The Share Family: One Project, Many Tenants

LD4 conference 2022
Share Family Tenant Infrastructure
Core Principles

- Redundancy of data is complex to manage
- Linking entities is easier than duplicate data
- Cooperate and maintain autonomy at the same time
- Homogeneity of datasets and possible services to be shared
- Centralize core data through a lightweight method
- Distribute the technologic load to achieve long-term sustainability
- Profile levels of cooperation among systems and initiatives
Solution in the Share Family architecture

Creation of more branches in the Share Family, named tenants

Consistent groups of institutions gathered by similar scope or from the same domain:

- Share-VDE
- Share-Catalogue
- Kubikat-LOD
- PCC data pool
- Parsifal project (network of ecclesiastical university libraries in Rome)
- National Bibliographies Group
What is a tenant

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.
Benefits

More efficient data management

Technological sustainability

Dedicated applications and services tailored to the institutions members of the various branches

From the users perspective this enables richer and specialized sets of resources to be consulted
Main components of the Share Family tenants

Each tenant of the Share Family will have its own components and data will live in autonomous storages.

Each tenant has:
- its own CKB (e.g. Sapientia CKB, PCC CKB, Kubikat-LOD CKB, URBE CKB etc.)
- its own Cluster (URI) Registry with specific namespace
- its own J.Cricket CKB editor (= entity editor to manually update linked data entities)
- its own datastores (i.e. RDBMS, Search Engine and RDF Store)
- its own discovery portal with one or more skins (skin = filter on a part of tenant whole data)
  - e.g. general SVDE discovery portal skin https://svde.org + other ad hoc skins such as https://penn.svde.org/)
Share Family tenant infrastructure
PCC Tenant
PCC data pool

- Developed as part of the LD4P3 grant
- BIBCO, CONSER and NACO MARC records supplied by OCLC
- Transformed and clustered by SVDE clusterization tools
- Available as linked open data
- [https://pcc-lod.org/](https://pcc-lod.org/)
Search for people, original works and publications

e.g. Jules Verne or Around the world in 80 days
University of Alberta Library/NEOS Consortium Tenant

A Share-VDE founding member from experimentation to implementation
# Share-VDE Community

<table>
<thead>
<tr>
<th>Share-VDE members</th>
<th>LD4P cohort members</th>
<th>Share-Catalogue Institutions</th>
<th>Kubikat-LOD project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duke University</td>
<td>Cornell University</td>
<td>Università Degli Studi di Napoli “Federico II”</td>
<td>Kunsthistorisches Institut in Florenz</td>
</tr>
<tr>
<td>New York University</td>
<td>Frick Art Reference Library</td>
<td>Università degli Studi della Basilicata</td>
<td>Biblioteca Hertziana, Rome</td>
</tr>
<tr>
<td>Stanford University</td>
<td>Harry Ransom Center Texas A&amp;M</td>
<td>Università Degli Studi di Napoli L’Orientale</td>
<td>Central Institute of Art History, Munich</td>
</tr>
<tr>
<td>University of Alberta - NEOS consortium</td>
<td>Harvard University</td>
<td>Università degli Studi di Napoli Parthenope</td>
<td>Deutsches Forum für Kunstgeschichte, Paris</td>
</tr>
<tr>
<td>University of Chicago</td>
<td>National Library of Medicine</td>
<td>Università del Salento</td>
<td></td>
</tr>
<tr>
<td>University of Michigan at Ann Arbor</td>
<td>Northwestern University</td>
<td>Università degli Studi di Salerno</td>
<td></td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>Princeton University</td>
<td>Università degli Studi del Sannio RCost</td>
<td></td>
</tr>
<tr>
<td>Yale University</td>
<td>University of California Davis</td>
<td>Università degli Studi della Campania “Luigi Vanvitelli”</td>
<td></td>
</tr>
<tr>
<td><strong>National libraries</strong></td>
<td><strong>University of California San Diego</strong></td>
<td></td>
<td><strong>Share-Music project</strong></td>
</tr>
<tr>
<td>Library of Congress</td>
<td>University of Minnesota</td>
<td></td>
<td>Bayerische Staatsbibliothek</td>
</tr>
<tr>
<td>National Library of Norway</td>
<td>University of Texas A&amp;M</td>
<td></td>
<td>Library of Congress</td>
</tr>
<tr>
<td>National Library of Finland</td>
<td>University of Washington</td>
<td></td>
<td>Stanford University</td>
</tr>
<tr>
<td>Smithsonian Institution</td>
<td>The British Library</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Linked Data Development Trajectory at UAL

