

coli-conc & BARTOC

The story of a partnership
and
the future of Knowledge Organization Systems

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EDUG 2021



What is coli-conc?

- **An open-source service of the VZG that offers**
 - Interoperability between Knowledge Organization Systems
 - Technical infrastructure to exchange and manage KOS data, KOS metadata, and KOS mappings
 - Facilitate creation of KOS Mappings
- **Serves as the framework for the integration of BARTOC into coli-conc**

What does coli-conc infrastructure provide?

- Mapping Tool with a Web Application - Cocoda
User and Editor Interface to KOS, Concordances and mappings
- KOS-Registry
- Concordance-Registry

Backend Services

- Terminology Services (DANTE, BARTOC, SKOSMOS, MARCXML...)
- Mapping Services and Database (Collected KOS Mappings)
- Mapping Recommendation Services (Co-occurrences and queries)
- Quality services and Statistics
- **Data Format - JSKOS**

What is BARTOC?

Basic Register of Thesauri, Ontologies & Classifications (BARTOC)

founded as “Basel Register...” by Andreas Ledl, University of Basel in 2013

- A database of Knowledge Organization Systems (KOS)
- Unified access to metadata of currently 3,300 KOS
- Various spheres and subject areas
- Aims to foster knowledge sharing

What does BARTOC contain?

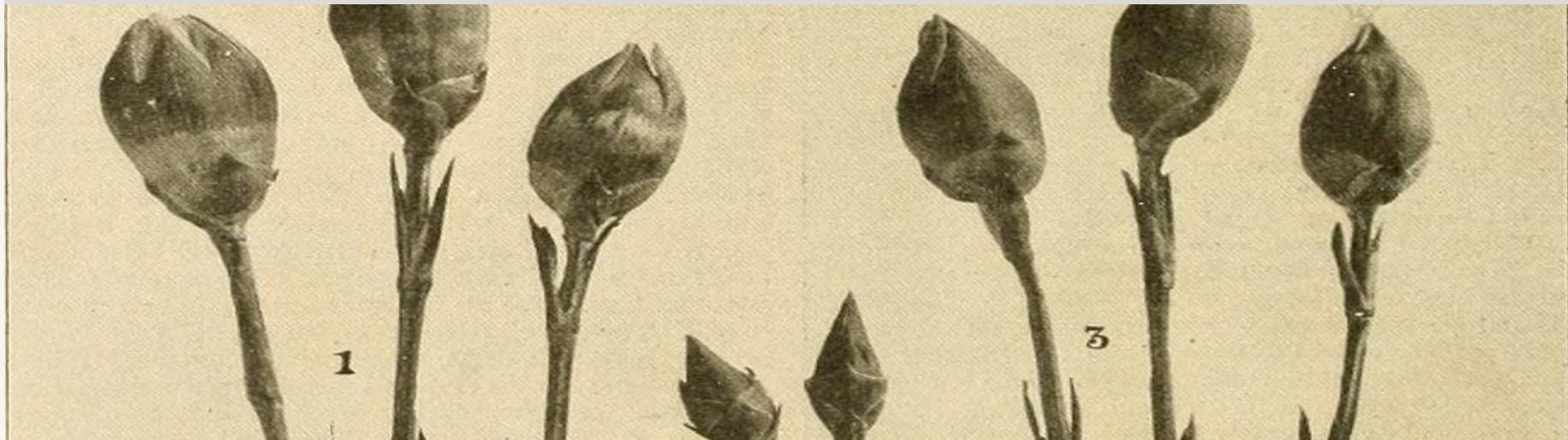
Vocabulary Metadata

- About the Vocabulary (abstract, publisher, subject...)
- Access-related information (formats, license...)
- Content (languages, size, search & browsing)
- Identifiers and technical metadata

Background Service

- KOS Registries
- KOS Software
- Statistics

BARTOC Yesterday



Andreas Ledl, SI & IT Workshop, VZG 2017

Inetbib 2012- Announcement of Thesaurusportal

Thesaurusportal

The screenshot shows the Thesaurusportal interface. The top navigation bar includes links for Classic, Flipcard, Magazine, Mosaic, Sidebar, Snapshot, and Timeslide. The sidebar on the left lists several thesauri options, each with a small thumbnail icon:

- THUB
- IRRI Rice Thesaurus
- Eigenschaften-Quellen...
- Holdokki
- Library of Congress Su...
- Australian Transport Ind...
- INFODATA-Thesaurus
- Nuovo Soggettario The...
- The International Weldi...
- CEDB Subject Headings
- T-Rex
- TESAMAT
- Merenkulun asiasanasto
- Tesauro UAG
- Department of the Envir...
- Thésaurus pour l'index...
- GBA-Thesaurus
- Instruments Tree
- MusicMoz Music Styles

The main content area displays information for the THUB Thesaurus:

THUB
Thesaurus de la Universitat de Barcelona

Entwickelt von: Universitat de Barcelona, Centre de Recerca per a l'Aprendentatge i la Investigació (CRAI), Procés Tècnic

Sprachen: Katalanisch, mit spanischen, englischen und französischen Übersetzungen

Aktuelle Version: wird laufend aktualisiert

Themengebiete: Belles arts, Biblioteconomia i documentació, Biologia, Ciències de la Terra, Ciències econòmiques i empresarials, Relacions laborals, Ciències i tecnologia agroalimentàries: agricultura, silvicultura i zootècnica, Ciències socials: demografia, sociologia, estadística, política, Coneixement i cultura, Dret, Educació i pedagogia, Enginyeria i tecnologia, Espectacles, jocs i esports, Etnologia, Farmàcia, Filologia, Filosofia, Física, Geografia, Història, Indústria, comerç i comunicacions, Informàtica, Matemàtica, Medi ambient, Medicina, infermeria i odontologia, Psicologia, Química, Religió, Treball social i serveis socials, Noms geogràfics

Beschreibung: "Recull els registres de matèries, de noms geogràfics, i de gènere-forma, amb les formes acceptades establertes al catàleg, des de les quals podreu accedir als documents del catàleg. Els registres contenen també les formes variants i relacionades, i altres informacions que us poden ser útils, com per exemple, notes informatives, d'abast, etc. Inclou actualment més de 18.000 entrades, és una eina viva que creix i es modifica de forma continuada, i s'actualitza cada mes."

Anwendung: "Instrument en l'anàlisi documental i la recuperació de la informació per matèries del Catàleg de la Universitat de Barcelona."

Thesaurus de la UB

Consulta a la Catàleg

Màtima acceptada: Accessió (Dret)

Emprat per: Accessió immobiliaria

Emprat per: Accessió mobiliaria

Emprat per: Dret d'accés

Termes genèrics: Adquisició de la propietat

Termes relacionats: Dret d'accés

Fons: LEMAC, 28 abr. 2011 (enc.: Accessió (Dret))

Fons: BNEA, 28 abr. 2011 (enc.: Accesión (Derecho))

Fons: LEMAC, 28 abr. 2011 (enc.: Accession (Law))

Fons: NAMEAU, 28 abr. 2011 (enc.: Accession (droit))

Classificació: TH 34

Català: Accessió (Dret)

Anglès: Accession (Law)

Frances: Accession (droit)

Re: [InetBib] Thesaurusportal

- Date: Tue, 23 Oct 2012 11:07:36 +0200
- From: Jakob Voss <jakob.voss@xxxxxx>
- Subject: Re: [InetBib] Thesaurusportal

On 19.10.2012 11:32, Andreas Ledl wrote:

das Thesaurusportal <http://thesaurusportal.blogspot.com> enthält gegenwärtig 350 Thesauri aus verschiedensten Fachgebieten in 47 Sprachen.

Ziel ist es, möglichst viele frei zugängliche bzw. über wissenschaftliche Bibliotheken erreichbare Online-Thesauri an einem Ort zu versammeln.

Das Thesaurusportal soll als Unterstützung bei der Suche nach Indexierungsinstrumenten, der Entwicklung von Ontologien, der Vermittlung von Informationskompetenz uvm. dienen.

Sie können im Thesaurusportal (eigentlich ein Blog) entweder mittels Freitextsuche oder anhand der "Labels" im verborgenen Menü auf der rechten Seite oben (dunkelgrauer Balken) recherchieren. Auf der linken Seite kann man die Thesauri "durchscrollen".

