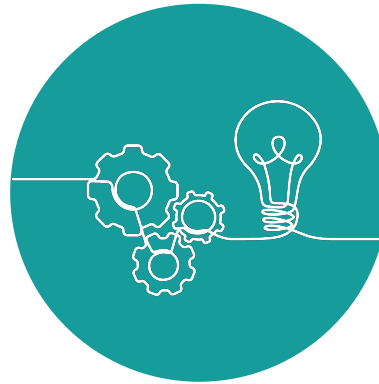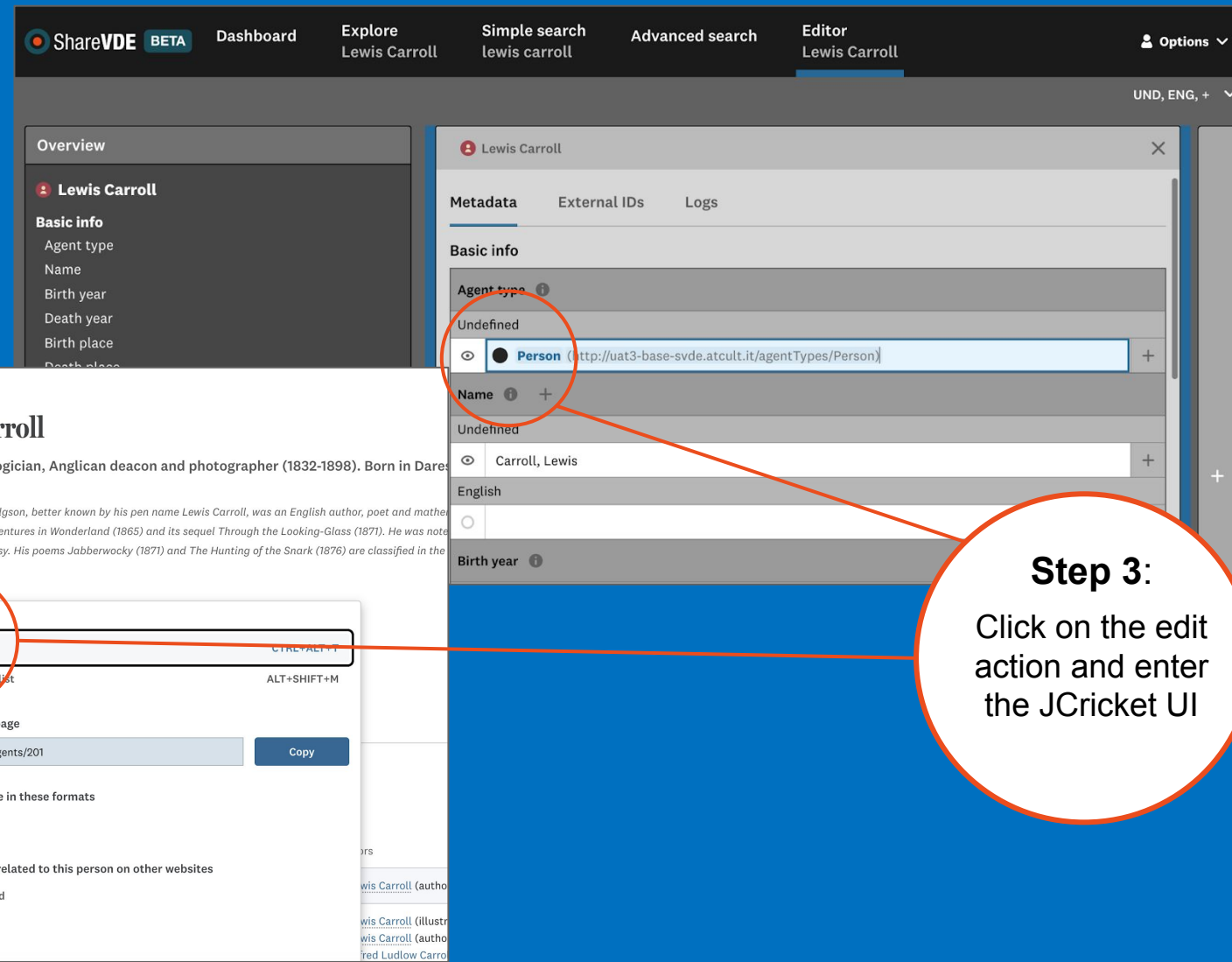
Members and **working groups** actively participate in policy-making and tool development, as well as defining goals.

Expertise, responsibilities and costs are shared across the **community** for the benefit of all.

