

DIGITAL GOVERNMENT

*E-Government Research, Case
Studies, and Implementation*

INTEGRATED SERIES IN INFORMATION SYSTEMS

1.1 *Series Editors*

Professor Ramesh Sharda
Oklahoma State University

Prof. Dr. Stefan Voß
Universität Hamburg

Other published titles in the series:

E-BUSINESS MANAGEMENT: *Integration of Web Technologies with Business Models/* edited by Michael J. Shaw

VIRTUAL CORPORATE UNIVERSITIES: *A Matrix of Knowledge and Learning for the New Digital Dawn/* Walter R.J. Baets & Gert Van der Linden

SCALABLE ENTERPRISE SYSTEMS: *An Introduction to Recent Advances/* edited by Vittal Prabhu, Soundar Kumara, Manjunath Kamath

LEGAL PROGRAMMING: *Legal Compliance for RFID and Software Agent Ecosystems in Retail Processes and Beyond/* Brian Subirana and Malcolm Bain

LOGICAL DATA MODELING: *What It Is and How To Do It/* Alan Chmura and J. Mark Heumann

DESIGNING AND EVALUATING E-MANAGEMENT DECISION TOOLS: *The Integration of Decision and Negotiation Models into Internet-Multimedia Technologies/* Giampiero E.G. Beroggi

INFORMATION AND MANAGEMENT SYSTEMS FOR PRODUCT CUSTOMIZATION/ Thorsten Blecker et al

MEDICAL INFORMATICS: *Knowledge Management and Data Mining in Biomedicine/* edited by Hsinchun Chen et al

KNOWLEDGE MANAGEMENT AND MANAGEMENT LEARNING: *Extending the Horizons of Knowledge-Based Management/* edited by Walter Baets

INTELLIGENCE AND SECURITY INFORMATICS FOR INTERNATIONAL SECURITY: *Information Sharing and Data Mining/* Hsinchun Chen

ENTERPRISE COLLABORATION: *On-Demand Information Exchange for Extended Enterprises/* David Levermore & Cheng Hsu

SEMANTIC WEB AND EDUCATION/ Vladan Devedžić

INFORMATION SYSTEMS ACTION RESEARCH: *An Applied View of Emerging Concepts and Methods/* Ned Kock

ONTOLOGIES: *A Handbook of Principles, Concepts and Applications/* edited by Raj Sharman, Rajiv Kishore, Ram Ramesh

METAGRAPHS AND THEIR APPLICATIONS/ Amit Basu and Robert W. Blanning

SERVICE ENTERPRISE INTEGRATION: *An Enterprise Engineering Perspective/* Cheng Hsu

DIGITAL GOVERNMENT

E-Government Research, Case Studies, and Implementation

edited by

Hsinchun Chen

Lawrence Brandt

Valerie Gregg

Roland Traunmüller

Sharon Dawes

Eduard Hovy

Ann Macintosh

Catherine A. Larson



Springer

Hsinchun Chen
University of Arizona
Tucson, AZ, USA

Lawrence Brandt
Consultant
Potomac, MD, USA

Valerie Gregg
Alexandria, VA, USA

Roland Traunmüller
Johannes Kepler Universität
Linz, Austria

Sharon Dawes
University of Albany, SUNY
Albany, NY, USA

Eduard Hovy
University of Southern California
Marina del Rey, CA, USA

Ann Macintosh
Napier University
Edinburgh, United Kingdom

Catherine A. Larson
University of Arizona
Tucson, AZ, USA

Series Editors:

Ramesh Sharda
Oklahoma State University
Stillwater, Oklahoma, USA

Stefan Voß
Universität Hamburg
Germany

Library of Congress Control Number: 2007932235

ISBN-13: 978-0-387-71610-7

e-ISBN-13: 978-0-387-71611-4

Printed on acid-free paper.

© 2008 by Springer Science+Business Media, LLC

All rights reserved. This work may not be translated or copied in whole or in part without the written permission of the publisher (Springer Science+Business Media, LLC, 233 Spring Street, New York, NY 10013, USA), except for brief excerpts in connection with reviews or scholarly analysis. Use in connection with any form of information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed is forbidden.

The use in this publication of trade names, trademarks, service marks and similar terms, even if they are not identified as such, is not to be taken as an expression of opinion as to whether or not they are subject to proprietary rights.

9 8 7 6 5 4 3 2 1

springer.com

TABLE OF CONTENTS

<i>Preface</i>	xvii
Editors' Biographies	xxi
Authors' Biographies	xxix

UNIT I. FOUNDATIONS OF DIGITAL GOVERNMENT AND PUBLIC POLICY

Chapter 1. Foundations of Digital Government 3

By Stephen Coleman

1	Governance and/as Technology	4
2	Digitising Governance	6
3	Barriers to e-Governance	9
4	Governing the e-Public	11
5	Regulating the Behaviour of e-Citizens	12
6	Cultivating the Skills of e-Citizenship	13
7	Managing Interactivity	15
8	What Can Be Expected from e-Governance?	16
	References	17
	Suggested Readings and Online Resources	18
	Questions for Discussion	19

Chapter 2. Discipline or Interdisciplinary Study Domain?

Challenges and Promises in Electronic Government Research 21

By Hans J. (Jochen) Scholl

1	Introduction	22
2	Would EGR Pass as a "Legitimate" Discipline?	23
3	Neighboring "Incumbent" Disciplines: Pub Admin and ISR/CS	27
4	Challenges and Opportunities for Cross-disciplinary EGR	29
5	EGR on the Continuum between Discipline and Transdiscipline	32
6	Concluding Remarks	36
	References	37
	Suggested Readings and Online Resources	40
	Questions for Discussion	41

Chapter 3. An Outline for the Foundations of Digital Government Research	43
<i>By Eduard Hovy</i>	
1 Introduction: A New Field of Research	44
2 A Tripartite Model of ICT in Government	45
3 Related Work	49
4 Assumptions behind DG Research in Light of the Model	50
5 The Character of DG and Similar Research in Different Applications	52
6 Digital Government Research in the USA and EU	52
7 What Makes a Good DG Research Paper?	53
8 DG Education	55
9 Conclusion	56
References	57
Suggested Readings and Online Resources	58
Questions for Discussion	58
 Chapter 4. Lost In Competition?	
The State of the Art in e-Government Research	61
<i>By Åke Grönlund</i>	
1 Introduction	62
2 Research and Practice	62
3 A Research Maturity Model	66
4 Findings	74
5 Conclusions and Discussion	80
References	81
Suggested Readings and Online Resources	82
Questions for Discussion	83
 Chapter 5. e-Democracy and e-Participation Research in Europe	85
<i>By Ann Macintosh</i>	
1 Introduction	86
2 Current Research and Practice	88
3 The Research Landscape	94
4 Conclusion and Future Research Direction	98
References	100
Suggested Readings and Online Resources	101
Questions for Discussion	102

Chapter 6. Introduction to Digital Government Research in Public Policy and Management..... 103

By Sharon S. Dawes

1	Introduction	104
2	Case Studies	107
3	Discussion: Six Public Policy and Management Considerations for Digital Government	109
4	Conclusion	122
	References	122
	Suggested Readings and Online Resources	124
	Questions for Discussion	125

Chapter 7. Privacy in an Electronic Government Context 127

By Priscilla M. Regan

1	Introduction	128
2	Overview	129
3	Conclusions	136
	References	136
	Suggested Readings and Online Resources	138
	Questions for Discussion	139

Chapter 8. Accessibility of Federal Electronic Government..... 141

By Shirley Ann Becker

1	Introduction	142
2	Types of Disabilities	143
3	Government Involvement	145
4	Section 508 Accessibility Standards	146
5	Web Assessment Guidelines	147
6	e-Government Compliance	150
7	Conclusion	151
	References	152
	Suggested Readings and Online Resources	154
	Questions for Discussion	155

