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Ontology Management System

D3: ELSST User Guide

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Contents

Executive Summary

The European Language Social Science Thesaurus (ELSST) is a broad-based, multilingual thesaurus for the social sciences. It is owned and published by the Consortium of European Social Science Data Archives (CESSDA). ELSST will be used for data discovery within CESSDA and will thus facilitate access to data resources across Europe, independent of domain, resource, language or vocabulary. The thesaurus covers the core social science disciplines: politics, sociology, economics, education, law, crime, demography, health, employment, information and communication technology and, increasingly, environmental science. This guide covers the first release of the thesaurus to the CESSDA ELSST platform in November 2020.

Abbreviations and Acronyms

CC-BY-SA	Creative Commons Attribution-Share Alike licence
CESSDA	Consortium of European Social Science Data Archives
ELSST	European Language Social Science Thesaurus
HASSET	Humanities and Social Science Electronic Thesaurus
LIMBER	Language Independent Metadata Browsing of European Resources
RDF	Resource Description Framework
SKOS	Simple Knowledge Organization System
SKOS-XL	Simple Knowledge Organization System eXtension for Labels
URI	Uniform Resource Identifiers
URL	Uniform Resource Locator
XKOS	Extended Knowledge Organization System

1. About ELSST

The European Language Social Science Thesaurus (ELSST) is a broad-based, multilingual thesaurus for the social sciences.

ELSST is owned and published by the Consortium of European Social Science Data Archives (CESSDA). ELSST was originally developed in 2000 as part of the EU-funded Language Independent Metadata Browsing of European Resources (LIMBER) project and has been further enhanced and extended through additional funding from the European Union and the United Kingdom government. Since 2012, ELSST development has been funded by CESSDA through the CESSDA ELSST, VOICE and Metadata Office projects.

ELSST will be used for data discovery within CESSDA and will thus facilitate access to data resources across Europe, independent of domain, resource, language or vocabulary.

The thesaurus covers the core social science disciplines: politics, sociology, economics, education, law, crime, demography, health, employment, information and communication technology and, increasingly, environmental science.

ELSST was originally based on the monolingual thesaurus, Humanities and Social Science Electronic Thesaurus (HASSET), of the UK Data Archive at the University of Essex. The thesauri remain closely related.

The latest version of ELSST was released in June 2020 and became available under the terms of the CC-BY-SA licence on the current CESSDA ELSST platform in November 2020. The previous version dates from September 2019. ELSST is available as a SKOS-XL concept scheme (see section 4).

2. Structure

A thesaurus is a controlled and structured vocabulary where concepts are represented by terms. In a multilingual thesaurus like ELSST, the same concept is represented by a single Preferred Term in each of the languages of the thesaurus. Optionally, one or more alternative labels or Entry Terms can be linked to a Preferred Term in each language version of the thesaurus.

Each concept in ELSST is identified by a dereferenceable Uniform Resource Identifier (URI) (= URL).

Each concept of the thesaurus can be semantically related to other concepts within the thesaurus. Hierarchical relations are represented by Broader Concepts and Narrower Concepts, while non-hierarchical associative relations are represented by Related Concepts.

ELSST concepts may also be associated with different types of note field: Definition, Definition Source, Scope Note, and History Note. A Definition describes the meaning of the concept within the thesaurus, while a Scope Note provides advice on term usage to either indexers or searchers. A Scope Note may also clarify the meaning of the concept with

respect to other concepts in the thesaurus. A History Note records the date of introduction or the changes made to an existing term. A full list of Definition Sources can be found in the Bibliography of Definition Sources (section 5).

3. Using ELSST

The thesaurus is free to search and browse online using the Skosmos[1] publishing platform. ELSST is also free to download on acceptance of a Creative Commons CC-BY-SA licence (see section 3.1).

