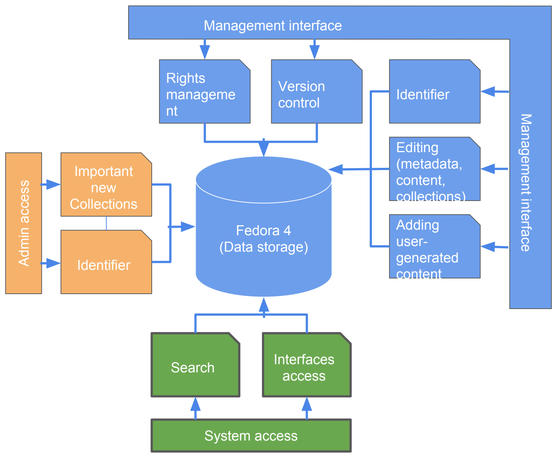
FULL-TEXT SEARCH AND N-GRAM SERVICE
based on the CrossAsia ITR (Integrated Text Repository)

Staatsbibliothek zu Berlin
Preußischer Kulturbesitz

CrossAsia ITR

(Integrated Text Repository)



Objectives:

- Organize and host a huge amount of data and digital objects (licensed / in the public domain)
- Offer the data for research and education (copyright will be protected)
- Analyze and annotate texts or text corpora
- Enhance and share texts (within the limitations of license rights)
- Integrate ontologies and all kinds of knowledge bases
- Provide the results to the research community
- Develop new DH services and connect these to the ITR via the CrossAsia ITR Application Programming Interfaces (API)

Data ingest:

- Development of routines for meta and object data ingestion, ETL: extract, transform, load
- Test the technology, formats and structure by using different kinds of materials:
  - Collection of classical texts
  - Newspaper articles
  - Archival materials

CrossAsia Full-text Search

(Beta version)

13.5 million pages
123,112 titles
15 different sources

Chinese
English
Japanese

Snippet-view of full-text
Access links:

- registered CrossAsia users
- all other users via individual authorization or IP range

Full-text Search

- “Guided” search
- Hits are grouped and displayed by book
- Books are ranked
  - by their number of pages with hits or
  - by ratio, i.e. ranked on top are titles with a higher percentage of pages that contain the search term
- Only the full-text is searched
- Mapping of Chinese characters: traditional ⇔ simplified

CrossAsia N-gram Service

Downloadable Dataset

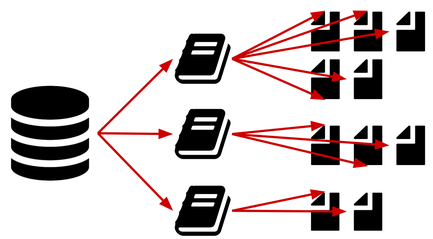
- Xuxiu Siku Quanshu
- Local Gazetteers
- Daozang

https://crossasia.org/en/service/crossasia-lab/crossasia-n-gram-service

Online N-gram analysis (prototype)

- Search N-grams in pages of a collection
- Fetch all bigrams in the set of pages with your N-gram
- Define criteria to show bigrams in the set of pages with your N-gram (e.g. with regular expressions)
- Combine two or more sets of pages with an N-gram (A and B; A and not B)
- Show distribution of N-grams in pages of a book

Functionality and ranking:



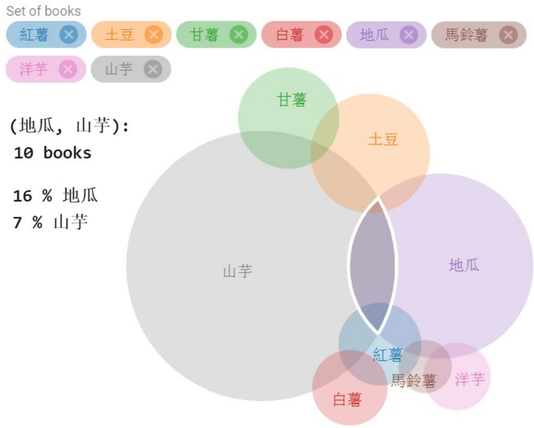
Step 1: Search a term

Step 2: Select a title with the search term

Step 3: Select a page with snippet-preview and open full-text in database (log-in required)

https://crossasia.org/en/service/crossasia-lab/crossasia-itr/

Visualization of N-gram overlapping in a set of books:



CrossAsia

offers access to specialized information from the entire spectrum of humanities and social sciences from and about East, Southeast and Central Asia. CrossAsia supports the Asia-related studies in research and teaching in Germany and beyond, with a special focus on DH services.

Framework for DH activities:

- Serving the primary user group - researchers located at German research institutions who work on Asia - and beyond
- Experience in licensing electronic resources for about 15 years
- Subscriptions to more than 150 electronic databases
- License agreements include:
  - Metadata and the right to use the metadata (also via APIs)
  - Data and text mining rights
  - Archival and hosting rights

Future perspectives:

- Develop a DH infrastructure that is based on stable, trustworthy and reliable financial and IT-structures for the German Asian studies research community and beyond.
- Establish an international DH network, with cooperation and collaboration among research institutions, libraries, copyright holders, and data providers, based on stable and trustworthy structures.

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