



ISO 25964-1

working group

ISO/TC 46/SC 9/WG 8

Information and documentation —

Thesauri and interoperability with other vocabularies —

Part 1:

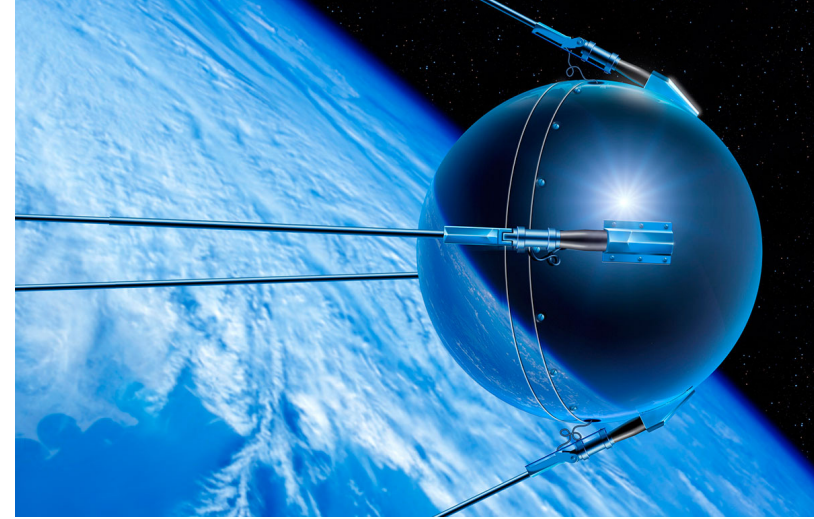
Thesauri for information retrieval,

creation, management, and use

Presented by Marjorie Hlava, Convenor

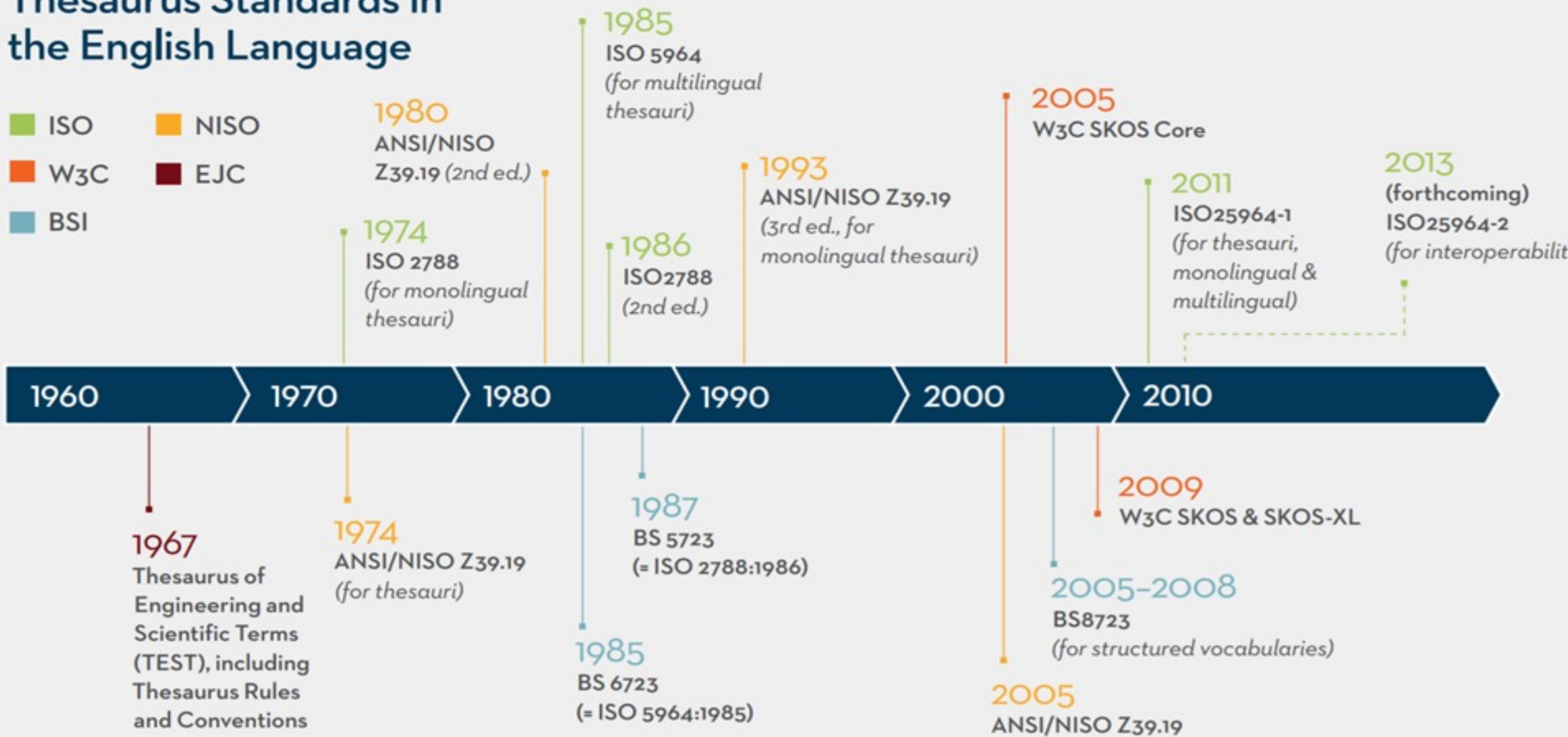
History

- Sputnik – 1957- space race and cold war...
- Information overload – need to organize and retrieve
- Using thesaurus for information retrieval
 - COSATI pioneering work in the 1960s – 1967 thesaurus TEST
 - By 1974 the “principles and practical guidance for constructing thesauri”
 - ISO 2788 and ANSI/NISO Z39.19
- Replaced
 - ◦ ISO 2788-1986 *Guidelines for the establishment and development of monolingual thesauri*
 - ◦ ISO 5964-1985 *Guidelines for the establishment and development of multilingual thesauri*
- *Built on BS 8723*
 - *Structured vocabularies for information retrieval – Guide*
 - Published 2005-2008



Timeline of Landmark Thesaurus Standards in the English Language

- ISO
- W3C
- BSI
- NISO
- EJC



From ISO 2788 to ISO 25964: The Evolution of Thesaurus Standards towards Interoperability and Data Modeling - Stella G. Dextre Clarke & Marcia Lei Zeng - 2012

Overview – ISO 25964

- Published in 2011
- Current edition
 - Clauses 1 – 14 Definitions, Historical
 - Clause 15 - Data Model
 - Clause 16 - Integrations
 - Clause 17 - Exchange formats
 - Clause 18 - Protocols
 - 2 Annexes with sample thesauri
 - ISO 25964 - Part 2 Interoperability – all new in 2011 ...
- Merges Mono and Multilingual to a single work
- Concentrates on development and maintenance –
 - (Does not include on how to use in indexing)
 - Extensive Models and ties to SKOS and UML



Outside interest

- The digital world has changed
 - Thesauri and taxonomies are used broadly
 - Not just for search and retrieval anymore
- Now the world has changed again.
 - Little use of paper indexes
 - Online
 - Interconnected information resources
 - Ontologies - Valley of disillusionment
 - Tried knowledge graphs to fill the void?
 - Chat GPT?
 - Generative AI?

TT	mirrors mirrors optics		radio transmitters sound reproduction television transmitters transmitters
