

WELCOME



From a thesaurus standard to a general knowledge organization standard?!

09/11/2018

My background

- Content & Knowledge Engineering
- Master thesis at Airbus
- Airbus (Pumacy) + PhD
- DIN member

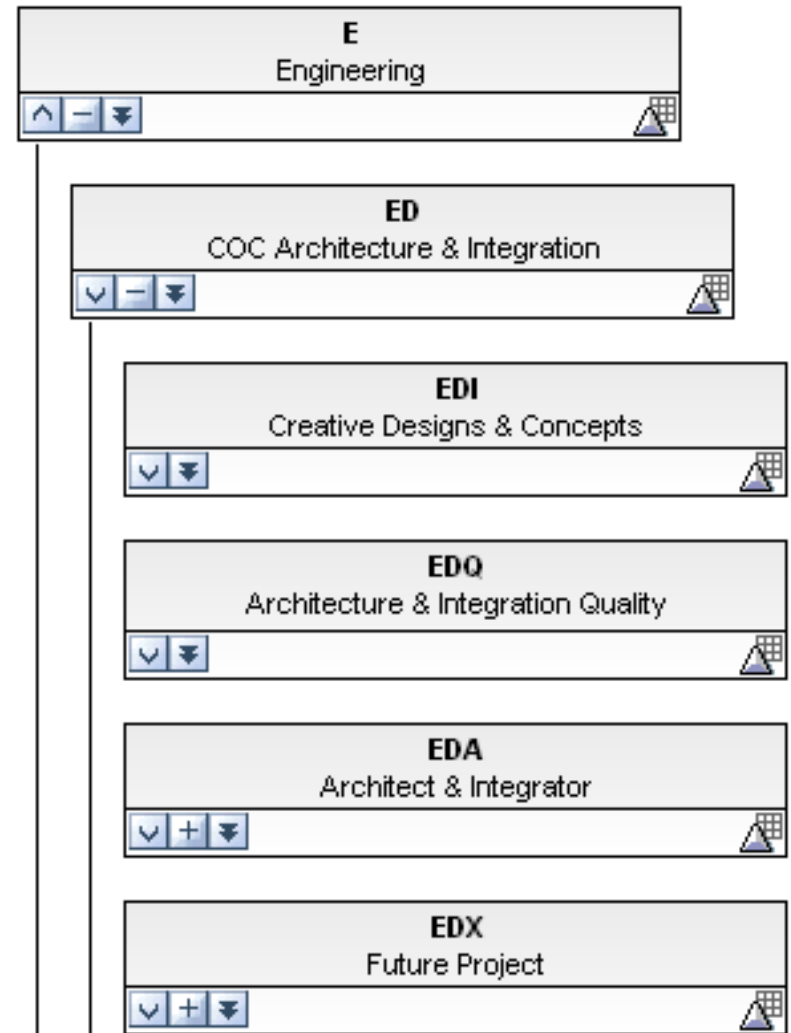
Industrial knowledge organization cases

- Skill catalogs
- Competence management



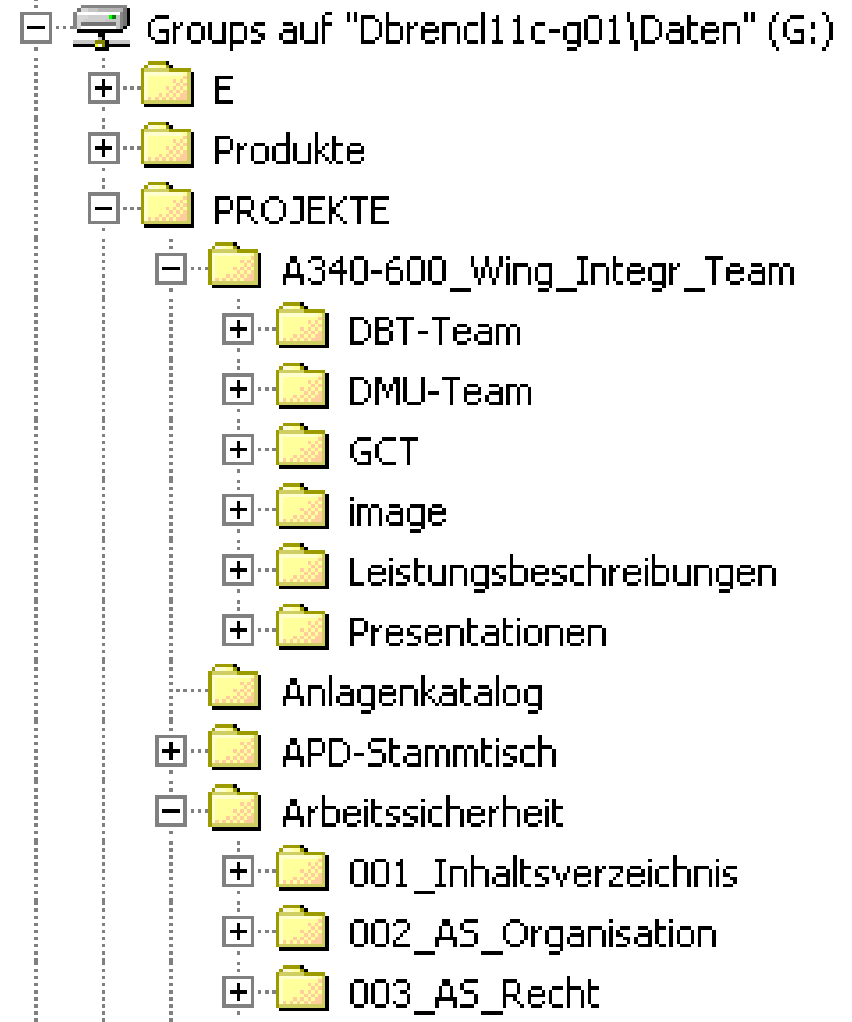
Industrial knowledge organization cases