- Experimentation and exploration (xxxx-2017)
- Moving forward with linked data (2017-2019)
- Assessment and planning (2019-2022)
- Linked Data Implementation Plan (2022-2027)
The Plan’s Key Objectives and Areas

- Review the current state of linked data initiatives and practices at UAL
- Identify strategic priorities and provide context for them
- Define plans for short-term (6 - 18 months), medium-term (18 months - 3 years), and long-term (3 - 5 years) goals
- Create milestones to allow regular checking of progress
- Identify resources required to achieve short-term goals

Thematic Areas

- Data integration and workflows between systems
- Shared vocabularies and authority files and supporting technologies
- Authority control/entity management
- Decolonizing description
- Data enhancement with URI enrichment
Focus on Partnerships & New Infrastructure
LDIP and Share-VDE

Associated Projects and Initiatives

- UAL/NEOS Share-VDE Portal Instance
- MARC2BIBFRAME Conversion
  - Share-VDE Sapientia Cluster Knowledge Base (Stardog triplestore backend) and Associated Conversion and Enrichment Processes
- Authority Control/Entity Management Workflows
  - Share-VDE J. Cricket Cluster Knowledge Base Editor
- PCC BIBFRAME Data Store
Infrastructure Goal - 3 Year

Create and manage external entities
- CKB / Sapientia
- LC Vocabs
- ISNI
- Wikidata
- SFX

Discover and borrow resources
- Share VDE Portal
- EBSCO EDS
- OCLC Worldcat
- Classic Catalogue
- Hathi Trust
- Internet Archive

Create and manage bibliographic metadata
- Sinopia/JCricket

Acquire materials and metadata
- Shelf Ready Providers
- E-resource record sets
- MARCIt*Custom

Manage collections
- Sirsi Symphony
- ILS

Dashed lines indicate desired new connections, solid lines indicate existing one-way connection.
Support Through Transition

- Data Flow and Metadata Reuse (3 year goal)
- Entity Management in J. Cricket

**Share-VDE**
- Test LD Discovery; Access to Data
- mrc2bf

**Sirsi**
- Load Bulk MARC files to Sirsi (will be converted to bf)

**Sinopia**
- Original and copy cataloguing in Sinopia
- bf2mrc

**Sapientia + J Cricket**
- Bf-bf harmonization
Infrastructure Goal - 5 Year

Create and manage external entities
- CKB / Sapientia
- LC Vocabs
- Wikidata
- ISNI
- Others...

Discover and borrow resources
- EBSCO EDS
- Share VDE Portal
- Hathi Trust
- Internet Archive
- LC Vocabs
- ISNI

Create and manage bibliographic metadata
- Sinopia/JCricket
- LSP API
- E-resource record sets
- Others...

Acquire materials and metadata
- Shelf Ready Providers
- MARCIt*Custom
- Share VDE / PCC Data Pool
- OCLC Collection Manager

Manage collections
- Updated LSP

Desired new connections
- Existing one-way connection
Search for people, original works and publications

e.g. Jules Verne or Around the world in 80 days

Advanced search

Explore the library data of the 20+ Share-VDE member libraries
National Bibliography Tenant:
British National Bibliography

Alan Danskin
Collection Metadata Standards Manager
alan.danskin@bl.uk
British National Bibliography (BNB)

The British National Bibliography lists:

• books and journals published or distributed in the United Kingdom and Ireland since 1950, including electronic publications (since 2013)

• Cataloguing-in-Publication (CIP) information for forthcoming book titles.

