

The role of SKOS in a Web of Data

Some Business Use Cases

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ESTC2010
4th European Semantic Technology Conference

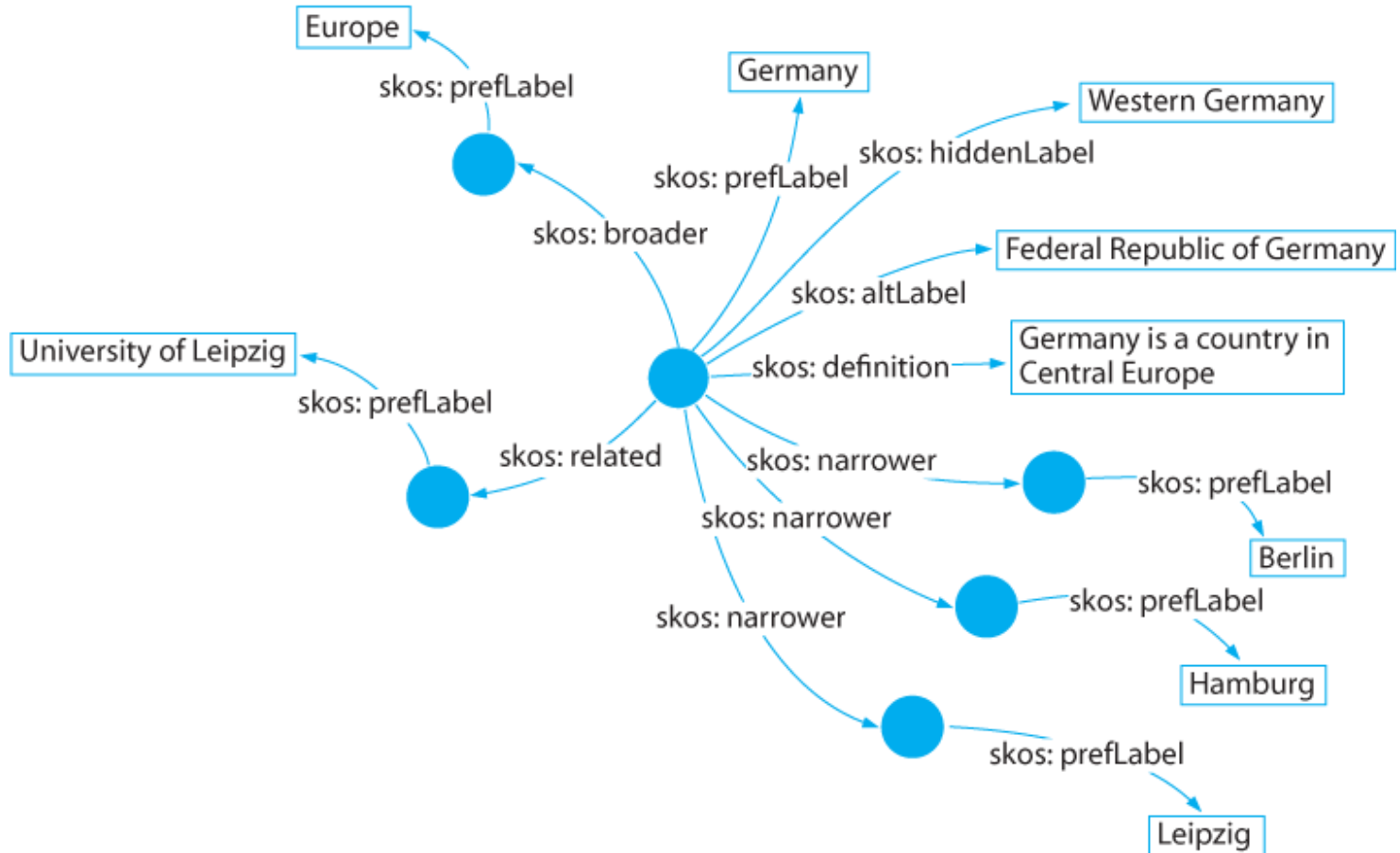


SKOS - Overview

- **SKOS = Simple Knowledge Organisation System(s)**
- **SKOS Core**
<http://www.w3.org/2004/02/skos/core/>
- ***Simple, flexible, extensible, machine-understandable representation for...***
 - Thesauri
 - Classification Schemes
 - Taxonomies
 - Subject Headings
 - Other types of 'controlled vocabulary'...



