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Integration of Knowledge Management and (e)Learning

J.UCS Special Issue

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Peter Drucker emphasizes that "knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker". Learning and teaching are inherent to knowledge work. They form a unity. Contrary to Drucker's postulation, the research fields of (e)Learning and knowledge management have developed rather independently.

The special issue "*Integration of Knowledge Management & (e)Learning*" makes more detailed versions of the contributions to KM&eL'04 (http://www.i-know.at/kmel) available. KM&eL'04 is the second special track of a series started at I-Know'03 where the role of (virtual) communities of practice within modern organizations was examined.

The purpose of this special issue is to provide readers with an overview of up-to-date research on the crossroads of knowledge management and (e)Learning.

Knowledge Management regards knowledge as an organization's key asset and focuses on its role for action within the organization. It aims at fostering and managing processes like knowledge creation, transfer, application, and evolution in order to create value within the organization. The ultimate goal of knowledge management is to create a learning organization. This term underlines that the focus of this discipline is the organization and not the individual. Learning, if mentioned at all, happens at the organization level and the individual learning processes are typically not in the centre of scientific endeavour.

(e)Learning on the other hand focuses on the learning processes of individuals. In organizations, (e)Learning is typically used for qualification and human resource development programs. However, the surrounding organization and the effect of the learning on it are often not taken into account. Instead much scientific effort is invested in researching ways through which knowledge transfer to the individual can be improved. The ultimate goal of (e)Learning is to design didactically sound teaching modules which adapt themselves to a learners prior knowledge and favoured learning strategy.

The contributions of this special issue consider knowledge management aspects and their integration with technology-enhanced learning.

Knowledge Transfer through Synchronous Online-Learning

The first article "*Small Groups Learning Synchronously Online at the Workplace: The Interaction of Factors Determining Outcome and Acceptance*" by Stefan Münzer and Bo Xiao investigates in an empirical study the applicability of a software tool named Bubble-chat. Bubble-chat enables cooperative synchronous online-learning in small groups. The special characteristic of the tool is its design and provision of a well-defined learning process. Instructors or content experts take not part in the learning sessions. This distinctive feature demands the learning settings to be well-defined and outlined. The Bubble-chat tool is intended to deepen pre-existing declarative knowledge of the individual group members. Each learning task is structured into an explanation, clarification, and elaboration phase. Stefan Münzer and Bo Xiao present in their contribution the conducted study and its outcome. They discuss the factors determining the quality of the learning processs and derive from the evaluation's outcome recommendations for adaptations of the software tool.

Knowledge Sharing Instruments and the Adaption for Learning Arrangements

In the second article "*Using Weblogs for Knowledge Sharing and Learning in Information Spaces*", Eric Ras, Gabriela Avram, Patrick Waterson and Stephan Weibelzahl introduce and evaluate an approach to overcome the shortcomings of experience-based information systems (EbIS). The issues they address are content, learning, motivation, and trust related. A major user acceptance criterion of an EbIS is the necessary critical amount of present qualitative contributions at its launch. Hence Ras et al. evaluated in their empirical studies whether weblogs and Wikis (functioning as repositories for individual and workgroup knowledge) can serve as a valuable source for enriching experience-based information systems. In another investigation Ras et al. have put their attention to the question on how to adjust selected content from the EbIS to the learning needs of individuals. EbIS entries follow a problem-solution description and normally lack the context necessary for the knowledge transfer from experts to novices.

A Work-Process Oriented Learning Enviromment as an Index to Virtual Communities of Practice Networks

The third contribution "*Integration of Communities into Process-Oriented Structures*" by André Köhler and Frank Fuchs-Kittowski presents an approach in which the work process structure functions as an index into knowledge repositories of related virtual communities of practice. The work process represents the chronological course of actions to be taken by knowledge workers. In contrast virtual communities of practice have organised their knowledge according to their domain of interest. The authors present their concept and show its applicability on the basis of a prototype. The prototype uses the APO-Pilot as a system, representing the work-process, and Wiki, as the platform for virtual communities of practice. André Köhler and Frank Fuchs-

Kittowski take into account the dynamic nature of knowledge networks. And they further present their applied metrics to prioritize the knowledge objects from the Wiki systems when provided for the specific work process steps.

We hope that this special issue gives the reader an insightful overview of current concepts, methods, and implementations on the intersection of knowledge management and (e)Learning. The special track series is continued under the title "*Integrating Work and Learning*" in 2005 with new contributions introducing latest developments and research.

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