

# Shifting Intension in Knowledge Organization: An Editorial\*

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## 1.0 Core Extension, Shifting Intension

In the keynote paper for the 12<sup>th</sup> International ISKO Conference in Mysore I discussed the dynamicity of the domain of knowledge organization from the perspective of ongoing domain analyses. Meta-analysis of a series of studies shows that knowledge organization is a strong, scientific community, with a distinct extension that now embraces the search for interoperability, and with intension that shifts along two continuums, one of which is methodological (or epistemological) and ranges from empirical experimental methods to humanistic narrative methods, while the other is more contextual and ranges from concept theory to applied KOS. These elements seem to remain core in knowledge organization as a domain over time (Smiraglia 2012).

Another interesting finding is the degree to which the intension along that theory-application continuum is stretched by papers presented at regional ISKO chapter conferences. Since 2006 it has been the policy of this journal to offer to publish the leading papers from any peer-reviewed regional ISKO conference. The papers are selected by conference organizers and forwarded to *Knowledge Organization* for publication. By analyzing the papers separately we are able to see both the presence of the domain's core internationally and the constant tug and pull on the intension as authors bring new ideas and new research to regional conferences. This editorial, then, summarizes papers from regional conferences that have appeared in *Knowledge Organization* in 2011 and 2012. Table 1 identifies the five conferences from which leading papers were selected to appear in *Knowledge Organization*.

Regional Conference	In <i>Knowledge Organization</i>
The Third North American Symposium on Knowledge Organization, June 16-17, Toronto, Canada	2011, v. 38, no. 4
The 5th ISKO Italy Meeting, Venice, 2011	2012, v. 39, no. 1
The 10th ISKO Spanish Chapter Conference (X Congreso Capítulo Español de ISKO), Ferrol, Spain, 30 June-1 July, 2011	2012, v. 39, no. 2
The 1st Brazilian Conference on Knowledge Organization And Representation, Faculdade de Ciência da Informação, Campus Universitário Darcy Ribeiro Brasília, DF Brasil, October 20-22, 2011	2012, v. 39, no. 3
ISKO France 2011 Conference Dynamism and Stability and in Knowledge Organization: From one Conference to another: Toronto 2000, Lille 2011	2012, v. 39, no. 4

Table 1. Regional ISKO Conferences in this analysis

## 2.0 Analysis of citing practices

Individual papers and their authors are identified in Table 2, along with the total number of citations per paper and the mean age of cited work per paper, as well as the distribution of resource types—journal/monograph/web resource.

Because we have a relatively small source of data it is difficult to make generalizations. We can perhaps consider that Derek De Solla Price's index (De Bellis 2009, 66) suggests that papers in a hard scientific discipline would cite relatively few sources, most of which would be recent and most of which would be in peer-reviewed journals. We can extrapolate further then, that somewhat "softer" scientific domains (such

Conference	Author, Title	No. Cited works	j/m/w	Mean age of cited work
Canada/ United States	Melodie J. Fox, Prototype theory: an alternative concept theory for categorizing sex and gender?	18	7/11/0	13.9
	Rebecca Green, See-also relationships in the <i>Dewey Decimal Classification</i>	9	0/9/0	9.3
	Michèle Hudon, Teaching classification in the 21st century	13	13/0/0	10.2
	Cristina Patuelli, Mapping people-centered properties for linked open data	30	4/8/18	3.8
Italy	Maria Teresa Chiaravalloti, Erika Pasceri, Maria Taverniti, URT "Indexing and Classification Systems" projects and bio-medical knowledge standards	6	1/5/0	2.6
	Roberto Raieli, The semantic hole: enthusiasm and caution around multimedia information retrieval	8	2/4/2	8.1
	Carlo Bianchini, Colon Classification and Nuovo Soggettario: The case of the Library of the Natural History Museum of Udine, Italy	10	2/8/0	27
Spain	Leticia Barrionuevo Almuzara, M <sup>a</sup> Luisa Alvite Díez, and Blanca Rodríguez Bravo, A study of authority control in Spanish University repositories	12	8/1/3	3.5
	María G. Bonome, Analysis of knowledge organization systems as complex systems: a new approach to deal with changes in the Web	22	4/18/0	13.3
	Armando Malheiro da Silva and Fernanda Ribeiro, Documentation/information and their paradigms: characterization and importance in research, education, and professional practice	20	5/15/0	23.6
	Daniel Martínez-Ávila, Hope A. Olson, and Margaret E.I. Kipp, New roles and global agents in information organization in Spanish Libraries	49	9/2/38	4.7
Brazil	Carlos Cândido de Almeida, The Methodological Influence of Peirce's Pragmatism on Knowledge Organization	33	21/12/1	13.3
	Juliana Lazzarotto Freitas, Rene Faustino Gabriel Junior, and Leilah Santiago Bufrem, Theoretical approximations between Brazilian and Spanish Authors' production in the field of knowledge organization in the production of journals on information science in Brazil	11	6/4/1	9.3
	Cristina Dotta Ortega, Conceptual and procedural grounding of documentary systems	7	4/3	10.2
France	Viviane Couzinet, Knowledge organization in the context of information and communication science: a French exception?	19	11/8/0	12.2
	Claudio Gnoli, Metadata about what? Distinguishing between ontological, epistemic, and documental dimensions in knowledge organization	37	13/20/4	12.8
	Philippe Bourdenet, The catalog resisting the Web: an historical perspective	19	7/5/7	5.8
	Orélie Desfriches Doria, The role of activities awareness in faceted classification development	21	10/11/0	9
	Viviane Clavier and Céline Paganelli, Including authorial stance in the indexing of scientific documents	41	17/12/12	8.5