Share FAMILY Linked Data Ecosystem

3
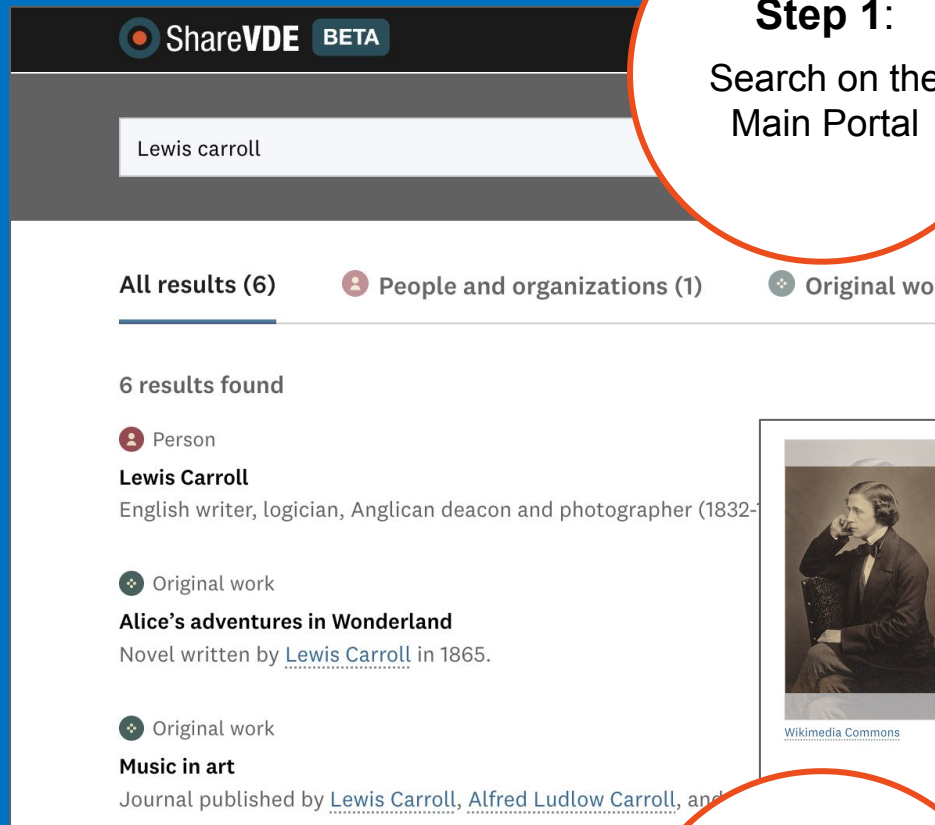
Step 1: Search on the Main Portal

Step 2: Enter the entity details page

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

Shared tools for collaborative data management

Binary *vs* Nuanced

Cataloging is no longer limited to the binary choice between local and copy cataloging.

Today it spans a wide spectrum of flexible, collaborative practices.

This evolution is better seen as a colorful dial with many graduations rather than a two-color wheel.
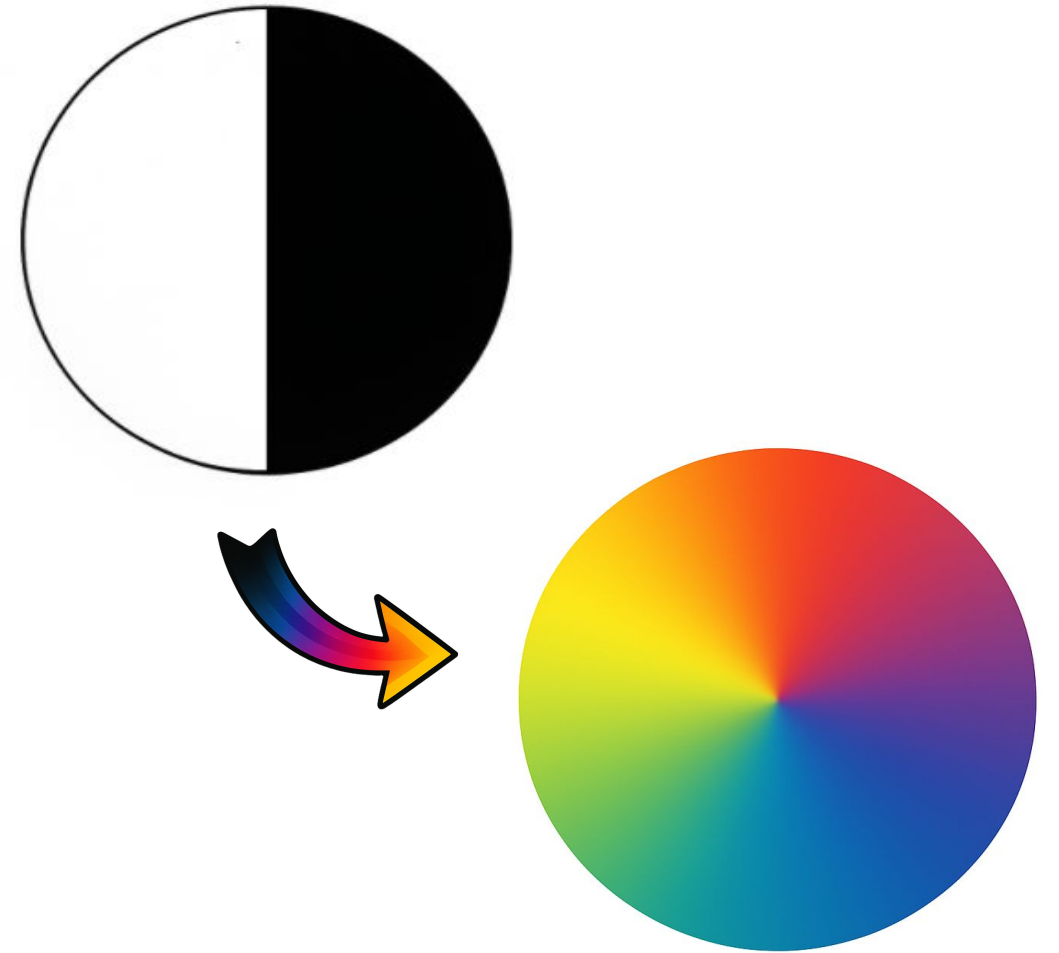
Copy cataloging

The reuse of bibliographic records captured from external sources, usually without ongoing interaction or linkage to the original source record.

➡️ Focus: the **local record ID** is created independently and **retains no live connection** to the copied source.

