Ontology Based Quality Evaluation For Spatial Data

Continual advancements in web technology have highlighted the need for formatted systems that computers can utilize to easily read and sift through the hundreds of thousands of data points across the internet. Therefore, having the most relevant data in the least amount of time to optimize the productivity of users becomes a priority. Semantic Web Science and Real-World Applications provides emerging research exploring the theoretical and practical aspects of semantic web science and real-world applications within the area of big data. Featuring coverage on a broad range of topics such as artificial intelligence, social media monitoring, and microblogging recommendation systems, this book is ideally designed for IT consultants, academics, professionals, and researchers of web science seeking the current developments, requirements and standards, and technology spaces presented across academia and industries.

This book constitutes the refereed combined proceedings of four international workshops held in conjunction with the joint 9th Asia-Pacific Web Conference, APWeb 2007, and the 8th International Conference on Web-Age Information Management, WAIM 2007, held in Huang Shan, China in June 2007: DBMAN 2007, WebETrends 2007, PAIS 2007, and ASWAN 2007. Co-located with the 31st and 32 nd International Conference on Very large Da Bases (VLDB) --Pref.

This survey contains expanded and peer-reviewed papers based on the selected contributions to the Workshop on Architecting Dependable Systems (WADS 2007), and the Third Workshop on the Role of Software Architecture for Testing and Analysis (ROSATEA 2007).

This volume contains the lecture notes of the 10th Reasoning Web Summer School 2014, held in Athens, Greece, in September 2014. In 2014, the lecture program of the Reasoning Web introduces students to recent advances in big data aspects of semantic web and linked data, and the fundamentals of reasoning techniques that can be used to tackle big data applications.

This book constitutes the refereed proceedings of the 6th International Conference on Electronic Government, EGOV 2007, held in Regensburg, Germany in September 2007 in conjunction with DEXA 2007. The 37 revised papers presented were carefully reviewed and selected from numerous submissions for inclusion in the book. The papers are organized in topical sections on research foundations, frameworks and methods, process design and interoperability, electronic services, policies and strategies, assessment and evaluation, participation and democracy, as well as perspectives on e-government.

This book is the fifth volume of the CoreGRID series. Organized jointly with the Euro-Par 2007 conference, The CoreGRID Symposium intends to become the premiere European event on Grid Computing. The aim of this symposium is to strengthen and advance scientific and technological excellence in the area of Grid and Peer-to-Peer Computing. The book includes all aspects of Grid Computing including service infrastructure. It is designed for a professional audience composed of researchers and practitioners in industry. This volume is also suitable for advanced-level students in computer science.

Development and Evaluation of an Ontology-based Quality Metrics Extraction SystemOntology-Based Multi-Agent SystemsSpringer

Software engineering has advanced rapidly in recent years in parallel with the complexity and scale of software systems. New requirements in software systems yield innovative approaches that are developed either through introducing new paradigms or extending the capabilities of well-established approaches. Modern Software Engineering Concepts and Practices: Advanced Approaches provides emerging theoretical approaches and their practices. This book includes case studies and real-world practices and presents a range of advanced approaches to reflect various perspectives in the discipline.

Advances in medical technology increase both the efficacy and efficiency of medical practice, and mobile technologies enable modern doctors and nurses to treat patients remotely from anywhere in the world. This technology raises issues of quality of care and medical ethics, which must be addressed. E-Health and Telemedicine: Concepts, Methodologies, Tools, and Applications explores recent advances in mobile medicine and how this technology impacts modern medical care. Three volumes of comprehensive coverage on crucial topics in wireless technologies for enhanced medical care make this multi-volume publication a critical reference source for doctors, nurse practitioners, hospital administrators, and researchers and academics in all areas of the medical field. This seminal publication features comprehensive chapters on all aspects of e-health and telemedicine, including implementation strategies; use cases in cardiology, infectious diseases, and cytology, among others; care of individuals with autism spectrum disorders; and medical image analysis.

The book initially presents the basic concepts related to the Semantic Web, Semantic Web-based applications, Web applications, Ontology, and their qualitative aspects. It then presents the evaluation of the structural quality of modular ontologies and review on metrics for the evaluation of ontology behavior. Further, the book discusses the qualitative evaluation of Semantic Web applications deployed on the Cloud, helping readers understand, maintain, integrate, and reuse these applications. The book offers software engineers in general and ontology engineers in particular a single, valuable guide to help them find the best modularization on the basis of goodness of (re) use. It can also serve as an initial source of information for starting research in this domain.

