



TOKI 2023 Yaoundé

**Conceptual organization
as a persistent need
even in digital knowledge**

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Bankim region,
2017

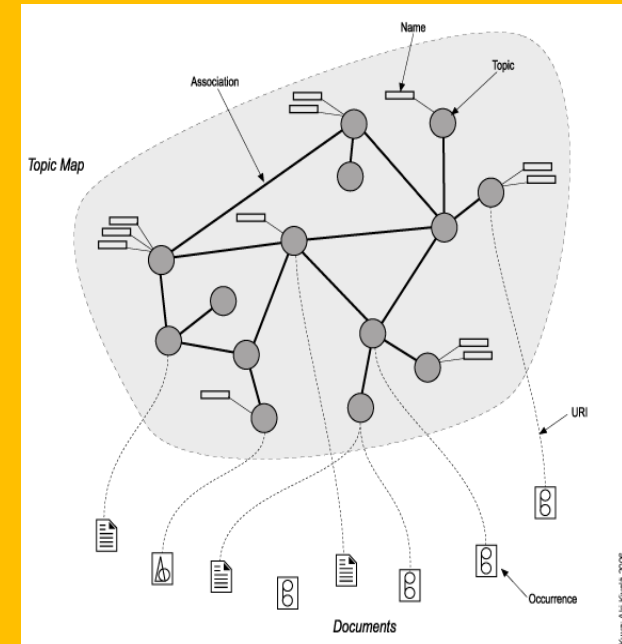
Knowledge organization

- The past: Aristotle, liberal arts, Linné, Comte...
- H.E. Bliss (1929)
- I. Dahlberg (1974)
- ISKO (1989)
 - ISKO chapters
 - ISKO WA



Knowledge organization

- **Concepts** connected by **relationships**
- forming **KO systems** (KOS)
- used to arrange **subject matters** in libraries, museums, web, textbooks, study plans...
- usually recorded in **documents**



Knowledge organization

- KM is about data as objects,
KO is about their meaning
- KR is about record formats,
KO is about their contents

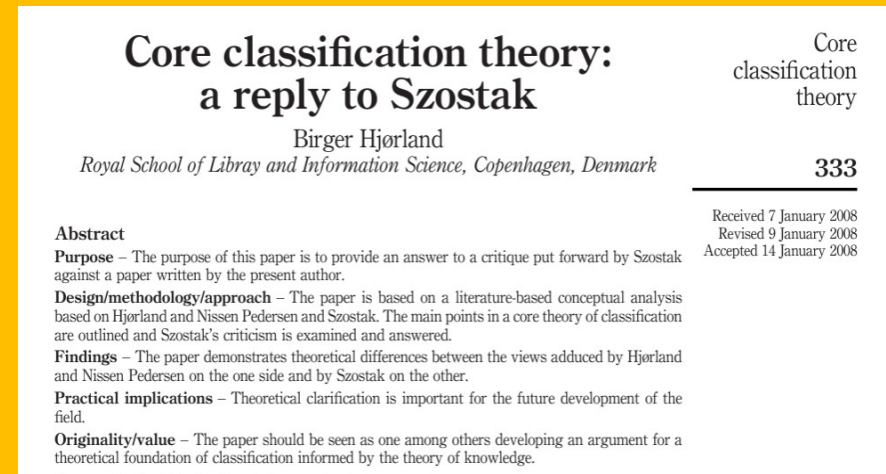
“Books are for use” (SR Ranganathan)

Knowledge organization

- general, “universal”, interdisciplinary, active
e.g. Dahlberg, Beghtol,
Szostak, Gnoli...

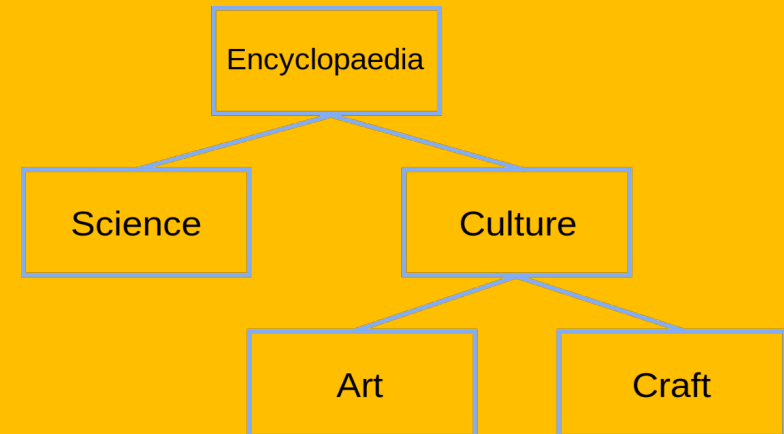
VS.

