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**Information and documentation —  
Thesauri and interoperability with other  
vocabularies —**

**Part 2:  
Interoperability with other vocabularies**

*Information et documentation — Thésaurus et interopérabilité avec  
d'autres vocabulaires —*

*Partie 2: Interopérabilité avec d'autres vocabulaires*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 25964-2 was prepared by Technical Committee ISO/TC 46, *Information and documentation*, Subcommittee SC 9, *Identification and description*.

ISO 25964-1:2011, Clauses 1 to 13, correspond broadly to the content of ISO 2788:1986 and ISO 5964:1985. The remaining clauses of ISO 25964-1, and the whole of this part of ISO 25964, cover new ground not previously covered in any International Standard.

ISO 25964 consists of the following parts, under the general title *Information and documentation — Thesauri and interoperability with other vocabularies*:

- *Part 1: Thesauri for information retrieval*
- *Part 2: Interoperability with other vocabularies*

ISO 25964-1 covers the development and maintenance of thesauri, both monolingual and multilingual, including formats and protocols for data exchange.

This part of ISO 25964 covers interoperability between different thesauri and with other types of structured vocabulary.

ISO 25964 covers development and maintenance of thesauri rather than how to use them in indexing, which is covered by ISO 999.

## Introduction

The ability to identify and locate relevant information among vast collections and other resources is a major and pressing challenge today, hence the need for semantic interoperability. To support this need, a variety of web services and other tools are under active development, including (but not limited to):

- registries of vocabularies and metadata schemas,
- repositories of vocabularies and metadata schemas, and
- crosswalk services.

While registries and repositories are outside the scope, this International Standard provides guidance fundamental to the establishment of crosswalk services. Typically these rely on mapping between different schemas and vocabularies. Accordingly, inter-vocabulary mapping will be the principal focus of this part of ISO 25964.

The foundation for discussion of interoperability is laid in ISO 25964-1, which describes the key characteristics of thesauri and provides guidance on best practice. Unfortunately, however, a comparable International Standard does not exist for the other types of vocabulary with which a thesaurus needs to interoperate. For this reason, this second part of ISO 25964 provides some elementary description of other vocabularies such as classification schemes, subject heading schemes, etc., before making recommendations on mapping between these and thesauri. It does not provide guidance on the construction of vocabularies other than thesauri.

Clauses 1 to 12 and Clauses 14 to 16 of this part of ISO 25964 deal with the principles and practicalities of interoperability, especially mapping, that apply to most vocabularies and especially thesauri. Clause 13 provides additional guidance for handling the pre-coordinated classes that occur in classification schemes and other vocabularies using the classification approach.

Clauses 17 to 24 are each dedicated to a different type of vocabulary. First priority is given to vocabularies that are commonly used for classifying or indexing resources, namely classification schemes (including those used for records management), taxonomies, subject heading schemes and name authority lists. Notwithstanding their different purposes, terminologies, ontologies and synonym rings are also included. Each clause provides a brief informative description of the vocabulary's key characteristics, contrasting its semantic components with those of a thesaurus, so as to provide context for the interoperability requirements and recommendations that follow.

# Information and documentation — Thesauri and interoperability with other vocabularies —

## Part 2: Interoperability with other vocabularies

### 1 Scope

This part of ISO 25964 is applicable to thesauri and other types of vocabulary that are commonly used for information retrieval. It describes, compares and contrasts the elements and features of these vocabularies that are implicated when interoperability is needed. It gives recommendations for the establishment and maintenance of mappings between multiple thesauri, or between thesauri and other types of vocabularies.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 25964-1:2011, *Information and documentation — Thesauri and interoperability with other vocabularies — Part 1: Thesauri for information retrieval*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### **array**

group of sibling **concepts** (3.17)

##### EXAMPLE

<p>In the following, the sibling concepts <b>outerwear</b> and <b>underwear</b> form an array within the concept <b>clothing</b>.</p> <p>clothing</p> <ul style="list-style-type: none"><li>outerwear<ul style="list-style-type: none"><li>overcoats</li></ul></li><li>underwear</li></ul>
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#### 3.2

##### **associative relationship**

relationship between a pair of **concepts** (3.17) that are not related hierarchically but share a strong semantic connection