



Experience of International Cooperation:
Towards a Collective and Global Catalog of National Bibliographies

Tiziana Possemato
@Cult - Casalini libri



Abstract

In a world where information is increasingly heterogeneous, fragmented, large-scale and subject to little control capability, National Libraries still hold their key role in the processing of authoritative data, as responsible for the control over the national bibliographic production in an exhaustive and timely manner. This role is played in continuity with the past but also in a completely new context, that of the wider web made up of non-traditional players that act often far from the authority that has always been recognized by national agencies. Still, national agencies need to develop discussions and interoperate with such players.

The need to adopt global languages for the expression of local content and to support users that are less and less enclosed into specific linguistic, cultural and geographical domains, relaunches the traditional conflict between the principle of universal standardization and the principle of user convenience. This has always provided crucial food for thought to national libraries, as to the actions that they undertake to overcome this conflict. The Share Virtual Discovery Environment (Share-VDE) project, with the larger initiative called Share family, commits to support libraries in this new and complex transition process. By adopting the philosophy and technologies of linked open data that the Share family of initiatives relies upon, National Libraries can extend and increase the visibility of their catalogs, contribute to the creation of a collective and global catalog of national bibliographies and share their experience and their own data in a network of institutions of different nature and vocation, maintaining their specificity, their autonomy and their role.

This scenario can be supported by a flexible technological infrastructure, designed to enable the sharing of information in the network of participating libraries, while ensuring the independent management of data by each institution.

Universal Bibliographic Control

Universal Bibliographic Control and International MARC (UBCIM) was an office established during the 1970's by IFLA, as result of a discussion about the importance of the international sharing of bibliographic data to help reduce costs and to encourage greater cooperation worldwide.

The aim was that each national bibliographic agency would catalog the works published in its own country and establish the names of its authors, and that the data would be shared and re-used around the world.

Under the theoretical UBC, any document would only be cataloged once in its country of origin, and that record would then be available for the use of any library in the world.

Background

In the 1990's it was recognized that having data in a language and script, users could understand it is extremely important, and by doing so, respecting the cultural diversity of users around the world should be addressed as well

Web technologies offer new possibilities for sharing data at a global scale and beyond the library domain, but also show a need for authoritative and trusted data.

Background

**Library of Congress Working Group
on the Future of Bibliographic
Control, January 9, 2008, *On the
record***

- the transformation of textual description into a set of data usable for automatic processing by machines;
- the need to make data elements uniquely identifiable within the information context of the web;
- the need for data to be compliant with web technologies and standards;
- the need to use a transversal and interoperable language in the reality of the web.

The role of National bibliographic agencies

To express the cultural richness of a country in a way that can be universally shared with other countries and agencies
(Local production in a global context)

- A National bibliographic agency (NBA) has the responsibility for providing the authoritative bibliographic data for publications of its own country and for making that data available to other NBAs, libraries, and other communities [...]
 - NBAs, as a part of the creation of authoritative bibliographic data, also have the responsibility for documenting authorized access points for persons, families, corporate bodies, names of places, and authoritative citations for works related to its own country [...]
-

The role of IFLA in coordinate the NBAs

Focus on standards and guidelines to
make data universally sharable, in a
wider community
(Local production in a global context)

- IFLA has [...] the responsibility for creating, maintaining and promoting bibliographic standards and guidelines to facilitate this sharing of bibliographic and authority data (e.g., ISBD, the FRBR family of conceptual models, etc.);
- IFLA works collaboratively with other international organizations (e.g., ISO, ICA, ICOM, etc.) in the creation and maintenance of other standards in order to ensure that library standards developments, including compatible data models, are coordinated with those of the wider community.

“Think global, act local”



- Patrick Geddes -

UBC as local and global dimension

National Bibliographic Agencies are focused on:

- Production that expresses the cultural richness of one's country, be it produced locally or from another country
- Attention to global content of interest to its users, related (or not) to local content
- Attention to the way the content is expressed through metadata: application of international standards and rules but with frequent "local" choices (example: the rule of presenting as preferred the form of a name understandable to your users)
- Universal standards and rules applied locally, for specific needs

“Local content is held in global carriers, and global content is held in local carriers”

- Gordon Dunsire, Mirna Willer -

The record as the protagonist of this local and global scenario

The balance between local and global views within the UBC worked well until the contents conveyed were defined...