Vielen Dank für die umfangreiche Sammlung. Sie sollten allerdings auch ähnliche oder ergänzende Angebote wie <http://museumsvocabular.de> hinweisen, damit das Thesaurusportal keine Insel bleibt.

Für die weitere Nutzung wäre die Weitergabe als Datenbank hilfreich. Unter <https://gist.github.com/3937752> habe ich ein Perl-Skript erstellt, mit dem der Atom-Feed des Blogs verarbeitet wird. So ließe sich beispielsweise eine Excel-Tabelle o.Ä. erzeugen. Wenn Sie einer Veröffentlichung beispielsweise unter CC-BY-SA Zustimmen, kann auch das Ergebnis zur Verfügung stellen, so dass die Sammlung weitergehend genutzt werden kann.

Schöne Grüße
Jakob Voß

--
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+49 (0)551 39-10242, <http://www.gbv.de>

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<http://www.inetbib.de>

2013: Launch of BARTOC



English

DDC Statistics

A multilingual, interdisciplinary database for Knowledge Organization Systems

Basic Search

Keywords

 Advanced Search UNIVERSITÄT BASEL
UNIVERSITÄTSBIBLIOTHEKThis Data is made available under the Public Domain
Dedication and License v1.0 whose full text can be found
at: <http://www.opendatacommons.org/licenses/pddl/1.0/>

Neue freie Datenbank in der Digitalen Bibliothek: BARTOC

Neu in die Digitale Bibliothek der FU aufgenommen wurde das [Basel Register of Thesauri, Ontologies and Classifications \(BARTOC\)](#). Die Datenbank wird von der Universitätsbibliothek Basel betrieben und beinhaltet Thesauri, Ontologien, Klassifikationen, Kontrollierte Vokabulare und Taxonomien. Sie sammelt Metadaten kontrollierter und strukturierter Vokabulare und stellt eine Suchoberfläche in 20 Sprachen zur Verfügung. Die Metadaten werden mit Nummern der Dewey Decimal Classification (DDC) bis hinunter zur dritten Ebene und Schlagwörtern aus dem [Eurovoc-Thesaurus](#) angereichert. BARTOC enthält momentan ca. 600 Datensätze in 65 Sprachen und soll weiter wachsen.



Doris Eh / 11. Dezember 2013 / Datenbanken, Was ist neu? / Klassifikation, Systematik, Thesaurus

BARTOC and coli-conc come face to face – International UDC Seminar 2015



2015: Initiation BARTOC & coli-conc Collaboration



Andreas Ledl, SI & IT Workshop, VZG 2017

KOS Registry

This list contains a collection of knowledge organization systems relevant to project coli-conc. It is a subset of all systems known to coli-conc. It is a subset of the full [KOS Registry](#), the set of all systems known to the project (you can find the download to the latest release [here](#)). Please use [Cocoda](#) to select and browse within the systems!

Name	PICA	MARC
Klassifikation für Allgemeinbibliotheken (KAB)	045B[03]\$a	080{\$2=kab}
Systematik für Kinder- und Jugendbibliotheken (SKJ)		
Systematik der Stadtbibliothek Duisburg (SSD)	045B[01]\$a	080{\$2=asb}
Fachsystematik der Universitäts- und Landesbibliothek Düsseldorf (FULD)		
Classification for orthodox church and theology (Coct)		
Göttinger Online-Klassifikation (GOK)		084{\$2=GOK}
Systematik für Evangelische Büchereien (SEB)		
Sachbuch-Systematik für Katholische öffentliche Büchereien (SKB)		
Konstanzer Systematik (KonSys)		
Fachklassifikation Digitale Bibliothek (FKDigBib)		
Csystematik der Universitäts- und Landesbibliothek Bonn (SULB)		

Joint Papers and Presentations

By Voß, Jakob; Ledl, Andreas & Balakrishnan, U.:

- **Uniform description and access to Knowledge Organization Systems with BARTOC and JSKOS**
In: Proceedings of TOTh conference 2016, <https://doi.org/10.5281/zenodo.438019>
- **Interoperability of KOS Metadata Schemas in BARTOC and JSKOS**
Presentation at [16th European NKOS Workshop](#), October, 15th, 2016 in Copenhagen
- **Describing Knowledge Organization Systems in BARTOC and JSKOS**
Presentation at [TKE 2016](#), June 24th, 2016
- BARTOC und coli-conc: Internetarchäologie und Zukunftsforschung zum Verhältnis zweier Projekte, SI &IT Workshop, VZG 2017
- Unification of vocabulary services in BARTOC. 2021-03-23. Poster at [Code4Lib 2021](#). <https://doi.org/10.5281/zenodo.4629367>

BARTOC Today – A field of Flowers



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The Search Interface - Basic Search

BARTOC.org Vocabularies Registries Software About Contact

Statistics login

BARTOC unites information about [vocabularies](#) and [terminology registries](#) to facilitate use of knowledge organization systems. [more...](#)



Search Filter

Search

search

Full-text search across vocabulary description, ranked by relevance

BARTOC is continuously [improved](#). Preliminary search and browsing in selected vocabularies is possible via [BARTOC FAST](#):

Search

Vocabularies

[Search](#) [Filter](#)[Search](#)[search](#)

Full-text search across vocabulary description, ranked by relevance

1...64

**Name****Links**

[Library of Congress Name Authority File](#) "The Library of Congress Name Authority File (NAF) file provides authoritative data for names of persons, organizations, events, places, and titles..."



[Library of Congress Subject Headings](#) "LCSH in this service includes all Library of Congress Subject Headings, free-floating subdivisions (topical and form), Genre/Form headings, Children's (AC) headings, and validation strings for which authority records have been created..."



[Library of Congress Demographic Group Terms](#) "This vocabulary will be used to describe the creators of, and contributors to, resources, and also the intended audience of resources..."

API

[Library of Congress Cultural Heritage Organizations](#) A system of classification for Cultural Heritage Organizations developed by the Library of Congress....



[Library of Congress Genre/Form Terms](#) "The Library of Congress Genre/Form Terms for Library and Archival Materials (LCGFT) is a thesaurus that describes what a work is versus what it is about..."



API

[Library of Congress Children's Subject Headings](#) "The Library of Congress Subject Headings Supplemental Vocabularies: Children's Headings (LCSHAC) is a thesaurus which is used in conjunction with LCSH..."



API

[Library of Congress Medium of Performance Thesaurus for Music](#) "Library of Congress Subject Headings (LCSH) has long included headings that represent the genre or form of musical works in combination with the mediums of performance (e.g., Sonatas (Trombone and organ); Concertos (Bassoon, clarinet, English horn, flute)), as well as headings that represent the mediums of performance alone (e.g., Bass clarinet and piano music)..."



[Library of Congress Classification \(LCC\)](#) "The Library of Congress Classification (LCC) is a classification system that was first developed in the late nineteenth and early twentieth centuries to organize and arrange the book collections of the Library of Congress..."



[Library of Congress Projection](#) A method or system used to represent the surface of the Earth or of a celestial sphere on a plane....



[Library of Congress Carriers](#) A list containing storage containers for data....



[Library of Congress Video Format](#) Used to encode the video content of a resource...



The Search Interface - Advanced Search

Vocabularies

Search Filter

KOS Type Classification schema

Languages English

License Creative Commons Public Domain Dedication

Subject DDC 0 Computer science, information & general works

Sorting by label

filter

Name	Links
Finnish Public Libraries Classification System "The WebPLC is the webversion of the Finnish Public Libraries Classification System..."	API
Helsinki City Library Classification System "The Web-HCLCS is the webversion of the Helsinki City Library Classification System..."	API
Jefferson's Library Classification Thomas Jefferson created this classification for his private library...	
Library of Congress Classification (LCC) "The Library of Congress Classification (LCC) is a classification system that was first developed in the late nineteenth and early twentieth centuries to organize and arrange the book collections of the Library of Congress..."	API
Melvil Decimal System (MDS) "The Melvil Decimal System (MDS) is based on the 1922 public domain edition of Dewey Decimal System with class labels adjusted to modern language..."	API
Regensburger Association Classification (RVK) "The Regensburger Verbundklassifikation (RVK) is a classification scheme for academic libraries..."	API

BARTOC FAST

- **Federated Search** of terms/concepts in different vocabularies from multiple resources
- **Currently assesses** 23 remote resources

