

# Reports and Communications

Edited by Clare Beghtol

## The Fourth ISKO-Spain Conference:

The Spanish Chapter of ISKO held its biannual conference on April 22-24, 1999 in Granada (Spain), sponsored by the Spanish Chapter, the University of Granada and the Andalusian Regional Government, under the theme "The representation and organization of knowledge in its different perspectives: its influence on information retrieval". People involved in knowledge representation and organization for information retrieval belong to different disciplines, and all these viewpoints are needed to solve efficiently the problems that these systems are facing. That is why we thought that it would be interesting to hold a conference whose main objective was to bring together those specialists who in any way may be interested in this topic. Besides, it had the interest of being the first conference in Spain on this topic. The conference turned into a meeting place for debate and exchange of ideas from any perspective in knowledge representation and organization ranging from conceptual models and views in the light of bibliometrics to any other perspective using qualitative and/or quantitative approaches. It also gave us the chance to set in contrast existing approaches, examining strengths and weaknesses each may have, the possibilities and/or convenience of combined uses and the extent to which this may or may not be viable in today's information systems.

The topic of the conference attracted much attention among specialists from all over Spain and also, for the first time, from abroad (Denmark, France, England, Mexico, Argentina, etc. ). Many students also attended the meeting. Eighty seven papers were presented for review to the scientific committee from which fifty nine were accepted for inclusion in the conference and for publication in the Proceedings. The high level of the contributions was remarkable.

The conference opening panel was formed by the Vicepresident of the University of Granada; Emilia Currás, Honorary ISKO-Spain President; Clare Beghtol, ISKO President; Félix de Moya, Dean of the Faculty of Information Science (Granada) and María J. López-Huertas, ISKO-Spain President and Conference Chair, who also addressed the conference.

Three main features were 1) the invited talks, 2) the Round Tables and 3) the specialists contributions grouped in seven sessions. One of the guest speakers

was Nicholas Belkin, Rutgers University (USA), who gave the keynote address on the topic "Complementary models in knowledge representation and organization". He set brilliantly the theme of the conference. The other one was Robert Fugmann (Germany) who had been invited to talk about "Problems in the empiric evaluation of information systems". The Round Tables were thought of to stress the main topics in the conference and to provoke discussion between the audience and the panelists. One of them was devoted to "Different perspectives in knowledge organization" the objective of which was to give an overview on the different views discussed in the first three sessions. The panelists were Nicholas Belkin (Information Science, Rutgers University, USA) who took the conceptual side, Amparo Vila (Artificial Intelligence and Computational Sciences, Granada) who represented the artificial intelligence approach and Evaristo Jiménez (Information Sciences, Granada) talking about the bibliometric perspective. After the presentations, followed a very vivid, interesting discussion. The second Round Table was devoted to "Information systems evaluation", and had the aim of pointing out recent studies challenging traditional evaluation concepts. It was introduced by Robert Fugmann's talk "Problems in the empiric evaluation of information systems", which was read by Colleen Cool in the absence of Prof. Fugmann, and followed by the panelists addresses. Emilia Currás (Isko-Spain Honorary President), José Antonio Moreira (Information Science, Madrid) and Félix de Moya (Information Science, Granada). An interesting colloquium followed.

According to the main idea of contrasting the existing viewpoints in knowledge representation and organization, the conference devoted the first four sessions to grouping the different perspectives and the Internet. Information retrieval, evaluation and the users were the topics for the remaining parts. The conference had the following sessions:

1. Knowledge conceptual representation and organization, which was divided into the following three parts: Conceptual representation. Models and methods, Conceptual structures construction and management. Design, use and evolution of conceptual structures;

2. Knowledge representation and organization based on artificial intelligence;
3. Statistical and bibliometric perspectives in knowledge organization;
4. Knowledge organization and management on the Internet;
5. Information retrieval, divided into two parts: IR Models and Methods and IR in specialized and multimedia systems;
6. Evaluation of information systems; and
7. The user of information systems.