Thesaurus using SKOS



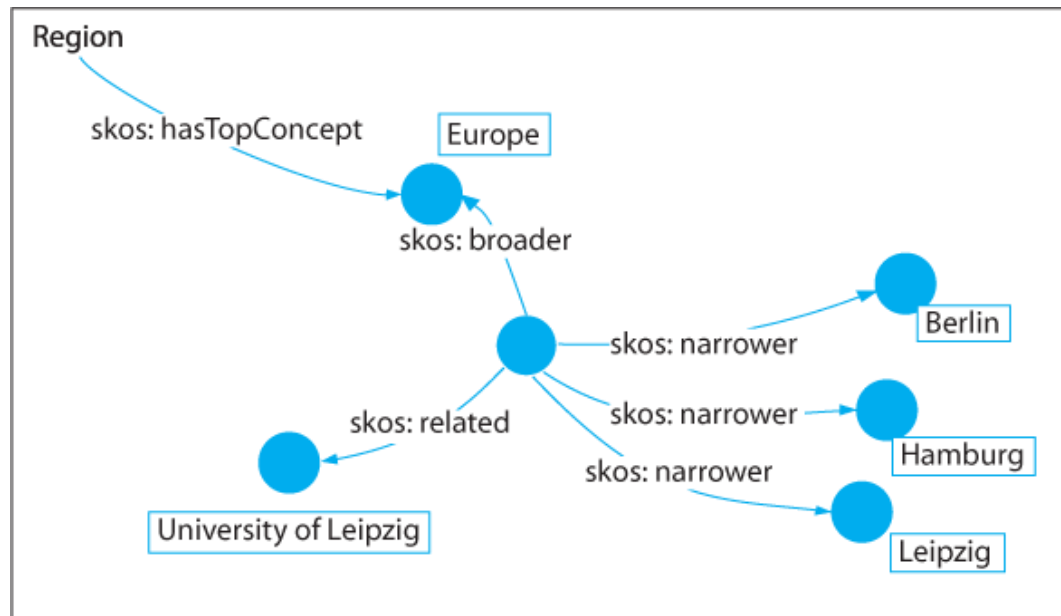
Relations in SKOS

Relation between Concepts

Hierarchical Relations	Broader Concept	skos:broader
	Narrower Concept	skos:narrower
Associative Relations	Related Concepts	skos:related

Relation between Concept & Concept Scheme

	Top Term	hasTopConcept/TopConceptOf
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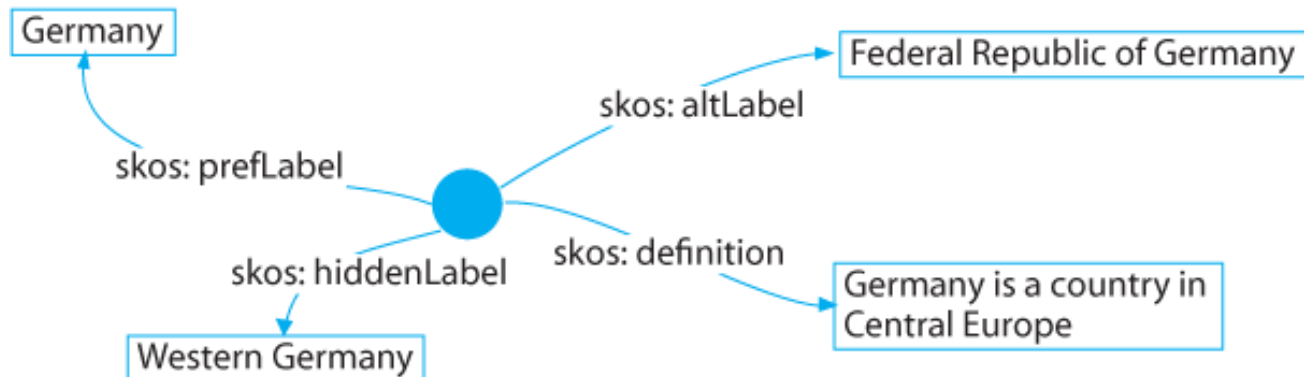
Definition of Concepts

Relation between Concept & Labels (Lexical Labels)

Equivalence Relationship	Use	skos:prefLabel
	Use For	skos:altLabel skos:hiddenLabel

Definition of Concepts (Documentation Properties)

Descriptive Elements	Scope Note	skos:scopeNote
	Definition	skos:definition
	History Note	skos:historyNote skos:changeNote skos:editorialNote



GEMET - GEneral Multilingual Environmental Thesaurus

- European Environment Information and Observation Network

Thematic Listings | INSPIRE Spatial Data Themes | Alphabetic Listings | Hierarchical Listings | Search Thesaurus

Select language: [ar](#) [bg](#) [cs](#) [da](#) [de](#) [el](#) [en](#) [en-US](#) [es](#) [et](#) [eu](#) [fi](#) [fr](#) [ga](#) [hu](#) [it](#) [lt](#) [lv](#) [mt](#) [nl](#) [no](#) [pl](#) [pt](#) [ro](#) [ru](#) [sk](#) [sl](#) [sv](#) [tr](#)

Sicherheit

Definition: *
The state of being secure from harm, injury, danger or risk, often as a result of planned measures or preparations. (Source: RHW)

* Note: Definition is not available for the current language

narrower terms

- Begrenzungsmaßnahme
- Internationale Sicherheit
- Krisenmanagement**
- Risikobewertung
- Schadensbewertung
- Sicherheitsmaßnahme
- Sicherheitsystem
- Sicherheitsvorschrift

Scope note:
scope note is not available

Groups:
RISIKEN, SICHERHEIT

Themes:
Katastrophen, Unfälle, Risiken

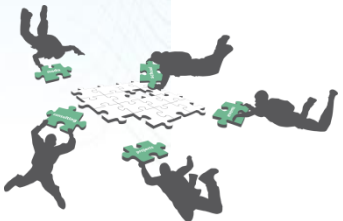
Arabic:	أمان
Bulgarian:	Безопасност
Czech:	bezpečnost
Danish:	sikkerhed
Greek:	ασφάλεια
English:	safety
English (US):	safety
Spanish:	seguridad
Estonian:	ohutus, julgeolek, turvalisus
Basque:	segurtasun
Finnish:	turvallisuus
French:	sécurité
Irish:	sábháilteacht
Hungarian:	biztonság
Italian:	sicurezza
Lithuanian:	sauga
Latvian:	drošība
Maltese:	sikurezza
Dutch:	veiligheid
Norwegian:	sikkerhet
Polish:	bezpieczeństwo
Portuguese:	segurança
Romanian:	siguranță
Russian:	безопасность
Slovak:	bezpečnosť
Slovenian:	varnost
Swedish:	säkerhet
Turkish:	güvenlik