In the increasingly competitive corporate sector, businesses must examine their current practices to ensure business success. By examining their social, financial, and environmental risks, obligations, and opportunities, businesses can re-design their operations more effectively to ensure prosperity. Sustainable Business: Concepts, Methodologies, Tools, and Applications is a vital reference source that explores the best practices that promote business sustainability, including examining how economic, social, and environmental aspects are related to each other in the company’s management and performance. Highlighting a range of topics such as lean manufacturing, sustainable business model innovation, and ethical consumerism, this multi-volume book is ideally designed for entrepreneurs, business executives, business professionals, managers, and academics seeking current research on sustainable business practices.

The Semantic Web is characterized by the existence of a very large number of distributed semantic resources, which together define a network of ontologies. These ontologies in turn are interlinked through a variety of different meta-relationships such as versioning, inclusion, and many more. This scenario is radically different from the relatively narrow contexts in which ontologies have been traditionally developed and applied, and thus calls for new methods and tools to effectively support the development of novel network-oriented semantic applications.

This book by Suárez-Figueroa et al. provides the necessary methodological and technological support for the development and use of ontology networks, which ontology developers need in this distributed environment. After an introduction, in its second part the authors describe the NeOn Methodology framework. The book's third part details the key activities relevant to the ontology engineering life cycle. For each activity, a general introduction, methodological guidelines, and practical examples are provided. The fourth part then presents a detailed overview of the NeOn Toolkit and its plug-ins. Lastly, case studies from the pharmaceutical and the fishery domain round out the work. The book primarily addresses two main audiences: students (and their lecturers) who need a textbook for advanced undergraduate or graduate courses on ontology engineering, and practitioners who need to develop ontologies in particular or Semantic Web-based applications in general. Its educational value is maximized by its structured approach to explaining guidelines and combining them with case studies and numerous examples. The description of the open source NeOn Toolkit provides an additional asset, as it allows readers to easily evaluate and apply the ideas presented.
This two-volume set (LNAI 9329 and LNAI 9330) constitutes the refereed proceedings of the 7th International Conference on Collective Intelligence, ICCCI 2014, held in Madrid, Spain, in September 2015. The 110 full papers presented were carefully reviewed and selected from 186 submissions. They are organized in topical sections such as multi-agent systems; social networks and NLP; sentiment analysis; computational intelligence and games; ontologies and information extraction; formal methods and simulation; neural networks, SMT and MIS; collective intelligence in Web systems – Web systems analysis; computational swarm intelligence; cooperative strategies for decision making and optimization; advanced networking and security technologies; IT in biomedicine; collective computational intelligence in educational context; science intelligence and data analysis; computational intelligence in financial markets; ensemble learning; big data mining and searching.
This unique book succinctly summarizes the need to measure how ontologies (one of the building blocks of the Semantic Web) are currently being utilized, providing insights for various stakeholders. Where possible it improves and reuses terms in existing vocabularies/ontologies, as recommended by the Linked Data community. Recent advances in the Semantic Web have led to a proliferation of Resource Description Framework (RDF) data, which employ ontologies to semantically describe the information on the Web making it equally understandable for both humans and machines. However, to create a network effect, it is important that selective ontologies are used by more data publishers to improve the value of that ontology. For this to happen, it is vital to discover what is being used from an ontology to semantically annotate the information on the Web specific to a given domain. Answers to such basic but crucial questions can only be achieved by ascertaining how ontologies in the current semantic web are being utilized and adopted. The proposed frameworks to obtain such insights are explained with real-world examples to provide a clear and detailed description of ontology usage analysis. Both theoretical and practical, the book is of value to academics and professionals working in industry. Specifically, it is of primary interest to researchers, graduate students and practitioners in the area of the Semantic Web and its various real-world applications.
This book constitutes the proceedings of the International Conference on Adaptive and Intelligent Systems, ICAIS 2011, held in Klagenfurt, Austria, in September 2011. The 36 full papers included in these proceedings together with the abstracts of 4 invited talks, were carefully reviewed and selected from 72 submissions. The contributions are organized under the following topical sections: incremental learning; adaptive system architecture; intelligent system engineering; data mining and pattern recognition; intelligent agents; and computational intelligence.
During the last two decades, the idea of Semantic Web has received a great deal of attention. An extensive body of knowledge has emerged to describe technologies that seek to help us create and use aspects of the Semantic Web. Ontology and agent-based technologies are understood to be the two important technologies here. A large number of articles and a number of books exist to describe the use individually of the two technologies and the design of systems that use each of these technologies individually, but little focus has been given on how one can - sign systems that carryout integrated use of the two different technologies. In this book we describe ontology and agent-based systems individually, and highlight advantages of integration of the two different and complementary te- nologies. We also present a methodology that will guide us in the design of the - tegrated ontology-based multi-agent systems and illustrate this methodology on two use cases from the health and software engineering domain. This book is organized as follows: • Chapter I, Current issues and the need for ontologies and agents, describes existing problems associated with uncontrollable information overload and explains how ontologies and agent-based systems can help address these - sues. • Chapter II, Introduction to multi-agent systems, defines agents and their main characteristics and features including mobility, communications and collaboration between different agents. It also presents different types of agents on the basis of classifications done by different authors.
This book constitutes the refereed proceedings of the 4th International Conference on GeoSpatial Semantics, GeoS 2011, held in Brest, France, in May 2011. The 13 papers presented together with 1 invited talk were carefully reviewed and selected from 23 submissions. The papers focus on formal and semantic approaches, time and activity-based patterns, ontologies, as well as quality, conflicts and semantic integration. They are organized in topical sections on ontologies and gazetteers, activity-based and temporal issues, models, quality and semantic similarities, and retrieval and discovery methods.
This book is based on a selection of thoroughly revised and extended best papers from the 8th Workshop on E-Business (WEB 2009) held in Phoenix, AZ, USA, on December 15th, 2009. The 29 papers, which were selected from 70 presentations at the workshop, highlight the enormous developments and potential of e-business at a time when new technologies like cloud computing, collective intelligence, and multi-sided platforms are burgeoning. Among the topics covered are Web-based information systems, RFID and supply chain management, process modeling and standardization, security and privacy issues, social networking and mobility, e-services and market mechanisms, IT portfolio management, and other special topics in e-business such as electronic invoicing.
Issues in Robotics and Automation / 2013 Edition is a ScholarlyEditions™ book that delivers timely, authoritative, and comprehensive information about Computing Information and Control. The editors have built Issues in Robotics and Automation: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about