Chapter 9. The Current State of Electronic Voting in the United States 157

*By Paul S. Herrnson, Richard G. Niemi, Michael J. Hanmer, Benjamin B.
Bederson, Frederick G. Conrad, and Michael W. Traugott*

1	Introduction	158
2	Literature Review	159

3	Usability Studies	165
4	Conclusion	174
	References	175
	Suggested Readings and Online Resources	178
	Questions for Discussion	180

Chapter 10. e-Enabling the Mobile Legislator..... 181

By Angus Whyte

1	Introduction	182
2	European Elected Assemblies and e-Governance.....	184
3	e-Representative: Mobilising the Legislator?	187
4	Conclusion	193
	References	197
	Suggested Readings and Online Resources	198
	Questions for Discussion	199

UNIT II. INFORMATION TECHNOLOGY RESEARCH

Chapter 11. History of Digital Government Research in the United States..... 203

By Lawrence E. Brandt and Valerie J. Gregg

1	Introduction	204
2	Literature Review and Overview of the Field.....	206
3	Case Studies	208
4	Conclusions and Discussion	211
	References	214
	Suggested Readings and Online Resources	215
	Questions for Discussion	217

Chapter 12. Data and Knowledge Integration for e-Government..... 219

By Eduard Hovy

1	Introduction	220
2	Overview of the Field	221
3	Two Examples.....	224
4	Conclusion	228
	References	229
	Suggested Readings and Online Resources	230
	Questions for Discussion	231

Chapter 13. Ontologies in the Legal Domain 233*By Tom Van Engers, Alexander Boer, Joost Breuker, André Valente, and Radboud Winkels*

1	Introduction	234
2	Ontologies and Meaning	236
3	Legal Knowledge	237
4	Ontologies as Knowledge Management Tool	239
5	Ontologies Versus Epistemological Frameworks	242
6	Quality of Ontologies	253
7	Conclusions	256
	References	258
	Suggested Readings and Online Resources	259
	Questions for Discussion	260

**Chapter 14. Public Safety Information Sharing:
An Ontological Perspective 263***By Siddharth Kaza and Hsinchun Chen*

1	Introduction	264
2	Literature Review	264
3	Case Studies	272
4	Conclusion	276
	References	278
	Suggested Readings and Online Resources	281
	Questions for Discussion	282

**Chapter 15. Collaborative Cyberinfrastructure
for Transnational Digital Government 283***By Mauricio Tsugawa, Andréa Matsunaga, and José A. B. Fortes*

1	Introduction	284
2	Overview and Review of Relevant Approaches	285
3	Application of Machine Virtualization to TDG and a Case Study	292
4	Conclusions	299
	References	301
	Suggested Readings and Online Resources	303
	Questions for Discussion	304

**Chapter 16. Semantics-Based Threat Structure Mining
for Homeland Security 307***By Nabil R. Adam, Vandana P. Janeja, Aabhas V. Paliwal, Vijay Atluri, Soon Ae Chun, Jim Cooper, John Paczkowski, Christof Bornhövd, and Joachim Schaper*

1	Introduction	308
2	Semantics Driven Data Mining	310
3	Enhanced Semantic Graph	312
4	Threat Structure Mining	317
5	Semantics-Based Threat Structure Mining (STM) Prototype System	320
6	Related Work	324
7	Conclusion and Discussion	326
	References	327
	Suggested Readings and Online Resources	328
	Questions for Discussion	329

Chapter 17. Identity Management for e-Government Services.....331

By Fabio Fioravanti and Enrico Nardelli

1	Introduction	332
2	Status of National Electronic Identity in Europe	334
3	A Cooperative Federated Architecture for Identity Management	344
4	Conclusion and Discussion	350
	References	350
	Suggested Readings and Online Resources	351
	Questions for Discussion	352

Chapter 18. Feature Integration for Geospatial Information: A Review and Outlook.....353

By Peggy Agouris, Arie Croitoru, and Anthony Stefanidis

1	Introduction	354
2	Spatial Integration	355
3	Spatiotemporal Integration	359
4	Spatial and Spatiotemporal Queries	363
5	Concluding Remarks	370
	References	370
	Suggested Readings and Online Resources	374
	Topics for Additional Discussion	375

Chapter 19. Geoinformatics of Hotspot Detection and Prioritization for Digital Governance377

By G.P. Patil, Raj Acharya, Amy Glasmeier, Wayne Myers, Shashi Phoha, and Stephen Rathbun

1	Introduction	378
2	Literature Review: Fundamental Methodologies and Computational Techniques	378

3	Illustrative Applications and Case Studies	387
4	Conclusion	392
	References	393
	Suggested Readings and Online Resources	393
	Questions for Discussion	394

Chapter 20. Geoinformation Technologies to Support Collaborative Emergency Management 395

By Sven Fuhrmann, Alan MacEachren, and Guoray Cai

1	Introduction	396
2	Overview of the Field	397
3	Case Studies	402
4	Discussion	413
	Acronym Table	415
	References	415
	Suggested Readings and Online Resources	419
	Questions for Discussion	420

Chapter 21. Sustainable Cross-Boundary Information Sharing 421

By Theresa A. Pardo, J. Ramon Gil-Garcia, and G. Brian Burke

1	Introduction	422
2	Interorganizational Information Integration	422
3	Study Methodology	426
4	Informational Integration in Criminal Justice and Public Health	427
5	Main Lessons	429
6	Taking Action	432
7	Conclusion	435
	References	435
	Suggested Readings and Online Resources	436
	Questions for Discussion	438

Chapter 22. UrbanSim: Using Simulation to Inform Public Deliberation and Decision-Making 439

By Alan Borning, Paul Waddell, and Ruth Förster

1	Introduction	440
2	The UrbanSim Project: A Case Study	446
3	Conclusion and Future Work	460
	References	461
	Suggested Readings and Online Resources	462
	Questions for Discussion	463

UNIT III. CASE STUDIES

Chapter 23. Taking Best Practice Forward 467

By Helene Gieber, Christine Leitner, Gerti Orthofer, and Roland Traunmüller

1	The eEurope Awards: Promoting Best Practice.....	468
2	The eEurope Awards Process	468
3	The eEurope Awards Process e-Government 2005	469
4	The Selection Process	470
5	Themes and Winners of the e-Government Awards 2005.....	471
6	Lessons Learned from the e-Government Awards 2005	475
7	The Challenge of Using Good Practice	478
8	Finding Suitable Model Cases	478
9	A Framework for Evaluating Feasibility	479
10	Collective Learning Processes and Transfer Mechanisms	481
11	The Future: Proceedings to Higher Order Model Solutions	483
	References	484
	Suggested Readings and Online Resources	485
	Questions for Discussion	485

Chapter 24. ePetitioning in the Scottish Parliament 487

By Ann Macintosh, Nick Adams, Angus Whyte, and Jim Johnston

1	Introduction	488
2	Literature Review.....	489
3	ePetitioning in Scotland	491
4	Conclusion and Discussion	498
	References	499
	Suggested Readings and Online Resources	500
	Questions for Discussion	501

Chapter 25. Citizen Access to Government Statistical Information 503

By Alan F. Karr

1	Introduction	504
2	Broad Access.....	506
3	Researcher Access.....	515
4	Distributed Data	524
5	Conclusion: Thoughts about the Future.....	525
	References	527
	Suggested Readings and Online Resources	528
	Questions for Discussion	528

Chapter 26. Infectious Disease Informatics and Syndromic**Surveillance 531***By Daniel Zeng, Hsinchun Chen, and Ping Yan*

1	Introduction	532
2	Infectious Disease Informatics and its Major Technical Components	533
3	Syndromic Surveillance Systems.....	538
4	IDI and Syndromic Surveillance System Case Studies	547
5	Concluding Remarks.....	552
	References	553
	Suggested Readings and Online Resources	557
	Questions for Discussion	558

Chapter 27. Supporting Domain-Specific Digital Libraries**in Government: Two Case Studies..... 561***By Mathew Weaver, Lois M. L. Delcambre, Marianne Lykke Nielsen, Susan Price, David Maier, and Timothy Tolle*