Copy cataloging

[Download&Import](#)

[Copy field from external source](#)

📄 **Derived Records**

- Snapshot of the original
- Remain unchanged unless explicitly updated ("Replace")

🔗 **Source vs. Derived**

- Generally independent
- Alignment mechanisms exist (e.g., SBN Index alignment)

💻 **Technological Evolution**

- APIs, protocols & open data → more flexibility
- Copy cataloging becomes less rigid

🌐 **Broader Possibilities**

- Richer lookup mechanisms
- More data formats
- Growing number of open data sources

Cooperative Cataloging

A cooperative/integrated workflow where local and central systems are fully interoperable: data entered locally is reflected centrally, and conversely, central data is discoverable and reusable locally.

➡️ Focus: **bidirectional synchronization**; cataloging gains added value by keeping local and central environments **aligned**.
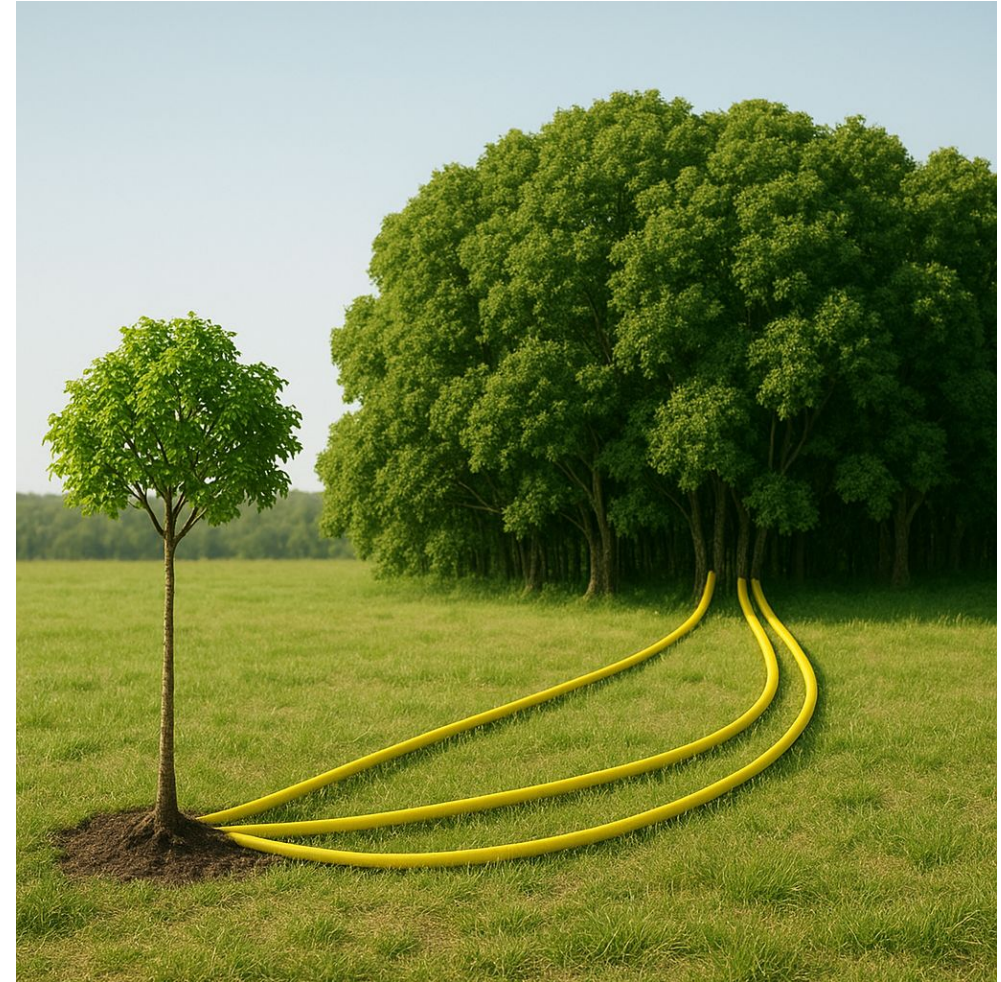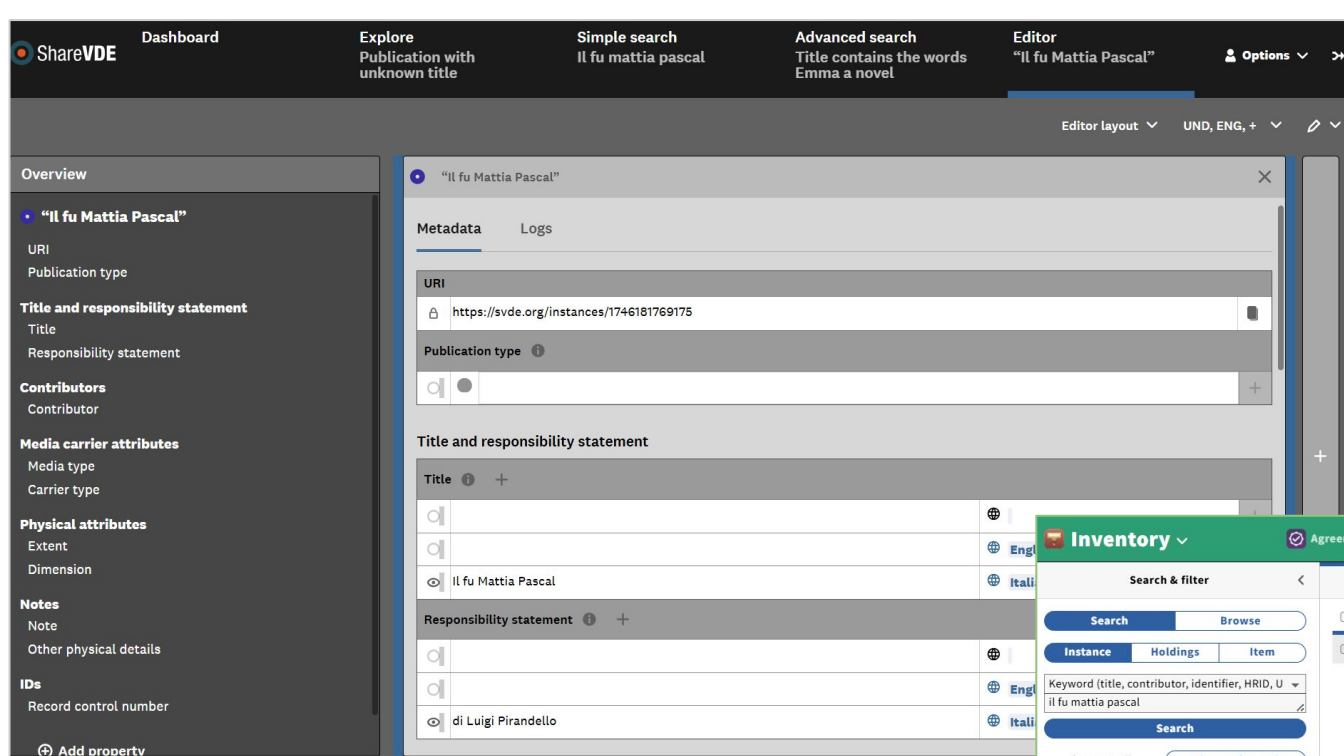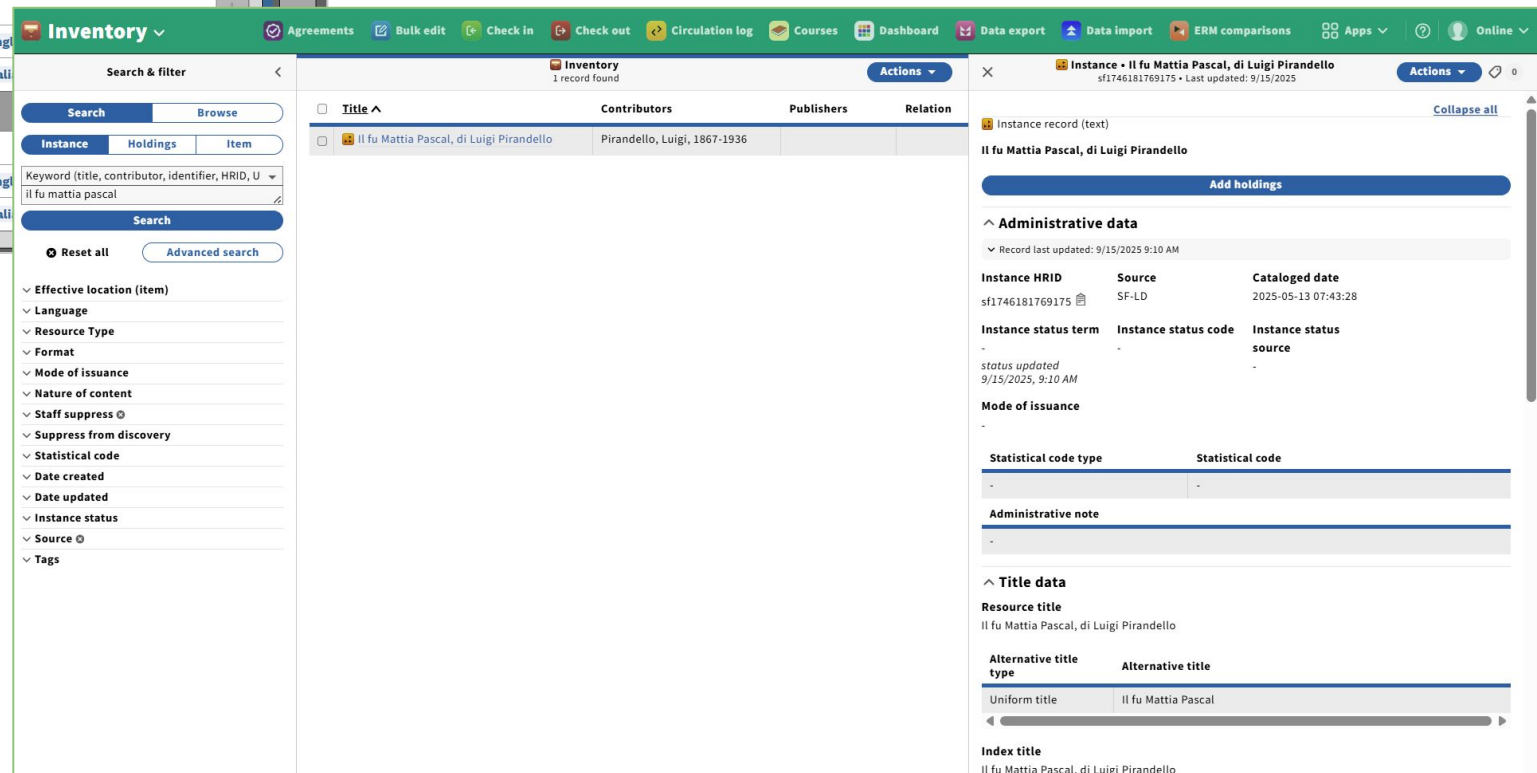
Cooperative Cataloging

Create a JCricket Instance 1

Create a JCricket Instance 2

See the FOLIO Instance

Workflow: the simple view

1. SVDE users create and edit entities (e.g., Agent, Instance, etc.) on the LOD Platform.

2. The data is automatically stored in FOLIO.

Note: In this workflow, the data flow is unidirectional, with SVDE serving as the authoritative source.