It supports:

• collection development
• research
• copy cataloguing
BNB: a timeline

1950

Print

Card service (1956)

UKMARC Exchange Tapes (1969)

BLAISE (online) (1977)

BNB on CD-ROM (1989)

FTP (1998)


.pdf (2010)

Linked open Data (2011)

2022

Share Family
BNB & Linked data

Linked data project began in 2010
- to make BNB available as linked open data
- to learn about linked open data
- to develop workflows and production processes from MARC 21 to RDF

Developed in partnership with TALIS
- Launched 2011
- Hosted by Talis then TSO
- No affordable path for future development
Why we chose Share-VDE?

Share- Family
Affordable
Collaborative development
Cultural Heritage focus
Entified data model
• Authorities
• Bibframe +LRM/RDA
Navigation
APIs
Linking
Development path

Tools to link library data to other resources
LMS integration of linked data options
Navigation & visualisation applications
Feedback on usage
Collaboration on shared approaches
Search for people, original works and publications

Publications  Original works  People and organizations

e.g. small island andrea levy

Language  Year  Type

Advanced search

Explore linked open data for books and journals published or distributed in the United Kingdom and Ireland since 1950, and electronic publications since 2013

← Back to British Library  Learn more  Options ▼
About the British National Bibliography

The British National Bibliography consists of:

- Books and journal titles published or distributed in the United Kingdom and Ireland since 1950, and electronic publications since 2013.
- Cataloguing-in-Publication (CIP) information for forthcoming book titles

Discover more about the British National Bibliography and UK Legal Deposit

Visit British Library Collection Metadata or contact us at metadata@bl.uk

Data summary

Total number of each entity type in the system:

- Person: 1,748,891
- Family: 3,770
- Organization: 415,869
- Conference: 73,983
- Original work: 3,728,084
- Work: 5,742,992
- Instance: 4,975,200
- Item: 0
Andrea Levy


Andrea Levy was an English author best known for the novels Small Island (2004) and The Long Song (2010). She was born in London to Jamaican parents, and her work explores topics related to British Jamaicans and how they negotiate racial, cultural and national identities. – Wikipedia

More options ↘

Original works by

Filter original works...  Genre

9 results

No.  Title  Year  Genre  Creators
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Year</th>
<th>Genre</th>
<th>Creators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fruit of the lemon</td>
<td></td>
<td>Fiction</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>2</td>
<td>Long song</td>
<td></td>
<td>Fiction/Novel</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>3</td>
<td>Fruits of the lemon</td>
<td></td>
<td>Fiction</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>4</td>
<td>Small island</td>
<td></td>
<td>Fiction/Novel</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>5</td>
<td>Uriah's war</td>
<td></td>
<td>Fiction</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>6</td>
<td>Never far from nowhere</td>
<td></td>
<td>Fiction</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>7</td>
<td>Every light in the house burnin</td>
<td></td>
<td>Fiction</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>8</td>
<td>Six stories and an essay</td>
<td></td>
<td>Short stories</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td>9</td>
<td>Six stories &amp; an essay</td>
<td></td>
<td>Short stories</td>
<td>Andrea Levy (author)</td>
</tr>
</tbody>
</table>
### Publications of this

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Language</th>
<th>Publication year</th>
<th>Format</th>
<th>Contributors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fruit of the lemon</td>
<td>English</td>
<td>2006</td>
<td>Volume</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Charnwood (publisher)</td>
</tr>
<tr>
<td>2</td>
<td>Fruit of the lemon</td>
<td>English</td>
<td>2000</td>
<td>Volume</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review (publisher)</td>
</tr>
<tr>
<td>3</td>
<td>Fruit of the lemon</td>
<td>English</td>
<td>1999</td>
<td>Volume</td>
<td>Andrea Levy (author)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Review (publisher)</td>
</tr>
</tbody>
</table>

End of list
Fruit of the lemon

Volume. Published in English in 2006 in Leicester by Charnwood.