1	Introduction	562
2	Literature Overview	565
3	The Metadata++ Digital Library	566
4	The Software Architecture for Metadata++	571
5	Our Current Project.....	576
6	Discussion	577
	References	580
	Suggested Readings and Online Resources	582
	Questions for Discussion	583

Chapter 28. Business-Technology Alignments in e-Government:**A Large-Scale Taiwan Government Electronic Record****Management Systems Study 585***By Fang-Ming Hsu, Paul Jen-Hwa Hu, and Hsinchun Chen*

1	Introduction	586
2	Background Overview	588
3	Literature Review and Motivation	589
4	Research Framework and Propositions.....	593
5	Study Design and Data Collection.....	599
6	Analysis Results and Discussion	601
7	Summary	608
	References	610
	Suggested Readings and Online Resources	612
	Questions for Discussion	613

Chapter 29. Research and Development of Key Technologies for e-Government: Case Studies in China..... 615

By Chunxiao Xing, Jijiang Yang, Wei He, Yong Zhang, and Chen Chen

1	Introduction	616
2	GIA: Government Informatization Architecture	621
3	Government Information Catalog and Exchange System.....	626
4	MEDW: Macro-Economy Data Warehouse	632
5	MEANS: Model of Examination and Approval on Network	637
6	Conclusions	643
	References	643
	Suggested Readings and Online Resources	644
	Questions for Discussion	645

Chapter 30. New Zealand's 2006 Census Online: A Case Study 647

By Rowena Cullen

1	Introduction	648
2	Literature Review.....	649
3	Setting up the Project	652
4	Managing the Project	658
5	The Public Response.....	664
6	Lessons Learned, Changes Advocated	665
	References	668
	Suggested Readings and Online Resources	669
	Questions for Discussion	670

Chapter 31. Multidisciplinary e-Government Research and Education as a Catalyst for Effective Information Technology Transfer 671

By Bienvenido Vélez-Rivera, Manuel Rodríguez-Martínez, Walter Díaz, Mario Núñez-Molina, and Pedro I. Rivera-Vega

1	Introduction	672
2	Some Socioeconomic Barriers to the Deployment and Utilization of e-Government Initiatives in Mayagüez, Puerto Rico	673
3	Methodology	675
4	Results	676
5	Discussion	681
6	Deployment of e-Government Information Systems to the City of Mayagüez.....	682
7	Description of Specific e-Government Systems.....	688
8	Summary	693

References	693
Suggested Readings and Online Resources	694
Questions for Discussion	695
 Chapter 32. A Hybrid e-Government Model:	
Case Studies in Shanghai	697
<i>By Pengzhu Zhang, Xiaoning Mao, Xieping Tang, and Daniel Zeng</i>	
1 Introduction	698
2 Shanghai and its e-Government Initiatives	700
3 Case Study I: “China Shanghai”	701
4 Case Study II: Qingpu’s Administrative Service Center	706
5 Case Study III: A G2C “Letters-and-Visits” Information System	712
6 Concluding Remarks	715
References	717
Suggested Readings and Online Resources	717
Questions for Discussion	718
 Author Index	719
 Subject Index	721

PREFACE

Digital government can be defined as the application of information technology to government processes in order to improve services to constituents. The roots of digital government lie in the late 20th century, but digital government initiatives (also called *electronic government* or *e-government*) are a 21st century phenomenon, and new information technologies are being applied swiftly to all levels of government service: local, county, regional and even national and international. Information technology (IT) is being used to improve data management and data sharing, planning and decision support, service delivery, and more. Application areas represent a cross-section of government mandates: healthcare and safety; law enforcement, security, and justice; education; land use; and many others. Not only in the United States but throughout the world, IT is being used to increase public access to information, to provide more convenient and timely transaction services, and to increase citizen participation in the establishment of government regulations and other processes. In so doing, digital government also supports the larger goals of streamlining processes and increasing efficiency, sustaining and strengthening democracy, and improving government accountability and transparency. The study of digital government thus involves not only the information technology used to create e-government tools and services, but also the factors that promote or inhibit successful application, as well as the concomitant public and social policy issues.

Given recent advances in digital government initiatives, this is an excellent and most opportune time to make available a textbook that places the application of such initiatives squarely within the context of the broader goals that are being achieved. The goal of this book is to present a current, comprehensive, and comprehensible review of recent IT research of particular importance to digital government, explorations of current and future policy implications, and case studies of successful applications in a variety of government settings. The intended audience is thus quite broad. Academic readers would include students and faculty in a wide variety of graduate level courses such as, for example, information systems; information, library, and computer sciences; the social sciences including social systems, digital government, and public policy; and business. The student reader will benefit from learning the concepts, techniques, and practices of digital government. Researchers will benefit by being exposed to the interdisciplinary literature of this merging and fast-changing field, and will be able to use the work as a reference guide. Practitioners who would be interested include anyone engaged, or about to be engaged in, planning or implementing new digital government initiatives as well as those concerned

with public policy issues. The practitioner audience includes IT and public service managers, decision makers, consultants, and others; they will benefit by gaining knowledge of sound, practical and proven IT strategies for successful digital initiatives, and will be able to better evaluate the strategies that are most likely to be successful in their own settings.

SCOPE AND ORGANIZATION

This book has been grouped into three major units. Unit I focuses on the foundations of digital government and public policy. Unit I has been designed to answer such questions as: why is electronic government being used? What are its benefits? Which disciplines are central to the study of digital government, and which research methodologies best support advances in the field? It also addresses broader questions, such as: how is democracy being served? How is society benefitting? Are there trade-offs in, for example, confidentiality, security, or trust issues? Unit I chapters address the following topics and concepts:

- Foundations of digital government
- E-government concepts and approaches
- The state of the art for digital government research
- E-government in and for public policy and management
- Participation and democratization, including electronic voting
- Privacy and accessibility

Unit II spotlights current IT research that is having a major impact on the advancement of digital government aims. These technologies include, but are not limited to, novel techniques for data collection, management and sharing, and information access and retrieval; advances in geographic information systems (GIS) and image storage and retrieval; web services; system architecture and integration; and the related issues of scalability, sustainability, and security. Unit II is intended to provide a comprehensive inventory and overview of state-of-the-art technologies and techniques that show the most promise for e-government initiatives. Topics addressed include:

- The history of digital government research in the United States
- Data and knowledge integration
- Data mining
- Ontologies for the legal domain
- Collaborative processes

- Information sharing
- Electronic identity management
- Geospatial information and GIS technologies and techniques
- Egovernment for public decision making

Unit III presents case studies of successful e-government initiatives from around the world that have lessons of broader context. High impact U.S. and international digital government initiatives are explored. Applications include innovative e-voting initiatives, improved knowledge-management and information sharing, and new means of transaction services and citizen involvement. How the specific technologies were selected and applied is often a primary focus, along with project management, organization development issues, and lessons learned. Unit III case studies report on the following:

- The eEurope Awards for eGovernment
- ePetitioning in the Scottish Parliament
- Citizen access to government statistical information in the U.S.
- Information sharing and collaboration for public health in the U.S.
- Supporting domain-specific digital libraries in government
- A large-scale government Electronic Record Management Systems study in Taiwan
- Key technologies for egovernment in China (Beijing)
- New Zealand's online census
- Technology transfer in Puerto Rico
- A Hybrid E-Government Model in China (Shanghai)

In addition to its primary subject content, each chapter also includes Suggested Readings, Online Resources, and Questions for Discussion to stimulate and guide the reader's interest.