Workflow: the inside view

Users create and update entities in the Cluster Knowledge Base (CKB) of the SVDE system through the JCricket editor

The integration module analyzes the data and generates FOLIO records

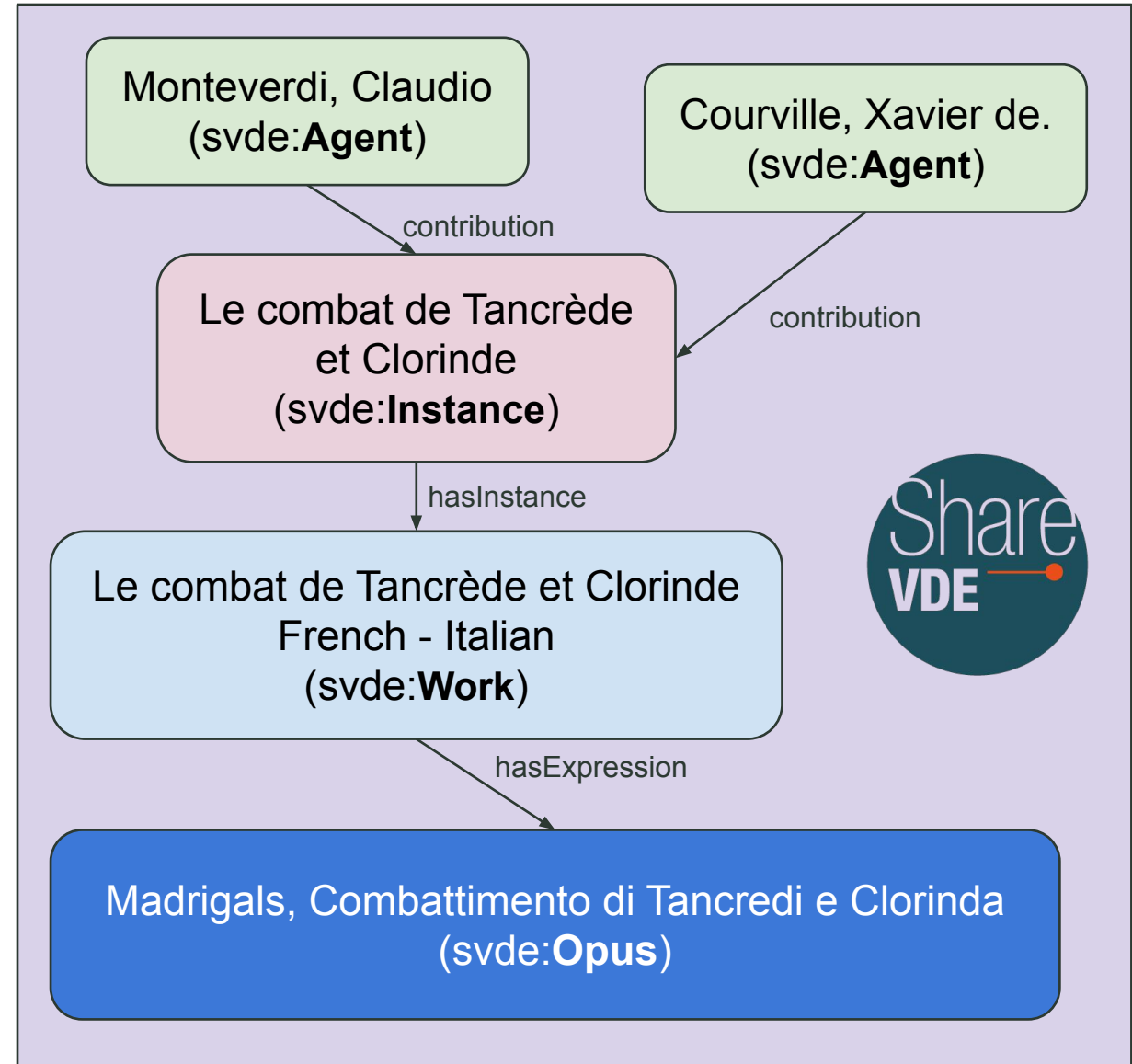Through the Inventory Update APIs, data is transferred into FOLIO
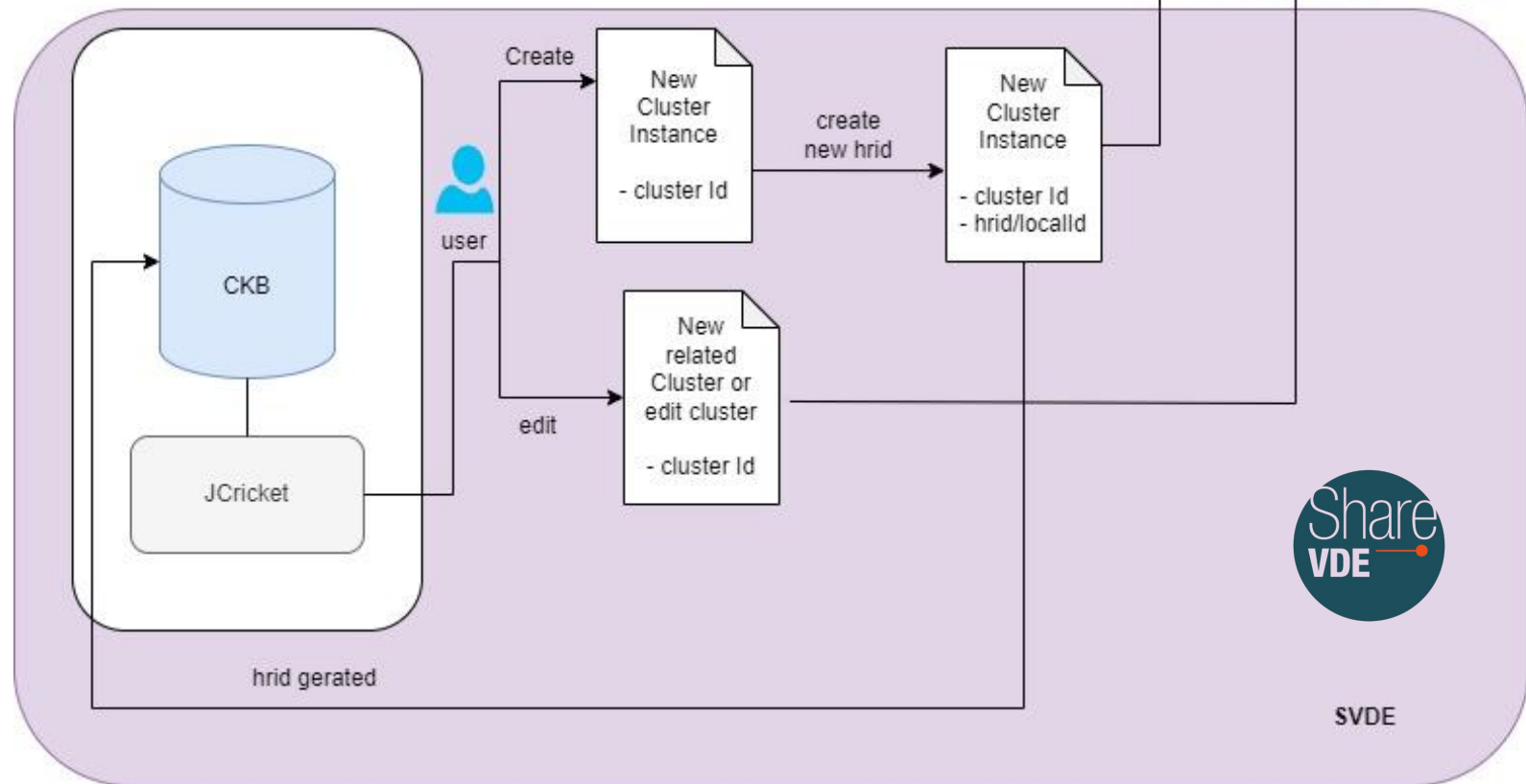
Mapping different models - 1

