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Abstracts


ABSTRACT: In recent years, the term “semantics” has been widely used in various fields of research and particularly in areas related to information technology. One of the motivators of such an appropriation is the vision of the Semantic Web, a set of developments underway, which might allow one to obtain better results when querying on the web. However, it is worth asking what kind of semantics we can find in the Semantic Web, considering that studying the subject is a complex and controversial endeavor. Working within this context, we present an account of semantics, relying on the main linguist approaches, in order to then analyze what semantics is within the scope of information technology. We critically evaluate a spectrum, which proposes the ordination of instruments (models, languages, taxonomic structures, to mention but a few) according to a semantic scale. In addition to proposing a new extended spectrum, we suggest alternative interpretations with the aim of clarifying the use of the term “semantics” in different contexts. Finally, we offer our conclusions regarding the semantic in the Semantic Web and mention future directions and complementary works.


ABSTRACT: Map-based visualizations of document collections have become popular in recent times. However, most of these visualizations emphasize only geospatial properties of objects, leaving out other ontological properties. In this paper we propose to extend these visualizations to include non-geospatial properties of documents to support users with elementary and synoptic visual tasks. More specifically, additional suitable representations that can enhance the utility of map-based visualizations are discussed. To demonstrate the utility of the proposed solution, we have developed a prototype map-based visualization system using Google Maps (GM), which demonstrates how additional representations can be beneficial.

Golub, Koraljka. Automated Subject Classification of Textual Documents in the Context of Web-Based Hierarchical Browsing. Knowledge Organization, 38(3), 230-244. 35 references.

ABSTRACT: While automated methods for information organization have been around for several decades now, exponential growth of the World Wide Web has put them into the forefront of research in different communities, within which several approaches can be identified: 1) machine learning (algorithms that allow computers to improve their performance based on learning from pre-existing data); 2) document clustering (algorithms for unsupervised document organization and automated topic extraction); and 3) string matching (algorithms that match given strings within larger text). Here the aim was to automatically organize textual documents into hierarchical structures for subject browsing. The string-matching approach was tested using a controlled vocabulary (containing pre-selected and pre-defined authorized terms, each corresponding to only one concept). The results imply that an appropriate controlled vocabulary, with a sufficient number of entry terms designating classes, could in itself be a solution for automated classification. Then, if the same controlled vocabulary had an appropriate hierarchical structure, it would at the same time provide a good browsing structure for the collection of automatically classified documents.

Kipp, Margaret E. I. Tagging of Biomedical Articles on CiteULike: A Comparison of User, Author and Professional Indexing. Knowledge Organization, 38(3), 245-261. 32 references.

ABSTRACT: This paper examines the context of online indexing from the viewpoint of three different groups: users, authors, and professional indexers. User tags, author keywords, and descriptors were collected from academic journal articles, which were both indexed in PubMed and tagged on CiteULike, and analysed. Descriptive statistics, informetric measures, and thesaural term comparison shows that there are important differences in the use of keywords among the three groups in addition to similarities, which can be used to enhance support for search and browse. While tags and author keywords were found that matched descriptors exactly, other terms which did not
match but provided important expansion to the indexing lexicon were found. These additional terms could be used to enhance support for searching and browsing in article databases as well as to provide invaluable data for entry vocabulary and emergent terminology for regular updates to indexing systems. Additionally, the study suggests that tags support organisation by association to task, projects, and subject while making important connections to traditional systems which classify into subject categories.


**ABSTRACT:** Various approaches have been taken to organizing literary works, but finding the most effective set of metadata elements remains an unfinished task. This paper focuses on exploring five inductively built sets for organizing new literary works for discovery by members of the American literary community. The sets feature potential metadata elements drawn from a variety of sources, including present and proposed systems, as well as prior theoretical work. The paper describes a survey study that asked members of the American literary community for input about what potential metadata elements they would be likely to use to aid the process of discovering new literary work. The paper discusses the results for each set and discusses possibilities for a new set that combines the most desirable metadata elements from each of the separate sets.