- special, local, domain-specific, passive
e.g. Shera, Langridge, Hjørland, Mai...



Knowledge organization systems

- classification schemes, e.g. Dewey
- thesauri, e.g. AAT
- subject heading systems, e.g. RAMEAU
- taxonomies, esp. in companies
- ontologies, e.g. BFO
- ...

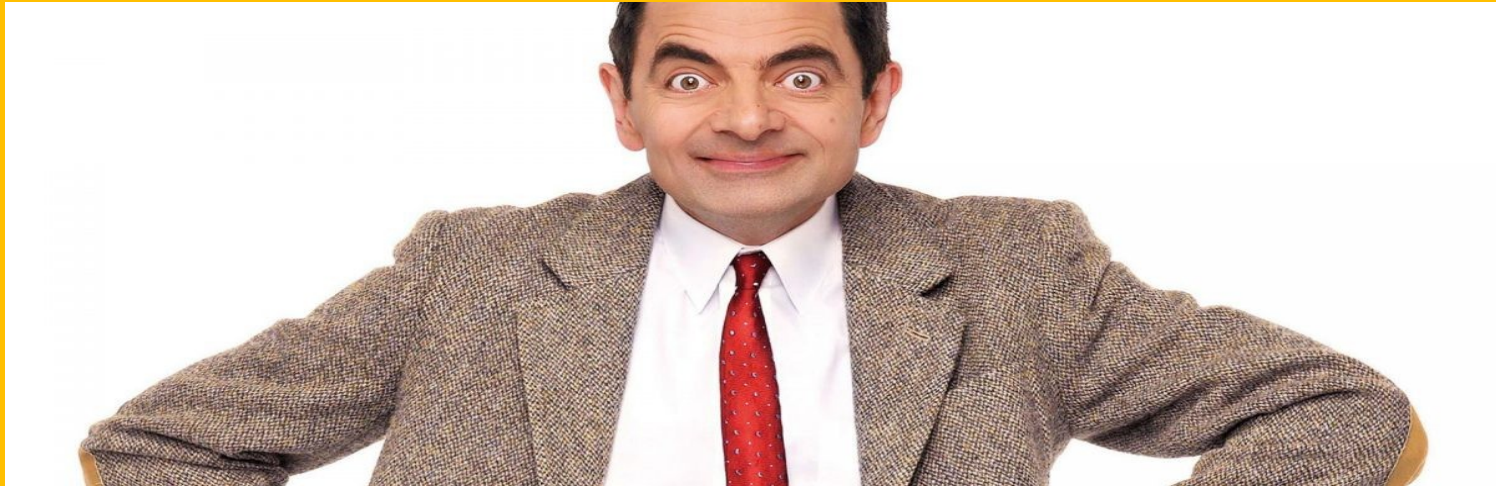


Are KOSs needed ?

“We now have Google.

I just type in Google what I look for.

I don't need your damned KOSs...”



KOS vs. SEO

- SEO is based on natural language,
- natural language can also be seen as a KOS,
- but it lacks:
 - vocabulary control
 - explicit relationships
 - systematic order

KOSs vs. SEO

- vocabulary control

en.wikipedia.org/wiki/Fire_(disambiguation)

Technology [edit]

- [Fire \(instant messaging client\)](#), a messaging client for Mac OS X
- [Fire \(OS\)](#), an Android-based mobile operating system by Amazon
- [Autodesk Fire](#), a video digital editing system

Other uses [edit]

- [Fire \(classical element\)](#), an element in ancient Greek philosophy and science
- [Fire \(wuxing\)](#), a philosophical concept
- [Fires \(military\)](#), one of the six warfighting functions
- [Foundation for Individual Rights in Education](#), free speech nonprofit group
- [Shouting *fire* in a crowded theater](#)

See also [edit]

- [FIRE \(disambiguation\)](#), terms and groups using the initials or acronym
- [Fyre \(disambiguation\)](#)
- [Fiers \(disambiguation\)](#), including a list of people with the surname
- [Firer](#), a surname (including a list of people with the name)
- [Firing \(disambiguation\)](#)
- [This Fire \(disambiguation\)](#)

KOSs vs. SEO

- explicit relationships

e.g. ILC facets

“dances, **in** France”