<http://www.eionet.europa.eu/gemet/>



Example: MeSH - Medical Subject Headings

- US National Library of Medicine
- All articles in MEDLINE are categorized via MeSH
- First published in 1960 - available in English, German and other languages
- <http://www.nlm.nih.gov/mesh/>



STW - Standard Thesaurus for Economics

- Leibniz Information Centre for Economics
- <http://zbw.eu/stw/>



[RDF/XML](#) [RDF/Turtle](#) [Deutsch](#)

[Home](#)
[Alphabetical descriptor list](#)
[Wiki](#)


- ▶ [A General descriptors](#)
- ▶ [B Business economics](#)
- ▶ [G Geographic names](#)
- ▶ [N Related subject areas](#)
- ▶ [P Commodities](#)
- ▶ [V Economics](#)
- ▶ [W Economic sectors](#)

Bank secrecy

Bankgeheimnis (german)

used for: Banking secrecy

Broader Terms

- [Secrecy](#) 

Related Terms

- [Banking law](#) 

Subject Categories

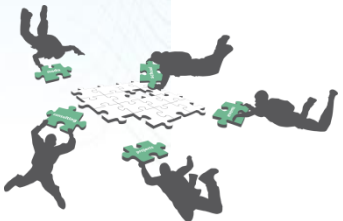
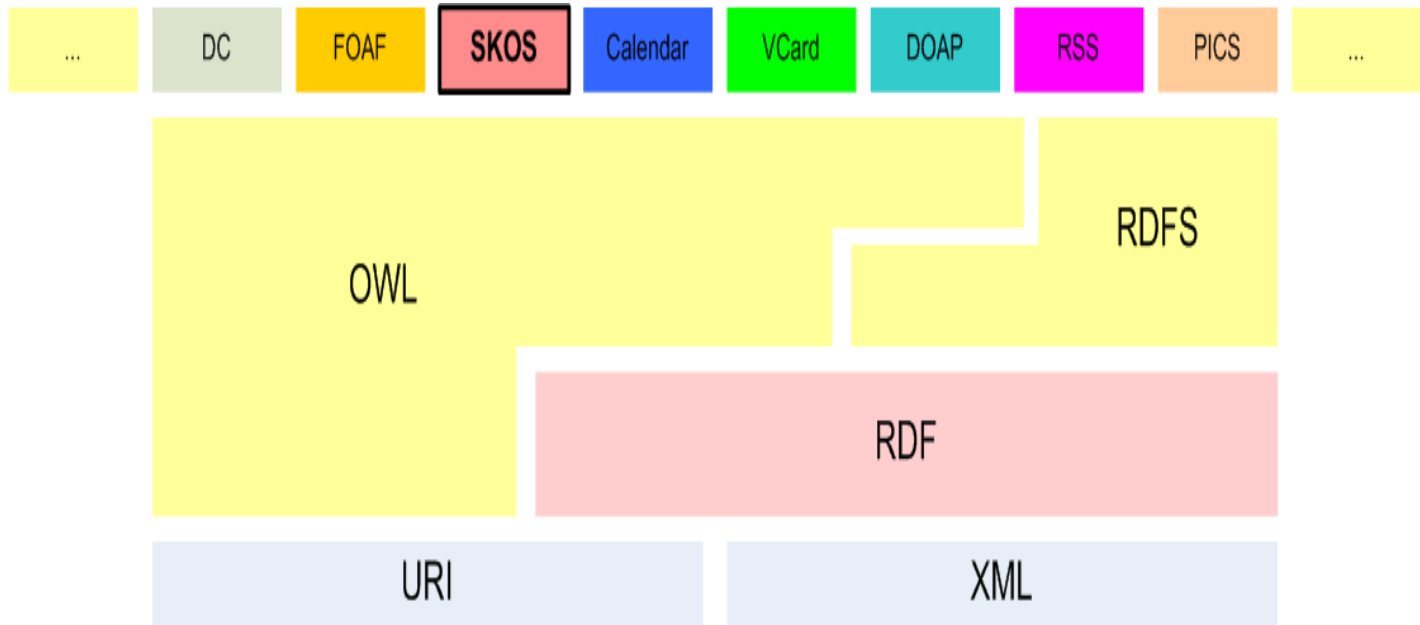
- [W.14 Financial Services and Banking](#) ▼

Persistent Identifier (for bookmarking and linking)

