

1 Introduction To Multimedia Presentations

This book constitutes the refereed proceedings of the 6th International Conference on Intelligent Tutoring Systems, ITS 2002, held in Biarritz, France, and San Sebastian, Spain, in June 2002. The 93 revised full papers presented together with 5 invited papers and 16 posters were carefully reviewed and selected from 167 full paper submissions. The papers address all current issues in the interdisciplinary field of intelligent tutoring systems. The book offers topical sections on agents, architectures, Web, authoring, learning, dialogue, evaluation, narrative, and motivation and emotions.

This book constitutes the thoroughly refereed post-proceedings of the Second International Conference on Cooperative Multimodal Communication, CMC'98, held in Tilburg, The Netherlands, in January 1998. The 13 revised full papers presented together with an introductory survey by the volume editors have passed through two rounds of reviewing, selection, and revision. The book offers topical sections on multimodal generation, multimodal cooperation, multimodal interpretation, and multimedia platforms and test environments. This textbook introduces the "Fundamentals of Multimedia", addressing real issues commonly faced in the workplace. The essential concepts are explained in a practical way to enable students to apply their existing skills to address problems in multimedia. Fully revised and updated, this new edition now includes coverage of such topics as 3D TV, social networks, high-efficiency video compression and conferencing, wireless and mobile networks, and their attendant technologies. Features: presents an overview of the key concepts in multimedia, including color science; reviews lossless and lossy compression methods for image, video and audio data; examines the demands placed by multimedia communications on wired and wireless networks; discusses the impact of social media and cloud computing on information sharing and on multimedia content search and retrieval; includes study exercises at the end of each chapter; provides supplementary resources for both students and instructors at an associated website.

Today, opportunities and challenges of available technology can be utilized as strategic and tactical resources for your organization. Conversely, failure to be current on the latest trends and issues of IT can lead to ineffective and inefficient management of IT resources. Managing Information Technology in a Global Economy is a valuable collection of papers that presents IT management perspectives from professionals around the world. The papers introduce new ideas, refine old ones and possess interesting scenarios to help the reader develop company-sensitive management strategies.

The first International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services (IDMS) was organized by Prof. K. Rothermel and Prof. W. Effelsberg, and took place in Stuttgart in 1992. It had the form of a national forum for discussion on multimedia issues related to communications. The succeeding event was "attached" as a workshop to the German Computer Science Conference (GI Jahrestagung) in 1994 in Hamburg, organized by Prof. W. Lamersdorf. The chairs of the third IDMS, E. Moeller and B. Butscher, enhanced the event to become a very successful international meeting in Berlin in March 1996. This short overview on the first three IDMS events is taken from the preface of the IDMS'97 proceedings (published by Springer as Lecture Notes in Computer Science, Volume 1309), written by Ralf Steinmetz and Lars Wolf. Both, Ralf Steinmetz as general chair and Lars Wolf as program chair of IDMS'97, organized an excellent international IDMS in Darmstadt. Since 1998, IDMS has moved from Germany to other European cities to emphasize the international character it had gained in the previous years. IDMS'98 was organized in Oslo by Vera Goebel and Thomas Plagemann at

UniK – Center for Technology at Kjeller, University of Oslo. Michel Diaz, Phillipe Owezarski, and Patrick Sénac successfully organized the sixth IDMS event, again outside Germany. IDMS'99 took place in Toulouse at ENSICA. IDMS 2000 continued the tradition and was hosted in Enschede, the Netherlands.

Designing Effective and Usable Multimedia Systems presents research and development and industrial experience of usability engineering for multimedia user interfaces. The book discusses the methods, tools and guidelines for multimedia use and implementation and covers the following topics in detail: Design methods for multimedia (MM) systems; Social and cognitive models for MM interaction; Empirical studies of the effects of MM on learning and behavior; Design and prototyping support tools; Intelligent MM Systems and Design support; Usability evaluation. £/LIST£ Designing Effective and Usable Multimedia Systems contains the proceedings of the International Working Conference on Designing Effective and usable Multimedia Systems, sponsored by the International Federation for Information Processing (IFIP), held in Stuttgart, Germany, in September 1998. It is essential reading for computer scientists, software developers, information systems managers and human scientists, especially those working in the applied disciplines such as human factors and interface design.