- Organizational structure



Industrial knowledge organization cases

- File directories
- Shared folders



Industrial knowledge organization cases

- DMS

 **Library**

Type	Name	Size
	01. Öffentliche Informationen	0 Items
	02. Allgemeine Schriftstücke 	103 Items
	03. Sitzungen (Einladungen und Berichte) 	4 Items
	04. Projekte	1 Item
	05. Eingangskorb für Gremienmitglieder	1 Item

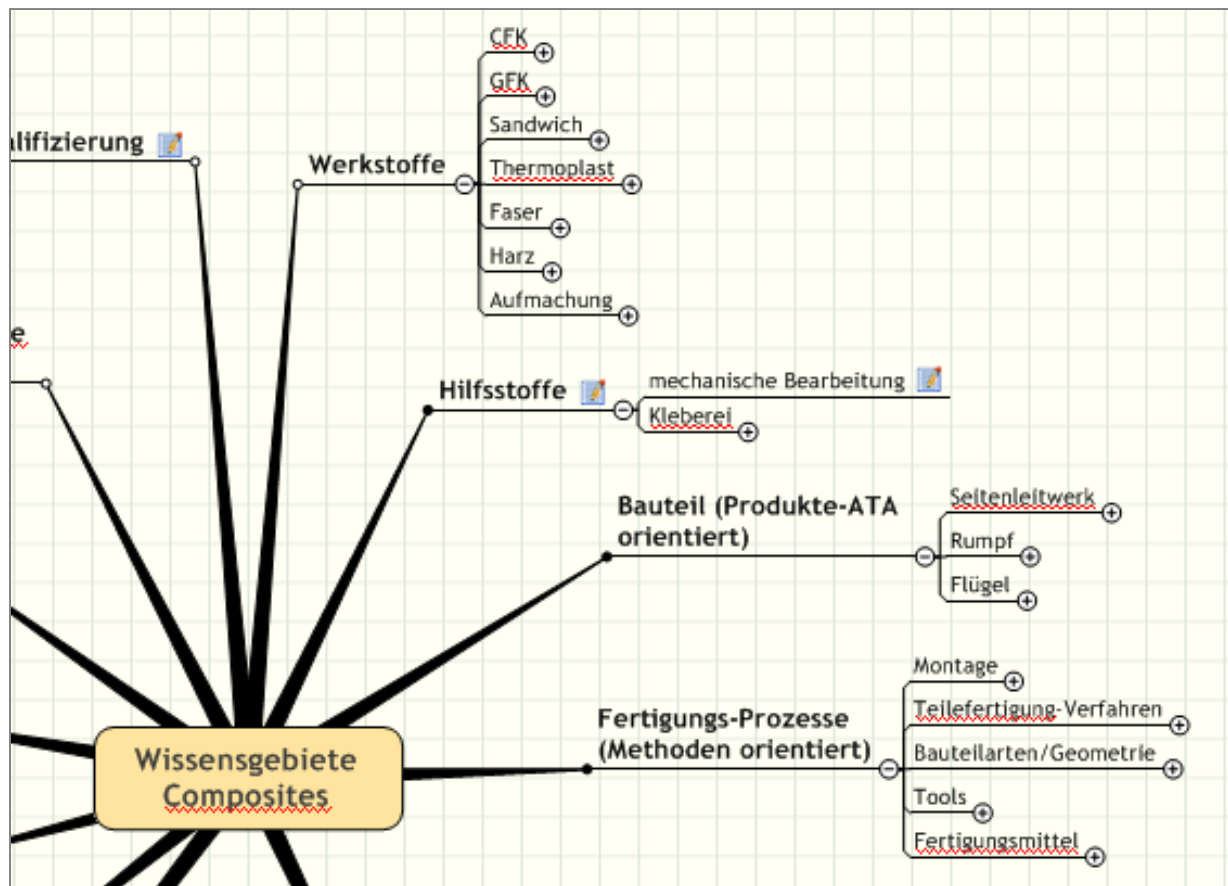
 [view more](#)