Terms can be browsed either via their hierarchical structure or by alphabetical listing. They can also be searched using the search box, either by a specific language or across all languages. Searches are case-insensitive and diacritic-insensitive. The system autocompletes the string.

The wildcard symbol * can be used for truncated searches. For example

- man* will find all terms containing a word starting with 'man', e.g. MAN (HUMAN MALE), MAN-MADE, MANAGERS, MANUAL WORKERS. This search equals searching for 'man' without *
- *man will find all terms that contain a word ending in 'man', e.g. EUROPEAN OMBUDSMAN
- *man* will find all terms that contain 'man' anywhere in the term, e.g. BUSINESS MANAGEMENT, CRIMES AGAINST HUMANITY, DEMAND, POLITICAL MANIFESTOS, HUMAN RIGHTS
- *-* or *'* finds for example ANTI-TERRORISM, BABY-SITTING, MAN-MADE ENVIRONMENT, MEDICAL X-RAYS and ALZHEIMER'S DISEASE, CHEMISTS' SHOPS, WOMEN'S HEALTH respectively

There are two options for selecting terms, either by selecting one concept from the autocompleted list or by pressing the Search button. When using the Search button, all retrieved concepts are listed. For example, when searching for man all of the concepts containing 'man' anywhere in the term are listed. The symbols, for example ⌐, , are explained by hovering over them, in this case 'Narrower concepts'.

The search results for *man* can be limited by selecting one of the parents or broader terms. For example, selecting the parent MANAGEMENT filters out CRIMES AGAINST HUMANITY, DEMAND, POLITICAL MANIFESTOS, HUMAN RIGHTS and lists for example BUSINESS MANAGEMENT, FINANCIAL MANAGEMENT, MANAGEMENT ACCOUNTING, MANAGEMENT OPERATIONS. The filter can be cleared by pressing the 'Clear limitations' button.

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[1] SKOSMOS: http://skosmos.org/ (accessed 29 October 2020)

3.1 Obtaining ELSST

ELSST is free to download on acceptance of a CC-BY-SA licence. This allows users to modify and build upon the work even for commercial purposes. Any new works that use the original content must carry the same CC-BY-SA licence and CESSDA must be clearly credited as the owner of the work.

4. ELSST Concept Scheme

ELSST is currently available as a Simple Knowledge Organization System (SKOS) eXtension for Labels (SKOS-XL) concept scheme. Concepts, their labels, relations and notes are the basic notions for a Resource Description Framework (RDF) [2] / SKOS-XL [3] concept scheme.

- Concepts are 'units of thought' that exist in a domain. Concepts are represented by terms. In SKOS concepts are formalised as skos:concept, identified by dereferenceable Uniform Resource Identifiers (URI)/ Uniform Resource Locators (URL). In Skosmos, URIs are shown on each concept page.

- Terms are the actual names used to refer to a concept. For example, POLITICAL PROTEST, POLIITTINEN VASTARINTA, and POLITIČNI PROTEST are all labels for the same concept in English, Finnish and Slovenian, respectively.

- Labels are expressed by means of SKOS-XL predicates:
    - o skosxl:prefLabel is used for 'Preferred Term' in classical thesaurus terminology
    - o skosxl:altLabel is used for 'Non-Preferred' or 'Use For' term in classical thesaurus terminology.

- Relations
    - o Hierarchical relations between concepts are expressed in SKOS by the predicates skos:broader and skos:narrower, which correspond to the classical thesaurus relations Broader/Narrower Term (BT/NT).
    - o Non-hierarchical relations express a notion of 'relatedness' between concepts and are represented in SKOS via the skos:related predicate, which corresponds to the classical thesaurus relation Related Term (RT).