Contributions were organized in the above seven sessions as follows:

1. Conceptual representation. Models and methods: Cognitive grammar for indexing and writing by Sahbi SIDHOM, / Knowledge management in organizations through the workflow by M<sup>a</sup> Antonia GARCÍA MORENO. Ontologies possibilities for Library and Information Sciences by Vicente GUERRERO BOTE. Automatic translation and its impact in knowledge representation by María José AYUSO SÁNCHEZ. / Faceted knowledge organization: the Ortega's theories by José María IZQUIERDO ARROYO. The concept of "category" and its influence in indexing languages construction and evaluation by Mario BARITÉ. Content form and documental function: the structure role in knowledge organization by Mónica IZQUIERDO ALONSO.

Conceptual structures construction and management: Towards automatic thesauri construction. Manuel VELASCO, Irene DÍAZ, José Antonio MOREIRO y Juan LLORENS. Learn from error: knowledge management in large organizations by Yolanda GONZALO y Damián MARTÍNEZ FERRERAS. A language for knowledge organization in Latin American Library Science by Catalina NAUMIS PEÑA and María TEXIA IGLESIAS MATURANA. DARWIN. A proposal for knowledge online organization and evaluation by José Antonio MERLO VEGA, *et al.* Hospitality of the Swedish Classification System and comparisons with Dewey and UDC by Miguel BENITO. Documentary languages and social exclusion by Carmen CARO CASTRO and Rosa SAN SEGUNDO MANUEL.

Design, use and evolution of conceptual structures: The thesaurus as a tool for improving information management by Rosana LÓPEZ CARREÑO *et al.* Users associations: are they of any value in a corporate thesaurus? by Marianne LYKKE NIELSEN. Definition: new trends in thesauri and other controlled vocabularies. by Amelia AGUADO *et al.* Thesaurus evolving potential: towards an expert knowledge base system by María José LÓPEZ-HUERTAS.

2. Knowledge representation and organization based on artificial intelligence: CGO and COBLI: oblique classifiers based on genetic algorithms by José Luis ÁLVAREZ MACÍAS, *et al.* NeuroIsoc: a neuronal net for knowledge representation by Félix DE MOYA, Purificación MOSCOSO and Carlos OLMEDA. Modelling the query subsystem of an information retrieval system using linguistic variables by Enrique HERRERA VIEDMA. Intelligent access to search information systems by non specialized users by David BUENO *et al.* Representation and organization of digital newspapers in XML language D. M. LLIDÓ, R. BERLANGA, M. J. ARAMBURU e I. SANZ. Introductory study on genetic algorithms for information retrieval by Oscar CORDÓN, Félix de MOYA and M. C. ZARCO. Reactive interpretation of knowledge based systems by José Antonio ALONSO JIMÉNEZ, Joaquín BORREGO DÍAZ and Mario de Jesús PÉREZ JIMÉNEZ.

3. Statistical and bibliometric perspectives in knowledge organization: Similarity measures using multi-state qualitative variables based on the statistical information theory by José Antonio ESQUIVEL Spanish names in international data bases: its influence in information retrieval and in bibliometric analysis. Rafael RUIZ PÉREZ, *et al.* Dynamic translations of the subject series. A proposal for a new classification. Rosario RUIZ BAÑOS. Sciencemetric analysis of the journal "Knowledge Organization" by Rosario RUIZ BAÑOS, Elvira RUIZ DE OSMA and Mercedes DE LA MONEDA.

4. Knowledge organization and management on the Internet: The examination of the display of hyperlinks in WWW-OPACs by Ibadjadene MADJID. Incorporating Internet resources in library catalogs - selection and registration by Marianne LYKKE NIELSEN and Erik THORLUND JEPSEN. From the multiseacher to the metaseacher. The tracing agents on the Internet by Isidro AGUILLO. TWebS: An application of terminological logics in web searchings by Álvaro BARREIRO GARCÍA, David E. LOSADA and Raúl RAMOS. Agents and ontologies in information management: classifying and retrieving in Internet by Jesús TRAMULLAS SAZ. An approach to the management software and the access to information in Internet resources by Montserrat SEBASTIÁ. A tool for a joint development of a knowledge base through Internet by Mónica TRELLA LÓPEZ. Information systems in the web as tools for information dissemination to the citizen by Antonio MUÑOZ and Celia CHAÍN.