A Share Family tenant applies the BIBFRAME model: bibliographic information, such as contributors, instances, and intellectual works (defined as "Opuses" in the Share-VDE ontology), are represented as distinct entities, each with its own properties, and interconnected through defined relationships.

(svde:**Instance**)

Le combat de Tancrède et Clorinde

Title: Le combat de Tancrède et Clorinde
PublisherNumber: Heugel

Monteverdi, Claudio
(svde:**Agent**)

Courville, Xavier de.
(svde:**Agent**)

contribution

contribution

Le combat de Tancrède et Clorinde
(svde:**Instance**)

hasInstance

Le combat de Tancrède et Clorinde
French - Italian
(svde:**Work**)

hasExpression

Madrigals, Combattimento di Tancredi e Clorinda
(svde:**Opus**)

Share VDE

Mapping different models - 2

Le combat de Tancrède
et Clorinde
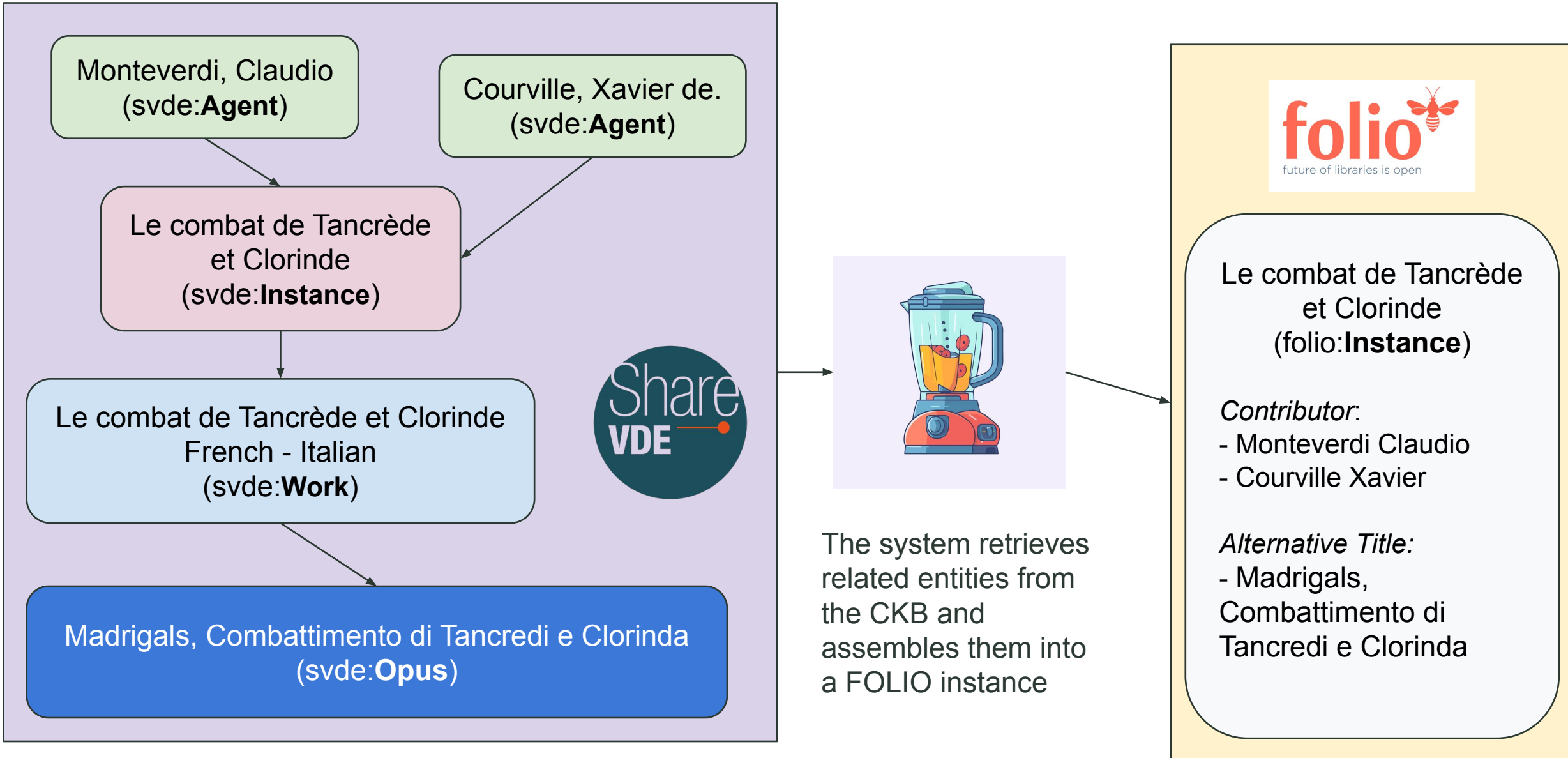(folio:**Instance**)