ISBN: 1846771229
BNB: GBAE86210
Identifier: p1891653381779206
Notes: ill.; Acquisition term: £18.99
Bibliographic level: Monograph
Cataloging source: SHuBDs
Descriptive cataloging form: AACR
Dimension: 24 cm.
Edition statement: Large print ed.
Encoding level: Full
Extent: 413 p. (large print)
Record status: Increase in encoding level from prepub.
Responsibility statement: Andrea Levy.
Benefits of being a family member

Collaborative development path

State of the art technology stack

Entifying and clustering

Dissemination of our data

Aggregation of data
SHARE Catalogue: LOD collective catalogue
**Shared library services:** mutual recognition of the respective institutional users as internal users to access services at universities

**SHARE Discovery:** federated search system to access information on physical and digital collections

**SHARE Press (Books/Journals/Open Archive):** common platforms for open access digital publishing

**SHARE Catalogue:** LOD collective catalogue
2017 → SHARE Catalogue Author ID

William Gibson (Q188987)
American-Canadian speculative fiction novelist and founder of the cyberpunk subgenre
William Ford Gibson

SHARE Catalogue author ID 149714
P3987
Why Wikidata?

[...] it is the richness of the data that makes Wikidata unique. Many statements come with provenance information or include additional context data, such as temporal validity [...]


**William Gibson** (Q188987)

American-Canadian speculative fiction novelist and founder of the cyberpunk subgenre

William Ford Gibson

<table>
<thead>
<tr>
<th>award received</th>
<th>Nebula Award for Best Novel</th>
</tr>
</thead>
<tbody>
<tr>
<td>point in time</td>
<td>5 May 1985</td>
</tr>
<tr>
<td>for work</td>
<td>Neuromancer</td>
</tr>
</tbody>
</table>

+ 2 references

|--------------|------------------------------------------|
SHARE Catalogue 1.0 → SHARE Catalogue 2.0

Basic tasks for the technical transition:

1. Updated UNIMARC-BIBFRAME mapping
2. Cluster Knowledge Base duplications analysis
3. Additional authority services analysis
# 1. UNIMARC → BIBFRAME

<table>
<thead>
<tr>
<th>UNIMARC</th>
<th>UNIMARC Subfield</th>
<th>MARC21</th>
<th>MARC21 Subfield</th>
<th>Conversion 1</th>
<th>Conversion 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Se - Preferred access point (NR)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sa - Uniform title (NR)</td>
<td># - mainTitle - literal</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sh - General Material Designation (R)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sh - Medium (NR)</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
<td># - # - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sn - Number of Section or Part (R)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sn - Number of part/section of a work (R)</td>
<td># - # - literal</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Si - Name of Section or Part (R)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sp - Name of part/section of a work (R)</td>
<td># - # - literal</td>
<td># - # - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sk - Date of Publication (NR)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sr - Date of a work (NR)</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Si - Form Subheading (R)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sk - Form subheading (R)</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
<td>W - translationOf</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sm - Language (when part of a heading) (NR)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sl - Language of a work (NR)</td>
<td>W - language - Language - rdfs:label - literal</td>
<td>W - translationOf</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sm - Miscellaneous Information (R)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sg - Miscellaneous information (R)</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
<td>W - genreForm - GenreForm - rdfs:label - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sq - Version (or Date of Version) (NR)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>St - Version (R)</td>
<td>W - version - literal</td>
<td>W - version - literal</td>
</tr>
<tr>
<td>500 - PREFERRED ACCESS POINT</td>
<td>Sr - Medium of Performance (for Music) (R)</td>
<td>130 - Main Entry-Uniform Title (NR)</td>
<td>Sm - Medium of performance for music (R)</td>
<td>W - musicMedium - MusicMedium - rdfs:label - literal</td>
<td>W - musicMedium - MusicMedium - rdfs:label - literal</td>
</tr>
</tbody>
</table>