- by National bibliographic agencies

...and controlled through descriptions (metadata), built in compliance with shared rules and standards:

- bibliographic and authority records

From record to entity

Each record has metadata useful to derive properties in order to build entities.
But they are hidden.

Full Record	MARC Tags
	Where to Request
000	02384cam a2200445 a 4500
001	15789102
005	20100204124659.0
008	090624s2009 enka b 000 0 eng
010	__ a 2009025024
015	__ a GBA959347 2 bnb
016	7_ a 015291646 2 UK
020	__ a 9780521519748 (hbk.)
020	__ a 0521519748 (hbk.)
020	__ a 9780521732505 (pbk.)
020	__ a 0521732506 (pbk.)
035	__ a (OCoLC)ocn416716652
040	__ a DLC c DLC d YDXCP d BWKUK d BWK d FDA d UKM d BTCTA d CEF d CDX d DLC
050	00 a PR2803.A2 b H35 2009
082	00 a 822.3/3 2 22
100	1_ a Shakespeare , William, d 1564-1616.
245	10 a As you like it / c edited by Michael Hattaway.
250	__ a Updated ed.
260	__ a Cambridge , UK ; a New York : b Cambridge University Press, c 2009.
300	__ a xv, 240 p. : b ill. ; c 24 cm.
490	1_ a New Cambridge Shakespeare
504	__ a Includes bibliographical references (p. 240).
505	0_ a Introduction. Journeys ; Plays within the play ; Theatrical genres ; Pastoral ; Counter-pastoral ; The condition of the country ; Politics ; 'Between you and the women the play must please' ; Gender ; Nuptials ; Sources ; Date and occasion ; Stage history ; Recent critical and stage interpretations -- Note on the text -- List of characters -- The play -- Textual analysis -- Appendixes : 1. An early court performance? ; 2. Extracts from Shakespeare's principal source, Lodge's <i>Rosalind</i> ; 3. The songs.
600	10 a Shakespeare , William, d 1564-1616. t As you like it .
650	_0 a Fathers and daughters v Drama.
650	_0 a Exiles v Drama.
655	_7 a Pastoral drama. 2 gsafd
655	_7 a Comedies. 2 gsafd
700	1_ a Hattaway, Michael.

The new revolution: from record to entity

Full Record	MARC Tags
	Where to Request
000	02384cam a2200445 a 4500
001	15789102
005	20100204124659.0
008	090624s2009 enka b 000 0 eng
010	__ a 2009025024
015	__ a GBA959347 2 bnb
016	_ a 015291646 2 Uk
020	__ a 9780521519748 (hbk.)
020	__ a 0521519748 (hbk.)
020	__ a 9780521732505 (pbk.)
020	__ a 0521732506 (pbk.)
035	__ a (OCoLC)ocn416716652
040	__ a DLC c DLC d YDXCP d BWKUK d BWK d FDA d UKM d BTCTA d CEF d CDX d DLC
050	00 a PR2803.A2 b H35 2009
082	00 a 822.3/3 2 22
100	1_ a Shakespeare , William, d 1564-1616.
245	10 a As you like it / c edited by Michael Hattaway.
250	__ a Updated ed.
260	__ a Cambridge , UK ; a New York : b Cambridge University Press , c 2009.
300	__ a xv, 240 p. : b ill. ; c 24 cm.
490	1_ a New Cambridge Shakespeare
504	__ a Includes bibliographical references (p. 240).
505	0_ a Introduction. Journeys ; Plays within the play ; Theatrical genres ; Pastoral ; Counter-pastoral ; The condition of the country ; Politics ; 'Between you and the women the play must please' ; Gender ; Nuptials ; Sources ; Date and occasion ; Stage history ; Recent critical and stage interpretations -- Note on the text -- List of characters -- The play -- Textual analysis -- Appendices : 1. An early court performance? ; 2. Extracts from Shakespeare 's principal source, Lodge's Rosalind ; 3. The songs.
600	10 a Shakespeare , William, d 1564-1616. t As you like it .
650	0_ a Fathers and daughters v Drama.
650	0_ a Exiles v Drama.
655	_7 a Pastoral drama. 2 gsafd
655	_7 a Comedies. 2 gsafd
700	1_ a Hattaway, Michael.

