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The quest for quality in healthcare has led to attempts to develop models to determine which providers have the highest quality in healthcare, with the best outcomes for patients. Text Mining Techniques for Healthcare Provider Quality Determination: Methods for Rank Comparisons discusses the general practice of defining a patient severity index in order to make risk adjustments to compare patient outcomes across multiple providers with the intent of ranking the providers in terms of quality. This innovative reference source, valuable to medical practitioners, researchers, and academicians, brings together research from across the globe focusing on how severity indices are generally defined when determining the best outcome for patient

Data mining analysis techniques have undergone significant developments in recent years. This has led to improved uses throughout numerous functions and applications. Intelligent Multidimensional Data Clustering and Analysis is an authoritative reference source for the latest scholarly research on the advantages and challenges presented by the use of cluster analysis techniques. Highlighting theoretical foundations, computing paradigms, and real-world applications, this book is ideally designed for researchers, practitioners, upper-level students, and professionals interested in the latest developments in cluster analysis for large data sets.

One of the aims of this study is to find weaknesses and strengths of healthcare industry by defining problems, finding solutions and suggesting some models through existing studies and analyzing current healthcare system in Turkey and other developed countries. These critical parts are tried to be modeled in case studies in each chapter such as dialysis analysis, breast cancer, congestion of system, stress, queues etc. Main problems depending on hospital type are defined and some solutions are tried to be developed. Later, the existing systems of the hospitals are generalized. Opportunities and threats of specific and general situations are determined in healthcare by SWOT analysis. Moreover, SWOT method and bench-marking are used to deploy strategies by TOWS matrix. This book can be used in every country to improve their current healthcare system and increase learning and awareness in health.

BIOMEDICAL DATA MINING FOR INFORMATION RETRIEVAL This book not only emphasizes traditional computational techniques, but discusses data mining, biomedical image processing, information retrieval with broad coverage of basic scientific applications. Biomedical Data Mining for Information Retrieval comprehensively covers the topic of mining biomedical text, images and visual features towards information retrieval. Biomedical and health informatics is an emerging field of research at the intersection of information science, computer science, and healthcare and brings tremendous opportunities and challenges due to easily available and abundant biomedical data for further analysis. The aim of healthcare informatics is to ensure the high-quality, efficient healthcare, better treatment and quality of life by analyzing biomedical and healthcare data including patient’s data, electronic health records (EHRs) and lifestyle. Previously, it was a common requirement to have a domain expert to develop a model for biomedical or healthcare; however, recent advancements in representation learning algorithms allows us to automatically to develop the model. Biomedical image mining, a novel research area, due to the vast amount of available biomedical images, increasingly generates and stores digitally. These images are mainly in the form of computed tomography (CT), X-ray, nuclear medicine imaging (PET, SPECT), magnetic resonance imaging (MRI) and ultrasound. Patients’ biomedical images can be digitized using data mining techniques and may help in answering several important and critical questions relating to healthcare. Image mining in medicine can help to uncover new relationships between data and reveal new useful information that can be helpful for doctors in treating their patients. Audience Researchers in various fields including computer science, medical informatics, healthcare IOT, artificial intelligence, machine learning, image processing, clinical big data analytics.

This Briefs Series book illustrates in depth a concept of healthcare management engineering and its domain for hospital and clinic operations. Predictive and analytic decision-making power of management engineering methodology is systematically compared to traditional management reasoning by applying both side by side to analyze 26 concrete operational management problems adapted from hospital and clinic practice. The problem types include: clinic, bed and operating rooms capacity; patient flow; staffing and scheduling; resource allocation and optimization; forecasting of patient volumes and seasonal variability; business intelligence and data mining; and game theory application for allocating cost savings between cooperating providers. Detailed examples of applications are provided for quantitative methods such as discrete event simulation, queuing analytic theory, linear and probabilistic optimization, forecasting of a time series, principal component decomposition of a data set and cluster analysis, and the Shapley value for fair gain sharing between cooperating participants. A summary of some fundamental management engineering principles is provided. The goal of the book is to help to bridge the gap in mutual understanding and communication between management engineering professionals and hospital and clinic administrators. The book is intended primarily for hospital/clinic leadership who are in charge of making managerial decisions. This book can also serve as a compendium of introductory problems/projects for graduate students in Healthcare Management and Administration,

