

From Domain Experts to Data Scientists

Connecting the [Heritage of the Printed Book Database](#) and its users

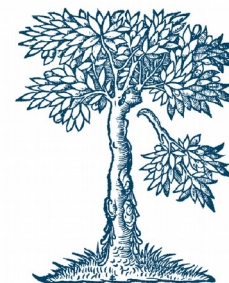
CERL Annual Seminar 2019. *Collections and Networks. Reconstructing the Historical Context of Texts, Publications and Objects with Digital Methods.* Wednesday, Oct 9.

Andreas Walker

SUB Göttingen / Data Conversion Group

SUB

NIEDERSÄCHSISCHE STAATS- UND
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN




CONSORTIUM OF
EUROPEAN
RESEARCH
LIBRARIES

search [and] ▾ [ALL] all words ▾ ? sort by year of publication ▾

all libraries ▾

fuzzy search



| | |
|---------------------------|-----------------------------|
| About the database | Content of the HPB Database |
|---------------------------|-----------------------------|

CERL - Heritage of the Printed Book Database

The HPB Database (previously called the Hand Press Book Database) is a steadily growing collection of files of catalogue records from major European and North American research libraries covering items of European printing of the hand-press period (c.1455-c.1830) integrated into one file. This makes it possible for information to be retrieved in one single search across all files. As the digitisation of collections in contributing libraries progresses, more and more catalogue records point to digital presentations of the early printed books.

The HPB Database is of interest to librarians and any one else with academic pursuits across many fields of study that use printed books as source material. It is especially valuable for research in intellectual history, social history, and transmission of thought as well as in the history of printing and the history of the book. It may be accessed for information retrieval and downloading by CERL member institutions, their staff and users.

Notice

- This database is presented in unicode (UTF8). Possible character coding problems might be related to locally missing character fonts (Fonts) in your operating system. The following links could be helpful: [Display Problems \(Unicode Consortium\)](#), [UTF8 problems \(Wikipedia\)](#)
- Usage of MSC (Mathematics Subject Classification) in line with Creative Commons Attribution Noncommercial Share Alike License.

Heritage of the Printed Book

[Advanced Search](#)



**HPB
DATABASE**

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Project context

- My background: Librarianship / Linguistics / Media Studies
- 2017-2019: *Bibliotheksreferendariat* (Academic Librarian Training) at the SUB Göttingen, M.A. (LIS) at Humboldt University
- This project = final project + thesis
- **Aim:** To explore the potential of a **linked open data** representation of the **bibliographic data** in CERL's Heritage of the Printed Book Database (HPB), and the development of a **web interface** for this representation based on the needs of **current HPB users**.


About the HPB

- **Scope:** bibliographic records of early European prints (c. 1450-1830), aggregated from member libraries
- Roughly **eight million records** stored in a **Pica** database hosted in Göttingen and made accessible through a traditional OPAC interface at <<http://hpb.cerl.org>> (to humans) and through Z39.50 and SRU (to machines)
- Open to non-members since January 2018
- CERL's aim: increase the **visibility** and **usefulness** of this data to researchers and other interested users

search [and] ▾ [ALL] all words ▾ ? sort by year of publication ▾

all libraries ▾

search fuzzy search



About the database Content of the HPB Database

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- Usage of MSC (Mathematics Subject Classification) in line with Creative Commons Attribution Noncommercial Share Alike License.



search filter

search

Fill out one or more words in the search form below and add the desired settings

[clear form](#)

| | | |
|-------|--|-------------------------------------|
| | [TIT] title (keywords) ▼ | <input type="text" value="luther"/> |
| and ▼ | [PER] person/author ▼ | <input type="text"/> |
| and ▼ | [ALL] all words ▼ | <input type="text"/> |
| and ▼ | [PUB] publisher, publishing place (keywords) ▼ | <input type="text"/> |

sort by








language

country

year of publication for example: 1948-1980 or 1948- or 1955

fuzzy search

material selection [all](#) | [none](#)

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/>  Books | <input checked="" type="checkbox"/>  Music | <input checked="" type="checkbox"/>  Periodicals/Series (printed) |
| <input checked="" type="checkbox"/>  Maps | <input checked="" type="checkbox"/>  Microforms | <input checked="" type="checkbox"/>  Articles |
| <input checked="" type="checkbox"/>  Games, Sculpture, etc. | | |

Library [all](#) | [none](#)

- | | |
|--|---|
| <input checked="" type="checkbox"/> [BE] Brussels, Bibliothèque royale / Koninklijke Bibliotheek | <input checked="" type="checkbox"/> [CZ] Prague, National Library of the Czech Republic |
| <input checked="" type="checkbox"/> [DE] GBV Union Catalogue (GVK) | <input checked="" type="checkbox"/> [DE] VD 16 |
| <input checked="" type="checkbox"/> [DE] Bavarian Union Catalogue | <input checked="" type="checkbox"/> [DK] Copenhagen, Kongelige Biblioteket |
| <input checked="" type="checkbox"/> [EE] Tallinn, Academic Library of Tallinn University | <input checked="" type="checkbox"/> [EE] Tartu, University of Tartu Library |
| <input checked="" type="checkbox"/> [ES] Madrid, Universidad Complutense | <input checked="" type="checkbox"/> [ES] Madrid, Biblioteca Nacional de España |
| <input checked="" type="checkbox"/> [FI] Helsinki, National Library of Finland | <input checked="" type="checkbox"/> [FR] Sudoc Catalogue |

search [and] ▾ [ALL] all words ▾ ? sort by year of publication ▾

all libraries ▾

luther

search
















 fuzzy searchsearch history | **shortlist** | full title

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | next | last | go to

results search [and] ([ALL] all words) luther | 46872 hits[save/print info](#)[hide hints](#)

filter

[Form of publication](#)[Language](#)[Country](#)

