Modus Operandi

Creating the SuperWork in Share-VDE and the Opus Level of Description

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With many thanks to the Work ID Working Group

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The Story Begins: RDA Implementation

The importance of description of work elements and the identifier for work

0.6.6   Section 2: Recording Attributes of Work and Expression LC-PCC PS 2015/04 MLA LAC/BAC-BAnQ

When recording data identifying a work, include as a minimum the following elements that are applicable and readily ascertainable.

Preferred title for work

Identifier for work

A preferred title for work is a basis for an authorized access point representing the work. When constructing the access point, combine an authorized access point for an agent, if appropriate, and a preferred title for work.

If a preferred title for work is the same as or similar to a title for a different work, or to a name for an agent, differentiate them by recording as many of the additional identifying elements in the following list as necessary. Record these elements as separate elements, as parts of the authorized access point representing the work, or as both.

Initial attempts

Where do we put the work identifiers in MARC and what do we use?

Identifier for the work	024 1# $a7822183031
	024 7# $ahttp://experiment.worldcat.org/entity/work/data/1840249565$2uri
	See http://www.loc.gov/standards/sourcelist/standard-identifier.html for standard identifier source codes for subfield 2.
Preferred title of the work	130 0# $aGreat Gatsby (Motion picture : 2013)$0http://viaf.org/viaf/300876477
Preferred title of the work	240 10 $aSchneewittchen$0http://d-nb.info/gnd/4116406-4
Title of a work	710 22 $aNational Geographic Society (U.S.).$bCartographic Division.$tEarth's fractured surface.$0http://worldcat.org/entity/work/id/1090078494

Bigelow, I., Boileau, S., Emon, D., Leung, R., Morgan, M., & Sillius, I. (2015). OCLS Cataloguing Workflow. Ontario Colleges Library Service, Toronto, ON.

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PCC Task Group on URI in MARC: Field 758

MARC PROPOSAL NO. 2017-09

DATE: May 16, 2017
REVISED:

NAME: Defining Field 758 (Resource Identifier) in the MARC 21 Bibliographic Format

SOURCE: PCC Task Group on URIs in MARC, Program for Cooperative Cataloging (PCC)

SUMMARY: This paper proposes establishing a new field 758 in the MARC 21 Bibliographic format to identify related resources.

KEYWORDS: Field 758 (BD); Resource Identifier (BD)

RELATED: 2017-DP02

STATUS/COMMENTS:
05/16/17 – Made available to the MARC community for discussion.

06/24/17 – Results of MARC Advisory Committee discussion: Approved, with the amendment that subfield $1 will be added to field 758; the first sentence of the field definition will be amended to read "An identifier for a resource that is either the resource described in the bibliographic record or a resource to which it is related." It was noted that, while the inclusion of an explicit relationship in field 758 may be desirable, the MARC formats do not mandate the use of specific subfields in field definitions; the application of field 758 would need to be developed as a matter of best practice by the community.

08/07/17 - Results of MARC Steering Group review - Agreed with the MAC decision.

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BIBFRAME (as you know it)

- Three core levels of abstraction
  - Work
  - Instance
  - Item
- Additional key concepts
  - Agents
  - Subjects
  - Events
- Consists of RDF classes and properties
  - members of a class share certain characteristics and may have subclasses
  - properties describe characteristics of resources as well as relationships among resources
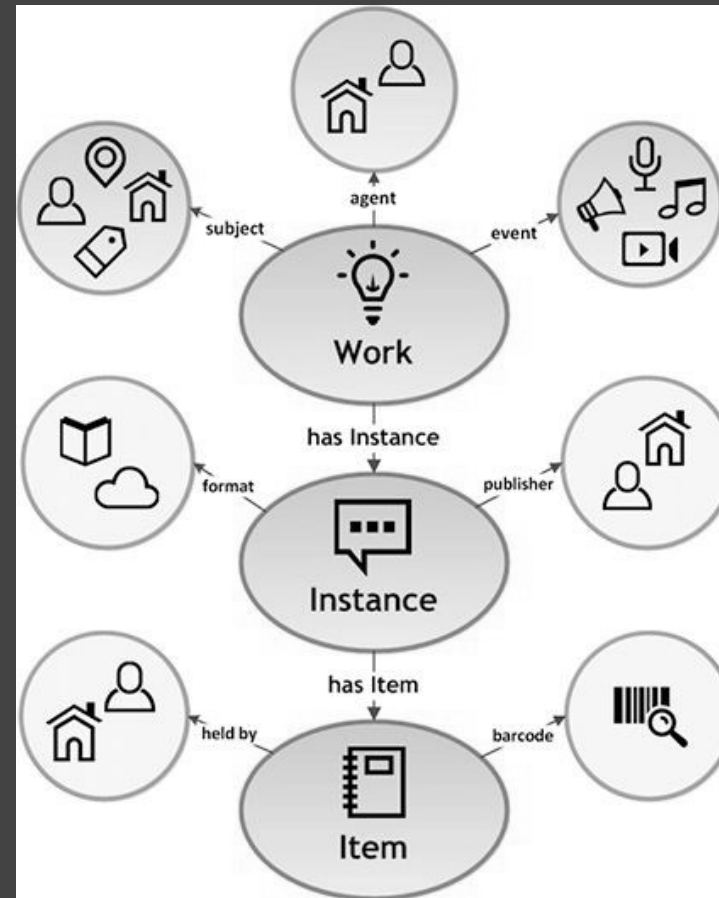
For BIBFRAME primary resource identifiers are critical infrastructure