EDITOR BIOGRAPHIES



Dr. Hsinchun Chen is McClelland Professor of Management Information Systems at the University of Arizona and Andersen Consulting Professor of the Year (1999). He received the B.S. degree from the National Chiao-Tung University in Taiwan, the MBA degree from SUNY Buffalo, and the Ph.D. degree in Information Systems from New York University. Dr. Chen is a Fellow of IEEE and AAAS. He received the IEEE Computer Society 2006 Technical Achievement Award. He is author/editor of 13 books, 17 book chapters, and more than 130 SCI journal articles covering intelligence analysis, biomedical informatics, data/text/web mining, digital library, knowledge management, and Web computing. His recent books include: *Medical Informatics: Knowledge Management and Data Mining in Biomedicine* and *Intelligence and Security Informatics for International Security: Information Sharing and Data Mining*, both published by Springer. Dr. Chen was ranked eighth in publication productivity in Information Systems (CAIS 2005) and first in Digital Library research (IP&M 2005) in two recent bibliometric studies. He serves on ten editorial boards including: *ACM Transactions on Information Systems*, *ACM Journal on Educational Resources in Computing*, *IEEE Transactions on Intelligent Transportation Systems*, *IEEE Transactions on Systems, Man, and Cybernetics*, *Journal of the American Society for Information Science and Technology*, *Decision Support Systems*, and *International Journal on Digital Library*. Dr. Chen has served as a Scientific Counselor/Advisor of the National Library of Medicine (USA), Academia Sinica (Taiwan), and National Library of China (China). He has been an advisor for major NSF, DOJ, NLM, DOD, DHS, and other international research programs in digital library, digital government, medical informatics, and national security research. Dr. Chen is founding director of the Artificial Intelligence Lab and Hoffman E-Commerce Lab. The UA Artificial Intelligence Lab, which houses 40+ researchers, has received more than \$20M in research funding from NSF, NIH, NLM, DOD, DOJ, CIA, DHS, and other agencies over the past 17 years. The Hoffman E-Commerce Lab, which has been funded mostly by major IT industry partners, features one of the most advanced e-commerce hardware and software environments in the College of Management. Dr. Chen is conference co-chair of

ACM/IEEE Joint Conference on Digital Libraries (JCDL) 2004 and has served as the conference/program co-chair for the past eight International Conferences of Asian Digital Libraries (ICADL), the premiere digital library meeting in Asia that he helped develop. Dr. Chen is also (founding) conference co-chair of the IEEE International Conferences on Intelligence and Security Informatics (ISI) 2003–2007. The ISI conference, which has been sponsored by NSF, CIA, DHS, and NIJ, has become the premiere meeting for international and homeland security IT research. Dr. Chen's COPLINK system, which has been quoted as a national model for public safety information sharing and analysis, has been adopted in more than 200 law enforcement and intelligence agencies in 20 states. The COPLINK research had been featured in the New York Times, Newsweek, Los Angeles Times, Washington Post, Boston Globe, and ABC News, among others. The COPLINK project was selected as a finalist by the prestigious International Association of Chiefs of Police (IACP)/Motorola 2003 Weaver Seavey Award for Quality in Law Enforcement in 2003. COPLINK research has recently been expanded to border protection (BorderSafe), disease and bioagent surveillance (BioPortal), and terrorism informatics research (Dark Web), funded by NSF, CIA, and DHS. In collaboration with Customs and Border Protection (CBP), the BorderSafe project develops criminal network analysis and vehicle association mining research for border-crosser risk assessment. The BioPortal system supports interactive geospatial analysis and visualization, chief complaint classification, and phylogenetic analysis for public health and biodefense. In collaboration with selected international terrorism research centers and intelligence agencies, the Dark Web project has generated one of the largest databases in the world about extremist/terrorist-generated Internet contents (web sites, forums, and multimedia documents). Dark Web research supports link analysis, content analysis, web metrics analysis, multimedia analysis, sentiment analysis, and authorship analysis of international terrorism contents. The project was featured in the Discover magazine, Arizona Republic, and Toronto Star, among others. Dr. Chen is the founder of the Knowledge Computing Corporation, a university spin-off company and a market leader in law enforcement and intelligence information sharing and data mining. Dr. Chen has also received numerous awards in information technology and knowledge management education and research including: AT&T Foundation Award, SAP Award, the Andersen Consulting Professor of the Year Award, the University of Arizona Technology Innovation Award, and the National Chaio-Tung University Distinguished Alumnus Award.



Lawrence E. Brandt is Program Manager for Digital Government in the Information Integration and Informatics Cluster of the Division of Information and Intelligent Systems within the NSF Directorate for Computer and Information Sciences and Engineering. Larry joined NSF as a management intern in 1976 shortly after completing his undergraduate degree (San Diego State University, Anthropology). In 1983 he joined NSF's nascent Office of Advanced Scientific Computing as a manager for supercomputing centers where he was responsible for budget and oversight, for tri-annual reviews of the centers' performance, and for justification for continued funding exceeding \$100M in aggregate. In 1993 Larry completed a Masters in Computer Science from the Whiting Engineering School at Johns Hopkins University. In 1994 Larry funded the software development at the University of Illinois that lead to the first popular Web browser (Mosaic) and Web server (Apache). In response to the interest of Federal agencies in these early Web technologies, Larry brought into being and chaired a group of 12 agencies (the Federal Web Consortium) to provide additional funding for Mosaic, giving the agencies entrée and input to the further development directions of Mosaic. The Consortium developed sample policy for agencies and the Office of Management and Budget, and sponsored 3 Federal Webmasters Workshops with annual attendance over 500. Larry chaired the first of these workshops. In 1997, following the Mosaic experience, Larry convened a workshop to explore the opportunities for a broad program in computer science research and development in Federal information Services. Based on the advice of this workshop report, NSF created the Digital Government research program under Larry's direction; first awards were made in 1999. Over the last 7 years over 100 awards have been made.



Valerie Gregg is Assistant Director for Development at the University of Southern California/Information Sciences Institute's Digital Government Research Center. She is Secretary of the North American Chapter of the Digital Government Society. Valerie serves on a National Research Council-Computer Science and Telecommunications Board study panel assessing the Social Security Administration's E-Government Strategy. She is Co-PI on a National Science Foundation funded 4-year

award entitled “Building and Sustaining an International Digital Government Research Community of Practice”. Prior to working in academia, she had a 30-year career in public service at the Federal level. For eight years, she was Program Manager for the Digital Government Research in the Division of Information and Intelligent Systems at NSF. She has been on the conference committee for the annual International Conference for Digital Government Research (dgo) since its inception in 2000. Prior to NSF, Valerie worked for twenty-two years at the United States Census Bureau as a program manager in various aspects of the decennial census. She was a member of the Joint Ventures Project with the Census Bureau, and her work included involvement with the ‘Tiger Mapping Service’, a Coast-to-Coast digital map base that was designed and implemented to demonstrate cost efficient delivery of public data and research and development of the Census Bureau applications on the Internet. Valerie also served as Chair for the Interagency Task Force responsible for design, development and management of the award winning “one-stop” shopping for Federal statistics Internet site (<http://www.fedstats.gov>).