As you like it [print]



As you like it [on-line]

Cambridge University Press



Publisher

Cambridge Univ. Press

Shakespeare, William, 1564-1616

Шекспир, У. 1564-1616 Уильям

Saixpēr, Gouilliam, 1564-1616



Agent

As you like it



Work

Come ti piace

Comme il vous plaira

Fathers and daughters



Subject

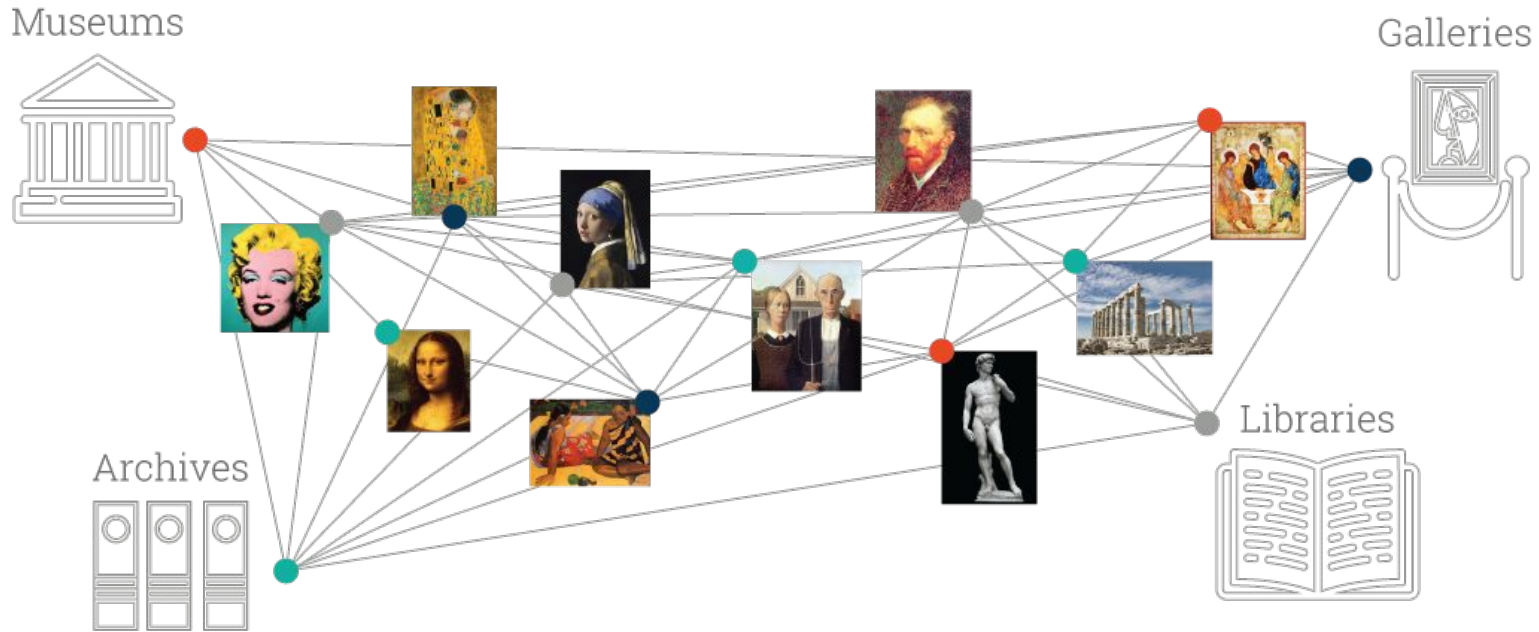
Padri e figlie

Pères et filles

Linked data means structured information, born to be shared and reused



The new digital ecosystem: a network of data



Source: <https://www.ontotext.com/knowledgehub/webinars/build-narratives-connect-artifacts-cultural-heritage/>

The authority of the sources and the still fundamental role of the UBC

In such transversal, heterogeneous and not always authoritative information sources, does UBC still make sense and do the metadata and distribution agencies that take charge of it still have a role?

Can different cataloging traditions coexist in such a changed context and integrate without losing their information value and authoritative character?