Computing Information and Control in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Robotics and Automation: 2013 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

"Premier reference source"-- book cover.

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.

The term was coined when electronics, with the personal computer, was very popular and internet was still at its dawn. It is a very successful term, by now firmly in schools, universities, and SMEs education and training. Just to give an example 3.5 millions of students were engaged in some online courses in higher education institutions in 2006 in the USA1.eLearning today refers to the use of the network technologies to design, deliver, select, manage and broaden learning and the possibilities made available by internet to offer to the users synchronous and asynchronous learning, so that they can access the courses content anytime and wherever there is an internet connection.

This volume of Advances in Intelligent Systems and Computing highlights papers presented at the Fifth Euro-China Conference on Intelligent Data Analysis and Applications (ECC2018), held in Xi'an, China from October 12 to 14 2018. The conference was co-sponsored by Springer, Xi'an University of Posts and Telecommunications, VSB Technical University of Ostrava (Czech Republic), Fujian University of Technology, Fujian Provincial Key Laboratory of Digital Equipment, Fujian Provincial Key Lab of Big Data Mining and Applications, and Shandong University of Science and Technology in China. The conference was intended as an international forum for researchers and professionals engaged in all areas of computational intelligence, intelligent control, intelligent data analysis, pattern recognition, intelligent information processing, and applications.

This book, in conjunction with the volume CCIS 19, constitutes the refereed proceedings of theFirst World Summit, WSKS 2008, held in Athens, Greece, in September 2008. The 64 revised full papers presented were carefully reviewed and selected from 286 submissions. The papers are organized in topical sections on social & humanistic computing for the knowledge society; knowledge, learning, education, learning technologies and e-learning for the knowledge society; information technologies for the knowledge society; culture & cultural heritage - technology for culture management - management of tourism and entertainment - tourism networks in the knowledge society; government and democracy for the knowledge society.

