

Official Bi-Monthly Journal of the International Society for Knowledge Organization

ISSN 0943 – 7444

International Journal devoted to Concept Theory, Classification, Indexing and Knowledge Representation

## Contents

### Editorial

- Jihee Beak, Inkyung Choi, Sukwon Lee, Hyounjoo Park,  
Laura Ridenour and Richard P. Smiraglia.  
Knowledge Organization and the 2013 UDC Seminar:  
An Editorial..... 191

### Articles

- M.P. Satija, Devika P. Madalli and Biswanath Dutta.  
Modes of Growth of Subjects ..... 195
- Antonio García Gutiérrez and Daniel Martínez-Ávila.  
Critical Organization of Knowledge in Mass Media  
Information Systems ..... 205
- Vreda Pieterse and Derrick G. Kourie.  
Lists, Taxonomies, Lattices, Thesauri and Ontologies:  
Paving a Pathway Through a Terminological Jungle ..... 217

### Papers from the 2013 World Social Science Forum, Montréal, Canada

- David Zemmels.  
Accessing Virtual Social Worlds:  
A Unique Methodology for Research  
in New Media Spaces ..... 230

- Katrin Weller.  
What do we get from Twitter—and What Not?  
A Close Look at Twitter Research in the Social  
Sciences ..... 238

- Tim Kenyon.  
Defining and Measuring Research Impact  
in the Humanities, Social Sciences and Creative  
Arts in the Digital Age ..... 249

- Books Recently Published** ..... 258

# KNOWLEDGE ORGANIZATION

KO

Official Bi-Monthly Journal of the International Society for Knowledge Organization

ISSN 0943 – 7444

International Journal devoted to Concept Theory, Classification, Indexing and Knowledge Representation

## Contents pages

M. P. Satija, Devika P. Madalli, Biswanath Dutta. **Modes of Growth of Subjects.** *Knowledge Organization.* 41(3), 195-204. 46 references.

**Abstract:** We define knowledge as a system in a perpetually dynamic continuum. Knowledge grows as it is always fragmentary, though quantifying this growth is nearly impossible. Growth, inherent in the nature of knowledge, is natural, planned, and induced. S.R. Ranganathan elucidated the various modes of growth of subjects, viz. fission, lamination, loose assemblage, fusion, distillation, partial comprehensions, and subject bundles. The present study adds a few more modes of developments of subjects. We describe and fit these modes of growth in the framework of growth by specialization, interdisciplinary and multidisciplinary growths. We also examine emergence of online domains such as web directories and focus on possible modes of formation of such domains. The paper concludes that new modes may emerge in the future in consonance with the new research trends and ever-changing social needs.

Antonio García Gutiérrez and Daniel Martínez-Ávila. **Critical Organization of Knowledge in Mass Media Information Systems.** *Knowledge Organization.* 41(3), 205-216. 60 references.

**Abstract:** This paper studies knowledge organization (KO) in media archives, focusing on the presence of subjectivity in the core tasks of mass media knowledge organizers (MKOS) dealing with press, radio and TV records, such as classification, representation, and any other process related to content analysis and organization in news information systems. Far from rejecting subjectivity and ideological bias in these operations - since they co-participate in the media construction of reality—the authors consider MKOS to be genuine ideological and cultural mediators with the right and social responsibility to explicitly state the results of their “objectifiable” work (obtained through KO protocols and procedures determined by the media/company, classifications, thesauri, ontologies, etc.) and differentiate them from those of their political, ideological, cultural and, in sum, subjective stances. In order to achieve this, we propose the application of critical operators that should be followed by technical, collaborative and even technological actions geared to investing information systems with the capacity to consider those stances and allowing users to distinguish them. In short, it is the theoretical recognition of the subjective and biased presence of media knowledge organization operators in a job that is usually considered neutral, banal and even objective, and the initial development of tools for critical, self-critical, technical, and technological training keyed to its practical solution. This paper outlines the lines of work of a broader re-

search study on the critical function of KO in the field of global media memory.

Vreda Pieterse and Derrick G. Kourie. **Lists, Taxonomies, Lattices, Thesauri and Ontologies:Paving a Pathway Through a Terminological Jungle.** *Knowledge Organization.* 41(3), 217-229. 67 references.

