New Trends in Knowledge Management

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When the only constant is change, knowledge becomes not just important, but indeed vital for the very survival and future success of organizations. While that, in itself, is hardly a new realization, the pace of new insights from current research as well as new applications of knowledge management in practice continually raise the bar for what it means to be leading the way. And only those organizations that are at the cutting edge will be able to beat the competition. Within this context, the cutting edge results in knowledge management research are presented in this issue.

With its first issue J.UKM publishes the best eight contributions which were carefully evaluated and proposed for the journal publication by the international expert committee of I-KNOW `05, the 5th International Conference on Knowledge Management (http://www.i-know.at).

The purpose of J.UKM and particularly this issue is to provide researchers with guidance towards novel ideas for knowledge management research and next-generation knowledge management solutions. As the eight contributions show, human-oriented and organisational aspects of knowledge management are becoming increasingly important. There is a common understanding among the authors of this issue that a well-balanced combination or even integration of organisational and human-oriented aspects forms the basis for successful knowledge management instruments, particularly for instruments which are based on information technology. In addition, after various different and exciting knowledge management instruments have been developed in the past, the authors of this issue identify clear indications that the performance measurement of knowledge management activities are attracting more and more attention in the research community. Based upon the experience and the great research results presented in this issue, the reader is provided with an excellent overview of the current state-of the-art in knowledge management research. But this issue does not only give answers to open research questions. Instead, it supplements them with questions of the authors to the research community, hoping to provide a further important stimulus to this fascinating and still so unexplored research field.

In detail, the papers address the following topics:

An-Pin Chen and Mu-Yen Chen from the National Chiao Tung University (Taiwan) entitled their paper *A Review of Survey Research in Knowledge Management Performance Measurement: 1995-2004*. This paper addresses the

increasingly important topic of knowledge management performance evaluation. Based upon a literature review and a classification of articles published from 1995 to 2004 the authors come to the following conclusions: there are clear indications that the evaluation of knowledge management performance is becoming more important; firms tend to prefer benchmarking and best practices for knowledge management performance measurement rather than audits based on the balanced scorecard idea; compared to traditional qualitative evaluations, quantitative and non-financial analysis methods are considered to be more important for the future.

Bernhard Schmiedlinger, Klaus Valentin and Elisabeth Stephan from Profactor (Austria) present in their contribution *Competence Based Business Development – Organizational Competencies as Basis for Successful Companies* a new competence management approach. This approach supports organizations in the identification, measurement, combination and integration of organizational competencies. The underlying model distinguishes between an elementary level (human perspective), a passive and active level (organizational perspective), and a learning and adaptation loop. The elementary level describes the individual human competencies. The active (passive) level comprises all existing potentials which are actively (not actively) used for value creation. At the learning level competencies are continuously evaluated and further developed to meet future demands.

Giuseppe Berio from University of Torino (Italy) and Mounira Harzallah from University of Nantes (France) address *Knowledge Management for Competence Management*. Their idea is to apply knowledge engineering techniques to support competence identification, assessment, acquisition and usage. A critical discussion of existing approaches to apply knowledge engineering techniques for competence management highlights that these approaches often do not distinguish between competencies and qualification, availability and competencies or required and acquired competencies. To overcome this shortcoming the authors propose a representation which unifies the different aspects of competence management.

David Mayrhofer, Peter Heilmeier, Ravi Nirankari and Andrea Back from University of St. Gallen (Switzerland) and EADS Military Aircraft (Germany) conduct research in *Knowledge Management in Challenging Settings - A Case of Military Aircraft*. The descriptive case study reports on specific challenges within a military company (e.g. age pattern of employees, difficulties with knowledge sharing across units because of mergers, acquisitions etc.) and suggests knowledge management concepts to tackle these challenges. Among these concepts are Communities of Practice, Lessons Learned Workshops, or Knowledge Portals.

Tobias Müller-Prothmann (Freie University of Berlin), Andrea Siegberg (Fraunhofer Gesellschaft) and Ina Finke (Fraunhofer Institute IPK) (Germany) entitled their paper *Inter-Organisational Community Building: Sustaining or Overcoming Organizational Boundaries?*. The paper explores inter-organisational community building in an R&D environment by means of social network analysis. It provides a set of methods and measures to identify, to visualise and to analyze the informal personal networks which exists within and between organisations.

Wei Liu, Albert Weichselbraun (University of Western Australia), Arno Scharl (Vienna University of Economics and Business Administration, Austria) and Elisabeth Chang (Curtin University of Technology, Australia) address *Semi-Automatic Ontology Extension Using Spreading Activation*. The authors argue that

ontologies are of utmost importance in open environments but that the creation of specific domain ontologies is still a laborious process. Their key idea is to extend and refine a seed ontology by mining textual data using spreading activation over weighed graphs.

Gunter Nittbaur from Malik Management Zentrum St. Gallen (Switzerland) presents to managers and their advisors a new planning method that captures the native genius of the organisation. It is argued that this produces the best possible results in the shortest possible time from the largest possible number of people by making optimised use of the knowledge of the people involved. The approach presented is based upon Stafford Beer's idea of Syntegration which is also expressed in the title *Stafford Beer's Syntegration as a Renascence of the Ancient Greek Agora in Present-day Organizations*.

Rüdiger Reinhardt from the Management Center Innsbruck (Austria) presents in his paper *Implementation of an Intellectual Capital Management System: Evaluation of a „Bottom-Up" Approach* the advantages of a bottom-up implementation of a knowledge-related measurements and monitoring system. The paper describes the key issues of this concept, the realization and evaluation of the concept, and shows the major lessons learned from this approach.

I hope that this first issue of the new Journal of Universal Knowledge Management provides you with a unique overview of the manifold trends we are currently encountering in knowledge management.

Klaus Tochtermann   Graz, July 2005
Know-Center Graz & Graz University of Technology