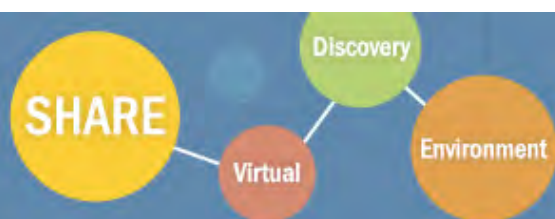


The Heads of Cataloging Departments Interest Group  
Midwinter ALA Denver

Monday, February 12th 2018

## **SHARE-VDE and BIBFRAME**

### **Linked Data in real life**



# Phase 1 and phase 2 introduction



# SHARE Virtual Discovery Environment project

The main goal of this Research & Development library community driven project has been to experiment BIBFRAME with a critical mass of data (in heterogeneity and volumes).

**Phase 1:** analysis, enrichment, reconciliation, conversion in RDF, publication of two sets of bibliographic data for each participant library were foreseen (1985 and 2015 imprint titles). This phase also contained the release of Marc records enriched with URIs and BIBFRAME 1.0 datasets for each participant library.

A total of 2,249,387 bibliographical records and 3,601,327 authority records were converted into BIBFRAME 1.0 and published on the SHARE-VDE portal:

[www.share-vde.org](http://www.share-vde.org)

Phase 1: from October 2016 to January 2017.



# SHARE Virtual Discovery Environment project

**Phase 2:** data enrichment and conversion refinements and customization, enhanced data supply workflow experimentation, second release of the portal.

The library catalogue of each participant institution has been converted into BIBFRAME 2.0 and returned to each library (over 100 million records and consequent datasets are expected to be processed).

A relationship database that registers the relationships between entities (person, work, instances, subjects, publisher, ...) is established in order to assure a more precise identification rate of each entity to reach a higher quality of results without human intervention.

Refinements of data, e.g. for co-authors and editors, where there is a variety of ways in which they are identified in library records (Relator terms topic), is addressed.

Enrichment with URIs of the MARC records for each library's catalogue.

Phase 2: from March 2017 to February 2018.



# Participants libraries (1)

Phase 1	Phase 2	(in Country/State order):
X	X	Stanford University
X	X	University California Berkeley
X	X	Yale University
X	X	Library of Congress
X	X	University of Chicago
X	X	University of Michigan Ann Arbor
X	X	Harvard University
X		Massachusetts Institute of Technology
	X	Duke University
X		Cornell University
X		Columbia University
X	X	University of Pennsylvania



# Participants libraries (2)

Phase 1	Phase 2	(in Country/State order):
	X	Pennsylvania State University
X	X	Texas A&M University
	X	University of Alberta
X		University of Toronto

SHARE-VDE is a Casalini Libri and @Cult partnership project, under the direction of Tiziana Possemato.

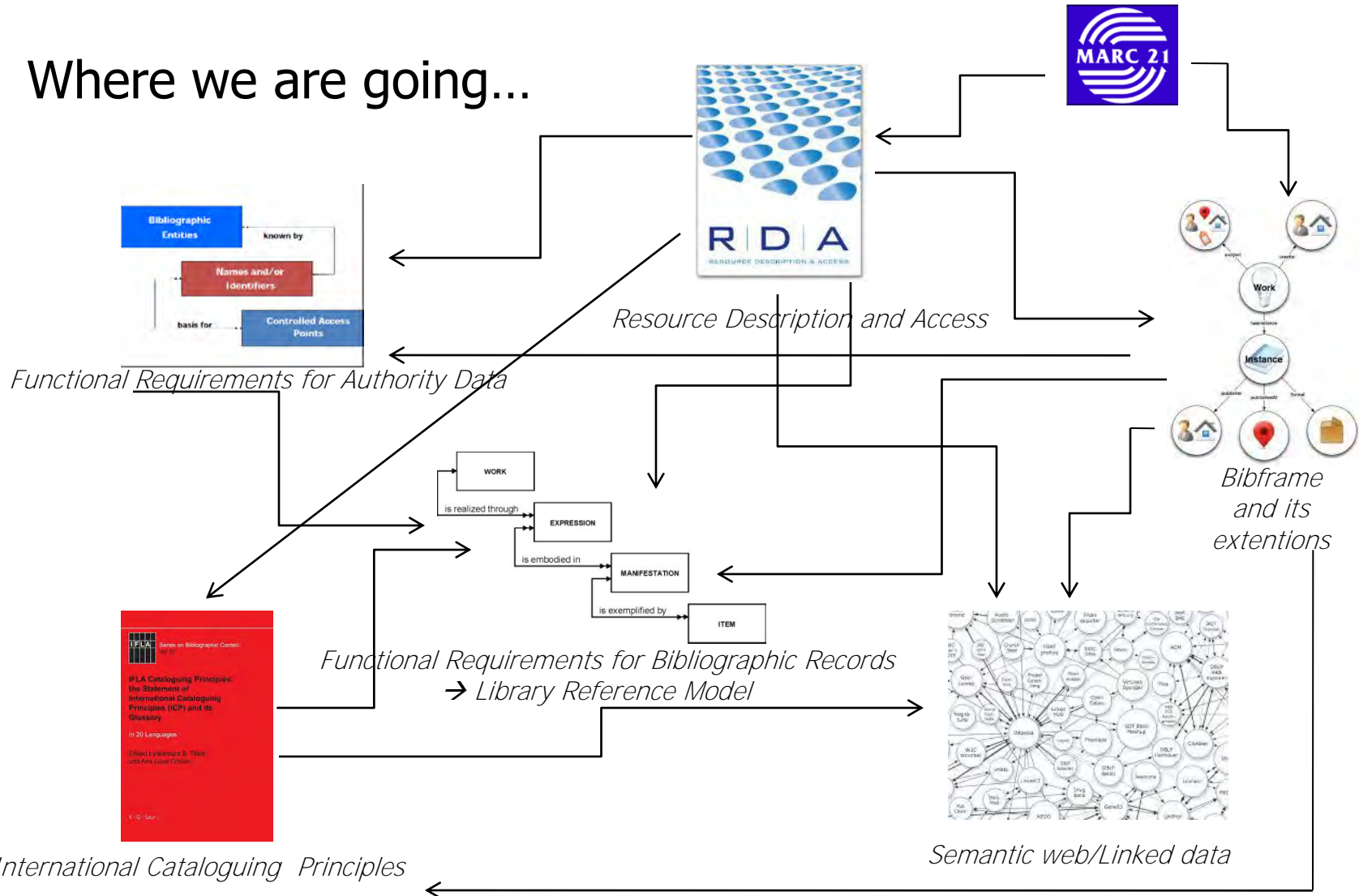


# Theoretical context



# The theoretical context of the project

Where we are going...