"This book addresses the Semantic Web from an operative point of view using theoretical approaches, methodologies, and software applications as innovative solutions to true knowledge management"--Provided by publisher.

Jan Recker investigates the notion of quality of business process modeling grammars. His evaluation is based on ontological analysis, qualitative analysis, and quantitative analysis, which are applied to BPMN, a widely used business process modeling grammar. His results first show ontological shortcomings in BPMN, second how these manifest in actual process modeling practice, and third how they eventually influence the usage behavior of modeling practitioners. Seen more general, his book is a landmark for an empirical technology assessment that analyzes how design flaws in technology influence usage behavior.

Recent advances in electronic and computer technologies have paved the way for the proliferation of ubiquitous computing and innovative applications that incorporate these technologies. This proceedings book describes these new and innovative technologies, and covers topics like Ubiquitous Communication and Networks, Security Systems, Smart Devices and Applications, Cloud and Grid Systems, Service-oriented and Web Service Computing, Embedded Hardware and Image Processing and Multimedia.

Christian Fürber investigates the useful application of semantic technologies for the area of data quality management. Based on a literature analysis of typical data quality problems and typical activities of data quality management processes, he develops the Semantic Data Quality Management framework as the major contribution of this thesis. The SDQM framework consists of three components that are evaluated in two different use cases. Moreover, this thesis compares the framework to conventional data quality software. Besides the framework, this thesis delivers important theoretical findings, namely a comprehensive typology of data quality problems, ten generic data requirement types, a requirement-centric data quality management process, and an analysis of related work.

This volume comprises papers from four APWeb/WAIM 2009 workshops, which are 1. International Workshop on Web-based Contents Management Technologies (WCMT 2009), 2. International Workshop on Real-Time Business Intelligence (RTBI 2009), 3. International Workshop on DataBase and Information Retrieval and Aspects in Evaluating Holistic Quality of Ontology-based Information Retrieval (DBIR-ENQOIR 2009), as well as 4. International Workshop on Process Aware Information Systems (PAIS 2009. These four workshops were selected from a public call-for-proposals process. The workshop organizers have put a tremendous amount of effort into soliciting and selecting research papers with a balance of high quality and new ideas and new applications.

Healthcare practices have been enhanced through the use of information technologies and analytical methods. A cross between computer science, healthcare, and information science is needed for the optimization of data resources and information systems within the healthcare industry. Healthcare Informatics and Analytics: Emerging Issues and Trends introduces the latest research concerning the innovative implementation of information technology and data analysis in the healthcare field. Highlighting current concerns and recent advances in patient care and healthcare delivery, this book is a comprehensive reference source for academics, researchers, medical students, and healthcare practitioners interested in the application of information science within the health sector.

The Annual Asian Semantic Web Conference is one of the largest regional events in Asia with focused topics related to the Semantic Web. With the decade-round endeavor of Semantic Web believers, researchers and practitioners, the Semantic Web has made remarkable progress recently. It has raised significant attention from US and UK governments, as well as the European Commission who are willing to deploy Semantic Web technologies to enhance the transparency of eGovernment. The Linked Open Data initiative is on its way to convert the current document Web into a data Web and to further enabling various data and service mashups. The fast adoption of Semantic Web technologies in medical and life sciences has created impressive showcases to the world. All these efforts are a crucial step

toward enabling the take-off and the success of the Semantic Web. The First Asian Semantic Web Conference was successfully held in China in 2006. With the following editions in Korea in 2007 and Thailand in 2008, it fostered a regional forum for connecting researchers and triggering innovations. This year, the 4th Asian Semantic Web Conference was held in Shanghai, China. We received 63 submissions from Asia, Europe, and North America, and 25 papers were accepted (the acceptance rate is around 40%). Each submission was reviewed by at least three members of the Program Committee. The Chairs moderated the discussion of conflict reviews or invited external reviewers to reach the final decisions.

