Encyclopedia of Data Warehousing and Mining (2 Volumes)

John Wang (Montclair State University, USA)

Data Warehousing and Mining (DWM) is the science of managing and analyzing large datasets and discovering novel patterns and in recent years has emerged as a particularly exciting and industrially relevant area of research. Prodigious amounts of data are now being generated in domains as diverse as market research, functional genomics and pharmaceuticals; intelligently analyzing these data, with the aim of answering crucial questions and helping make informed decisions, is the challenge that lies ahead.

The Encyclopedia of Data Warehousing and Mining provides a comprehensive, critical and descriptive examination of concepts, issues, trends, and challenges in this rapidly expanding field of data warehousing and mining (DWM). This encyclopedia consists of more than 350 contributors from 32 countries, 1,800 terms and definitions, and more than 4,400 references. This authoritative publication offers in-depth coverage of evolutions, theories, methodologies, functionalities, and applications of DWM in such interdisciplinary industries as healthcare informatics, artificial intelligence, financial modeling, and applied statistics, making it a single source of knowledge and latest discoveries in the field of DWM.

Topics Covered:
- A-Z overview of DWM
- DWM applications in the real world
- From microarray DM to multimedia DM
- From semantic-based DM to symbiotic DM
- From Bayesian networks to Dempster-Shafer theory
- From vertical DM to evolutionary DM
- From fractal DM to survival DM
- DWM system architectures & functionalities
- Data pre-processing and post-processing
- Intrusion and damage detection
- Data privacy and security
- Future and emerging trends in DWM

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Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

John Wang is a professor in the Department of Information & Operations Management at Montclair State University, USA. Having received a scholarship award, he came to the USA and completed his PhD in operations research from Temple University. Due to his extraordinary contributions beyond a tenured full professor, Dr. Wang has been honored with a special range adjustment in 2006. He has published over 100 refereed papers and seven books. He has also developed several computer software programs based on his research findings.

He is the Editor-in-Chief of International Journal of Applied Management Science, International Journal of Operations Research and Information Systems and International Journal of Information Systems and Supply Chain Management. He is the Editor of Data Warehousing and Mining: Concepts, Methodologies, Tools and Applications (six-volume) and the Editor of the Encyclopedia of Data Warehousing and Mining, 1st (two-volume) and 2nd (four-volume). His long-term research goal is on the synergy of operations research, data mining and cybernetics.