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Wu, Yejun. **Indexing Historical, Political Cartoons for Retrieval.** *Knowledge Organization.* 40(5), 283-294. 40 references.

ABSTRACT: Previous literature indicates that political cartoons are difficult to index because they have a subjective nature, and indexers may fail to understand the content of a cartoon or may interpret its content subjectively. This study aims to investigate the index-ability of historical, political cartoons and the variables that affect the indexing results. It proposes an indexing scheme for describing historical, political cartoons, and uses that indexing scheme to conduct indexing experiments. Through indexing experiments and statistical analysis, three variables, which affect the indexing results, are identified: indexers, indexing fields, and cartoons. There is a statistically significant difference in inter-indexer consistency on indexers, indexing fields, and cartoons. The paper argues that historical, political cartoons can be indexed if knowledgeable indexers are available, and the context of the cartoons is provided. It also proposes a mediated, collaborative indexing approach to indexing such materials.

Desale, Sanjay K., and Kumbhar, Rajendra M. **Research on Automatic Classification of Documents in Library Environment: A Literature Review.** *Knowledge Organization.* 40(5), 295-304. 78 references.

ABSTRACT: This paper aims to provide an overview of automatic classification research, which focuses on issues related to the automatic classification of documents in a library environment. The review covers literature published in mainstream library and information science studies. The review was done on literature published in both academic and professional LIS journals and other documents. This review reveals that basically three types of research are being done on automatic classification: 1) hierarchical classification using different library classification schemes, 2) text categorization and document categorization using different type of classifiers with or without using training documents, and 3) automatic bibliographic classification. Predominantly this research is directed towards solving problems of organization of digital documents in an online environment. However, very little research is devoted towards solving the problems of arrangement of physical documents.

Lamirel, Jean-Charles. **Multi-View Data Analysis and Concept Extraction Methods for Text.** *Knowledge Organization.* 40(5), 305-319. 34 references.

ABSTRACT: In the process of textual information analysis, like in the domain of technological survey through patents analysis, or

in the domain of emerging research tracking through research papers analysis, the complexity of the studied concepts and the accuracy of the questions to be answered may often lead the analyst to partition his reasoning into viewpoints. Most of the classical information analysis tools can only manage an analysis of the studied domain in a global way. The information analysis paradigm considered in this paper is an alternative paradigm called multi-view data analysis. This paradigm introduces the dimensions of viewpoints and dynamics into information analysis with its multi-view displays, its online generalization capabilities, and its inter-view communication process. The dynamic information exchange between views can be exploited, either by an analyst or in an unsupervised way, in order to perform cooperative deduction between several different analyzes that have been performed on the same data or on related data. This paper demonstrates the efficiency of a viewpoint-oriented analysis as compared to a global analysis in the domain of technological survey and research evaluation. Both objective and subjective quality criteria are taken into account for quality evaluation.

De Luca, Ernesto William. **Extending the Linked Data Cloud with Multilingual Lexical Linked Data.** *Knowledge Organization.* 40(5), 320-331. 27 references.

ABSTRACT: A lot of information that is already available on the Web, or retrieved from local information systems and social networks, is structured in data silos that are not semantically related. Semantic technologies make it apparent that the use of typed links that directly express their relations are an advantage for every application that can reuse the incorporated knowledge about the data. For this reason, data integration, through reengineering (e.g., triplify) or querying (e.g., D2R), is an important task in order to make information available for everyone. Thus, in order to build a semantic map of the data, we need knowledge about data items itself and the relation between heterogeneous data items. Here we present our work of providing Lexical Linked Data (LLD) through a meta-model that contains all the resources and gives the possibility to retrieve and navigate them from different perspectives. After giving the definition of Lexical Linked Data, we describe the existing datasets we collected and the new datasets we included. Here we describe their format and show some use cases where we link lexical data, and show how to reuse and inference semantic data derived from lexical data. Different lexical resources (MultiWordNet, EuroWordNet, MEMODATA Lexicon, the Hamburg Metaphor Database) are connected to each other towards an Integrated Vocabulary for LLD that we evaluate and present.

Herre, Heinrich. **Formal Ontology and the Foundation of Knowledge Organization.** *Knowledge Organization.* 40(5), 332-339. 49 references.

ABSTRACT: Research in ontology has, in recent years, become widespread in the field of information systems, in various areas of sciences, in business, in economy, and in industry. The importance of ontologies is increasingly recognized in fields diverse as in e-commerce, semantic web, enterprise, information integration, information science, qualitative modeling of physical systems, natural language processing, knowledge engineering, and databases. Ontologies provide formal specifications and harmonized definitions of concepts used to represent knowledge of specific domains. An ontology supplies a unifying framework for communication, it establishes a basis for knowledge organization and knowledge representation and contributes to theory formation and modeling of a specific domain. In the current paper, we present and discuss principles of organization and representation of knowledge that grew out of the use of formal ontology. The core of the discussed ontological framework is a top-level ontology, called GFO (General Formal Ontology), which is being developed at the University of Leipzig. These principles make use of the onto-axiomatic method, of graduated conceptualizations, of levels of reality, and of top-level-supported methods for ontology-development. We explore the inter-relations between formal ontology and knowledge organization, and argue for a close interaction between both fields.

Kleineberg, Michael. **The Blind Men and the Elephant: Towards an Organization of Epistemic Contexts.** *Knowledge Organization.* 40(5), 340-362. 91 references.

ABSTRACT: In the last two decades of knowledge organization (KO) research, there has been an increasing interest in the context-dependent nature of human knowledge. Contextualism maintains that knowledge is not available in a neutral and objective way, but is always interwoven with the process of knowledge production and the prerequisites of the knower. As a first step towards a systematic organization of epistemic contexts, the concept of knowledge will be considered in its ontological (WHAT) and epistemological (WHO) including methodological (HOW) dimensions. In current KO research, however, either the contextualism is not fully implemented (classification-as-ontology) or the ambition for a context-transcending universal KOS seems to have been abandoned (classification-as-epistemology). Based on a combined ontology and epistemology it will be argued that a phenomena-based approach to KO as stipulated by the *León Manifesto*, for example, requires a revision of the underlying phenomenon concept as a relation between the known object (WHAT) and the knowing subject (WHO), which is constituted by the application of specific methods (HOW). While traditional subject indexing of documents often relies on the organizing principle “levels of being” (WHAT), for a future context indexing, two novel principles are proposed, namely “levels of knowing” (WHO) and “integral methodological pluralism” (HOW).