-  1. [Das Babstsche Gesangbuch von 1545 : Faksimiledruck](#)
Ameln, Konrad. - 3. Aufl. - Kassel : Bärenreiter, 1988
-  2. [Grammatica Amharica](#)
Ludolf, Hiob. - Nachdr. - Halle /Saale/, 1986
-  3. [Geistliche Lieder auff's new gebessert zu Wittemberg](#)
Luther, Martin. - Kassel : Bärenreiter, 1983
-  4. [Marburger Kirchenordnung von 1527.](#)
Hochhuth, Carl Wilhelm Hermann. - Kassel : [Drucker:] Scheel, 1878
-  5. [Die Bibel oder die Heilige Schrift des Alten u. Neuen Testaments](#)
Luther, Martin. - 3. Aufl. - Leipzig : Brockhaus, [1875]
-  6. [Ziwot Martina Luthera s cirkewnohistorickym uwodem ku prospechu Krestana ewangelickych. \[Luther Márton élete rövid egyháztörténeti bevezetéssel\].](#)
Kuzmány Károly. - W Pessti : Trattner-Károlyi, 1842
-  7. [Geschichte der deutschen Bibelübersetzung Luther's, zur Erinnerung an das dreihundertjährige Jubiläum derselben im Jahre 1834](#)
Weidemann, Karl Albert. - Leipzig : Hinrichs, 1834
-  8. [Luther als raadgever en vertrooster voor onzen tijd : eene stem uit den tijd der Hervorming tot ons geslacht, bij het heerschen der cholera.](#)
Hey en zoon, Johannes van der Amsterdam. - Amsterdam : Johannes van der Hey en zoon, 1832
-  9. [Biblia, dat is: de geheele H. Schrift, behelzende al de boeken des Ouden en Nieuwen Testaments](#)
Luther, Martin. - Dordrecht : Blussé en Van Braam, 1832
-  10. [Die Bibel, oder die ganze göttliche Heil. Schrift des alten und neuen Testaments : mit vorgeseztem kurzen Inhalt eines jeden Capitels, und beigefügten richtigen Schriftstellen](#)
Luther, Martin. - Rinteln : Steuber, 1831
-  11. [The history of the Church of Christ : from the days of the apostles, till the famous disputation between Luther an Miltitz, in 1520 ; with a further continuation to the present times, extracted from the Rev. T. Haweis' church history ; complete in one volume](#)
Milner, Joseph. - London [u.a.] : Tegg, (1830)
-  12. [Das Alte Testament](#)
Luther, Martin. - Abgedr. nach d. Hallischen Ausg. - London : Großbrit. u. Ausländ. Bibelgesellsch., 1830
-  13. [Geschichte der vornehmsten Reformatoren und der Folgen ihrer Bemühungen von Jesus Christus an bis auf Martin Luther und den dreißigjährigen Krieg : ein belehrendes und unterhaltendes Volksbuch zur Vorbereitung auf die Konfessionsfeier am 25. Juni 1830](#)
Oertel, Eucharius Ferdinand Christian. - Nürnberg : Campe, 1830
-  14. [Exegetica opera latina. 6 Continens Enarrationes in Genesin, Cap. 24 - 26](#)
Luther, Martin. - [Erlanger Ausg.]. - Erlangae : Heyder, 1830
-  15. [Exegetica opera latina. 5 Continens Enarrationes in Genesin, Cap. 20 - 23](#)

search [and] v [ALL] all words v ? sort by year of publication v

all libraries v

luther search

 fuzzy searchsearch history | shortlist | **full title**


1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | next | last | go to

results search [and] ([ALL] all words) luther | 46872 hits[save/print info](#)**default** Marc 21HPB Identifier: **NO-0030100.01.910360928** [Cite](#)

Cataloguing Source: National Library of Norway (Nasjonalbiblioteket, Oslo)

Title: **Das Babstsche Gesangbuch von 1545** : Faksimiledruck / mit einem Geleitwort herausgegeben von Konrad AmelnCollaborator: **Ameln, Konrad** ; **Babst, Valentin** ; **Luther, Martin *1483-1546***

Edition: 3. Aufl.

Published: Kassel : Bärenreiter, 1988  [Place of printing in the CERL Thesaurus](#)

Language/s: German

Extent: [554], 16 s. : mus.

Series: **Documenta musicologica. Reihe 1, Druckschriften-Faksimiles** ; 38Note: Også med original tittelside: **Geystliche Lieder** / mit einer neuen vorrhede Mart. Luth.Contains: **Babst, Valentin**: **Geystliche Lieder**Contains: **Luther, Martin**: **Geystliche Lieder**Related title: **Geystliche Lieder**

ISBN: 3-7618-0909-3

Subject headings: *Tyskland
*koraler
*salmebok

Subject (DDC): DDC4/nor: 782.5250943

Former identifier: NO-0030100.01.910360928

[Record in source system](#)**Copies**Holding Institution: **Nasjonalbiblioteket**

Shelfmark: TZ Doc:38

Location: Seksjon Biblioteket, Utlånet, NB/BRU Musikk

Country: Norway

Our users

- The „typical“ HPB users is a **domain expert**, but not necessarily a **tech user** (distinctions due to Dadzie & Rowe 2011)
- New tools should integrate with researchers' **existing workflows**
- My methodology: **qualitative interviews** with five researchers to find out about their current use of the HPB and their desiderate for future version

What we learned

- Participants see the HPB as a **useful tool** but had encountered some problems working with it (e.g., incomplete data, difficulties in accessing the data, no clustering of copies by edition)
- Participants are interested in the possibility of manipulating and enriching data directly within a future **web interface** of the HPB, but also need their workflows based on standard office software to be supported
- Participants mostly mention **maps** and **timelines** as visualizations they would like to be able to generate from the data