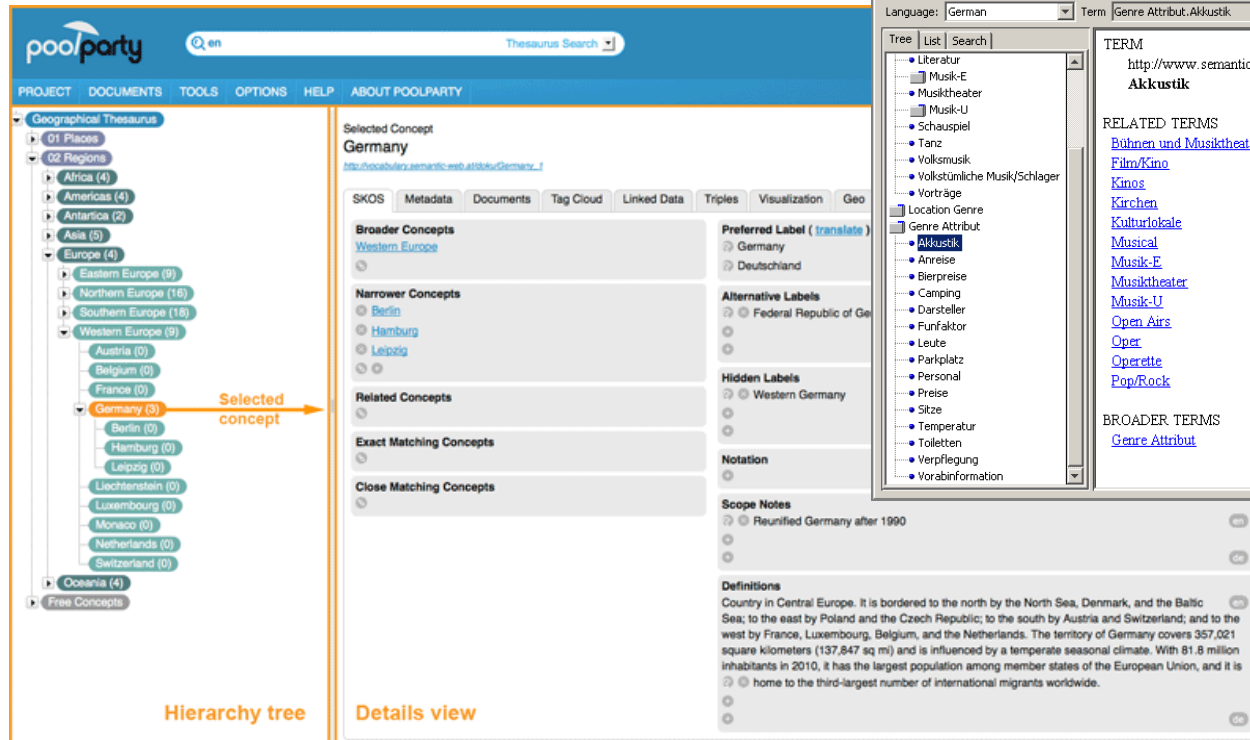
- <http://zbw.eu/stw/descriptor/13773-1>



SKOS and the Semantic Web Stack

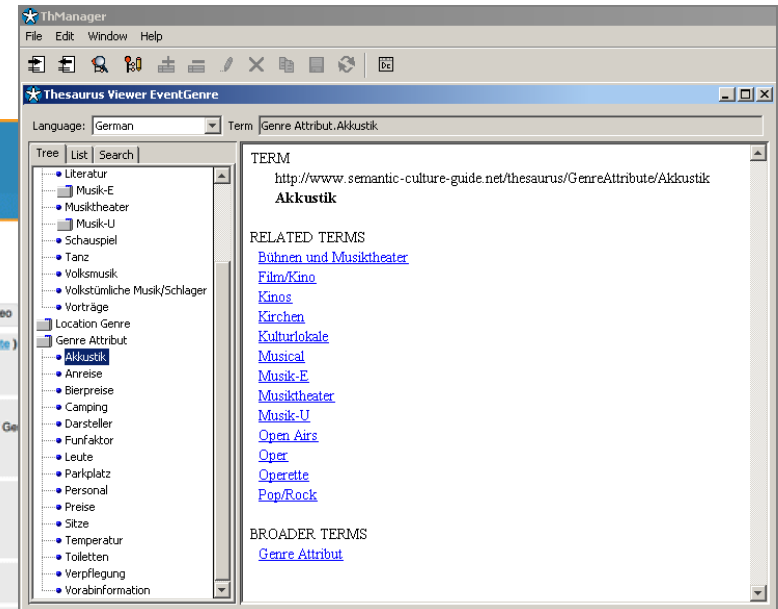


<http://www.w3.org/2001/sw/wiki/SKOS>



The screenshot displays the PoolParty Thesaurus Viewer interface. On the left, a 'Hierarchy tree' shows a geographical classification with 'Germany (3)' selected. An arrow labeled 'Selected concept' points from this node to the 'Details view' on the right. The details view for 'Germany' includes:

- Selected Concept:** Germany (http://vocabs.org/semantic-web/akku/Germany_1)
- SKOS:** Metadata, Documents, Tag Cloud, Linked Data, Triples, Visualization, Geo
- Broader Concepts:** Western Europe
- Narrower Concepts:** Berlin, Hamburg, Leipzig
- Related Concepts:**
- Exact Matching Concepts:**
- Close Matching Concepts:**
- Preferred Label (translate):** Germany, Deutschland
- Alternative Labels:** Federal Republic of Germany
- Hidden Labels:** Western Germany
- Notation:**
- Scope Notes:** Reunified Germany after 1990
- Definitions:** Country in Central Europe. It is bordered to the north by the North Sea, Denmark, and the Baltic Sea; to the east by Poland and the Czech Republic; to the south by Austria and Switzerland; and to the west by France, Luxembourg, Belgium, and the Netherlands. The territory of Germany covers 357,021 square kilometers (137,847 sq mi) and is influenced by a temperate seasonal climate. With 81.8 million inhabitants in 2010, it has the largest population among member states of the European Union, and it is home to the third-largest number of international migrants worldwide.