Multimedia Systems discusses the basic characteristics of multimedia operating systems, networking and communication, and multimedia middleware systems. The overall goal of the book is to provide a broad understanding of multimedia systems and applications in an integrated manner: a multimedia application and its user interface must be developed in an integrated fashion with underlying multimedia middleware, operating systems, networks, security, and multimedia devices. Fundamental characteristics of multimedia operating and distributed communication systems are presented, especially scheduling algorithms and other OS supporting approaches for multimedia applications with soft-real-time deadlines, multimedia file systems and servers with their decision algorithms for data placement, scheduling and buffer management, multimedia communication, transport, and streaming protocols, services with their error control, congestion control and other Quality of Service aware and adaptive algorithms, synchronization services with their skew control methods, and group communication with their group coordinating algorithms and other distributed services.

This volume addresses fundamental design issues and research topics related to multimedia systems, and provides a comprehensive study of the issues. Topics covered include: distributed multimedia databases and computing; multiparadigmatic information retrieval; modelling and analysis of distributed multimedia systems; OS support for distributed multimedia systems; multimedia communications and networking; multimedia digital libraries and mail systems; multimedia human-computer interaction; multimedia applications for CSCW, distant education, electronic commerce teleconferencing and telemedicine; visual and multidimensional languages for multimedia applications; multimedia workflows; and multimedia stream synchronization. In addition, a number of tutorial and overview articles are included so that the volume strikes a balance between introductory tutorials and advanced topics.

This book constitutes, together with its companion LNCS 2094, the refereed proceedings of the First International Conference on Networking, ICN 2001, held in Colmar, France in June 2001. The 168 papers presented were carefully reviewed and selected from around 300 submissions. The proceedings offers topical sections on third and fourth generation, Internet, traffic control, mobile and wireless IP, differentiated services, GPRS and cellular networks, WDM and optical networks, differentiated and integrated services, wireless ATM multicast, real-time traffic, wireless, routing, traffic analysis, traffic modeling and simulation, user applications, mobility management, TCP analysis, QoS, ad hoc

networks, security, MPLS, switches, CORBA, mobile agents, ATM networks, voice over IP, active networks, video communications, and modelization.

Designed to be a general introduction to the broad field of multimedia ... more specifically digital interactive multimedia. The editors have included topics such as the principles of "multiple" and "media," including sound, two-dimensional and three-dimensional graphics, animation, and text. All of these elements are stitched together by the programmer, or multimedia designer, based on the conceptualization of the designer.

Describes the education, tasks, tools, and the important roles of nurses in society.

Multimedia Database Management Systems brings together in one place important contributions and up-to-date research results in this important area. Multimedia Database Management Systems serves as an excellent reference, providing insight into some of the most important research issues in the field.

Multimedia Database Systems: Design and Implementation Strategies is a compendium of the state-of-the-art research and development work pertaining to the problems and issues in the design and development of multimedia database systems. The chapters in the book are developed from presentations given at previous meetings of the International Workshop on Multi-Media Data Base Management Systems (IW-MMDBMS), and address the following issues: development of adequate multimedia database models, design of multimedia database query and retrieval languages, design of indexing and organization techniques, development of efficient and reliable storage models, development of efficient and dependable retrieval and delivery strategies, and development of flexible, adaptive, and reliable presentation techniques.

This volume contains three keynote papers and 51 technical papers from contributors around the world on topics in the research and development of database systems, such as Data Modelling, Object-Oriented Databases, Active Databases, Data Mining, Heterogeneous Databases, Distributed Databases, Parallel Query Processing, Multi-Media Databases, Transaction Management Systems, Document Databases, Temporal Databases, Deductive Databases, User Interface, and Advanced Database Applications.

