Leveraging an open infrastructure to enable visual discovery in library systems

The case of Open Knowledge Maps

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Edited version of a presentation at the LIBER Conference 2021. This version is focused on the Custom Services and updated with the latest information. The original presentation can be downloaded on Zenodo.
Custom Services
Custom Services in a nutshell

Unlock the full potential of Open Knowledge Maps for your organisation

Embed Open Knowledge Maps services in your own discovery systems based on your own data sources

Provide attractive, visual entry points to your holdings

Available as easy-to-install cloud components
Benefits

- Increase discoverability
- Attract new audiences
- Enhance metadata
- Contribute to SDGs
Technical setup
1. The organisation exports its metadata to the Bielefeld Academic Search Engine (BASE).
2. Open Knowledge Maps connects to BASE and has now access to the organisation’s metadata.
3. Open Knowledge Maps provides custom cloud components to the organisation.
4. The organisation embeds the cloud components. Organisations can set individual parameters, including the ability to restrict knowledge maps to their own data sources.
Use cases

Complement existing discovery systems such as a library catalog

Make the contents of a specific collection (e.g. a research data management system) more visible

Integrate visual overviews in other areas of your digital services, such as a news page or a current research information system (CRIS)
Use cases

Following are a set of real-life use cases from ETH Zurich and TU Wien in varying stages of development.

The Custom Services are co-created with our supporting members in an agile process.

You are welcome to contact us with further use cases.
ETH Library use case

Online at: https://eth.swisscovery.slsp.ch/
ETH Library use case
TU Wien Bibliothek use case 1

The library built up by influential 19th century architect and urban theorist Camillo Sitte was donated to TU Wien in 1963. Finding the collection with our existing discovery tools has been a challenge, even for experienced users.

John, a postdoc in urban planning, needs (i) an overview of the recent research output on Sitte, and (ii) an overview of the works Sitte collected so he can study Sitte’s handwritten notes.
TU Wien Bibliothek use case 1

Start with an overview to identify relevant concepts and publications

View Knowledge Map
TU Wien Bibliothek use case 1

Interested in Camillo Sitte?
TU Wien Bibliothek houses the Sitte bequest library. Search in this unique data source.

Go to the Sitte bequest library.
Overview of the works collected by Camillo Sitte

- Building history
- Art history
- Ancient literature
- Mythology
- Linguistics
- Religion
- Mathematics
- Philosophy
- Education
- Physiology, anatomy
- Applied arts, crafts

Dell’architettura libr dieci di M. Vitruvio Pollione
Vitruvius; Galliani, Berardo (Editors) in Milano : Dedo (1832)
[link]: https://catalogue.tuwien.ac.at/permalink/https/UTW.alma21459484900033376

- no abstract available
- Area: Building history

Tiryns: der prähistorische Palast der Könige von Tiryns; Ergebnisse der neuesten Ausgrabungen
Schliemann, Heinrich in Leipzig : Broekhaus (1886)
[link]: https://catalogue.tuwien.ac.at/permalink/https/UTW.alma21469638000033376

- no abstract available
- Area: Archaeology

La Perspective Practique, Necessaire A Tous Peintres, Graveurs, Sculpteurs, Architectes, Orfèvres, Brodeurs, Tapissiers, & autres se servant du Dessein
Du Breull, Jean in Paris : Melchior Tavernier (ed.) (1642)
[link]: https://catalogue.tuwien.ac.at/permalink/https/UTW.alma21667704400033376

- no abstract available
- Area: Philosophy
Tom is on the verge of writing his master’s thesis. To get up to speed about good scientific practice and the standards he needs to apply in his thesis, he wants to read a few master’s theses that are relevant to his own chosen field: the industrial internet of things.
Theses

for industrial internet of things

Start with an overview to identify relevant theses

View Knowledge Map

Filter results

Author

- Baumgartner, Thomas
- Becker, Christoph
- Gschwandtner, Theresa
- Gugler, Johannes
- Knoll, Christian
- Larcher, Isabella
- Rupp, Karl
- Ahmadi, Shajponja
- Aichinger-Rosenberger, Matthias
- Albrecht, Bernhard

Subject

- architectural design
- Architektonischer Entwurf
Opportunities of blockchain for industry 4.0 – energy impacts for the industrial internet of things

Lieb, Nicholas (2018)
[link]: https://resolver.obvsg.ac.at/urn:nbn:at:at-uvw:1-113673

Information and communication systems (ICT) are an essential part of today’s society, with strong negative impacts on the environment due to its energy consumption. However, its utilization is believed it can have indirect positive impacts on resource consumption reduction through new concepts to generate, allocate, distribute, share and use energy environmentally-friendly. A new major technology, (...) 

Area: Blockchain, Trust

Technical, social and economic implications of Machine Learning in IoT

Bogoevski, Aleksandar (2017)
[link]: https://resolver.obvsg.ac.at/urn:nbn:at:at-uvw:1-101356

‘Data is the new oil, it’s valuable, but if unrefined it cannot really be used. It has to be changed into gas, plastic, or chemicals to create a valuable entity that drives profitable activity; so must data be broken down, analyzed for it to have value.’ Clive Humby, Mathematician and architect of Tesco’s Clubcard, 2006 in today’s world data is gathered almost everywhere and for every purpose, esp(...) 

Area: Societal impact

Automated application deployment in heterogeneous IoT environments by OpenTOSCA

Claseń, Markus (2016)
[link]: https://resolver.obvsg.ac.at/urn:nbn:at:at-uvw:1-62556

Today’s Internet of Things (IoT) landscape is fragmented by proprietary solutions offered by different vertical industries. Gateway application environments were introduced to, domain- and vendor-specific communication protocols, data models, and control of management level business processes. But rather than reducing the heterogeneity introduced additional, often prop(...) 

Area: Cloud computing
Funding model

We propose to fund Open Knowledge Maps and the Custom Services in a collective effort: organizations become supporting members and provide a yearly contribution.

In return, we invite our members to co-create the platform with us. Members become part of the Board of Supporters, which is directly involved in the decision-making process of what features and sources are implemented in our technical roadmap.
# Membership categories

<table>
<thead>
<tr>
<th>Membership</th>
<th>Supports</th>
<th>Seats on the BoS</th>
<th>Annual Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic membership</strong></td>
<td>facilitates <strong>maintenance</strong></td>
<td>1</td>
<td>€480 - €2,800 €3,800 per year</td>
</tr>
<tr>
<td><strong>Sustaining membership</strong></td>
<td>development of <strong>substantial new features</strong></td>
<td>2</td>
<td>€780 - €4,800 €5,800 per year</td>
</tr>
<tr>
<td><strong>Visionary membership</strong></td>
<td>supports the vision of a <strong>large-scale collaborative discovery system</strong></td>
<td>3</td>
<td>€1,280 - €9,800 €10,800 per year</td>
</tr>
</tbody>
</table>

More information: [https://openknowledgemaps.org/supporting-membership](https://openknowledgemaps.org/supporting-membership)

Early-mover discount until 1 Dec 2021
Thank you for your attention!

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