as well as for MBA programs with an emphasis in Healthcare.
The Healthcare industry is one of the largest and rapidly developing industries. Over the last few years, healthcare management is changing from disease centered to patient centered. While on one side the analysis of healthcare data plays an important role in healthcare management, but on the other side the privacy of a patient's record must be of equal concern. This book uses a research-oriented approach and focuses on privacy-based healthcare tools and technologies. It offers details on privacy laws with real-life case studies and examples, and addresses privacy issues in newer technologies such as Cloud, Big Data, and IoT. It discusses the e-health system and preserving its privacy, and the use of wearable technologies for patient monitoring, data streaming and sharing, and use of data analysis to provide various health services. This book is written for research scholars, academicians working in healthcare and data privacy domains, as well as researchers involved with healthcare law, and those working at facilities in security and privacy domains. Students and industry professionals, as well as medical practitioners might also find this book of interest.
"This book focuses on the data mining and knowledge management implications that lie within online government"--Provided by publisher.
Healthcare Data Analytics and Management help readers disseminate cutting-edge research that delivers insights into the analytic tools, opportunities, novel strategies, techniques and challenges for handling big data, data analytics and management in healthcare. As the rapidly expanding and heterogeneous nature of healthcare data poses challenges for big data analytics, this book targets researchers and bioengineers from areas of machine learning, data mining, data management, and healthcare providers, along with clinical researchers and physicians who are interested in the management and analysis of healthcare data. Covers data analysis, management and security concepts and tools in the healthcare domain Highlights electronic medical health records and patient information records Discusses the different techniques to integrate Big data and Internet-of-Things in healthcare, including machine learning and data mining Includes multidisciplinary contributions in relation to healthcare applications and challenges

In line with advances in digital and computing systems, artificial intelligence (AI) and machine learning (ML) technologies have transformed many aspects of medical and healthcare services, delivering tangible benefits to patents and the general public. This book is a sequel of the edition on "Artificial Intelligence and Machine Learning for Healthcare". The first volume is focused on utilization of AI and ML for image and data analytics in the medical and healthcare domains. In this second volume, emerging methodologies and future trends in AI and ML for advancing medical treatments and healthcare services are presented. The selected studies in this book provide readers a glimpse on current progresses in AI and ML for undertaking a variety of healthcare-related tasks. The advances in AI and ML technologies for future healthcare are also discussed, shedding light on the potential of AI and ML to realize the next-generation medical treatments and healthcare services for the betterment of our global society.
Public healthcare generally refers to government funded health--care services available to all members of the population. It is a cost-effective health care system that supports the health care needs of a community or population funded directly by the government. The Public healthcare system in India comprises a set of state-owned health care facilities funded and controlled by the government of India. Some of these are controlled by agencies of the central government while others are controlled by the State governments. The Union Ministry of Health & Family Welfare (MoHFW) facilitates the public healthcare system's overall functioning by supporting the state and local levels which are more directly involved in healthcare service activities. The main objective of MoHFW at the national level is to facilitate effective and efficient administration by the states and the local health authorities. India's public healthcare system follows centralized planning and policy making along with decentralized implementation. At the national level, the govt. persuades the states to work towards specific health objective and priorities. It also provides the necessary technical support for this.
This book constitutes the thoroughly refereed post-conference proceedings of five international workshops held in conjunction with PAKDD 2011 in Shenzhen, China, in May 2011: the International Workshop on Behavior Informatics (BI 2011), the Workshop on Quality Issues, Measures of Interestingness and Evaluation of Data Mining Models (QIMIE 2011), the Workshop on Biologically Inspired Techniques for Data Mining (BDM 2011), the Workshop on Advances and Issues in Traditional Chinese Medicine Clinical Data Mining (AI-TCM 2011), and the Second Workshop on Data Mining for Healthcare Management (DMGHM 2011). The book also includes papers from the First PAKDD Doctoral Symposium on Data Mining (DSDM 2011). The 42 papers were carefully reviewed and selected from numerous submissions. The papers cover a wide range of topics discussing emerging techniques in the field of knowledge discovery in databases and their application domains extending to previously unexplored areas such as data mining based on optimization techniques from biological behavior of animals and applications in Traditional Chinese Medicine clinical research and health care management.
Effective healthcare delivery is a vital concern for citizens and communities across the globe. The numerous facets of this industry require constant re-evaluation and optimization of management techniques. The Handbook of Research on Healthcare Administration and Management is a pivotal reference source for the latest scholarly material on emerging strategies and methods for delivering optimal healthcare opportunities and solutions. Highlighting issues relating to decision making, process optimization, and technological applications, this book is ideally designed for policy makers, administrators, students, professionals, and researchers interested in achieving superior healthcare solutions.