Introduction to Multimedia Systems

The Asian Computing Science Conference (ASIAN) series was initiated in 1995 to provide a forum for researchers in computer science in Asia to meet and to promote interaction with researchers from other regions. The previous ?ve conferences were held, respectively, in Bangkok, Singapore, Kathmandu, Manila, and Phuket. The proceedings were published in the Lecture Notes in Computer Science Series of Springer-Verlag. This year's conference (ASIAN2000) attracted 61 submissions from which 18 papers were selected through an electronic program committee (PC) meeting.

The themes for this year's conference are: – Logics in Computer Science – Data Mining – Networks and Performance
The key note speaker for ASIAN2000 is Jean Vuillemin (ENS, France) and the invited speakers are Ramamohanarao Kotagiri (U. Melbourne, Australia) and Alain Jean-Marie (LIRMM, France). We thank them for accepting our invitation. This year's conference is sponsored by the Asian Institute of Technology (Thailand), INRIA (France), the National University of Singapore (Singapore), and UNU/IIST (Macau SAR, China). We thank all these institutions for their continued support of the ASIAN series. This year's conference will be held in Penang, Malaysia. We are much obliged to Universiti Sains Malaysia and Penang State Government for providing the conference venue and to Dr. Abdullah Zawawi Haji Talib for making the local arrangements. We also wish to thank the PC members and the large number of referees for their substantial work put in by them in assessing the submitted papers.

Multimedia technologies are rapidly attracting more and more interest every day. The Internet as seen from the end user is one of the reasons for this phenomenon, but not the only one. Video on Demand is one of the buzzwords today, but its real availability to the general public is yet to come. Content providers – such as publishers, broadcasting companies, and audio/video production firms – must be able to archive and index their productions for later retrieval. This is a formidable task, even more so when the material to be sorted encompasses many different types of several media and covers a time span of several years. In order for such a vast amount of data to be easily available, existing database design models and indexing methodologies have to be improved and refined. In addition, new techniques especially tailored to the various types of multimedia must be devised and evaluated. For archiving and transmission, data compression is another issue that needs to be addressed. In many cases, it has been found that compression and indexing can be successfully integrated, since compressing the data by filtering out irrelevancy implies some degree of understanding of the content structure.

Mobile Computing Environments for Multimedia Systems brings together in one place important contributions and up-to-date research results in this fast moving area. Mobile Computing Environments for Multimedia Systems serves as an excellent reference, providing insight into some of the most challenging research issues in the field.

The SPIN workshop series brings together researchers and practitioners interested in explicit state model checking technology as it is applied to the verification of software systems. Since 1995, when the SPIN workshop series was instigated, SPIN workshops have been held on an annual basis at Montreal (1995), New Brunswick (1996), Enschede (1997), Paris (1998), Trento (1999), Toulouse (1999), Stanford (2000), and Toronto (2001).

While the first SPIN workshop was a stand-alone event, later

workshops have been organized as more or less closely related events with larger conferences, in particular with CAV (1996),

TACAS (1997), FORTE/PSTV (1998), FLOC (1999), World Congress on Formal Methods (1999), FMOODS (2000), and ICSE (2001). This year, SPIN 2002 was held as a satellite event of ETAPS 2002, the European Joint Conferences on Theory and Practice of Software. The co-location of SPIN workshops with conferences has proven to be very successful and has helped to disseminate SPIN model checking technology to wider audiences. Since 1999, the proceedings of the SPIN workshops have appeared in Springer-Verlag's "Lecture Notes in Computer Science" series. The history of successful SPIN workshops is evidence for the maturing of model checking technology, not only in the hardware domain, but increasingly also in the software area. While in earlier years algorithms and tool development around the SPIN model checker were the focus of this workshop series, the scope has recently widened to include more general approaches to software model checking. Current research in this area concentrates not so much on completely verifying system models, but rather on analyzing source code in order to discover software faults.