1. What URI vocabularies are available for primary resource types that:

   a. Can be clearly identified with a predicate
      i. For RDA, what identifiers can be used that match range definitions?
      ii. For BIBFRAME, what identifiers can be defined as http://id.loc.gov/ontologies/bibframe/instanceOf
   b. Have universal, or at least wide application / work in an international context
   c. Be able to create them for use in MARC, original BIBFRAME description, and through conversion from MARC to BIBFRAME
   d. Generally we need to have identifiers and places to put them

LC bf: example from marc2bibframe2

```xml
<?xml version="1.0" encoding="UTF-8"?>
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
         xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
         xmlns:bf="http://id.loc.gov/ontologies/bibframe/"
         xmlns:bflc="http://id.loc.gov/ontologies/bflc/"
         xmlns:madsrdf="http://www.loc.gov/mads/rdf/v1#">
<bf:Work rdf:about="http://example.org/6020396#Work">
    <bf:adminMetadata>
        <bf:AdminMetadata>
            <bf:generationProcess>
                <bf:GenerationProcess>
                    <rdfs:label>DLC marc2bibframe2 v1.3.0-SNAPSHOT</rdfs:label>
                </bf:GenerationProcess>
            </bf:generationProcess>
            <bf:status>
                <bf:Status>
                    <bf:code>p</bf:code>
                </bf:Status>
            </bf:status>
```

