Knowledge Engineering And Management The Commonkads Methodology

Knowledge management is far-reaching. It can dramatically reduce costs such as costs of office work repetition, human resource retirement, information reuse, etc. Rather than "reinventing the wheel" and having it be a costly and inefficient activity, systematic reuse of knowledge can show substantial cost benefits immediately. This book shows how to develop process-oriented methodologies, covers both interorganizational and enterprises models, discusses how knowledge management can dramatically reduce costs and increase speed of response, presents a wide range of quantitative methods applied to various knowledge engineering problems, and offers several graphical presentations of models and processes. Academicians and practitioners in the area of knowledge management and engineering, especially managers in industries will fine this book useful. The material might also be useful in knowledge management graduate studies.

The significance of big data can be observed in any decision-making process as it is often used for forecasting and predictive analytics. Additionally, big data can be used to build a holistic view of an enterprise through a collection and analysis of large data sets retrospectively. As the data deluge deepens, new methods for analyzing, comprehending, and making use of big data become necessary. Enterprise Big Data Engineering, Analytics, and Management presents novel methodologies and practical approaches to engineering, managing, and analyzing large-scale data sets with a focus on enterprise applications and implementation. Featuring essential big data concepts including data mining, artificial intelligence, and information extraction, this publication provides a platform for retargeting the current research available in the field. Data analysts, IT professionals, researchers, and graduate-level students will find the timely research presented in this publication essential to furthering their knowledge in the field.

This two-volume set of LNAI 12274 and LNAI 12275 constitutes the refereed proceedings of the 13th International Conference on Knowledge Science, Engineering and Management, KSEM 2020, held in Hangzhou, China, in August 2020.* The 58 revised full papers and 27 short papers were carefully reviewed and selected from 291 submissions. The papers of the first volume are organized in the following topical sections: knowledge graph; knowledge representation; knowledge management for education; knowledge-based systems; and data processing and mining. The papers of the second volume are organized in the following topical sections: machine learning; recommendation algorithms and systems; social knowledge analysis and management; text mining and document analysis; and deep learning. *The conference was held virtually due to the COVID-19 pandemic.

This two-volume set of LNAI 11775 and LNAI 11776 constitutes the refereed proceedings of the 12th International Conference on Knowledge Science, Engineering and Management, KSEM 2019, held in Athens, Greece, in August 2019. The 77 revised full papers and 23 short papers presented together with 10 poster papers were carefully reviewed and selected from 240 submissions. The papers of the first volume are organized in the following topical sections: Formal Reasoning and Ontologies; Recommendation Algorithms and Systems; Social Knowledge Analysis and Management ; Data Processing and Data Mining; Image and Video Data Analysis; Deep Learning; Knowledge Graph and Knowledge Management; Machine Learning; and Knowledge Engineering Applications. The papers of the second volume are organized in the following topical sections: Probabilistic Models and Applications; Text Mining and Document Analysis; Knowledge Theories and Models; and Network Knowledge Representation and Learning.

These proceedings present technical papers selected from the 2012 International Conference on Intelligent Systems and Knowledge Engineering (ISKE 2012), held on December 15-17 in Beijing. The aim of this conference is to bring together experts from different fields of expertise to discuss the state-of-the-art in Intelligent Systems and Knowledge Engineering, and to present new findings and perspectives on future developments. The proceedings introduce current scientific and technical advances in the fields of artificial intelligence, machine learning, pattern recognition, data mining, knowledge engineering, information retrieval, information theory, knowledge-based systems, knowledge representation and reasoning, multi-agent systems, and natural-language processing, etc. Furthermore they include papers on new intelligent computing paradigms, which combine new computing methodologies, e.g., cloud computing, service computing and pervasive computing with traditional intelligent methods. By presenting new methodologies and practices, the proceedings will benefit both researchers and practitioners who want to utilize intelligent methods in their specific fields. Dr. Fuchun Sun is a professor at the Department of Computer Science & Technology, Tsinghua University, China. Dr. Tianrui Li is a professor at the School of Information Science & Technology, Southwest Jiaotong University, Chengdu, China. Dr. Hongbo Li also works at the Department of Computer Science & Technology, Tsinghua University, China.