Although verbal learning offers a powerful tool, Mayer explores ways of going beyond the purely verbal. Recent advances in graphics technology and information technology have prompted new efforts to understand the potential of multimedia learning as a means of promoting human understanding. In this second edition, Mayer includes double the number of experimental comparisons, 6 new principles - signalling, segmenting, pertaining, personalization, voice and image principles. The 12 principles of multimedia instructional design have been reorganized into three sections - reducing extraneous processing, managing essential processing and fostering generative processing. Finally an indication of the maturity of the field is that the second edition highlights boundary conditions for each principle research-based constraints on when a principle is likely or not likely to apply. The boundary conditions are interpreted in terms of the cognitive theory of multimedia learning, and help to enrich theories of multimedia learning.

Multimedia computing has emerged in the last few years as a major area of research. Multimedia computer systems have opened a wide range of applications by combining a variety of information sources, such as voice, graphics, animation, images, audio and full-motion video. Looking at the big picture, multimedia can be viewed as the merging of three industries: computer, communications, and broadcasting industries. Research and development efforts can be divided into two areas. As the first area of research, much effort has been centered on the stand-alone multimedia workstation and associated software systems and tools, such as music composition, computer-aided education and training, and interactive video. However, the combination of multimedia computing with distributed systems offers even greater potential. New applications based on distributed multimedia systems include multimedia information systems, collaborative and video conferencing systems, on-demand multimedia services, and distance learning. Multimedia

Systems and Techniques is one of two volumes published by Kluwer, both of which provide a broad introduction into this fast moving area. The book covers fundamental concepts and techniques used in multimedia systems. The topics include multimedia objects and related models, multimedia compression techniques and standards, multimedia interfaces, multimedia storage techniques, multimedia communication and networking, multimedia synchronization techniques, multimedia information systems, scheduling in multimedia systems, and video indexing and retrieval techniques. Multimedia Systems and Techniques, together with its companion volume, Multimedia Tools and Applications, is intended for anyone involved in multimedia system design and applications and can be used as a textbook for advanced courses on multimedia.

Semantic Models for Multimedia Database Searching and Browsing begins with the introduction of multimedia information applications, the need for the development of the multimedia database management systems (MDBMSs), and the important issues and challenges of multimedia systems. The temporal relations, the spatial relations, the spatio-temporal relations, and several semantic models for multimedia information systems are also introduced. In addition, this book discusses recent advances in multimedia database searching and multimedia database browsing. More specifically, issues such as image/video segmentation, motion detection, object tracking, object recognition, knowledge-based event modeling, content-based retrieval, and key frame selections are presented for the first time in a single book. Two case studies consisting of two semantic models are included in the book to illustrate how to use semantic models to design multimedia information systems. Semantic Models for Multimedia Database Searching and Browsing is an excellent reference and can be used in advanced level courses for researchers, scientists, industry professionals, software engineers, students, and general readers who are interested in the issues, challenges, and ideas underlying the current practice of multimedia presentation, multimedia database searching, and multimedia browsing in multimedia information systems.

There has long been a chasm between researchers and practitioners in a field that requires making good choices from a wide range of disciplines. This book, with its extensive references, closes that gap. -Dan Swinehart, Principal Scientist, Xerox Palo Alto Research Center The first comprehensive survey of all the layers of compressing, storing, transporting, and indexing multimedia content. The selection of papers covers both the intellectual history of the field as well as the state of the art. I look forward to using the book in courses I teach. -Henning Schulzrinne, Associate Professor, Columbia University Here are seminal papers from a group of the top researchers in the field, who help set the tone for future inventions and discoveries. The editors provide overviews and suggest the best sources for additional study, to bring us up to date, across the board, in this rapidly developing area. I know of no other place where you can find so much

important information about multimedia information, systems, and networking. -Edward A. Fox, Professor, Virginia Polytechnic University