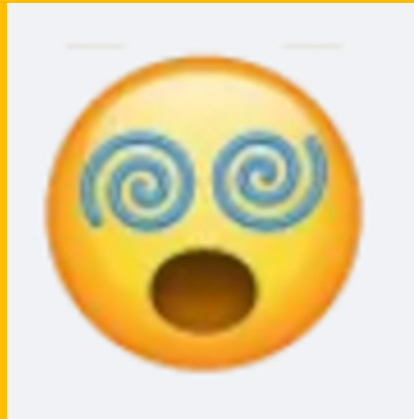
“dances, **of** France”

0	as for perspective
1	at time
2	in place
3	by agent
4	opposed to
5	undergoing change
6	having property
7	with part
8	in quantity
9	of quality

KOSs vs. SEO

- alphabetical vs. systematic order

Friday
Monday
Saturday
Sunday
Thursday
Tuesday
Wednesday



KOSs vs. SEO

- Technical interoperability
through linked open data, W3C standards
`<kos1:Kamerun> sameAs <kos2:Cameroon>`
- Conceptual interoperability
through KOSs
`<Combustion> hasProperty <Fire>`
`<Fire> isA <ClassicalElement>`

KOS + SEO

- Some search functionalities have KOSs inbuilt:
 - Term recommendation
 - Hidden thesaurus / knowledge graph
 - Filtering by facets
 - ...

KO resources

- ISKO international website
 - Recently Published docs
 - Coming KO Events
 - KO Literature

ISKO International Society for Knowledge Organization

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This is the official website for ISKO – the premier international scholarly society devoted to the philosophy, linguistics, and computer science, as well as special domains such as health informatics.

ISKO hosts an international conference in even-numbered years. It last met in Aalborg, Denmark, in 2022. In odd-numbered years most of ISKO's regional chapters host conferences; many of these are multilingual.

ISKO publishes the journal *Knowledge Organization* eight times a year. ISKO also is publishing an online BARTOC KO registry and to other organizations of interest to KO scholars.

News

- The call for papers for ISKO 2024 is out
- ISKO STAC Metadata working group announcement

Recently published (older)

- Knowledge organization. 49. **Issue 6** now available to ISKO members (volumes >3 years old)
- Comte's classification of the sciences and Jacques Maniez (ISKO Encyclopedia of KO)
- Perspectives from software developers and subject specialists on ML projects
- NKOS Workshop. 2022
- ICD-11 2023 release
- Related concepts in taxonomies (AT)
- Taxonomies vs. ontologies (AT)
- Representação da informação musical: metáfora e sentido literal (RIACI)
- A ordenação de documentos como enunciação (EQ)
- Subject and genre representation of works of fiction for children (CCQ)
- Shiyali Ramamrita Ranganathan: uma biografia (Páginas a&b)
- A handbook of the Dewey Decimal Classification system

Coming KO events (ISKO only — by year/country)

2023-03-08	online	ISKO UK Meetup, vocabs editor and ... publishing
2023-03-22	online	Bite-sized Taxonomy Boot Camp London
2023-04-13/14	Yaoundé	Transition from observation to knowledge to intelligence. 2
2023-04-21/23	Poznan	Language & Technology Conference. 10
2023-04-22/23	online	Language Creation Conference. 10
2023-04-26	online	Bite-sized Taxonomy Boot Camp London
2023-05-18/19	Warsaw	Information science in the age of change. 6: Information wars

KO resources

- ISKO Encyclopedia of Knowledge Organization

ISKO Encyclopedia of Knowledge Organization (IEKO)

editor-in-chief: Birger Hjørland (University of Copenhagen, Denmark)
co-editor and web editor: Claudio Gnoli (University of Pavia, Italy)
contacts: scient@isko.org

Search IEKO (results may be preceded by ads):

ENHANCED BY Google

systematic index • alphabetical index • authors and editors • chronology and archiving
about IEKO • statistics • editors' blog • guidelines for contributors

Knowledge organization: general and historical issues

- **Disciplines and related fields:** Knowledge organization (KO); Education in KO; KO, Origins of the field; Archival science; Bibliography; Information retrieval; Library and information science (LIS); Metaphysics and ontology; Terminology
- **History of classification and KO:** Classification of sciences in Greco-Roman antiquity; Library classification: parts 1, 2, 3; Comte's classification of the sciences; Peirce's classification of the sciences
- **Movements and bodies:** Classification Research Group (CRG); ISKO
- **Biographical articles (non-living persons only, by birth time):** Aristotle; Conrad Gesner; Carl Linnaeus; James Duff Brown; Paul Otlet; Henry Evelyn Bliss; S.R. Ranganathan; Éric de Grolhier; Eric Coates; Brian C. Vickery; Jacques Maniez; Jean-Claude Gardin; Ingetraut Dahlberg; Patrick Wilson; Susan Leigh Star

