



Observatoire des cultures écrites  
de l'argile à l'imprimé

# Workshop: “Openrefine Reconciliation with Biblissima”

Kevin Bois (EPHE, Paris France)  
Eduard Frunzeanu (EPHE, Paris France)  
Emmanuelle Morlock (CNRS, Lyon, France) (**facilitator**)  
Régis Robineau (EPHE, Paris France)

DH 2024, Pre-conference workshop, 5 August 2024, Washington DC

# Presentation on the DH2024 website

<https://dh2024.adho.org/program/workshops/>

Aligner, vérifier et enrichir des jeux de données sur le patrimoine écrit ancien: découvrir et pratiquer le web service de réconciliation pour OpenRefine de Biblissima

If you have never found the time to experiment with the super easy data reconciliation feature of OpenRefine, this half-day workshop will give you the opportunity! It will also introduce the Biblissima endpoint for authoritative data about written cultures (shelfmarks for manuscripts or ancient prints, people, places, iconographic descriptors, etc.), which will be used for the exercises. While the process is straightforward, this session may lead to interesting discussions among the participants on how to balance the need for automation and critical review of the results obtained. See <https://data.biblissima.fr/w/Accueil/en>. The workshop will be given in English and/or French depending on the speaking language of the audience

# Agenda

- Introduction to
  - ◆ Biblissima
  - ◆ Reconciliation
  - ◆ OpenRefine
- Quick DemoTime
  - ◆ Openrefine's interface
  - ◆ Standard reconciliation with Wikidata
- Hands-on exercices
  - ◆ Reconcile with data.biblissima
  - ◆ Improve results
  - ◆ Align and enrich a TEI file and visualize the result with TEI Publisher

# Downloads

Software:

<https://openrefine.org/download>

Exercises and handouts:

<https://github.com/emmamorlock/workshop>

# **Introduction**

~ 30 min

# A Digital Infrastructure for Ancient Written Heritage

<https://projet.biblissima.fr/en>

Funded by the French government since 2012.

Two phases of funding:

- Biblissima 2012-2020
- Biblissima+ 2021-2029

PI: Anne-Marie Turcan Verkerk  
(EPHE)

Supporting institution: Campus Condorcet

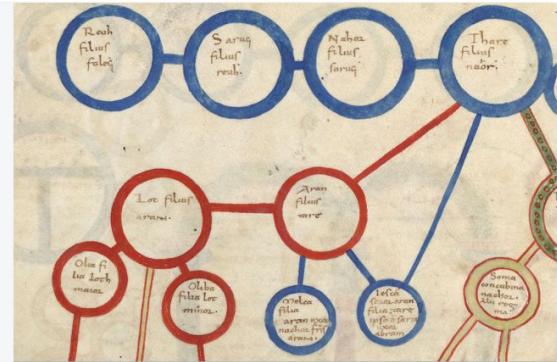


Biblissima+ is a multi-site digital infrastructure for research and service dedicated to the history of the transmission of ancient texts, from Antiquity to the Renaissance, in the West and in the East. [Project news](#)

## From Biblissima to Biblissima+

The Biblissima+ infrastructure (2021-2029) is structured around **7 areas of expertise or "clusters"** bringing together researchers, curators and engineers. They form centres of expertise on a national scale around the study of ancient texts and their transmission through History...

[Read more](#)

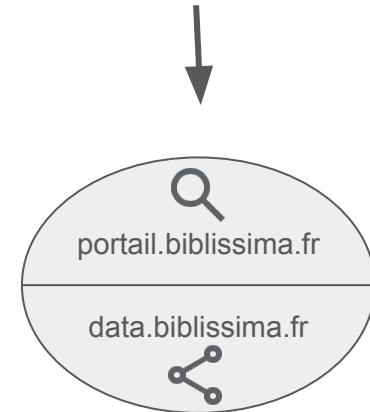


# Biblissima: Building interoperability

2012-2020

Building a virtual library of libraries offering a single access point to the scholarly documentation on the history of the transmission of texts (8th-18th centuries)

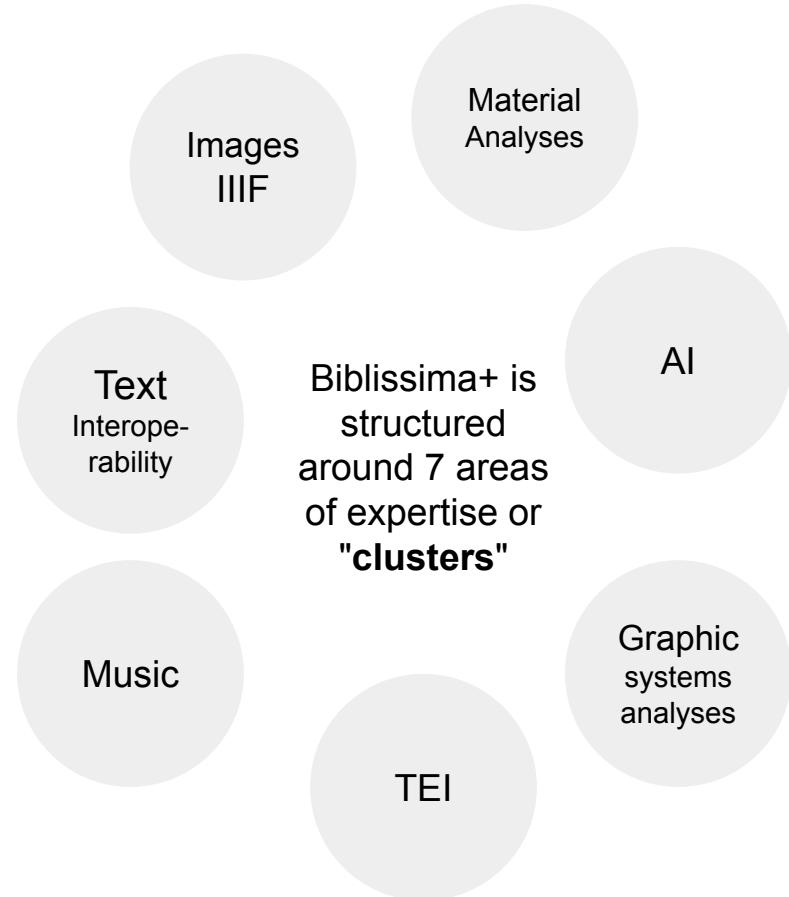
- Data Cluster
- Web portal ([portail.biblissima](http://portail.biblissima))
- Authorities hub ([data.biblissima](http://data.biblissima))
- Community (call for projects, summer schools)
- Cutting edge tools
  - e.g. IIIF Collections (search engine)

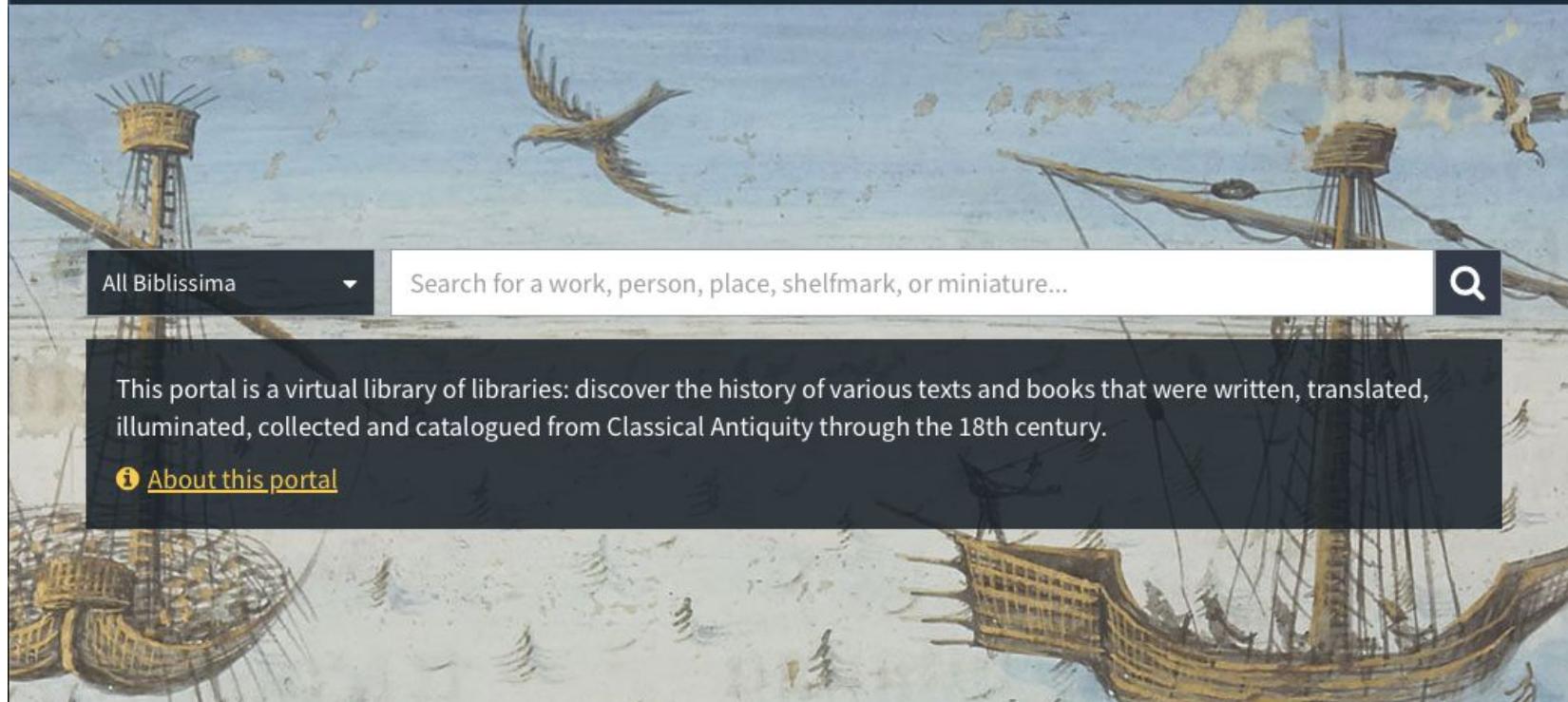


# Biblissima+: Broadening the scope

2021-2029

- Extension to antiquity
- Beyond the book: archeological resources (seals, inscriptions, coins), music, material analysis...
- Numerous scientific challenges:
  - Fonts without unicode
  - Handling manuscripts in all ancient languages (Armenian, Greek, Spanish, Ethiopian)
  - Provide access to full-text secondary bibliography





All Biblissima ▾

Search for a work, person, place, shelfmark, or miniature...



This portal is a virtual library of libraries: discover the history of various texts and books that were written, translated, illuminated, collected and catalogued from Classical Antiquity through the 18th century.

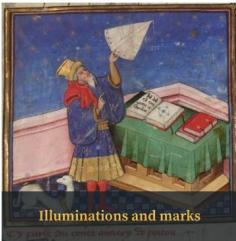
 [About this portal](#)

Biblissima Web Portal : ~776 000 pages – <https://portail.biblissima.fr/en>

# Resources in the Biblissima portal



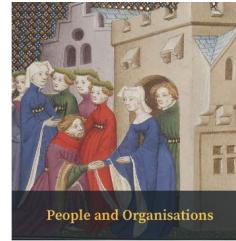
Manuscripts and Early Printed Books



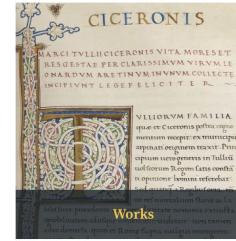
Illuminations and marks



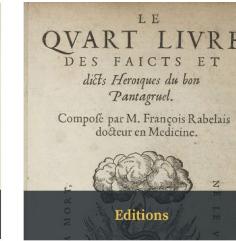
Places



People and Organisations



Works



Editions



Historical Collections

27601 [Descriptors](#)

306346 [Illuminations and decoration](#)

6774 [Places](#)

46596 [People](#)

25046 [Works](#)

6936 [Marks](#)

163 [Topics](#)

4720 [Multi-volume manuscripts](#)

7778 [Editions](#)

5938 [Organisations](#)

231734 [Manuscripts](#)

67562 [Texts](#)

25316 [Early Printed Books](#)

654 [Inventories](#)

13597 [Historical Collections](#)

All Biblissima

Search for a work, person, place, shelfmark, or miniature...



