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Knowledge Work: Knowledge Worker Productivity, Collaboration and User Support

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This special issue features extended papers from the International Conference on Knowledge Management and Knowledge Technologies 2010 (I-KNOW 2010) held in Graz, Austria, September, 1-3, 2010. It comprises seven articles focussing on various aspects of knowledge work, namely knowledge worker productivity, collaboration and user support.

The first two papers address the aspect of knowledge worker productivity. The first paper is mainly concerned with the measurement of knowledge worker productivity as regards experts in specific professional domains. The results of an empirical study in different industrial domains suggests that productivity itself is not useable as performance indicator but that it is composed of multiple indicators which additionally are of different importance for different stakeholders. The second paper also states that knowledge worker productivity - according to the authors composed of efficiency and effectiveness - cannot definitely be measured and that therefore representing dimensions have to be identified. Thus, different dimensions are identified and it is shown how efficiency and effectiveness can be measured on the basis of linguistic fuzzy approach and DEA.

The next three papers discuss issues of collaboration and communication. The first paper describes a framework for the design of performance evaluation systems in collaborative networks. The idea behind is, that participants propose criteria and indicators in order to construct a shared conceptualisation of performance. The next paper is concerned with how inter-organisational collaboration can be enhanced by visual facilitation. In an experimental study the authors assessed the advantages and disadvantages of visual facilitation in inter-organisational teamwork where the research questions referred to knowledge sharing quality, team performance, satisfaction and the effects of aesthetic beauty on the estimated potential. The last paper in this block focuses on communication as mechanism for intra- and inter-organizational knowledge transfer. It discusses the concept of clarity of conveyed knowledge and its effect on efficiency in knowledge management in general and communication in particular. Ways of how clarity can be pro-actively and systematically managed are shown.

The last three papers are concerned with user support whereas the first two have their focus on practice sharing and the last is about intention aware systems. The first

paper is about the identification of patterns as sequence of relevant actions resulting in critical moments in investigated practices. Building on the Trialogical Learning Approach as well as related work in the fields of Data Mining and Knowledge Discovery, Computer-Supported Collaborative Learning, and Information Visualization, this paper suggests high-level requirements for mirroring tools in support of practice transformation and introduces a software tool called Timeline-Based Analyzer. The second paper is concerned with the usage of personal learning environments. It picks up the problem that users have varying attitudes and experiences in using ICT in general and PLE software in particular. The authors examine the relevant issues of capturing and sharing good practices of PLE-based, collaborative activities and introduce the concept of a pattern repository as a back-end service for PLEs. The last paper discusses the consideration of intention in the context of proactive user support mechanisms. Especially the externalization of intention in task models is discussed. A framework for intention-aware systems is presented in detail.

Finally, before you immerse yourself into this interesting readings, let us thank the authors for their excellent contributions and also thank the PC members of I-KNOW 2010 as well as external reviewers who contributed with their reviewing efforts to this high quality special issue.

Michael Granitzer and Stefanie Lindstaedt

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