Prof. Dr. Roland Traunmüller is Professor Emeritus with the Institute of Informatics in Business and Administration at Linz University, Austria. Prof. Dr. Roland Traunmüller studied Chemistry and Physics at Vienna University and joined the Max-Planck-Institute in Mülheim (Ruhr) working on his Ph.D. in calculating quantum-models of chemical reactions. In the year 1970 he went back to Austria becoming head of a DP-department within Public Administration. After three years he joined the Technical Faculty of Linz University (Senior Lecturer with Habilitation 1977, University Professor with tenure 1983). Teaching and research concern now Information Systems, Electronic Government and Knowledge Management. Earlier work concerned Systems Analysis and Design, Tele-cooperation and Semantic Modelling. There is a continuous thread of research work, projects and consulting in applications of information technology in Government for more than three decades. Prof. Traunmüller is the (co)author of 4 books and 140 contributions. His editorial work spans more than 20 books, two journals and one book-series. He has accepted several invitations for visiting professorships (Amsterdam, Bangkok, Bonn, Budapest, Chengdu, Graz, Heidelberg, Krems, Paris, Prag, Speyer, Zaragoza). Within IFIP (International Federation of Information Processing Societies) Prof. Traunmüller has served several functions and was awarded the IFIP Silver Core in 1996. So he was founder and chairman of the working group “Information Systems in Public

Administration" (IFIP 8.5) and served as deputy chairman of IFIP Technical Committee 8 "Information Systems". For two IFIP World Congresses he chaired the respective conference about e-Business so 1998 in Vienna/Budapest and 2002 in Montreal. In Austria Prof. Traummüller heads the Forum e-Government, in Germany he is member of the steering body e-Government within the German Computer Society (GI, Bonn). In addition he is involved in various consulting activities and boards on the national and international level (Ministries, EU, UNO, UNESCO). Regarding the main activity of Prof. Traummüller in recent years, this is the building up of a network on e-Government research on the international level. As one pillar for this he serves on the Academics Board of the e-Forum Association. Further on he founded the EGOV conference series: This means an annual international five day conference that is scientific-oriented and solely targeted on e-Government. It has become a focal point of reuniting researchers: EGOV 2002 in Aix, EGOV 2003 in Prague; EGOV 2004 in Zaragoza, EGOV 2005 in Copenhagen, EGOV 2006 in Krakow. Besides he has initiated and co-chaired four conferences on the particular topic of Knowledge Management in e-Government (KMGOV). In recognition of founding the e-Government R&D Community he got 2006 the "Prometheus" – an Award dedicated by the North-American Society on Digital Government and by the European Society for e-Government. A recent activity is spreading e-Government to countries on the way of developing e-Government – an action that includes several visits and seminars: Brazil, Chile, China, Iran, Syria, Lithuania, Thailand. For this aim Prof. Traummüller chaired the e-Government part of the First World Information Technology Forum of UNESCO and IFIP (WITFOR 2003 in Vilnius and WITFOR 2005 in Botswana. August).



Sharon Dawes is the Director of the Center for Technology in Government and Associate Professor of Public Administration and Policy at the University at Albany, State University of New York. Her main research interests are cross-boundary information sharing and collaboration, international digital government research, and government information strategy and management.

Most of this work has been supported by the National Science Foundation, US Department of Justice, the Library of Congress, and State of New York. Her work is published in such journals as the *Journal of Public Policy and Management*, the *American Review of Public Administration*, *Public Performance and Management Review*, and *Government Information Quarterly*. From 1987 to 1993, Dr. Dawes was Executive Director of the

NYS Forum for Information Resource Management, a network of state government organizations and public officials interested in information management, policy, and technology. She also has a dozen years experience in the Executive Branch of New York State government. From 1977 to 1984, she was an Associate Commissioner with the NYS Department of Social Services, a position with responsibilities for the state's multi-billion dollar intergovernmental public assistance programs. A fellow of the National Academy of Public Administration, Dr. Dawes was honored with the Government Technology Conference *Rudolph Giuliani Leadership Award* in 2005 and was named a "Public Official of the Year" by *Governing Magazine* in 1997. An experienced teacher and author, she has presented on information policy and management in the public sector before numerous professional, academic, and government audiences in US and international venues. Dr. Dawes holds a Ph.D. in Public Administration from the Rockefeller College of Public Affairs & Policy University at Albany/State University of New York.



Dr. Eduard Hovy currently holds several positions: *Director of the Natural Language Group at ISI*. The NL Group, which currently contains about 40 people, consists of several related projects, conducting research in various aspects of natural language processing, including text summarization, machine translation, text parsing and generation, question answering, information retrieval, discourse and dialogue processing, and ontologies. *Deputy Director of the Intelligent Systems Division of ISI*, which performs Artificial Intelligence research. In this capacity Dr. Hovy helps administer the division, which currently contains about 150 people. Research Associate Professor of Computer Science at USC. Dr. Hovy regularly co-teaches a graduate course and advises Ph.D. and M.S. students. *Director of Research for the Digital Government Research Center (DGRC)*. The DGRC is one of three NSF-supported centers in the US that perform research in various aspects of Digital Government. The DGRC focuses on Information and Communications Technology (ICT), housing several projects at any time. One of Dr. Hovy's principal research areas includes digital government, and currently includes a project to study the development of systems to *automatically find alignments or aliases across and within databases* (2003–06). The SiFT system uses mutual information technology to detect patterns in the distribution of data values. Current government partners in this NSF-funded project are the Environmental Protection Agency (EPA), who provide databases with air quality measurement data. (This work with

Mr. Andrew Philpot and Dr. Patrick Pantel from ISI). Another project is researching the development of *sophisticated text analysis of public commentary*, such as emails, letters, and reports (2004–07). Government staff who have to create regulations regularly face tens or hundreds of thousands of emails and other comments about proposed regulations, sent to them by the public. Funded by the NSF, the eRule project is a collaboration between Prof. Stuart Shulman (a political scientist at the University of Pittsburgh), Prof. Jamie Callan (a computer scientist at CMU), Prof. Steven Zavestoski (a sociologist at the University of San Francisco), and Prof. Hovy. Government partners providing data are the Environmental Protection Agency (EPA) and the Department of Transportation (DOT). Research at ISI focuses on technology to perform opinion detection and argument structure extraction. This research relates to the analysis of text for psychological profiling. The development of *text analysis of public communications with city government* via email began in 2005. The NSF funded a one-year project to collaborate with the QUALEG group, a European consortium of businesses, researchers, and three cities funded by the EU's eGovernment program to develop ICT for city-to-citizen interaction. Work at ISI focuses on the development of a system to classify emails and extract speech acts, opinions, and stakeholders, in German, and possibly French and Polish. Dr. Hovy's previous work included the development of *systems to access multiple heterogeneous databases* (1999–2003). Funded by the NSF, the EDC and AskCal systems provided access to over 50,000 table of information about gasoline, produced by various Federal Statistics agencies, including the Census Bureau, the Bureau of Labor Statistics, and the Energy Information Administration. The system includes a large ontology and a natural language question interpreter (this work in collaboration with Dr. Jose-Luis Ambite and Andrew Philpot at ISI). Partners in this project were the DGRC team at Columbia University, New York, headed by Dr. Judith Klavans. Dr. Hovy's Ph.D. work focused on the development of a text generation program PAULINE that took into account the pragmatic aspects of communication, since the absence of sensitivity toward hearer and context has been a serious shortcoming of generator programs written to date. In general, he is interested in all facets of communication, especially language, as situated in the wider contextintelligent behavior. Related areas include Artificial Intelligence (work on planning and learning), Linguistics (semantics and pragmatics), Psychology, Philosophy (ontologies), and Theory of Computation.



Professor Ann Macintosh is Professor of E-Governance and Director of the International Teledemocracy Centre at Napier University in Scotland. Since joining Napier University, she has established herself as an internationally recognised research leader in eDemocracy. She is actively involved with parliament, government, business and voluntary organisations concerned with the research and development of eDemocracy systems in the UK, Europe and the Commonwealth. She has been working with the Scottish Parliament since 1999, researching the design and management of an electronic petitioning system for the Parliament and has recently undertaking similar work the German Bundestag. She has provided consultancy to the Canadian and Australian governments on eDemocracy. In 2003 she conducted a research study on behalf of the OECD into e-consultation within policy-making. In 2005 she was an expert advisor on the evaluation of eDemocracy projects in UK public authorities funded through the UK Office of the Deputy Prime Minister. Ann has participated in major EU research projects on eDemocracy and is currently the Strategic Research co-ordinator for Demo-Net, a network of Excellence on eParticipation research. She has strong US research connections and was co-chair of the 2006 Digital Government Research Conference in California. She has published widely in this area.



Catherine A. Larson is the Associate Director of the Artificial Intelligence Lab at the University of Arizona (Director: Dr. Hsinchun Chen). Prior to her position at the Lab, she served as the University of Arizona's first data services librarian as well as the fine arts/humanities team leader. Catherine's background also includes several years as a preservation librarian and a bibliographer. Her areas of interest include digital government, digital libraries, and user evaluation. Catherine received the B.A. degree from the University of Illinois at Urbana-Champaign (UIUC) with Spanish and Anthropology majors, and the M.S. in library and information science, also from UIUC.