## Example: WORK

Presentation

Related texts

Work witnesses

Life cycle of this work

Data sources

Exports

## Le chevalier au lion

Biblissima authority file: <https://data.biblissima.fr/entity/Q286568>

**Other Forms :** Chrétien de Troyes (113.-1185?) | Le chevalier au lion  
Chrétien, de Troyes, active 12th century. Chevalier au lyon  
chrétien de troyes, chevalier au lion  
chrétien de troyes, chevalier au lion (vers. pierre sala)  
Der Löwenritter  
Le chevalier au lion ou Le roman d'Yvain  
Le chevalier au lion, Yvain  
Le Roman du chevalier au Lyon  
Le Roman du Chevalier au Lyon, par Maistre Gasse  
Le roman d'Yvain  
The knight of the lion  
The knight with the lion  
Yvain  
Yvain, le chevalier au lion  
Yvain or The knight with the lion  
Yvain ou Le chevalier au lion  
Yvain, the knight of the lion  
Ywain and Gawain

**Author :** Chrétien de Troyes (113.-1185?)

**Languages :** French, Old (842-ca.1400)

**Notes :** À employer également pour les adaptations anonymes en faisant suivre la vedette de la subdivision de forme Adaptations suivie de Histoire et critique dans le cas d'études critiques (Source : BnF)  
Roman, sans doute écrit vers 1177-1181, d'environ 6800 octosyllabes. - Adaptations en allemand par Hartmann von Aue sous le titre "Iwein", en norrois au XIIIe s. sous le titre "Ivens saga", en anglais au XIVe s. sous le titre "Ywain and Gawain", en 4032 vers (Source : BnF)  
Mentionné dans: La Croix du Maine (E1v, p. 50) « Le Roman du chevalier au Lyon. » (Source : Bibliothèques françoises)

## Related texts

---

Chrétien de Troyes (113.-1185?) : Le chevalier au lion [Unknown language].

Chrétien de Troyes (113.-1185?) : Le chevalier au lion [Unknown language]. Enlumineur Guillaume Leroy II (14..-15..)

## Work witnesses

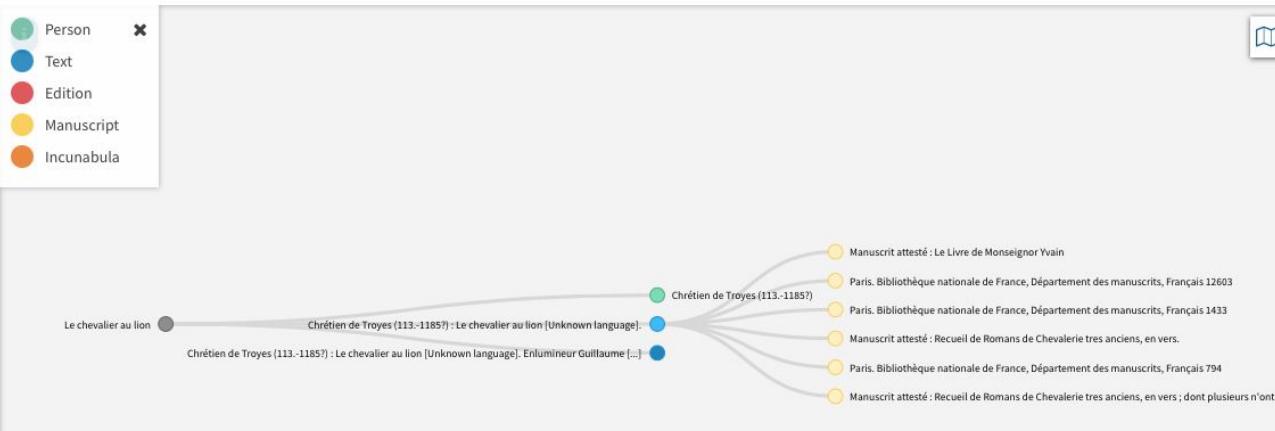
---

### Manuscripts

- > Manuscrit attesté : Le Livre de Monseignor Yvain
- > Manuscrit attesté : Recueil de Romans de Chevalerie tres anciens, en vers.
- > Manuscrit attesté : Recueil de Romans de Chevalerie tres anciens, en vers ; dont plusieurs n'ont jamais été imprimez.
- >  Paris. Bibliothèque nationale de France, Département des manuscrits, Français 794
- >  Paris. Bibliothèque nationale de France, Département des manuscrits, Français 1433
- >  Paris. Bibliothèque nationale de France, Département des manuscrits, Français 1638
- >  Paris. Bibliothèque nationale de France, Département des manuscrits, Français 12603

## Life cycle of this work

---



## Data sources

---

- > Bibliothèques Françoises : [http://bibfr.bvh.univ-tours.fr/biblio/lcdm-bibl\\_07153h](http://bibfr.bvh.univ-tours.fr/biblio/lcdm-bibl_07153h) (More information about this resource)
- > BnF Archives et manuscrits
- > Corpus Fabliaux
- > Esprit des livres
- > Jonas
- > Mandragore

All Biblissima

Search for a work, person, place, shelfmark, or miniature



## Example: Historical collection

[Presentation](#)   [Other former owners](#)   [Currently held at\\*](#)   [Data sources](#)   [Exports](#)

## Bibliothèque de Jean duc de Berry

Type : Collection privée / laïc

Former Owner : Jean (duc de Berry, 1340-1416)

**BIBLIOTHÈQUE DE JEAN DUC DE BERRY**

**COLLECTION**  
Bibliothèque de Jean duc de Berry

IIIIF Collection provided by Biblissima.

**100 manifestes**

Paris. Bibliothèque nationale de France, Département des manuscrits, Latin 10484

Paris. Bibliothèque nationale de France, Département des manuscrits, Français 606

Paris. Bibliothèque nationale de France, Département des manuscrits, Français 12420

Angers. Bibliothèque municipale, Ms. 162

**FERMER**

IIIF collection  
<https://portail.biblissima.fr/iiif/collection/ark:/43093/coldat>

**CHANTILLY, Bibliothèque du château, 0065 (1284) (Reproduction intégrale)**

plat supérieur    plat inférieur    contreplat et garde    contreplat - f. 001    f. 001v - 002

f. 002v - 003    f. 003v - 004    f. 004v - 005    f. 005v - 006

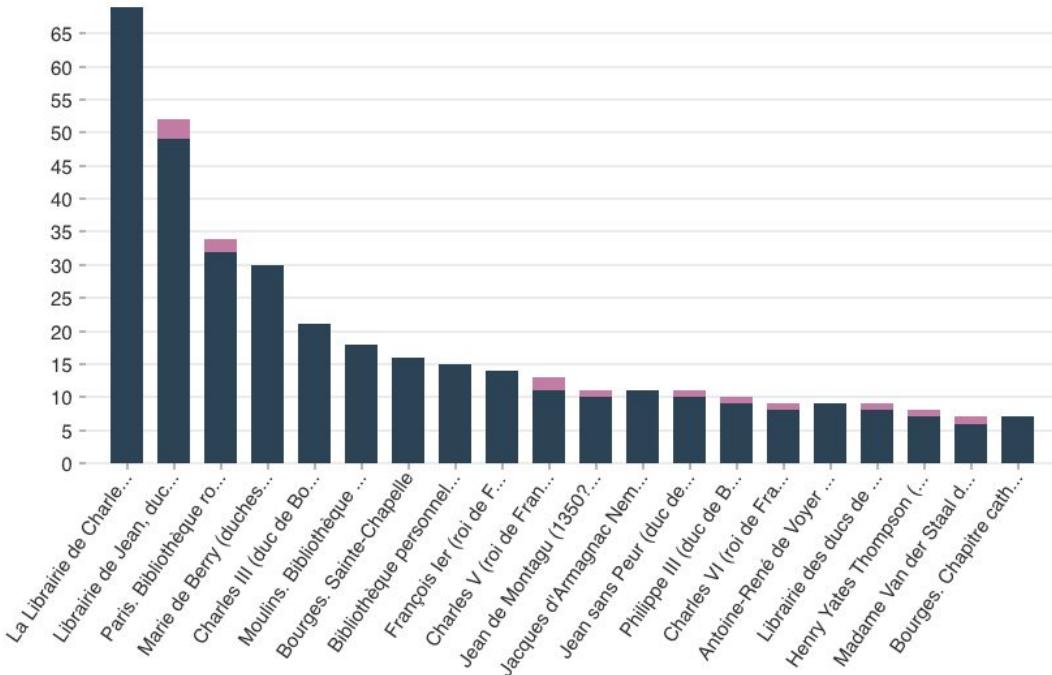
A large red arrow points from the left panel to the right panel, indicating a connection between the two collections.

## Other former owners for this collection

Only the 20 most frequent co-occurring collections are displayed. To see them all, choose the CSV export:

Export data (csv)

Click on a bar to display more information.



## Currently held at

---

Angers. Bibliothèque municipale

- >  [Angers. Bibliothèque municipale, Ms. 162](#)

Bourges. Bibliothèque municipale

- >  [Bourges. Bibliothèque municipale, Ms. 124](#)
- >  [Bourges. Bibliothèque municipale, Ms. 33](#)
- >  [Bourges. Bibliothèque municipale, Ms. 335](#)
- >  [Bourges. Bibliothèque municipale, Ms. 34](#)
- >  [Bourges. Bibliothèque municipale, Ms. 35](#)
- >  [Bourges. Bibliothèque municipale, Ms. 36](#)
- >  [Bourges. Bibliothèque municipale, Ms. 48](#)
- >  [Bourges. Bibliothèque municipale, Ms. 67](#)

Bruxelles. Bibliothèque royale de Belgique

- > [Bruxelles. Bibliothèque royale de Belgique, Ms. 9542](#)
- > [Bruxelles. Bibliothèque royale de Belgique, Ms. 9553](#)
- > [Bruxelles. Bibliothèque royale de Belgique, Ms. 9554](#)
- > [Bruxelles. Bibliothèque royale de Belgique, Ms. 9555-58](#)

Chantilly. Bibliothèque et Archives du Château

- >  [Chantilly. Bibliothèque et Archives du Château, Ms. 122](#)
- >  [Chantilly. Bibliothèque et Archives du Château, Ms. 277](#)
- >  [Chantilly. Bibliothèque et Archives du Château, Ms. 339](#)
- > [Chantilly. Bibliothèque et Archives du Château, Ms. 487](#)
- >  [Chantilly. Bibliothèque et Archives du Château, Ms. 65](#)
- >  [Chantilly. Bibliothèque et Archives du Château, Ms. 757](#)

(...)