**UNIMARC 4xx Fields 76X-78X - Linking Entries - R0**

<table>
<thead>
<tr>
<th>UNIMARC</th>
<th>MARC21</th>
<th>Conversion 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>454</td>
<td>765 - ORIGINAL LANGUAGE ENTRY (R)</td>
<td>W - translationOf</td>
</tr>
<tr>
<td>458</td>
<td>767 - TRANSLATION ENTRY (R)</td>
<td>W - translation</td>
</tr>
<tr>
<td>421</td>
<td>770 - SUPPLEMENT/SPECIAL ISSUE ENTRY (R)</td>
<td>W - supplement</td>
</tr>
<tr>
<td>422</td>
<td>772 - SUPPLEMENT PARENT ENTRY (R)</td>
<td>W - supplementTo</td>
</tr>
<tr>
<td>461</td>
<td>773 - HOST ITEM ENTRY (R)</td>
<td>W - partOf</td>
</tr>
<tr>
<td>462</td>
<td>774 - CONSTITUENT UNIT ENTRY (R)</td>
<td>W - hasPart</td>
</tr>
<tr>
<td>451</td>
<td>775 - OTHER EDITION ENTRY (R)</td>
<td>W - otherEdition</td>
</tr>
<tr>
<td>452</td>
<td>776 - ADDITIONAL PHYSICAL FORM ENTRY (R)</td>
<td>I - otherPhysicalFormat</td>
</tr>
<tr>
<td>423</td>
<td>777 - ISSUED WITH ENTRY (R)</td>
<td>W - issuedWith</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIMARC</th>
<th>MARC21</th>
<th>Conversion 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>780</td>
<td>PRECEDING ENTRY (R)</td>
<td>If no valid value in ind2 then W - precededBy</td>
</tr>
</tbody>
</table>

**Usage Notes**
- These specifications are written from the perspective of MARC so that each element in MARC is considered, even if not found. The specifications are presented in Microsoft Excel as accompanied by a few explanatory specifications in Microsoft Word documents. If there is little or no use of an element in Library of Congress records, the specifications usually say “no” (or attempt to convey) if the conversion occurs. MARC fields and subfields that have been recently approved for the MARC21 format might be listed as “new” initially, but the specifications may be modified as these fields begin to be used. Some elements are in a MARC record are not relevant outside the MARC environment, and they are simply marked “ignore.”

**Indicators**
- Second - Type of relationship
  - 430 - 0 - Continues | W - continues |
  - 431 - 1 - Continues in part | W - continuesInPart |
  - 432 - 2 - Supersedes | W - superseded |
  - 433 - 3 - Supersedes in part | W - superseded |
  - 436 - 4 - Formed by the union of ... and ... | W - mergerOf
2. Wikidata/SHARE Catalogue ID Constraint violations