LD4P3 Data Flow: For this to work we need identifiers
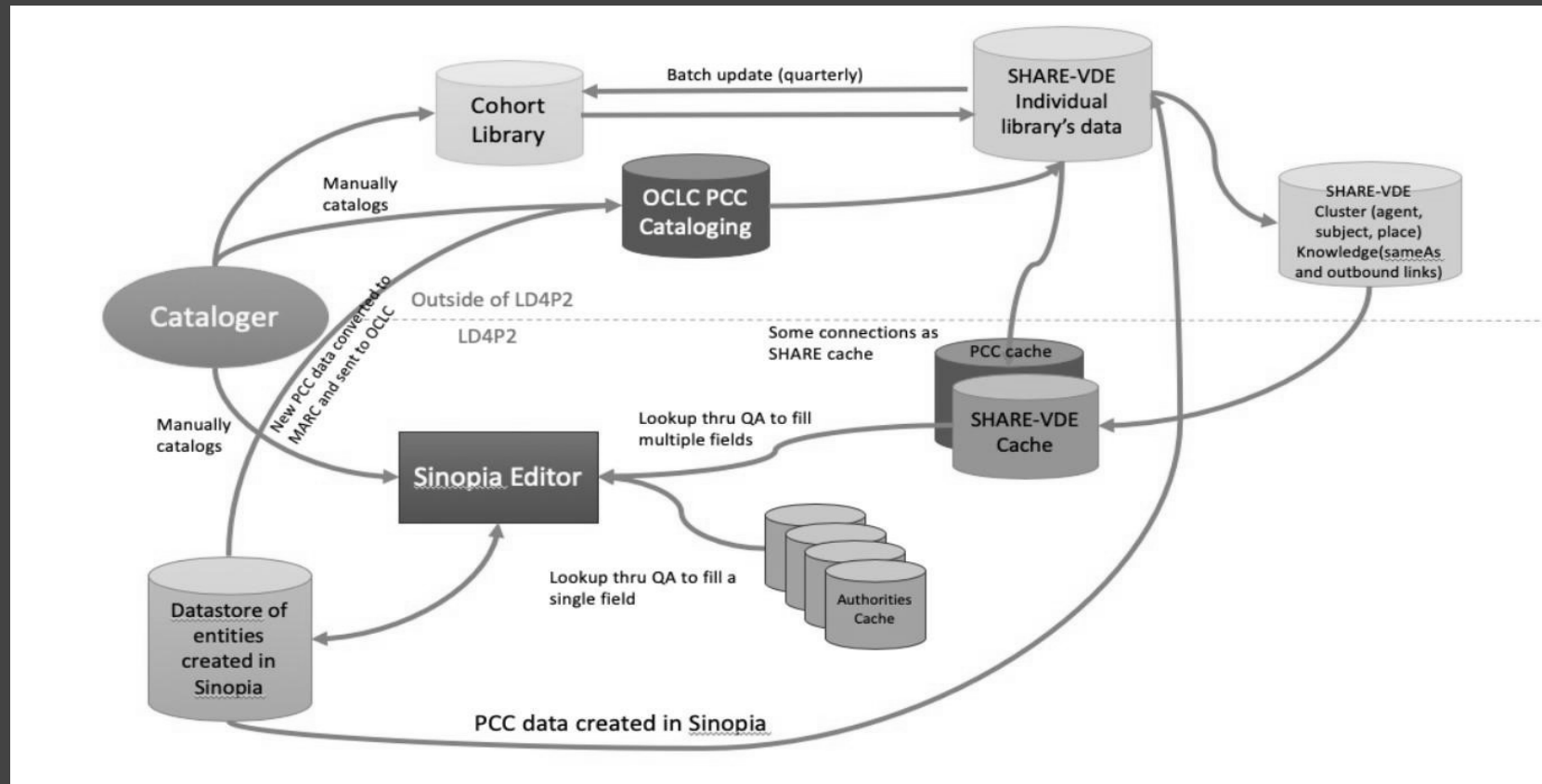
Schreur, Philip E. (November 12, 2019). LD4P: Closing the Loop. LD4P2 Cohort Meeting 3, Washington, DC.
Accessed January 13, 2020, https://drive.google.com/drive/folders/1S0O4QH8ND_o4Tr3Za5PMiubQYrf2OWdd

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Share Participation

Share VDE Full Members
Duke University
New York University
Stanford University
University of Alberta – NEOS consortium
University of Chicago
University of Michigan at Ann Arbor
University of Pennsylvania
Yale University

National Libraries
Library of Congress
National Library of Medicine
National Library of Norway
National Library of Finland

LD4P Cohort
Cornell University
Frick Art Reference Library
Harry Ransom Center
Harvard University
Northwestern University
Princeton University
UC Davis
UC San Diego
University Colorado at Boulder
University of Minnesota
University of Texas A&M
University of Washington

Share-Catalogue Institutions
Università Degli Studi di Napoli "Federico II"
Università degli Studi della Basilicata
Università Degli Studi di Napoli L'Orientale
Universita' degli Studi di Napoli Parthenope
Università del Salento
Università degli Studi di Salerno
Università degli Studi del Sannio RCost
Università degli Studi della Campania "Luigi Vanvitelli"

Share Art
Kunsthistorisches Institut in Florenz - Max-Planck-Institut
Central Institute of Art History
Deutsches Forum für Kunstgeschichte Paris / Centre allemand d'histoire de l'art Paris
Biblioteca Hertziana

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The Share-VDE Work ID Working Group

At the LD4 Workshop at Stanford University in May of 2018 conversations identified the need for a group to work on refining the creation of work identifiers for the Share Virtual Discovery Environment (SVDE). In the months following members of the Work ID Working Group (WIDWG) were identified from within stakeholder institutions and based on relevant expertise.

Charge:

1. Review the Share work clustering outline and submit feedback on potential improvements or optimizations
2. Review the use of primary resource identifiers in the Share-VDE data set and provide feedback as appropriate
3. Engage with the PCC to identify and/or develop best practices for use of these identifiers in BIBFRAME and MARC data

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Existing Vocabularies?

OCLC Work ID

- Challenges with technical methods of inclusion for non OCLC members
- schema:exampleOfWork, but no open outline of how the identifiers are created or defined
  - Can these be used as BIBFRAME works?
- Until recently OCLC works were still considered experimental
  - Could be another step for enrichment of SVDE data
  - It would be interesting to compare approaches and come to a standard for creation of primary resource identifiers through algorithmic processes. Look forward to hearing more on how OCLC intends to solve the work as entity problem with their recent Mellon grant.