AUTHOR BIOGRAPHIES



Raj Acharya obtained his Ph.D from the Mayo Graduate School of Medicine in 1984. Since then, he has worked as a Research Scientist at Mayo Clinic and at GE (Thompson)-CGR in Paris, France. He has also been a Faculty Fellow at the Night Vision Laboratory in Fort Belvoir in Washington D.C. and has been a NASA-ASEE Faculty Fellow at the Johnson Space Center in Houston, Texas. He is currently the Department Head of Computer Science and Engineering at the Pennsylvania State University. His main research thrusts are in the general area of Bioinformatics and Biocomputing. He is the prime architect of the PCABC Cancer Bioinformatics Datawarehouse project. He works on using information fusion techniques for genomics and proteomics. He is also developing fractal models for the DNA replication and transcription sites. His research work has been featured among others in *Businessweek*, *Mathematics Calendar*, *The Scientist*, *Diagnostic Imaging Biomedical Engineering Newsletter*, and *Drug Design*.



Nabil R. Adam is a Professor in the Department of Management Science and Information Systems, the Founding Director of the Center for Information Management, Integration and Connectivity (CIMIC), Director of the Meadowlands Environmental Research Institute, and the Director of the Laboratory for Water Security at Rutgers University (Newark, NJ). Dr. Adam has published numerous technical papers in such journals as *IEEE Transactions on Software Engineering*, *IEEE Transactions on Knowledge and Data Engineering*, *Communications of the ACM*, and *Journal of Management Information Systems*, and has also co-authored/co-edited several books. Dr. Adam's research work has been supported by various agencies including the National Science Foundation (NSF), the National Security Agency (NSA), NOAA, US Environmental Protection Agency, the Defense Logistics Agency (DLA), the NJ Meadowlands Commission, and NASA.



Nick Adams is a Research Fellow and has been at the International Teledemocracy Centre, Napier University, for over 4 years. Prior to this he completed a PhD in Artificial Intelligence at Edinburgh University in 2001. Since 2004 he's been running the Centre's e-Petitioner projects; re-writing the software from an experimental pilot to a full-featured commercial application; has subsequently deployed e-Petitioner with a number of English local authorities and the German

Bundestag; and now manages the e-Petitioner software for the Scottish Parliament and all of these other clients. Additionally he retains active research interests in the e-Government and e-Democracy spheres.



Dr. Peggy Agouris is Professor of Remote Sensing at George Mason University and the Associate Director of GMU's Center for Earth Observing and Space Research. Before joining GMU in January 2007, Dr. Agouris was Associate Professor of Spatial Information Engineering at the University of Maine and a senior researcher with the National Center for Geographic Information and Analysis (NCGIA). She has received her Dipl. Eng. from the National Technical University of Athens (Greece), her M.S. and Ph.D. degrees from the The Ohio State University (in 1988 and 1992 respectively). Upon graduation from The Ohio State University she joined the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland as Senior Scientific Associate (until 1995), and then joined the University of Maine and the Department of Spatial Information Science and Engineering as Assistant Professor in the fall of 1995. At UMaine, Dr. Agouris headed the Digital Image Processing and Analysis Laboratory. Her expertise and current research activities are focused in the area of digital image processing and analysis for extraction, intelligent retrieval, and management of spatiotemporal information, geospatial information systems, digital photogrammetry, and remote sensing. She has authored or co-authored more than 100 articles in journals, books and conference proceedings, and has co-edited three books in her field of expertise.



Dr. Vijay Atluri is a Professor of Computer Information Systems and research director for the CIMIC Center at Rutgers University. Her research interests include Information Systems Security, Databases, Workflow Management and Multimedia. She serves as a member of the Steering Committee for ACMSIG on Security Audit and Control and for the ACM Symposium on Access Control Models and Architectures. She was a recipient of the NSF CAREER Award in 1996, and the Rutgers University Research Award for untenured faculty for outstanding research contributions in 1999.



Dr. S. Ann Becker is a research professor of computer science and management information systems and the director of the National Center for Small Business Information at Florida Institute of Technology. She has a Master of Business Administration from St. Cloud State University, and a Master of Science and Ph.D. in Information Systems from University of Maryland, College Park. Dr. Becker has published over 100 articles in Web usability and accessibility, gerotechnology, database management, and software engineering. Dr. Becker has received research funding from Texas Instruments, IBM, the National Science Foundation, the Jet Propulsion Laboratory, the Alzheimer's Association, and the Agency for Healthcare Research and Quality. Dr. Becker is an associate editor for the *Journal of Database Management*, *Journal of Electronic Commerce in Organizations*, and *International Journal of Cases on Electronic Commerce*. She is the recipient of the 2005 Joan Bixby Women's History Award at Florida Institute of Technology and 2002-2004 Northern Arizona University Mark Layton Award for Research Excellence.



Benjamin B. Bederson is an Associate Professor of Computer Science and the Human-Computer Interaction Lab at the Institute for Advanced Computer Studies at the University of Maryland, College Park. His work is on mobile device interfaces, information visualization, interaction strategies, digital libraries, and accessibility issues including voting system usability. He completed his Ph.D. in 1992 and his M.S. in 1989 at New York University in the Courant Institute of Mathematical Sciences in Computer Science. He graduated with a B.S. from Rensselaer Polytechnic Institute in 1986. Dr. Bederson worked as a research scientist at Bellcore in the Computer Graphics and Interactive Media research group, and as a visitor at the New York University Media Research Laboratory in 1993 and 1994. From 1994-1997, he was an Assistant Professor of Computer Science at the University of New Mexico.



Alexander Boer is a senior researcher and computer scientist who has been working for 8 years at the Leibniz Center for Law of the University of Amsterdam. This research institute specializes in computational legal theory and the development of innovative concepts for the application of IT in the field of Law. He has been involved in a number of international research projects involving ontologies, automated legal reasoning, and e-government like CLIME, KDE, eCourt, E-Power, and ESTRELLA.



Christof Bornhövd, Ph.D., is a senior research scientist at the SAP Research Center in Palo Alto focusing on data management, semantics and event-based computing for SAP's next-generation Enterprise Business Applications Architecture. Prior to joining SAP Labs, he worked from 2002 to 2004 as a Research Staff Member at the IBM Almaden Research Center on database caching and replication for e-business applications and the integration of DB2 and WebSphere. From 2000 to 2002 he worked at HP Labs on CRM and Data Warehousing projects. During his time at Darmstadt University of Technology, where he received a Ph.D. in computer science, he was working on semantic data integration and metadata management. His expertise and research interests are in the areas of databases and distributed systems, Web Services technology, and RFID and sensor network technology. Dr. Bornhövd has published in highly recognized conferences and journals like VLDB, SIGMOD, ICDE and JEIM and has filed multiple patent applications in the areas of RFID and sensor technology and database caching.



Alan Borning is Professor in the Department of Computer Science & Engineering at the University of Washington, Adjunct Professor in the Information School, and Co-Director of the Center for Urban Simulation and Policy Analysis. His current research interests are in human-computer interaction and designing for human values, particularly as applied to land use, transportation, and environmental modeling. He has also done work in constraint-based languages and systems, other aspects of human-computer interaction, and in object-oriented programming. He received a Ph.D. from Stanford University in 1979, and is a Fellow of the Association for Computing Machinery.