5. Information retrieval. Models and Methods: A multiagent system architecture for information retrieval and presentation by V. JULIÁN, Carlos

CARRAS-COSA y J. SOLER. A system for structured information retrieval by Jesús M<sup>a</sup> VEGAS HERNÁNDEZ and Pablo de la FUENTE. Interfaces for information retrieval systems: search behaviour models for end users by Victoria MANGLANO. Quality in documents indexing: A necessary element for optimizing information retrieval by Ana EXTREMEÑO PLACER. Forms rebellion: form aspects of the document content as a retrieval element by Constança ESPELT and Jesús GASCÓN. Standardized structural model for archives description tools by Eduardo PEIS and Juan Carlos FERNÁNDEZ-MOLINA. Information retrieval and knowledge management systems by Ricardo EITO BRUN. Subject searching in automatized catalogs of the Catalan public libraries by Rosa SEGUÍ I PALOU and Aurora VALLS.

Information retrieval in specialized and multimedia systems: New strategies in information retrieval and dissemination in the industrial sector by José Ángel MARTÍNEZ USERO. Legislative procedure in the Europe Union and information retrieval by M<sup>a</sup> del Carmen SÁNCHEZ DOMINGUEZ. Knowledge representation of moving images by Jorge CALDERA SERRANO. A conceptual model theory for multimedia objects retrieval by José Antonio MOREIRO and Miguel Ángel LÓPEZ ALONSO.

6. Evaluation of Information Systems: ERIC data base evaluation in different settings: online and web by José Antonio SALVADOR OLIVÁN, José M<sup>a</sup> ANGÓS ULLATE and M<sup>a</sup> J. FERNÁNDEZ RUIZ. Measures for conceptual schemes evaluation by Mario PIATTINI M. POLO, C. CALERO and F. RUIZ. Evaluation of interfaces in information retrieval systems by Juan Antonio PASTOR SÁNCHEZ and Vivina ASENSI ARTIGA.

7. The users of Information Systems: The user as the system reason of being by Armando JIMÉNEZ CORREA. Personalisation of information based on the concept of relevance using a user model by Amos A. DAVID and David BUENO VALLEJO. The transactional analysis as a method for collecting data in the study of users behaviour in online catalogs by José Antonio FRIAS MONTOYA. Techniques for knowledge representation of users in a domain oriented information system by Joaquín RUIZ ABELLÁN and María J. LÓPEZ-HUERTAS.

The Proceedings are already published by Isko-Spain and the University of Granada, and they can be bought through Internet at the following address: HIPERVÍNCULO <http://www.ugr.es/~isko>. The conference conclusions can be read at the same electronic address.

Finally, I have to say that the conference was a big success both in number of participants (two hundred and forty five) and in the quality of the contributions. Also remarkable was the great interaction among the participants along the conference. It was also clear that combining models and methodologies for knowledge representation and organization demands deeper study and research. The wonders of Granada city and the social events planned contributed also to the enhancement of the three-day ISKO-Spanish Chapter Conference.

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#### Knowledge and Education in an Information-loaded World (Wissen und Bildung in einer informatisierten Welt)

This was the topic of a seminar in the Taunus mountains, organized on April 23-25, 1999 by ISKO member Prof. R. Wille of the ErnstSchröderZentrum for Conceptual Knowledge Processing, Darmstadt, together with the Protestant Academy Arnoldshain. The five speakers and their papers were: *Rudolf Wille* (TU Darmstadt): How can knowledge acquisition be supported by computer systems? – *Norbert Meder* (Univ. Bielefeld): Knowledge and education in computer-supported learning environments. – *Frieder Nake* (Univ. Bremen): Education in virtual museums. – *Rolf Schulmeister* (Univ. Hamburg): Learning in a virtual university. – *Joseph Weizenbaum* (MIT Cambridge, presently Berlin): Knowledge and education in an information-loaded world (presentation in discussion with 4 students as representatives of the younger generation).

The meeting, held in German, with 42 participants was concluded with a discussion session entitled: „How do we reach a human-oriented handling of information technology?“ Before everybody could contribute to this question, four participants were asked to present their observations during the seminar, among whom was Robert **Fugmann**, whose text will be given here, somewhat shortened.

Fugmann noted that a certain topic seemed to be common to the five different papers, i.e. the problem of subject interpretation of messages of all kinds, also of signs and signals. In the paper by N. Meder, computer interpretation is occurring when codes representing knowledge have to be decoded, both in case of natural and of artificial codes. Interpretation is also occurring on the part of the reader of information if