## Turin. Archivio di Stato

- > [Turin. Archivio di Stato, Biblioteca Antica J.b.II.18](#)

## Valence. Universitat de València, Biblioteca històrica

- >  [Valence. Universitat de València, Biblioteca històrica, BH Ms. 387](#)

## Unknown holding institution

- > [Baltimore. Walters Art Museum, W.125 | Baltimore. Walters Art Museum, W.126](#)
- >  [Baltimore. Walters Art Museum, W.140 | Paris. Bibliothèque nationale de France, Département des manuscrits, Français 316](#)
- > [Hambourg. Kunsthalle Kupferstichkabinett, Cod. fr. 1 | Paris. Bibliothèque de l'Arsenal, Ms-5212 réserve](#)
- > [Londres. British Library, Add MS 6416 | Paris. Bibliothèque nationale de France, Département des manuscrits, NAF 15939-15944](#)
- > [Paris. Bibliothèque nationale de France, Département des manuscrits, Français 835 | Paris. Bibliothèque nationale de France, Département des manuscrits, Français 606 | Paris. Bibliothèque nationale de France, Département des manuscrits, Français 836 | Paris. Bibliothèque nationale de France, Département des manuscrits, Français 605 | Paris. Bibliothèque nationale de France, Département des manuscrits, Français 607](#)
- > [Vente, London, Sotheby's, 1981, 8 décembre, no.94](#)

## Data sources

---

- > Bibale : <https://bibale.irht.cnrs.fr/collection/1443> (More information about this resource)
- > Bibale : <https://bibale.irht.cnrs.fr/collection/607> (More information about this resource)
- > Alexandrine
- > BnF Archives et manuscrits
- > Esprit des livres
- > Europeana regia
- > Initiale
- > Jonas
- > Persée - DER-IRHT, LXXXIV



Accueil  
Rechercher  
Types d'entités  
Modifications récentes

Wikibase  
Créer un item  
Créer une propriété  
Liste des propriétés  
Tous les items et propriétés  
  
Outils  
Pages liées  
Suivi des pages liées  
Pages spéciales  
Version imprimable  
Lien permanent  
Informations sur la page

Biblissima  
Portail Biblissima  
IIIF Collections  
  
Dans d'autres langues  
Ajouter des liens

## Home

Cette page est une version traduite de la page Accueil et la traduction est terminée à 100 %.

Autres langues: English · français

Sommaire [masquer]

- 1 Biblissima Authority Files
  - 1.1 Available Authority Files
  - 1.2 In progress
  - 1.3 Data access, API
  - 1.4 Data Licence
  - 1.5 Presentations

## Biblissima Authority Files

Total number of items in the authority files: 406,905

This platform provides Biblissima's authority file in the form of structured data. Its realization is part of the Biblissima+ programme, *Observatory of Written Cultures, from Clay to Print* (2021-2029). It follows Biblissima, *Observatory of the written heritage of the Middle Ages and the Renaissance from the 8th to the 18th century* (2012-2021).

These authority files are based on data collected and processed within the framework of the Biblissima+ programme.

They form the backbone of the Biblissima portal and the prototype IIIF Collections of Manuscripts and Rare Books.

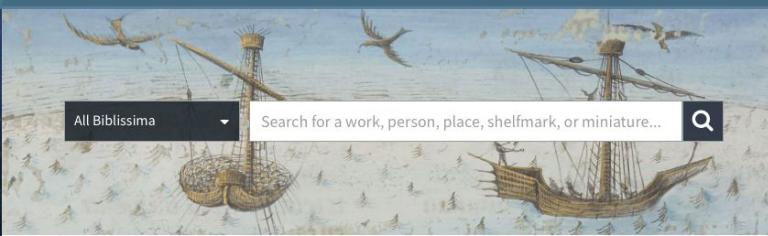
They have been set up in order to identify, disambiguate, harmonize and align named entities from a wide range of data sources (digital libraries, catalogues and specialized databases on manuscripts and early printed books). This effort has been ongoing since the beginning of Biblissima in 2013.

For any request, or if you want to contribute, you can contact us at [team@biblissima-condorcet.fr](mailto:team@biblissima-condorcet.fr)

**Disclaimer:** In its first phase, this platform is designed as a tool for managing, publishing and exposing the Biblissima authority files. Its primary goal is to create a hub of identifiers and structured data, that is accessible, interoperable and reusable for other projects.

This hub plays a central role in the interoperability of the resources processed within the framework of Biblissima, while allowing other projects to benefit from the work of reconciliation and harmonisation carried out in this direction. The data is indeed accessible in an automated way by various mechanisms intended primarily for machines (see below [Data access and API](#)). Nevertheless, developments are planned to improve the user interface, the full-text search, and to offer easier browsing and querying modes.

Hub for semantic authorities: ~315 000 entities – <https://data.biblissima.fr>



All Biblissima

Search for a work, person, place, shelfmark, or miniature...



Presentation

Associated works and texts

Associated documents

In this library

Data sources

Exports

## Cassiodore (0490?-0580?)



Other Forms : Cassiodore (v. 485-v. 580)

Cassiodoro, ca 487-ca 580

Cassiodoro, ca 487-ca 580&gt;, co-autor

Aurelius Cassiodorus (0490?-0580?)

Flavio Magno Aurelio Cassiodoro (0490?-0580?)

Birth : 490 (Uncertain data)

Death : 580 (Uncertain data)

Notes : Dizionario Biografico degli Italiani, 21, 1978: Cassiodoro (Flavius

Magnus Aurelius Cassiodorus Senator; più spesso detto Cassiodorus Senator o semplicemente Senator, che è nome proprio e non designazione di dignità) (Source : Biblissima)

A. Molinier, Les Sources de l'histoire de France - Des origines aux guerres d'Italie (1494): 224. Magnus Aurelius Cassiodorus Senator (Source : Biblissima)

Préfet du prétoire et historiographe de Théodoric. - Fondateur du monastère de Vivarium (Source : Bnf)

Date : (Source : Initiale)

## Associated works and texts

This section lists the works attributed to the person as well as his contributions related to textual units.

Item Discussion

Lire Voir l'historique

Rechercher sur Référentiels c

## Cassiodore (0490?-0580?) (Q2785)

Aucune description fournie

Cassiodore (0490?-0580?) | Cassiodore 0490?-0580? | Cassiodore | Cassiodore (v. 485-v. 580) | Cassiodore (v. 485-v. 580)



Plus de langues

Configurer

| Langue   | Libellé                  | Description                | Également connu comme  |
|----------|--------------------------|----------------------------|--|
| français | Cassiodore (0490?-0580?) | Aucune description fournie | Cassiodore (0490?-0580?)<br>Cassiodore 0490?-0580?<br>Cassiodore<br>Cassiodore (v. 485-v. 580)<br>Cassiodore (v. 485-v. 580) |

Toutes les langues saisies

## Déclarations

|                     |               |                         |
|---------------------|---------------|-------------------------|
| nature de l'élément | être humain   | modifier                |
|                     | ▼ 0 référence | + ajouter une référence |
|                     |               | + ajouter une valeur    |
|                     |               |                         |

|                   |                          |                         |
|-------------------|--------------------------|-------------------------|
| date de naissance | 490 Grégorien            | modifier                |
|                   | qualité de l'information | priséumé                |
|                   | ▼ 0 référence            | + ajouter une référence |
|                   |                          | + ajouter une valeur    |
|                   |                          |                         |

|              |                          |                         |
|--------------|--------------------------|-------------------------|
| date de mort | 580 Grégorien            | modifier                |
|              | qualité de l'information | priséumé                |
|              | ▼ 0 référence            | + ajouter une référence |
|              |                          | + ajouter une valeur    |
|              |                          |                         |

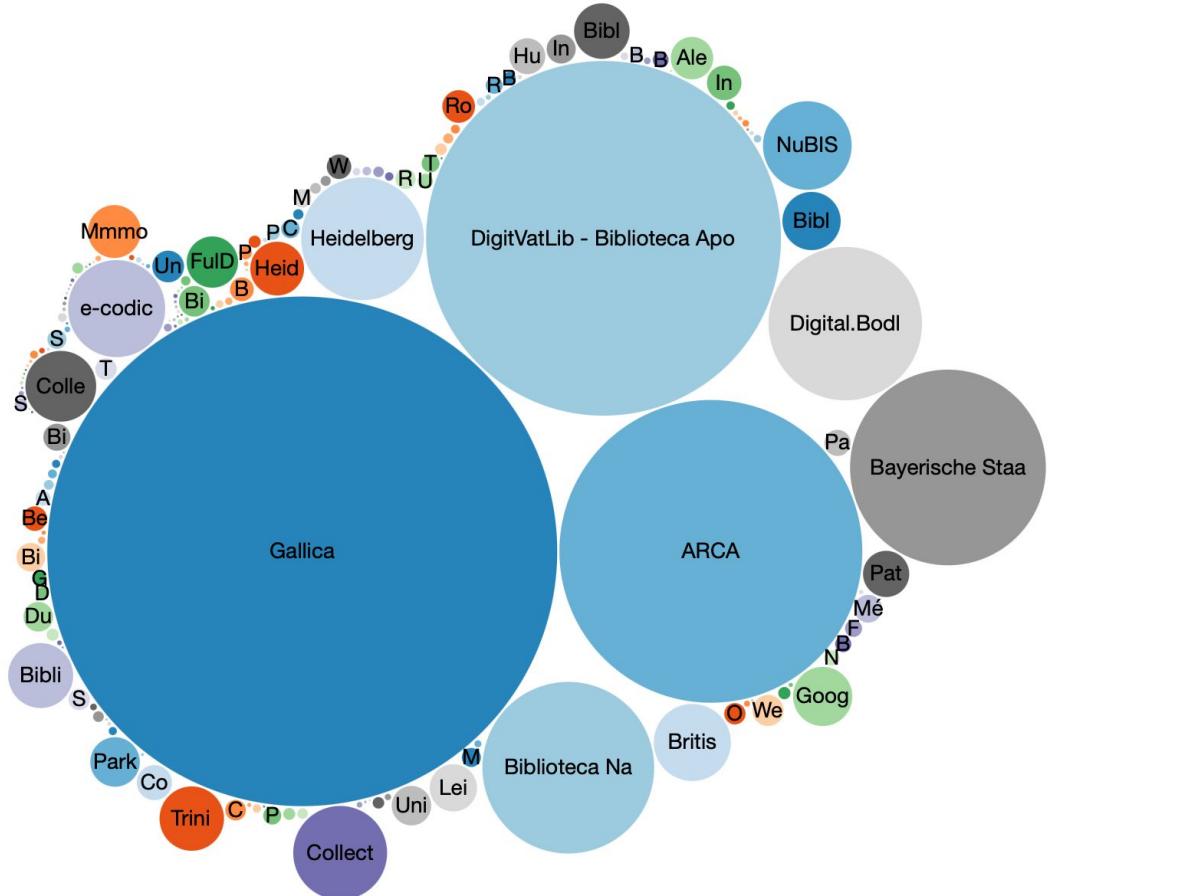
Biblissima authority file: <https://data.biblissima.fr/entity/Q2785>

# The data.biblissima Hub

- Standalone wikibase instance (since March 2019)
- A data “Hub” to manage and share semantic authority data
  - Explicit Open Licence (Etalab Open Licence 2.0)
- Populated over time each time a new dataset is ingested in the Biblissima data cluster
- Open to contribution (contact us!)

