Table of Contents

Keynote and Invited Papers

Challenges in Building Digital Libraries for the 21st Century 1
Christine L. Borgman

Building Digital Libraries Made Easy: Toward Open Digital Libraries 14
Edward A. Fox, Hussein Suleman, Ming Luo

Dublin Core: Process and Principles 25
Shigeo Sugimoto, Thomas Baker, Stuart L. Weibel

From Digital Library to Digital Government: A Case Study in Crime Data Mapping and Mining 36
Hsinchun Chen

Progress on Educational Digital Libraries: Current Developments in the National Science Foundation's (NSF) National Science, Technology, Engineering, and Mathematics Education Digital Library (NSDL) Program 53
Jane C. Prey, Lee L. Zia

Examples of Practical Digital Libraries: Collections Built Internationally Using Greenstone 67
Ian H. Witten

Data Mining Technologies for Digital Libraries and Web Information Systems 75
Ramakrishnan Srikant

Papers

Information Retrieval Techniques

Chinese Text Summarization Using a Trainable Summarizer and Latent Semantic Analysis 76
Jen-Yuan Yeh, Hao-Ren Ke, Wei-Pang Yang

A Linear Text Classification Algorithm Based on Category Relevance Factors 88
Zhi-Hong Deng, Shi-Wei Tang, Dong-Qing Yang, Ming Zhang, Xiao-Bin Wu, Meng Yang

A Hierarchical Framework for Multi-document Summarization of Dissertation Abstracts 99
Christopher S.G. Khoo, Shiyan Ou, Dion Hoe-Lian Goh

Generality of Texts 111
R.B. Allen, Yejun Wu

The Effectiveness of a Graph-Based Algorithm for Stemming 117
Michela Bacchin, Nicola Ferro, Massimo Melucci

Multimedia Digital Libraries

Searching Digital Music Libraries 129
David Bainbridge, Michael Dewsnip, Ian Witten

The NUS Digital Media Gallery – A Dynamic Architecture for Audio, Image, Clipart, and Video Repository Accessible via the Campus Learning Management System and the Digital Library 141
Phoon Moi Ying, Junius Soh Hock Heng

A Schema Language for MPEG-7 153
Ano Chotmanee, Vilas Wuwongse, Chutiporn Anutariya

Bitmap-Based Indexing for Multi-dimensional Multimedia XML Documents . . . 165
Jong P. Yoon, Sung H. Kim, Go U. Kim, Venu Chakilam

What People Do When They Look for Music: Implications for Design of a Music Digital Library 177
Sally Jo Cunningham

Distributing Relevance Feedback in Content Based Image Retrieval Systems . . . 179
Raghu Menon, Raj Acharya

Data Mining in Digital Libraries

Multistrategy Learning of Rules for Automated Classification of Cultural Heritage Material 182
G. Semeraro, F. Esposito, S. Ferilli, N. Fanizzi, T.M.A. Basile, N. Di Mauro

VideoCube: A Novel Tool for Video Mining and Classification 194
Jia-Yu Pan, Christos Faloutsos

Special Purpose Digital Libraries

Developing Tsinghua University Architecture Digital Library for Chinese Architecture Study and University Education 206
Chunxiao Xing, Lizhu Zhou, Zhiqiang Zhang, Chun Zeng, Xiaodan Zhou

Retrieving News Stories from a News Integration Archive 218
Arnulfo P. Azcarraga, Tat Seng Chua, Jonathan Tan

Digital Library Services

A Data Mining Approach to New Library Book Recommendations 229
San-Yih Hwang, Ee-Peng Lim

Grouping Web Pages about Persons and Organizations for Information Extraction 241
Shiren Ye, Tat-seng Chua, Jimin Liu, Jeremy R. Kei

Personalized Services for Digital Library 252
Chun Zeng, Xiaohui Zheng, Chunxiao Xing, Lizhu Zhou

Automatic References: Active Support for Scientists in Digital Libraries 254
Harald Krottmaier

Organizing and Maintaining Dynamic Digital Collections 256
M. Nikolaidou, D. Anastasiou, D. Anagnostopoulos, M. Hatzopoulos

Navigation, Organization, and Retrieval in Personal Digital Libraries of Email 258
Benjamin M. Gross

A Work Environment for a Digital Library of Historical Resources 260
Dion Goh, Lin Fu, Schubert Foo

Digital Libraries for Community Building

A Personalized Collaborative Digital Library Environment 262
M. Elena Renda, Umberto Straccia

Virtual Tutor: A System for Deploying Digital Libraries in Classrooms 275
Joemon M. Jose, Hywel Braddick, Innes Martin, Brian Robertson, Craig Walker, Greg MacPherson

Resource Annotation Framework in a Georeferenced and Geospatial Digital Library 287
Zehua Liu, Ee-Peng Lim, Dion Hoe-Lian Goh

Building Policy, Building Community: An Example from the US National Science, Technology, Engineering, and Mathematics Education Library (NSDL) 299
Ellen Hoffman, Edward A. Fox

Building a Digital Library from the Ground Up: An Examination of Emergent Information Resources in the Machine Learning Community 301
Sally Jo Cunningham

Subscription Clubs for E-journals: Indian Initiatives 303
I.R.N. Goudar, Poornima Narayana

Information Retrieval in Asian Languages

A Multilingual Multi-script Database of Indian Theses: Implementation of Unicode at Vidyanidhi 305
Shalini R. Urs, N.S. Harinarayana, Mallinath Kumbar

A Workbench for Acquiring Semantic Information and Constructing Dictionary for Compound Noun Analysis 315
Kyung-Soon Lee, Do-Wan Kim, Kyo Kageura, Key-Sun Choi

