

Introduction to a Special Issue of Knowledge Organization

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It is with very great pleasure that we introduce this special issue of *Knowledge Organization* on Domain Analysis (DA). Domain analysis is an approach to information science (IS) that emphasizes the social, historical, and cultural dimensions of information. It asserts that collective fields of knowledge, or "domains," form the unit of analysis of information science (IS). DA, elsewhere referred to as a sociocognitive (Hjørland, 2002b; Jacob & Shaw, 1998) or collectivist (Talja et al, 2004) approach, is one of the major metatheoretical perspectives available to IS scholars to orient their thinking and research. DA's focus on domains stands in contrast to the alternative metatheories of cognitivism and information systems, which direct attention to psychological processes and technological processes, respectively.

The first comprehensive international formulation of DA as an explicit point of view was Hjørland and Albrechtsen (1995). However, a concern for information in the context of a community can be traced back to American library historian and visionary Jesse Shera, and is visible a century ago in the earliest practices of special librarians and European documentalists. More recently, Hjørland (1998) produced a domain analytic study of the field of psychology; Jacob and Shaw (1998) made an important interpretation and historical review of DA; while Hjørland (2002a) offered a seminal formulation of eleven approaches to the study of domains, receiving the ASLIB 2003 Award. Fjordback Søndergaard; Andersen and Hjørland (2003) suggested an approach based on an updated version of the UNISIST-model of scientific communication. In fall 2003, under the conference theme of "Humanizing Information Technology" DA was featured in a keynote address at the annual meeting of the American Society for Information Science and Technology (Hjørland, 2004). These publications and events are evidence of growth in representation of the DA view.

To date, informal criticism of domain analysis has followed two tracks. Firstly, that DA assumes its communities to be academic in nature, leaving much

of human experience unexplored. Secondly, that there is a lack of case studies illustrating the *methods* of domain analytic empirical research. Importantly, this special collection marks progress by addressing both issues. In the articles that follow, domains are perceived to be hobbies, professions, and realms of popular culture. Further, other papers serve as models of different ways to execute domain analytic scholarship, whether through traditional empirical methods, or historical and philosophical techniques.

Eleven authors have contributed to this special issue, and their backgrounds reflect the diversity of interest in DA. Contributors come from North America, Europe, and the Middle East. Academics from leading research universities are represented. One writer is newly retired, several are in their heyday as scholars, and some are doctoral students just entering this field. This range of perspectives enriches the collection.

The first two papers in this issue are invited papers and are, in our opinion, very important. Anders Ørom was a senior lecturer at the *Royal School of Library and Information Science* in Denmark, Aalborg Branch. He retired from this position on March 1, 2004, and this paper is his last contribution in this position. We are grateful that he took the time to complete "*Knowledge Organization in the Domain of Art Studies – History, Transition and Conceptual Changes*" in spite of many other duties. Versions of the paper have previously been presented at a Ph.D-course in knowledge organization and related versions have been published in Danish and Spanish. In many respects, it represents a model of how a domain could, or should, be investigated from the DA point of view.



It uncovers the main theoretical influences that have affected the representation of art in systems of knowledge organization such as LCC, DDC, UDC and the Art & Architecture Thesaurus, and it provides a deep basis for evaluating such systems.

Knut Tore Abrahamsen's "*Indexing of Musical Genres. An Epistemological Perspective*" is a modified version of a thesis written at the *Royal School of Library and Information Science* in Copenhagen. As a thesis it is a major achievement which successfully combines knowledge of music, epistemology, and knowledge organization. This paper may also be seen as an example of how domains can be analyzed and how knowledge organization may be improved in practice. We would like to thank Sanna Talja of the University of Tampere, among other people, for input on this piece.

And now to the rest of the issue:

Olof Sundin's "*Towards an Understanding of Symbolic Aspects of Professional Information: an Analysis of the Nursing Knowledge Domain*" contributes to DA by introducing a deeper understanding of the notion of professions and by uncovering how in some domains, "symbolic" functions of information may be more important than instrumental functions.

Rich Gazan's: "*Metadata as a Realm of Translation: Merging Knowledge Domains in the Design of an Environmental Information System*" demonstrates the problems of merging data collections in interdisciplinary fields, when the perceived informational value of different access points varies with disciplinary membership. This is important for the design of systems of metadata.

Joe Tennis's: "*Two Axes of Domains for Domain Analysis*" suggests that the notion of domain is underdeveloped in DA. Tennis states, "Hjørland has provided a hammer, but where are the nails?" In addition he raises a question concerning the degree of specialization within a domain. He resolves these issues by proposing two new "axes" to DA.

Chaim Zins & David Guttmann's: "*Domain Analysis of Social Work: An Example of an Integrated Methodological Approach*" represents an empirical approach to the construction of knowledge maps based on representative samples of the literature on social work. In a way, this paper is the most traditional or straightforward approach to knowledge organization in the issue: It suggests a concrete classification based on scientific norms of representation and objectivity.

Hanne Albrechtsen & Annelise Mark Pejtersen's: "*Cognitive Work Analysis and Work Centered Design of Classification Schemes*" is also based on empirical

studies, but focuses on work groups rather than literatures. It claims that deep semantic structures relevant to classification evolve dynamically in work groups. Its empirical method is different from Zins & Guttmann's. Future research must further uncover the relative strengths and weaknesses of literatures versus people in the construction of knowledge organizing systems.

Jenna Hartel's: "*The Serious Leisure Frontier in Library and Information Science: Hobby Domains*" expands DA to the field of "everyday information use" and demonstrates that most of the approaches suggested by Hjørland (2002a) may also be relevant to this field.

Finally, Birger Hjørland & Jenna Hartel's "*Afterword: Some Basic Issues Related to the Notion of a Domain*" suggests that the notions of ontology, epistemology, and sociology may be three fundamental dimensions of domains and that these perspectives may clarify what domains are and the dynamics of their development.

While this special issue marks great progress, and the zenith of DA to date, the approach remains emergent and there is still much work to be done. We see the need for ongoing domain analytic research along two paths. Remarkably, to our knowledge no domain has been thoroughly studied in the domain analytic view. The first order, then, is rigorous application of DA to multiple domains. Second, theoretical and methodological gaps presently exist; these are opportunities for creative inventors to contribute original extensions to the approach. We warmly invite all readers to seriously engage with these articles, whether as critics, spectators, or participants in the domain analytic project.

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