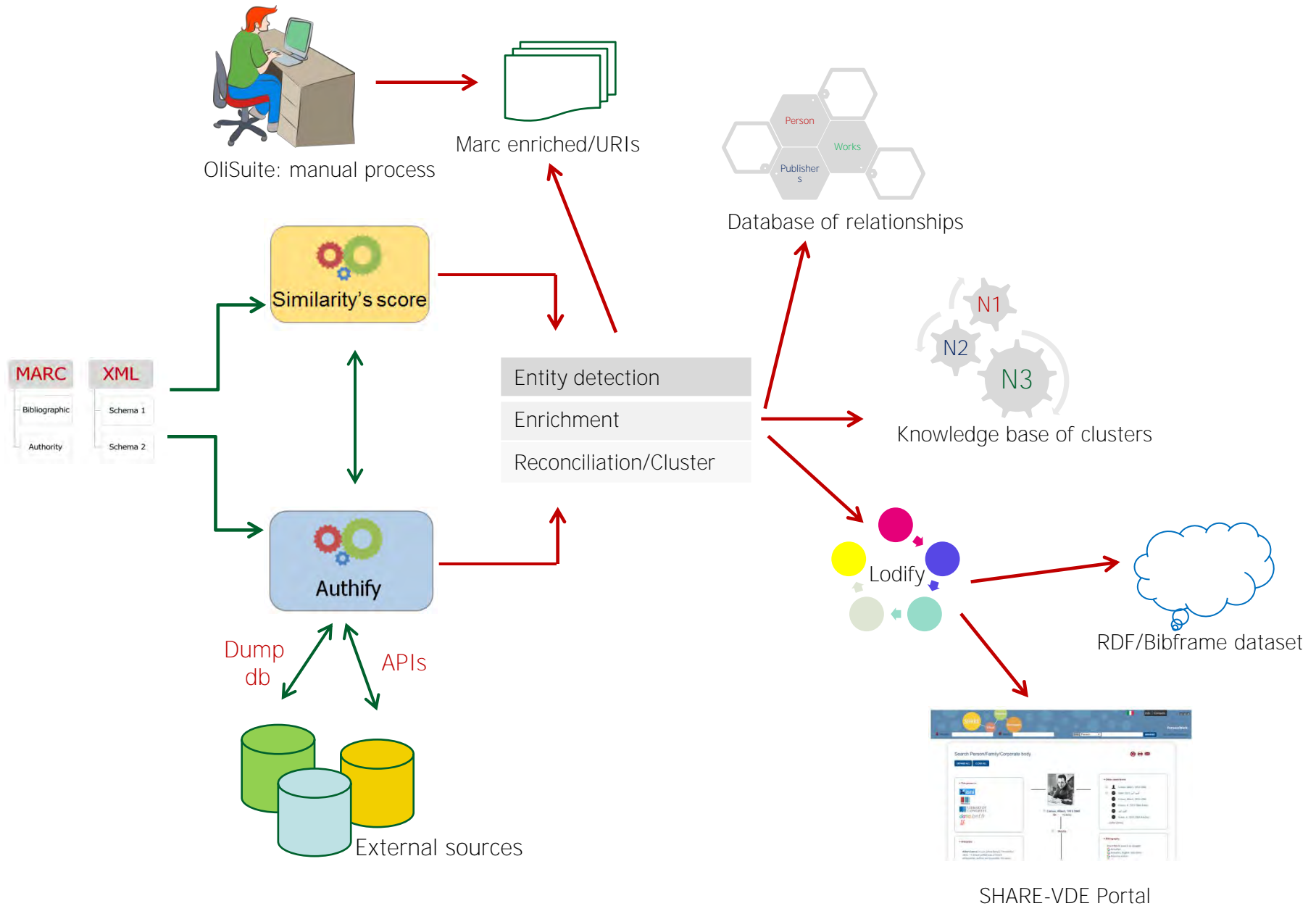




# SHARE-VDE process overview



# The SHARE-VDE processes

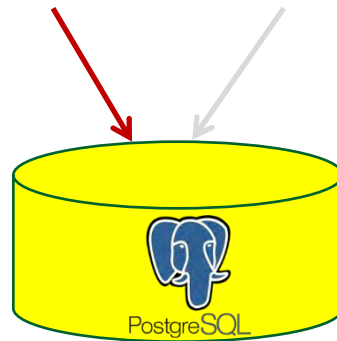
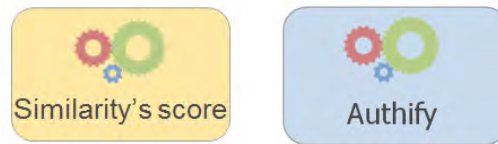