Contributor:
- Monteverdi Claudio
- Courville Xavier

Alternative Title:
- Madrigals,
Combattimento di
Tancredi e Clorinda

In the FOLIO model, there are fewer entities.
The core entity is the *Instance*, which contains
several properties, including those that are
represented as separate entities in the BIBFRAME
model.

Putting models together

Monteverdi, Claudio
(svde:**Agent**)

Courville, Xavier de.
(svde:**Agent**)

Le combat de Tancrède
et Clorinde
(svde:**Instance**)

Le combat de Tancrède et Clorinde
French - Italian
(svde:**Work**)

Madrigals, Combattimento di Tancredi e Clorinda
(svde:**Opus**)

Share VDE

The system retrieves related entities from the CKB and assembles them into a FOLIO instance

folio
future of libraries is open

Le combat de Tancrède
et Clorinde
(folio:**Instance**)

Contributor:
- Monteverdi Claudio
- Courville Xavier

Alternative Title:
- Madrigals, Combattimento di Tancredi e Clorinda

A real example

Bibliographic data

```
<marc:record>
    [...]
    <marc:datafield tag="028" ind1="2" ind2="0">
        <marc:subfield code="a">H.31139</marc:subfield>
    </marc:datafield>
    <marc:datafield tag="245" ind1="1" ind2="3">
        <marc:subfield code="a">
            Le combat de Tancrède et Clorinde
        </marc:subfield>
    </marc:datafield>
    <marc:datafield tag="100" ind1="1" ind2=" ">
        <marc:subfield code="a">
            Monteverdi, Claudio
        </marc:subfield>
    </marc:datafield>
    [...]
</marc:record>
```

BIBFRAME data

(svde:**Instance**)

Le combat de Tancrède et Clorinde

PublisherNumber: H.31139
Title: Le combat de Tancrède et Clorinde

(svde:**Agent**)
Monteverdi, Claudio

Data in JCricket

Instance

Agent

Data loaded in Folio

Folio Instance

SVDE model data

(svde:**Instance**)

Le combat de Tancrède et Clorinde

<u>Title</u>: Le combat de Tancrède et Clorinde
<u>PublisherNumber</u>: H.31139

(svde:**Agent**)
Monteverdi, Claudio

Instance • Le combat de Tancrède et Clorinde
sf1720704045132 • Last updated: 7/31/2024

Actions ▾   0

Succeeding titles

Title	Instance HRID	ISBN	ISSN
-	-		

∧ Identifiers

Resource identifier type	Resource identifier
Publisher or distributor number	H.31139
SVDE cluster ID	1720704045132

∧ Contributor

Name type	Name	Type	Free text	Primary
Personal name	Monteverdi, Claudio	Author	-	Primary

∧ Descriptive data

Publisher	Publisher role	Place of publication	Publication date
-	-	-	-

Edition		Physical description
-		-

Resource type term	Resource type code	Resource type source
text	txt	rdacontent

Share-VDE model (BF+extentions)