This book focuses on the pioneering applications of an expert system in development relate to agriculture in many of the developing countries, introducing the reader to some of the key concepts underlying most expert systems.

Nowadays, there is software everywhere in our life. It controls cars, airplanes, factories, medical implants. Without software, banking, logistics and transportation, media, and even scientific research would not function in the accustomed way. Building and maintaining software is a knowledge-intensive endeavour and requires that specific experiences are handled successfully. However, neither knowledge nor experience can be collected, stored, and shipped like physical goods, instead these delicate resources require dedicated techniques. Knowledge and experience are often called company assets, yet this is only part of the truth: it is only software engineers and other creative employees who will effectively exploit an organisation's knowledge and experience. Kurt Schneider’s textbook is written for those who want to make better use of their own knowledge and experience – either personally or within their group or company. Everyone related to software development will benefit from his detailed explanations and case studies: project managers, software engineers, quality assurance responsibles, and knowledge managers. His presentation is based on years of both practical experience, with companies such as Boeing, Daimler, and Nokia, and research in renowned environments, such as the Fraunhofer Institute. Each chapter is self-contained, it clearly states its learning objectives, gives in-depth presentations, shows the techniques’ practical relevance in application scenarios, lists detailed references for further reading, and is finally completed by exercises that review the material presented and also challenge further, critical examinations. The overall result is a textbook that is equally suitable as a personal resource for self-directed learning and as the basis for a one-semester course on software engineering and knowledge management.

An authoritative guide to key engineering management principles and practices, this book is divided into eight concise domains of engineering management knowledge, which are further broken down into 46 knowledge areas and 210 sub-knowledge areas. This guide covers a wide range of management topics and practices, including market research, product development, organizational leadership and the management of engineering projects and processes. A diverse panel of practicing engineers and subject matter experts from across industry, government and academia, formed a committee of professionals to develop a readable, comprehensive, user-friendly body of knowledge guide. Whether you're a practicing engineer, an engineering manager, or a trainer of engineers, you'll find this easy-to-use guide an indispensable resource.

As technology weaves itself more tightly into everyday life, socio-economic development has become intricately tied to these ever-evolving innovations. Technology management is now an

integral element of sound business practices, and this revolution has opened up many opportunities for global communication. However, such swift change warrants greater research that can foresee and possibly prevent future complications within and between organizations. The Handbook of Research on Engineering Innovations and Technology Management in Organizations is a collection of innovative research that explores global concerns in the applications of technology to business and the explosive growth that resulted. Highlighting a wide range of topics such as cyber security, legal practice, and artificial intelligence, this book is ideally designed for engineers, manufacturers, technology managers, technology developers, IT specialists, productivity consultants, executives, lawyers, programmers, managers, policymakers, academicians, researchers, and students.

This book presents a significant advancement in the theory and practice of knowledge engineering, the discipline concerned with the development of intelligent agents that use knowledge and reasoning to perform problem solving and decision-making tasks. It covers the main stages in the development of a knowledge-based agent: understanding the application domain, modeling problem solving in that domain, developing the ontology, learning the reasoning rules, and testing the agent. The book focuses on a special class of agents: cognitive assistants for evidence-based reasoning that learn complex problem-solving expertise directly from human experts, support experts, and nonexperts in problem solving and decision making, and teach their problem-solving expertise to students. A powerful learning agent shell, Disciple-EBR, is included with the book, enabling students, practitioners, and researchers to develop cognitive assistants rapidly in a wide variety of domains that require evidence-based reasoning, including intelligence analysis, cybersecurity, law, forensics, medicine, and education.