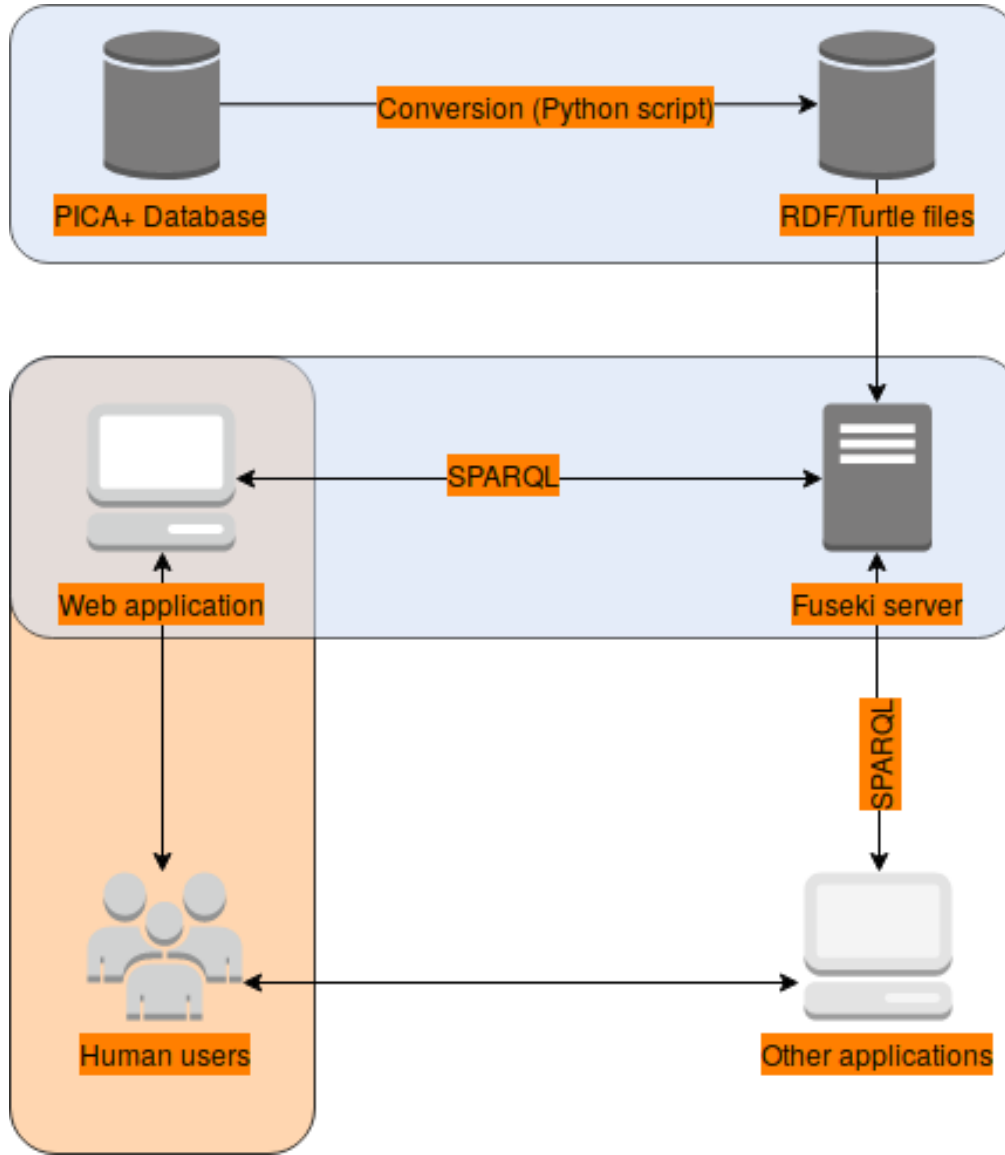
Design decisions

- Develop an interface that is aimed at **domain experts** and does not require them to interact directly with technologies like SPARQL
- Let the data presentation be guided by **researchers' workflows** rather than by the internal data structure
- Maintain a **coherent visual identity** with the current HPB
- Make generous use of **map visualizations** to quickly generate added value to the new interface