- Notes
    - o Definitions are expressed as 'skos:definition'
    - o Scope Notes are expressed as 'skos:scopeNote'
    - o History Notes are expressed as 'skos:historyNote'

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[2] RDF: https://www.w3.org/RDF/ (accessed 29 October 2020)
[3] SKOS: https://www.w3.org/TR/skos-reference/skos-xl.html (accessed 29 October 2020)

     o   Definition Sources are expressed as 'xkos:additionalContentNote'

The table below shows the correspondence between SKOS(XL)/ Extended Knowledge Organization System (XKOS)[4] names and those used in Skosmos.

Correspondence between SKOS(XL)/XKOS names

SKOS(XL)/XKOS	Skosmos
skos:concept	Concept
skosxl:prefLabel	Preferred term
skosxl:altLabel	Entry term
skos:broader	Broader concept
skos:narrower	Narrower concept
skos:related	Related concept
skos:defin ition	Definition
skos:scopeNote	Scope note
skos:historyNote	History note
xkos:additionalContentNote	Definition source

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[4] XKOS: https://ddialliance.org/Specification/RDF/XKOS (accessed 29 October 2020)

5. Bibliography of Definition Sources

The following source references were used to provide provenance for ELSST Definitions. Definition Sources appear in the thesaurus only for the source language (English), and not for the other language versions of the thesaurus, unless they are official translations from a multilingual source. All other translations of Definitions have been provided by ELSST partners.

Some of the references in this bibliography may have alternative acronyms. The acronyms provided below are those currently used within ELSST.

Note: Access dates given for hyperlinks record the date first used for ELSST. All links were checked again for currency in October 2020.

ADED	Wallace, S. (ed.) (2015) A dictionary of education, 2nd edn., (Online version) Oxford: Oxford University Press.
ADOE	Allaby, M. (2015) A dictionary of ecology, 5th edn., (Online version) Oxford: Oxford University Press.
CDB	Pass, C., Lowes, B., Pendleton, A. and Chadwick, L. (1991) Collins dictionary of business, 2nd edn., Glasgow: Harper Collins.
CODL	Matthews, P. (ed.) (1997) Concise Oxford dictionary of linguistics, Oxford: Oxford University Press.
CODP	McLean, I. (ed.) (1996) Concise Oxford dictionary of politics. Oxford: Oxford University Press.
CODS	Marshall, G. (1994) The concise Oxford dictionary of sociology, Oxford: Oxford University Press.
DE-2002	Black, J. (2002) A dictionary of economics, 2nd edn., Oxford: Oxford University Press.
DE-2017	Hashimzade, N., Myles, G. and Black, J. (2017) A Dictionary of Economics, 5th edn., (Online version) Oxford: Oxford University Press.

DEC	Park, C. and Allaby, M. (2017) A dictionary of environment and conservation, 3rd edn., (Online version) Oxford: Oxford University Press.
DEST	Porteous, A. (1996) Dictionary of environmental science and technology, 2nd edn., Chichester: J. Wiley.
DFN	Bender, D. A. A dictionary of food and nutrition, 4th edn., (Online version) Oxford: Oxford University Press.
DHG	Rogers, A., Castree, N. and Kitchin, R. (eds.) (2013) A Dictionary of Human Geography. (Online version) Oxford, Oxford University Press.
DL-1997	Martin, E. A. (ed.) (1997) A dictionary of law, 4th edn., Oxford: Oxford University Press.
DL-2018	Law, J. (2018) A dictionary of law, 9th edn., (Online version) Oxford: Oxford University Press.
DN	Martin, E. A and McFerran, T. A. (eds.) (2017) A dictionary of nursing, 7th edn., (Online version) Oxford: Oxford University Press.
DOE	Porta, M. (ed). (2016) A dictionary of epidemiology, 6th edn., (Online version) Oxford: Oxford University Press.
DOSS	Tomlinson, A. (2010) A dictionary of sports studies, (Online version) Oxford: Oxford University Press.
DPH	Porta, M. and Last, J. M (eds.) (2018) A dictionary of public health, 2nd edn., (Online version) Oxford: Oxford University Press.
DSS	Calhoun, C. (ed.) (2002) Dictionary of the social sciences, (Online version) Oxford: Oxford University Press.
ERIC	ERIC Thesaurus (n.d.). Retrieved 13 June 2019 from https://eric.ed.gov/?ti=J