# Main entity types

|  |  |
|--|--|
| Individuals                                    | <b>Alternative labels;</b> Dates of birth/death; Gender, Bibliography, <b>External identifiers</b>     |
| Organisations                                  | <b>Alternative labels</b> , Location, Bibliography, <b>External identifiers</b>                        |
| Places   | <b>Alternative labels;</b> Country, Geographical coordinates, External identifiers                     |
| Manuscripts and early printed books shelfmarks | <b>Alternative labels</b> , digitisation url, IIIF manifest, Bibliography, <b>External identifiers</b> |
| Works  | <b>Alternative labels;</b> Language, Author, Bibliography, <b>External identifiers</b>                 |
| Iconographic descriptors                       | <b>Alternative labels;</b> Broder concept, <b>External identifiers</b>                                 |



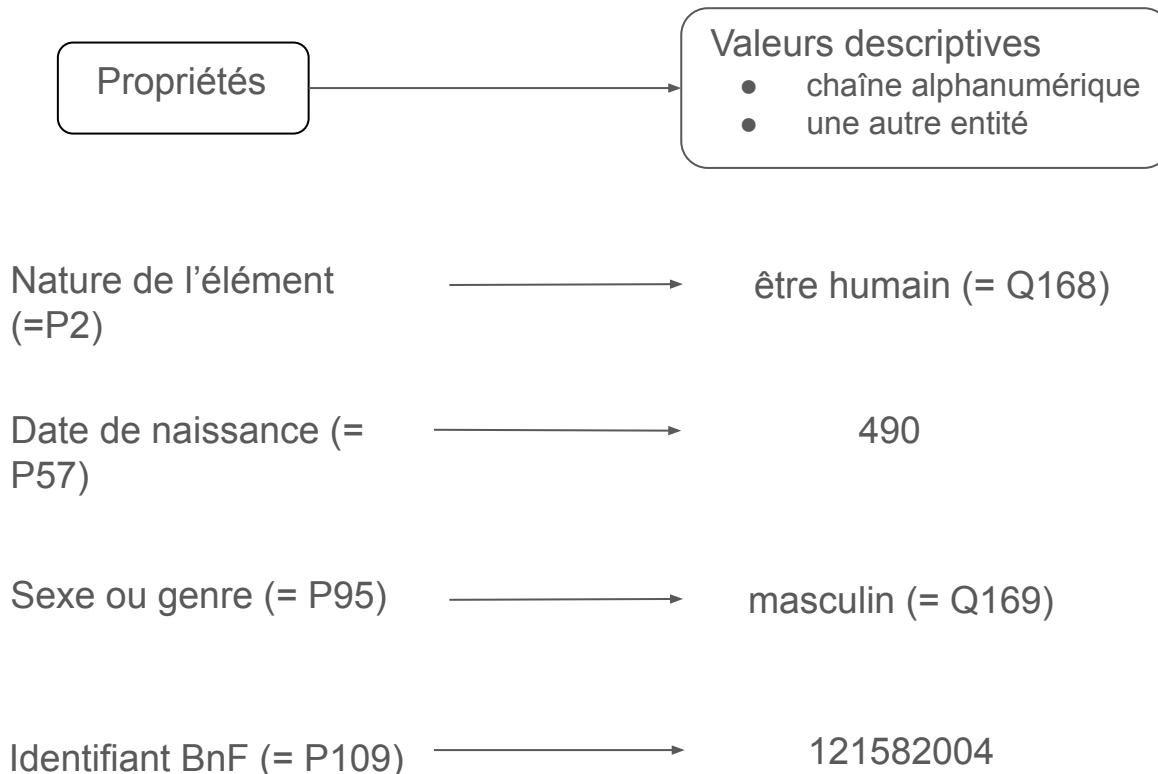


# Data model

- Based on the design principles of Wikibase:
  - Ad hoc, evolving inline with needs
- Based on library practices for authority files
- Aligned as much as possible with Wikidata or other ontologies
  - via properties like “equivalent property” or “equivalent class”
  - Other ontologies like Schema.org, SKOS, FOAF, DC
- 308 properties
  - ~182 for external identifiers ex. [CERL identifier](#)
- 88 item classes
  - Main classes: Human (Q168), Descriptor (Q304387), Oeuvre (Q282950) Manuscrit (Q32810), organisation (Q167)...

## Types d'entités

# Cassiodore



- Personnes physiques
- Familles
- Organisations
- Noms géographiques
- Cotes de manuscrits
- Cotes d'imprimés anciens
- Œuvres
- Descripteurs iconographiques



## Cassiodore (0490?-0580?)

(2785)

Aucune description fournie

Cassiodore (0490?-0580?) | Cassiodore 0490?-0580? | Cassiodore | Cassiodore (v. 485-v. 580)) | Cassiodore (v. 485-v. 580)

modifier

▼ Plus de langues

Configurer

| Langue   | Libellé                  | Description                | Également connu comme   |
|----------|--------------------------|----------------------------|---|
| français | Cassiodore (0490?-0580?) | Aucune description fournie | Cassiodore (0490?-0580?)<br>Cassiodore 0490?-0580?<br>Cassiodore<br>Cassiodore (v. 485-v. 580))<br>Cassiodore (v. 485-v. 580) |

Toutes les langues saisies

### Déclarations

|                     |               |   |
|---------------------|---------------|---|
| nature de l'élément | être humain   | modifier  |
|                     | ▼ 0 référence | + ajouter une référence<br>+ ajouter une valeur |

|                   |                          |   |
|-------------------|--------------------------|---|
| date de naissance | 490 Grégorien            | modifier  |
|                   | qualité de l'information | prisé   |
|                   | ▼ 0 référence            | + ajouter une référence<br>+ ajouter une valeur |

|              |                          |                         |
|--------------|--------------------------|-------------------------|
| date de mort | 580 Grégorien            | modifier                |
|              | qualité de l'information | prisé                   |
|              | ▼ 0 référence            | + ajouter une référence |

## Chosen label

### Alternative labels:

Spelling forms found in the source data and other datasets (BnF, wikidata etc.)

|               |  |                |  |
|---------------|--|----------------|--|
| sex or gender |  | male           |  |
|               |  | - 0 references |  |
|               |  |                |  |

|                 |  |  |  |
|-----------------|--|--|--|
| Biblissima note |  | Dizionario Biografico degli Italiani, 21, 1978: Cassiodoro (Flavius Magnus Aurelius Cassiodorus Senator; più spesso detto Cassiodorus Senator o semplicemente Senator, che è nome proprio e non designazione di dignità) |  |
|                 |  | - 0 references   |  |
|                 |  |  |  |
|                 |  | A. Molinier, Les Sources de l'histoire de France - Des origines aux guerres d'Italie (1494): 224. Magnus Aurelius Cassiodorus Senator  |  |
|                 |  | - 0 references   |  |
|                 |  |  |  |
|                 |  |  |  |
|                 |  |  |  |

|                      |  |   |  |
|----------------------|--|---|--|
| Biblissima Resources |  |   |  |
| Biblissima Portal ID |  | pdatad89fe276e17712275adbc02eb985600cabfa7390 |  |
|                      |  | - 0 references                                |  |
|                      |  |   |  |
|                      |  |   |  |

|                                   |  |                |  |
|-----------------------------------|--|----------------|--|
| Search Result in IIIF-Collections |  | Q2785          |  |
|                                   |  | - 0 references |  |
|                                   |  |                |  |
|                                   |  |                |  |

|             |  |                |  |
|-------------|--|----------------|--|
| Identifiers |  |                |  |
| BnF ID      |  | 121582004      |  |
|             |  | - 0 references |  |
|             |  |                |  |
|             |  |                |  |

## Bibliographic note

Provide clues to help for the identification of the person

## Links to Biblissima web pages

- Biblissima portal
- IIIF Collections

## Identifiers

| Identifiers                      |                                 |                                 |
|----------------------------------|---------------------------------|---------------------------------|
| BnF ID                           | <a href="#">121582004</a>       | <a href="#">edit</a>            |
|                                  | ▼ 0 references                  | <a href="#">+ add reference</a> |
|                                  |                                 | <a href="#">+ add value</a>     |
| Library of Congress authority ID | <a href="#">names/n79082349</a> | <a href="#">edit</a>            |
|                                  | ▼ 0 references                  | <a href="#">+ add reference</a> |
|                                  |                                 | <a href="#">+ add value</a>     |
| GND ID                           | <a href="#">118519514</a>       | <a href="#">edit</a>            |
|                                  | ▼ 0 references                  | <a href="#">+ add reference</a> |
|                                  |                                 | <a href="#">+ add value</a>     |
| CERL ID                          | <a href="#">cnp01302134</a>     | <a href="#">edit</a>            |
|                                  | ▶ 2 references                  | <a href="#">+ add value</a>     |
| Wikidata ID                      | <a href="#">Q192365</a>         | <a href="#">edit</a>            |
|                                  | ▼ 0 references                  | <a href="#">+ add reference</a> |
|                                  |                                 | <a href="#">+ add value</a>     |
| SUDOC authorities ID             | <a href="#">030097703</a>       | <a href="#">edit</a>            |
|                                  | ▼ 0 references                  | <a href="#">+ add reference</a> |
|                                  |                                 | <a href="#">+ add value</a>     |
| BNE ID                           | <a href="#">XX878991</a>        | <a href="#">edit</a>            |
|                                  | ▼ 0 references                  | <a href="#">+ add reference</a> |

## Identifiers section

- Alignments to the identifier in the source database
- External alignments  
(BnF, LoC, Geonames, GND, CERL, BNE, IdRef, Wikidata...)

# API Endpoints to data.biblissima

## API Mediawiki/wikibase

<https://data.biblissima.fr/w/api.php>

## SPARQL Endpoint (in-house use only)

Querying RDF data with advanced queries

## RDF data about en entity

Content negotiation:

<https://data.biblissima.fr/entity/Q2785>

With indication of format:

<https://data.biblissima.fr/w/Spécial:EntityData/Q2785.json>

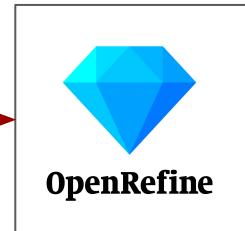
## Reconciliation API

Endpoints for single queries  
or query batches (fr|en):

<https://data.biblissima.fr/reconcile/fr/api>

<https://data.biblissima.fr/reconcile/en/api>

Graphical clients...



# What is data reconciliation in OpenRefine?

- **Reconciliation** = Comparing/aligning a local dataset with an external source to identify correspondances and create actionable links from them.
- A semi-automated process: suggestions from the algorithm that have to be validated (manually or programmatically) or rejected.
- Developed as a [specification of a protocol](#) for matching data on the web, now it's own [W3C Entity Reconciliation Community Group](#).
- OpenRefine acts as a graphical **client** that can connect to any webservice that follows that protocol, offering a user-friendly interface to perform reconciliation operations...

The image displays two side-by-side screenshots of the OpenRefine web application, illustrating the reconciliation process.

**Screenshot 1 (Left): Reconcile column Billeissima**

This screenshot shows the "Reconcile" dialog for a column named "Billeissima". The "Reconcile each cell to an entity of one of these types:" dropdown is set to "Any Human". Below it, a list of entities is shown, including "Olympe", "descripteur", "Q304387", "aureve", "Q3000050", "manuscrit", "Q3810", "organisation", "Q3811", "personnel militaire", "Q294837", "religieux", "Q294832", "type iconographique", and "Q294876". The "Auto-match candidates with high confidence" checkbox is checked. The "Maximum number of candidates to return" dropdown is set to 5. The "Reconcile against type" and "Reconcile against no particular type" radio buttons are also visible.

**Screenshot 2 (Right): Reconcile bhma\_names**

This screenshot shows the results of a reconciliation operation for the "name" column. It lists 20 rows of data, each with a person's name and their ID. The names include "Jean (duc de Berry, 1340-1416)", "Charles V d'Anjou", "King Charles V of France", "Charles IV (roi de France, 1338-1380)", "Jeanne de Bourbon (1338-1378)", "Limburg brothers Paul, John and Herman", "Charles IV of France", "Charles V (roi de France, 1338-1380)", "Marguerite of France (Duchesse de Savoie, 1523-1574)", "Frances Cobham (1531-1592)", "De Limbourg (fille)", "Barthélémy d'Eck (14.-1476)", "Jean Camborde (143.-1493)", "the Duke of Savoy", and "Charles de Lorraine Aumatte (duc d', 1670-1736)". The interface includes a "name" facet on the left and various filtering and search options at the top.