Library of Congress Work ID (Kevin can discuss Hubs and updated processes for Work generation at LC)

- Based on LCCN
  - Example: [http://id.loc.gov] /resources/works/c010579972
- Or making use of nametitle authorities
  - Example: [http://id.loc.gov]/resources/works/no98044787
- Not of universal applicability, and at the time was not ready for use in Share-VDE

Defining Works

LRM

Definition: "The intellectual or artistic content of a distinct creation"[2]

Scope note: "A work is an abstract entity that permits the grouping of expressions that are considered functional equivalents or near equivalents. A work is a conceptual object, no single material object can be identified as the work. The essence of the work is the constellation of concepts and ideas that form the shared content of what we define to be expressions of the same work. A work is perceived through the identification of the commonality of content between and among various expressions."[2]

BIBFRAME

"The highest level of abstraction, a Work, in the BIBFRAME context, reflects the conceptual essence of the cataloged resource: authors, languages, and what it is about (subjects)."[3]

There are differences in definition, and this has been a subject of discussion for many years, but the WIDWG needed a practical solution in a short period of time. We wanted to keep an open mind about the definition of "Work", and how work identifiers are created in Share-VDE.

2. Riva, P., Le Boeuf, P., Žumer, M., & IFLA FRBR Review Group. (2017). IFLA Library Reference Model: A conceptual model for bibliographic information. Den Haag, Netherlands : IFLA.
3. Library of Congress. (2017). Overview of the BIBFRAME 2.0 model. Retrieved from https://www.loc.gov/bibframe/docs/bibframe2-model.html

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SuperWork!
Are Work to Work Relationships Sufficient?

1. While Work -> Expression relationships can currently be expressed in BIBFRAME, these are ultimately Work-Work relationships, and determining the initial or primary work, or hierarchical relationships between works may prove difficult with this structure.
2. Through conversion from MARC to BIBFRAME, or automatic work ID generation based on BIBFRAME elements, unless we can define a difference (a fingerprint for each cluster or constellation) between Work and SuperWork elements then these relationships (work-expression) cannot be captured through conversion or automated processing. With the scale of data conversion underway, not doing this would seem like a missed opportunity. Once a separate fingerprint is defined for this primary work, it needs a name, thus the creation of SuperWork.

Opus discussion paper. Share-VDE Advisory Council, WIDWG. n.d.

Defining Share VDE Work and SuperWork

Share VDE Work

- Is equivalent to a BIBFRAME Work, but is no longer the highest level of abstraction
- Identifiers for Share VDE Work are created algorithmically based on unique constellations of elements for BIBFRAME Works (including RDA work and expression level elements)
- The types of Share VDE Work and the definitions for which elements are used in its creation are outlined in the Work ID Cluster Mapping

Share VDE SuperWork

- The highest level of abstraction in Share VDE, the new SuperWork class is meant to aggregate or group functional or near equivalent bf:Work clusters
- Identifiers for Share VDE SuperWork are created algorithmically based on unique constellations of elements for BIBFRAME Works, minus RDA expression level elements