# Focus on processes 1/2

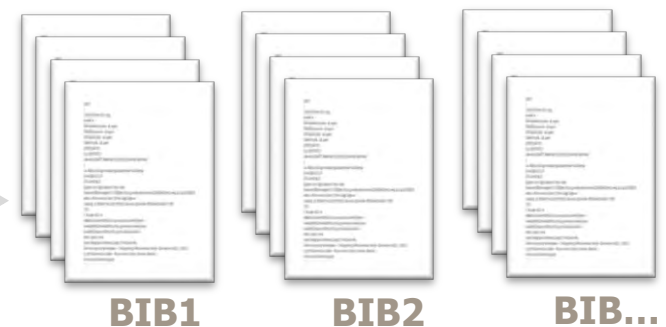
## Authority records



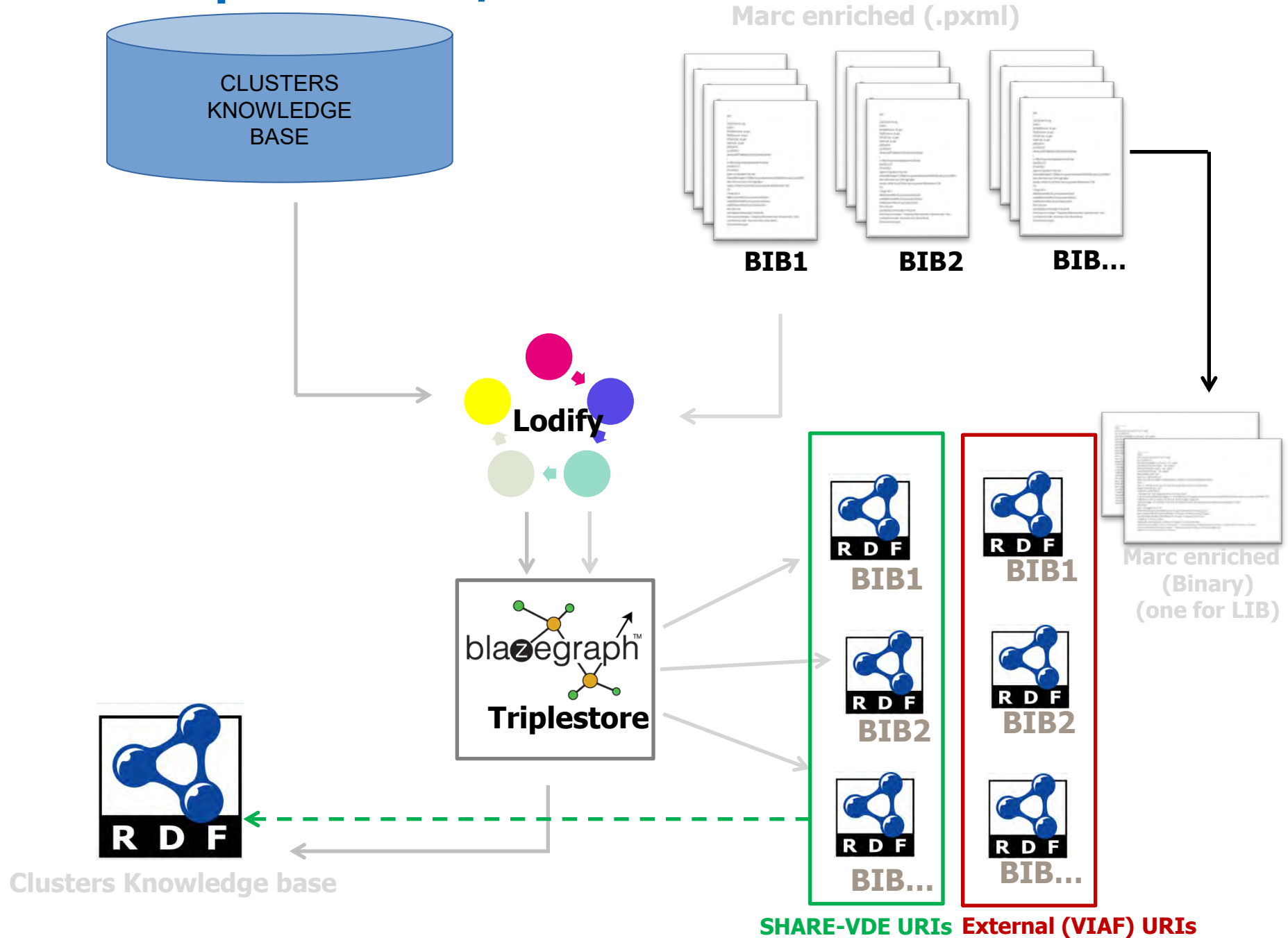
## Bibliographic records



## Marc enriched (.pxml)



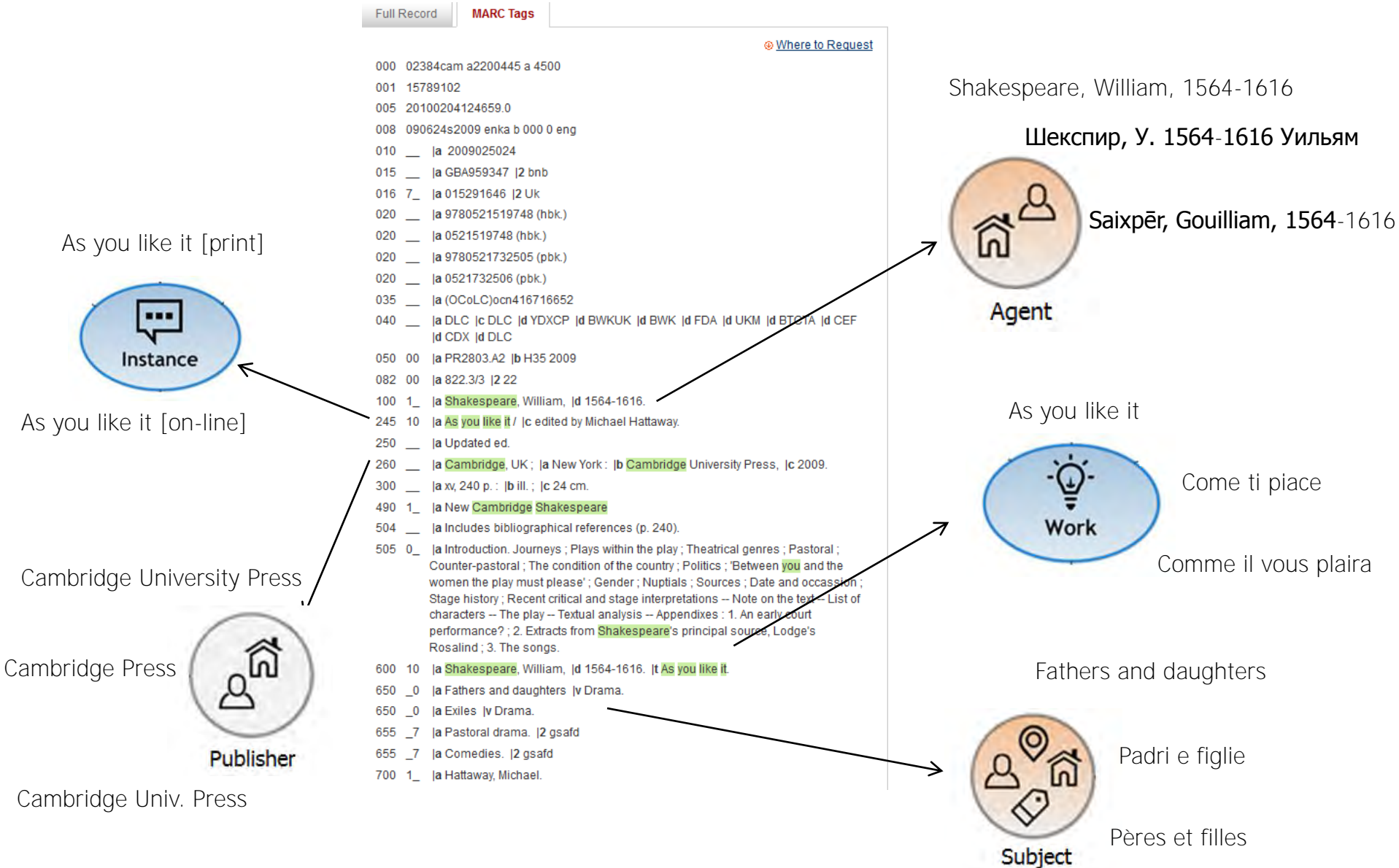
# Focus on processes 2/2



# Entity identification



# The new revolution: from record to entity



# Different entities from the same MARC record

The screenshot shows the SHARE VDE interface. At the top, there's a navigation bar with 'SHARE' (yellow circle), 'Virtual' (red circle), 'Discovery' (green circle), and 'Environment' (orange circle). The text 'Person/Work' is written in a script font. Below this is a search bar with a 'Work' icon and a 'Browse' button. The main content area is titled 'Search Work/Publications'. It features a central entity card for 'Galdós and medicine' with ID 240309. To the left, a 'Publications' panel lists three items: 'Galdós and medicine' (with a green icon), 'Galdós and medicine' (with a blue icon), and 'Galdós and Medicine' (with a blue icon). To the right, a 'Subject' panel lists various subjects including 'Pérez Galdós, Benito, 1843-1920', 'Literature and medicine -- Spain -- History -- 19th century', 'History', 'Spain', 'Medicine in Literature', 'Literature and medicine', '1800-1899', 'History, 19th Century', 'Pérez Galdós, Benito, 1843-1920 -- Criticism and interpretation', 'Criticism, interpretation, etc', '1800 - 1899', 'Pérez Galdós, Benito, 1843-1920 -- Criticism and interpretation', and 'Medicine in literature'. At the bottom, there's a search bar with a magnifying glass icon and the text '(2424573) Stannard, Michael W., 1942-...'. A large red text overlay on the left side of the interface reads: 'A WORK AS AN ENTITY WITH ITS RELATIONSHIPS!'.

**A WORK AS AN ENTITY WITH ITS RELATIONSHIPS!**

[http://share-vde.org/sharevde/searchTitles?t\\_cluster\\_id=240309&l=en](http://share-vde.org/sharevde/searchTitles?t_cluster_id=240309&l=en)

# Different entities from the same MARC record



Subject



Mann, Thomas, 1875-1955  
ID: 215541

Subject in

Esmeralda

"Steine in Hitlers Fenster"

Lebenstraum und Todesnähe

Altersgraue Legende"

Lebens-Werk

Bürger auf Abwegen

Schönheit und Verfall

Faust legend

Manns

Literarischer Erfahrungshorizont

Stationen der Thomas-Mann-Forschung

Schreibprozess bei Thomas Mann und Franz Kafka und seine didaktischen ...

Literarische Dekadenz

Die Musik

"Ganz entre nous"

Jahrhundert der Manns

Kraft der Berührung

Beslissing

Wagner und unsere Zeit

Correspondence

Lebenstraum und Todesnähe

King and his rival

Novel and the Nazi past

**HERE THOMAS  
MANN IS THE  
SUBJECT OF A  
WORK!**



# Different entities from the same MARC record

SHARE

Discovery

Virtual

Environment

Person/Work

Work

Publishers



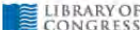


Subject

Publishers

EXPAND ALL


CLOSE ALL


▼ This publisher in

▼ Wikipedia

Giulio Einaudi editore, nota anche più semplicemente come Einaudi, è una casa editrice italiana.






 Wikipedia

  
Giulio Einaudi editore.  
ID: 116434











▼ Places

Torino

▼ Other forms

 Giulio Einaudi Editore casa editrice italiana  
 Einaudi, Firm  
 Giulio Einaudi e editore.  
 Giulio Einaudi e editore  
 Giulio Einaudi Editore

▼ Person

 Mattei, Ugo.  
 Galluccio, Bruno  
 Ainis, Michele  
 Perniola, Mario, 1941-....  
 Lucas, Uliano.  
 Marcolaldi, Franco, 1955-....  
 Castelnuovo, Enrico, 1929-2014  
 La Cecilia, Franco, 1950-....  
 Tafuri, Manfredo, 1935-1994  
 Bre, Silvia  
...(other)

▼ Subject

- Philosophy, Ancient

- Ariadne (Greek mythology)

- Communication

- Bioethics

- Europe

- World War, 1914-1918

- Rome (Italy)

**THE PUBLISHER**  
**WITH ITS RELATIONSHIPS!**

# Entities in *cluster*: an example of collaboration and sharing

**Vivaldi, Antonio, 1678-1741**  
ID: 37154

Questo autore in

- Wikidata
- Library of Congress
- data.bnf.fr
- VIAF

**Altre forme del nome**

- Vivaldi, Antonio, 1678-1741
- 1678-1741, י'דוּן מ'דל'י
- Vivaldi, Antonio, 1678-1741
- Vivaldi, Antonio
- Vivaldi, Antonio, sac., 1678-1741
- Вивальди, А. 1678-1741 АНТОНИО
- Вивальди, АНТОНИО, 1678-1741
- Vivaldi, Antonio, 1680-1741
- 1741-1678, فيالدي, أنطونيو
- Antonio Vivaldi compositore e violinista italiano esponente di spicco del tardo barocco veneziano
- Vivaldi, Antonio, ca.1678-1741
- Vivaldi, Antonio (Italian composer and musician, 1678-1741)
- Prete rosso, 1678-1741
- Vivaldis, A., 1678-1741
- Vivaldi, A. (Antonio), 1678-1741
- Vivarudi, Antonio, 1678-1741
- Vivaldi, Antonio

...(altre forme)

The result of a reconciliation of the entity *Antonio Vivaldi* in the Share VDE project, with data from different sources and projects:

- the authorized form from a local authority file
- the variant forms originating from the references on the local authority records
- the variant forms originating from the VIAF
- the forms of the name used in the bibliographic records.

The cluster is completed and enriched with identifiers for the same entity, Antonio Vivaldi, from sources such as:

- Wikidata
- Library of Congress Name Authority File
- Data.bnf.fr
- VIAF



# An example of Work/Instances reconciliation

Grouping under a single work title of the many publication titles in the catalogue for *Cimento dell'armonia e dell'invenzione*

Single work title

Brings together different publications/resources present in different catalogues.