“Data constitute the backbone on which the communication scaffold is grafted. But the more the data is authentic, truthful, authoritative, certified and verifiable, the more difficult it is to invent fake news”

“I dati costituiscono la dorsale su cui si innesta l’impalcatura della comunicazione. Ma più i dati sono autentici, veritieri, autorevoli, certificati e verificabili, più è difficile inventare fake-news”

-Giovanni Pirrotta, Generazione e verifica di notizie di qualità attraverso il Web Semantico: la storia di Liliana Segre -

(<https://medium.com/@gpirrotta/generazione-e-verifica-di-notizie-di-qualit%C3%A0-attraverso-il-web-semantico-la-storia-di-liliana-6cd81f05e9fe>)

Data modeling and authority of the source

The contribution in terms of authority of each National bibliographic agency remains fundamental, and indeed, acquires centrality again in a new global scenario in which each source can contribute to building the most effective representation of an entity, but many sources cannot guarantee the character of *authority*, *persistence* and *updating* of it.

The Share-VDE initiative & the Share family

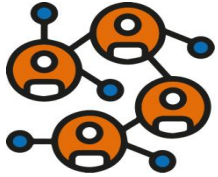


Visibility and cooperation: participation in international projects and initiatives in the LOD domain

Exchanges and input from the network: ALA, IFLA, LIBER conference, LD4 conference, European BIBFRAME Workshop, SWIB conference, Convegno Stelline, Fiesole Retreat etc.

Scientific value: [Share-VDE wiki resources](#) with articles and presentations

Putting new models into practice...



Share-VDE is a library-driven initiative launched in 2016 to establish an **effective working environment** for the use of linked data by libraries within a global context.

Library data are **enriched** with additional information and relationships, and bibliographic and authority data are converted into linked data.



A **virtual discovery platform** with a structure based on the **BIBFRAME** data model is created to simplify the way in which that data is consumed.

The network of resources created is the basis for the **Share-VDE Sapiientia Cluster Knowledge Base**, the common authoritative source of clusters accessible in RDF, open to the Share-VDE community and beyond.