The screenshot shows the ThManager Thesaurus Viewer interface. The 'Tree' view on the left shows a hierarchy of concepts, with 'Akkustik' selected. The main view displays the details for 'Akkustik':

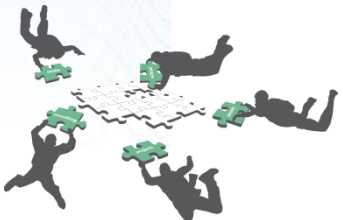
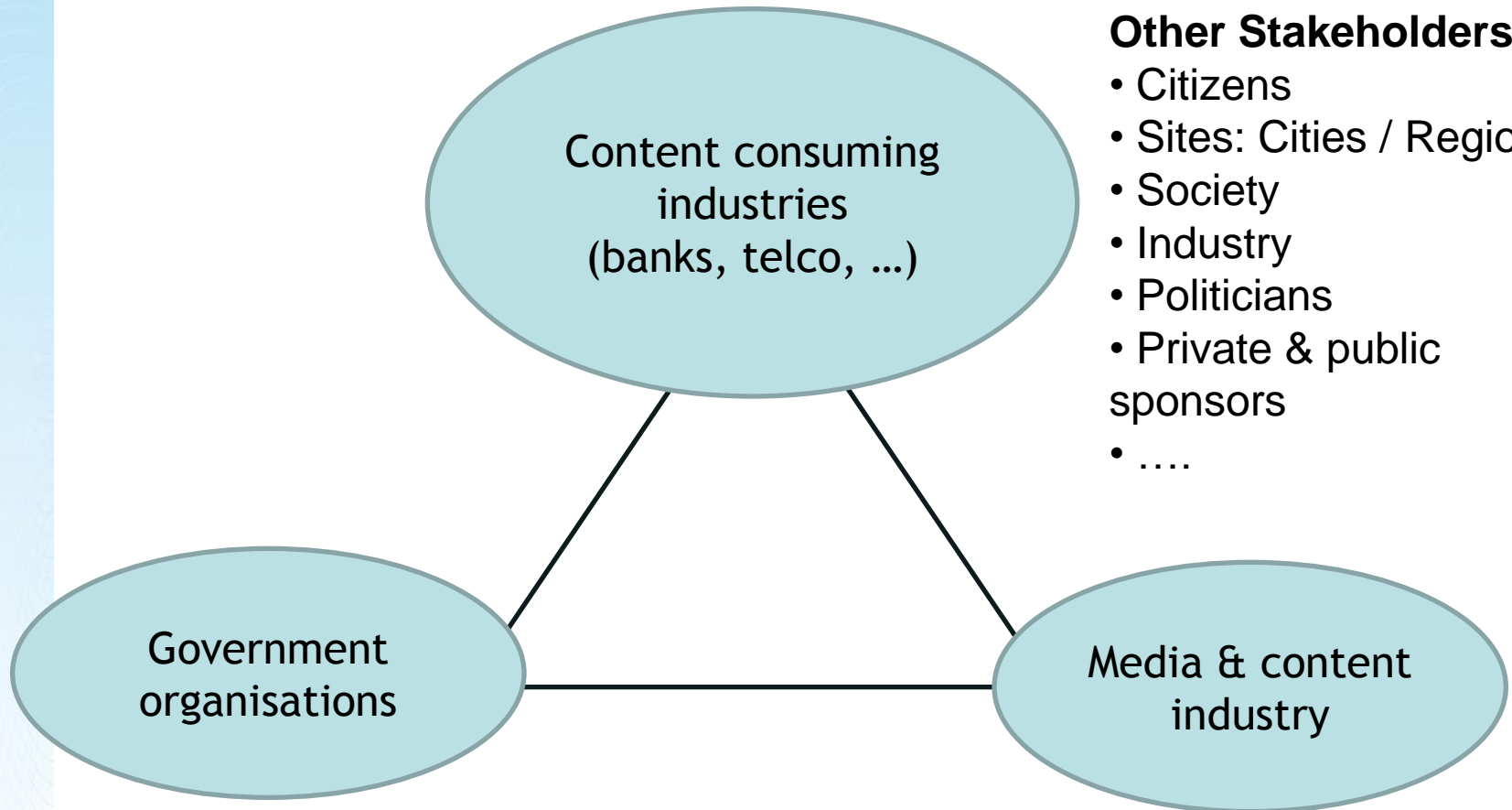
- Language:** German
- Term:** Genre Attribut.Akkustik
- TERM:** <http://www.semantic-culture-guide.net/thesaurus/GenreAttribute/Akkustik>
Akkustik
- RELATED TERMS:** Bühnen und Musiktheater, Film/Kino, Kinos, Kirchen, Kulturlokale, Musical, Musik-E, Musiktheater, Musik-U, Open Airs, Oper, Operette, Pop/Rock
- BROADER TERMS:** Genre Attribut



