

PRESS RELEASE

Publication of ISO 25964-2, the standard for interoperability of thesauri

Published on 4 March 2013, ISO 25964-2 deals with interoperability between thesauri and other vocabularies, especially the principles and practice of mapping between them. Types of vocabulary to be considered include classification schemes (including those for records management), taxonomies, subject heading schemes, name authority lists, ontologies, terminologies, and synonym rings.

Interoperability is defined as the ability of two or more systems or components to exchange information and to use the information that has been exchanged. Plainly this ability is fundamental to the workings of the information networks we rely on so much, and even more to the development of the Semantic Web (SW). Two levels of interoperability apply to thesauri:

- a. presenting data in a standard way to enable import and use in other systems (dealt with in ISO 25964 Part 1, which was published in 2011)
- b. complementary use of vocabularies, such as providing mappings between the terms/concepts of one thesaurus and those of another (covered in ISO 25964 Part 2)

Unless mappings are prepared with care as recommended in ISO 25964-2, any SW inferences based on them are liable to deliver misleading conclusions to the unsuspecting Web surfer.

The full title of Part 2 is **Information and documentation - Thesauri and interoperability with other vocabularies - Part 2: Interoperability with other vocabularies.**

Important topics covered in the standard include structural models for mapping, guidelines on mapping types, and how to handle pre-coordination (which occurs especially in classification schemes, taxonomies and subject heading schemes).

The overall focus of ISO 25964 is on thesauri, and with the exception of terminologies, comparable standards do not exist for the other vocabulary types. Rather than try to standardize them, Part 2 deals only with interoperability between these and thesauri. Thus the clause on each vocabulary type presents:

- Key characteristics of the vocabulary (descriptive, not normative)
- Semantic components/relationships (descriptive, not normative)
- Where applicable, recommendations for mapping between the vocabulary and a thesaurus (normative).

In the case of ontologies, terminologies, and synonym rings, mapping to or from a thesaurus is not often useful. Other forms of complementary use are recommended. This is especially true of ontologies, which in the context of the Semantic Web can be deployed in combination with thesauri. ISO 25964-2 clarifies in some detail the differences between thesauri and ontologies, with examples to illustrate the potential for interoperable function.

Practical implementation and continuing work

What about SKOS, the complementary W3C standard for publishing Simple Knowledge Organization Systems on the Web? Happily the development teams responsible for SKOS and ISO 25964 (respectively) have maintained a close working relationship throughout, leading to good

compatibility between the standards. Jointly they have gone on to establish a table showing correspondence between ISO 25964 and SKOS/SKOS-XL data models, now freely available from the ISO 25964 Secretariat site at <http://www.niso.org/schemas/iso25964/>. Although not formally part of either standard, this table is dependent on both of them. It is an example of how the user community continues to develop practical tools to support the emerging Semantic Web.

Getting hold of a copy

The standard can be purchase either or both parts of ISO 25964 from ISO http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=53658. Usually a copy may be obtained from the national standards body in your country e.g. AFNOR, NISO or DIN. Alternatively you can order one directly from ISO in Switzerland at <http://www.iso.org/iso/store.htm>. You can also view the documents at some public/academic libraries, which subscribe to the database covering the full text of national and international standards.

Journal editors may request a review copy from ISO's Head of Marketing, Roger Frost <FROST@iso.org>

Project Organization

Development of the standard was managed by a Working Group known as ISO TC46/SC9/WG8, which has participants from 17 countries: Belgium, Bulgaria, Canada, China, Denmark, Finland, France, Germany, New Zealand, Russia, South Africa, South Korea, Spain, Sweden, UK, Ukraine, and USA. The Group is chaired by Stella Dextre Clarke of the UK, and its Secretariat is provided by NISO (USA). Active members have included:

Sylvie Dalbin (FR)	Daniel Kless (DE)	Esther Scheven (DE)
Johan De Smedt (BE)	Traugott Koch (DE)	Douglas Tudhope (GB)
F. Javier García Marco (ES)	Jutta Lindenthal (DE)	Leonard Will (GB)
Michèle Hudon (CA)	Marianne Lykke (DK)	Marcia Zeng (US)

For more information, see <http://www.niso.org/schemas/iso25964>

Published articles and conference proceedings

- [1] Will, Leonard. The ISO 25964 data model for the structure of an information retrieval thesaurus. In: Categories, contexts and relations in knowledge organization. Proceedings of the Twelfth International ISKO Conference, 6-9 August 2012, Mysore, India. Würzburg : Ergon, 2012, p.284-290. – ISBN 978-3-89913-902-0. Also available at: http://www.willpowerinfo.co.uk/Will_ISKO2012_paper.doc
- [2] Dextre Clarke, Stella G. and Zeng, Marcia Lei. From ISO 2788 to ISO 25964: The evolution of thesaurus standards towards interoperability and data modeling. *Information standards quarterly* 24(1) 2012, 20-26. Also available at: <http://www.niso.org/publications/isq/2012/v24no1/clarke/>

- [3] Dextre Clarke, Stella G. ISO 25964: a standard in support of KOS interoperability. In: Gilchrist, Alan and Vernau, Judi, Editors. *Facets of Knowledge Organization*; 4-5 July 2011; London. London: Emerald; 2012. Also available at: <http://www.iskouk.org/conf2011/papers/dextreclarke.pdf>, together with audio recording and presentation slides.
- [4] Will, Leonard. The ISO 25964 data model for the structure of an information retrieval thesaurus. *Bulletin of the American Society for Information Science and Technology*, volume 38, issue 4, April/May 2012, p.48-51. http://www.asis.org/Bulletin/Apr-12/AprMay12_Will.pdf .
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- [8] Dextre Clarke, Stella G. Thesaurus standards on a converging track. *Legal Information Management*. 2010; 10(1):43-45.
- [9] Dextre Clarke, Stella G. ISO 2788 + ISO 5964 + Much Energy = ISO 25964. *ASIS&T Bulletin* . Oct-Nov 2008; 35(1). Available at: http://www.asis.org/Bulletin/Oct-08/OctNov08_DextreClarke.html
- [10] Dextre Clarke, Stella G. Evolution towards ISO 25964: an international standard with guidelines for thesauri and other types of controlled vocabulary. *Information Wissenschaft & Praxis*. Nov-Dec 2007; 58(8):441-444.

Presentations

- [11] De Smedt, Johan. Exchanging ISO 25964-1 thesauri data using RDF, SKOS and SKOS-XL. Presentation in 11th European Networked Knowledge Organization Systems (NKOS) Workshop, Sept 2012. Available at: https://www.comp.glam.ac.uk/pages/research/hypermedia/nkos/nkos2012/presentations/ISO25964-mapping-to-SKOS-XL_TPD-2012-09-27v6.pdf
- [12] Dextre Clarke, Stella G. Thesauri, interoperability and the role of ISO 25964. Presentation at BCS/IRSG Seminar "Innovations in Web & Enterprise Search", 29 Nov 2012. Available at: <http://irsg.bcs.org/SearchSolutions/2012/presentations/clarke.pptx>.

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