Knowledge Management and Representation

Edited by: JOVAN PEHCEVSKI

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- Techno-centric approach: focuses on technology, and it is convenient when users want to expand the sharing and growth of the knowledge base (enabled by the technology solutions, such as expert systems, neural nets, or the semantic Web);
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- Ecological approach: combines interaction of people, personality, knowledge and environmental factors into one adaptive system.

Knowledge management techniques support the strategic goals of business systems in order to share a common intelligence, improve the performance of the business systems, pick strategic assets, and further raise the innovative capacity of the individuals.

This edition covers different topics of knowledge management and representation, including methods and approaches for knowledge representation, knowledge management techniques, semantic web technology, and knowledge management applications in business and economy.

Jovan obtained his PhD in Computer Science from RMIT University in Melbourne, Australia in 2007. His research interests include big data, business intelligence and predictive analytics, data and information science, information retrieval, XML, web services and service-oriented architectures, and relational and NoSQL database systems. He has published over 30 journal and conference papers and he also serves as a journal and conference reviewer. He is currently working as a Dean and Associate Professor at European University in Skopje, Macedonia.

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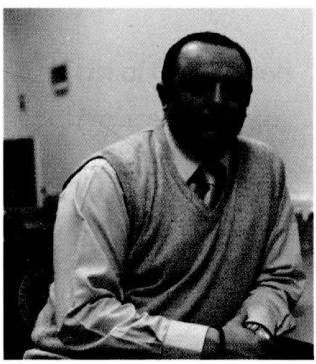

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PREFACE

The knowledge management (KM) process comprises a set of activities for identification, gathering, creation, presentation and distribution of knowledge for the purposes of learning, reuse, and awareness.

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This edition covers different topics of knowledge management and representation, including methods and approaches for knowledge representation, knowledge management techniques, semantic web technology, and knowledge management applications in business and economy.

Section 1 focuses on methods and approaches for knowledge representation, describing general knowledge representation model of concepts, symbolic regression knowledge representation framework, and an innovative approach about the process knowledge representation in the processes of large cluster projects management.

Section 2 focuses on knowledge management techniques, describing digestion of knowledge in a KM system to reveal implicit knowledge, management of knowledge acquisition from human sources in innovation transfer, and three postulates that change knowledge management paradigm.

Section 3 focuses on semantic web technologies, describing the semantic web-based collaborative knowledge management, improving engineering data management with semantic web techniques, and a state-of-the-art survey on semantic web mining.

Section 4 focuses on knowledge management applications in business and economy, describing a knowledge management framework as knowledge bases development support to professional risk assessment in SMEs, a stakeholder model for managing knowledge assets in organizations, performance innovation through applied knowledge management, and knowledge-based enterprise framework from a management control view perspective.

Editor

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