This book presents a contemporary view of the role of information quality in information fusion and decision making, and provides a formal foundation and the implementation strategies required for dealing with insufficient information quality in building fusion systems for decision making. Information fusion is the process of gathering, processing, and combining large amounts of information from multiple and diverse sources, including physical sensors to human intelligence reports and social media. That data and information may be unreliable, of low fidelity, insufficient resolution, contradictory, fake and/or redundant. Sources may provide unverified reports obtained from other sources resulting in correlations and biases. The success of the fusion processing depends on how well knowledge produced by the processing chain represents reality, which in turn depends on how adequate data are, how good and adequate are the models used, and how accurate, appropriate or applicable prior and contextual knowledge is. By offering contributions by leading experts, this book provides an unparalleled understanding of the problem of information quality in information fusion and decision-making for researchers and professionals in the field.

This book contains the papers presented at the 5th International Conference on Pr- tical Aspects of Knowledge Management organized by the Department of Knowledge Management, Institute of Computer Science and Business Informatics, University of Vienna. The event took place on December 02–03, 2004 in Vienna. The PAKM conference series offers a communication forum and meeting ground for practitioners and researchers engaged in developing and deploying advanced bu- ness solutions for the management of knowledge and intellectual capital. Contributions pursuing integrated approaches which consider organizational, technological and c- tural issues of knowledge management have been elected for presentation. PAKM is a forum for people to share their views, to exchange ideas, to develop new insights, and to envision completely new kinds of solutions for knowledge management problems. The accepted papers are of high quality and are not too specialized so that the main issues can be understood by someone outside the respective ?eld. This is crucial for an interdisciplinary exchange of ideas. Like its predecessors, PAKM 2004 featured two invited talks. It is a real joy seeing the visibility of the conferenceincrease and noting that kno- edge management researchers and practitioners from all over the world submitted - pers. This year, 163 papers and case studies were submitted, from which 48 were - cepted.

With the advancements of semantic web, ontology has become the crucial mechanism for representing concepts in various domains. For research and dispersal of customized healthcare services, a major challenge is to efficiently retrieve and analyze individual patient data from a large volume of heterogeneous data over a long time span. This requirement demands effective ontology-based information retrieval approaches for clinical information systems so that the pertinent information can be mined from large amount of distributed data. This unique and groundbreaking book highlights the key advances in ontology-based information retrieval techniques being applied in the healthcare domain and covers the following areas: Semantic data integration in e-health care systems Keyword-based medical information retrieval Ontology-based query retrieval support for e-health implementation Ontologies as a database management system technology for medical information retrieval Information integration using contextual knowledge and ontology merging Collaborative ontology-based information indexing and retrieval in health informatics An ontology-based text mining framework for vulnerability assessment in health and social care An ontology-based multi-agent system for matchmaking patient healthcare monitoring A multi-agent system for querying heterogeneous data sources with ontologies for reducing cost of customized healthcare systems A methodology for ontology based multi agent systems development Ontology based systems for clinical systems: validity, ethics and regulation

As the importance of electronic and digital devices in the provision of healthcare increases, so does the need for interdisciplinary collaboration to make the most of the new technical possibilities which have become available. This book presents the proceedings of the 13th International Conference on Nursing Informatics, held in Geneva, Switzerland, in June 2016. This biennial international conference provides one of the most important opportunities for healthcare professionals from around the world to gather and exchange expertise in the research and practice of both basic and applied nursing informatics. The theme of this 13th conference is eHealth for All: Every Level Collaboration – From Project to Realization. The book includes all full papers, as well as workshops, panels and poster summaries from the conference. Subjects covered include a wide range of topics, from robotic assistance in managing medication to intelligent wardrobes, and from low-cost wearables for fatigue and back stress management to big data analytics for optimizing work processes, and the book will be of interest to all those working in the design and provision of healthcare today.

This volume constitutes the thoroughly refereed post-conference proceedings of the Sixth International Symposium on Foundations of Information and Knowledge Systems (FoIKS 2010) which was held in Sofia, Bulgaria, in February 2010. The 19 revised full papers presented together with three invited talks were carefully reviewed and selected from 50 papers.

This book constitutes the thoroughly refereed post-proceedings of the seven workshops and the PhD Symposium that were co-located with the 13th International Conference on Web Engineering, ICWE 2013, held in Aalborg, Denmark, in July 2013. The papers cover research in topics such as social data management; cloud service engineering; agile

web development and quality management in web engineering.