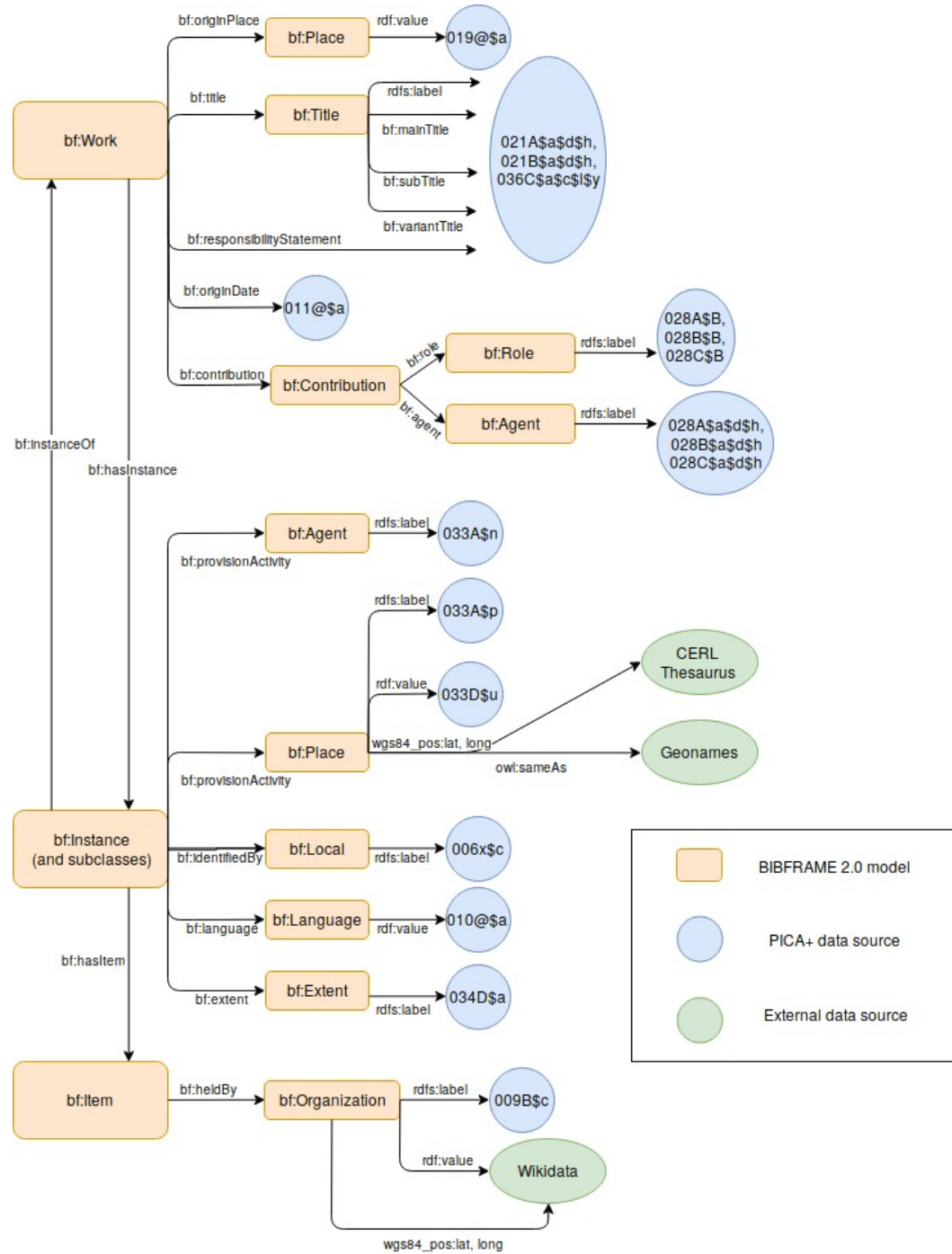
The underlying technology

- Data conversion from Pica+ to RDF, using BIBFRAME 2.0 as the data model to increase interoperability, implemented in Python
- Enrichment of the data from external data sources, including the **CERL Thesaurus** and **Wikidata**
- Provision of a SPARQL endpoint through **Apache Fuseki**
- Web application built in **Python / Flask**, with the triple store serving as the database queried through the SPARQL endpoint

System architecture



Pica+/RDF mapping



Heritage of the Printed Book

[Advanced Search](#)



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Advanced Search Options


SPARQL Interface

This version of the HPB is implemented as Linked Open Data in RDF. It allows complex queries using the powerful [SPARQL language](#). Note that this requires an understanding of the underlying data model, [BIBFRAME](#).

[To the SPARQL interface →](#)

Demonstrations

Combining multiple data sources through linked data allows for a number of interesting queries.

[1] [Items held outside their country of origin](#) (matches HPB country data to  Wikidata's country data for holding institutions)

Traditional interface

| | |
|---------------------------------------|----------------------------------|
| Title: | <input type="text"/> |
| Author: | <input type="text"/> |
| Place of Publication: | <input type="text"/> |
| Publisher: | <input type="text"/> |
| Country: | <input type="text" value="Any"/> |
| Language: | <input type="text" value="Any"/> |
| <input type="button" value="Search"/> | |

SPARQL Interface

Please note that the HPB data is stored in a named graph. You can query it by including the following statement in your SPARQL query:

```
FROM <http://141.5.107.58:3030/prot01/data/records>
```

Query × +



```

1 SELECT *
2 FROM <http://141.5.107.58:3030/prot01/data/records>
3 WHERE {
4   ?sub ?pred ?obj .
5 }
6 LIMIT 10

```



Table

Raw Response

Pivot Table

Google Chart

Geo



Showing 1 to 10 of 10 entries (in 0.527 seconds)

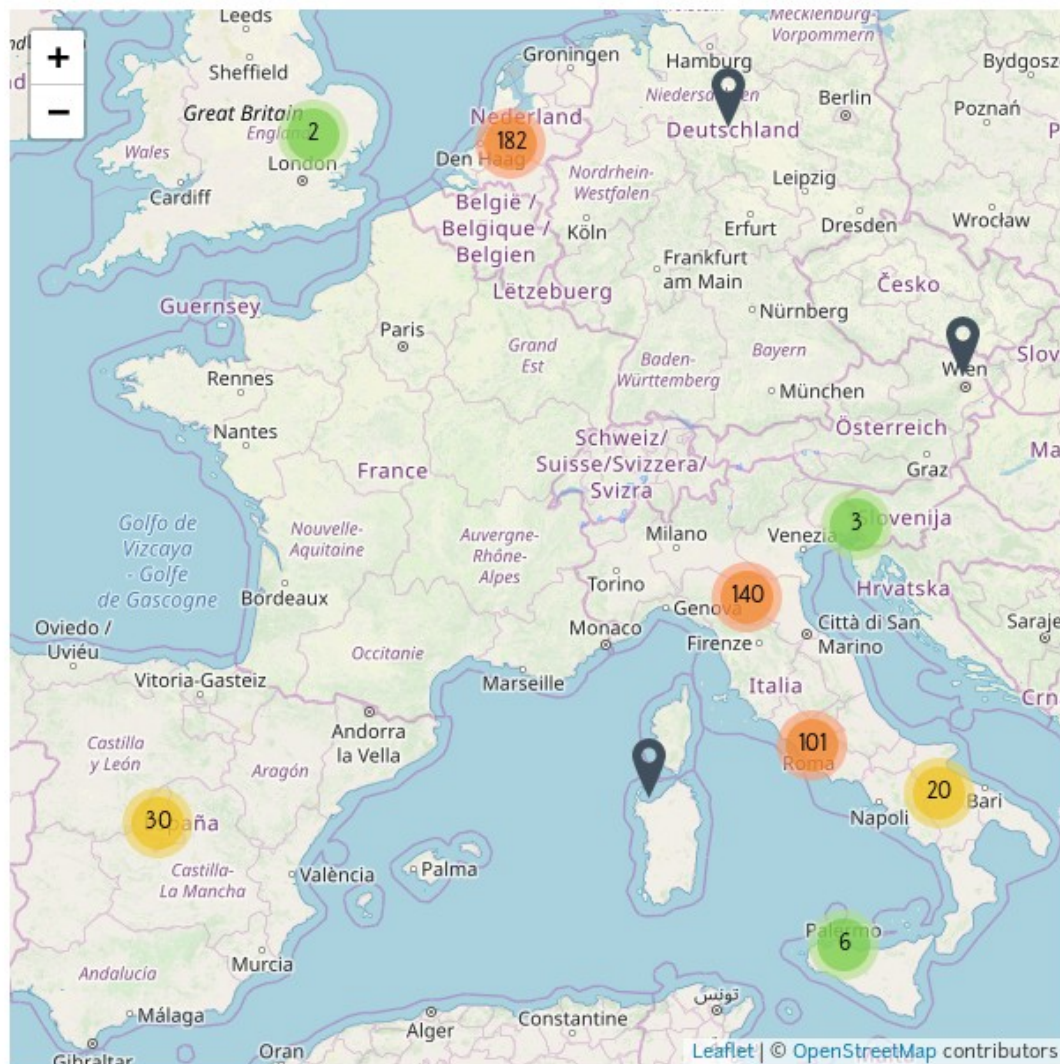
Search:

Show

entries

| | sub | pred | obj |
|---|---|---|---|
| 1 | http://141.5.107.58:5000/entities/DE-601.GVK.150923015-work | http://www.w3.org/1999/02/22-rdf-syntax-ns#type | http://id.loc.gov/ontologies/bibframe/Work |
| 2 | http://141.5.107.58:5000/entities/DE-601.GVK.150923015-work | http://id.loc.gov/ontologies/bibframe/hasInstance | http://141.5.107.58:5000/entities/DE-601.GVK.150923015-instance |

Your results searching for items held outside their country of origin



11 records not displayed because they lack geographical data for their holdings.
[See list view](#) for all records.

Filter

Statistics

Export

[List view](#) | [Map view](#)

Filters

Language: All (939)

Filter

Map options

[All](#) | [Places of publication](#) | [Holdings](#)

Your results searching for luther

1. [M. Lutheri Catechesis major](#)
Luther, Martin (1483-1546)

2. [\[Bildnis Margarethe Luther\]](#)

3. [Kurtze Christliche Fragstücke / Martin Luther](#)
Luther, Martin (1483-1546)

4. [Jesus Syrach Teutsch / Martin Luther \[Vorr.\]](#)

5. [Quæ de genuino systemate Lutheranorum sollicita est, et quindecim priores §§ complectitur](#)
Mörl, Gustav Philipp (1673-1750)

6. [Vera fides, seu Romanae ecclesiae evidens credibilitas et Lutheranae aliarumque sectarum certa falsitas solide demonstrata](#)
Pichler, Vitus (1670-1736)

7. [Ein newer Moses : Nemblich ein öffentlich Zeugniß, daß die Papisten mit diesem ... Krieg nicht allein die genandten Calvinisten, sondern auch die Lutheraner ... außzureutten gemeinet seind](#)

8. [D. Mort. Luthers liiden Catechismus](#)

9. [De egressu et ingressu Lutheri Wormatiam carmen](#)
Philomusus, Decius

10. [Decem Precepta witt-e||bergensi predicata || populo || per P. Mar||tinum Luther || augustinia||num.||](#)
Luther, Martin

11. [Der ganze Psalter des Königes und Propheten Davids / verdeutscht von D. Martin Luther. Mit jedes Psalms kurzen Summarien und nöthigsten Parallelen.](#)

12. [Instructio Pro Vera Lutherano eleganti carmine scripta / ab Ernesto](#)

Filter

Statistics

Export

List view | [Map view](#)

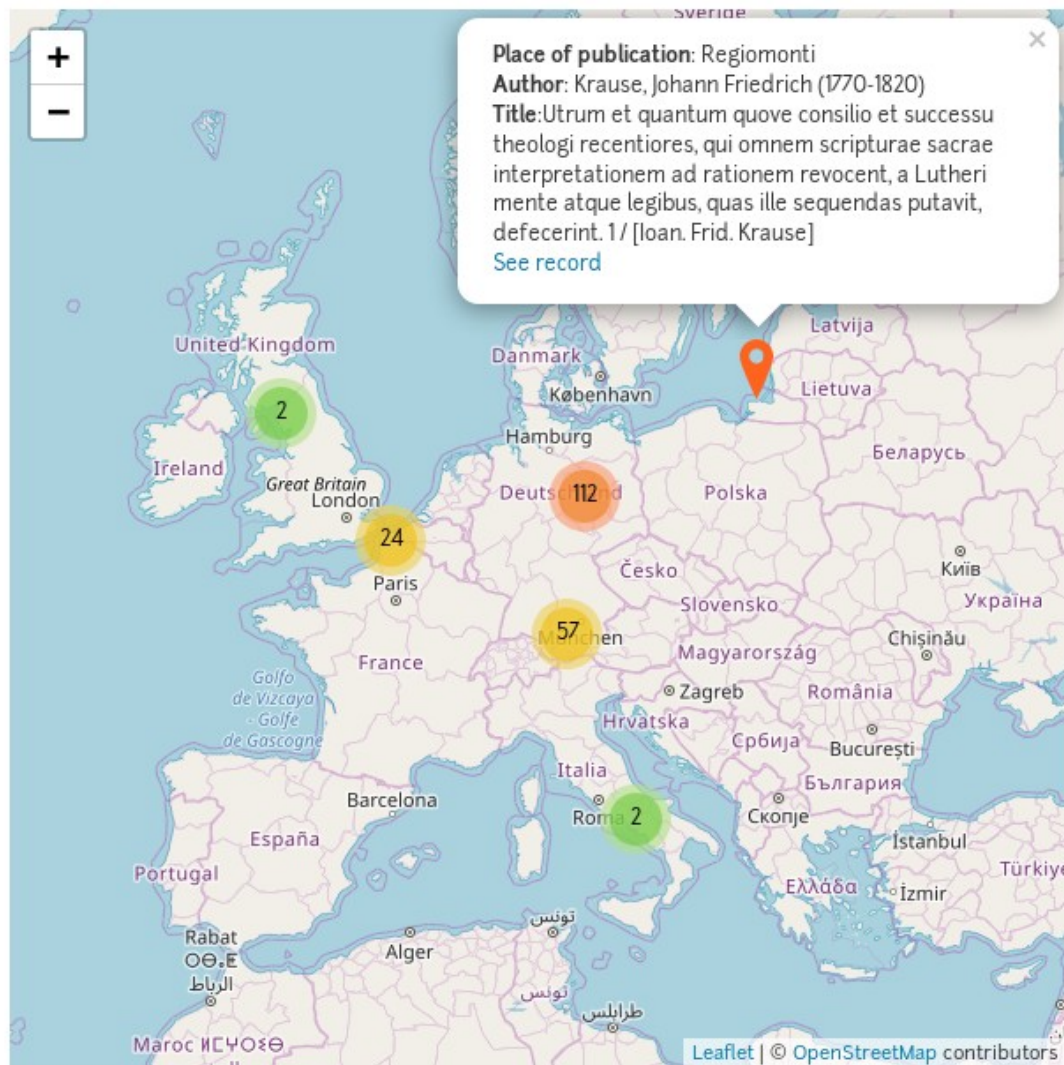
Filters

Language:

List options

[Sort by author](#)[Sort by title](#)[Sort by year](#)[Edit list manually](#)

Your results searching for luther



6 records not displayed because they lack geographical data. [See list view](#) for all records.

Filter

Statistics

Export

[List view](#) | [Map view](#)

Filters

 Language: [Filter](#)

Map options

[All](#) | [Places of publication](#) | [Holdings](#)

Kettner, Leonhart (16. Jh.)

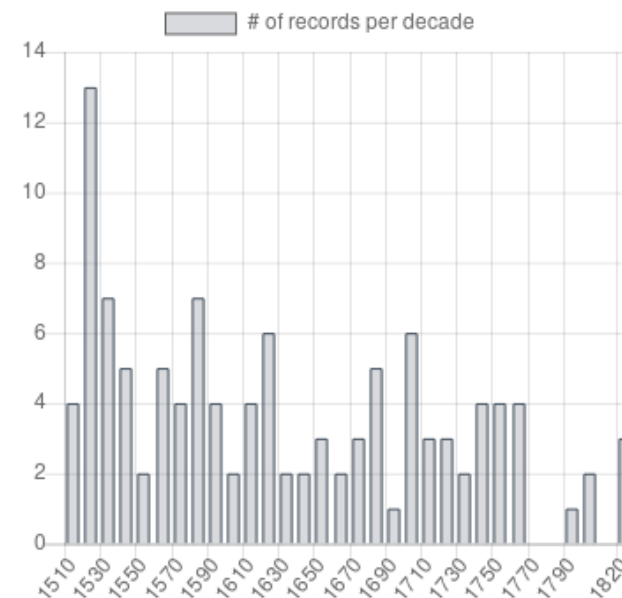
19. Reinchristlicher Religions-Unterricht nach Luthern : Ein Katechismus zum Gebrauch der Schullehrer / (C. L. Krüger)
Krüger, Carl Ludwig
20. Auserlesenes Gesangbuch : Darinn Eine gute anzahl geistreicher So wol Alten und Neuen Gesängen/ Aus D. Martino Luthero/ Und andern Evangelischen Lehrern und gottseligen Christen Mit fleiß zusammen getragen; Und samt Angehängten Christlichen Gebethen/ Zu allgemeiner Kirch- und Haus-Andacht/ In richtige ordnung verfasst
21. Das Benedictus oder weyssagung des heyligen Zacharie, Luce. j. / durch D. Mart. Luther gepredigt vnd ausgelegt
Luther, Martin (1483-1546)
22. Looke beyond Luther : or an answer to that question proposed by our adversaries where our religion was before Luthers time
Bernard, Richard (1568-1641)
23. Eyn gutte trostliche predig vo[n] der wirdigen bereytu[n]g zu de[m] hochwirdigen Sacrament / Doctor Martini Luther Augustiner tzu Wittenberg
Luther, Martin (1483-1546)
24. Vermanung zum Sacrament des leibs und bluts unsers Herrn. Mart. Luther. Wittemberg. 1531.
Luther, Martin
25. Grund und Kern des Catechißmi, D. Martini Lutheri : Einfeltig u. kürztlich auß Gottes Wort, u. reiner Lehrer, sonderlich aber D. Lutheri Schrifften ...
26. Comment und Außlegung weiland des Herren Doctor Martin Luthers uber den CXXVII. Psalm: Nisi dominus aedificaverit domum
Luther, Martin (1483-1546)
27. Utrum et quantum quove consilio et successu theologi recentiores, qui omnem scripturae sacrae interpretationem ad rationem revocent, a Lutheri mente atque legibus, quas ille sequendas putavit, defecerint. 1 / [Ioan. Frid. Krause]
Krause, Johann Friedrich (1770-1820)

Filter

Statistics

Export

113 items in list.



[← Back](#)

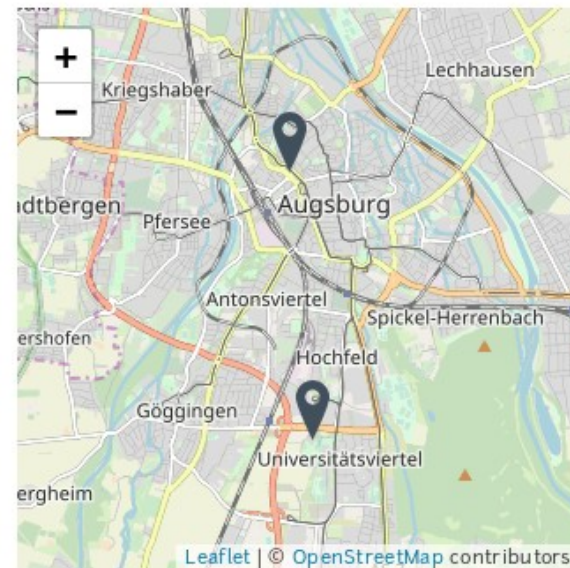
Schmalkaldische Artickel, So da hetten s ...