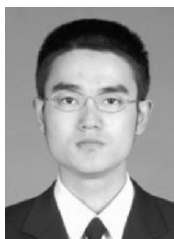
J. A. Breuker studied cognitive psychology at the University of Amsterdam. He obtained his PhD in 1981 at the same University on a dissertation titled: "Availability of Knowledge". Major areas of research are: experimental cognitive psychology, text understanding, intelligent teaching systems, AI, knowledge acquisition, man-machine interaction. His current work is particularly in: methodology for building knowledge-based systems, intelligent help and tutoring systems, and reasoning in regulation domains (law). Most of the research is performed in collaboration with academic institutes and industries in Europe, in particular within the framework of Esprit. Prof. Breuker holds a chair in Computer Science and Law he was awarded the ECAI-1984 price for expert systems research.



Brian Burke is a senior program associate with the Center for Technology in Government (CTG) at the University at Albany, State University of New York. He manages projects at Center involving government and private sector partners. Prior to CTG, Brian worked for AT&T Government Solutions in the Office of the Secretary of Defense's Program Analysis and Evaluation. Before that, he served as an officer in the United States Air Force. He received the M.A. in International Relations from Creighton University in 2003, and prior to that, the B.A. in History and Political Science from Rutgers College. His recent CTG project involvement has included: Public ROI – Advancing Return on Investment Analysis for Government IT (<http://www.ctg.albany.edu/projects/proi>), Library of Congress Collaboration for Preservation of State Government Digital Information (<http://www.ctg.albany.edu/projects/lc>), and Modeling Interorganizational Information Integration (<http://www.ctg.albany.edu/projects/miii>).



Guoray Cai (Ph.D. University of Pittsburgh, 1999) is an Associate Professor and director of the Spatial Information and Intelligence Laboratory in the College of Information Sciences and Technology at Pennsylvania State University. His research interests include geographical information science, human-computer interactions, and visually-mediated group work. He is a member of ACM, IEEE, and ASPRS.



Chen Chen received his BSc degree from the Department of Computer Science and Technology of Tsinghua University in 2004. Now He is a MSc candidate student Web and Software Technology R&D Center of Research Institute of Information Technology, Tsinghua University. His research interests include Database, Data Mining, Business Intelligence, and so on.



Dr. Soon Ae Chun is an assistant professor of Information Systems at the City University of New York, College of Staten Island. She has received Ph.D. and MBA degrees from Rutgers University, MS and MA degrees from SUNY Buffalo and a BA from Busan National University, Korea. Her areas of expertise are workflow management, database systems, and information security. Her current research interests include context-aware inter-organizational Web

Service composition, security/privacy policy extraction and modeling, and semantic annotation of Deep Web Services. Her past research activities include projects funded by NSF, NOAA and New Jersey Meadowland Commission, focusing on regulatory ontology-based multi-organizational business and environmental service integration and customization, geospatial-temporal authorization models and conflict-of-interest issues in decentralized workflow execution. Her research has been published in journals, and in many conference proceedings. Her professional activities include serving as editorial board member and review board member of journals, and organizational member and program committee member for many conferences.



Stephen Coleman is Professor of Political Communication at the Institute of Communications Studies, University of Leeds. He has written extensively about e-governance and e-democracy. Before taking his position at Leeds, Stephen Coleman was Cisco Professor in e-Democracy at the Oxford Internet Institute and Senior Research Fellow at Jesus College, Oxford. In recent years he has served as specialist adviser to the House of Commons Information Select Committee inquiry on ICT and public participation in Parliament, policy adviser to the Cabinet Office, a member of the Royal Society committee on public engagement in science, a member of the Puttnam Commission on parliamentary communication with the public and chair of the Electoral Reform Society's Independent Commission on Alternative Voting Methods.



Frederick G. Conrad is Research Associate Professor at the Institute for Social Research at the University of Michigan. His research interests lie at the intersection of human-computer interaction and social measurement including surveys and voting. Conrad's training is in cognitive psychology and much of his work involves applying ideas and methods from cognitive psychology to improving measurement processes. He serves on the Editorial Board of Public Opinion Quarterly and is an Associate Editor of the Journal of Official Statistics.



James F. Cooper is a General Manager with the Port Authority of New York and New Jersey in the Public Safety Department, Office of Emergency Management. Mr. Cooper is responsible for the oversight of the Port Authority of NY & NJ Office of Emergency Management technologies and systems integration. Mr. Cooper has over twenty-five years of operational experience in security, sensors and information systems. Current efforts include the development of a enterprise wide collaborative environment to provide real-time information and sensor fusion to support real-time decision-making during events. This program connects the legacy sensors and critical incident management systems for the airports, ports, tunnels, bridges and rail system to provide for the sharing of real-time geospatial and sensor information between first responders, command staff and decision makers. Mr. Cooper is the lead architect for the Regional Information Joint Awareness Network (RIJAN). RIJAN expands the Port Authority of NY & NJ information-sharing environment to both regional and Federal entities in the Department of Homeland Security and Department of Defense.



Dr. Arie Croitoru received his B.Sc. from the Technion – Israel Institute of Technology, Department of Transportation and Geo-Information Engineering in 1992. Between 1992 and 1999 he was involved research and development, mainly in photogrammetry, image processing, and 3D spatial data analysis. He received his M.Sc. (1997) and Ph.D. (2002) in Geodetic Engineering, also from the Technion. Between 2002 and 2003 Dr. Croitoru has been a research fellow at the Geospatial Information and Communication Technology (GeoICT) laboratory at York University (Canada). Currently, he is Assistant Professor at the University of Alberta (Canada). His main research interests are in digital image processing and analysis, automated geospatial feature extraction, photogrammetry, and spatio-temporal data analysis.



Rowena Cullen is Associate Professor in the School of Information Management at Victoria University of Wellington, and teaches in the Master of Information Management and Master of Library and Information Studies programmes. She has a PhD from Victoria University of Wellington, and an MLitt from the University Edinburgh, along with MAs from Canterbury and Otago. Her current research work focuses on e-government, health informatics, and the evaluation of information services. She is co-editor and co-author of the recently published *Comparative Perspectives on E-Government: Serving Today and*

Building for Tomorrow (Scarecrow Press, 2006) and author of *Health Information on the Internet* (Greenwood Press, 2006), as well as a number of other articles on e-government. She is a senior editor of the *Journal of E-Government*, and on the editorial boards of *Performance Measurement and Metrics*, *Health Information and Libraries Journal*, *Journal of Academic Librarianship*, *Education for Information*, and *LibRes*. She has been a keynote speaker at several international conferences, and has published over 100 articles, book chapters and conference papers.



Dr. Lois Delcambre is a Professor of Computer Science at Portland State University (PSU). She works in the database field of computer science with a particular interest in database data models as well as other models for structured information including thesaurus models, knowledge representation models, semi-structured models such as XML and RDF, and ontology models. Dr. Delcambre received her PhD in Computer Science from the University of Louisiana, Lafayette (formerly the University of Southwestern Louisiana) in 1982, her MS in Mathematics from Clemson University in 1974, and her BS in Mathematics with a minor in Computer Science from the University of Louisiana, Lafayette in 1972. From 1974 to 1979, she was a Systems Design and Software Development Manager at the Division of Information Systems Development at Clemson University.



Walter Díaz is an Associate Professor of Political Science at the University of Puerto Rico-Mayagüez. He obtained his Ph.D. from the University of Michigan in 1998. His current research interests include political participation, the social implications of technological innovation and disaster research.



Fabio Fioravanti received his Laurea degree in computer science from the University of L'Aquila (Italy) in 1997. In 2001, he has been a visiting research scientist at the University of Southampton (UK). In 2002 he earned his Research Doctorate (PhD) degree in computer science at the University of Rome – La Sapienza (Italy), defending a thesis about transformation of constraint logic programs for software specialization and verification. From 2005 he is an assistant professor at the Department of Sciences – University “G. d’Annunzio” of Chieti – Pescara (Italy). His research interests include security and certification of network services provision in business and government inter-organizational contexts, constraints in security, verification of concurrent systems and bioinformatics.