Software development is a complex problem-solving activity with a high level of uncertainty. There are many technical challenges concerning scheduling, cost estimation, reliability, performance, etc, which are further aggravated by weaknesses such as changing requirements, team dynamics, and high staff turnover. Thus the management of knowledge and experience is a key means of systematic software development and process improvement. "Managing Software Engineering Knowledge" illustrates several theoretical examples of this vision and solutions applied to industrial practice. It is structured in four parts addressing the motives for knowledge management, the concepts and models used in knowledge management for software engineering, their application to software engineering, and practical guidelines for managing software engineering knowledge. This book provides a comprehensive overview of the state of the art and best practice in knowledge management applied to software engineering. While researchers and graduate students will benefit from the interdisciplinary approach leading to basic frameworks and methodologies, professional software developers and project managers will also profit from industrial experience reports and practical guidelines.

In today's manufacturing environment, the integration of commercial, production, maintenance, and engineering functions is a common and crucial goal. In this timely volume, Richard G. Lamb presents a new standard within the enterprise and plant design management. Lamb shows readers how to advance the plant's role in enterprise business performance and leadership by most cost effectively achieving the mechanical availability necessary to perform in the face of current events, business cycles, and industry trends. Performance is from the designed and managed reliability and maintainability of its equipment.

"Knowledge Engineering and Management" presents selected papers from the 2013 International Conference on Intelligent Systems and Knowledge Engineering (ISKE2013). The aim of this conference is to bring together experts from different expertise areas to discuss the state-of-the-art in Intelligent Systems and Knowledge Engineering, and to present new research results and perspectives on future development. The topics in this volume include, but not limited to: Knowledge Representation and Modeling, Knowledge Maintenance, Knowledge Elicitation, Knowledge-Based Systems (KBS), Content Management and Knowledge Management Systems, Ontology Engineering, Data Mining and Knowledge Discovery, Knowledge Acquisition, etc. The proceedings are benefit for both researchers and practitioners who want to utilize knowledge engineering methods in their specific research fields. Dr. Zhenkun Wen is a Professor at the College of Computer and Software Engineering, Shenzhen University, China. Dr. Tianrui Li is a Professor at the School of Information Science and Technology, Southwest Jiaotong University, Xi’an, China.

An Introduction to Knowledge Engineering presents a simple but detailed exp- ration of current and established work in the ?eld of knowledge-based systems and related technologies. Its treatment of the increasing variety of such systems is designed to provide the reader with a substantial grounding in such techno- gies as expert systems, neural networks, genetic algorithms, case-based reasoning systems, data mining, intelligent agents and the associated techniques and meth- ologies. The material is reinforced by the inclusion of numerous activities that provide opportunities for the reader to engage in their own research and re?ection as they progress through the book. In addition, self-assessment questions allow the student to check their own understanding of the concepts covered. The book will be suitable for both undergraduate and postgraduate students in computing science and related disciplines such as knowledge engineering, arti?cial intelligence, intelligent systems, cognitive neuroscience, robotics and cybernetics. vii Contents Foreword vii 1 An Introduction to Knowledge Engineering. . . . . 1 Section 1: Data, Information and Knowledge . . . . . 2 Section 2: Skills of a Knowledge Engineer . . . . . 10 Section 3: An Introduction to Knowledge-Based Systems. . . . . 18 2 Types of Knowledge-Based Systems . . . . . 26 Section 1: Expert Systems. . . . . 27 Section 2: Neural Networks. . . . . 36 Section 3: Case-Based Reasoning. . . . . 55 Section 4: Genetic Algorithms. . . . . 66 Section 5: Intelligent Agents. . . . . 74 Section 6: Data Mining . . . . . 83 3 Knowledge Acquisition. . . . . 89 4 Knowledge Representation and Reasoning . . . . . 108 Section 1: Using Knowledge. . . . . 109 Section 2: Logic, Rules and Representation . . . . . 116 Section 3: Developing Rule-Based Systems . . . . . 126 Section 4: Semantic Networks. . . . . .