| | |
|-----------------------------|---|
| CID | DE-604.VK.BV010631077 → |
| Author | Luther, Martin (1483-1546) |
| Title | Schmalkaldische Artickel, So da hetten sollen auff's Concilium zu Mantua, oder wo es würde sein, von unsers Theils wegen uberantwortet werden ... / Geschrieben durch D. Martin Luth. und von vielen Gelarten auff den Tag zu Schmalkalden unterschrieben ... Anno 1537 |
| Place of Publication | Wittenberg 🔍 🗺 |
| Publisher | Krafft |
| Year | 1576 |
| Language | German 🔍 🗺 |
| Holdings | Bayerische Staatsbibliothek |
| Holdings | Staats- und Stadtbibliothek Augsburg 📖 |
| Holdings | Universitätsbibliothek Augsburg 📖 |

Geography

Export

Related



Evaluation of the first prototype

- Methodology: qualitative, semi-structured **follow-up interviews** with the previously interviewed researchers after providing them with a link to the prototype and giving them about a month for testing it
- Questions asked were focused on:
 - Their **overall visual impression** of the interface
 - Their opinion on the **presentation of search results**
 - Their opinion on the **presentation of single records**
 - Any remaining thoughts on **usability**

Evaluation of the first prototype

- Researchers responded in writing. The following is a free summary of the points most salient to me; see Walker (2019) for a more complete list:
- **Visual impression:**
 - Colours and layout mostly judged as attractive and well-organized
 - Search interface too small and cluttered
- **Search results:**
 - Participants liked the map visualization and the options for filtering and manually editing result lists
 - Result counter not obvious enough
 - Result list should display different metadata

Evaluation of the first prototype

- **Single records:**
 - Participants liked the map visualization and the overall organization of the presentation
 - Wikidata and RDF links were judged as not useful
 - Interface displays less data than the original HPB
 - Other identifiers should be added (e.g., GdW, MEI, VD16)
- **Usability:**
 - Participants liked the additional integration of the HPB with other CERL resources (i.e., the CERL Thesaurus) and suggested adding more such links
 - The search functionality of the prototype was judged as inadequate

Advanced Search Options

This form gives you a traditional advanced search interface, and constructs queries in SPARQL, the query language for linked open data, in the background. You can see the SPARQL queries generated by the form in the Export pane of your search results.

If you want to write your own queries, [click here →](#)



Advanced Search Options

[+ Add search field](#)

- Title
- Author
- Place of Publication
- Publisher**
- Language
- Country
- Holding
- Published near river

This form gives you a text search interface, and constructs queries in SPARQL, the query language for linked open data, in the background. You can search for a specific title, author, or publisher.

If you want to write your own SPARQL query, see [SPARQL](#).

This form gives you a text search interface, and constructs queries in SPARQL, the query language for linked open data, in the background. You can search for a specific title, author, or publisher. The queries generated by the form in the Export pane of your search results.

If you want to write your own SPARQL query, see [SPARQL](#).



Advanced Search Options

- Remove field

- Remove field

- Remove field

Begin search

This form gives you a traditional advanced search background. You can see the SPARQL queries generated by the form.

If you want to write your own queries, click here.

page for linked open data, in the

- Arabic
- Armenian
- Bokmål, Norwegian | Norwegian Bokmål
- Chinese
- Croatian
- Czech
- Danish
- Dutch | Flemish
- English
- Finnish
- French**
- French, Middle (ca.1400-1600)
- German
- Greek, Ancient (to 1453)
- Greek, Modern (1453-)
- Hebrew
- Hungarian
- Icelandic
- Italian
- Japanese



Advanced Search Options

| | | | |
|--------------------------------|------------------------------------|---|---|
| <input type="text" value="▼"/> | Title | <input type="text" value="Luther"/> | <input type="button" value="- Remove field"/> |
| <input type="text" value="▼"/> | Published near river | <input type="text" value="Rhine"/> | <input type="button" value="- Remove field"/> |
| <input type="text" value="▼"/> | <input type="text" value="Title"/> | <input type="button" value="+ Add search field"/> | |

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If you want to write your own queries, [click here →](#)



Your 3 results searching for your SPARQL query

1. [Exposition de l'histoire des dix lépreux \[par Martin Luther\]. Translatée de latin en françois... \[par Antoine Du Pinet\] \[Texte imprimé\]](#)
Luther, Martin (1483-1546)

2. [Histoire du Lutheranisme.](#)
Maimbourg, Louis

3. [Histoire du Lutheranisme, par le P. Louis Maimbourg, de la Compagnie de Iesus.](#)
Maimbourg, Louis (1610-1686)

[Filter](#)[Statistics](#)[Export](#)[List view](#) | [Map view](#)

