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# KNOWLEDGE ORGANIZATION

# KO

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### Feature

Ingetraut Dahlberg. **Knowledge Organization: A New Science?** *Knowledge Organization*, 33(1). 11-19. 32 refs.

**ABSTRACT:** In ISKO's name, the term "Knowledge Organization" (KO) denotes already the object and the activity area significant for the existence of any science. Both areas are outlined and their specific contents shown. Also a survey of its special subfields is given. The science-theoretical foundation of Knowledge Organization as a new scientific discipline is based on the propositional concept of science. Within a universal system of the sciences, KO has been regarded as a subfield of Science of Science. Concludingly it is proposed to find the necessary institution for work in concerted effort of scientists, knowledge organizers and terminologists on the collection, definition, and systematization of concepts of all subject fields, utilizing the Information Coding Classification (ICC) as the necessary categorizing structure.

### Articles

Jung-ran Park. **Semantic Interoperability and Metadata Quality: An Analysis of Metadata Item Records of Digital Image Collections.** *Knowledge Organization*, 33(1) 20-34. 51 refs.

**Abstract:** This paper is a current assessment of the status of metadata creation and mapping between cataloger-defined field names and Dublin Core (DC) metadata elements across three digital image collections. The metadata elements that evince the most frequently inaccurate, inconsistent and incomplete DC metadata application are identified. As well, the most frequently occurring locally added metadata elements and associated pattern development are examined. For this, a randomly collected sample of 659 metadata item records from three digital image collections is analyzed. Implications and issues drawn from the evaluation of the current status of metadata creation and mapping are also discussed in relation to the issue of semantic interoperability of concept representation across digital image collections. The findings of the study suggest that conceptual ambiguities and semantic overlaps inherent among some DC metadata elements hinder semantic interoperability. The DC metadata scheme needs to be re-

fined in order to disambiguate semantic relations of certain DC metadata elements that present semantic overlaps and conceptual ambiguities between element names and their corresponding definitions. The findings of the study also suggest that the development of mediation mechanisms such as concept networks that facilitate the metadata creation and mapping process are critically needed for enhancing metadata quality.

Susanna Dal Porto and Andrea Marchitelli. **The functionality and flexibility of traditional classification schemes applied to a Content Management System (CMS): Facets, DDC, JITA.** *Knowledge Organization*, 33(1) 35-44. 12 refs.

**Abstract:** Different classification schemes may be used for web indexing. The authors analyze three weblogs (Biblioatipici, Letture and Andrea Marchitelli's blog) to demonstrate that different contents may be classified using the appropriate scheme. Biblioatipici is a weblog about temporary workers in libraries and Italian documentation centres indexed with a faceted scheme, home made by authors. Letture, a diary about reading and books, is indexed by DDC. Marchitelli's blog about digital libraries and open access, is indexed by JITA, the scheme used for indexing e-prints in some different open archives. The three applications are presented starting from the most complex scheme (i.e. the faceted one) to the simple but least functional (JITA), passing through a traditional bibliographic classification scheme, the *Dewey Decimal Classification*. The analysis demonstrates that different web contents can efficiently be classified with different schemes. In particular, with the facets one (Biblioatipici) the indexer is able to generate the needed classes in the indexing phase. Moreover with a small number of facets and foci one can obtain an exponential number of classes. Finally, one of the advantages for the user is that the faceted scheme allows multiple accesses on the basis of different information requirements, in addition to being coherent and intuitive. DDC scheme can be more suitable than the first web pages or blogs performing a sort of digital library. In this case in fact the DDC scheme constitutes a consolidated classification standard, widespread in a huge quantity of libraries and the use of a different scheme might get confusion. JITA scheme, finally, can find a huge applicability in web pages (or blogs) in LIS field showing several advantages: it's very

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simple and essentially pragmatic, intuitive and coherent. It's a conservative scheme because it is structurally closed, in fact it does not allow the classifier to insert new LCS's categories. If, from a certain point of view, this is a disadvantage, vice versa this feature is really useful because you get a complete matching between classes of all the web pages implemented with it.

Renato Rocha Souza and K.S. Raghavan. **A methodology for noun phrase-based automatic indexing.** *Knowledge Organization*, 33(1) 45-56. 28 refs.

**ABSTRACT:** The scholarly community is increasingly employing the Web both for publication of scholarly output and for locating and accessing relevant scholarly literature. Organization of this vast body of digital information assumes significance in this context. The sheer volume of

digital information to be handled makes traditional indexing and knowledge representation strategies ineffective and impractical. It is, therefore, worth exploring new approaches. An approach being discussed considers the intrinsic semantics of texts of documents. Based on the hypothesis that noun phrases in a text are semantically rich in terms of their ability to represent the subject content of the document, this approach seeks to identify and extract noun phrases instead of single keywords, and use them as descriptors. This paper presents a methodology that has been developed for extracting noun phrases from Portuguese texts. The results of an experiment carried out to test the adequacy of the methodology are also presented.

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