XML Data Mining:
Models, Methods, and Applications
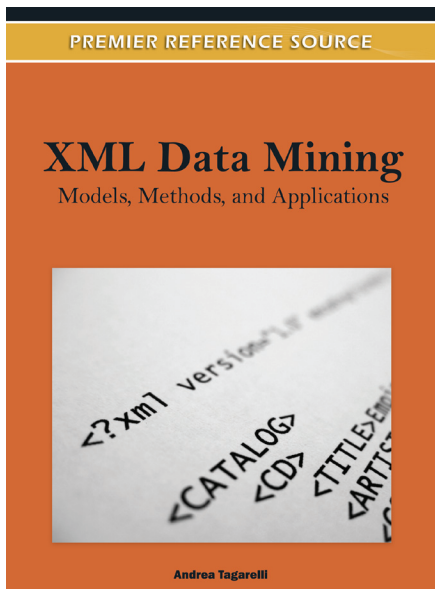
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XML Data Mining
Models, Methods, and Applications

Andrea Tagarelli

Edited By: Andrea Tagarelli (University of Calabria, Italy)

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.

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Hard Cover: US $195
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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:

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Andrea Tagarelli

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.

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