... in a cooperative environment

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



the joint efforts 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

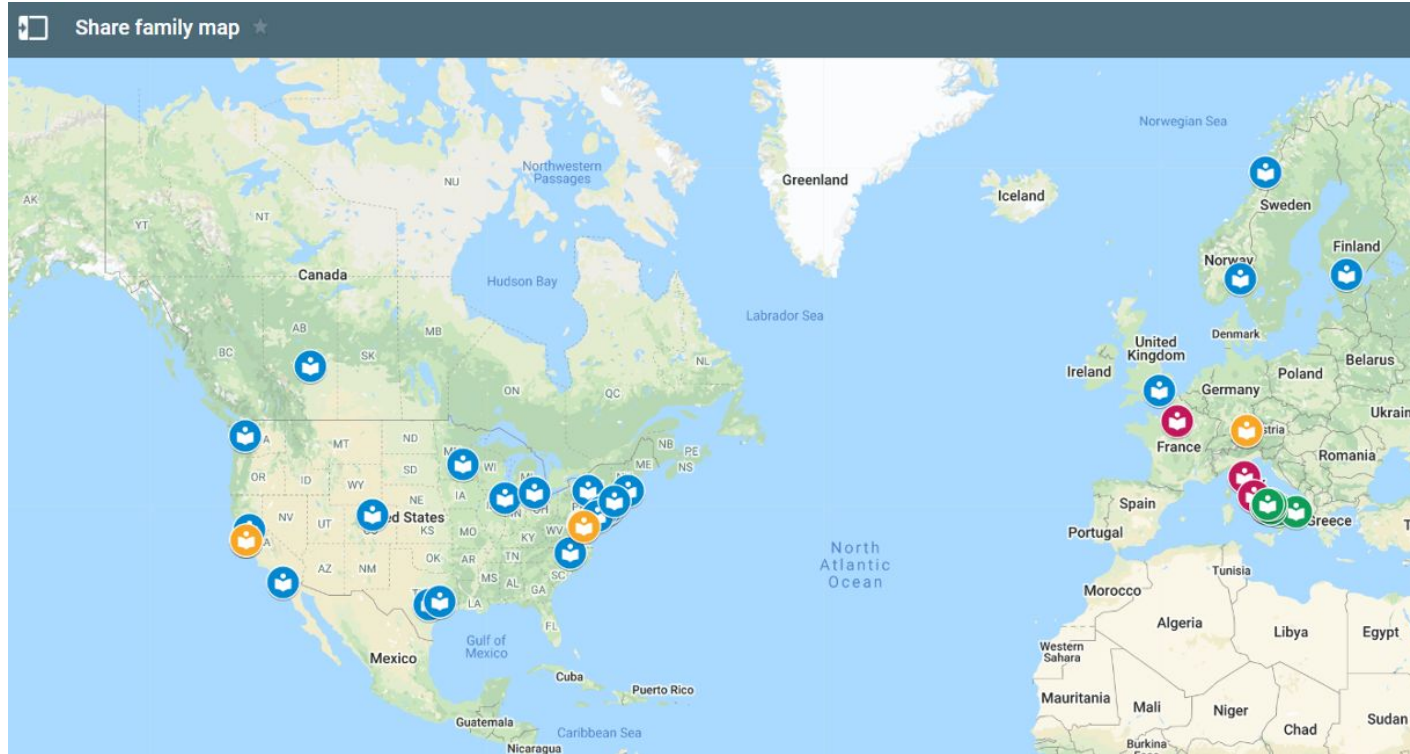


influenced by the vision of the **Linked Data for Production initiative**



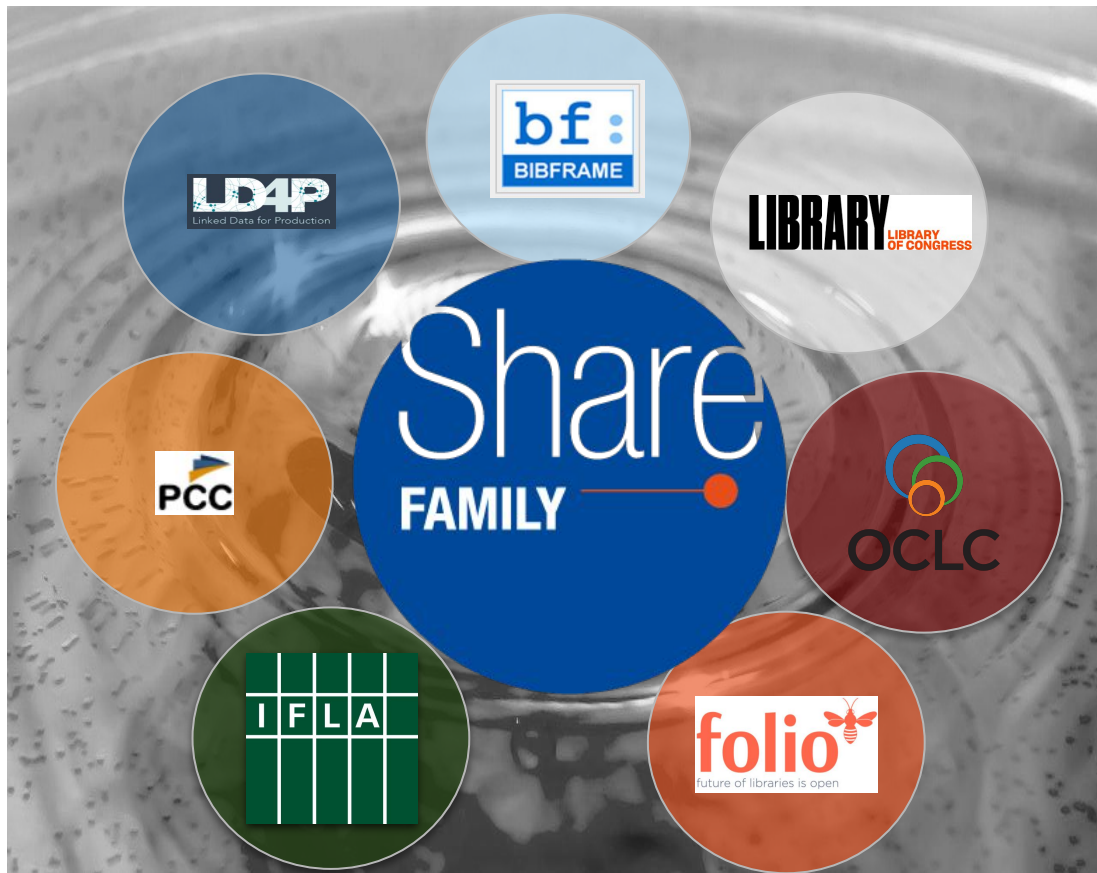
with input and active participation from an **international group of national and research libraries**