# A very quick introduction to OpenRefine

# OpenRefine

- Formerly known as Google Refine, openSource via Github since 2012
- Desktop app, running in your browser
- Community driven (See [Forum](#))
- A powerful and user-friendly tool to clean and transform data
- Looking like a spreadsheet, but works more like a database
- A dedicated language expression (GREL for “General Refine Expression Language)

## Data cleaning

The process of fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset.

## Data transformation

The process of converting data from one format or structure into another.

source:

<https://www.tableau.com/learn/articles/what-is-data-cleaning>

# Demo 1

<http://127.0.0.1:3333>

OpenRefine interface and main operations



A power tool for working with messy data.

Create project

Open project

Import project

Language settings



Version 3.8.2 [TRUNK]

Preferences  
Help  
About

### Create a project by importing data. What kinds of data files can I import?

TSV, CSV, \*SV, Excel (.xls and .xlsx), JSON, XML, RDF as XML, and Google Data documents are all supported. Support for other formats can be added with OpenRefine extensions.

Get data from

Locate one or more files on your computer to upload:

aucun fichier sélectionné

**Next »**

**This Computer**

- [Web Addresses \(URLs\)](#)
- [Clipboard](#)
- [Database](#)
- [Google Data](#)

[Create project](#)[Open project](#)[Import project](#)[Language settings](#)

Version 3.8.2 [TRUNK]

[Preferences](#)[Help](#)[About](#)

All

|   | Last modified                     | Name   | Tags | Creator | Subject | Description | Row Count |
|---|-----------------------------------|--|------|---------|---------|-------------|-----------|
| X | About Aug 2, 2024 at 2:43:23 PM   | test dataset                                       |      |         |         |             | 19        |
| X | About Aug 2, 2024 at 2:40:43 PM   | coll hist berry                                    |      |         |         |             | 111       |
| X | About Aug 1, 2024 at 4:25:47 PM   | obma_names   |      |         |         |             | 20        |
| X | About Aug 1, 2024 at 4:24:23 PM   | dataset ex 1 2 csv                                 |      |         |         |             | 16        |
| X | About Jul 31, 2024 at 3:32:53 PM  | dexex1_v2  |      |         |         |             | 16        |
| X | About Jul 31, 2024 at 10:20:34 AM | Clipboard  |      |         |         |             | 17        |
| X | About Jul 31, 2024 at 10:19:33 AM | dhex1  |      |         |         |             | 16        |
| X | PM                                | dh2024 biblissima exercice 1 csv                   |      |         |         |             | 16        |
| X | PM                                | dh2024-ex-1  |      |         |         |             | 89        |
| X | PM                                | dh-2024-descripteurs-icono                         |      |         |         |             | 54        |
| X | PM                                | bbma dh2024  |      |         |         |             | 10        |
| X | 0 PM                              | bbma_ex_3  |      |         |         |             | 10        |
| X | 41 AM                             | biblissima 0 xml                                   |      |         |         |             | 20        |
| X | About Jul 27, 2024 at 4:34:05 PM  | Biblissima-names                                   |      |         |         |             | 24        |
| X | About Jul 26, 2024 at 7:26:53 PM  | Biblissima-names                                   |      |         |         |             | 18        |
| X | About Jul 26, 2024 at 5:27:20 PM  | Biblissima-names                                   |      |         |         |             | 12        |
| X | About Jul 26, 2024 at 5:07:50 PM  | Biblissima-names                                   |      |         |         |             | 19        |
| X | About Jul 26, 2024 at 5:06:56 PM  | Biblissima-names                                   |      |         |         |             | 11        |
| X | About Jul 26, 2024 at 3:23:57 PM  | cooccurrence Bibliothèque de Jean duc de Berry csv |      |         |         |             | 266       |
| X | About Jul 25, 2024 at 6:09:44 PM  | Presse-papier                                      |      |         |         |             | 31        |
| X | About Jul 25, 2024 at 5:57:01 PM  | B372616101 Res 3537 manifest json                  |      |         |         |             | 395       |
| X | About Jul 25, 2024 at 5:52:09 PM  | B372616101 Res 3537 manifest json                  |      |         |         |             | 395       |
| X | About Jul 25, 2024 at 5:25:15 PM  | manifest roi sport json                            |      |         |         |             | 4         |
| X | About Jul 25, 2024 at 3:42:12 PM  | DH-2024-ms-varia                                   |      |         |         |             | 36        |

[Browse workspace directory](#)

Facet / Filter

Undo / Redo 29 / 29

Using facets and filters 

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?  
[Watch these screencasts](#)

19 rows

Extensions VIB-Bits ▾ RDF Transform ▾ RDF ▾ Wikibase ▾

Show as: **rows** records

Show: 5 10 25 50 100 500 1000 rows

« first &lt; previous 1 next » last

|     | All                        | nom_entite | langue | to_recon                   | to_recon_2  | identifiant Wikidata | wd                                      | Qid     | latitude | test    | date_naissance |
|-----|----------------------------|------------|--------|----------------------------|---|----------------------|---|---------|----------|---------|----------------|
| 1.  | Augustinus                 | lat        |        | Augustinus                 | Augustin (saint, 0354-0430)<br>Choose new match         | Q8018                | Augustin d'Hippone<br>Choose new match  | Q1966   |          | Q1966   | 0354           |
| 2.  | Girolamo Balbi             | it         |        | Girolamo Balbi             | Girolamo Balbi (1460-1535)<br>Choose new match          | Q673596              | Girolamo Balbi<br>Choose new match      | Q5960   |          | Q5960   | 1460           |
| 3.  | Boccaccio                  | it         |        | Boccaccio                  | Boccace (1313-1375)                                     | Q1402                | Boccace                                 | Q2564   |          | Q2564   | 1313           |
| 4.  | Guillaume Ier Briçonnet    | fr         |        | Guillaume Briçonnet        |   |                      |   |         |          |         | 1445           |
| 5.  | Guillaume Ier Briçonnet    | fr         |        | Guillaume Briçonnet        |   |                      |   |         |          |         | 1445           |
| 6.  | Leonardo Bruni             | it         |        | Leonardo Bruni             |   |                      |   |         |          | Q10361  | 1370           |
| 7.  | Charles VIII roi de France | fr         |        | Charles VIII roi de France |   |                      |   |         |          | Q2991   | 1470           |
| 8.  | Charles de Croÿ            | fr         |        | Charles de Croÿ            | Charles de Croÿ (duc de, 1488-1612)<br>Choose new match | Q673597              | Charles III de Croÿ<br>Choose new match | Q2891   |          | Q2891   | 1560           |
| 9.  | Cosimo De Medici           | fr         |        | Cosimo De Medici           | Cosme de Médicis (1389-1464)                            | Q48544               | Cosme de Médicis<br>Choose new match    | Q233185 |          | Q233185 | 1389           |
| 10. | Guillaume Durand           | fr         |        | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match       | Q2329414             | Guillaume V Durand<br>Choose new match  | Q6361   |          | Q6361   | 1230?          |

## Row view vs Record view

In **Record view**, OpenRefine can link together **multiple rows** as part of the same **Record**.

Facet / Filter

Undo / Redo 29 / 29

19 rows

Extensions VIB-Bits ▾ RDF Transform ▾ RDF ▾ Wikibase ▾

**Using facets and filters**

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?  
[Watch these screencasts](#)

**1**

Click on arrow to reveal a Dropdown menu operating on the column it belongs to

Show as: [rows](#) [records](#) Show: 5 10 25 50 100 500 1000 rows

| All | nom_entite                 | langue | to_recon                   | to_recon_2                              | Facet                                   |
|-----|----------------------------|--------|----------------------------|---|---|
| 1.  | Augustinus                 |        |                            |   | <a href="#">Text facet</a>              |
| 2.  | Girolamo Balbi             |        |                            |   | <a href="#">Text filter</a>             |
| 3.  | Boccaccio                  |        |                            |   | <a href="#">Numeric facet</a>           |
| 4.  | Guillaume ler Brionnet     |        |                            |   | <a href="#">Timeline facet</a>          |
| 5.  | Guillaume ler Brionnet     | fr     | Guillaume ler Brionnet     | Guillaume ler Brionnet                  | <a href="#">Scatterplot facet...</a>    |
| 6.  | Leonardo Bruni             | it     | Leonardo Bruni             | Leonardo Bruni (1370-1444)              | <a href="#">Custom text facet...</a>    |
| 7.  | Charles VIII roi de France | fr     | Charles VIII roi de France | Charles VIII (roi de France, 1470-1498) | <a href="#">Custom numeric facet...</a> |
| 8.  | Charles de Croÿ            | fr     | Charles de Croÿ            | Charles Croÿ (duc de, 1560-1612)        | <a href="#">Customized facets</a>       |
| 9.  | Cosimo De Medici           | fr     | Cosimo De Medici           | Cosme de Médicis (1389-1464)            |   |
| 10. | Guillaume Durand           | fr     | Guillaume Durand           | Guillaume Durand (1230?-1296)           |   |

**2**

Facet > Text facet groups together the entries with the same value

|  |  |  |  |  | identifiant Wikidata | wd       | Qid   | latitude | test    | date_naissance |
|--|--|--|--|--|----------------------|----------|-------|----------|---------|----------------|
|  |  |  |  |  | Q8018                | Augustin | Q1966 |          | Q1966   | 0354           |
|  |  |  |  |  | Q6                   |          |       |          | Q5960   | 1460           |
|  |  |  |  |  | Q1                   |          |       |          | Q2564   | 1313           |
|  |  |  |  |  | Q1                   |          |       |          |         | 1445           |
|  |  |  |  |  |                      |          |       |          |         | 1445           |
|  |  |  |  |  |                      |          |       |          | Q10361  | 1370           |
|  |  |  |  |  |                      |          |       |          | Q2991   | 1470           |
|  |  |  |  |  |                      |          |       |          | Q2891   | 1560           |
|  |  |  |  |  |                      |          |       |          | Q233185 | 1389           |
|  |  |  |  |  |                      |          |       |          | Q6361   | 1230?          |

Facet / Filter

Undo / Redo 29 / 29

### 3 matching rows (19 total)

Extensions VIB-Bits ▾ RDF Transform ▾ RDF ▾ Wikibase ▾

Refresh

Reset all Remove all

langue change invert reset

3 choices Sort by: name count

Cluster

fr 45

it 3

lat 1

exclude

Facet by choice counts

Show as: rows records Show: 5 10 25 50 100 500 1000 rows

« first < previous 1 next » last »

| All | nom_entite     | langue | to_recon       | to_recon_2                                     | identifiant Wikidata | wd                                 | Qid    | latitude | test   | date_naissance | date_mort | http      |
|-----|----------------|--------|----------------|--|----------------------|------------------------------------|--------|----------|--------|----------------|-----------|-----------|
| 2.  | Girolamo Balbi | it     | Girolamo Balbi | Girolamo Balbi (1460-1535)<br>Choose new match | Q673596              | Girolamo Balbi<br>Choose new match | Q5960  |          | Q5960  | 1460           |           | 1535 http |
| 3.  | Boccaccio      | edit   | Boccaccio      | Boccace (1313-1375)<br>Choose new match        | Q1402                | Boccace<br>Choose new match        | Q2564  |          | Q2564  | 1313           |           | 1375 http |
| 6.  | Leonardo Bruni | it     | Leonardo Bruni | Leonardo Bruni (1370-1444)<br>Choose new match | Q314488              | Leonardo Bruni<br>Choose new match | Q10361 |          | Q10361 | 1370           |           | 1444 http |

3

Navigate in the dataset with facets

Facet / Filter

Undo / Redo 38 / 38

19 rows

Extensions

VIB-Bits

RDF Transform

RDF

Wikibase

Using facets and filters 

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?  
[Watch these screencasts](#)

