Intelligent Multimedia Databases and Information Retrieval: Advancing Applications and Technologies

Li Yan (Northeastern University, China) and Zongmin Ma (Northeastern University, China)

As consumer costs for multimedia devices such as digital cameras and Web phones have decreased and diversity in the market has skyrocketed, the amount of digital information has grown considerably.

Intelligent Multimedia Databases and Information Retrieval: Advancing Applications and Technologies details the latest information retrieval technologies and applications, the research surrounding the field, and the methodologies and design related to multimedia databases. Together with academic researchers and developers from both information retrieval and artificial intelligence fields, this book details issues and semantics of data retrieval with contributions from around the globe. As the information and data from multimedia databases continues to expand, the research and documentation surrounding it should keep pace as best as possible, and this book provides an excellent resource for the latest developments.

Topics Covered:
- Content-Based Image Retrieval (CBIR)
- Database and Intelligence Technologies
- Database Management Systems
- EduPMO
- Information Networking Model
- Metadata Standards
- Multimedia Languages
- Ontology-Guided Information Retrieval
- Semantic Characterization
- Text-Based Image Retrieval (TBIR)

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.
Section 1:

Chapter 1
Probing User Color Perception for Image Retrieving
El-Zakhem Imad (Université de Reims Champagne Ardenne, France)
Aït-Younes Amine (Université de Reims Champagne Ardenne, France)
Aldag Herman (Université Paris 6, France)
Greige Hanna (University of Balamand, Lebanon)

Chapter 2
Approach of Using Texture and Shape for Image Retrieval
Zhang Gang (Northeastern University, China & Shenyang University of Technology, China)
Ma Zongmin (Northeastern University, China)
Yan Li (Northeastern University, China)

Chapter 3
Mid-level Image Descriptors
Martiner Jean (University of Lille, France)
Elsayad Ismail (University of Lille, France)

Chapter 4
An Image Retrieval Model Combining Ontology and Probabilistic Ranking
Fan Lisa (University of Regina, Canada)
Li Botang (University of Regina, Canada)

Chapter 5
Annotation of Medical Images
Wei Chia-Hung (Ching Yung University, Taiwan)
Chen Sherry Y. (Brunel University, UK)

Chapter 6
A Hybrid Approach to Content-Based Image Retrieval
Aşılıoğlu Görkem (TOBB ETÜ, Turkey)
Kaya Eminе Merve (TOBB ETÜ, Turkey)
Sankaya Duygu (TOBB ETÜ, Turkey)
Gao Shang (University of Calgary, Canada)
Ozyer Taner (TOBB ETÜ, Turkey)
Jida Jamal (Lebanese University, Lebanon)
Albaj Reda (University of Calgary, Canada & Global University, Lebanon)

Chapter 7
A Survey on Feature Based Image Retrieval Techniques
Shao Ling (University of Sheffield, UK)

Chapter 8
Extracting Sport Video Semantics:
Yeh Chia-Hung (National Sun Yat-sen University, Taiwan)
Tseng Wen-Yu (National Sun Yat-sen University, Taiwan)
Lin Yu-Da (National Sun Yat-sen University, Taiwan)
Teng Chih-Chung (National Sun Yat-sen University, Taiwan)

Section 2:

Chapter 9
Normal Forms for Multimedia Databases
Chang Shi Kuo (University of Pittsburgh, USA)
Deufemia Vincenzo (Università di Salerno, Italy)
Polese Giuseppe (Università di Salerno, Italy)

Chapter 10
Towards a Dynamic Semantic and Complex Relationship Modeling of Multimedia Data
Jia Daow (Carleton University, Canada)
Liu Mengchi (Carleton University, Canada)

Chapter 11
Towards a Unified Multimedia Metadata Management Solution
Amir Samir (University of Sciences and Technologies of Lille (USTL– Lille1), France)
Bilasco Ioan Marius (University of Sciences and Technologies of Lille (USTL– Lille1), France)
Sharif Md. Haedar (University of Sciences and Technologies of Lille (USTL– Lille1), France)
Djeraba Chabane (University of Sciences and Technologies of Lille (USTL– Lille1), France)

Chapter 12
Abstractions in Intelligent Multimedia Databases:
Parekh Ranjan (Jadavpur University, India)
Shar DA Nalin (Victoria University, Australia)

Chapter 13
Fuzzy Logic for Image Retrieval and Image Databases:
Yan Li (Northeastern University, China)
Ma Z. M. (Northeastern University, China)

Chapter 14
EDUPMO:
Amorim Joni A. (Universidade Estadual de Campinas (UNICAMP), Brazil)
Miskulin Rosana G. S. (Universidade Estadual Paulista “Júlio de Mesquita Filho” (UNESP), Brazil)
Miskulin Mauro S. (Universidade Estadual de Campinas, Brazil)

Chapter 15
Latent Semantic Analysis for Text Mining and Beyond
Kao Anne (Boeing Research & Technology, USA)
Poteet Steve (Boeing Research & Technology, USA)
Wu Jason (Boeing Research & Technology, USA)
Ferrog William (Boeing Research & Technology, USA)
Tjoelker Rod (Boeing Research & Technology, USA)
Quach Lesley (Boeing Research & Technology, USA)