Readings in Multimedia Computing and Networking captures the broad areas of research and developments in this burgeoning field, distills the key findings, and makes them accessible to professionals, researchers, and students alike. For the first time, the most influential and innovative papers on these topics are presented in a cohesive form, giving shape to the diverse area of multimedia computing. The seminal moments are recorded by a dozen visionaries in the field and each contributing editor provides a context for their area of research by way of a thoughtful, focused chapter introduction. The volume editors, Kevin Jeffay and HongJiang Zhang, offer further incisive interpretations of past and present developments in this area, including those within media and content processing, operating systems, and networking support for multimedia. This book will provide you with a sound understanding of the theoretical and practical issues at work in the field's continuing evolution. Features Offers an in-depth look at the technical challenges in multimedia and provides real and potential solutions that promise to expand the role of multimedia in business, entertainment, and education. Examines in Part One issues at the heart of multimedia processes: the means by which multimedia data are coded, compressed, indexed, retrieved, and otherwise manipulated. Examines in Part Two the accommodation of these processes by storage systems, operating systems, network protocols, and applications. Written by leading researchers, the introductions give shape to a field that is continually defining itself and place the key research findings in context to those who need to understand the state-of-the art developments. Multimedia information systems are quite different from traditional information systems, especially in data types, modeling, delivery, and user interface. The large size of multimedia data and the high bandwidth requirement of multimedia streams require new storage, buffering, delivery, and networking schemes. The presentational nature of multimedia applications requires a proper synchronization between multimedia streams, and the composition of multimedia documents in the distributed environment should overcome the heterogeneity of underlying systems. This book is edited for undergraduate and graduate students studying multimedia information and applications, researchers and developers of various multimedia software and hardware systems, multimedia tool developers, user interface designers, and network protocol designers by including 17 chapters focused on the following major issues:

- Disk scheduling and storage hierarchy.
- Configuration of multimedia servers and buffer management.
- Delivery scheduling for multimedia streams.
- Supporting user interactions. Document modeling and temporal modeling of multimedia data.
- Integrated multimedia information system.

With the rapid growth of computer and communication technologies, the creation, modification and distribution of digital multimedia information have become easier than ever. Such multimedia information includes still images, video, audio, texts and artifacts in

virtual space. The efficient storage of valuable information and rapid access to it is crucial to all modern organizations. This proceedings volume consists of papers by researchers and academicians which explore the various aspects of the digital media information base. A special emphasis is placed on new database system technologies.

Grid and cooperative computing has emerged as a new frontier of information technology. It aims to share and coordinate distributed and heterogeneous network resources

for better performance and functionality that can otherwise not be achieved. This volume contains the papers presented at the 2nd International Workshop on Grid and Cooperative Computing, GCC 2003, which was held in Shanghai, P.R. China, during December 7–10, 2003. GCC is designed to serve as a forum to present current and future work as well as to exchange research ideas among researchers, developers, practitioners, and users in Grid computing, Web services and cooperative computing, including theory and applications. For this workshop, we received over 550 paper submissions from 22 countries and regions. All the papers were peer-reviewed in depth and qualitatively graded on their relevance, originality, significance, presentation, and the overall appropriateness of their acceptance. Any concerns raised were discussed by the program committee. The organizing committee selected 176 papers for conference presentation (full papers) and 173 submissions for poster presentation (short papers). The papers included herein represent the forefront of research from China, USA, UK, Canada, Switzerland, Japan, Australia, India, Korea, Singapore, Brazil, Norway, Greece, Iran, Turkey, Oman, Pakistan and other countries. More than 600 attendees participated in the technical section and the exhibition of the workshop. This book equips readers with the skills to design multimedia delivery systems. It provides an overview of current research in the area, giving readers a glimpse of what multimedia computers will be doing in the near future. Divided into 2 parts, it discusses how multimedia delivery systems are designed and constructed, and then covers the methods of realizing true multimedia computing. With its authoritative outlook and supplementary material available on authors website, this book will interest all those working in multimedia.