BIBFRAME today

- Four core levels of abstraction
  - *Opus (Hub, SuperWork)*
  - Work
  - *Master* Instance
  - Item
- Additional key concepts
  - Agents
  - Subjects
  - Events
- Consists of RDF classes and properties
  - members of a class share certain characteristics and may have subclasses
  - properties describe characteristics of resources as well as relationships among resources
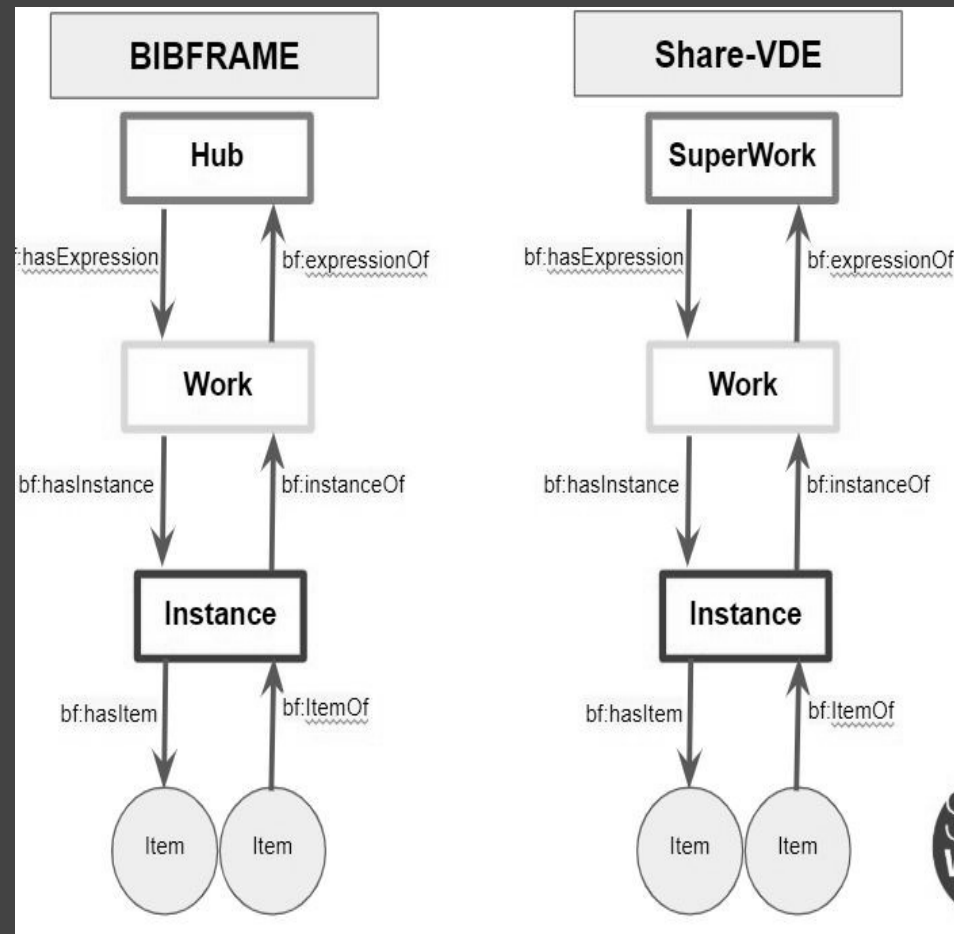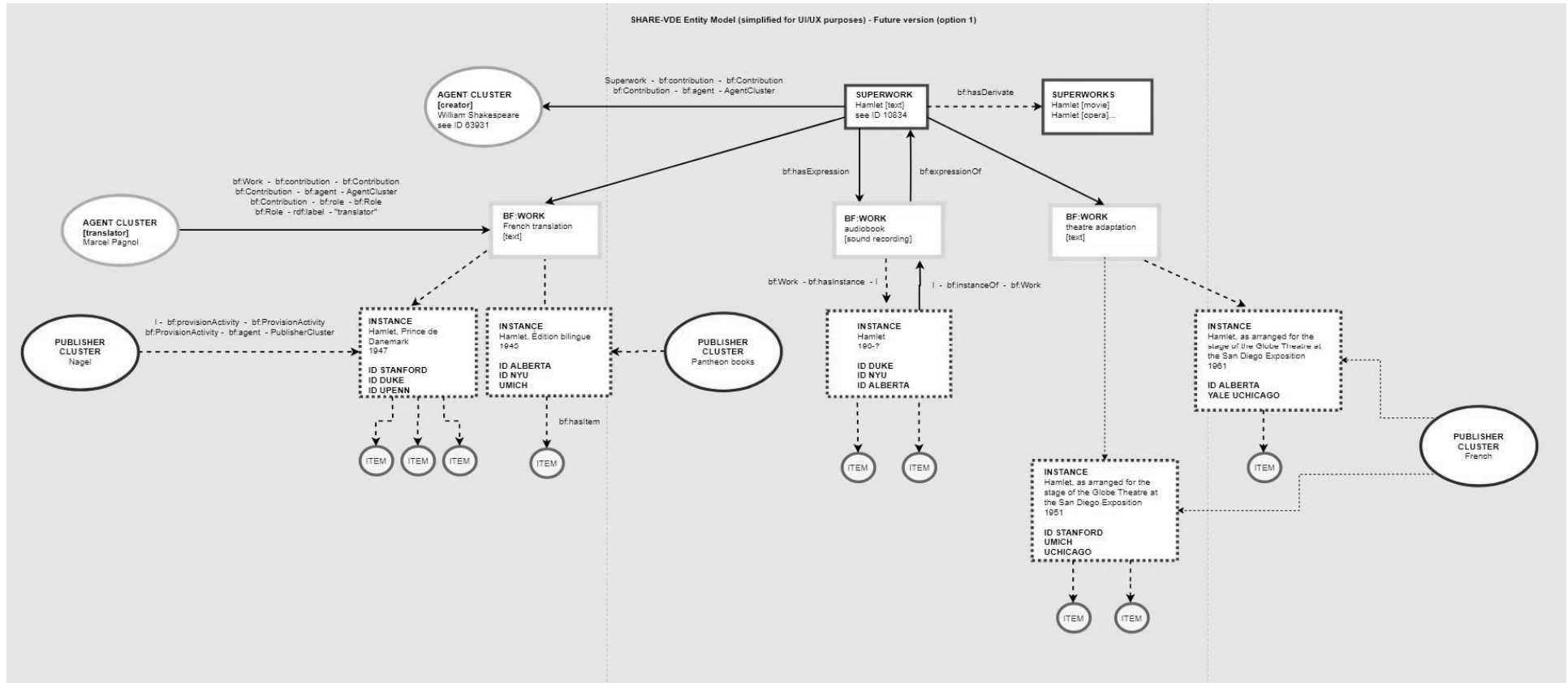