Show as: [rows](#) [records](#) Show: 5 10 25 50 100 500 1000 rows

« first &lt; previous 1 next &gt; last »

| All                               | nom_entite | langue | to_recon                   | to_recon_2  | identifiant Wikidata | wd   | Qid     | latitude | test    | date_naissance |
|-----------------------------------|------------|--------|----------------------------|---|----------------------|--|---------|----------|---------|----------------|
| 1. Augustinus                     | lat        |        | Augustinus                 | Augustin (saint, 0354-0430)<br>Choose new match             | Q8018                | Augustin d'Hippone<br>Choose new match     | Q1966   |          | Q1966   | 0354           |
| 2. Girolamo Balbi                 | it         |        | Girolamo Balbi             | Girolamo Balbi<br>Choose new match                          |                      | Girolamo Balbi<br>Choose new match         | Q5960   |          | Q5960   | 1460           |
| 3. Boccaccio <a href="#">edit</a> | it         |        | Boccaccio                  | Boccaccio<br>Choose new match                               |                      | Boccaccio<br>Choose new match              | Q2564   |          | Q2564   | 1313           |
| 4. Guillaume Ier Brionnet         | fr         |        | Guillaume Ier Brionnet     | Guillaume Ier Brionnet<br>Choose new match                  |                      | Guillaume Ier Brionnet<br>Choose new match |         |          |         | 1445           |
| 5. Guillaume Ier Brionnet         | fr         |        | Guillaume Ier Brionnet     | Guillaume Ier Brionnet<br>Choose new match                  |                      | Guillaume Ier Brionnet<br>Choose new match |         |          |         | 1445           |
| 6. Leonardo Bruni                 | it         |        | Leonardo Bruni             | Leonardo Bruni<br>Choose new match                          |                      | Leonardo Bruni<br>Choose new match         | Q10361  |          | Q10361  | 1370           |
| 7. Charles VIII roi de France     | fr         |        | Charles VIII roi de France | Charles VIII (roi de France, 1470-1498)<br>Choose new match | Q134452              | Charles VIII<br>Choose new match           | Q2991   |          | Q2991   | 1470           |
| 8. Charles de Croÿ                | fr         |        | Charles de Croÿ            | Charles Croÿ (duc de, 1560-1612)<br>Choose new match        | Q676807              | Charles III de Croÿ<br>Choose new match    | Q2891   |          | Q2891   | 1560           |
| 9. Cosimo De Medici               | fr         |        | Cosimo De Medici           | Cosme de Médicis (1389-1464)<br>Choose new match            | Q48544               | Cosme de Médicis<br>Choose new match       | Q233185 |          | Q233185 | 1389           |
| 10. Guillaume Durand              | fr         |        | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match           | Q2329414             | Guillaume V Durand<br>Choose new match     | Q6361   |          | Q6361   | 1230?          |
| 11. Guillaume Durand              | fr         |        | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match           | Q2329414             | Guillaume V Durand<br>Choose new match     | Q6361   |          | Q6361   | 1230?          |
| 12. Guillaume Durand              | fr         |        | Guillaume Durand           | Guillaume Durand (1230?-1296)                               | Q2329414             | Guillaume V Durand                         | Q6361   |          | Q6361   | 1230?          |

1'

Star the rows you  
want to process  
later

Facet / Filter

Undo / Redo 38 / 38

19 rows

Extensions VIB-Bits ▾ RDF Transform ▾ RDF ▾ Wikibase ▾

Using facets and filters 

Use facets and filters to select subsets of your data to act on. Choose facet and filter methods from the menus at the top of each data column.

Not sure how to get started?  
[Watch these screencasts](#)

Show as: [rows](#) [records](#) Show: 5 10 25 50 100 500 1000 rows

« first &lt; previous 1 next » last »

| All              | nom_entite                            | langue                        | to_recon | to_recon_2                    | identifiant Wikidata  | wd       | Qid  | latitude | test   | date_naissance |
|------------------|---------------------------------------|-------------------------------|----------|-------------------------------|---|----------|--|----------|--------|----------------|
| Transform...     |                                       | us                            | lat      | Augustinus                    | Augustin (saint, 0354-0430)<br>Choose new match             | Q8018    | Augustin d'Hippone<br>Choose new match     | Q1966    | Q1966  | 0354           |
| Edit all columns |                                       |                               |          |                               |   |          |  |          |        |                |
| Facet            | Facet by star                         |                               |          |                               |   |          |  |          |        |                |
| Edit rows        | Facet by flag                         |                               |          |                               |   |          |  |          |        |                |
| Edit columns     | Facet by blank (null or empty string) |                               |          |                               |   |          |  |          |        |                |
| View             | Blank values per column               |                               |          |                               |   |          |  |          |        |                |
|                  | 4.                                    | Guillaum<br>Briçonnet         |          |                               |   |          |  |          |        | 1445           |
|                  | 5.                                    | Guillaum<br>Briçonnet         |          |                               |   |          |  |          |        | 1445           |
|                  | 6.                                    | Leonardo Bruni                | it       | Leonardo<br>Bruni             | Leonardo<br>Bruni<br>Choose new match                       |          | Q10361                                     |          | Q10361 | 1370           |
|                  | 7.                                    | Charles VIII roi<br>de France | fr       | Charles VIII<br>roi de France | Charles VIII (roi de France, 1470-1498)<br>Choose new match | Q134452  | Charles VIII<br>Choose new match           | Q2991    |        | Q2991 1470     |
|                  | 8.                                    | Charles de Croÿ               | fr       | Charles de<br>Croÿ            | Charles Croÿ (duc de, 1560-1612)<br>Choose new match        | Q676807  | Charles III<br>de Croÿ<br>Choose new match | Q2891    |        | Q2891 1560     |
|                  | 9.                                    | Cosimo De<br>Medici           | fr       | Cosimo De<br>Medici           | Cosme de Médicis (1389-1464)<br>Choose new match            | Q48544   | Cosme de<br>Médicis<br>Choose new match    | Q233185  |        | Q233185 1389   |
|                  | 10.                                   | Guillaume<br>Durand           | fr       | Guillaume<br>Durand           | Guillaume Durand (1230?-1296)<br>Choose new match           | Q2329414 | Guillaume V<br>Durand<br>Choose new match  | Q6361    |        | Q6361 1230?    |
|                  | 11.                                   | Guillaume<br>Durand           | fr       | Guillaume<br>Durand           | Guillaume Durand (1230?-1296)<br>Choose new match           | Q2329414 | Guillaume V<br>Durand<br>Choose new match  | Q6361    |        | Q6361 1230?    |
|                  | 12.                                   | Guillaume                     | fr       | Guillaume                     | Guillaume Durand (1230?-1296)                               | Q2329414 | Guillaume V                                | Q6361    |        | Q6361 1230?    |

2'  
Facet > Facet by star

Facet / Filter Undo / Redo 38 / 38

Refresh Reset all Remove all

Starred Rows change  
2 choices Sort by: name count  
false 16 true 3

Facet by choice counts

19 rows

Show as: rows records Show: 5 10 25 50 100 500 1000 rows « first < previous 1 next » last »

Extensions VIB-Bits RDF Transform RDF Wikibase

3'  
Use “true” et “false” links retrieve the starred rows or exclude them

|     |                            |    |                            |  |          |  | Current Wikidata                           | wd      | Qid | latitude | test    | date_naissance |
|-----|----------------------------|----|----------------------------|--|----------|--|--|---------|-----|----------|---------|----------------|
| 1.  |                            |    |                            |  |          |  | Augustin d'Hippone<br>Choose new match     | Q1966   |     |          | Q1966   | 0354           |
| 2.  |                            |    |                            |  |          |  | Girolamo Balbi<br>Choose new match         | Q5960   |     |          | Q5960   | 1460           |
| 3.  |                            |    |                            |  |          |  | Boccace<br>Choose new match                | Q2564   |     |          | Q2564   | 1313           |
| 4.  |                            |    |                            |  |          |  | Guillaume Ier de Nîmes<br>Choose new match |         |     |          |         | 1445           |
| 5.  | Guillaume Ier Briçonnet    | fr | Guillaume Ier Briçonnet    | Guillaume Ier Briçonnet<br><input checked="" type="checkbox"/> Create new item<br>Search for match |          |  |  |         |     |          |         | 1445           |
| 6.  | Leonardo Bruni             | it | Leonardo Bruni             | Leonardo Bruni (1370-1444)<br>Choose new match   | Q314488  |  | Leonardo Bruni<br>Choose new match         | Q10361  |     |          | Q10361  | 1370           |
| 7.  | Charles VIII roi de France | fr | Charles VIII roi de France | Charles VIII (roi de France, 1470-1498)<br>Choose new match  | Q134452  |  | Charles VIII<br>Choose new match           | Q2991   |     |          | Q2991   | 1470           |
| 8.  | Charles de Croÿ            | fr | Charles de Croÿ            | Charles Croÿ (duc de, 1560-1612)<br>Choose new match   | Q676807  |  | Charles III de Croÿ<br>Choose new match    | Q2891   |     |          | Q2891   | 1560           |
| 9.  | Cosimo De Medici           | fr | Cosimo De Medici           | Cosme de Médicis (1389-1464)<br>Choose new match   | Q48544   |  | Cosme de Médicis<br>Choose new match       | Q233185 |     |          | Q233185 | 1389           |
| 10. | Guillaume Durand           | fr | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match  | Q2329414 |  | Guillaume V Durand<br>Choose new match     | Q6361   |     |          | Q6361   | 1230?          |
| 11. | Guillaume Durand           | fr | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match  | Q2329414 |  | Guillaume V Durand<br>Choose new match     | Q6361   |     |          | Q6361   | 1230?          |
| 12. | Guillaume                  | fr | Guillaume                  | Guillaume Durand (1230?-1296)  | Q2329414 |  | Guillaume V                                | Q6361   |     |          | Q6361   | 1230?          |

Facet / Filter

Undo / Redo 29 / 38

Refresh

Reset all Remove all

langue change

3 choices Sort by: name count

Cluster

fr 15

it 3

lat 1

edit include

Facet by choice counts

19 rows

Extensions VIB-Bits RDF Transform RDF Wikibase

Show as: rows records Show: 5 10 25 50 100 500 1000 rows

« first &lt; previous 1 next » last »