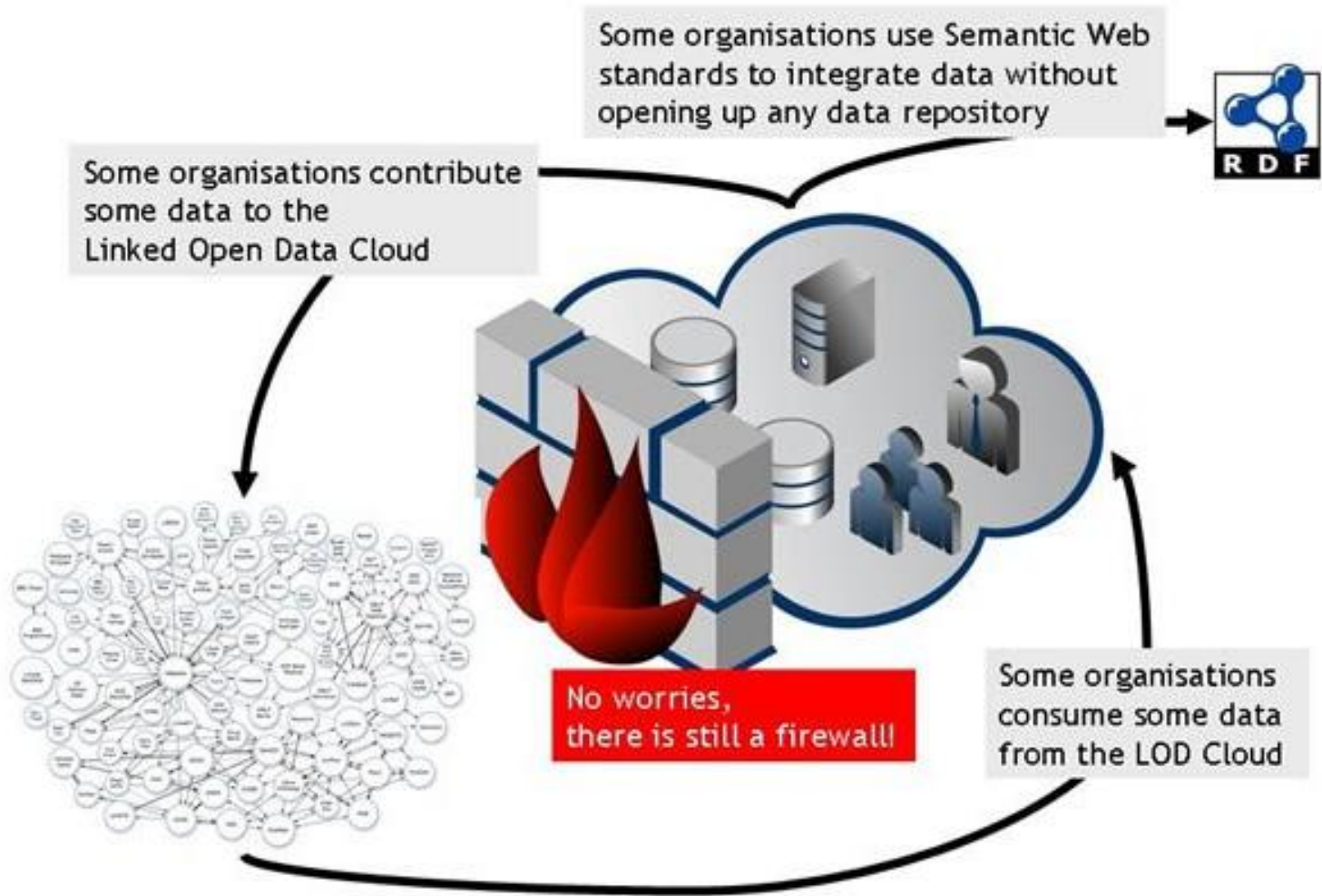
„Magic triangle“

Other Stakeholders:

- Citizens
- Sites: Cities / Regions
- Society
- Industry
- Politicians
- Private & public sponsors
-



Linked Data Flows






Australian education vocabularies

Schools Online Thesaurus (ScOT)