The Share family map around the world



Details can be found at wiki.svde.org

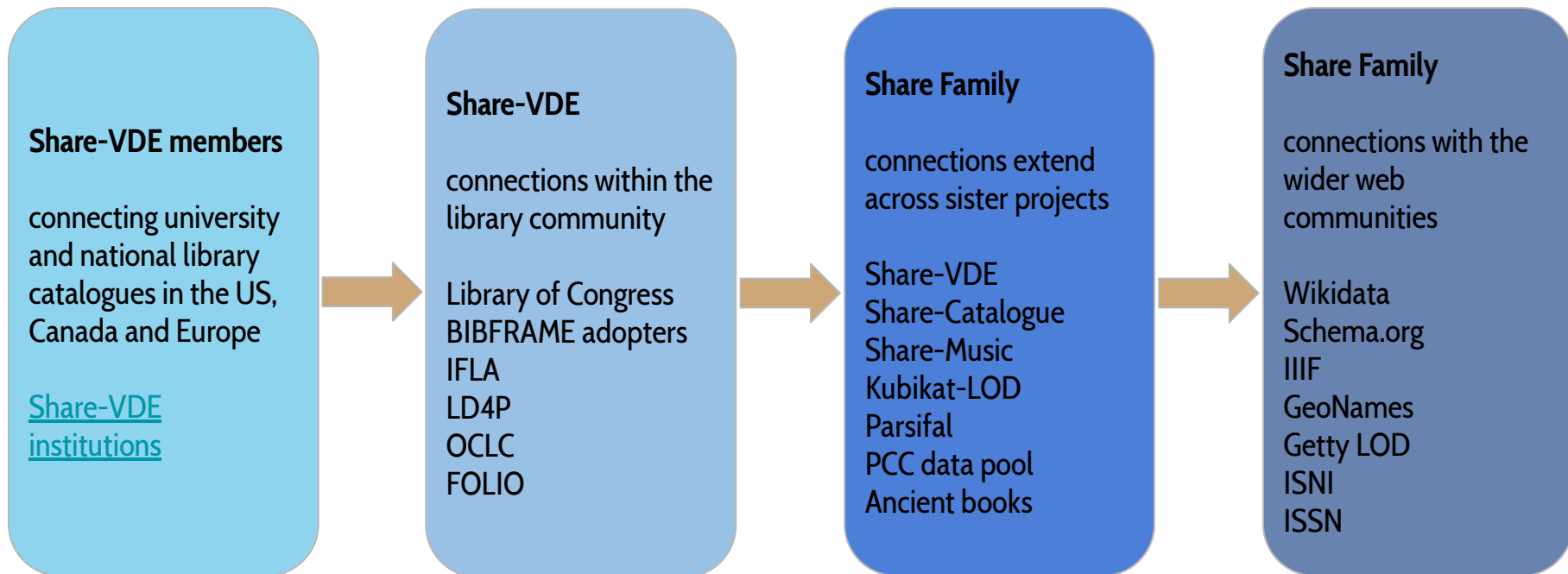
Involvement in the library community



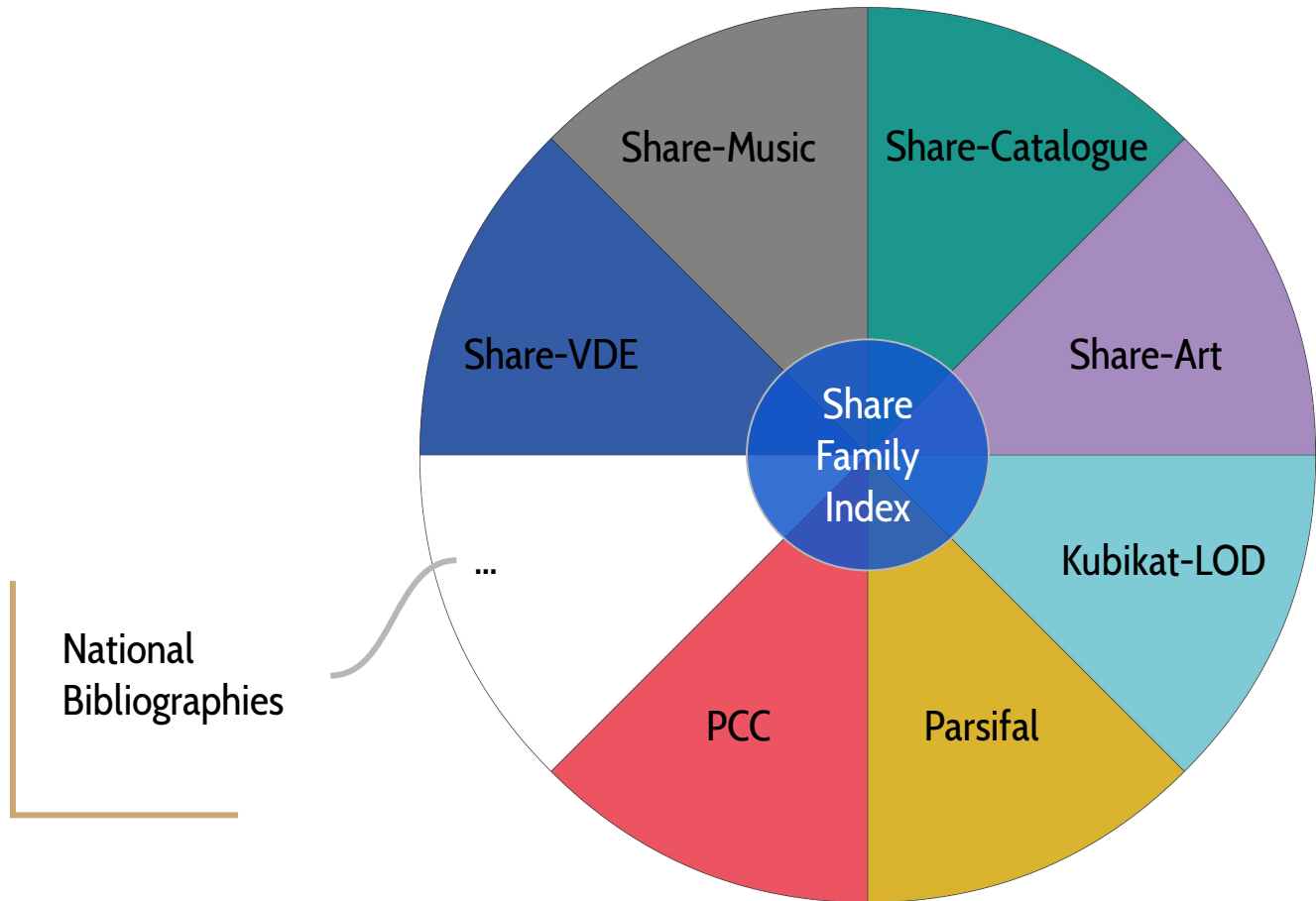
Extended community:
collaboration with heterogeneous initiatives and institutions in the library field

Scientific value:
sharing of data and services in different technological environments and different bibliographic and cultural contexts

