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Professional Knowledge Management – Experiences and Visions

J.UCS Special Issue

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Professional knowledge management is a critical success factor in today's enterprises. The efficacy of a knowledge management (KM) project depends heavily on a successful coordination of issues such as corporate culture, organizational processes, human resource management and information technology. It is currently not well understood how best to balance and align these issues. In order to facilitate an interdisciplinary exchange of ideas which might lead to new, holistic approaches, the biennial conference series „Professional Knowledge Management – Experiences and Visions" was set up and held for the first time in March 2001 in Baden-Baden, Germany. The second conference took place April 2003 in Luzern, Switzerland. Some of the most interesting papers from the recent conference have been revised and extended by their authors to appear in this special issue of J.UCS.

Cultural aspects of KM:

In line with the interdisciplinary approach of the above-mentioned conference, the papers selected for this issue cover a wide range of topics. The contributions by Tomas Bohinc and Marc Kuhn focus on how to best deal with aspects of corporate culture and how to turn them into an important leverage for the success of a KM project. The paper by Elisabeth Kamentz and Christa Womser-Hacker examines the impact of country-specific cultural background on the design of e-learning systems.

Knowledge reuse:

The reuse of knowledge that is relevant in different but similar situations can be quite well supported by case-based reasoning. A comparison of case-based reasoning and the more recent ontology-based approaches to KM is given by Ralph Bergmann and Martin Schaaf. An application of case-based reasoning in the area of software development is presented in Markus Grabert and Derek Bridge. Ralf Carbon and Raimund L. Feldmann also aim at supporting the reuse of software development experience. The authors examine the use of schemata to better capture and transfer

experience. Luciana Landa Farias et al. discuss an approach to facilitate the reuse of experience in risk management gained in former projects.

Ontology-based approaches:

Ontology-based approaches to KM promise better access to relevant knowledge by providing a domain-specific vocabulary that is used for describing the contents of knowledge as well as for retrieving that knowledge. The paper by Marcio Dias et al. examines the use of ontologies for managing knowledge about software engineering practices. An automatic expansion of queries for document retrieval with concepts from a domain-specific ontology is discussed by Eddie Moench et al. Nenad Stojanovic presents an ontology-based agent system that acts somewhat like a human librarian to support a user in finding the knowledge s/he is seeking.

Measuring of KM projects:

The KM activities of an organization aim at improving the way the organization works – internally as well as in interaction with its environment. In order to better direct KM projects, their costs and benefits need to be measured. An example of such an approach is discussed in the contribution by Josef Hofer-Alfeis.

We are confident that the selection of articles in this journal issue gives an interesting overview of current trends in the area of KM and that the reader will be inspired by new insights and ideas. We are looking forward to the successful continuation of the conference series in 2005 and would like to point interested readers to the website of the last conference for further information: http://wm2003.aifb.uni-karlsruhe.de

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