 **Structure**

- ◆ **NA 009-00-09 AA "Beschreibung und Identifizierung von Dokumenten"**
 - ◆ NA 009-00-09-01 AK "Arbeitskreis RFID Datenmodell"

Industrial knowledge organization cases

- Knowledge maps



Industrial knowledge organization cases

- Corporate Encyclopedia
- Acronym tables

Term Data Sheet

TERM	Annotation
Definition	An annotation supports detailed information pictures. It summarises all relevant knowle Annotations should use generic headings to ICARE forms in the MOKA methodology.
Status	For information
Domains (Sub-domains)	
Source of definition	EOMMW, KM UK team
Remarks	
Glossaries	Knowledge Capture

All Abbreviations

(Approved and For Info)

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#)

Abbr	Status	Usage	Full Form	Remarks
A		General	Amber	
A		None	Air	
A		None	Alternate	
A		None	Area	
A-D		None	Airbus Deutschland	
A-E		None	Airbus Espana	
A-F		None	Airbus France	

Industrial knowledge organization cases

- Search engines



Web Video

Did you mean: [draft version](#)

[Daft.ie](#) : ANNOUNCING THE LAUNCH OF T

We are very pleased to announce the launch of **versic** is the software behind-the-scenes that runs **Daft.ie**. ...
www.daft.ie/news/2002/v3launch.daft?daftID=a2e036
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Ontologies



Advanced

Narrow Your Search

Knowledge Technologies

Ontologies

Define **Ontologies**

Examples of **Ontologies** Relations

Events Concepts

Ontology Philosophy

Ontologies, Taxonomies,

Expand Your Search

Semantic Web

Topic Maps

RDF

More »

Ontologies Show

[Ontology Editors I](#)

Visual RDF/OWL Edi
www.Altova.com/Ser

[What is an Or](#)

A translation approac
www-ksl.stanford.edu

[Ontoweb](#)

The community site f
 exchange for knowlec
www.ontoweb.org/

[Ontology. A R](#)

Descriptive, Formal a
 "Husserl's Logical Inv
www.formalontology.i

[Welcome to th](#)

... web-based represe

Industrial knowledge organization cases

- Web sites

	Your Amazon.com	See All 41 Product Categories	Your Account
Books, Music & Movies Books DVD Music Magazines & Newspapers Amazon Shorts Textbooks Unbox Video Downloads VHS	Consumer Electronics Audio & Video Camera & Photo Cell Phones & Service Musical Instruments All Electronics	Food & Household Gourmet Food Grocery Pet Supplies	
Toys & Video Games Toys & Games Video Games	Computer & Office Computers & Add-Ons Office Products Software	Home & Garden Bedding & Bath Fresh Flowers & Plants Furniture & Décor Home Improvement Kitchen & Dining Patio & Garden Vacuums & Storage	
	Tools & Automotive Automotive Industrial & Scientific Lawn & Garden Equipment Tools & Hardware		

