New semantic order is well on the way

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The landscape of information management and search is undergoing a rapid change. Indeed, a kind of a new world order in the structures and practices of information processing seems to be under development in the networked world. It is also likely to challenge our perspectives and world views.

In the library and information field, these changes are reflected in many ways; in new information and metadata structures, in new approaches to subject description tools, and in the distributed architectures of information systems and related search tools. These tools also seem to become utilized in more automated contexts or linked to intelligent applications. In addition, interoperability seems to become a target in their development.

This international issue of Signum, which has been co-ordinated by the International Relations Group of the Finnish Research Library Association, will focus on the new perspectives of subject description and information structures. Their structural renewal and integration has been going on already for years. Today, their results can be seen in the new applications, and other outcomes of pilot projects which focus on ontologies, information structures, metadata, or joint terminology and classification research.

However, in the future visions the scale and character of these tools seems to extend. Their focus may be more on their linking on different levels of search facilities. They are likely to be co-ordinated and integrated to various levels of information systems, which may be local, subject based, national, or global. Dennis Nicholson in his article speaks especially for the globally unified and collaborative efforts in the development of Knowledge Organization Systems.

New concepts and approaches, like ontologies and Knowledge Organization Systems (KOS), have also emerged in the development projects. In their article, Tudhope and Bindig describe in detail one development project in which these concepts have been applied in practice.

Ontologies and Knowledge Organization Systems are not only theories. A range of pilot projects and applications exist. The latest evidence of this is the opening of the Finnish National Ontology Library. Researchers of the Semantic Web Group describe progress of these efforts in their article.

Bibliographic and subject description tools also require new information structures to support the subject-based search in their target environment. One important effort in the library field is the development of new conceptual models to describe bibliographic data (FRBR), name authority data (FRAD) and subject authority data (FRSAR). Eeva Murtomaa and Päivi Pekkarinen review this development in their article.

Altogether, possibly the most crucial change is, that ontologies, knowledge organization systems, information structures and related information systems are no longer seen as separate islands. The scope of these tools is also seen from the perspective of user needs, interoperability and usefulness for conducting searches in the networked world.

Although there are evidently great challenges on the way in these development projects, their new trends and targets seem apparent. Their approach is strongly in integration. Interoperability rules – and the anatomy of classifications, terminologies, information structures and user interfaces will be redesigned accordingly. 📕