In recent years, multimedia learning, or learning from words and images, has developed into a coherent discipline with a significant research base. The Cambridge Handbook of Multimedia Learning is unique in offering a comprehensive, up-to-date analysis of research and theory in the field, with a focus on computer-based learning. Since the first edition appeared in 2005, it has shaped the field and become the primary reference work for multimedia learning. Multimedia environments, including online presentations, e-courses, interactive lessons, simulation games, slideshows, and even textbooks, play a crucial role in education. This revised second edition incorporates the latest developments in multimedia learning and contains new chapters on topics such as drawing, video, feedback, working memory, learner control, and intelligent tutoring systems. It examines research-based principles to determine the most effective methods of multimedia instruction and considers research findings in the context of cognitive theory to explain how these methods work.

The first encyclopedia in the field, the International Encyclopedia of Ergonomics and Human Factors provides a comprehensive

and authoritative compendium of current knowledge on ergonomics and human factors. It gives specific information on concepts and tools unique to ergonomics. About 500 entries, published in three volumes and on CD-ROM, are pre

In the last few years we have observed an explosive growth of multimedia computing, communication and applications. This revolution is transforming the way people live, work, and interact with each other, and is impacting the way business, government services, education, entertainment and healthcare are operating. Yet, several issues related to modeling, specification, analysis and design of distributed multimedia database systems and multimedia information retrieval are still challenging to both researchers and practitioners. Distributed Multimedia Databases: Techniques and Applications points out these challenges and provides valuable suggestions toward the necessary solutions, by focusing on multimedia database techniques.

The Pacific Symposium on Biocomputing brings together key researchers from the international biocomputing community. It is designed to be maximally responsive to the need for critical mass in subdisciplines within biocomputing. These proceedings contain peer-reviewed articles in computational biology and bioinformatics. Contents: Gene Expression and Genetic Networks Data Mining and Knowledge Discovery in Molecular Databases Computer Modeling in Physiology: From Cell to Tissue Information—Theoretic Approaches to Biology Molecules to Maps: Tools for Visualization and Interaction in Computational Biology Computer-Aided Drug Discovery: From Target Proteins to Drug Candidates Protein Structure Prediction in the Post Genomic ERA Readership: Biochemists, computer scientists, and researchers in computational biology, bioinformatics and biocomputing. Keywords: Biocomputing; Bioinformatics; Computational Biology

Multimedia Database Management Systems Research Issues and Future Directions Springer Science & Business Media

This volume contains the proceedings from the workshops held in conjunction with the IEEE International Parallel and Distributed Processing Symposium, IPDPS 2000, on 1-5 May 2000 in Cancun, Mexico. The workshops provide a forum for bringing together researchers, practitioners, and designers from various backgrounds to discuss the state of the art in parallelism. They focus on different aspects of parallelism, from runtime systems to formal methods, from optics to irregular problems, from biology to networks of personal computers, from embedded systems to programming environments; the following workshops are represented in this volume: { Workshop on Personal Computer Based Networks of Workstations { Workshop on Advances in Parallel and Distributed Computational Models { Workshop on Par. and Dist. Comp. in Image, Video, and Multimedia { Workshop on High-Level Parallel Prog. Models and Supportive Env. { Workshop on High Performance Data Mining { Workshop on Solving Irregularly Structured Problems in Parallel { Workshop on Java for Parallel and Distributed Computing { Workshop on Biologically Inspired Solutions to Parallel Processing Problems { Workshop on Parallel and Distributed Real-Time Systems { Workshop on Embedded HPC Systems and Applications { Reconfigurable Architectures Workshop { Workshop on Formal Methods for Parallel Programming { Workshop on Optics and Computer Science { Workshop on Run-Time Systems for Parallel Programming { Workshop on Fault-Tolerant Parallel and Distributed Systems All papers published in the workshops proceedings were selected by the program committee on the basis of referee reports. Each paper was reviewed by independent referees who judged the papers for originality, quality, and

consistency with the themes of the workshops.