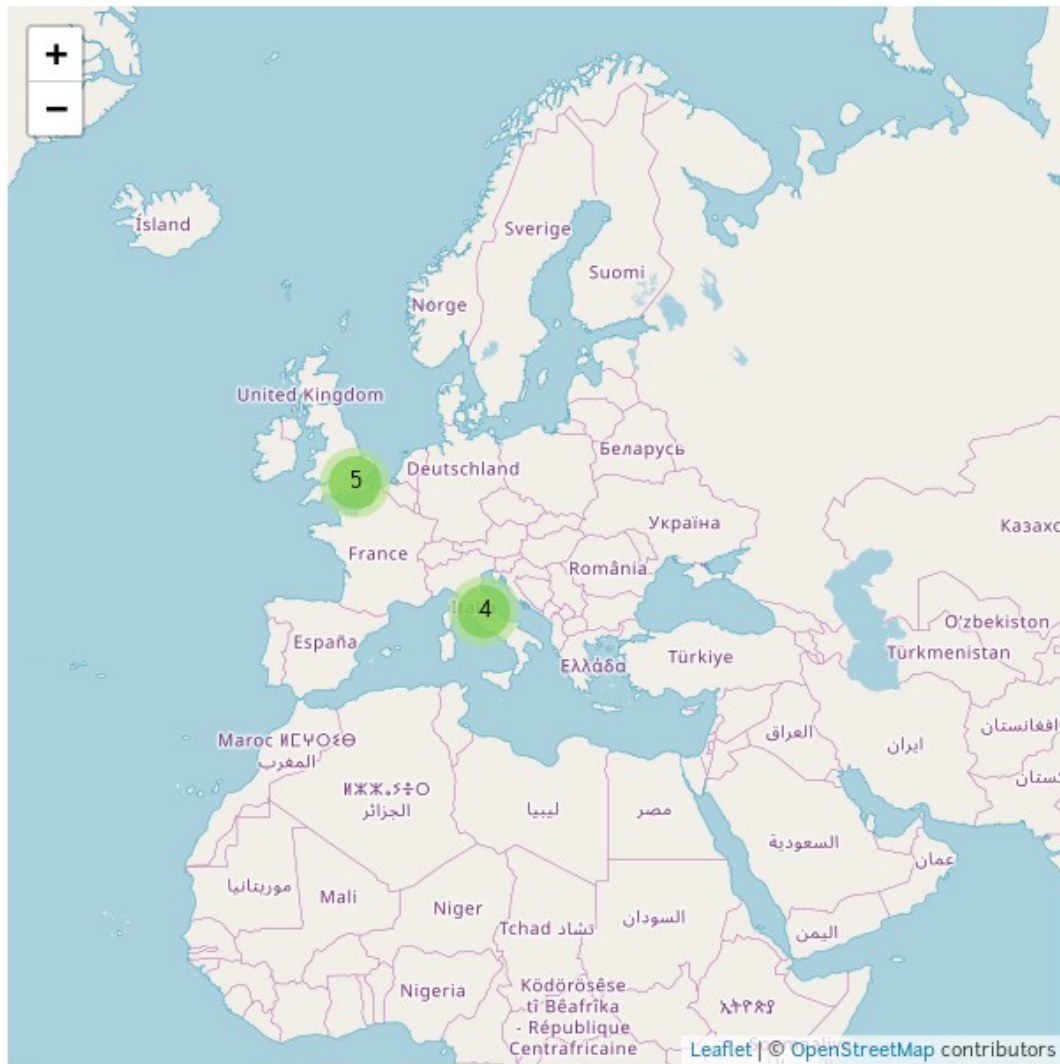
Filters

Language:

List options

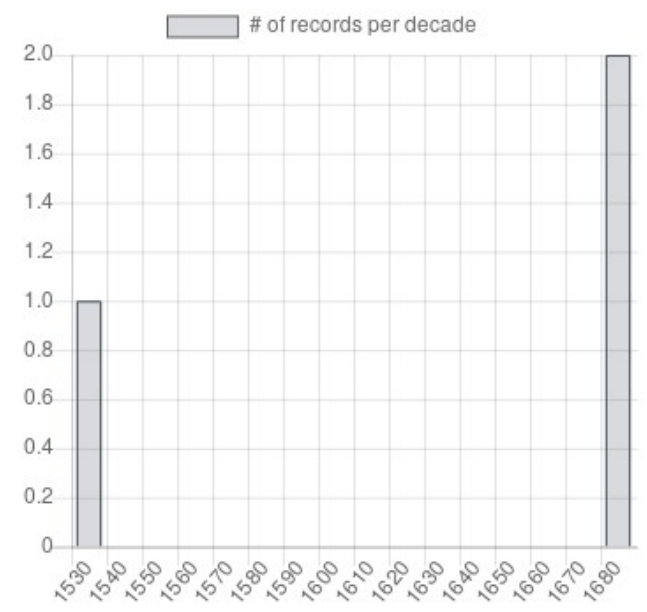
[Sort by author](#)[Sort by title](#)[Sort by year](#)[Edit list manually](#)

Your 3 results searching for your SPARQL query



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3 items in list.



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Histoire du Lutheranisme.

| | |
|-----------------------------|---|
| Author | Maimbourg, Louis |
| Title | Histoire du Lutheranisme. |
| CID | GB-UkCyUK.CLC.CLC24878 (view in classic HPB) |
| Place of Publication | [Rotterdam?] Q ↔ |
| Publisher | Suivant la copie imprimée à Paris |
| Year | 1681 |
| Language | French Q ↔ |
| Country | Netherlands Q III |
| Holdings | St Asaph Cathedral, Wales Q III |
| Holdings | Salisbury Cathedral Q III |
| Holdings | Worcester Cathedral Q III |

Geography

Export

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| Holdings | St Asaph 🔍 📖 |
| Holdings | Salisbury Cathedral 🔍 📖 |
| Holdings | Worcester Cathedral 🔍 📖 |

See the description of this library at Wikidata

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Beyond prototypes

- **Scaling up:** A full database conversion currently runs at ~4 hours. We haven't tested the web application with the full database yet, as it already runs slowly with ~15.000 records (mostly due to the effort of reconstructing records from the graph)
- **Improving search:** Full text search in SPARQL is not very efficient.
- **Potential solution:** Combine the triple store with a document-based database to build on their respective strengths.

Beyond prototypes

- **Clustering records by editions:** Partially already underway, independently of the conversion to RDF
- **Visualization of results:** Currently implemented through third party libraries that do not entirely match our requirements (e.g., permalinks, export)
- **Enrichment of data:** Identify useful data sets to link to, but also demonstrate the value of large data hubs like Wikidata to researchers

Beyond prototypes

- **Towards a research environment:** Allow users to create their own LOD data sets that build on HPB data and edit, search and access them through the same interface
- **Expanding to new audiences:** Make the RDF data available to researchers who want to run large-scale analyses on our bibliographic data (cf. Lahti et al. 2019)

Thank you for your attention

I would also like to thank the DCG and CERL for hosting this project, as well as the five researchers who kindly provided their expertise.

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Bibliography

Dadzie, A.-S. and M. Rowe (2011). Approaches to visualising linked data. A survey. In *Semantic Web 2(2)*, 89-124.

Lahti, L., J. Marjanen, H. Roivainen, and M. Tolonen (2019). Bibliographic data science and the history of the book (c. 1500-1800). In *Cataloging & Classification Quarterly 57(1)*, 5-23.

Walker, A. (2019). *Improving access to bibliographic data. Representing CERL's Heritage of the Printed Book database as Linked Open Data*. MA thesis, Humboldt University Berlin.

