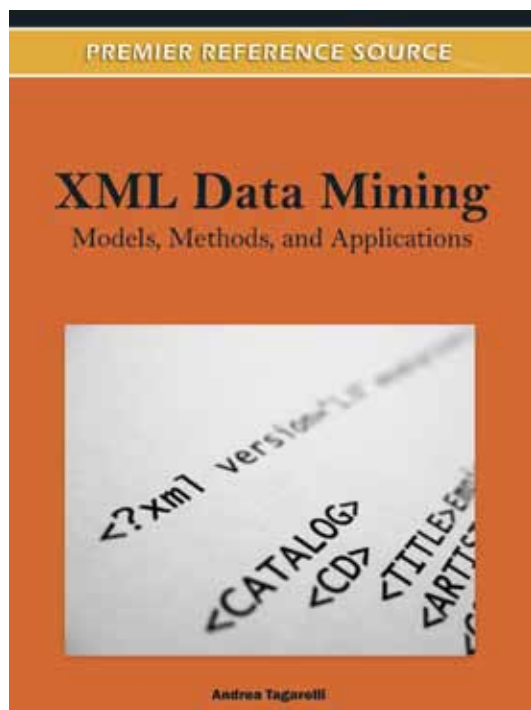


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XML Data Mining: Models, Methods, and Applications



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The widespread use of XML in business and scientific databases has prompted the development of methodologies, techniques, and systems for effectively managing and analyzing XML data. This has increasingly attracted the attention of different research communities, including database, information retrieval, pattern recognition, and machine learning, from which several proposals have been offered to address problems in XML data management and knowledge discovery.

XML Data Mining: Models, Methods, and Applications aims to collect knowledge from experts of database, information retrieval, machine learning, and knowledge management communities in developing models, methods, and systems for XML data mining. This book addresses key issues and challenges in XML data mining, offering insights into the various existing solutions and best practices for modeling, processing, analyzing XML data, and for evaluating performance of XML data mining algorithms and systems.

Topics Covered:

- XML Models for Data Mining
- XML Similarity Search and Detection
- Approximate Matching of XML Documents and Schemas
- Clustering of XML Data
- Classification of XML Data
- Frequent Pattern Discovery of XML Data
- Association Rule Mining of XML Data
- Mining of Uncertain XML Data
- Mining of Evolving XML Data Streams
- XML Mining for Semantic Web
- Semantics-aware Mining of XML Data
- Domain-specific XML Mining Applications: Credit Risk Assessment, Social Network User Modeling of Geographical Maps, P2P systems

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.

Andrea Tagarelli is an Assistant Professor of Computer Science with the Department of Electronics, Computer and Systems Sciences, University of Calabria, Italy. He graduated in Computer Engineering, in 2001, and obtained his Ph.D. in Computer and Systems Engineering, in 2006. He was visiting researcher at the Department of Computer Science & Engineering, University of Minnesota at Minneapolis, USA. His research interests include topics in knowledge discovery and text/data mining, information extraction, Web and semistructured data management, spatio-temporal databases, and bioinformatics. On these topics, he has coauthored journal articles, conference papers, and book chapters and developed practical software tools. He has served as a reviewer as well as a member of program committee for leading journals and conferences in the fields of databases and data mining, information systems, knowledge and data management, and artificial intelligence. He has been a SIAM member since 2008 and an ACM member since 2009.

Section 1: Models and Measures

Chapter 1

A Study of XML Models for Data Mining

Kutty Sangeetha (Queensland University of Technology, Australia)

Nayak Richi (Queensland University of Technology, Australia)

Tran Tien (Queensland University of Technology, Australia)

Chapter 2

Modeling, Querying, and Mining Uncertain XML Data

Kharlamov Evgeny (Free University of Bozen-Bolzano, Italy & INRIA Saclay, France)

Senellart Pierre (Télécom ParisTech, France)

Chapter 3

XML Similarity Detection and Measures

Madria Sanjay Kumar (Missouri University of Science and Technology, USA)