Building Parallel Corpora by Automatic Title Alignment 328
Christopher C. Yang, Kar Wing Li

Offline Isolated Handwritten Thai OCR Using Island-Based Projection with N-Gram Models and Hidden Markov Models 340
Thanaruk Theeramunkong, Chainat Wongtapan, Sukree Sinthupinyo

A Cache-Based Distributed Terabyte Text Retrieval System in CADAL 352
Jun Cheng, Wen Gao, Bin Liu, Tie-jun Huang, Ling Zhang

Building and Using Digital Libraries

Rural Digital Library: Connecting Rural Communities in Nepal 354
Binod Vaidya, Jagan Nath Shrestha

Collection Development for the Digital Age: The Case of Malaysia 366
Ahmad Bakeri, Abu Bakar, Kaba Abdoulaye

Digital Divide: How Can Digital Libraries Bridge the Gap? 379
Gobinda G. Chowdhury

Digital Libraries in Academia: Challenges and Changes 392
Anne Adams, Ann Blandford

Building Digital Libraries for Children: Reviewing Information Literacy of Students and Teachers 404
Marcia Mardis, Ellen Hoffman

Metadata Issues

The Use and Functionality of the Environmental Data Registry: An Evaluation of User Feedback 406
Panayiota Polydoratou, Michael Pendleton, David Nicholas

Adding Semantics to 3D Digital Libraries 419
Anshuman Razdan, Jeremy Rowe, Matthew Tocheri, Wilson Sweitzer

Algorithms and Protocols

INEXP: Information Exchange Protocol for Interoperability 421
Hongzhi Wang, Jianzhong Li, Zhenying He

Study on Data Placement and Access Path Selection in an FC-SAN Virtual Storage Environment 423
Chao Li, Chun-xiao Xing, Li-zhu Zhou

Building an OAI-Based Union Catalog for the National Digital Archives Program in Taiwan 425
Chao-chen Chen, Hsueh-hua Chen

Human Computer Interfaces

Intergenerational Partnerships in the Design of a Digital Library of Geography Examination Resources 427
Yin-Leng Theng, Dion Hoe-Lian Goh, Ee-Peng Lim, Zehua Liu, Natalie Lee-San Pang, Patricia Bao-Bao Wong, Lian-Heong Chua

Pie Charts for Visualizing Query Term Frequency in Search Results 440
Terry Anderson, Ali Hussam, Bill Plummer, Nathan Jacobs

Information Therapy in Digital Libraries 452
Yin-Leng Theng

Evaluation of Task Based Digital Work Environment 465
Narayanan Meyyappan, Schubert Foo

A Framework for Flexible Information Presentation in Digital Collections 467
Unmil P. Karadkar, Jin-Cheon Na, Richard Furuta

Electronic Journal of the University of Malaya (EJUM): An Attempt to Provide a Truly Electronic Environment 469
A.N. Zainab, N.N. Edzan, T.F. Ang

Digital Library Infrastructure

Patenting the Processes for Content-Based Retrieval in Digital Libraries 471
Hideyasu Sasaki, Yasushi Kiyoki

Secure Content Distribution for Digital Libraries 483
Mariemma I. Yagüe, Antonio Maña, Javier López, Ernesto Pimentel, José M. Troya

A Strategic Level for Scientific Digital Libraries 495
Ling Feng, Manfred Jeusfeld, Jeroen Hoppenbrouwers

Bridging the Gap between Information Resource Design and Enterprise Content Management 507
Sue Fowell

A Digital Content Management Model for Making Profits in Digital Content Sites 516
Hyeonjeong Mun, Sooho Ok, Yongtae Woo

Posters

Digital Library Initiatives and Services

The Idea of a Digital Library: Issues of Today 518
Swapan K. Dasgupta, Asoke P. Chattopadhyay

US-Korea Collaboration on Digital Libraries: An Overview and Generalization for Pacific Rim Collaboration 519
Edward A. Fox, Reagan W. Moore, Ronald L. Larsen, Sung Hyon Myaeng, Kim Sung-Hyuk

ETDs at HKU: A Spearhead for Digital Library Growth 520
David T. Palmer

MiMedicalLibrary: A Digital Health Library for Michigan 521
Harvey R. Brenneise

Reference Services in a Digital Library of Historical Artifacts 522
Roy Chan, Dion Goh, Schubert Foo

An Integrative User-Centered Purchase Request Service in the Age of Digital Library Development 523
Ching-Fan Wu, Hui-Chen Hsieh

Vitalising Library and Information Science Education: A Challenge in the Digital Information Environment 524
K. Padmini

Technology

Developing a Dialogue Library System 525
Ivan Kopecek, Miroslav Bartosek

WebClipper: A Personal/Community Link Library Builder Based on Web Link Management Technique 526
Young S. Kim, Jae H. Lim, Soon J. Hyun, Dongman Lee

Hiding a Logo Watermark in an Image for Its Copyright Protection 527
Jun Zhang, Feng Xiong, Nengchao Wang

Searching Video Segments through Transcript, Metadata, and SVG Objects 528
M. Karthikeyan, D. Uzagare, S. Krishnan, Meng Yang, Gary Marchionini

Similar Sub-trajectory Retrieval Based on k-Warping Distance Algorithm for Moving Objects in Video Databases 529
Choon-Bo Shim, Jae-Woo Chang

A Keyword Spotting System of Korean Document Images 530
Il-Seok Oh, Yoon-Sung Choi, Jin-Ho Yang, Soo-Hyung Kim

An Efficient Strategy for Adding Bulky Data into B+-Tree Indices in Information Retrieval Systems 531
Jin-Ho Kim, Ju-Young Kim, Sang-Wook Kim, Soo-Ho Ok, Hi-Young Roh

Author Index 533