Core concepts in KO

- **Theoretical concepts:** Category; Concept; Discipline; Data; Document; Facet; Genre; Hierarchy; Information; Knowledge pyramid; Literary warrant; Provenance; Science; Semantic relation; Subject (of documents); Theme; Work
- **Document parts and structure:** Paratext; Table of contents; Title
- **Document types, genres and media:** Data documents; Database; Encyclopedia; Gazetteer; Hypertext; National bibliography; Patent

Knowledge organizing systems (KOS)

- **KOS general issues:** Alphabetization; Evaluation of KOSs; Functions of KOSs; History of KO; IFLA Library Reference Model (LRM); Knowledge organization system (KOS); Notation; Subject access point (SAP); Vocabulary control

KO resources

- BARTOC

The screenshot shows the BARTOC.org website interface. At the top, a dark red navigation bar contains the text 'org' followed by links for 'Vocabularies', 'Registries', 'Software', 'About', and 'Contact'. On the right side of this bar, the text 'Sta' is partially visible. Below the navigation bar, the main content area features a white background. On the left, a paragraph states: 'BARTOC unites information about [vocabularies](#) and [terminology registries](#) to facilitate use of knowledge organization systems. [more...](#)'. To the right of this text is the BARTOC.org logo, which consists of the text 'BARTOC.org' in a bold, sans-serif font, with 'Basic Register of Thesauri, Ontologies & Classifications' written in a smaller font below it. The logo is partially enclosed by a black circle. Below the introductory text is a search interface. It includes a 'Search' label and a 'Filter' link. A large search input field is present, with a blue 'search' button to its right. Below the input field, the text 'Full-text search across vocabulary description, ranked by relevance' is displayed. Further down, a paragraph states: 'BARTOC is continuously [improved](#). Preliminary search and browsing in selected vocabularies is possible via [BARTOC FAST](#):' followed by a smaller search input field and a blue 'Search' button. At the bottom of the page, a light blue footer contains several partner logos: 'VZGI Verbundzentrale des GBV', 'COLI CONC', the 'INTERNATIONAL SOCIETY OF KNOWLEDGE ORGANIZATION' logo, 'TEMATRES', and 'DANS Data Archiving and Networked Services'.

KO resources

- NKOS workshops

Networked Knowledge Organization Systems/Services/Structures N K O S

[Announcement](#) | [NKOS Application Profile](#) | [KOS Registries and Standards](#) | [Related Publications](#)
| [NKOS Workshops](#) | [Archived early efforts](#) | [Metadata Standards Updates \(2020s\)](#)

NKOS is devoted to the discussion of the functional and data model for enabling knowledge organization systems/services (KOS), such as classification systems, thesauri, gazetteers, and ontologies, as networked interactive information services to support the description and retrieval of diverse information resources through the Internet.

Knowledge Organization Systems/Services (KOS) model the underlying semantic structure of a domain. Embodied as Web-based services, they can facilitate resource discovery and retrieval. They act as semantic road maps and make possible a common orientation by indexers and future users (whether human or machine). -- Douglas Tudhope, Traugott Koch (2004). [New Applications of Knowledge Organization Systems: introduction to a special issue.](#)

URL: <https://nkos.dublincore.org/> [Previous URL: <https://nkos.slis.kent.edu>]
Last updated: 2022-10-07

KO resources

- Integrative Levels Classification (ILC)

Integrative Levels Classification project scheme how it works León Manifesto refere

ILC edition 2

main classes: (select + to expand)

a	forms	+
b	spacetime	+
c	branes	+
d	energy	+
e	atoms	+
f	molecules	+
g	continuum bodies	+
h	celestial bodies	+
i	rocks	+
j	land	+
k	genes	+
l	bacteria	+
m	organisms	+
n	populations	+
o	instincts	+
p	consciousness	+

search by **verbal caption**:

browse by **notation**:

browse **facets** of category:

	Facets	key
0	as for aspect	+
1	at time	+
2	in place	+
3	by agent	+
4	affected by disorder	+
5	with transformation	+
6	having property	+
7	with part	+
8	as form	+
9	of kind	+

KO resources

- Twitter accounts on KO
 - @KO_ISKO_
 - @ISKO_UK
 - @ISKOBrazil
 - @scritur
 - ...



... Thanks / Merci / Grazie !



Contacts welcome:

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