EUROSTAT	EUROSTAT: The Statistical Office of the European Union (n.d.). Retrieved 7 March 2019 from https://ec.europa.eu/eurostat/home
FAF	Kent, M. (2016) Food and fitness: a dictionary of diet and exercise, 2nd edn., (Online version) Oxford: Oxford University Press.
IBE	UNESCO: IBE Education Thesaurus (n.d.). Retrieved 14 June 2019 from http://www.ibe.unesco.org/en/unesco-ibe-education-thesaurus
IEA	International Energy Agency: Topics (n.d.) Retrieved 13 June 2019 from https://www.iea.org/topics/
OCSD	Concise Colour Science Dictionary, (1997) Oxford: Oxford University Press.
ODC	Rennie, R. and Law, J. (2016) A dictionary of chemistry, 7th edn., (Online version) Oxford: Oxford University Press.
ODSSM	Kent, M. (2007) Oxford dictionary of sports science and medicine, 3rd edn., (Online version) Oxford: Oxford University Press.
PDIT	Gunton, T. (ed.) (1993) Penguin dictionary of information technology, 2nd edn., Harmondsworth, Middlesex: Penguin.
PE	Planete Energies: Topics (n.d.). Retrieved 13 June 2019 from https://www.planete-energies.com/en
SCMAHD	Dirckx, J. H. (ed.) (1997) Stedmans concise medical & allied health dictionary, Baltimore: Williams and Wilkins.
SLT	Suzy Lamplugh Trust (n.d.). Retrieved 7 March 2019 from https://www.suzylamplugh.org/
UNESCO	UNESCO Thesaurus. (n.d.) Retrieved 13 June 2019 from http://vocabularies.unesco.org/browser/thesaurus/en/

UNICRI	United Nations Interregional Crime and Justice Research Institute (n.d.). Retrieved 7 June 2019 from http://www.unicri.it/
WHO	WHO Health Promotion Glossary (1998) Retrieved 13 June 2019 from https://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf

6. Release Notes

This section covers some of the most important changes to ELSST in recent years.

6.1 June 2020 release

The focus of the work in this period was on the creation of a new hierarchy, TECHNICAL INFRASTRUCTURE, and the inclusion of new topical concepts such as COVID-19 and DISINFORMATION.

Out of the 14 available languages, 12 have been updated. The exceptions are Spanish, since no organisation that can provide Spanish translations is currently participating in ELSST, and Danish, where no resources were available. Translation of Preferred Terms for all target languages is between 98-100% complete. The following changes were made to the English source language version:

- 14 new concepts
- 6 deleted concepts
- 6 relabelled Preferred Terms
- 21 new Entry Terms
- 2 deleted Entry Terms
- 18 new or changed Definitions
- 1 new Scope Note
- 46 changes to the Broader/Narrower Concepts
- 14 changes to Related Concepts
- 16 new or changed History Notes
- 16 new or changed Definition Sources

Examples
- New concepts include TECHNICAL INFRASTRUCTURE, COVID-19, CROWDFUNDING, and DISINFORMATION