Viyanon Waraporn (Missouri University of Science and Technology, USA)

Chapter 4

Efficient Identification of Similar XML Fragments Based on Tree Edit Distance

Wang Hongzhi (Harbin Institute of Technology, China)

Li Jianzhong (Harbin Institute of Technology, China)

Li Fei (Harbin Institute of Technology, China)

Section 2: Clustering and Classification

Chapter 5

Approximate Matching Between XML Documents and Schemas with Applications in XML Classification and Clustering

Xing Guangming (Western Kentucky University, USA)

Chapter 6

The Role of Schema and Document Matchings in XML Source Clustering

De Meo Pasquale (University of Messina, Italy)

Fiumara Giacomo (University of Messina, Italy)

Nocera Antonino (University Mediterranea of Reggio Calabria, Italy)

Ursino Domenico (University Mediterranea of Reggio Calabria, Italy)

Chapter 7

XML Document Clustering

Antonellis Panagiotis (University of Patras, Greece)

Chapter 8

Fuzzy Approaches to Clustering XML Structures

Kozielski Michal (Silesian University of Technology, Poland)

Chapter 9

XML Tree Classification on Evolving Data Streams

Bifet Albert (University of Waikato, New Zealand)

Gavalda Ricard (UPC Barcelona Tech, Spain)

Chapter 10

Data Driven Encoding of Structures and Link Predictions in Large XML Document Collections

Hagenbuchner Markus (University of Wollongong, Australia)

Tsoi Chung (Macau University of Science and Technology, China)

Zhang Shu Jia (University of Wollongong, Australia)

Kc Milly (University of Wollongong, Australia)

Section 3: Association Mining

Chapter 11

Frequent Pattern Discovery and Association Rule Mining of XML Data

Ding Qin (East Carolina University, USA)

Sundarraj Gnanasekaran (Pennsylvania State University, USA)

Chapter 12

A Framework for Mining and Querying Summarized XML Data through Tree-Based Association Rules

Mazuran Mirjana (Politecnico di Milano, Italy)

Quintarelli Elisa (Politecnico di Milano, Italy)

Rauseo Angelo (Politecnico di Milano, Italy)

Tanca Letizia (Politecnico di Milano, Italy)

Chapter 13

Discovering Higher Level Correlations from XML Data

Cagliero Luca (Politecnico di Torino, Italy)

Cerquitelli Tania (Politecnico di Torino, Italy)

Garza Paolo (Politecnico di Milano, Italy)

Section 4: Semantics-Aware Mining

Chapter 14

XML Mining for Semantic Web

Berlanga Rafael (Universitat Jaume I, Spain)

Nebot Victoria (Universitat Jaume I, Spain)

Chapter 15

A Component-Based Framework for the Integration and Exploration of XML Sources

De Meo Pasquale (University of Messina, Italy)

Nocera Antonino (University Mediterranea of Reggio Calabria, Italy)

Ursino Domenico (University Mediterranea of Reggio Calabria, Italy)

Chapter 16

Matching XML Documents at Structural and Conceptual Level using Subtree Patterns

Pan Qi Hua (Curtin University, Australia)

Hadzic Fedja (Curtin University, Australia)

Dillon Tharam S. (Curtin University, Australia)

Section 5: Applications

Chapter 17

Geographical Map Annotation with Significant Tags available from Social Networks

Roglia Elena (University of Turin, Italy)

Meo Rosa (University of Turin, Italy)

Ponassi Enrico (University of Turin, Italy)

Chapter 18

Organizing XML Documents on a Peer-to-Peer Network by Collaborative Clustering

Gullo Francesco (University of Calabria, Italy)

Ponti Giovanni (ENEA, Italy)

Greco Sergio (University of Calabria, Italy)

Chapter 19

Incorporating Qualitative Information for Credit Risk Assessment through Frequent Subtree Mining for XML

Ikasari Novita (Curtin University, Australia & University of Indonesia, Indonesia)

Hadzic Fedja (Curtin University, Australia)

Dillon Tharam S. (Curtin University, Australia)