<table>
<thead>
<tr>
<th>&quot;Single value&quot; violations</th>
<th>2055 violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q38: 423419, 440885, 460689</td>
<td></td>
</tr>
<tr>
<td>Q39: 60689, 361835, 362161</td>
<td></td>
</tr>
<tr>
<td>Q272: 175093, 596216</td>
<td></td>
</tr>
<tr>
<td>Q517: 405281, 754018, 688872</td>
<td></td>
</tr>
<tr>
<td>Q519: 580637, 580637</td>
<td></td>
</tr>
<tr>
<td>Q859: 292329, 625353, 626783</td>
<td></td>
</tr>
<tr>
<td>Q1001: 313957, 627256</td>
<td></td>
</tr>
<tr>
<td>Q1048: 159728, 549911, 549912</td>
<td></td>
</tr>
<tr>
<td>Q1065: 464492, 566139</td>
<td></td>
</tr>
<tr>
<td>Q1398: 727867, 7260, 7260</td>
<td></td>
</tr>
<tr>
<td>Q1405: 625431, 425322</td>
<td></td>
</tr>
<tr>
<td>Q1407: 391602, 397764</td>
<td></td>
</tr>
<tr>
<td>Q2038: 78213, 345598</td>
<td></td>
</tr>
<tr>
<td>Q2098: 165201, 626783</td>
<td></td>
</tr>
<tr>
<td>Q2494: 181463, 476795</td>
<td></td>
</tr>
<tr>
<td>Q2677: 287847, 617926</td>
<td></td>
</tr>
<tr>
<td>Q3044: 400582, 452688</td>
<td></td>
</tr>
<tr>
<td>Q4214: 189651, 580637</td>
<td></td>
</tr>
<tr>
<td>Q4289: 171423, 548840</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>&quot;Unique value&quot; violations</th>
<th>24 violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>123267, Q2891989, Q112669549</td>
<td></td>
</tr>
<tr>
<td>132973, Q356773, Q112624839</td>
<td></td>
</tr>
<tr>
<td>140698, Q18649413, Q112064518</td>
<td></td>
</tr>
<tr>
<td>143530, Q16105128, Q111693582</td>
<td></td>
</tr>
<tr>
<td>147207, Q62559671, Q64697727</td>
<td></td>
</tr>
<tr>
<td>169412, Q6178781, Q111077232</td>
<td></td>
</tr>
<tr>
<td>207175, Q59525874, Q111650804</td>
<td></td>
</tr>
<tr>
<td>219994, Q6327, Q111449951</td>
<td></td>
</tr>
<tr>
<td>222755, Q57265854, Q111677378</td>
<td></td>
</tr>
<tr>
<td>250913, Q669283, Q64878551</td>
<td></td>
</tr>
<tr>
<td>2795111, Q50849713, Q102351007</td>
<td></td>
</tr>
<tr>
<td>304244, Q87066619, Q87066628</td>
<td></td>
</tr>
<tr>
<td>325056, Q19365857, Q109728558</td>
<td></td>
</tr>
<tr>
<td>330879, Q38792463, Q110597895</td>
<td></td>
</tr>
<tr>
<td>409684, Q522014, Q110678335</td>
<td></td>
</tr>
<tr>
<td>49016, Q975609, Q107546834</td>
<td></td>
</tr>
<tr>
<td>523500, Q3850989, Q112151783</td>
<td></td>
</tr>
<tr>
<td>535707, Q62862211, Q102086676</td>
<td></td>
</tr>
<tr>
<td>548667, Q15053369, Q18734860</td>
<td></td>
</tr>
<tr>
<td>57250, Q19586070, Q102123188</td>
<td></td>
</tr>
</tbody>
</table>
CKB Cleaning Process (through Wikidata)

David Foster Wallace (Q313246)
American fiction writer and essayist
David Wallace

- SHARE Catalogue author ID: 603840
- 0 references
- 480461
- 0 references

- Wallace, David Foster, 1962-2008
  ID: 603840

- Foster Wallace, David
  ID: 480461

- by cluster invalidation

Louis Figuier (Q2571091)
French scientist and writer (1819-1894)

- SHARE Catalogue author ID: 19441

- Figuier, Louis <1819-1894>
  ID: 19441

- P3987
  ID: 560856
  reason for deprecated rank / P2241
  redirect / Q45403344

- by redirecting
### 3. More identifiers!