| <input type="checkbox"/> | All                     | <input type="checkbox"/> | nom_entite | <input type="checkbox"/> | langue   | <input type="checkbox"/> | to_recon                                   | <input type="checkbox"/> | to_recon_2 | <input type="checkbox"/>                | identifiant Wikidata | <input type="checkbox"/> | wd      | <input type="checkbox"/> |
|--------------------------|-------------------------|--------------------------|------------|--------------------------|--|--------------------------|--|--------------------------|------------|---|----------------------|--------------------------|---------|--------------------------|
|                          |                         |                          |            |                          |  |                          |  |                          |            |   |                      |                          |         |                          |
|                          |                         |                          |            |                          |  |                          |  |                          |            |   |                      |                          |         |                          |
| 1.                       | Augustinus              | lat                      |            | Augustinus               | Augustin (saint, 0354-0430)<br>Choose new match                                | Q8018                    | Augustin d'Hippone<br>Choose new match     | Q1966                    |            | Q1966                                   | 0354                 |                          |         |                          |
| 2.                       | Girolamo Balbi          | it                       |            | Girolamo Balbi           | Girolamo Balbi (1460-1535)<br>Choose new match                                 | Q673596                  | Girolamo Balbi<br>Choose new match         | Q5960                    |            | Q5960                                   | 1460                 |                          |         |                          |
| 3.                       | Boccaccio               | it                       |            | Boccaccio                | Boccace (1313-1375)<br>Choose new match  | Q1402                    | Boccace<br>Choose new match                | Q2564                    |            | Q2564                                   | 1313                 |                          |         |                          |
| 4.                       | Guillaume Ier Briçonnet | fr                       |            | Guillaume Ier Briçonnet  | Guillaume Ier Briçonnet<br><input checked="" type="checkbox"/> Create new item | Q19629233                | Guillaume Ier de Nîmes<br>Choose new match |                          |            |   | 1445                 |                          |         |                          |
| 5.                       | Guillaume II Briçonnet  |                          |            |                          |  |                          |  |                          |            |   | 1445                 |                          |         |                          |
| 6.                       | Leonardo Bruni          |                          |            |                          |  |                          |  |                          |            | Leonardo Bruni<br>Choose new match      | Q10361               |                          | Q10361  | 1370                     |
| 7.                       | Charles VIII de France  |                          |            |                          |  |                          |  |                          |            | Charles VIII<br>Choose new match        | Q2991                |                          | Q2991   | 1470                     |
| 8.                       | Charles III de Croÿ     |                          |            |                          |  |                          |  |                          |            | Charles III de Croÿ<br>Choose new match | Q2891                |                          | Q2891   | 1560                     |
| 9.                       | Cosimo de' Medici       |                          |            |                          |  |                          |  |                          |            | Cosme de Médicis<br>Choose new match    | Q233185              |                          | Q233185 | 1389                     |
| 10.                      | Guillaume Durand        | fr                       |            | Guillaume Durand         | Guillaume Durand (1230?-1296)<br>Choose new match                              | Q2329414                 | Guillaume V Durand<br>Choose new match     | Q6361                    |            | Q6361                                   | 1230?                |                          |         |                          |
| 11.                      | Guillaume Durand        | fr                       |            | Guillaume Durand         | Guillaume Durand (1230?-1296)<br>Choose new match                              | Q2329414                 | Guillaume V Durand<br>Choose new match     | Q6361                    |            | Q6361                                   | 1230?                |                          |         |                          |
| 12.                      | Guillaume               | fr                       |            | Guillaume                | Guillaume Durand (1230?-1296)  | Q2329414                 | Guillaume V                                | Q6361                    |            | Q6361                                   | 1230?                |                          |         |                          |

4'

Hover on the line of a facet to reveal buttons and click on edit

Facet / Filter

Undo / Redo 29 / 38

Refresh

Reset all Remove all

 langue change

3 choices Sort by: name count

Cluster

fr 15

it 3

lat 1

Facet by choice counts

19 rows

Extensions

VIB-Bits

RDF Transform

RDF

Wikibase

Show as: rows records Show: 5 10 25 50 100 500 1000 rows

« first &lt; previous 1 next &gt; last »

| All | nom_entite             | langue  | to_recon               | to_recon_2  | identifiant Wikidata | wd   | Qid     | latitude | test    | date_naissance |
|-----|------------------------|---------|------------------------|---|----------------------|--|---------|----------|---------|----------------|
| 1.  | Augustinus             | lat     | Augustinus             | Augustin (saint, 0354-0430)<br>Choose new match   | Q8018                | Augustin d'Hippone<br>Choose new match     | Q1966   |          | Q1966   | 0354           |
| 2.  | Guillaume Ier Brionnet | fr      | Guillaume Ier Brionnet | Guillaume Ier Brionnet<br><input checked="" type="checkbox"/> Create new item<br>Search for match | Q19629233            | Guillaume Ier de Nimes<br>Choose new match | Q5960   |          | Q5960   | 1460           |
| 3.  | Guillaume Ier Brionnet | fr      | Guillaume Ier Brionnet | Guillaume Ier Brionnet<br><input checked="" type="checkbox"/> Create new item<br>Search for match | Q19629233            | Guillaume Ier de Nimes<br>Choose new match | Q2564   |          | Q2564   | 1313           |
| 4.  | Guillaume Ier Brionnet | fr      | Guillaume Ier Brionnet | Guillaume Ier Brionnet<br><input checked="" type="checkbox"/> Create new item<br>Search for match | Q19629233            | Guillaume Ier de Nimes<br>Choose new match | Q1402   |          | Q1402   | 1445           |
| 5.  | Guillaume Ier Brionnet | fr      | Guillaume Ier Brionnet | Guillaume Ier Brionnet<br><input checked="" type="checkbox"/> Create new item<br>Search for match | Q19629233            | Guillaume Ier de Nimes<br>Choose new match | Q10361  |          | Q10361  | 1370           |
| 6.  | Leonardo Bruni         | it      | Leonardo Bruni         | Leonardo Bruni (1370-1444)  | Q314488              | Leonardo Bruni<br>Choose new match         | Q2991   |          | Q2991   | 1470           |
| 7.  | Charles VIII           | de      | Charles VIII           | Charles VIII<br>Choose new match  | Q2991                | Charles VIII<br>Choose new match           | Q2891   |          | Q2891   | 1560           |
| 8.  | Charles III de Croÿ    | de      | Charles III de Croÿ    | Charles III de Croÿ<br>Choose new match   | Q2891                | Charles III de Croÿ<br>Choose new match    | Q233185 |          | Q233185 | 1389           |
| 9.  | Cosme de Médicis       | Médicis | Cosme de Médicis       | Cosme de Médicis<br>Choose new match  | Q233185              | Cosme de Médicis<br>Choose new match       | Q6361   |          | Q6361   | 1230?          |
| 10. | Guillaume Durand       | Durand  | Guillaume Durand       | Guillaume Durand<br>Choose new match  | Q2329414             | Guillaume V Durand<br>Choose new match     | Q6361   |          | Q6361   | 1230?          |
| 11. | Guillaume Durand       | fr      | Guillaume Durand       | Guillaume Durand (1230?-1296)<br>Choose new match   | Q2329414             | Guillaume V Durand<br>Choose new match     | Q6361   |          | Q6361   | 1230?          |
| 12. | Guillaume Durand       | fr      | Guillaume Durand       | Guillaume Durand (1230?-1296)<br>Choose new match   | Q2329414             | Guillaume V Durand<br>Choose new match     | Q6361   |          | Q6361   | 1230?          |

5'

You can modify the label  
e.g. "italian" instead of "it"

Facet / Filter

Undo / Redo 38 / 38

Refresh

Reset all Remove all

## Starred Rows

change

2 choices Sort by: name count

false 16

true 3

Facet by choice counts

19 rows

Extensions

VIB-Bits

RDF Transform

RDF

Wikibase

Show as: rows records Show: 5 10 25 50 100 500 1000 rows

&lt; first &lt; previous 1 next last

|     |                            |    |                            |   | Current Wikidata                           | wd                                      | Qid     | latitude | test    | date_naissance |
|-----|----------------------------|----|----------------------------|---|--|---|---------|----------|---------|----------------|
| 1.  |                            |    |                            |   | Augustin d'Hippone<br>Choose new match     | Q1966                                   |         |          | Q1966   | 0354           |
| 2.  |                            |    |                            |   | Girolamo Balbi<br>Choose new match         | Q5960                                   |         |          | Q5960   | 1460           |
| 3.  |                            |    |                            |   | Boccace<br>Choose new match                | Q2564                                   |         |          | Q2564   | 1313           |
| 4.  |                            |    |                            |   | Guillaume Ier de Nîmes<br>Choose new match |   |         |          |         | 1445           |
| 5.  | Guillaume Ier Brionnet     | fr | Guillaume Ier Brionnet     | Guillaume Ier Brionnet<br><input checked="" type="checkbox"/> Create new item<br>Search for match |  |   |         |          |         | 1445           |
| 6.  | Leonardo Bruni             | it | Leonardo Bruni             | Leonardo Bruni (1370-1444)<br>Choose new match  | Q314488                                    | Leonardo Bruni<br>Choose new match      | Q10361  |          | Q10361  | 1370           |
| 7.  | Charles VIII roi de France | fr | Charles VIII roi de France | Charles VIII (roi de France, 1470-1498)<br>Choose new match                                       | Q134452                                    | Charles VIII<br>Choose new match        | Q2991   |          | Q2991   | 1470           |
| 8.  | Charles de Croÿ            | fr | Charles de Croÿ            | Charles Croÿ (duc de, 1560-1612)<br>Choose new match  | Q676807                                    | Charles III de Croÿ<br>Choose new match | Q2891   |          | Q2891   | 1560           |
| 9.  | Cosimo De Medici           | fr | Cosimo De Medici           | Cosme de Médicis (1389-1464)<br>Choose new match  | Q48544                                     | Cosme de Médicis<br>Choose new match    | Q233185 |          | Q233185 | 1389           |
| 10. | Guillaume Durand           | fr | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match   | Q2329414                                   | Guillaume V Durand<br>Choose new match  | Q6361   |          | Q6361   | 1230?          |
| 11. | Guillaume Durand           | fr | Guillaume Durand           | Guillaume Durand (1230?-1296)<br>Choose new match   | Q2329414                                   | Guillaume V Durand<br>Choose new match  | Q6361   |          | Q6361   | 1230?          |
| 12. | Guillaume                  | fr | Guillaume                  | Guillaume Durand (1230?-1296)   | Q2329414                                   | Guillaume V                             | Q6361   |          | Q6361   | 1230?          |

1"

click on the undo/redo tab to access your operation history

Extract... Apply...

Filter

23. Edit single cell on row 19, column langue

24. Reconcile cells in column to\_recon\_2 to type Q168

25. Create new column test based on column to\_recon\_2 by filling 12 rows with cell.recon.match.id

26. Extend data at index 4 based on column to\_recon\_2

27. Edit single cell on row 4, column identifiant Wikidata

28. Create new column wd based on column identifiant Wikidata by filling 13 rows with gref:value

29. Reconcile cells in column wd to type Q5

30. Star row 4

31. Star row 6

32. Star row 2

33. Unstar row 2

34. Star row 1

35. Unstar row 4

36. Unstar row 6

37. Star row 7

38. Star row 3

Show as: rows records

Show: 5 10 25 50 100 500 1000 rows

&lt; first &lt; previous 1 next &gt; last &gt;

| All                           | nom_entite | langue                     | to_recon                                | to_recon_2  | identifiant Wikidata | wd                     | Qid              | latitude | test    | date_naissance |
|-------------------------------|------------|----------------------------|---|---|----------------------|------------------------|------------------|----------|---------|----------------|
| 1. Augustinus                 | lat        | Augustinus                 | Augustin (saint, 0354-0430)             | Choose new match  | Q8018                | Augustin d'Hippone     | Q1966            |          | Q1966   | 0354           |
| 2. Girolamo Balbi             | it         | Girolamo Balbi             | Girolamo Balbi (1460-1535)              | Choose new match  | Q673596              | Girolamo Balbi         | Q5960            |          | Q5960   | 1460           |
| 3. Boccaccio                  | it         | Boccaccio                  | Boccace (1313-1375)                     | Choose new match  | Q1402                | Boccace                | Q2564            |          | Q2564   | 1313           |
| 4. Guillaume Ier Briçonnet    | fr         | Guillaume Ier Briçonnet    | Guillaume Ier Briçonnet                 | <input checked="" type="checkbox"/> Create new item<br><input checked="" type="checkbox"/> Search for match | Q19629233            | Guillaume Ier de Nîmes | Choose new match |          |         | 1445           |
| 5. Guillaume Ier Briçonnet    | fr         | Guillaume Ier Briçonnet    | Guillaume Ier Briçonnet                 | <input checked="" type="checkbox"/> Create new item<br><input checked="" type="checkbox"/> Search for match |                      |                        |                  |          |         | 1445           |
| 6. Leonardo Bruni             | it         | Leonardo Bruni             | Leonardo Bruni (1370-1444)              | Choose new match  | Q314488              | Leonardo Bruni         | Q10361           |          | Q10361  | 1370           |
| 7. Charles VIII roi de France | fr         | Charles VIII roi de France | Charles VIII (roi de France, 1470-1498) |   | Q134452              | Charles VIII           | Q2991            |          | Q2991   | 1470           |
| 8. Charles                    | fr         | Charles                    | Charles                                 |   | Q676807              | Charles III de Croÿ    | Q2891            |          | Q2891   | 1560           |
| 9. Cosimo Medici              | fr         | Cosimo Medici              | Cosimo Medici                           |   | Q48544               | Cosme de Médicis       | Q233185          |          | Q233185 | 1389           |
| 10. Guillaume Durand          | fr         | Guillaume Durand           | Guillaume Durand                        |   | Q2329414             | Guillaume V Durand     | Q6361            |          | Q6361   | 1230?          |
| 11. Guillaume Durand          | fr         | Guillaume Durand           | Guillaume Durand (1230?-1296)           |   | Q2329414             | Guillaume V Durand     | Q6361            |          | Q6361   | 1230?          |
| 12. Guillaume Durand          | fr         | Guillaume Durand           | Guillaume Durand                        |   | Q2329414             | Guillaume V Durand     | Q6361            |          | Q6361   | 1230?          |

