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LINKED (OPEN) DATA WITH SEMANTIC MEDIAWIKI

The swiss army knife for data and semantics.

ENDORSE.

THE EUROPEAN DATA CONFERENCE ON REFERENCE DATA AND SEMANTICS

Semantic MediaWiki



Open-Source-Project:
www.semantic-mediawiki.org



The „swiss army knife“ for data and semantics



WIKIPEDIA
The Free Encyclopedia

Built on the MediaWiki ecosystem:
the wiki engine that powers Wikipedia

Can be used for much more than just wikis...

5 Star-Schema of Linked (Open) Data

★ Make your stuff available on the Web (whatever format)
under an open license. optional



★★ Make it available as structured data (e.g., Excel instead of image scan of a table)



★★★ Use non-proprietary formats (e.g., CSV instead of Excel)



★★★★ Use URIs to denote things, so that people can point at your stuff



★★★★★ Link your data to other data to provide context



Users of Semantic MediaWiki

Database / Wiki users: want a flexible web-based system to manage text and structured data

- could consider it as a web-based „Microsoft Access“
- Semantic Web standards „on top“, without a specific use case
- open data as a plus (importing and exporting)

Semantic Web / Knowledge graph enthusiasts: want the swiss army knife

- need RDF export
- want to reuse vocabularies (FOAF...) and import/export data
- want to implement knowledge graphs

Main features

Page vienna can have properties

- number of inhabitants, located in, coordinates, WikidataID, ...

Properties can have various data types

- page, text, number, date, URL, ...
- external identifier links to external resources

Re-use external vocabularies

- “Lastname” imported from foaf:familyName

Easy form-based entering of data

Data import by upload or importing web-sources

Querying of data

Export and display of data via „result formats“

- table, csv, json, rdf, kml, calendar, timeline, leaflet, tagcloud, ...

API, Triple-Store-Support

Includes the power of MediaWiki



collaborative editing

structure via categories and namespaces

version history of every edit

no backend: everything is a wiki page

hundreds of extensions, skins, etc.

large community (Wikimedia Foundation), ...

FINA Wiki

<https://fina.oeaw.ac.at/wiki>

The screenshot shows the FINA Wiki page for Christophe Plantin. The page is organized into several sections:

- Persons:** A small icon of a person.
- Correspondence of Christophe Plantin:** A diagram showing connections between Christophe Plantin and other individuals. It includes:
 - Christophe Plantin (8 February 1574^h, Vienna) connected to Steven Winand Pigge.
 - Christophe Plantin (8 November 1574^h, Antwerp) connected to Fulvio Orsini.
- Christophe Plantin:** A metadata section with fields for:
 - First name: Christophe
 - Last name: Plantin
 - Also known as
 - WikidataID
 - Birth date: 1520^h
 - Birth place: Saint-Avertin (47° 22' 54.70" N, 0° 38' 27.72" E)
 - Death date: July 1, 1589
 - Death place: Antwerp (51° 13' 16.00" N, 4° 23' 58.96" E)
 - Keyword: printer, bookbinder
 - Link: https://en.wikipedia.org/wiki/Christophe_Plantin
 - image: A portrait of Christophe Plantin.
- Map:** A map showing the birth and death locations of Christophe Plantin, with a red line connecting Saint-Avertin and Antwerp.
- Literature:** A section listing secondary literature, including:
 - Orbaan 1911, 1911, journal, *Bescheiden in Italie ontfrent Niderlandsche kunstenaars en geleerden*
- Work:** A section listing works, including:
 - Christophe Plantin - Steven Winand Pigge - 1574-2-6, Correspondence
 - Christophe Plantin - Fulvio Orsini - 1574-11-6, Correspondence
- References:** A section listing references, including:
 - Hubert Goltzius - Abraham Ortelius - 1574-2-21, Correspondence
 - Laevinus Torrentius - Andreas Schott - 1589-1-30, Correspondence
 - Fulvio Orsini - Nicolaas Rockox - 1590-8-2, Correspondence
 - Adolf Occo - Abraham Ortelius - 1598-5-4, Correspondence
 - Markus Weiser - Jacob Cool - 1598-6-1, Correspondence
- Further images:** A section for additional images.
- Download:** A section for downloading the page content in CSV or RDF format.

Visualisation of
correspondence

Metadata

Iconography

Export (CSV, RDF)

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Map
(birth, death place)

Literature

Work

References

Vienna

INFO

Country	Austria
Size	414.78 km ²
Population	1897000
Coordinates	48° 12' 0.00" N, 16° 22' 0.00" E
Wikidata	Q1741



1758



LIVE DEMO

Category: [Cities](#)

 Tools -

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