This book constitutes the refereed proceedings of the 20th InternationalConference on Knowledge Engineering and Knowledge Management, EKAW 2016,held in Bologna, Italy, in November 2016. The 51 full papers presented were carefully reviewed and selected from 171 submissions. The papers cover all aspects of eliciting, acquiring, modeling, and managing knowledge, the

construction of knowledge-intensive systems and services for the Semantic Web, knowledge management, e-business, natural language processing,intelligent information integration, personal digital assistance systems, and a variety of other related topics. A special focus was on "evolving knowledge", i.e., the impact of space and time on knowledge representation, concerning all aspects of the management and acquisition of knowledge representation of evolving, contextual, and local models.

"This evidence-based book provides the framework and guidelines that professionals need for working with the contemporary explosion of data that is creating opportunities and challenges to all phases of our society and commerce." –Larry R. Medsker, Research Professor in Physics and Data Science, The George Washington University Knowledge Management in Practice is a resource on how knowledge management (KM) is implemented. It provides specific KM methods, tips, techniques, and best practices to gain competitive advantage and the most from investing in KM. It examines how KM is leveraged by first responders, the military, healthcare providers, insurance and financial services companies, legal firms, human resources departments, merger and acquisition (M&A) firms, and research institutions. Essential KM concepts are explored not only from a foundational perspective but also from a practical application. These concepts include capturing and codifying tacit and explicit knowledge, KM methods, information architecture, search, KM and social media, KM and Big Data, and the adoption of KM. Readers can visit the book’s companion website, KM Mentor (www.KMMentor.com), where they can access: Presentations by industry leaders on a variety of topics KM templates and instruction on executing KM strategy, performing knowledge transfer, and KM assessments and audits KM program and project implementation guidance Insights and reviews on KM tools Guidance on implementing and executing various KM Methods Specialized KM publications A private secure collaboration community for members to discuss ideas and get expert answers and advice

The book covers in an integrated fashion the complete route from corporate knowledge management, through knowledge analysis andengineering, to the design and implementation of knowledge-intensiveinformation systems. The disciplines of knowledge engineering and knowledge management are closely tied. Knowledge engineering deals with the development of information systems in which knowledge and reasoning play pivotal roles. Knowledge management, a newly developed field at the intersection of computer science and management, deals with knowledge as a key resource in modern organizations. Managing knowledge within an organization is inconceivable without the use of advanced information systems; the design and implementation of such systems pose great organization as well as technical challenges. The book covers in an integrated fashion the complete route from corporate knowledge management, through knowledge analysis and engineering, to the design and implementation of knowledge-intensive information systems. The CommonKADS methodology, developed over the last decade by an industry-university consortium led by the authors, is used throughout the book. CommonKADS makes as much use as possible of the new UML notation standard. Beyond information systems applications, all software engineering and computer systems projects in which knowledge plays an important role stand to benefit from the CommonKADS methodology. Knowledge Engineering and ManagementThe CommonKADS MethodologyMIT Press

This book constitutes the thoroughly refereed post-conference proceedings of the Second International Joint Conference on Knowledge Discovery, Knowledge Engineering, and Knowledge Management, IC3K 2010, held in Valencia, Spain, in October 2010. This book includes revised and extended versions of a strict selection of the best papers presented at the conference; 26 revised full papers together with 2 invited lectures were carefully reviewed and selected from 369 submissions. According to the three covered conferences KDIR 2010, KEOD 2010, and KMIS 2010, the papers are organized in topical sections on knowledge discovery and information retrieval, knowledge engineering and ontology development, and on knowledge management and information sharing.