Image courtesy Anna Lionetti and Share VDE

The current SHARE-VDE entity model

SHARE-VDE Entity Model (simplified for UI/UX purposes) - Future version (option 1)

Possemato, Tiziana (2019). Share Virtual Discovery Environment in Linked Data (Share-VDE): Highlight on Data Modeling. ALA Annual, Washington DC, June 23.

The SuperHub Conundrum...

- January 2019: New SuperWork class was introduced in Share-VDE and LD4P data.
- ALA Annual 2019: LC introduced the Hub to their data.

LC is a member of Share-VDE and was participating in the Work ID Working Group, but wanted to develop in parallel to confirm results. SuperWork and Hub are very similar, but not the same, and need to be differentiated as separate vocabularies.

This creates a new family of elements that are a close match, hereafter referred to as the **Opus** in this discussion

# Opus vs Work

Opus (bf: SuperWork, Hub):

The bf:Opus is an entity that permits the grouping of works that are considered functional or near equivalents. The opus is defined by a constellation of elements that form the shared content of BIBFRAME works.

Work:

A work is a resource reflecting the conceptual essence of a cataloguing resource. A work is defined by a constellation of elements representing the specific intellectual or artistic form that an opus takes each time it is "realized", paired with related elements required to define the conceptual essence of said realization.

*Really these definitions are still being discussed and refined
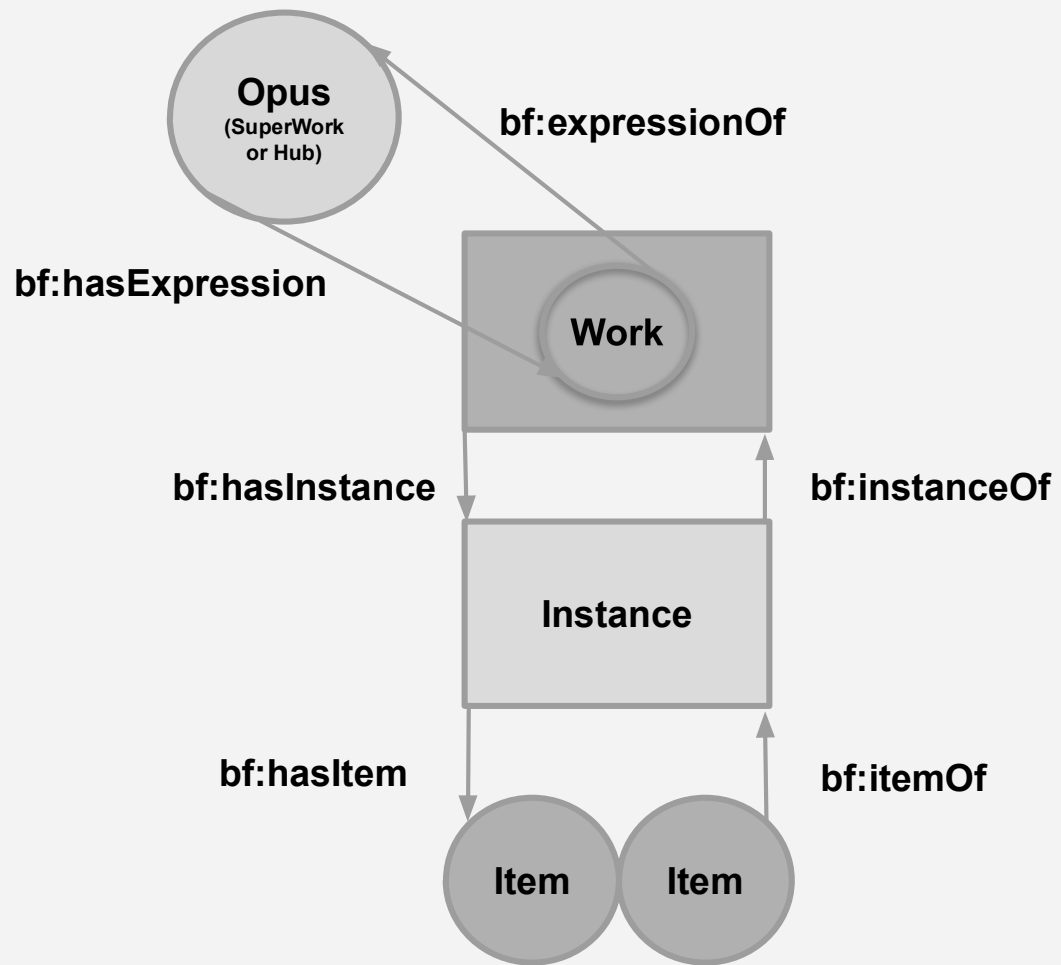
Work from the Machine: Work ID Cluster Mapping