This book constitutes the refereed proceedings of the 10th International Conference on Machine Learning and Data Mining in Pattern Recognition, MLDM 2014, held in St. Petersburg, Russia in July 2014. The 40 full papers presented were carefully reviewed and selected from 128 submissions. The topics range from theoretical topics for classification, clustering, association rule and pattern mining to specific data mining methods for the different multimedia data types such as image mining, text mining, video mining and Web mining.
This book presents recent work on healthcare management and engineering using artificial intelligence and data mining techniques. Specific topics covered in the contributed chapters include predictive mining, decision support, capacity management, patient flow optimization, image compression, data clustering, and feature selection. The content will be valuable for researchers and postgraduate students in computer science, information technology, industrial engineering, and applied mathematics.
Advancements in data science have created opportunities to sort,

manage, and analyze large amounts of data more effectively and efficiently. Applying these new technologies to the healthcare industry, which has vast quantities of patient and medical data and is increasingly becoming more data-reliant, is crucial for refining medical practices and patient care. Data Analytics in Medicine: Concepts, Methodologies, Tools, and Applications is a vital reference source that examines practical applications of healthcare analytics for improved patient care, resource allocation, and medical performance, as well as for diagnosing, predicting, and identifying at-risk populations. Highlighting a range of topics such as data security and privacy, health informatics, and predictive analytics, this multi-volume book is ideally designed for doctors, hospital administrators, nurses, medical professionals, IT specialists, computer engineers, information technologists, biomedical engineers, data-processing specialists, healthcare practitioners, academicians, and researchers interested in current research on the connections between data analytics in the field of medicine.

Big Data in medical science – what exactly is that? What are the potentials for healthcare management? Where is Big Data at the moment? Which risk factors need to be kept in mind? What is hype and what is real potential? This book provides an impression of the new possibilities of networked data analysis and "Big Data" – for and within medical science and healthcare management. Big Data is about the collection, storage, search, distribution, statistical analysis and visualization of large amounts of data. This is especially relevant in healthcare management, as the amount of digital information is growing exponentially. An amount of data corresponding to 12 million novels emerges during the time of a single hospital stay. These are dimensions that cannot be dealt with without IT technologies. What can we do with the data that are available today? What will be possible in the next few years? Do we want everything that is possible? Who protects the data from wrong usage? More importantly, who protects the data from NOT being used? Big Data is the "resource of the 21st century" and might change the world of medical science more than we understand, realize and want at the moment. The core competence of Big Data will be the complete and correct collection, evaluation and interpretation of data. This also makes it possible to estimate the frame conditions and possibilities of the automation of daily (medical) routine. Can Big Data in medical science help to better understand fundamental problems of health and illness, and draw consequences accordingly? Big Data also means the overcoming of sector borders in healthcare management. The specialty of Big Data analysis will be the new quality of the outcomes of the combination of data that were not related before. That is why the editor of the book gives a voice to 30 experts, working in a variety of fields, such as in hospitals, in health insurance or as medical practitioners. The authors show potentials, risks, concrete practical examples, future scenarios, and come up with possible answers for the field of information technology and data privacy.

Because of the increased access to high-speed Internet and smart phones, many patients have started to use mobile applications to manage various health needs. These devices and mobile apps are now increasingly used and integrated with telemedicine and telehealth via the medical Internet of Things (IoT). Big Data Management and the Internet of Things for Improved Health Systems is a critical scholarly resource that examines the digital transformation of healthcare. Featuring coverage on a broad range of topics, such as brain computer interface, data reduction techniques, and risk factors, this book is geared towards academicians, practitioners, researchers, and students seeking research on health and well-being data.

Data analysis forms the basis of many forms of research ranging from the scientific to the governmental. With the advent of machine intelligence and neural networks, extracting, modeling, and approaching data has been unimpeachably altered. These changes, seemingly small, affect the way societies organize themselves, deliver services, or interact with each other. Intelligent Techniques for Data Analysis in Diverse Settings addresses the specialized requirements of data analysis in a comprehensive way. This title contains a comprehensive overview of the most innovative recent approaches borne from intelligent techniques such as neural networks, rough sets, fuzzy sets, and metaheuristics. Combining new data analysis technologies, applications, emerging trends, and case studies, this publication reviews the intelligent, technological, and organizational aspects of the field. This book is ideally designed for IT professionals and students, data analysis specialists, healthcare providers, and policy makers.