Knowledge: In the realm of knowledge management, information plus wisdom equals knowledge. Organizations have found that the knowledge they contain can be one of their most important competitive weapons Definition: Knowledge management: The ability of an organization to manage, store, value, and distribute knowledge. Some organizations have created the position of Chief Knowledge Manager (CKM) to handle knowledge management responsibilities Many organizations fail to effectively manage and use the most important competitive edge they possess - their knowledge and "intellectual capital." This book covers the entire growing field of knowledge management, with particular emphasis on knowledge-based systems and their use in preserving knowledge in an organization, and integrating it across departments and disciplines. This hands-on guide shows how businesses and other organizations can re-engineer their processes using an applied knowledge-based approach. Each chapter introduces a different aspect of the field and demonstrates its application in actual case studies. Examples from industry, education, and government show the wide application of this exciting new field of study. The book also covers promising trends such as learning organizations, intelligent organizations, and enterprise management.

Within the past ten years, tremendous innovations have been brought forth in information technology and knowledge management. Some of the key technical innovations have included the introduction of social media, artificial intelligence, as well as improved network connectivity and capacity. Effective Knowledge Management Systems in Modern Society is a critical scholarly resource that presents an overview of how technical, social, and process changes are impacting the way knowledge systems are being designed. Featuring coverage on a broad range of topics such as knowledge engineering, cognitive ergonomics, and interorganizational knowledge, this book is geared toward consultants, practitioners, and researchers seeking current research on how new approaches in knowledge management impact information technology professionals.

A monograph for specialists interested in building maintainable knowledge based systems, giving a unified methodology for the design of such systems

Knowledge Management (KM) is strongly rooted in the discipline of Knowledge Engineering (KE), which in turn grew partly out of the artificial intelligence field. Despite their close relationship, however, many KM specialists have failed to fully recognize the synergy or acknowledge the power that KE methodologies, techniques, and tools hold for enh

This book constitutes the thoroughly refereed proceedings of the 10th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, IC3K 2018, held in Seville, Spain, in September 2018. The 12 full papers presented were carefully reviewed and selected from 167 submissions. The papers are organized in topical sections on knowledge discovery and information retrieval; knowledge engineering and ontology development; and knowledge management and information sharing.