 Get RDF

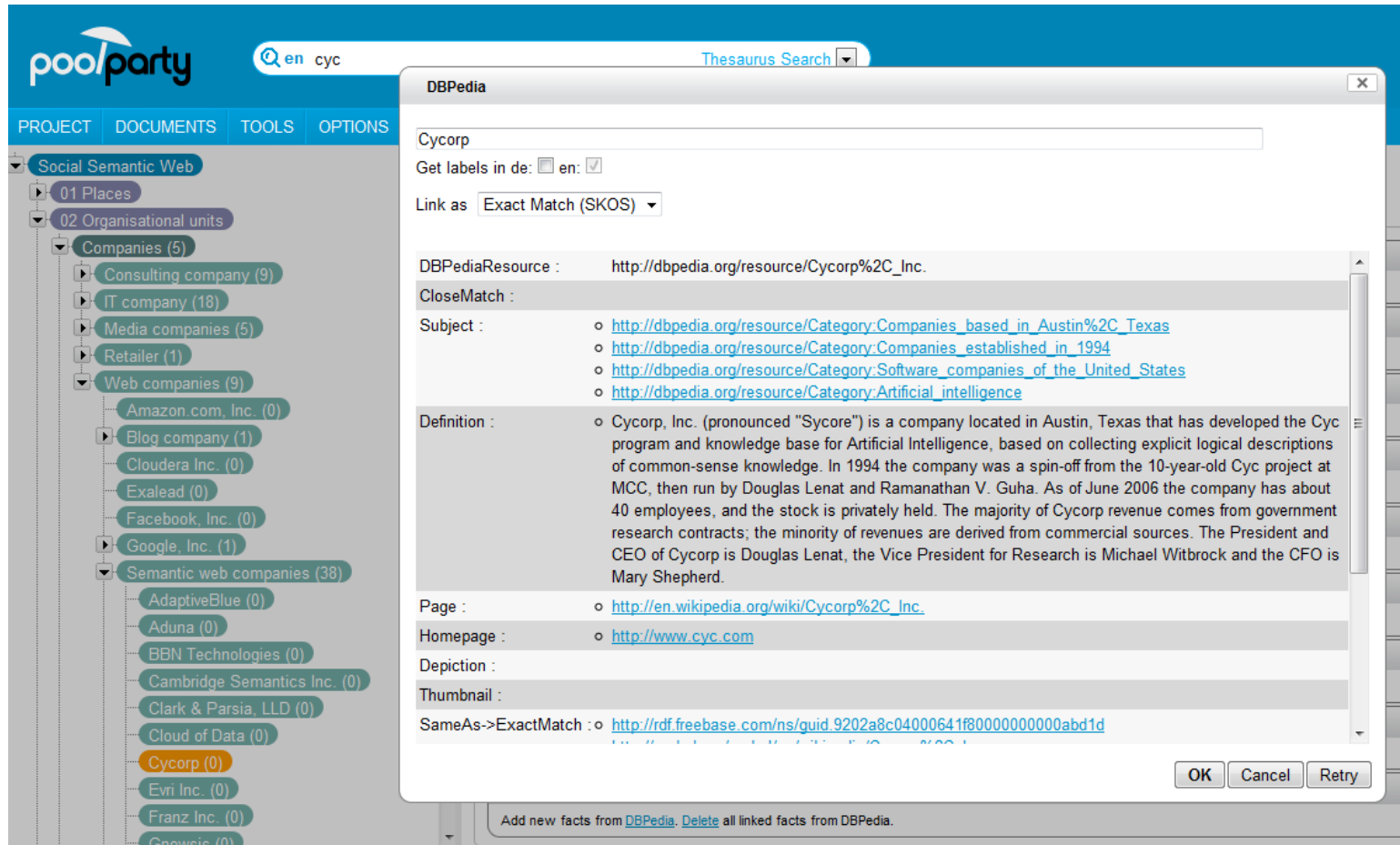
Companies

Code:	1731
Alternative labels:	<i>Businesses</i>
Broader terms:	Business and enterprise
Narrower terms:	Financial institutions Incorporated associations Large scale enterprises Limited companies Multinational companies Not-for-profit organisations Public companies Small medium enterprises Unincorporated associations
Related terms:	Articles of association Prospectuses Shareholders
URI:	http://vocabulary.curriculum.edu.au/scot/1731
Last modified:	2009-07-16T00:00:00

<http://vocabulary.curriculum.edu.au/scot/>



PoolParty: SKOS & Linked Data



The screenshot shows the PoolParty application interface. On the left, a tree view displays a hierarchy of categories under 'Social Semantic Web', including '02 Organisational units' and 'Companies (5)'. The 'Cycorp (0)' category is highlighted. The main window shows a search for 'Cycorp' in the 'Thesaurus Search' window. The search results for 'Cycorp' are displayed, including the DBpedia resource URL, a list of related categories, a detailed definition, and other metadata like the page and homepage.

poolparty en cyc Thesaurus Search

PROJECT DOCUMENTS TOOLS OPTIONS

Social Semantic Web

- 01 Places
- 02 Organisational units
 - Companies (5)
 - Consulting company (9)
 - IT company (18)
 - Media companies (5)
 - Retailer (1)
 - Web companies (9)
 - Amazon.com, Inc. (0)
 - Blog company (1)
 - Cloudera Inc. (0)
 - Exalead (0)
 - Facebook, Inc. (0)
 - Google, Inc. (1)
 - Semantic web companies (38)
 - AdaptiveBlue (0)
 - Aduna (0)
 - BBN Technologies (0)
 - Cambridge Semantics Inc. (0)
 - Clark & Parsia, LLD (0)
 - Cloud of Data (0)
 - Cycorp (0)
 - Evri Inc. (0)
 - Franz Inc. (0)
 - Gnowsis (0)

DBpedia

Cycorp

Get labels in de: en:

Link as: Exact Match (SKOS)

DBpediaResource : http://dbpedia.org/resource/Cycorp%2C_Inc.

CloseMatch :

Subject :

- http://dbpedia.org/resource/Category:Companies_based_in_Austin%2C_Texas
- http://dbpedia.org/resource/Category:Companies_established_in_1994
- http://dbpedia.org/resource/Category:Software_companies_of_the_United_States
- http://dbpedia.org/resource/Category:Artificial_intelligence

Definition :

- Cycorp, Inc. (pronounced "Sycore") is a company located in Austin, Texas that has developed the Cyc program and knowledge base for Artificial Intelligence, based on collecting explicit logical descriptions of common-sense knowledge. In 1994 the company was a spin-off from the 10-year-old Cyc project at MCC, then run by Douglas Lenat and Ramanathan V. Guha. As of June 2006 the company has about 40 employees, and the stock is privately held. The majority of Cycorp revenue comes from government research contracts; the minority of revenues are derived from commercial sources. The President and CEO of Cycorp is Douglas Lenat, the Vice President for Research is Michael Witbrock and the CFO is Mary Shepherd.