With the advent of electronic medical records years ago and the increasing capabilities of computers, our healthcare systems are sitting on growing mountains of data. Not only does the data grow from patient volume but the type of data we store is also growing exponentially. "Practical Predictive Analytics and Decisioning Systems for Medicine "provides research tools to analyze these large amounts of data and addresses some of the most pressing issues and challenges where data integrity is compromised: patient safety, patient communication, and patient information. Through the use of predictive analytic models and applications, this book is an invaluable resource to predict more accurate outcomes to help improve quality care in the healthcare and medical industries in the most cost efficient manner. "Practical Predictive Analytics and Decisioning Systems for Medicine "provides the basics of predictive analytics for those new to the area and focuses on general philosophy and activities in the healthcare and medical system. It explains why predictive models are important, and how they can be applied to the predictive analysis process in order to solve real industry problems. Researchers need this valuable resource to improve data analysis skills and make more accurate and cost-effective decisions. Includes models and applications of predictive analytics why they are important and how they can be used in healthcare and medical researchProvides real world step-by-step tutorials to help beginners understand how the predictive analytic processes works and to successfully do the computationsDemonstrates methods to help sort through data to make better observations and allow you to make better predictions"

Analyzing data sets has continued to be an invaluable application for numerous industries. By combining different algorithms, technologies, and systems used to extract information from data and solve complex problems, various sectors have reached new heights and have changed our world for the better. The Handbook of Research on Engineering, Business, and Healthcare Applications of Data Science and Analytics is a collection of innovative research on the methods and applications of data analytics. While highlighting topics including artificial intelligence, data security, and information systems, this book is ideally designed for researchers, data analysts, data scientists, healthcare administrators, executives, managers, engineers, IT consultants, academicians, and students interested in the potential of data application technologies.

This book is a small endeavor to share the journey of getting introduced to a wonderful topic Data Mining. Personally we came across this during the process of evaluating new tools to be included in the post graduate study curricula of the University we are

working in. Soon it became a friendly affair to see the power, potential and ease of empowering the databases with concepts of data mining. It has become powerful in rediscovering the hidden values in data base and soon in data warehouse, equally efficiently. The Data mining is a powerful new technology with great potential focusing on the most important information in their data warehouses. It involves extraction of hidden predictive information from large databases with ease and efficiency. It facilitates to make proactive, knowledge-driven decisions and predict future trends and behaviors. Data mining tools move beyond the analyses of past events provided by retrospective tools typical of decision support systems. The automated, prospective analyses offered by data mining tools can answer finding predictive information easily. This small book is an introduction to the basics of data mining. It also introduces the techniques and technologies behind data mining, the impact of artificial intelligence, artificial neural networks, and fuzzy logic et cetera as the basic building blocks for the same. It concludes with common practical applications, trends and its impact on social and computing environment.
Health management information systems : a managerial perspective / Joseph Tan -- Health management information systems executives : roles and responsibilities of chief executive officers and chief information officers in healthcare services organizations / Joseph Tan -- Online health information seeking : access and digital equity considerations / Fay Cobb Payton and Joseph Tan -- Health management information system enterprise software : the new generation of HMIS administrative applications / Joshia Tan with Joseph Tan -- Community health information networks : building virtual communities and networking health provider organizations / Jayfus T. Doswell, SherRhonda R. Gibbs, and Kelley M. Duncanson -- Trending toward patient-centric management systems / Joseph Tan with Joshia Tan -- Health management information system integration : achieving systems interoperability with Web services / J.K. Zhang and Joseph Tan -- Health management strategic information system planning/information requirements / Jon Blue and Joseph Tan -- Systems development : health management information system analysis and developmental methodologies / Joseph Tan -- Data stewardship : foundation for health management information system design, implementation, and evaluation / Bryan Bennett -- Managing health management information system projects : system implementation and information technology services management / Joseph Tan -- Health management information system standards : standards adoption in healthcare information technologies / Sanjay P. Sood ... [et al.] -- Health management information system governance, policy, and international perspectives : HMIS globalization through e-health / Anantachai Panjamapirom and Philip F. Musa -- Health management information system innovation : managing innovation diffusion in healthcare services organizations / Tugrul U. Daim, Nuri Basoglu, and Joseph Tan.

This book addresses the key problems that computational intelligence aims to solve, including (i) the involved computational process might be too complex for mathematical reasoning; (ii) it might contain some uncertainties during the process, or (iii) by nature, the computational process is a randomly determined one (heuristic). The contributors make use of methods that are close to the human's way of reasoning, that is, available information might be inexact or incomplete, yet it would be able to produce controlled actions in an adaptive way. Approaches presented in the book include swarm intelligence, artificial immune systems, image processing, data mining, natural language processing, text mining, and other solutions involving artificial intelligence methodologies.