Conversion specifications for SVDE MARC to BIBFRAME processes can be found here

	Field	Indicators	Subfields	
SuperWork				
W1	130		adfgkmnrtp	$n may or may not indicate a part; $p is a part (portion of a work)
W2	240		adfgkmnr$p	$n may or may not indicate a part; $p is a part (portion of a work)
	1XX and 7XX			Used for clustering - Outline here
W3	245		an$p	Only if no W1 or W2 identified*
	1XX and 7XX			Used for clustering - Outline here
W4	700/710/711		adfgkmnrtp	Note differentiation in relationships based on 2nd indicator 2 (analytic) or "blank" (related work)
W5	730		adfgkmnr$p	Note differentiation in relationships based on 2nd indicator 2 (analytic) or "blank" (related work)
W6	758		a4$0$1	As a separate work or clustered in conjunction with other work types. Use identifiers and relationships in SVDE data
W7	780		agst$w	Note 2nd indicator values for relationship assignment (0-7) ; also only use $w if the identifier is for a work ID (LCCN, Work URI ...)
W8	785		agst$w	Note 2nd indicator values for relationship assignment (0-8) ; also only use $w if the identifier is for a work ID (LCCN, Work URI ...)

What we have and what needs development

What we have:

- Working definition of SuperWork
- Conceptual and data model
- Share-VDE data with the SuperWork (BIBFRAME created through MARC conversion)
- SuperWork (along with other entities) in the Sapientia Knowledge Base, and being utilized in Sinopia through QA

Next steps?

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Sinopia, QA, Sapientia, and the J.Cricket Editor

UAL Monograph Opus

Opus Identifier

linked data and user

SHAREVDE ALBERTA work (QA)

Linked data and user interaction
Title: Linked data and user interaction
Type: http://id.loc.gov/ontologies/bflc/Hub, http://id.loc.gov/ontologies/bibframe/Work
Contributor: Cervone, H. Frank,, Svensson, Lars G.,1966-, Svensson, Lars G.,

Linked data and user interaction
Title: Linked data and user interaction
Type: http://id.loc.gov/ontologies/bibframe/Text, http://id.loc.gov/ontologies/bibframe/Work

SHAREVDE STANFORD work (QA)

Linked data and user interaction
Title: Linked data and user interaction
Type: http://id.loc.gov/ontologies/bflc/Hub, http://id.loc.gov/ontologies/bibframe/Work
Contributor: Svensson, Lars G.,1966-, Cervone, H. Frank,

SHARE-VDE

Move this publication

Original work
Lord of the flies
Written by William Golding in 1954 in English.