The screenshot shows a web interface for a cluster of publications. At the top right, there is a red icon of a book and a box containing the title "Cimento dell'armonia e dell'invenzione" and the ID "11287". Below this, a vertical line is labeled "Creatori:". The main content area, titled "Pubblicazioni", lists various publications with their titles and associated logos. The publications listed are:

- Concerto per oboe in do maggiore, RV 449 : (Concerto n. 12 de "Il cimento dell'armonia e dell'invenzione", op. 8)
- The four seasons : op. 8 no. 1-4
- The four seasons op. 8, nr. 1-4
- The four seasons, Op. 8, Nos. 1-4
- The four seasons
- Le quattro stagioni concertos for violin and orchestra op. 8 no. 1-4
- The four seasons op. 8, nos. 1-4
- Violin concerti Nos. 5-12 : from Il cimento dell'armonia e dell'invenzione, op. 8 ; Flute concerto in D major, RV 429 ; Cello concerto in B minor, RV 424
- Violin concertos op. 8, nos. 5, 6, 7, 8, 9, 10
- The four seasons Les quatre saisons = Die vier Jahreszeiten
- Le quattro stagioni = Die vier Jahreszeiten = The four seasons = Les quatre saisons
- Die vier Jahreszeiten = Les quatre saisons = The four seasons
- The four seasons Le quattro stagioni = Die vier Jahreszeiten = Les quatre saisons

[http://share-vde.org/sharevde/searchTitles?t\\_cluster\\_id=11287](http://share-vde.org/sharevde/searchTitles?t_cluster_id=11287)

# Example of same Instances present in different libraries

The screenshot displays the SHARE Publications(Instances) web interface. At the top, there is a navigation bar with a logo featuring three overlapping circles labeled 'SHARE', 'Virtual', and 'Environment'. The title 'Publications(Instances)' is prominently displayed in a script font. To the right of the title are links for 'Italiano', 'Info', and 'Contacts', along with a 'Go to Person/Work' link. Below the navigation bar is a search bar with a magnifying glass icon, an 'Advanced search' link, and a dropdown menu set to 'Everywhere'. The results are shown in a 'Tabular view' with 10 results per page, ordered by 'Score'. On the left side, there is a sidebar with 'Info' and 'Library' sections. The 'Library' section lists various institutions such as University of California Berkeley, Columbia University, Cornell University, Harvard University, Library of Congress, Stanford University, Texas A&M University, and University of Chicago. The main content area displays the details for 'The storm and other things' by Eugenio Montale, translated by William Arrowsmith. It includes the publisher (New York : Norton, c1985), extent (219 p. ; 25 cm.), and format (Language material). Below this, a list of 5 results is shown, each with a checkbox, an ID, and a link to click for details. The results are from Cornell University, UC Berkeley, University of Michigan, Columbia University, and Yale University. On the right side, there is a 'Format' sidebar with various filters such as 'Language material (13)', 'Bibliographic level', 'Author (Person)', 'Author (Corporate)', 'Author (Conference)', 'Works', 'Publication', 'Language', and 'Date'.

SHARE Virtual Environment

Publications(Instances)

Italiano Info Contacts

Go to Person/Work

Search history

Advanced search

Everywhere show 10 results per page ordered by Score

Info

Select one or more items in order to activate some functionalities like: print, send by email, download in available formats.

Library

University of California Berkeley (2)

Columbia University (1)

Cornell University (1)

Harvard University (1)

Library of Congress (1)

Stanford University (1)

Texas A&M University (1)

University of Chicago (1)

More...

Tutto x +

MARC Tabular view Short view

**The storm and other things / Eugenio Montale ; translated, with preface and commentary, by William Arrowsmith (9 documenti)**

Montale, Eugenio, 1896-1981

Publisher New York : Norton, c1985

Extent 219 p. ; 25 cm.

Format Language material

☐ ID CORNELL1138554 (Click for details)

☐ ID UCBERKELEYUCb125195606 (Click for details)

☐ ID UMICH000663201 (Click for details)

☐ ID COLUMBIA444093 (Click for details)

☐ ID LOC2859531 (Click for details)

☐ ID YALE440351 (Click for details)

☐ ID HARVARD000456337-9 (Click for details)

**5 results found**

Format

Language material (13)

Bibliographic level

Monographs (13)

Author (Person)

Montale, Eugenio, 1896-1981 (13)

Arrowsmith, William, 1924-1992 (9)

Arrowsmith, William, 1924- (4)

Author (Corporate)

Author (Conference)

Works

Bufera e altro (13)

Publication

Norton (13)

Language

English (13)

Italian (3)

Date

# Reconciliation & Enrichment Automatic procedures



# How reconciliation is obtained

Data reconciliation and enrichment is obtained by:

- *automated processes*
- *manual processes*

It is important to underline how the [relationship between the reconciliation and validation of the results](#) can differ profoundly between the automated and manual processes:

- automated processes: a high-level of reconciliation and clustering; a low-level of results validation;
- manual processes: a low-level of reconciliation and clustering; a high-level of results validation.





# Authify – Cluster search services

Authify is a RESTFul module that offers several search and detection services, configurable also for those sources where the public Web API have limitations and it's necessary to download the whole dataset.

The Authify cluster search services provides, as the name suggest, a full-text search service among names and works clusters. The search Web API uses, behind the scenes, an “invisible queries” approach in order to (try to) find a match, as much precise as possible, within the managed clusters.

The invisible queries approach allows to make everything transparent to the caller: on top of a single search request, the system executes a chain of different search strategies with different priority, and the first match that produces a result will populate the response that will be returned.

For debugging purposes, the response will also include the matching strategy that produced the results.



# Authify – Relator term detection

Another service which has been added to Authify is the so called “**Relator term detection**”.

Starting from a MARC record (whatever is the specific dialect) the system analyses all (configured) tags that contain a name and, for each of them, tries to figure out (using the statements of responsibility of the input record) what is the corresponding role within the work represented by the given record.

Behind a simple token matching analysis, there is a more complicated logic that tries (using, among other things, the search services described in the previous point) to find the role of each found name using its variant forms or using a set of tokens that could identify such role (e.g. edited by, by, illustrated by).

A catch-all role is used when no valuable information can be desumed from the analysis.





# Reconciliation & Enrichment Manual procedures




# PCC directives


**PCC identifies and addresses policy issues on the use of identifiers in MARC:**




developing guidelines to include identifiers in MARC bibliographic and authority records



the use of multiple identifiers for the same entity



determining the entities for which identifiers should be provided in an initial implementation



identifying automated methods for populating and maintaining new and existing records with identifiers

# The importance of identification and detection in the Semantic Web



Key elements of the cataloguing workflow:

- entity identification
- reconciliation

To enrich a MARC record with URIs [Casalini Libri](#) uses the “URI Management System” (included in the OLISuite cataloguing module within WeCat developed by @Cult) that allows also the management of [multiple identifiers](#) for each [access point](#) or [heading](#).

This simplifies the reconciliation of varying forms of the same entity with the development of detection procedures for entity identification and the conversion to BIBFRAME.

# URI Management System in OLISuite

This component is integrated in [Casalini Libri's](#) original cataloguing workflow in order to have the option of supplying [MARC enriched records](#) and the equivalent [BIBFRAME datasets](#).

The screenshot displays the OLISuite interface with a sidebar on the left and a main content area. The sidebar includes sections for Search/Cataloguing, Reports, Templates/Download, and Access. The main content area shows a 'Browse search' form with a search box containing 'kafka', a dropdown menu set to 'None', and a 'Scan for' button. Below the search form is a 'Configuration' section with various checkboxes. A table of records is displayed below the configuration, with a red arrow pointing to the 'URI' column header and the first record, 'Kaestli, Jean-Daniel'.

Heading	DB	NT	URI	Refs	A	Dots	Level	Index	Act.
<b>Kaestli, Jean-Daniel</b>	B1	0	0		0	0	5	Unverified	und
<b>Kafka, Franz, 1883-1924</b>	B1	1	2		0	0	1	Saved	und
<b>Kafka, Franz 1883-1924 The Metamorphosis</b>	B1	0	0		0	1	0	Saved	eng
<b>Kaftal, George</b>	B1	0	0		0	0	4	Unverified	und

# URI Management System in OLISuite

**Search/Cataloguing**

- Simple
- Advanced
- External
- Last index
- Active queries
- Indexes list
- Diacritic

**Reports**

- General
- Label

**Templates/Download**

From template

Load from file

Check loaded data

Templates

Load from VIAF

## URI management

Any AMICUS Database

Advanced >> Browse search >> URI management

**Selected heading: Kafka, Franz, 1883-1924**

New

Source	Http Uri	<input checked="" type="checkbox"/>	Validated	Options
NAF	http://id.loc.gov/authorities/names/n81063091	<input type="checkbox"/>		
ISNI	http://isni.org/isni/000000012280370X	<input type="checkbox"/>		

Delete

The cataloguer can check, modify, delete or add other identifiers to the same heading