2"  
Select the operations you want to undo

Facet / Filter

Undo / Redo 29 / 38

[Refresh](#)[Reset all](#) [Remove all](#)**langue** [change](#)

3 choices Sort by: name count

[Cluster](#)

fr 15

it 3

lat 1

Facet by choice counts

**19 rows**

Extensions

[VIB-Bits](#)[RDF Transform](#)[RDF](#)[Wikibase](#)Show as: [rows](#) [records](#)Show: [5](#) [10](#) **25** [50](#) [100](#) [500](#) [1000](#) rows[« first](#)[previous](#)

1

[next](#)[last »](#)

|     | All                        | nom_entite | langue | to_recon                        | to_recon_2  | identifiant Wikidata | wd                                      | Qid     | latitude | test    | date_naissance |
|-----|----------------------------|------------|--------|---------------------------------|---|----------------------|---|---------|----------|---------|----------------|
| 1.  | Facet                      |            |        | Augustinus                      | Augustin (saint, 0354-0430)<br>Choose new match   | Q8018                | Augustin d'Hippone<br>Choose new match  | Q1966   |          | Q1966   | 0354           |
| 2.  | Text filter                |            |        |                                 |   |                      |   |         |          |         |                |
| 3.  | Edit cells                 |            |        | Transform...                    | Illi (1460-1535)                                  | Q673596              | Girolamo Salvi<br>Choose new match      | Q5960   |          | Q5960   | 1460           |
|     | Edit column                |            |        | Common transforms               | Trim leading and trailing whitespace              |                      |   |         |          |         |                |
|     | Transpose                  |            |        | Fill down                       | Collapse consecutive whitespace                   |                      |   |         |          |         |                |
|     | Sort...                    |            |        | Blank down                      |   |                      |   |         |          |         |                |
|     | View                       |            |        | Unescape HTML entities          |   |                      |   |         |          |         |                |
|     | Reconcile                  |            |        | Replace smart quotes with ASCII |   |                      |   |         |          |         |                |
|     |                            |            |        | Join multi-valued cells...      |   |                      |   |         |          |         |                |
|     |                            |            |        | To titlecase                    |   |                      |   |         |          |         |                |
|     |                            |            |        | To uppercase                    |   |                      |   |         |          |         | 1445           |
|     |                            |            |        | To lowercase                    |   |                      |   |         |          |         |                |
|     |                            |            |        | To number                       |   |                      |   |         |          |         |                |
|     |                            |            |        | To date                         |   |                      |   |         |          |         |                |
|     |                            |            |        | To text                         |   |                      |   |         |          |         |                |
|     |                            |            |        | To null                         |   |                      |   |         |          |         |                |
|     |                            |            |        | To empty string                 |   |                      |   |         |          |         |                |
| 5.  | Guillaume Ier Briçonnet    | fr         |        | Cluster and edit...             |   |                      |   |         |          |         |                |
| 6.  | Leonardo Bruni             | it         |        | Replace...                      | Bruni   | Choose new match     |   |         |          |         |                |
| 7.  | Charles VIII roi de France | fr         |        | Charles VIII roi de France      | Charles VIII (1498)<br>Choose new match           |                      | Charles VIII<br>Choose new match        | Q2991   |          | Q2991   | 1470           |
| 8.  | Charles de Croÿ            | fr         |        | Charles de Croÿ                 | Charles Croÿ (1612)<br>Choose new match           |                      | Charles III de Croÿ<br>Choose new match | Q2891   |          | Q2891   | 1560           |
| 9.  | Cosimo De Medici           | fr         |        | Cosimo De Medici                | Cosme de Médicis (1389-1464)<br>Choose new match  | Q48544               | Cosme de Médicis<br>Choose new match    | Q233185 |          | Q233185 | 1389           |
| 10. | Guillaume Durand           | fr         |        | Guillaume Durand                | Guillaume Durand (1230?-1296)<br>Choose new match | Q2329414             | Guillaume V Durand<br>Choose new match  | Q6361   |          | Q6361   | 1230?          |
| 11. | Guillaume Durand           | fr         |        | Guillaume Durand                | Guillaume Durand (1230?-1296)<br>Choose new match | Q2329414             | Guillaume V Durand<br>Choose new match  | Q6361   |          | Q6361   | 1230?          |
| 12. | Guillaume Durand           | fr         |        | Guillaume Durand                | Guillaume Durand (1230?-1296)                     | Q2329414             | Guillaume V Durand<br>Choose new match  | Q6361   |          | Q6361   | 1230?          |

Facet / Filter

Undo / Redo 29 / 38

Refresh

Reset all Remove all

**langue** change  
 3 choices Sort by: name count Cluster

fr 15

it 3

lat 1

Facet by choice counts

19 rows

Extensions

VIB-Bits

RDF Transform

RDF

Wikibase

Show as: [rows](#) [records](#)Show: [5](#) [10](#) **25** [50](#) [100](#) [500](#) [1000](#) rows

« first

&lt; previous

1

next &gt;

last »

|     | All                        | nom_entite | langue | to_recon                        | to_recon_2  | identifiant Wikidata                 | wd                                      | Qid                                | latitude | test   | date_naissance |
|-----|----------------------------|------------|--------|---------------------------------|---|--------------------------------------|---|------------------------------------|----------|--------|----------------|
| 1.  | Facet                      |            |        | Augustinus                      | Augustin (saint, 0354-0430)<br>Choose new match   | Q8018                                | Augustin d'Hippone<br>Choose new match  | Q1966                              |          | Q1966  | 0354           |
| 2.  | Text filter                |            |        |                                 |   |                                      |   |                                    |          |        |                |
| 3.  | Edit cells                 |            |        | Transform...                    |   | ihi (1460-1535)                      | Q673596                                 | Girolamo Salvi<br>Choose new match | Q5960    |        | Q5960 1460     |
| 4.  | Edit column                |            |        | Common transforms               |   | Trim leading and trailing whitespace |   |                                    |          |        |                |
|     | Transpose                  |            |        | Fill down                       |   | Collapse consecutive whitespace      |   |                                    |          |        |                |
|     | Sort...                    |            |        | Blank down                      |   |                                      |   |                                    |          |        |                |
|     | View                       |            |        | Unescape HTML entities          |   |                                      |   |                                    |          |        |                |
|     | Reconcile                  |            |        | Replace smart quotes with ASCII |   |                                      |   |                                    |          |        |                |
|     |                            |            |        | To titlecase                    |   |                                      |   |                                    |          |        |                |
| 5.  | Guillaume Ier Briçonnet    | fr         |        | Cluster and edit...             |   | To uppercase                         |   |                                    |          |        | 1445           |
| 6.  | Leonardo Bruni             | it         |        | Replace...                      |   | To lowercase                         |   |                                    |          |        |                |
|     |                            |            |        |                                 | Bruni   | Choose new match                     |   |                                    |          |        |                |
| 7.  | Charles VIII roi de France | fr         |        | Charles VIII roi de France      | Charles VIII (1498)<br>Choose new match           |                                      | Leonardo Bruni<br>Choose new match      | Q10361                             |          | Q10361 | 1370           |
| 8.  | Charles de Croÿ            | fr         |        | Charles de Croÿ                 | Charles Croÿ (1612)<br>Choose new match           |                                      | Charles VIII<br>Choose new match        | Q2991                              |          | Q2991  | 1470           |
| 9.  | Cosimo De Medici           | fr         |        | Cosimo De Medici                | Cosme de Médicis (1389-1464)<br>Choose new match  | Q48544                               | Charles III de Croÿ<br>Choose new match | Q2891                              |          | Q2891  | 1560           |
| 10. | Guillaume Durand           | fr         |        | Guillaume Durand                | Guillaume Durand (1230?-1296)<br>Choose new match | Q2329414                             | Guillaume V Durand<br>Choose new match  | Q6361                              |          | Q6361  | 1230?          |
| 11. | Guillaume Durand           | fr         |        | Guillaume Durand                | Guillaume Durand (1230?-1296)<br>Choose new match | Q2329414                             | Guillaume V Durand<br>Choose new match  | Q6361                              |          | Q6361  | 1230?          |
| 12. | Guillaume Durand           | fr         |        | Guillaume Durand                | Guillaume Durand (1230?-1296)                     | Q2329414                             | Guillaume V Durand<br>Choose new match  | Q6361                              |          | Q6361  | 1230?          |

Facet / Filter

Undo / Redo 29 / 38

19 rows

Extensions VIB-Bits ▾ RDF Transform ▾ RDF ▾ Wikibase ▾

Refresh

Reset all Remove all

langue

change

3 choices Sort by: name count

Cluster

fr 15

it 3

lat 1

Facet by choice counts

## Add column based on column date\_naissance

New column name cleaned\_date\_naissance

On error  set to blank  store error  copy value from original column

Expression

Language General Refine Expression Language (GREL)

value.replace(/^0|\?/, "")

No syntax

Preview

History

Starred

Help

| row | value | value.replace(/^0 \?/, "") |
|-----|-------|----------------------------|
| 1.  | 0354  | 354                        |
| 2.  | 1460  | 1460                       |
| 3.  | 1313  | 1313                       |
| 4.  | 1445  | 1445                       |
| 5.  | 1445  | 1445                       |
| 6.  | 1370  | 1370                       |
| 7.  | 1370  | 1370                       |

OK

Cancel

|     |                  |    |                  |                               |          |                  |                    |       |       |       |
|-----|------------------|----|------------------|-------------------------------|----------|------------------|--------------------|-------|-------|-------|
| 10. | Guillaume Durand | fr | Guillaume Durand | Guillaume Durand (1230?-1296) | Q2329414 | Choose new match | Guillaume V Durand | Q6361 | Q6361 | 1230? |
| 11. | Guillaume Durand | fr | Guillaume Durand | Guillaume Durand (1230?-1296) | Q2329414 | Choose new match | Guillaume V Durand | Q6361 | Q6361 | 1230? |
| 12. | Guillaume Durand | fr | Guillaume Durand | Guillaume Durand (1230?-1296) | Q2329414 | Choose new match | Guillaume V Durand | Q6361 | Q6361 | 1230? |

# Demo 2

<http://127.0.0.1:3333>

Reconciliation with Wikidata

# **Exercises link**

<https://github.com/emmamorlock/workshop/>

Go to ‘exercises’ folder

# **Exercise 1**

Reconcile a dataset  
against datablissima

~ 30 min

## **Exercise 2**

Improve the results

# **Exercise 3**

## Export an enriched dataset in XML/TEI

# Conclusion & discussion