"This book lays the foundations for understanding the concepts and technologies behind the Semantic Web"--Provided by publisher.
This book constitutes the refereed proceedings of the 22nd International Conference on Knowledge Engineering and Knowledge Management, EKAW 2020, held in Bolzano, Italy, in September 2020. The 12 full papers presented together with 7 were carefully reviewed and selected from 104 submissions. The special theme of EKAW 2020 is „Ethical and Trustworthy Knowledge Engineering". The papers cover all aspects of eliciting, acquiring, discovering, modeling, and managing knowledge and construction of knowledge-intensive systems.
This book presents recently developed intelligent techniques with applications and theory in the area of engineering management. The involved applications of intelligent techniques such as neural networks, fuzzy sets, Tabu search, genetic algorithms, etc. will be useful for engineering managers, postgraduate students, researchers, and lecturers. The book has been written considering the contents of a classical engineering management book but intelligent techniques are used for handling the engineering management problem areas. This comprehensive characteristics of the book makes it an excellent reference for the solution of complex problems of engineering management. The authors of the chapters are well-known researchers with their previous works in the area of engineering management.
This volume presents state-of-the-art tools and techniques for automatically detecting, diagnosing, and predicting the effects of adverse events in an engineered system. It emphasizes the importance of these techniques in managing the intricate interactions within and between engineering systems to maintain a high degree of reliability. Reflecting the interdisciplinary nature of the field, the book explains how the fundamental algorithms and methods of both physics-based and data-driven approaches effectively address systems health management in application areas such as data centers, aircraft, and software systems.
The continuously growing list of technological, economic, and social challenges in today’s world has made it imperative for higher educational institutions to equip students with the necessary knowledge, skills, and competences to seek employment and work in such a challenging global context. Specifically, within the engineering field, today’s businesses now seek innovative engineer-managers who can design engineering systems and also handle projects/design and development; create strategic plans; handle financing; and recognize, engage with, and evaluate market opportunities. This has created a need for current research on effective engineering management education that focuses on technical people, projects, and organizations and prepares engineer and science graduates to become future industry leaders and be successful long term. Cases on Engineering Management Education in Practice explores the crucial role of innovative and effective education that helps graduates develop critical leadership, negotiation, and communication skills in specific engineering disciplines. It presents the latest scholarly information on curriculum development, instructional design, and pedagogies of engineering management learning initiatives focusing on a range of topics that fall under the scope of engineering management education practices including management, marketing, finance, law, leadership, organizational behaviors, and human resources and statistics. While highlighting topics such as curriculum reform, student motivation and engagement, and innovative learning and education practices, this book is ideal for teachers, administrators, instructional designers, researchers, practitioners, stakeholders, academicians, and students who are interested in the management of engineering education practices.
This book constitutes the refereed proceedings of the 19th International Conference on Knowledge Engineering and Knowledge Management, EKAW 2014, held in Linköping, Sweden, in November 2014. The 24 full papers and 21 short papers presented were carefully reviewed and selected from 138 submissions. The papers cover all aspects of eliciting, acquiring, modeling, and managing knowledge, the construction of knowledge-intensive systems and services for the Semantic Web, knowledge management, e-business, natural language processing, intelligent information integration, personal digital assistance systems, and a variety of other related topics.
Neural networks and fuzzy systems are different approaches to introducing human-like reasoning into expert systems. This text is the first to combine the study of these two subjects, their basics and their use, along with symbolic AI methods to build comprehensive artificial intelligence systems. In a clear and accessible style, Kasabov describes rule- based and connectionist techniques and then their combinations, with fuzzy logic included, showing the application of the different techniques to a set of simple prototype problems, which makes comparisons possible. A particularly strong feature of the text is that it is filled with applications in engineering, business, and finance. AI problems that cover most of the application-oriented research in the field (pattern recognition, speech and image processing, classification, planning, optimization, prediction, control, decision making, and game simulations) are discussed and illustrated with concrete examples. Intended both as a text for advanced undergraduate and postgraduate students as well as a reference for researchers in the field of knowledge engineering, Foundations of Neural Networks, Fuzzy Systems, and Knowledge Engineering has chapters structured for various levels of teaching and includes original work by the author along with the classic material. Data sets for the examples in the book as well as an integrated software environment that can be used to solve the problems and do the exercises at the end of each chapter are available free through anonymous ftp.
A framework for formalizing risk management thinking intoday¿s complex business environment Security Risk Management Body of Knowledge details thesecurity risk management process in a format that can easily beapplied by executive managers and security risk managementpractitioners. Integrating knowledge, competencies, methodologies,and applications, it demonstrates how to document and incorporatebest-practice concepts from a range of complementarydisciplines. Developed to align with International Standards for RiskManagement such as ISO 31000 it enables professionals to applysecurity risk management (SRM) principles to specific areas ofpractice. Guidelines are provided for: Access Management; BusinessContinuity and Resilience; Command, Control, and Communications;Consequence Management and Business Continuity Management;Counter-Terrorism; Crime Prevention through Environmental Design;Crisis Management; Environmental Security; Events and MassGatherings; Executive Protection; Explosives and Bomb Threats;Home-Based Work; Human Rights and Security; Implementing SecurityRisk Management; Intellectual Property Protection; IntelligenceApproach to SRM; Investigations and Root Cause Analysis; MaritimeSecurity and Piracy; Mass Transport Security; OrganizationalStructure; Pandemics; Personal Protective Practices; Psych-ology ofSecurity; Red Teaming and Scenario Modeling; Resilience andCritical Infrastructure Protection; Asset-, Function-, Project-,and Enterprise-Based Security Risk Assessment; SecuritySpecifications and Postures; Security Training; Supply ChainSecurity; Transnational Security; and Travel Security. Security Risk Management Body of Knowledge is supportedby a series of training courses, DVD seminars, tools, andtemplates. This is an indispensable resource for risk and securityprofessional, students, executive management, and line managerswith security responsibilities.
Successful engineering projects require a clear vision and long term strategy. Therefore, effective business initiatives have been applied to the engineering environment in order to enhance its management perspectives. Business Strategies and Approaches for Effective Engineering Management brings together the latest methodologies, principles, practices, and tools for engineering management. By providing theoretical analysis and practical applications, this book is a useful reference for industry experts, researchers, and academicians regarding progressive strategies for successful management.
This book presents a comprehensive review for Knowledge Engineering tools and techniques that can be used in Artificial Intelligence Planning and Scheduling. KE tools can be used to aid in the acquisition of knowledge and in the construction of domain models, which this book will illustrate. AI planning engines require a domain model which captures knowledge about how a particular domain works - e.g. the objects it contains and the available actions that can be used. However, encoding a planning domain model is not a straightforward task - a domain expert may be needed for their insight into the domain but