# Adding new URIs to a heading in OLI Suite

Nuovo URI

Any AMICUS Database ▼

Avanzata >> Ricerca per Indici >> Gestione URI >> Nuovo URI

Intestazione selezionata: Kafka, Franz, 1883-1924

Scegli fonte ▼

- Scegli fonte
- FAST
- ISNI
- NAF**
- VIAF

Kafka, Franz, 1883-1924

Cerca

**From this drop down menu the cataloguer can choose the desired source and start the URI search**

# Adding new URI to a heading OLISuite

Nuovo URI Any AMICUS Database

Avanzata >> Ricerca per Indici >> Gestione URI >> Nuovo URI

Intestazione selezionata: Kafka, Franz, 1883-1924

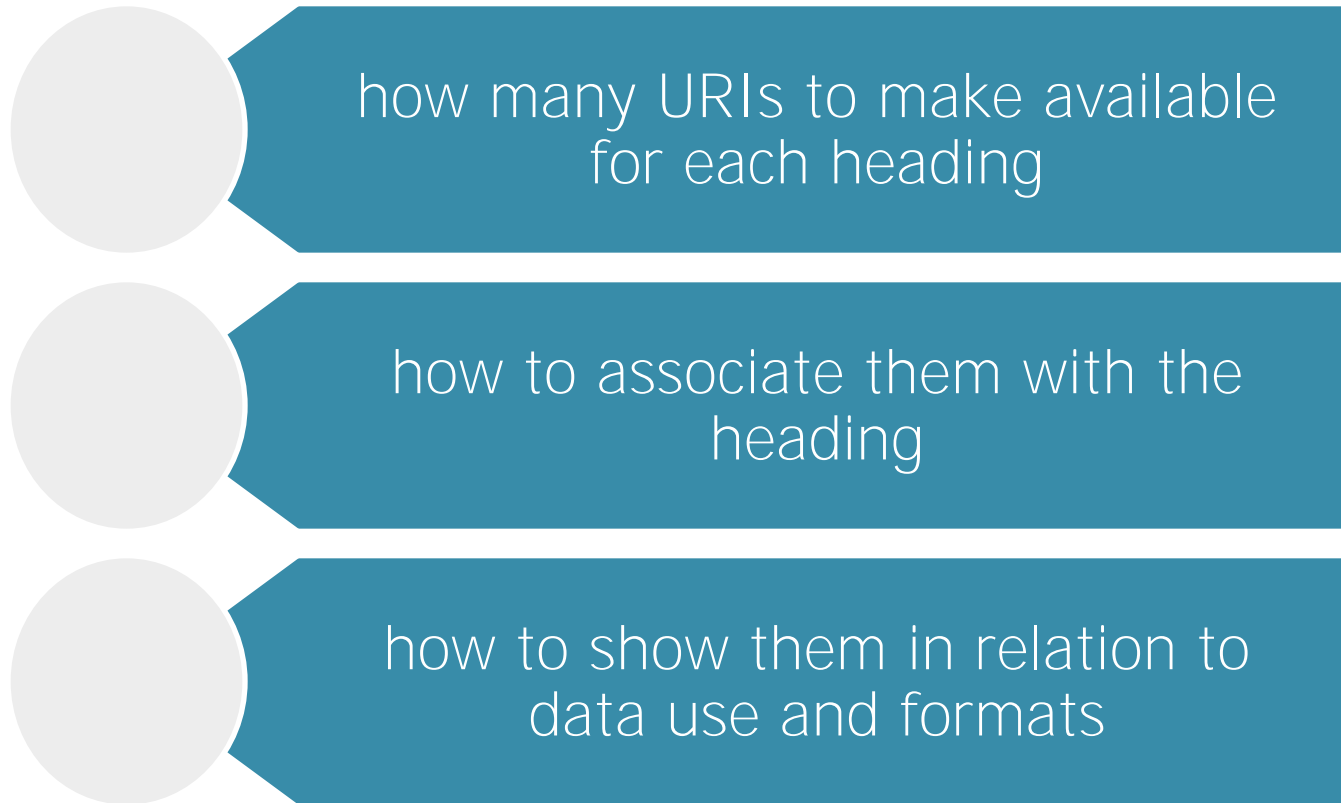
NAF  Cerca Salva

Fonte	Link	Etichetta	Aggiungi
NAF	<a href="http://id.loc.gov/authorities/names/n81063091">http://id.loc.gov/authorities/names/n81063091</a>	Kafka, Franz, 1883-1924	<input checked="" type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/n82140681">http://id.loc.gov/authorities/names/n82140681</a>	Kafka, Franz, 1883-1924. Short stories. Selections. English	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/n82125876">http://id.loc.gov/authorities/names/n82125876</a>	Kafka, Franz, 1883-1924. Short stories. English	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/no2005006616">http://id.loc.gov/authorities/names/no2005006616</a>	Kafka, Franz, 1883-1924. Brief an den Vater. English	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/no98037666">http://id.loc.gov/authorities/names/no98037666</a>	Kafka, Franz, 1883-1924. Works. 1995	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/n2012039411">http://id.loc.gov/authorities/names/n2012039411</a>	Kafka, Franz, 1883-1924. Briefe an Milena. Hebrew	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/n88114203">http://id.loc.gov/authorities/names/n88114203</a>	Kafka, Franz, 1883-1924. Erzählungen und kleine Prosa. English	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/n91003020">http://id.loc.gov/authorities/names/n91003020</a>	Kafka, Franz, 1883-1924. Diaries	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/nr97033862">http://id.loc.gov/authorities/names/nr97033862</a>	Kafka, Franz, 1883-1924. Works. 1946	<input type="checkbox"/>
NAF	<a href="http://id.loc.gov/authorities/names/nr99034045">http://id.loc.gov/authorities/names/nr99034045</a>	Kafka, Franz, 1883-1924. Amerika. English	<input type="checkbox"/>

From the search  
result window  
choose the desired  
URI and SAVE

# Access points and URIs

Saving the different URIs in a database table, allow them to be used in various ways, selected during the data export/conversion:

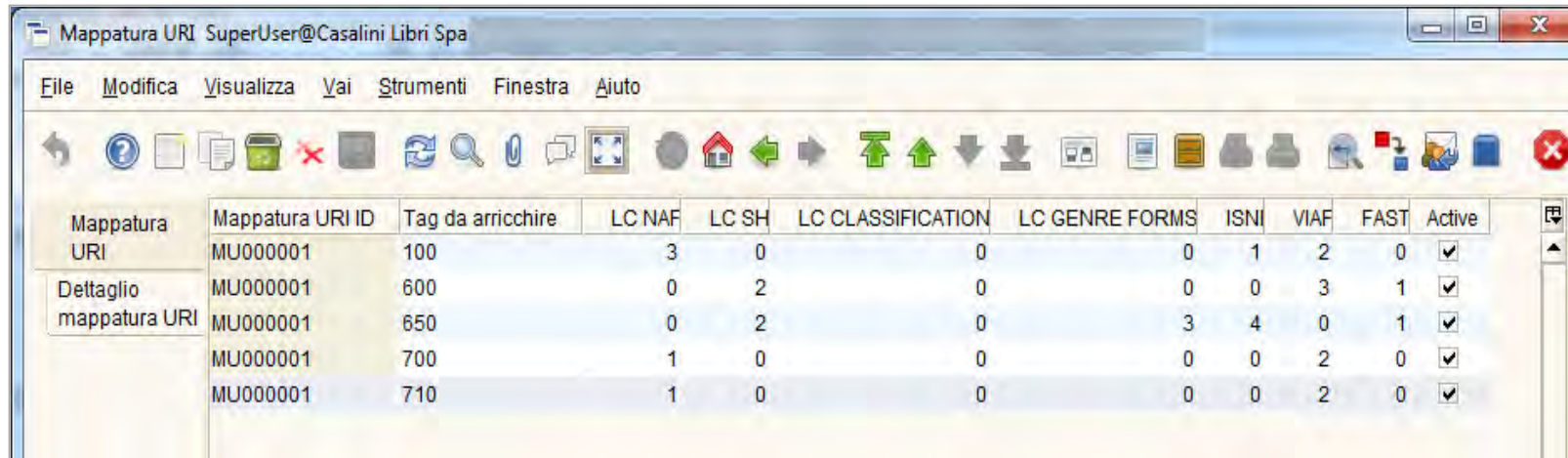


Different library profiles that were previously defined in the ERP Adempiere are considered.