RT	optical arrays optical projectors		CC A4385; A4388; B6450; B7810C; E1780; E3644H
CC	A4280A; A4283; B4145		DI January 1969
DI	January 2003		
PT	micro-optics mirrors		
micromotors			
BT	electric motors micromechanical devices small electric machines		
TT	machinery micromechanical devices		
NT	electrostatic motors		
CC	B2575; B8340M; C3260B; C3260P; E1780; E2160; E2300; E3642A; E3644V		
DI	January 1995		
PT	micromechanical devices small electric machines		
microoptics			
USE	micro-optics		
microorganisms			
UF	bacteria microbes phytoplankton plankton viruses, microorganisms zooplankton		
RT	biohazards cellular biophysics extraterrestrial life molecular biophysics sterilisation (microbiological)		
CC	A8700		
DI	January 1999		
microphone arrays			
BT	acoustic transducer arrays microphones		
TT	acoustic equipment arrays audio equipment transducers		
RT	acoustic signal processing array signal processing direction-of-arrival estimation		
CC	A4385; A4388; B6450; B7810C		
DI	January 2005		
PT	acoustic transducer arrays microphones		
microphones			
BT	acoustoelectric transducers audio equipment		
TT	acoustic equipment audio equipment transducers		
NT	microphone arrays		
RT	acoustic receivers hydrophones radio studios		
			microphotometers USE densitometry photometers
			microphotography UF microfilming BT photography TT photography RT microforms CC A0768; C7230 DI January 1973 PT photography
			microphotronics USE micro-optics
			micropositioning BT position control TT control of specific variables RT manipulators microactuators nanopositioning CC A0660S; C3120C; C3260; C3390; E1550 DI January 1999 PT position control
			microprobe analysis, electron USE electron probe analysis
			microprobe analysis, ion USE ion microprobe analysis
			microprocessor chips UF microcomputer chips MPU single-chip microcomputers BT digital integrated circuits TT networks (circuits) NT coprocessors digital signal processing chips microcontrollers transputers RT CMOS digital integrated circuits large scale integration microcomputers storage management chips superconducting processor circuits system-on-chip CC B1265F; B2570; C5130 DI January 1977 PT digital integrated circuits
			microprocessor systems