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books, magazines, music, DVDs, videos, electronics, computers, software, apparel &
accessories, shoes, jewelry, tools & hardware, housewares, furniture, sporting goods,
beauty & personal care, broadband & dsl, gourmet food & just about anything else." />
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Magazine, Subscription, Music, CDs, DVDs, Videos, Electronics, Video Games, Computers, Cell
Phones, Toys, Games, Apparel, Accessories, Shoes, Jewelry, Watches, Office Products, Sports
& Outdoors, Sporting Goods, Baby Products, Health, Personal Care, Beauty, Home, Garden, Bed
& Bath, Furniture, Tools, Hardware, Vacuums, Outdoor Living, Automotive Parts, Pet
Supplies, Broadband, DSL" />
    
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by Registry, Free e-Cards, ...
 nt, Amazon Podcasts, E-mail ...
 iff
 irect, Auctions, Paid Placeme ...
 s, Photo Services, Travel Se

Industrial knowledge organization cases

- Book / complex documents

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American Institute of Graphic Arts Experience Design

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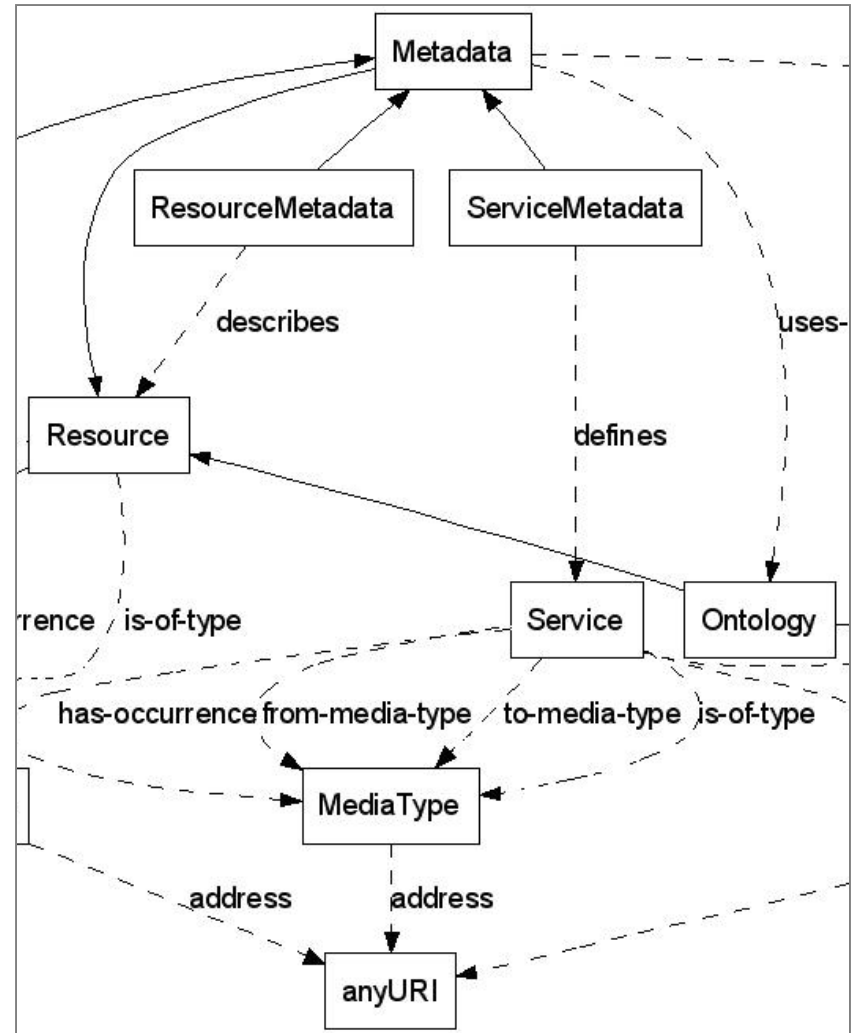
Public/academic knowledge organization cases