BARTOC - Relaunch

- Moved to and hosted by VZG, Göttingen since 2020
- Administered & maintained by the coli-conc team
- Renamed from *Basel Register...* to *Basic Register...*
- The database replaced by JSKOS Server
- Drupal CMS replaced by new web interface
- **Working on seamless integration into coli-conc preserving the name BARTOC**

New Features - Search and Browse in Vocabulary

BARTOC.org Vocabularies Registries Software About Contact Statistics login

Library of Congress Genre/Form Terms

About Access Content Identifiers

Languages en

Search and browsing in vocabularies registered in BARTOC is experimental. See [cocoda-sdk](#) for technical background.

Search in vocabulary

Top concepts

- ↳ Abstract films
- ↳ Cartographic materials
- ↳ Law materials
- ↳ Motion pictures
- ↳ Sound recordings
- ↳ Television programs
- ↳ Video recordings
- ↳ Commemorative works

New Features - Search and Browse in Vocabulary

Dewey Decimal Classification

About

Access

Content

Identifiers

Languages

ar | nb | zh | fr | de | el | he | is | it | ko | ru | es | sv | vi

Search and browsing in vocabularies registered in BARTOC is experimental. See [cocoda-sdk](#) for technical background.

Search in vocabulary

Top concepts

- ↳ 0 Informatik, Informationswissenschaft & allgemeine Werke
- ↳ 1 Philosophie & Psychologie
- ↳ 2 Religion
- ↳ 3 Sozialwissenschaften
- ↳ 4 Sprache
- ↳ 5 Naturwissenschaften
- ↳ 6 Technik, Medizin, angewandte Wissenschaften
- ↳ 7 Künste und Unterhaltung
- ↳ 8 Literatur
- ↳ 9 Geschichte und Geografie
- ↳ T1--0 Hilfstafel 1. Standardschlüssel
- ↳ T2--0 Hilfstafel 2. Geografische Gebiete, Zeitabschnitte, Biografien
- ↳ T3--0 Hilfstafel 3. Schlüssel für Künste, für einzelne Literaturen, für einzelne literarische Gattungen
- ↳ T3A--0 Hilfstafel 3A. Schlüssel für Werke von oder über Einzelautoren
- ↳ T3B--0 Hilfstafel 3B. Schlüssel für Werke von mehr als einem oder über mehr als einen Autor
- ↳ T3C--0 Hilfstafel 3C. Notationen zum Anhängen aufgrund von Anweisungen in Hilfstafel 3B, 700.4, 791.4, 808–809
- ↳ T4--0 Hilfstafel 4. Schlüssel für einzelne Sprachen und Sprachfamilien
- ↳ T5--0 Hilfstafel 5. Ethnische und nationale Gruppen
- ↳ T6--0 Hilfstafel 6. Sprachen

Dewey Decimal Classification

About Access Content Identifiers

Languages

ar | nb | zh | fr | de | el | he | is | it | ko | ru | es | sv | vi

Search and browsing in vocabularies registered in BARTOC is experimental. See [cocoda-sdk](#) for technical background.

Search in vocabulary

Top concepts

- ↳ 0 Informatik, Informationswissenschaft & allgemeine Werke
- ↳ 00 Informatik, Wissen & Systeme

001 Wissen

🔗 <http://dewey.info/class/001/e23/> | e957a697-9369-3496-85af-bd067229b32d

Wissen^{de}

📅 2000-02-02 | 📅 2011-07-28

- ↳ 001.01 Wissenstheorie
- ↳ 001.0601 UNESCO, ...
- ↳ 001.089 Wissen—Ethnologie
- ↳ 001.09 Geistesgeschichte
- ↳ 001.1 Geistiges Leben
- ↳ 001.2 Wissenschaft und Gelehrsamkeit
- ↳ 001.3 Geisteswissenschaften
- ↳ 001.4 Forschung
- ↳ 001.9 Grenzwissen

New Features enabled by integration: Direct access to Mapping Tool *Cocoda*

BARTOC.org Vocabularies Registries Software About Contact Statistics login

Basic Classification

About Access Content Identifiers

Access	freely available
License	http://creativecommons.org/publicdomain/zero/1.0/
Format	JSON-LD MARC Format (MARC21 or other) MARC Format (MARC21 or other) SKOS
Publisher	GBV
Address	Göttingen Germany
Listed in	Coli-conc (Cocoda) KOS Registry
Services (API)	http://api.dante.gbv.de/ (JSKOS API) Cocoda Mapping Tool

created 2018-09-12T14:16:00Z | modified 2021-04-19T09:38:50.405Z

New Features enabled by integration: Direct access to Mapping Tool *Cocoda*

The screenshot displays the Cocoda Mapping Tool interface, which integrates various classification schemes for library cataloging.