=LDR 01458cam a22003731a 4500
=001 6894054
=005 20210208191354.0
=008 780410s1935\\\\nyuaf\\\\\\\\\000\0\eng\\
=010 \\$a 36000604
=035 \\$9(DLC) 36000604
=035 \\$a(OCoLC)3791465
=040 \\$aDLC$beng$cOT$dOCoLC$dPPiU$dDLC
=050 00$aPR2831.A2$bS3
=082 \\$a822.33
=100 1\$aShakespeare, William,$d1564-1616.
=240 10$aRomeo and Juliet
=245 14$aThe tragedy of Romeo and Juliet /$cWilliam Shakespeare ; illustrated by Sylvain Sauvage.
=246 30$aRomeo & Juliet
=260 \\$aNew York :$bHeritage Press,$c1935.
=300 \\$a[5], 125 p., [8] leaves of plates :$bill. (some col.) ;$c29 cm.
=336 \\$atext$2rdacontent
=337 \\$aunmediated$2rdamedia
=338 \\$avolume$2rdacarrier
=500 \\$a"The text used in this edition is ... based upon 'the authorized version' of 1599,
and is used as the 'Romeo and Juliet' volume in the Temple Shakespeare."--4th prelim. leaf.
=600 00$aRomeo$c(Fictitious character)$vDrama.
=600 00$aJuliet$c(Fictitious character)$vDrama.
=651 \0$aVerona (Italy)$vDrama.
=650 \0$aVendetta$vDrama.
=650 \0$aYouth$vDrama.
=655 \7$aTragedies.$2gsafd
=700 1\$aSauvage, Sylvain,$eillustrator.
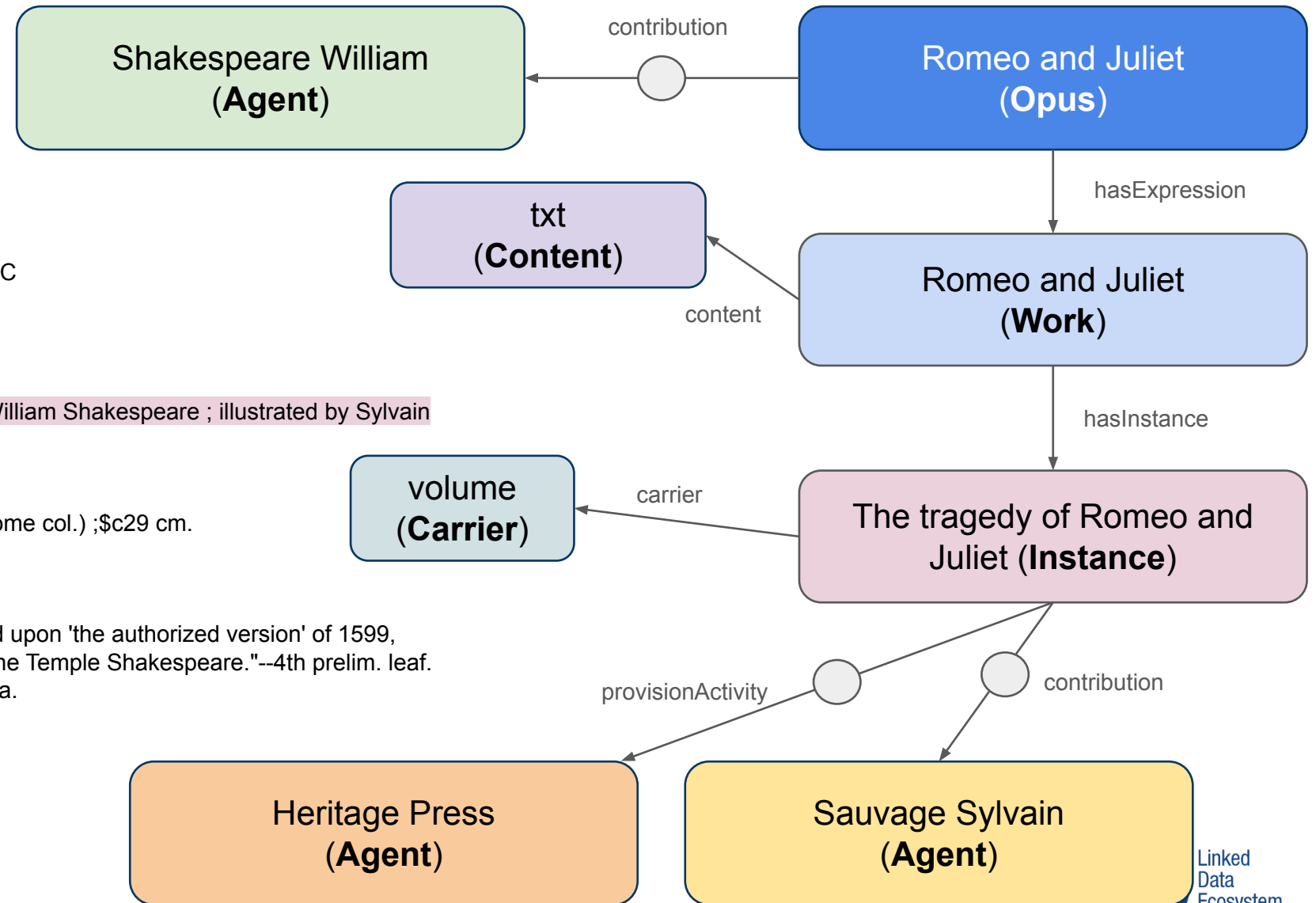
Shared cataloguing

Shared cataloging is a truly collaborative way of working, where **multiple people** contribute to **building and improving bibliographic entities together**.

➡️ Focus: teamwork at the entity level: a cataloguer can enrich data (like adding an author's birth or death dates), fix incorrect attributes, or even merge and split entities that machines created incorrectly.

The goal is to make the data more accurate, authoritative, and reusable for everyone.

Shared cataloguing

Merge&Split entities

Shared cataloguing

Merge&Split entities

Shared cataloguing

Dashboard

The Share Family approach

Co-operative

Shared tools for collaborative data management

Sustainable

Optimisation of efforts for the benefit of all members

Open

Interoperability for increased discovery of collections

Inclusive

Diversity for enhancement and equality of access to knowledge

Dynamic

Flexibility and interaction are central to the Share Family

Find out more

http://bit.ly/44rnqpA

Share FAMILY Linked Data Ecosystem

Thank you!

Tiziana Possemato

@Cult, Director, and Share Family Coordinator

tiziana.possemato@atcult.it