

Book review

Distributed Multimedia Databases: Techniques and Applications, Timothy Shih, ed., Idea Group Publishing (IGP), Hershey, PA, 2002

Among the new challenges of multimedia computing and distributed technologies, mechanisms for content-based information retrieval in multimedia databases seems to be the most difficult issue. The difficulty with image content-based retrieval is figuring out how to visually describe the need of a user. The objective of this book is to point out this and other challenges on multimedia database techniques, from the data representation of different varieties of media, to the copyright protection mechanisms, and the mechanism to deliver data on a distributed environment.

This comprehensive new book covers state-of-the-art research issues in distributed systems, multimedia technologies, and communication mechanisms for readers looking for opportunities to develop new products and research projects. The book is unique in its application of distributed multimedia database systems, as well as its expansion into rarely discussed areas such as watermark techniques.

Part I is an introduction. Parts II and III will discuss current research status and solutions to image and video databases. Part IV discusses watermark technologies. This part of discussion is relatively new in the area of multimedia computing. The discussions in previous chapters contain technical issues, such as specification, design, and algorithms to the research topics of multimedia databases. Part VI includes real applications in image and video databases, VR technique, and media synchronization solution. The last part (Part VII) will further point out other possible solutions in the future.

Potential audiences of this book include senior or graduate students majoring in computer science, computer engineering, or management information systems, as well as professional instructors and multimedia product developers. Readers can benefit from this book in searching for state-of-the-art topics for their research, as well as in the understanding of techniques and applications in content-based information retrieval, watermarking, and distributed multimedia database systems. This book can be used as a textbook in senior research seminars, as well as graduate courses.

Timothy Shih is a Professor and the Chairman of the Department of Computer Science and Information Engineering at Tamkang University, Taiwan. His research interests include multimedia computing and networking, distance learning, software engineering, and formal specification and verification. Dr. Shih has published over 230 papers and participated in many international academic activities. In addition, he has received many research awards, including Tamkang University research award, National Science Council of Taiwan research awards, and the IAS research award of Germany.

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