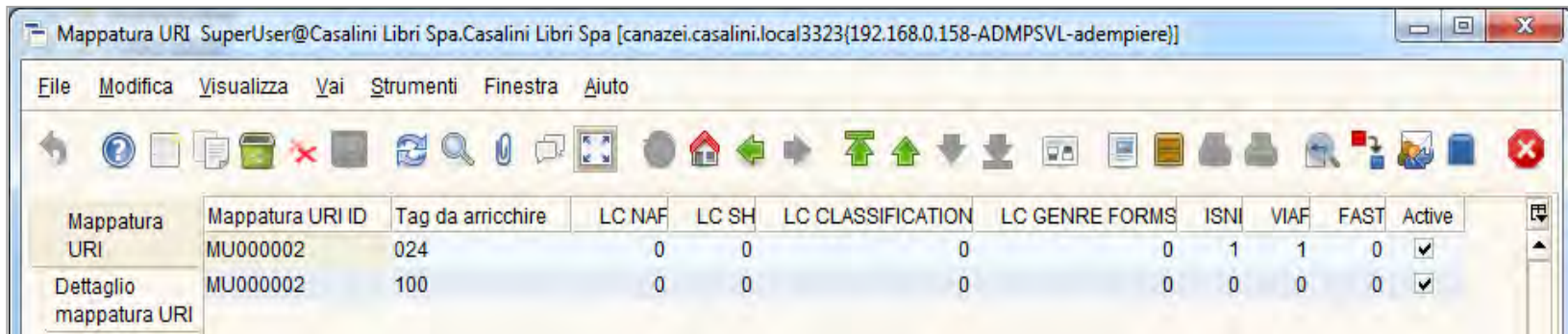
# URIs/tag mapping

## URIs/tag mapping for Library A



Mappatura URI	Mappatura URI ID	Tag da arricchire	LC NAF	LC SH	LC CLASSIFICATION	LC GENRE FORMS	ISNI	VIAF	FAST	Active
Mappatura URI	MU000001	100	3	0	0	0	1	2	0	<input checked="" type="checkbox"/>
Dettaglio mappatura URI	MU000001	600	0	2	0	0	0	3	1	<input checked="" type="checkbox"/>
	MU000001	650	0	2	0	3	4	0	1	<input checked="" type="checkbox"/>
	MU000001	700	1	0	0	0	0	2	0	<input checked="" type="checkbox"/>
	MU000001	710	1	0	0	0	0	2	0	<input checked="" type="checkbox"/>

## URIs/tag mapping for Library B



Mappatura URI	Mappatura URI ID	Tag da arricchire	LC NAF	LC SH	LC CLASSIFICATION	LC GENRE FORMS	ISNI	VIAF	FAST	Active
Mappatura URI	MU000002	024	0	0	0	0	1	1	0	<input checked="" type="checkbox"/>
Dettaglio mappatura URI	MU000002	100	0	0	0	0	0	0	0	<input checked="" type="checkbox"/>

# URI history => URI Registry

The reorganisation of a cluster can modify its original content, so we need to save the relevant cluster updates in a URI Registry.

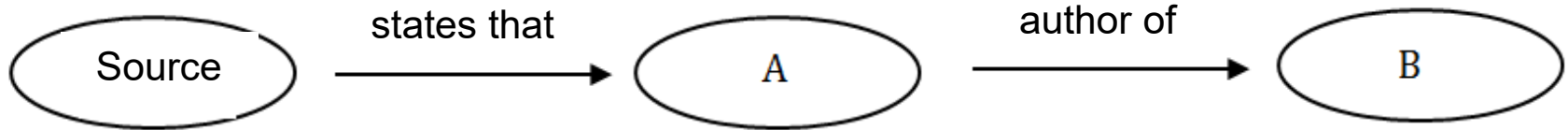
The URI Registry could keep information such as (but not limited to):

- the resources added to the cluster, but also modified or removed from it
- the date of the update
- the particular operation performed
- the status of an URI (for instance valid or invalid)
- the URI Aliases



# Guarantee of authority and quality in the new LOD environment

The source or *provenance*, which, in turn, must be constructed with reference to specific ontologies, providing the classes, properties and restrictions needed for identifying it, becomes the *fourth element* added to every triple (assertion) to certify its validity, transforming the triple into a quadruple.



Stating the *provenance* of a piece of information is an essential element for increasing the trust that can be placed in data, and facilitating its use and sharing by end users or by the institutions choosing to cooperate in this way.