- Ontologies / AI
 - Semantic web
 - Software agents
 - Expert systems

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    </daml:Restriction>
  </rdfs:subClassOf>

```



Public/academic knowledge organization cases

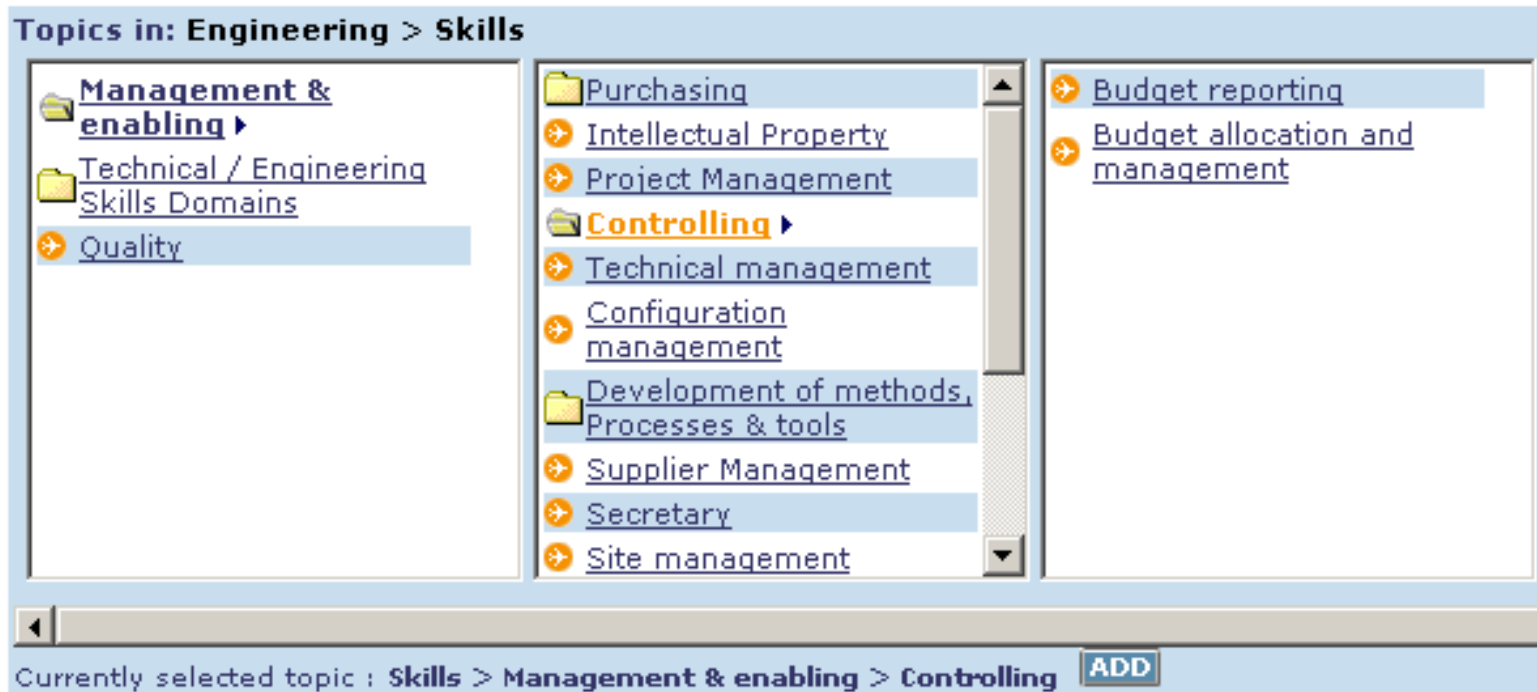
- Libraries
- Archives
- Museum

Title:	Der Alchimist : Roman / Paulo
Author:	Coelho, Paulo *1947- *
Other persons:	Swoboda Herzog, Cordula
Published:	Zürich : Diogenes, 1996
Extent:	172 S. ; 19 cm
Uniform title:	O alquimista <dt.>
ISBN:	3-257-06126-9
Subject heading:	*Nordafrika / Hirt / Belletristische
Subject:	18.33 Spanische Literatur außereuropäischer Länder 18.38 Portugiesische Literatur 17.97 Texte eines einzelnen Autors
Abstract:	Der lateinamerikanische Autor b

Industrial knowledge organization cases

- Knowledge management tools

- ➔ Choose a topic



The screenshot shows a web-based interface for selecting a topic. The breadcrumb path is "Topics in: Engineering > Skills". The interface is divided into three main panels:

- Left Panel (Navigation):** Contains a tree view with the following items:
 - Management & enabling ▶
 - Technical / Engineering Skills Domains
 - Quality
- Middle Panel (Sub-topics):** Contains a list of sub-topics under the selected "Quality" domain:
 - Purchasing
 - Intellectual Property
 - Project Management
 - Controlling ▶
 - Technical management
 - Configuration management
 - Development of methods, Processes & tools
 - Supplier Management
 - Secretary
 - Site management
- Right Panel (Selected Topics):** Contains a list of topics that have been added to the selection:
 - Budget reporting
 - Budget allocation and management

At the bottom of the interface, a status bar displays the current selection: "Currently selected topic : Skills > Management & enabling > Controlling" followed by an "ADD" button.

➔ Thesaurus often not appropriate or a discussable choice

To be shown ...

1. There are knowledge gaps:

- Orientation for choosing the “right” vocabulary type and the “right” knowledge organization approach
- Guidelines for constructing and maintaining content of vocabularies other than thesauri

2. It is worth filling these knowledge gaps:

- Part 3 of BS 8723 made first steps
- Internationalization (ISO 25964) is a chance
- Beneficial for new + traditional audiences

Vocabulary types & construction techniques

- Vocabulary types:
 - Lists
 - Synonym rings
 - Classification schemes
 - Business classification schemes
 - Taxonomies
 - Ontologies
 - Topic Maps
 - Thesauri
- Alternatives:
 - Folksonomies
 - Free-Text
- Construction techniques:
 - Reuse & Merging
 - „Manual“ structuring
 - Collaborative structuring
 - Automatic structuring (scanning, clustering, etc.)

Need for guidance

Coverage of existing thesaurus standard

Vocabulary control	BS 8723-2