- Deleted concepts include STRUCTURES, WATER SERVICES (BUILDINGS), PIERS and PYLONS
- Relabelled Preferred Terms include DISRUPTION OF INFRASTRUCTURE SERVICES instead of DISCONNECTION OF SERVICES, and WASTEWATER DISPOSAL AND HANDLING instead of SEWAGE DISPOSAL AND HANDLING
- New Entry Terms include FAKE NEWS as an Entry Term for DISINFORMATION, and GENERATING PLANTS as an Entry Term for POWER PLANTS
- Deleted Entry Terms: ELECTRICITY, ELECTRICAL ENERGY
- New or changed Definitions include the addition of Definitions to the following two terms: WASTEWATER DISPOSAL AND HANDLING (INFRASTRUCTURE FOR HANDLING AND DISPOSING OF WASTEWATER FROM INDUSTRIAL, DOMESTIC AND STORM RUN-OFF SOURCES), and COMPETITION LAW (THE BRANCH OF LAW CONCERNED WITH THE REGULATION OF ANTICOMPETITIVE PRACTICES, RESTRICTIVE TRADE PRACTICES, AND ABUSES OF A DOMINANT POSITION OR MARKET POWER)
- New Scope Note: WATER INFRASTRUCTURE: FOR TRANSPORT USE EITHER "SEA TRANSPORT" OR "INLAND WATER TRANSPORT"
- Broader/Narrower Concept changes include the change of the Broader Concept of DAMS from STRUCTURES to WATER SUPPLY, and the Broader Concept of NUCLEAR POWER STATIONS from NUCLEAR POWER to POWER PLANTS

6.2 September 2019 release

Two major changes have been made to ELSST in this release. Firstly, a new language, Dutch, was added to the thesaurus. Secondly, Definitions were added to the Slovenian version.

ELSST is now available in 14 languages (including the source language English), with translation of Preferred Terms 98-100% complete in each target language: Czech, Danish, Dutch, Finnish, French, German, Greek, Lithuanian, Norwegian, Romanian, Slovenian, Spanish and Swedish.

Content development and structural work have concentrated on the reduction of complex polyhierarchies, and on revision of the POLITICS hierarchy.

The following changes were made to the English source language version:

- 12 new concepts
- 7 relabelled Preferred Terms (for currency or ambiguity)
- 21 new Entry Terms
- 266 changes to the Broader/Narrower Concepts
- 55 new or changed Definitions
- 16 deleted concepts

Other changes include the addition of a bibliography where full references for Definition Sources are provided, and the explicit marking of terms in a target language that are

deemed to have no translation. (This should happen only rarely, since every effort is taken to include in ELSST only concepts that are applicable to all ELSST languages.)

6.3 September 2018 release

Changes that have been made to the source language of ELSST since the last release in September 2017 include the following:

- 49 new concepts
- 54 new Entry Terms
- 39 relabelled Preferred Terms (for currency or ambiguity)
- 164 changes to the Broader/Narrower Concepts
- 22 new or changed Definitions
- 55 deleted concepts

The translation of Preferred Terms for the following languages is 98-100% complete: Czech, Danish, Finnish, French, German, Greek, Lithuanian, Norwegian, Romanian, Slovenian, Spanish and Swedish.

Since the previous release in September 2017 we have continued our restructuring work, focusing on the following hierarchies:

- WELL-BEING (SOCIETY)
- LAW AND JUSTICE
- ENERGY
- SPORT
- SAFETY AND SECURITY

In each case, we tried to reduce the number of top terms (i.e. terms with no Broader Concept) and orphan terms (i.e. terms with no Broader or Narrower Concept), in order to make the thesaurus easier to browse. The removal of orphan terms will also make the thesaurus more SKOS-compliant.

We also reduced the number of polyhierarchies wherever possible (this work is ongoing), and applied the Related Concept constraint rule that forbids a Related Concept from being a Broader or Narrower Concept of the same concept or any other concept in the same hierarchy. Many concepts that were previously Related Concepts can now be found by expanding a concept's Tree view.

Work on redistributing the information that was previously contained in Definitions into the new note fields (i.e.Definition, Definition Source, Scope note and History note) was completed for the source language. At the same time, ELSST and HASSET were brought closer into alignment by making their Definitions identical. Thus, ELSST concepts that are shared with HASSET (identified as 'core' in the thesaurus), now share their Preferred Term label, Broader Concepts and Definition with HASSET.

The redistribution of Definitions into the new note fields in the target languages is still ongoing.