This book provides valuable information on effective, state-of-the-art techniques and approaches for governments, students, researchers, practitioners, entrepreneurs and teachers in the field of artificial intelligence (AI). The book explains the data and AI, types and properties of data, the relation between AI algorithms and data, what makes data AI ready, steps of data pre-processing, data quality, data storage and data platforms. Therefore, this book will be interested by AI practitioners, academics, researchers, and lecturers in computer science, artificial intelligence, machine learning and data sciences. Presents approaches to artificial intelligence taken by various sectors; Includes development-related applications in AI from around the world; Discusses AI in government, healthcare, education, tourism in addition to AI ethics. .

"Because so much data is now becoming readily available to investigate health outcomes, it is important to examine just how statistical models are used to do this. This book studies health outcomes research using data mining techniques"--Provided by publisher.

Ongoing advancements in modern technology have led to significant developments in intelligent systems. With the numerous applications available, it becomes imperative to conduct research and make further progress in this field. Intelligent Systems: Concepts, Methodologies, Tools, and Applications contains a compendium of the latest academic material on the latest breakthroughs and recent progress in intelligent systems. Including innovative studies on information retrieval, artificial intelligence, and software engineering, this multi-volume book is an ideal source for researchers, professionals, academics, upper-level students, and practitioners interested in emerging perspectives in the field of intelligent systems.

Technology is changing the practice of healthcare by the ways medical information is stored, shared, and accessed. With mobile innovations, new strategies are unfolding to further advance processes and procedures in medical settings. Next-Generation Mobile and Pervasive Healthcare Solutions is an advanced reference source for the latest research on emerging progress and applications within mobile health initiatives and health informatics. Featuring coverage on a broad range of topics and perspectives such as electronic health records (EHR), clinical decision support systems, and medical ontologies, this publication is ideally designed for professionals and researchers seeking scholarly material on the increased use of mobile health applications.

This Book outline the experimental studies on various inter-disciplinary applications of data mining and machine learning methods in decision support. This book provides an insight on some real world examples with suitable models and the performance of those methods for real life adoption and optimization.

Comprehensively presents the foundations and leading application research in medical informatics/biomedicine. The concepts and techniques are illustrated with detailed case studies. Authors are widely recognized professors and researchers in Schools of Medicine and Information Systems from the University of Arizona, University of Washington, Columbia University, and Oregon Health & Science University. Related Springer title, Shortliffe: Medical Informatics, has sold over 8000 copies The title will be positioned at the upper division and graduate level Medical Informatics course and a reference work for practitioners in the field.

This book constitutes the proceedings of the 14th Pacific-Asia Conference, PAKDD 2010, held in Hyderabad, India, in June 2010.

Big Data Analytics for Intelligent Healthcare Management covers

both the theory and application of hardware platforms and architectures, the development of software methods, techniques and tools, applications and governance, and adoption strategies for the use of big data in healthcare and clinical research. The book provides the latest research findings on the use of big data analytics with statistical and machine learning techniques that analyze huge amounts of real-time healthcare data. Examines the methodology and requirements for development of big data architecture, big data modeling, big data as a service, big data analytics, and more Discusses big data applications for intelligent healthcare management, such as revenue management and pricing, predictive analytics/forecasting, big data integration for medical data, algorithms and techniques, etc. Covers the development of big data tools, such as data, web and text mining, data mining, optimization, machine learning, cloud in big data with Hadoop, big data in IoT, and more

What are the possibilities for process mining in hospitals? In this book the authors provide an answer to this question by presenting a healthcare reference model that outlines all the different classes of data that are potentially available for process mining in healthcare and the relationships between them. Subsequently, based on this reference model, they explain the application opportunities for process mining in this domain and discuss the various kinds of analyses that can be performed. They focus on organizational healthcare processes rather than medical treatment processes. The combination of event data and process mining techniques allows them to analyze the operational processes within a hospital based on facts, thus providing a solid basis for managing and improving processes within hospitals. To this end, they also explicitly elaborate on data quality issues that are relevant for the data aspects of the healthcare reference model. This book mainly targets advanced professionals involved in areas related to business process management, business intelligence, data mining, and business process redesign for healthcare systems as well as graduate students specializing in healthcare information systems and process analysis.