**Abstract:** This article seeks to resolve ambiguities and create a shared vocabulary with reference to classification-related terms. Due to the need to organize information in all disciplines, knowledge organization systems (KOSs) with varying attributes, content and structures have been developed independently in different domains. These scattered developments have given rise to a conglomeration of classification-related terms which are often used inconsistently both within and across different research fields. This terminological conundrum has impeded communication among researchers. To build the ideal Semantic Web, this problem will have to be surmounted. A common nomenclature is needed to incorporate the vast body of semantic information embedded in existing classifications when developing new systems and to facilitate interoperability among diverse systems. To bridge the terminological gap between the researchers and practitioners of disparate disciplines, we have identified five broad classes of KOSs: lists, taxonomies, lattices, thesauri and ontologies. We provide definitions of the terms catalogue, index, lexicon, knowledge base and topic map. After explaining the meaning and usage of these terms, we delineate how they relate to one another as well as to the different types of KOSs. Our definitions are not intended to replace established definitions but rather to clarify their respective meanings and to advocate their proper usage. In particular we caution against the indiscriminate use of the term ontology in contexts where, in our view, the term thesaurus would be more appropriate.

David Zemmels. **Accessing Virtual Social Worlds: A Unique Methodology for Research in New Media Spaces.** *Knowledge Organization.* 41(3), 230-237. 37 references.

**Abstract:** Qualitative research into contemporary media engagement is particularly challenged by the complexity and diversity of today's media channels. Further, the very conception of media is rapidly changing: social activities have become closely linked with media engagement. As media saturation in everyday life continues to expand, the study of everyday “practices” in “ordinary people’s lives,” or *habitus*, to use Bourdieu’s term (1980), constitutes social identity and thus an important object for media research. I offer a reconceptualization of media en-

Official Bi-Monthly Journal of the International Society for Knowledge Organization

ISSN 0943 – 7444

International Journal devoted to Concept Theory, Classification, Indexing and Knowledge Representation

gagement as a participatory media culture and outline a unique methodological approach developed for the study of this culture in new media spaces. The methodology incorporated use of a laptop to record and analyze the auto-ethnographic reports and actions of a panel of respondents. As an example of an outcome using this methodology, an extensive taxonomy of web sites is outlined, which can be helpful in disaggregating data on new media practices for media research. The methodology could be adapted widely to many disciplines interested in the everyday practices of media engagement.

Katrin Weller. **What do we get from Twitter—and What Not? A Close Look at Twitter Research in the Social Sciences.** *Knowledge Organization*. 41(3), 238-248. 30 references.

**Abstract:** The state of Twitter research in the social science domain is investigated based on a set of 25 highly cited papers, identified with the Scopus database out of 370 social science publications on social media research. The analysis shows how social media research in the social sciences has risen since 2007. The selected top cited papers are analyzed concerning their domains, the applied methods and the underlying data in use. It is shown that different methods, both experimental and analytical are applied, and that some papers have started to combine different modes of analysis. The size of the datasets used for studying Twitter varies considerably across studies. Furthermore, central advantages of studying data collected from Twitter are pointed out and open challenges in working with these particular data are listed. Challenges include, for example, data

access via the Twitter API or via third party tools, representativeness of datasets and sampling strategies and ethical issues.

Tim Kenyon. **Defining and Measuring Research Impact in the Humanities, Social Sciences and Creative Arts in the Digital Age.** *Knowledge Organization*. 41(3), 249-257. 16 references.

**Abstract:** There are powerful reasons for and against researchers taking the lead in formulating research impact measures for disciplines in the humanities, social sciences and creative arts (HSSCA). On balance, the reasons in favour are stronger, not least because such measures are otherwise apt to be formulated badly by those with little expertise. This invites us to inquire about the sorts of measures would best apply to HSSCA disciplines (among others), and whether some of the more popular impact measures, such as citation indices, really are reasonable indicators of impact or quality in these domains. It also raises questions about how burgeoning modes of research, knowledge mobilization, and impact tracking in the digital domain play into HSSCA research measures. On reflection, empirically adequate and arithmetically meaningful HSSCA impact measures will be pluralistic, non-reductive, and highly context-dependent; they are unlikely to lend themselves to the current pseudoscience of single-dimensional ordinal rankings between research institutions. Nevertheless they may support comparisons of interesting sorts, and enable assessments for accountability and planning purposes.