The Professional Communication Series 1e—Public Speaking, Interviewing, Technical Communications, MULTIMEDIA PRESENTATION SKILLS, and Managing Information in the Workplace are flexible modules that cover the important communication skills students will need for their careers. Each module consists of 192 pages presented in 10 chapters. Each includes the following features: Workplace Tips, Communication @ Work, self-assessment activities, chapter summaries, key terms, Ethics in Action, Technology Tips, Global Notes, Quotable Quips, and application exercises and checklists. Components of each module are Student Edition, Student Edition with CD-ROM, Instructor Resource Manual with CD-ROM (including ExamView Pro and PowerPoint), Distance Education through PageOut, and a Web site.

Digital libraries (DLs) are major advances in information technology that frequently fall short of expectations [7, 28]. Covi & Kling [7] argue that understanding the wider context of technology use is essential to understanding digital library use and its implementation in different social worlds. Recent health informatics research also suggests that social and organisational factors can determine the success or failure of healthcare IT developments [8, 11, 12]. Heathfield [11] suggests that this is due to the complex, autonomous nature of the medical discipline and the specialized (clinician or software engineer) approach to system development. Negative reactions to these systems is often due to inappropriate system design and poor implementation. However, there may be other less obvious social and political repercussions of information system design and deployment. Symon et al [26] have identified, within a hospital scenario, how social structures and work practices can be disrupted by technology implementation. Although these systems often deal with sensitive, personal information, other system design research has found that apparently innocuous data can be perceived as a threat to social and political stability [1,2,3]. To understand the impact of DLs within the medical profession, an in-depth evaluation is required of the introduction and later development of these applications within their specific social and organisational settings. However, as Covi & Kling [7] have highlighted, there are few high-level theories that aid designers in understanding the implication of these issues for DL design and implementation.

This book constitutes the refereed proceedings of the 10th International Conference on Asian Digital Libraries, ICADL 2007, held in Hanoi, Vietnam, in December 2007. The 41 revised full papers, 15 revised short papers, and extended abstracts of 10 poster papers presented together with three keynote and three invited papers were carefully reviewed and selected from a total of 154 submissions. The papers are organized in topical sections.

This book presents the results of EG Multimedia'2001, the Sixth Eurographics Workshop on Multimedia, held in Manchester, UK, on the 8 and 9 of September, 2001. All six such workshops are successful examples of fruitful international cooperation under the auspices of the Eurographics working group on Multimedia. The workshop covered a wide range of subjects, from media production to content processing and delivery, with a special focus on issues related to interactive video environments. These included standards and approaches for interactive television, hypervideo, collaborative video, augmented reality, mobile multimedia, the integration of TV and the Web, content analysis, processing and presentation. The program consisted of two

invited keynote presentations, eighteen technical papers and one demonstration, attracting a diverse world-wide group of thirty attendees. Technical papers were organized in six sessions spanning the two days: 3D in Multimedia, Multimedia Architectures and Authoring, Video and Coding, Content Based Retrieval and Security, Interactive Media and Interactive TV. The demonstration presented a multimedia system for aerobics and fitness training, exploring the combination of sound and interactive graphics in an effective manner. The keynote presentation by V. Michael Bove provided insights into new architectures for large scale pervasive computing. The second invited presentation by Glorianna Davenport discussed the relations between creativity and interactive movies as participatory art enabled by new media.

Continuous Media Databases brings together in one place important contributions and up-to-date research results in this fast moving area. Continuous Media Databases serves as an excellent reference, providing insight into some of the most challenging research issues in the field.

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