Involvement in the library community



Participation and autonomy in the Share Family



Tenant architecture to manage global National Bibliographies

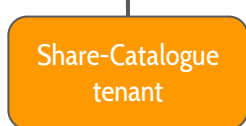
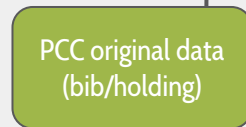
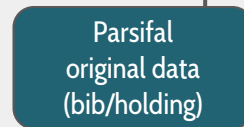
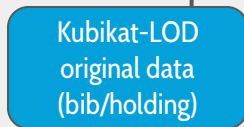
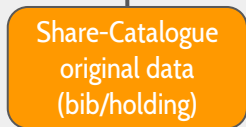
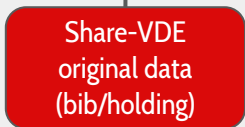
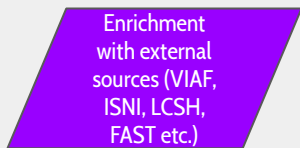
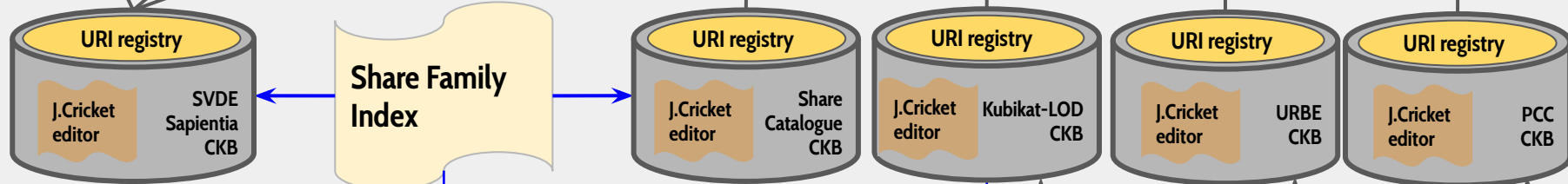
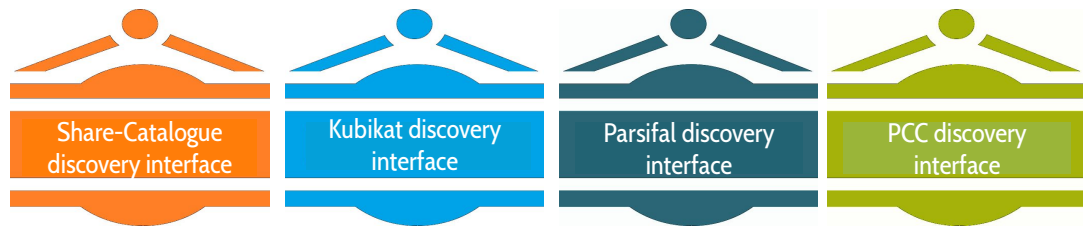
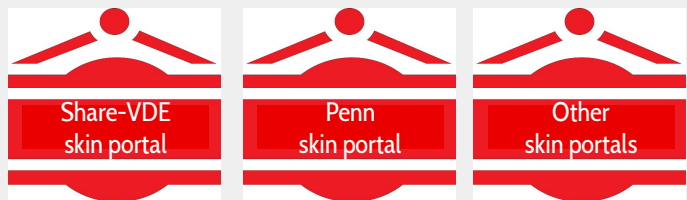
Definition of *tenant* from [Wikipedia](#):

- “The term **software multitenancy** refers to a software architecture in which a single instance of software runs on a server and serves multiple tenants”.
- “A **tenant** is a group of users who share a common access with specific privileges to the software instance. With a multitenant architecture, **a software application is designed to provide every tenant a dedicated share of the instance** - including its data, configuration, user management, tenant individual functionality” etc.

Share tenants:

- data of Share member libraries are **grouped by similar requirements/characteristics** (e.g. the tenant for art libraries → Share-Art);
- purpose:
 - more **efficient data management**;
 - **technological sustainability**: lighter RDF graph of Share libraries’ data.

Common Share-VDE User Interface



Share-VDE Advisory Council & Working Groups

The **Share-VDE AC** takes an active role in determining future uses and vision for the Share-VDE initiative.

There are 4 sub-committees focusing on specific areas:

- **Sapientia Entity Identification Working Group**
- **Authority/Identifier Management Services Working Group**
- **Cluster Knowledge Base Editor Working Group**
- **User experience/User Interface Working Group**

The last born:

The **National Bibliographies Working Group**

(Kick-off meeting held on September 1, 2021)

The National Bibliographies Working Groups (NBWG)

Some topics proposed as discussion themes within the NBWG

- The role of National Libraries in authoritative services: what services are still expected in the new open environment?
- Responsibilities of a national bibliographic agency.
- As the main features of a national bibliography (*completeness, accuracy and timeliness*) can be met in a linked open data environment.
- Ontologies and formats to model a global National Bibliography.
- How SVDE architecture and tools can help National Libraries to meet the above requirements.
- The SVDE tenants architecture to manage the National Library special exigencies and collections (special/private collections...): definition of a practical model.
- How National bibliographies and collections managed by National Libraries can be published on the SVDE Portal.
- The IFLA National Bibliographic Register (NBR): how to create a bridge between different but compliant initiatives.

Open borders for wider data sharing

The attention of the entire data production chain, returns to focus on the real and essential information power of the data, structured so as to be universally understood and shared.

In this context, aspects such as the record format are marginalized to express local choices and needs, not at all limiting the ability of the data to convey a global shareable message.

Authoritative institutions, both local and global, reaffirm their role and their centrality...

...provided they are able to adapt themselves and their services to the runaway evolution of the times.

Thank you

Tiziana Possemato

E-mail:

tiziana.possemato@unifi.it

tiziana.possemato@atcult.it

tiziana.possemato@casalini.it