this information must then be encoded in a suitable representation language. The development of such domain models is both time-consuming and error-prone. Due to these challenges, researchers have developed a number of automated tools and techniques to aid in the capture and representation of knowledge. This book targets researchers and professionals working in knowledge engineering, artificial intelligence and software engineering. Advanced-level students studying AI will also be interested in this book.

This book constitutes the thoroughly refereed proceedings of the 8th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, IC3K 2016, held in Porto, Portugal, in November 2016. The 18 full papers presented were carefully reviewed and selected from 186 submissions. The papers are organized in topical sections on knowledge discovery and information retrieval; knowledge engineering and ontology development; and knowledge management and information sharing.

Exciting new developments in risk assessment and management Risk assessment and management is fundamentally founded on the knowledge available on the system or process under consideration. While this may be self-evident to the laymen, thought leaders within the risk community have come to recognize and emphasize the need to explicitly incorporate knowledge (K) in a systematic, rigorous, and transparent framework for describing and modeling risk. Featuring contributions by an international team of researchers and respected practitioners in the field, Knowledge in Risk Assessment and Management explores the latest developments in the ongoing effort to use risk assessment as a means for characterizing knowledge and/or lack of knowledge about a system or process of interest. By offering a fresh perspective on risk assessment and management, the book represents a significant contribution to the development of a sturdier foundation for the practice of risk assessment and for risk-informed decision making. How should K be described and evaluated in risk assessment? How can it be reflected and taken into account in formulating risk management strategies? With the help of numerous case studies and real-world examples, this book answers these and other critical questions at the heart of modern risk assessment, while identifying many practical challenges associated with this explicit framework. This book, written by international scholars and leaders in the field, and edited to make coverage both conceptually advanced and highly accessible: Offers a systematic, rigorous and transparent perspective and framework on risk assessment and management, explicitly strengthening the links between knowledge and risk Clearly and concisely introduces the key risk concepts at the foundation of risk assessment and management Features numerous cases and real-world examples, many of which focus on various engineering applications across an array of industries Knowledge in Risk Assessment and Management is a must-read for risk assessment and management professionals, as well as graduate students, researchers and educators in the field. It is also of interest to policy makers and business people who are eager to gain a better understanding of the foundations and boundaries of risk assessment, and how its outcomes should be used for decision-making.

"This book establishes a convergence in thinking between knowledge management and knowledge engineering healthcare applications"--Provided by publisher.

The highly dynamic world of information technology service management stresses the benefits of the quick and correct implementation of IT services. A disciplined approach relies on a separate set of assumptions and principles as an agile approach, both of which have complicated implementation processes as well as copious benefits. Combining these two approaches to enhance the effectiveness of each, while difficult, can yield exceptional dividends. Balancing Agile and Disciplined Engineering and Management Approaches for IT Services and Software Products is an essential publication that focuses on clarifying theoretical foundations of balanced design methods with conceptual frameworks and empirical cases. Highlighting a broad range of topics including business trends, IT service, and software development, this book is ideally designed for software engineers, software developers, programmers, information technology professionals, researchers, academicians, and students.