Table 2. Authors, titles, number of citations, mean age of cited works

as most social sciences) would have a larger proportion of monographs to journals, and humanistic domains at the other end of the spectrum might generate papers with large numbers of citations to monographic sources, and many of these might be classical older texts. For the purpose of this analysis, citations to papers in e-journals have been counted as "journal" citations; "web resource" identifies documents that

appear from the citation to be neither research articles nor chapters in anthologies.

Here we have a thoroughly mixed bag, with no regional differences and with papers of all three types in each conference group. (We also have some anomalous results—for instance, Green's paper was largely empirical, but cites only various editions of the *Dewey Decimal Classification*; one of the best French

papers is by Claudio Gnoli, an Italian; one of the Spanish papers has two North American co-authors, and that paper has the largest number of citations, most of which are to web resources.) Mean age of cited work gives a more harmonious result, demonstrating the mix of humanistic and empirical scientific methodologies in use among these authors, which is a tension noted generally in knowledge organization as a domain. If there is a scientific research front it is represented here by Patuelli, Chiaravalloti, Pasceri and Taverniti, and Martinez-Ávila, Olson and Kipp, all of which have low mean age of cited work, an indication of immediacy among their sources. A cautious conclusion at this stage is that these papers altogether are representative of the core of knowledge organization as a domain, and that there are no regional methodological variations apparent from citation use.

### 2.1 Most cited authors

There are a number of indicators of the presence of an active research front, among them the presence of a large number of authors citing a small quantity of recent journal literature (as we saw above). Another major indicator is unity among citing authors about whose work is of the most importance. In other words, we expect a coherent domain to have a fairly consistent point of view about its own core theoretical literature, and that point of view should be represented by consistent citing of key authors. Often this group includes prolific authors as well. In the Mysore keynote meta-analysis, lists of most cited authors in several different studies of knowledge organization as a domain emerged for comparison. The lists always

Hjørland	12
DILVE	8
Simon	7
Silva	6
Couzinet	5
OCLC	5
Dahlberg	5
Dewey	5
Gnoli	5
Mai	4
Peirce	4
Szostak	4
Thellefsen	4

Table 3. Most cited authors overall

include Hjørland, Beghtol, Gnoli, and Olson, and sometimes also include Dahlberg, Smiraglia, López-Huertas, Tennis and Vickery, depending on where the cut-off line is drawn (again, see Smiraglia 2012). All of the works cited in the studies under examination here were analyzed to determine who were the most cited authors overall (table 3), as well as who were the most cited in each regional group (table 4). To save space and to generate a more representative result, only authors cited four or more times are included here.

The results are interestingly anomalous. We have the usual suspects in the overall list—Hjørland, Dewey, Dahlberg and Gnoli—joined by newcomers DILVE (a Spanish publishing consortium) and Szostak. But more interestingly, notice in Table 4 that Italy drops out—no author was cited more than twice by the three Italian authors combined, North America cites only Dewey often enough to make the cut, and then obviously a semiotic influence is apparent in the Brazilian circle and concept theory in the French. Essentially, these papers are again seen to represent the core of knowledge organization, with little regional variation.

### 3.0 Keywords as concepts

We will look now at keywords in the titles of the papers to see whether we find confirmation of this result. Because of the small number of papers involved, simple extraction of keywords was used. Only a few terms are repeated: “knowledge organization” appears four times, “information organization” once, and “knowledge organization systems” appears once; “information” forms sort of a cluster (together with “information science” and “information and communication science”), as does “documentation” (together with “documental” and “documentation”), “concept theory” and “conceptual” both appear, and “Web” appears twice. These terms are core, and easily associated with the extension of knowledge organization as a domain.

The rest of the 62 keywords in the titles of 19 papers are all unique in the list, ranging from authorial stance, to global agents, linked open data, and semantic hole (please see Table 2 above). This conceptual

North America	Spain	Brazil	France
Dewey 4	DILVE 8 Simon 7 Silva 6 OCLC 5	Mai 4 Peirce 4 Thellefsen 4	Hjørland 6 Couzinet 5 Gnoli 4

Table 4. Most cited by region

plethora is indicative of the breadth of the research front as represented by these papers, all chosen as leading presentations from regional ISKO conferences. It is evidence of the constantly shifting intension in the domain albeit always along the continuum from concept theory to applied systems. It is evidence of the health of the domain, as new ideas receive their due in regional conferences. The absence of any particular regional slant is evidence of the strength of the domain's core extension, which remains interoperability.

### References

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