Term form	BS 8723-2
Structural relationships	BS 8723-2
Multi-word terms	BS 8723-2
Classification of terms	BS 8723-2
Multilingualism	BS 8723-4
Presentation and layout	BS 8723-2
Management aspects	BS 8723-2
Updating issues	BS 8723-2
Requirement of management software	BS 8723-2
Interoperability between vocabularies	BS 8723-4
Interoperability with applications	BS 8723-5
Methods for construction	BS 8723-2
Formal language for description	SKOS

	Std. avail.		Other Std. avail.
--	-------------	--	-------------------

Comparison with other standards

	Thesaurus	Ontologies
Vocabulary control	BS 8723	Paper/Books
Term form	BS 8723	–
Structural relationships	BS 8723	Paper/Books
Multi-word terms	BS 8723	–
Classification of terms	BS 8723	–
Multilingualism	BS 8723	–
Presentation and layout	BS 8723	Paper/Books
Management aspects	BS 8723	–
Updating issues	BS 8723	Paper/Books
Requirement of management software	BS 8723	Paper/Books
Interoperability between vocabularies	BS 8723	Paper/Books
Interoperability with applications	BS 8723	Paper/Books
Methods for construction	BS 8723	Methontology
Formal language for description	SKOS	RDF, OWL, DAML+OIL

Std. avail.	Other Std. avail.	Literature, paper avail.	Nothing avail.
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Transferability

- “Roughly” transferable, but not directly
 - Interpretation of hierarchy
 - Semantic concepts
 - Purposes / application areas

It was shown ...

1. There are knowledge gaps:
 - Orientation for choosing the “right” vocabulary type and the “right” knowledge organization approach
 - Guidelines for constructing and maintaining content of vocabularies other than thesauri

Content of Part 3 in BS 8723

Part 3 ... “Vocabularies other than thesauri”

- *Differences* thesauri vs. other vocabularies
 - Vocabulary control / semantic concepts
 - Treatment of hierarchy
 - ...
- BS 8723 remained thesaurus-focused
- Part 3 = “detour” from thesauri

Options for encountering the knowledge gap

1. Separated standards with a comparison to other vocabularies (“Part 3”) each
2. Separated standards and a general vocabulary guide (“Part 3”)
3. One universal standard

Benefits

- Valuing up current standard
- Enrichment for original audience: Alternatives
- Attracting new target groups
- Bridging communities
- Keeping (and amending) today's content
- Strengthening “knowledge organization” as professional discipline
- More precise differentiation of vocabularies

Challenges

- Different communities
- Few people with deep knowledge and experience
- Considerable effort
- Often treated as “secondary topic” at industry
- Different *real* usage of existing vocabularies *today*

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THANK YOU FOR YOUR ATTENTION



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