The healthcare industry produces a constant flow of data, creating a need for deep analysis of databases through data mining tools and techniques resulting in expanded medical research, diagnosis, and treatment. Data Mining and Medical Knowledge Management: Cases and Applications presents case studies on applications of various modern data mining methods in several important areas of medicine, covering classical data mining methods, elaborated approaches related to mining in electroencephalogram and electrocardiogram data, and methods related to mining in genetic data. A premier resource for those involved in data mining and medical knowledge management, this book tackles ethical issues related to cost-sensitive learning in medicine and produces theoretical contributions concerning general problems of data, information, knowledge, and ontologies.

It has been rightly said that "people who can't see the value in data mining as a concept either don't have the data or don't have data with integrity." This book has been designed as a basic text book for computer Science and management students at post Graduation and under graduation levels. it explains the technical concepts of this hot area in simple and easily understandable language. It covers the complete syllabus of MCA, B.Tech courses of Punjabi University, Punjab University, Punjab Technical University and many other major universities.

Data mining, an interdisciplinary field combining methods from artificial intelligence, machine learning, statistics and database systems, has grown tremendously over the last 20 years and produced core results for applications like business intelligence, spatio-temporal data analysis, bioinformatics, and stream data processing. The fifteen contributors to this volume are successful and well-known data mining scientists and professionals. Although by no means an exhaustive list, all of them have helped the field to gain the reputation and importance it enjoys today, through the many valuable contributions they have made. Mohamed Medhat Gaber has asked them (and many others) to write down their journeys through the data mining field, trying to answer the following questions: 1. What are your motives for conducting research in the data mining field? 2. Describe the milestones of your research in this field. 3. What are your notable success stories? 4. How did you learn from your failures? 5. Have you encountered unexpected results? 6. What are the current research issues and challenges in your area? 7. Describe your research tools and techniques. 8. How would you advise a young researcher to make an impact? 9. What do you predict for the next two years in your area? 10. What are your expectations in the long term? In order to maintain the informal character of their contributions, they were given complete freedom as to how to organize their answers. This narrative presentation style provides PhD students and novices who are eager to find their way to successful research in data mining with valuable insights into career planning. In addition, everyone else interested in the history of computer science may be surprised about the stunning successes and possible failures computer science careers (still) have to offer.

Handbook of Statistical Analysis and Data Mining Applications, Second Edition, is a comprehensive professional reference book that guides business analysts, scientists, engineers and researchers, both academic and industrial, through all stages of data analysis, model building and implementation. The handbook helps users discern technical and business problems, understand the strengths and weaknesses of modern data mining algorithms and employ the right statistical methods for practical application. This book is an ideal reference for users who want to address massive and complex datasets with novel statistical approaches and be able to objectively evaluate analyses and solutions. It has clear, intuitive explanations of the principles and tools for solving problems using modern analytic techniques and discusses their application to real problems in ways accessible and beneficial to practitioners across several areas—from science and engineering, to medicine, academia and commerce. Includes input by practitioners for practitioners Includes tutorials in numerous fields of study that provide step-by-step instruction on how to use supplied tools to build models Contains practical advice from successful real-world implementations Brings together, in a single resource, all the information a beginner needs to understand the tools and issues in data mining to build successful data mining solutions Features clear, intuitive explanations of novel analytical tools and techniques, and their practical applications

This book constitutes the thoroughly refereed proceedings of the PAKDD 2012 International Workshops: Third Workshop on Data Mining for Healthcare Management (DMHM 2012), First Workshop on Geospatial Information and Documents (GeoDoc 2012), First Workshop on Multi-view data, High-dimensionality, External Knowledge: Striving for a Unified Approach to Clustering (3Clust 2012), and the Second Doctoral Symposium on Data Mining (DSDM 2012); held in conjunction with the 16th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2012), in Kuala Lumpur, Malaysia, May/June 2012. The 12 revised papers presented were carefully reviewed and selected from numerous submis-

sions. DMHM 2012 aimed at providing a common platform for the discussion of challenging issues and potential techniques in this emerging field of data mining for health care management; 3Clust 2012 focused on solving emerging problems such as clustering ensembles, semi-supervised clustering, subspace/projective clustering, co-clustering, and multi-view clustering; GeoDoc 2012 highlighted the formalization of geospatial concepts and relationships with a focus on the extraction of geospatial relations in free text datasets to offer to the database community a unified framework for geodata discovery; and DSDM 2012 provided the opportunity for Ph.D. students and junior researchers to discuss their work on data mining foundations, techniques and applications.