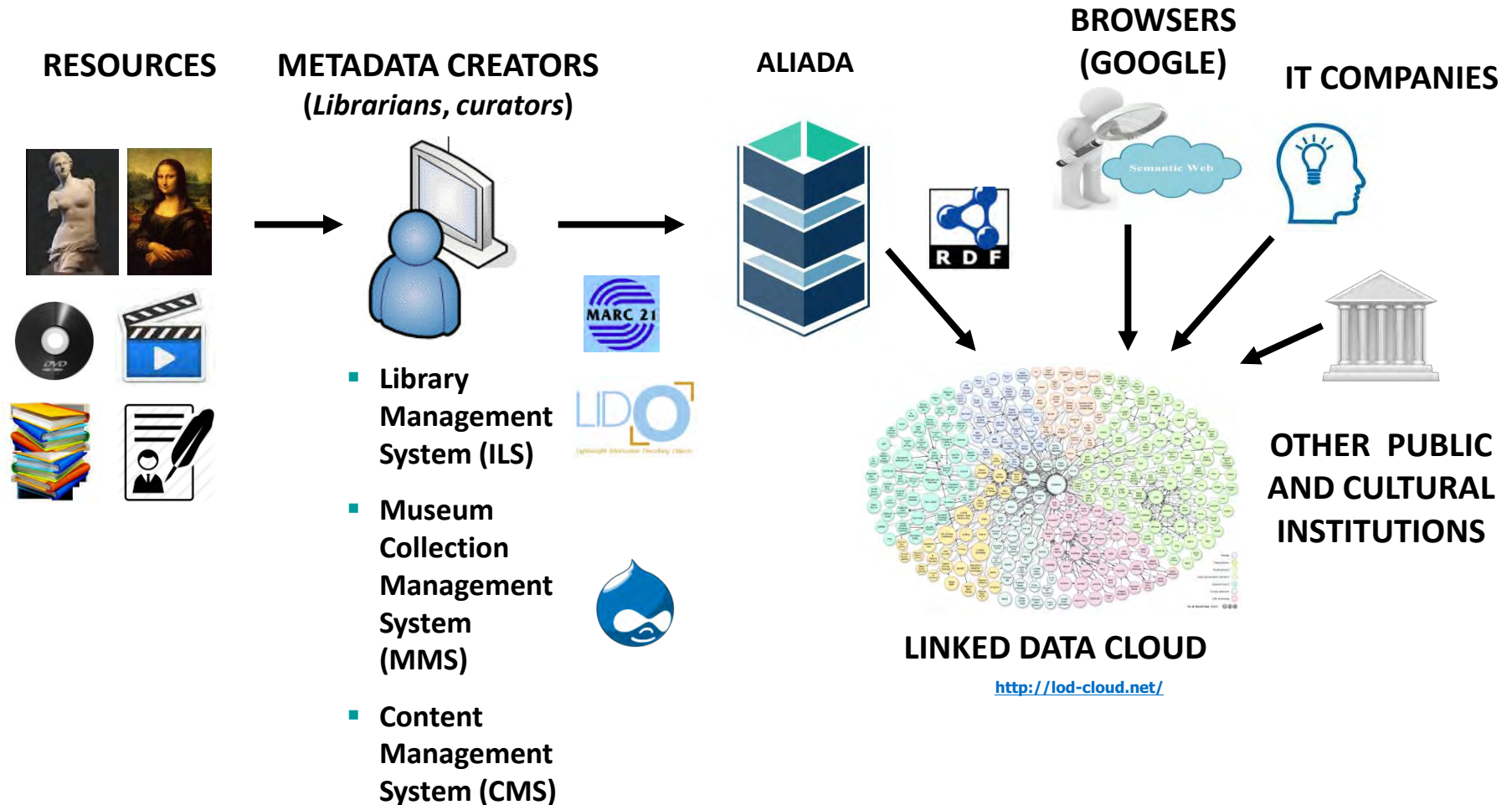


# Conversion in RDF/BIBFRAME



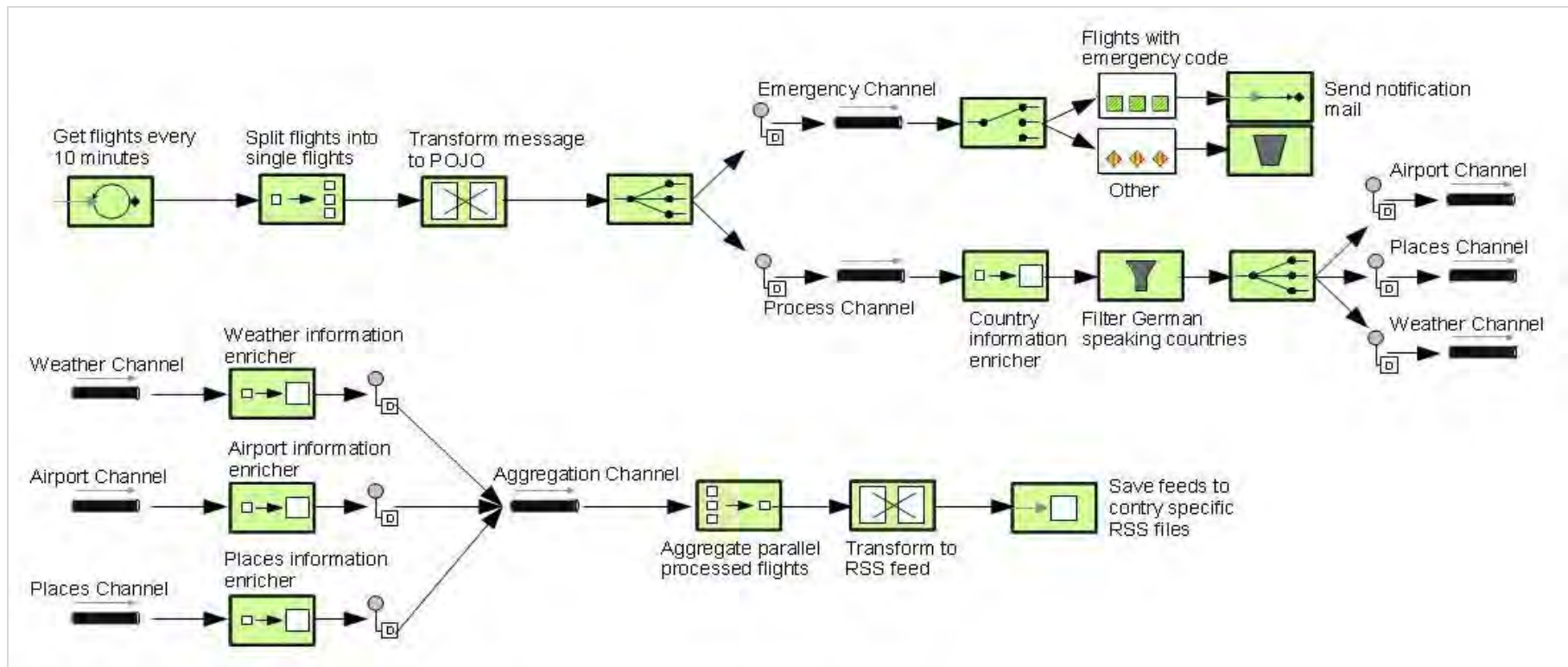
# Lodify: the evolution of Aliada for BIBFRAME conversion

The conversion process from any format to RDF



# Lodify - The asynchronous pipeline

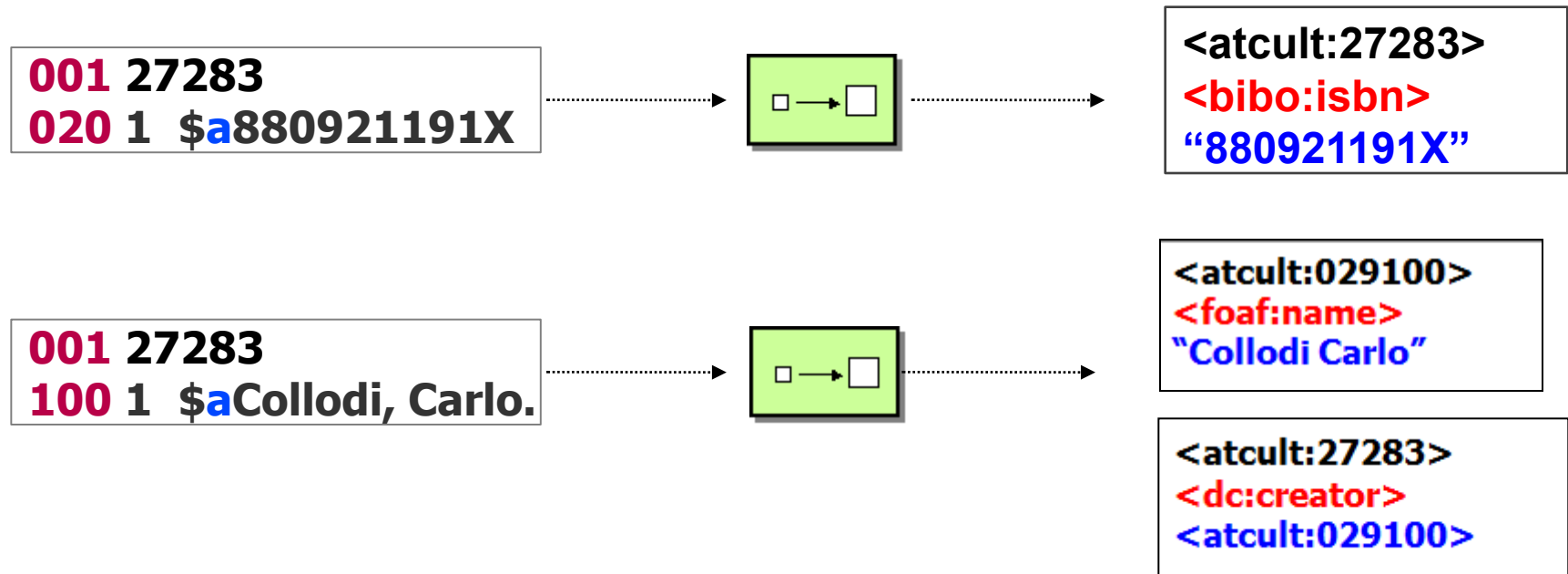
Lodify building block, realized through Apache Camel. The process is split into atomic pieces (processors), each of these responsible for a small part of the overall task. Each processor can act as a splitter or aggregator and can achieve content manipulation on the incoming message.



# Lodify - Conversion templates

Lodify converts each incoming record by means of Conversion templates.  
Each template associates:

- a MARC record belonging to the incoming data-stream
- with a set of (conversion) rules associated with one or more ontologies.





# BF LC vocabulary extensions: the state-of-art

## Class List

<u>AppliesTo</u>	<u>DemographicGroup</u>	<u>Relation</u>
<u>CreatorCharacteristic</u>	<u>EncodingLevel</u>	<u>Relationship</u>

## Property List

<u>applicableInstitution</u>	<u>name10MatchKey</u>	<u>title00MarcKey</u>
<u>appliesTo</u>	<u>name11MarcKey</u>	<u>title00MatchKey</u>
<u>creatorCharacteristic</u>	<u>name11MatchKey</u>	<u>title10MarcKey</u>
<u>demographicGroup</u>	<u>primaryContributorName00MatchKey</u>	<u>title10MatchKey</u>
<u>encodingLevel</u>	<u>primaryContributorName10MatchKey</u>	<u>title11MarcKey</u>
<u>metadataLicensor</u>	<u>primaryContributorName11MatchKey</u>	<u>title11MatchKey</u>
<u>name00MarcKey</u>	<u>projectedProvisionDate</u>	<u>title30MarcKey</u>
<u>name00MatchKey</u>	<u>relation</u>	<u>title30MatchKey</u>
<u>name10MarcKey</u>	<u>relationship</u>	<u>title40MarcKey</u>
		<u>title40MatchKey</u>
		<u>titleSortKey</u>



# URI table for external sources

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URI\_table\_for\_external\_sources\_2017-12-22.xls

