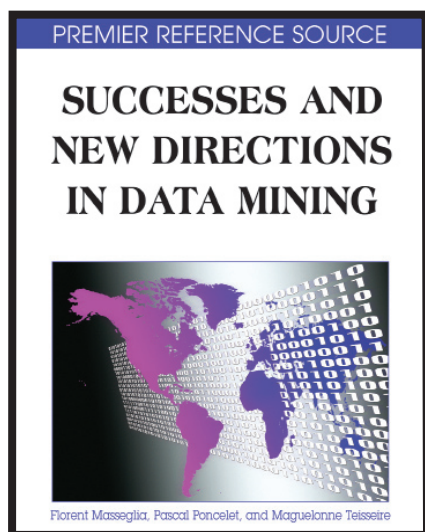


New Release

October 2007

Successes and New Directions in Data Mining



Edited by: Florent Massegla, Projet AxIS-INRIA, France, Pascal Poncelet, Ecole des Mines d'Ales, France, and Maguelonne Tisseire, Universite Montpellier, France

13-digit ISBN: 978-1-59904-645-7

385 pages; 2008 Copyright

Price: US \$180.00 (hardcover*)

Perpetual Access: US \$270.00

Print + Perpetual Access: US \$360.00

Illustrations: figures, tables (8 1/2" x 11")

Translation Rights: World

*Paperback is not available.

“The goal of this book is to provide theoretical frameworks and present challenges and their possible solutions concerning knowledge extraction. It aims at providing an overall view of the recent existing solutions for data mining with a particular emphasis on the potential real-world applications.”

**-Florent Massegla, Projet
AxIS-INRIA, France**

The problem of mining patterns is becoming a very active research area and efficient techniques have been widely applied to problems in industry, government, and science. From the initial definition and motivated by real-applications, the problem of mining patterns not only addresses the finding of itemsets but also more and more complex patterns.

Successes and New Directions in Data Mining addresses existing solutions for data mining, with particular emphasis on potential real-world applications. Capturing defining research on topics such as fuzzy set theory, clustering algorithms, semi-supervised clustering, modeling and managing data mining patterns, and sequence mining, this book is an indispensable resource for library collections.

Subject:

Databases, Data Mining, and Data Warehousing; Knowledge Management; Multimedia Technology; Electronic Commerce; Software/Systems Engineering, Programming, Analysis and Design

Market:

This publication will be a significant reference tool for researchers, practitioners, and students in a variety of fields related to data mining and data warehousing, and a valuable, interdisciplinary addition for all academic and research libraries.



Excellent addition to your library! Recommend to your acquisitions librarian.

www.info-sci-ref.com

Successes and New Directions in Data Mining

Edited by: Florent Masseglia, Projet AxIS-INRIA, France, Pascal Poncelet, Ecole des Mines d'Alès, France, and Maguelonne Teisseire, Université Montpellier, France

Table of Contents

Chapter I: Why Fuzzy Set Theory is Useful in Data Mining

Eyke Hüllermeier, Philipps-Universität Marburg, Germany

Chapter II: SeqPAM: A Sequence Clustering Algorithm for Web Personalization

Pradeep Kumar, University of Hyderabad, India

Raju S. Bapi, University of Hyderabad, India

P. Radha Krishna, Institute for Development & Research in Banking Technology, India

Chapter III: Using Mined Patterns for XML Query Answering

Elena Baralis, Dip. di Automatica e Informatica,

Politecnico di Torino, Italy

Paolo Garza, Dip. di Automatica e Informatica, Politecnico di Torino, Italy

Elisa Quintarelli, Dip. di Electronic e Informazione,

Politecnico di Milano, Italy

Letizia Tanca, Dip. di Electronic e Informazione,

Politecnico di Milano, Italy

Chapter IV: On the Usage of Structural Information in Constrained Semi-Supervised Clustering of XML Documents

Eduardo Bezerra, CEFET/RJ, Federal Center of Technological Education CSF, Brazil

Geraldo Xexéo, Programa de Sistemas, COPPE, UFRJ, Institute of Mathematics, UFRJ, Brazil

Marta Mattoso, Programa de Sistemas, COPPE/UFRJ, Brazil

Chapter V: Modeling and Managing Heterogeneous Patterns: The PSYCHO Experience

Anna Maddalena, University of Genoa, Italy

Barbara Catania, University of Genoa, Italy

Chapter VI: Deterministic Motif Mining in Protein Databases

Pedro Gabriel Ferreira, Universidade do Minho, Portugal

Paulo Jorge Azevedo, Universidade do Minho, Portugal

Chapter VII: Data Mining and Knowledge Discovery in Metabolomics

Christian Baumgartner, University for Health Sciences, Medical Informatics and Technology (UMIT), Austria

Armin Graber, BIOCRATES Life Sciences GmbH, Austria

Chapter VIII: Handling Local Patterns in Collaborative Structuring

Ingo Mierswa, University of Dortmund, Germany

Katharina Morik, University of Dortmund, Germany

Michael Wurst, University of Dortmund, Germany

Chapter IX: Pattern Mining and Clustering on Image Databases

Marinette Bouet, Blaise Pascal University of

Clermont-Ferrand II, France

Pierre Gançarski, Sébastien Brant, France

Marie-Aude Aufaure, Supélec—Plateau du Moulon, France

Omar Boussid, University LUMIERE Lyon, France

Chapter X: Semantic Integration and Knowledge Discovery for Environmental Research

Zhiyuan Chen, University of Maryland, Baltimore County (UMBC), USA

Aryya Gangopadhyay, University of Maryland, Baltimore County (UMBC), USA

George Karabatis, University of Maryland, Baltimore County (UMBC), USA

Michael McGuire, University of Maryland, Baltimore County (UMBC), USA

Claire Welty, University of Maryland, Baltimore County (UMBC), USA

Chapter XI: Visualizing Multi Dimensional Data

César García-Osorio, University of Burgos, Spain

Colin Fyfe, The University of Paisley, UK

Chapter XII: Privacy Preserving Data Mining, Concepts, Techniques, and Evaluation Methodologies

Igor Nai Fovino, Joint Research Centre, Italy

Chapter XIII: Mining Data-Streams

Hanady Abdulsalam, Queen's University, Canada

David B. Skillicorn, Queen's University, Canada

Pat Martin, Queen's University, Canada

About the Editors:

Florent Masseglia is currently a researcher for the INRIA (Sophia Antipolis, France). He did research work in the Data Mining Group at the LIRMM (Montpellier, France) from 1998 to 2002 and received a PhD in computer science from Versailles University, France in 2002. His research interests include data mining (particularly sequential patterns and applications such as Web usage mining) and databases.

Pascal Poncelet is a professor and the head of the data mining research group in the computer science department at the Ecole des Mines d'Alès (France). He is also co-head of the department. His research interest can be summarized as advanced data analysis techniques for emerging applications. He is currently interested in various techniques of data mining with application in Web mining and text mining.

Maguelonne Teisseire received a PhD in computing science from the Méditerranée University, France, in 1994. Her research interests focused on behavioral modeling and design. She is currently an assistant professor of computer science and engineering in Montpellier II University and Polytech-Montpellier, France. Since 2000 she has been the head of the Data Mining Group at the LIRMM Laboratory Lab (Montpellier, France). Her research interests focus on advanced data mining approaches when considering that data are time ordered. Particularly, she is interested in text mining and sequential patterns.

Excellent addition to your library! Recommend to your acquisitions librarian.

www.info-sci-ref.com