Now - Expanded Use Cases

- Moved from Paper indexes – A&I
- Software based tools
- Search expansion
- Tagging / indexing for retrieval
- Alt term suggestions
- Support of clustering and other ontological options
- Shopping carts
- Web navigation
- Collection organization
- Chatbots
- Decision trees
- Profiles - members, authors,
- Semantic fingerprints
- Knowledge graphs
- Human intelligence bases
- Artificial Intelligence,
- Generative AI
- Search query triples
- Conference track sorting
- Peer Review keywords
- Interoperability – with what?
- Etc.

Gathering additional information

- Reached out to the potential user communities
- Taxonomy Division SLA
- Taxonomy Book Camp – KM World
- List Serves for taxonomy groups
- Taxodiary Blog
- Software developers
- Known authors in the field
- Previous members of the committee
- NISO, ASIST, SLA NKOS Members
- 150+ responded
- Many with comments
- Bring them on to the committee
- A few roadblocks – not an open process.
- Reading literature for other thoughts
- Looking at other ISO terminologies and taxonomies and thesauri
- Need to approach the SKOS community
- Etc.

Committee Members

- Formal admission process
- Must be part of NISO or a NISO organization
- Ponderous (Thanks for Betsy Fanning)
- NO outside or Advisory committee allowed
- Marjorie M.K. Hlava, Convenor
- Betsy Fanning and Keondra Bailey - staff

- So

Bailey, Keondra
Blinco, Kerry
Blumauer, Andreas
Busch, Joseph
Carpenter , Todd
Chandru, Sheeba
Clark, Dave
Drage, Anna
Ermert, Axel
Fanning, Betsy
Gillikin, David
Harpring, Patricia
Hedden, Heather
Hlava, Margie
Lamorte, Michele
Liu, Hua
Lykke, Marianne
McCoy, Amy
Moscara, Elisabeth
Scheven, Esther
Schutte, Deon Du Preez
Tennis, Joseph T
Tudhope, Douglas
Yancey, Trish
Zeng, Marcia

Current Timeline



Convene committee Fall of 2023
152 people replied with comments and thoughts
Many rules for members



Acquire and get current standard edition to committee



Brainstorming sessions - ongoing
Washington, DC Nov 5, 2023 – 52 signed up
With Taxonomy Boot Camp
Wuhan, China March 30, 2024
ISKO NKOS Workshop
Working on one in Europe



Comments began October 2023



Distributed first annotated edition February 2024



First draft due in June 2024
3 full years to complete
But only 6 months to write

Other connected standards

- ISO terminologies over 50!! of them
 - We have a list
 - Need to contact them
 - Form a cross walk
- ISO 25964 is hosted by NISO
- NISO Z39.19
- BSI
- DIN
- SKOS – W3C
- OWL
- SKOS - Thes Namespace built for OWL now hosted by DCMI
- Learning of more daily

<https://www.dublincore.org/specifications/skos-thes/>

SKOS Impact

- ISO 25964-1 - how to build and manage a vocabulary
- SKOS - how to publish a vocabulary in a machine-processable format.
- The data models for both standards are concept-based.
- ISO 25964 model provides for all features of a thesaurus
- SKOS model aims to serve several different vocabulary types.
 - It does not provide for some thesaurus features.
 - Easy to convert – but not all features

Decisions Made So Far

- Concept and term labels
 - (not just term)
- Investigate adding Part 2 – Interoperability
- Cross walks to TC 37 in process of being established, examples:
 - ISO 704 - [Terminology work - Principles and methods](#)
 - ISO 1087 - [Terminology work and terminology science](#)
 - ISO 30042 becoming 24634 - [Management of terminology resources](#)
[TBX](#)
- Include more use cases and more language examples

Considering

- Preferred / Non-Preferred labels
- Image thesauri
- Move Clauses 14 – 18 to Annexes or entirely
- Add the Zthes Specifications
- Term ID – UID? URL?
- ...more

Current Status

- First annotated draft has been distributed in rotation
- Need more outside suggestions and outreach
 - Like this meeting
- Committee will divide into groups to work on
 - Extensions
 - Existing Clauses,
 - Annexes
 - Other standards

That's it for now - It's a big task

Join the mailing list?

Join the fun?

Contact us!

I look forward to your suggestions

Marjorie M.K. Hlava

Chief Scientist

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