<table>
<thead>
<tr>
<th>Label</th>
<th>Wikidata ID</th>
<th>Occupation</th>
<th>SHARE Cat ID</th>
<th>IRIS UNINA ID</th>
<th>VIAF ID</th>
<th>ORCID ID</th>
<th>SBN author ID</th>
<th>IdRef ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nicola Fusco</td>
<td>Q1477114</td>
<td>mathematician university teacher</td>
<td>9279@</td>
<td>03887@</td>
<td>149693937@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV338796@</td>
<td>070707877@</td>
</tr>
<tr>
<td>Marcello Gigante</td>
<td>Q1893332</td>
<td>papyrologist classical philologist</td>
<td>36239@</td>
<td>12069@</td>
<td>106986869@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV014251@</td>
<td>028370058@</td>
</tr>
<tr>
<td>Alberto Izzo</td>
<td>Q2831772</td>
<td>architect</td>
<td>435931@</td>
<td>11106@</td>
<td>12310157@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV028924@</td>
<td>028932261@</td>
</tr>
<tr>
<td>Gabriele Frasca</td>
<td>Q3094072</td>
<td>writer poet</td>
<td>169982@</td>
<td>23328@</td>
<td>118224903@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV077975@</td>
<td>029501717@</td>
</tr>
<tr>
<td>Adriana Valerio</td>
<td>Q3605679</td>
<td>theologian</td>
<td>156848@</td>
<td>16145@</td>
<td>118013352@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV000465@</td>
<td>050038513@</td>
</tr>
<tr>
<td>Andrea Amatucci</td>
<td>Q3614574</td>
<td>jurist</td>
<td>113320@</td>
<td>30502@</td>
<td>165477041@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV020712@</td>
<td>015777272@</td>
</tr>
<tr>
<td>Attilio Stazio</td>
<td>Q3629300</td>
<td>numismatist</td>
<td>37574@</td>
<td>22238@</td>
<td>58634972@</td>
<td>139140622010107380339@</td>
<td>CFIV038256@</td>
<td>193718847@</td>
</tr>
<tr>
<td>Benedetto Confotti</td>
<td>Q3638066</td>
<td>magistrate political</td>
<td>132849@</td>
<td>05176@</td>
<td>66557320@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV013212@</td>
<td>033417458@</td>
</tr>
<tr>
<td>Carlo Sbrondone</td>
<td>Q3669842</td>
<td>mathematician university teacher</td>
<td>457300@</td>
<td>333428@</td>
<td>31160@</td>
<td>11214464390318710774@</td>
<td>CFIV036784@</td>
<td>238107876@</td>
</tr>
<tr>
<td>Corrado Begumot</td>
<td>Q3694189</td>
<td>engineer urban planner</td>
<td>2172@</td>
<td>24442@</td>
<td>75327251@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV063270@</td>
<td>115632239@</td>
</tr>
<tr>
<td>Francesco Barbagallo</td>
<td>Q3741058</td>
<td>historian</td>
<td>308403@</td>
<td>22888@</td>
<td>109310158@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV043200@</td>
<td>029301730@</td>
</tr>
<tr>
<td>Franco Archibugi</td>
<td>Q3751120</td>
<td>economist planning theorist</td>
<td>32146@</td>
<td>437786@</td>
<td>12869@</td>
<td>24774382@</td>
<td>0553516893@</td>
<td>033293620@</td>
</tr>
<tr>
<td>Gianfranco Pasquino</td>
<td>Q3763131</td>
<td>political scientist politician</td>
<td>124307@</td>
<td>24109@</td>
<td>273688629@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV005130@</td>
<td>028837508@</td>
</tr>
<tr>
<td>Gianni Dal Maso</td>
<td>Q3763488</td>
<td>mathematician university teacher</td>
<td>42309@</td>
<td>30757@</td>
<td>24690067@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV014067@</td>
<td>02893061X@</td>
</tr>
<tr>
<td>Giuseppe Cacchiato</td>
<td>Q3770198</td>
<td>philosoper</td>
<td>5242@</td>
<td>02034@</td>
<td>144594052@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV031723@</td>
<td>028690006@</td>
</tr>
<tr>
<td>Guido Trombetti</td>
<td>Q3779487</td>
<td>mathematician university teacher</td>
<td>6404@</td>
<td>21540@</td>
<td>304973015@</td>
<td>0000-0001-8215-8351@</td>
<td>CFIV031723@</td>
<td>028690006@</td>
</tr>
</tbody>
</table>

This list: [https://w.wiki/45RJ](https://w.wiki/45RJ)

SHARE Cat + IdRef: [https://w.wiki/45gA](https://w.wiki/45gA)
Work in progress...
Discussion/Questions
Useful resources

Wiki website to learn more [https://wiki.svde.org/](https://wiki.svde.org/)

About the Share Family

Share Family news and updates

Presentations and dissemination resources

The Working Groups

For more info contact [info@svde.org](mailto:info@svde.org)