Publication
Lord of the flies [KnowledgeNotes Student Guide]

Original work
Lord of the flies [KnowledgeNotes]
Written by KnowledgeNotes and William Golding in 2010 in English

Other associated publications to this original work:

Go back

Move publication

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Work ID Working Group currently working on:
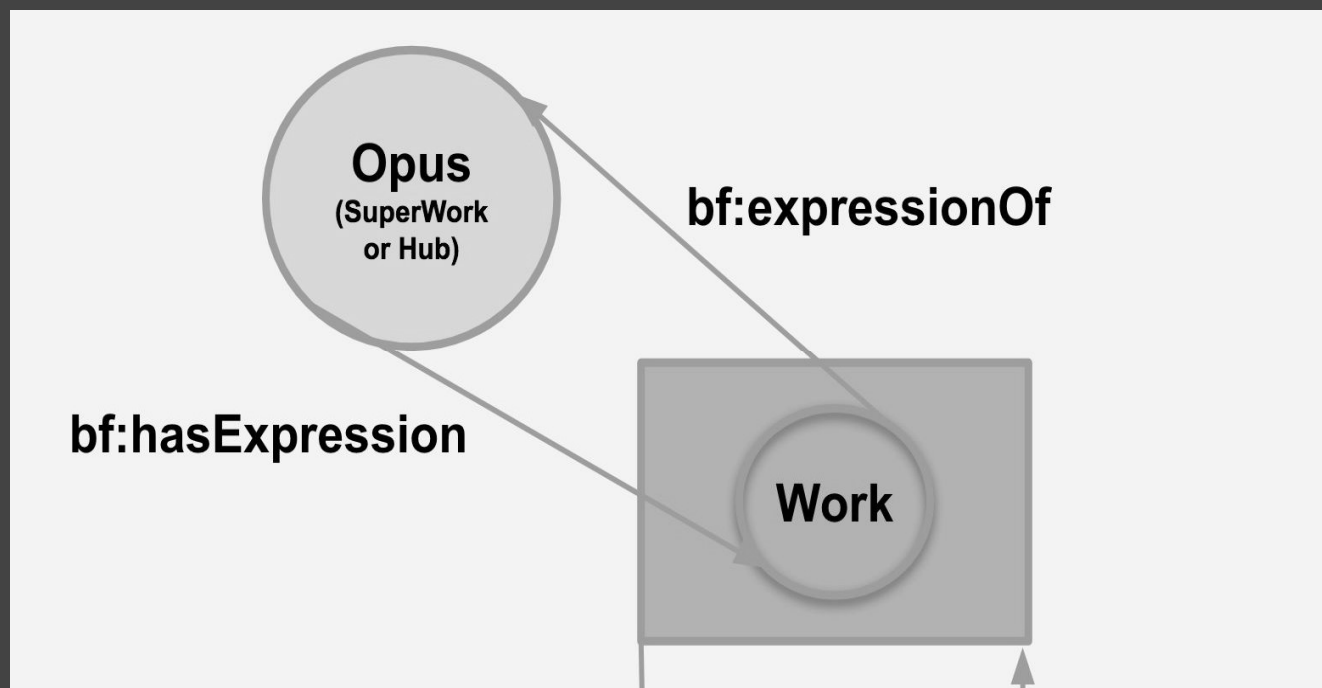
1. Identifying SuperWork properties and relationships in BIBFRAME such that
   a. We have an appropriate BIBFRAME extension that we can use
   b. The SuperWork is modeled appropriately in our data
2. Incorporating these updates into application profiles for BIBFRAME in Sinopia
   a. We need to be able to work with data from MARC to BIBFRAME conversion, and that created in BIBFRAME - Refining toolings

UAL Monograph Work | UAL Monograph Opus   x

UAL Monograph Work

Work Identifier	+ Add
Contribution (Creator/Contributor)	+ Add
Title Information *	

Title Information:
Work Title   + Add another
- + Add **Preferred Title for Work** ↗
- + Add **Part number**
- + Add **Part name**
- + Add **Note**

Work Title Variation   + Add another
- + Add **Variant Title for Work** ↗
- + Add **Note**

Form of Work ↗	+ Add	Date of Work ↗	+ Add	Place of Origin of the Work ↗	+ Add
(Geographic) Coverage of the Content ↗	+ Add	(Time) Coverage of the Content ↗	+ Add	Intended Audience ⓘ	+ Add
Notes about the Work	+ Add	Dissertation ↗	+ Add	Contents	+ Add
Summary ↗	+ Add	Subject of the Work ↗	+ Add	Classification numbers	+ Add

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Key to cataloguing workflows in this regard:

1. How do you setup these profiles given the unusual nature of the opus type? SuperWork is made up of elements of bf:Work …
2. How much should the cataloguer interact with SuperWork, and how much is automated. Also, what work is done in Sinopia vs. J. Cricket?