Page : http://en.wikipedia.org/wiki/Cycorp%2C_Inc.

Homepage : <http://www.cyc.com>

Depiction :

Thumbnail :

SameAs->ExactMatch : <http://rdf.freebase.com/ns/guid.9202a8c04000641f8000000000abd1d>

OK Cancel Retry

Add new facts from DBpedia. Delete all linked facts from DBpedia.

<http://poolparty.punkt.at/>



Improved Search & Recommender with Linked Data



poolparty Demozone

Tag & Content Recommender Credits

URL: Extract URL

Editor: 1 December 2010, Last updated at 11:04 ET

Ex-President Jean-Bedel Bokassa rehabilitated by CAR

Jean-Bedel Bokassa crowns himself emperor in Bangui in December 1977

The former president of the Central African Republic, Jean-Bedel Bokassa, has been formally rehabilitated by presidential decree. President Francois Bozize published the decree as part of the country's 50th anniversary of independence, returning Bokassa "all his rights". Bokassa was overthrown in 1979 after 14 years in power and died in 1996. He was variously accused of being a cannibal and feeding opponents to lions and crocodiles in his personal zoo. President Bozize, who himself seized power in a coup in 2003, said his former boss had "given a great deal for humanity". Bokassa was "a son of the nation recognised by all as a great builder", Mr Bozize said. "He built the country but we have destroyed what he built," the president added as he awarded Bokassa's widow, Catherine, a state medal of honour.

Sample 1 Sample 2 Sample 3 Clear Use Thesaurus Extract Text

Recommended Tags

Bokassa power Bozize rehabilitated Jean-Bedel December Jean-Bedel Bokassa president decree emperor great Bangui coup built overthrown years result presidential ETEx-President updated

Show more Tags

■ Extracted Tags ■ Tags from Thesaurus ■ Selected Tags

W3C SPARQL W3C SKOS



Übersicht > Confluence Sandkiste > Confluence Sandbox

Durchsuchen > Andreas Koller > Suchen

Renewable energy strategy under fire from MPs

Renewable energy strategy under fire from MPs Bearbeiten Hinzufügen Tools

Hinzugefügt von Andreas Koller, zuletzt bearbeitet von Andreas Koller am 30. Nov 2010 (Änderung anzeigen)

The UK is making "unacceptably slow" progress towards its renewable energy targets, a committee of MPs says.

The Committee of Public Accounts also said that there was no clear understanding of the cost and success of some alternative technologies.

It said the Department of Energy and Climate Change needed "a greater sense of urgency and purpose".

Energy Secretary Chris Huhne said the coalition government was determined to "deliver on the low-carbon economy".

During its hearings, the committee was told that the UK would miss its target to supply 10% of electricity from renewable sources by the end of 2010.

The report, Funding the Development of Renewable Energy Technologies, said the Energy Department and its predecessors had not done enough to address the slow progress.

The chair of the committee, Margaret Hodge, said: "Given the urgency and importance of the issue, progress in meeting renewable energy targets has been unacceptably slow over the last decade."

The current Energy Secretary, Chris Huhne, said his department was determined to put it right. "It will be a huge challenge but the coalition is determined to move beyond promises and actually deliver on the low-carbon economy," he said.

WikiSame

- Office of the Renewable Energy Regulator (ORER)
- OTE (disambiguation)
- Centre for Renewable Energy Systems Technology
- Renewable energy in Australia
- List of renewable energy organizations
- Renewable energy in Spain
- Solar Total Energy Project
- National Renewable Energy Laboratory
- Johannesburg Renewable Energy Coalition
- American Council on Renewable Energy

Recommended Documents

- Flag of the Central African Republic
- Édouard Frank
- List of heads of state of the Central African Republic and Central African Empire
- Saint-Sylvestre coup d'état
- List of heads of government of the Central African Republic and Central African Empire
- MESAN
- Jean-Serge Bokassa
- Central African Republic – United States relations
- Jean-Bédel Bokassa
- Central African Empire
- Central African Republic general election, 2010
- Alexandre Banza
- Postage stamps and postal history of Central African Republic

<http://poolparty.punkt.at/demozone/>



Enterprise Tagging Use Case



2500 users in 20 organizational units



Each user tagged 4-6 resources per day with 3-7 tags



Over 356 days

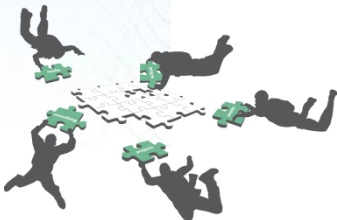


Tags used by a person were marked as skill
(by the user, his superior, human resources)



Standard Thesaurus of Economics

= 108 mio Triples



Query Results:

Query	Avg. Time (ms)
Person tag cloud	62
Person tag cloud for a time span	46
Resource tag cloud	5
Users using tags related to mine	27
Most active tagger for a specific tag	15
Skills assigned by superior	71
Skills assigned by a person from human resources	46

- Intel Core i7-920 Quadcore
12 GB DDR3 RAM
@Ubuntu 8.04
- OpenLink Virtuoso
Version: 06.01.3127
Build: May 27 2010



Contact



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<http://poolparty.punkt.at/>

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