Left Sidebar: Shows the "BK Basisclassification" selected in the search bar. It includes a search input, a tree view of classification categories (e.g., Allgemeine Werke und Philosophie, Geisteswissenschaften, Naturwissenschaften, Ingenieurwissenschaften, Sozialwissenschaften), and metadata: Created: Mar 20, 2017; Issued: Mar 20, 2017; Modified: Apr 24, 2020.

Mapping Editor: A central area for mapping concepts between two schemes. It features two large dashed boxes labeled "Drag and drop a concept here." with a right-pointing arrow between them. Below this are buttons for "Search", "Concordances", and "Navigator".

Concordances: A table showing mappings between the source notation (BK) and target schemes (target scheme). The table includes columns for BK, target scheme, target notation/URI, and changes.

BK	target scheme	target notation/URI	Changes
3-4 Naturwissenschaften	ÖFOS	1 NATURAL SCIENCES	±0 (1)
1-2 Geisteswissenschaften	WD	Q944537	±0 (1)
24.62 Musiktheater, Theatermusik	RVK	LP 12200 allgemein	±0 (1)
24.50 Historische Musikwissenschaft	RVK	LP 19500 - LP 19508	+1 (1)
24.50 Historische Musikwissenschaft	RVK	LP 19500 - LP 19508	±0 (1)
48.64 Tierzucht	GND	4060143-2 Tierzucht	±0 (1)
3-4 Naturwissenschaften	GND	4041421-8	±0 (1)

Target Scheme: A sidebar listing other classification schemes with their icons: BK Basisclassification, DDC Dewey Decimal Classification, GND Integrated Authority File, RVK Regensburger Verbundklassifikation, and WD Wikidata. It also includes a link to "Show all 202 schemes".

Editing in BARTOC

- Team of BARTOC Editors
- Screencast “Addition of vocabularies to BARTOC”
<https://doi.org/10.5446/51813>

Contact

BARTOC content is curated by an international group of editors. Please contact one of your choice to contribute missing vocabularies or to supply corrections!

Austria

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Semantic Web Company GmbH / PoolParty

France

[Ghislain Atemezing, PhD](#)

R&D Engineer, Mondeca

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Company

How to access Vocabularies via BARTOC?

- Information about vocabulary APIs in BARTOC (tab Access - Skosmos, JSKOS API, TemaTres...)
 - <https://bartoc.org/en/node/18785#access>
- JavaScript library *cocoda-sdk* to access vocabulary APIs (for unified access in JSKOS)
- Access via User Interface (tab Content)
 - <https://bartoc.org/en/node/18785#content>
 - *Can be used in other applications as well!*

BARTOC Tomorrow - A Garden



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Future Plans

- **Facilitate** vocabulary searching/browsing for many KOS in different languages
- **Complete integration** with colo-conc infrastructure, including Cocoda
 - Provide information and links to existing mappings
 - Enable concordance building
- **Links to catalogs** that use vocabularies and **access to** title data
- **Develop a web interface** to upload, process, and manage vocabularies
- **Build a bigger and an active community** interested in Knowledge Organization Systems

Future Plans - Successor System for BARTOC FAST

- **Extend range of Vocabularies**
 - Federated Search in many vocabularies of multiple resources
 - Federated search of other KOS registries

Harmonization with other KOS registries

- Linked Open Vocabularies
- Taxonomy Warehouse
- Bioportal Biotechnology
- Ontobee
- ...

Thank You!

Team coli-conc:

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- Jakob Voß (jakob.voss@gbv.de)
- Stefan Peters (stefan.peters@gbv.de)

To become a BARTOC partner, please contact us!