2017-12-22

CODE	SOURCE	INSTITUTION	LINK TO PROJECT PAGE	URI	URI EXAMPLE	MARC21 TAG	API/WS
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NAF (Names)	Library of Congress Names	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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NAF (NameTitle + Titles)	Library of Congress	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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LCSH	Library of Congress Headings	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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LC Classification	Library of Congress	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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LC Identifiers	Library of Congress Identifiers	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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Geographic Areas	MARC List for	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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Relators	MARC Code List	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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Languages	MARC List for	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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Countries	MARC List for	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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ISNI	ISNI - International Identifier	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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VIAF (Names)	VIAF - Virtual File	Library of Congress	<a href="http://id.loc.gov/authorities/names">http://id.loc.gov/authorities/names</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	<a href="http://id.loc.gov/authorities/nam">http://id.loc.gov/authorities/nam</a>	100/110/111 \$0	ISNA
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SPARQL endpoint	RDF dump	LICENSE TERMS	URL SEARCH	NOTES	AUTHIFY (Yes for search URL specified)	SUBFIELD \$0/\$1
	Yes		<a href="http://id.loc.gov/search/?q=Shakespeare+William&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fnames&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=Shakespeare+William&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fnames&amp;format=atom&amp;start=1</a>		<a href="http://\$({host}):\$({port})/authify/lnaf/persons?q=Eco,U-----">http://\$({host}):\$({port})/authify/lnaf/persons?q=Eco,U-----</a>	\$0
	Yes		<a href="http://id.loc.gov/search/?q=bible+old+testament&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fnames">http://id.loc.gov/search/?q=bible+old+testament&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fnames</a> OR <a href="http://id.loc.gov/search/?q=niccolo+macchiavelli+arte+della+guerra&amp;q=cs:http://id.loc.gov/authorities/names">http://id.loc.gov/search/?q=niccolo+macchiavelli+arte+della+guerra&amp;q=cs:http://id.loc.gov/authorities/names</a>		<a href="http://\$({title=Bible">http://\$({title=Bible</a> <a href="http://\$({niccolo=guerra">http://\$({niccolo=guerra</a>	
	Yes		<a href="http://id.loc.gov/search/?q=poetry&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fsubjects&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=poetry&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fsubjects&amp;format=atom&amp;start=1</a>		<a href="http://\$({q=Diarie:">http://\$({q=Diarie:</a>	
	NO		<a href="http://id.loc.gov/search/?q=poetry&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fsubjects&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=poetry&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fauthorities%2Fsubjects&amp;format=atom&amp;start=1</a>		NO	
	NO		<a href="http://id.loc.gov/search/?q=viaf&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Fidentifiers&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=viaf&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Fidentifiers&amp;format=atom&amp;start=1</a>			
			<a href="http://id.loc.gov/search/?q=italy&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2FgeographicAreas&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=italy&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2FgeographicAreas&amp;format=atom&amp;start=1</a>	It can be added as a fix value "http://id.loc.gov/vocabulary/geographicAreas/" + \$a. For example: <a href="http://id.loc.gov/vocabulary/geographicAreas/a-ko">http://id.loc.gov/vocabulary/geographicAreas/a-ko</a>	NO	
			<a href="http://id.loc.gov/search/?q=creator&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Frelators&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=creator&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Frelators&amp;format=atom&amp;start=1</a>	Addition of URI in export process: creation of a table that searches the corresponding URI from the \$e field. The /detect service exist, it retrieves the relator code from the responsibility expressed in the 245 \$c tag.	/detect	
			<a href="http://id.loc.gov/search/?q=italian&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Flanguages&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=italian&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Flanguages&amp;format=atom&amp;start=1</a>		NO	
			<a href="http://id.loc.gov/search/?q=italy&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Fcountries&amp;format=atom&amp;start=1">http://id.loc.gov/search/?q=italy&amp;q=cs%3Ahttp%3A%2F%2Fid.loc.gov%2Fvocabulary%2Fcountries&amp;format=atom&amp;start=1</a>		NO	
			<a href="http://isni.oclc.nl/sru/?query=pica.na%3D%22Shakespeare%20%20William%22&amp;operation=searchRetrieve&amp;recordSchema=isni-b&amp;maximumRecords=3&amp;recordPacking=xml">http://isni.oclc.nl/sru/?query=pica.na%3D%22Shakespeare%20%20William%22&amp;operation=searchRetrieve&amp;recordSchema=isni-b&amp;maximumRecords=3&amp;recordPacking=xml</a>	URI implementation with the available API. Massive usage with authentication.	NO	
	Yes		<a href="http://viaf.org/viaf/search?query=local.personalNames+%22Shakespeare%20William%22&amp;sortKeys=holdingscount&amp;maximumRecords=2&amp;httpAccept=application/xml">http://viaf.org/viaf/search?query=local.personalNames+%22Shakespeare%20William%22&amp;sortKeys=holdingscount&amp;maximumRecords=2&amp;httpAccept=application/xml</a>		<a href="http://\$({=manzoralesand">http://\$({=manzoralesand</a>	

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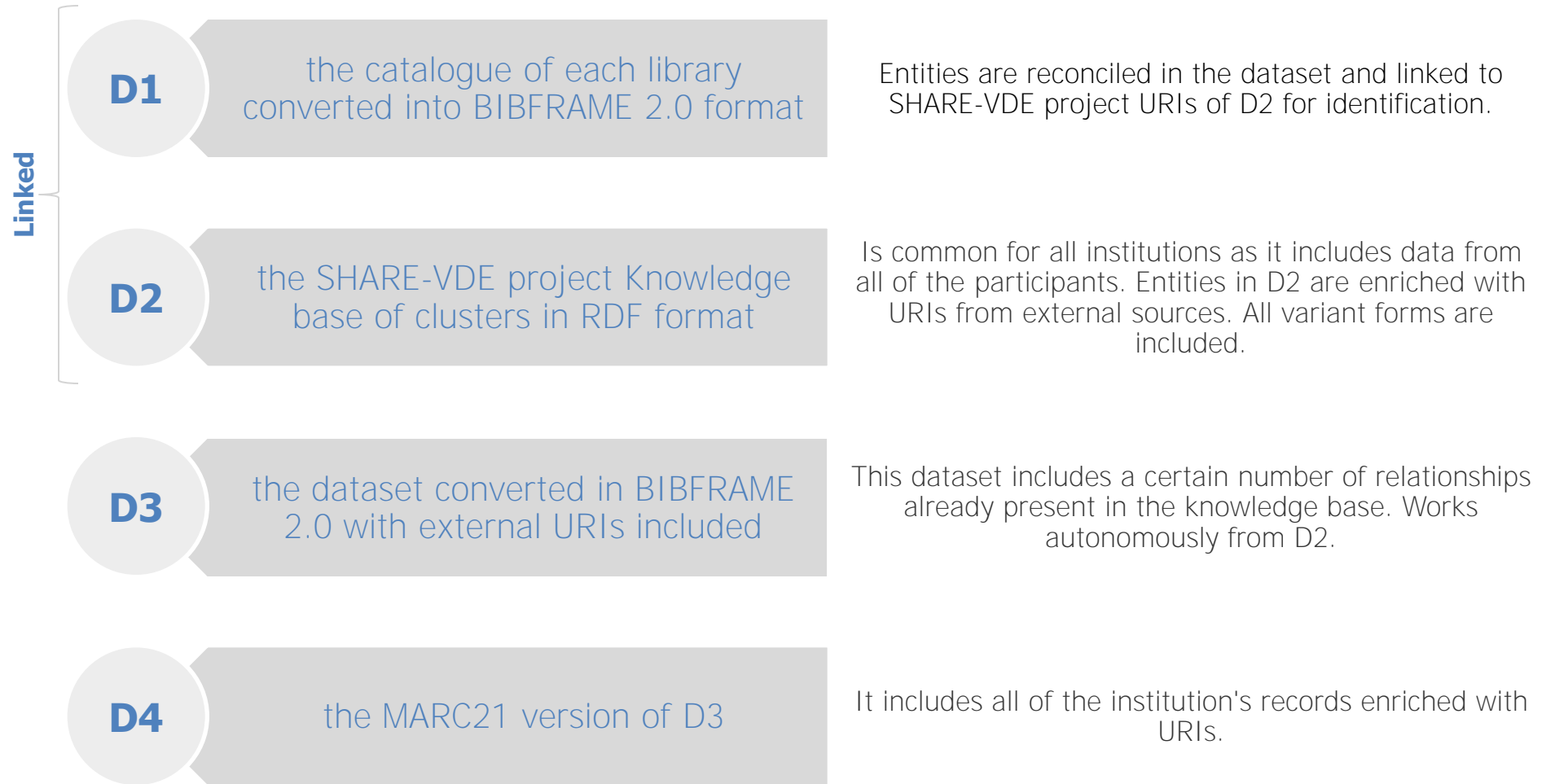
URI			
<a href="http://id.loc.gov/authorities/names/n79021285">http://id.loc.gov/authorities/names/n79021285</a>			
<a href="http://id.loc.gov/authorities/names/n80106714">http://id.loc.gov/authorities/names/n80106714</a>			
<a href="http://id.loc.gov/authorities/names/nr00019197">http://id.loc.gov/authorities/names/nr00019197</a>			
<a href="http://id.loc.gov/authorities/subjects/sh85037601">http://id.loc.gov/authorities/subjects/sh85037601</a>			
<a href="http://id.loc.gov/vocabulary/geographicAreas/a-ko">http://id.loc.gov/vocabulary/geographicAreas/a-ko</a>			
<a href="http://id.loc.gov/vocabulary/relators/aut">http://id.loc.gov/vocabulary/relators/aut</a>			
<a href="http://isni.org/isni/0000000120981297">http://isni.org/isni/0000000120981297</a>			
<a href="http://viaf.org/viaf/14356">http://viaf.org/viaf/14356</a>			



# SHARE-VDE phase 2 deliverables



# Phase 2 deliverables overview



The Heads of Cataloging Departments Interest Group  
Midwinter ALA Denver

Monday, February 12th, 2018

**Thank you!**

**Any questions or feedback are greatly appreciated.**

Michele Casalini, Managing Director  
michele@casalini.it