Ruth D. Förster is a PhD student in the Institute for Spatial and Landscape Planning at the Swiss Federal Institute of Technology in Zurich (ETH Zurich), and currently staying as research scholar at the Center for Urban Simulation and Policy Analysis at the University of Washington. Her research topic is the application of quantitative, integrative computer models for decision making in regional planning, particularly regarding how the interaction between model developers and potential users affects the application. She received her diploma degree in mechanical engineering from RWTH Aachen, Germany 1990 and her postgraduate qualification in didactics from ETH Zurich 1999.



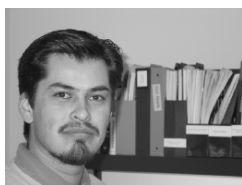
José Fortes received his BS degree in Electrical Engineering from the Universidade de Angola in 1978, his MS degree in Electrical Engineering from the Colorado State University, Fort Collins in 1981 and his PhD degree in Electrical Engineering from the University of Southern California, Los Angeles in 1984. From 1984 to 2001 he was in the faculty of the School of Electrical Engineering of Purdue University at West Lafayette, Indiana. In 2001, he joined both the Department of Electrical and Computer Engineering and the Department of Computer and Information Science and Engineering of the University of Florida as Professor and BellSouth Eminent Scholar. His research interests are in the areas of distributed computing and information processing, digital government and computer architecture. José Fortes is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) professional society. He was a Distinguished Visitor of the IEEE Computer Society from 1991 to 1995.



Sven Fuhrmann (Ph.D. University of Muenster, 2002) is an Assistant Professor at Texas State University – San Marcos and directs the Geospatial Cognition Laboratory. Fuhrmann has over 15 years of experience in GIScience and Geovisualization, bridging cutting-edge research developments in the United States and Europe. He is an established member in national and international commissions that are concerned with developing geospatial research agendas and novel research strategies. His research interests include GIScience, 3D Geovisualization and Interaction, Human-Centered Design, Emergency Management, Spatial Cognition and Behavior.



Helene Gieber studies Business Administration at the Vienna University of Economics and Business Administration. After being a project assistant at the Institute of Informatics in Business and Government at the Johannes Kepler University Linz, her working focus turned from themes of eGovernment in the Leonardo da Vinci project “eEmployment” to practical experiences in the field of Corporate Identity and Personnel Management in cooperation with the Institute for Applied Knowledge Processing (University Linz). Her research interests include eGovernment, Business Processes, Organizational Learning, and Personnel Management.



J. Ramon Gil-Garcia is a Post-Doctoral Fellow at the Center for Technology in Government and is also on the faculty of the Rockefeller College of Public Affairs and Policy at the University at Albany, State University of New York. At SUNY, he has been an Adjunct Professor at the Department of Management Science and Information Systems of the School of Business and at the School of Information Science and Policy. Before coming to the United States, Dr. Gil-Garcia was Assistant Professor in the Division of Public Administration at the Center for Research and Teaching in Economics (CIDE) in Mexico City. He has lectured on topics such as Public Management, Policy Analysis, Organization Theory, Database Applications, Statistics, Web Development, Quantitative Analysis and Modeling, Research Methods, Public Administration Theory, and Local Government Management. Dr. Gil-Garcia is the author or co-author of articles in academic journals including *The International Public Management Journal*, *Government Information Quarterly*, *European Journal of Information Systems*, *Journal of Government Information*, *Public Finance and Management*, and *Politics Administration and Change*. His research interests include collaborative electronic government, inter-organizational information integration, adoption and implementation of emergent technologies, information technologies in the budgeting process, digital divide policies, education policy, new public management, public policy evaluation, and multi-method research approaches. Dr. Gil-Garcia has a Bachelors Degree in Political Science and Public Administration, a Masters in Public Administration and Policy, and a Ph.D. in Public Administration and Policy. He is also a former Fulbright Scholar.



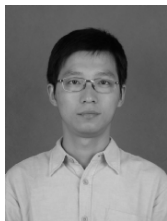
Amy K. Glasmeier is the E. Willard Miller Professor of Economic Geography and the John Whisman Scholar of the Appalachian Regional Commission. She is a professor of geography and regional planning at The Pennsylvania State University. Published fall 2005 by Routledge Press, *An Atlas of Poverty in America: One Nation, Pulling Apart 1960-2003* examines the experience of people and places in poverty since the 1960s, looks across the last four decades at poverty in America and recounts the history of poverty policy since the 1940s. Glasmeier has worked all over the world, including Japan, Hong Kong, Latin America, and Europe. She has worked with the OECD, ERVET Emilia Romagna Regional Planning Agency. She currently is engaged in a retrospective examination of poverty and poverty policy history in the US. The work is leading to new perspectives on the nature and extent of persistent poverty in America and is exploring the theoretical and ideological basis for federal poverty policy since the 1960s.



Åke Grönlund is (full) Professor of Informatics at Örebro University, Örebro (Sweden). Also affiliated to dept of Informatics at Umeå University. Åke's research currently has a strong focus on Electronic Government as part of the more general topic of coordination of organizations and networks using ICT, including electronic service delivery, organizational redesign, electronic information infrastructures, and ICT-enabled coordination of work. Åke is chair of the two large eGovernment researcher communities, one within the US-based Association of Information Systems (sigegov.org) and EGOV Society Europe (www.egov-society.org/). Åke is also Program Chair of the International EGOV conference, consultant to the World Bank e-Government group, member of the Steering Committee of the EU eGovernment "Network of Excellence" DemoNet, scientific leader of the Swedish research programme DemocrIT on ICT in democratic processes, and father of three kids.



Michael J. Hanmer is assistant professor in the Department of Government and Politics at the University of Maryland at College Park. After receiving his Ph.D. in Political Science from the University of Michigan, in 2004, Dr. Hanmer began a position as an assistant professor in the Department of Government at Georgetown University. His research interests are in political participation, electoral reform, public opinion, and political methodology. He has published in the areas of electoral reform and voter turnout.



Wei He received his BSc, MSc, and PhD from Northwestern Polytechnical University in 1999, 2001, and 2004 respectively. Now he is postdoctor in Web and Software Technology R&D Center, RIIT Tsinghua University. His research interests include data mining, bayesian network learning, and data modeling for e-Government.



Paul S. Herrnson is founding director of the Center for American Politics and Citizenship and a professor in the Department of Government and Politics at the University of Maryland. Has published numerous books, including “Congressional Elections: Campaigning at Home and in Washington,” “The Financiers of Congressional Elections,” and “War Stories from Capitol Hill.” He has written more than 100 journal articles and book chapters and is the editor of the Real Politics in America book series with Prentice Hall. The principal investigator of the National Science Foundation and the Carnegie Corporation funded Project to Study Voting Technology and Ballot Design, Herrnson has also directed a U.S. Election Assistance Commission project to recruit, train, and retain election judges, and the Campaign Assessment and Candidate Outreach Project, funded by the Pew Charitable Trusts. His current interests include Congress, political parties and elections, money and politics, and voting technology and ballot design. Dr. Herrnson has served as Vice President of the Southern Political Science Association and an American Political Science Association Congressional Fellow. He has received several teaching awards, including a Distinguished-Scholar Teacher Award from the University of Maryland. He has advised the U.S. Congress, the Maryland General Assembly, the Federal Election Commission, and other governments and commissions on matters pertaining to campaign finance, political parties, and election reform.



Fang-Ming Hsu is an Associate Professor and Chairman of Department of Information Management at the National Dong Hwa University, Taiwan. He is also a member of the committee of evaluation for Gold Archive Award in Taiwan Government. His areas of interest include knowledge management and data mining. He received his B.S. and M.S. degrees in Computer Science and Ph.D. degree in Management Science from National Chiao Tung University. Hsu has published articles covering project management and knowledge sharing in publications such as International Journal of

Technology Management and Journal of Global Business Management. He received a National Science Council (NSC) Research Award in 1999.



Paul J. Hu is an Associate Professor and David Eccles Faculty Fellow at the David Eccles School of Business, the University of Utah. He has a Ph.D. in Management Information Systems from the University of Arizona. His current research interests include digital government, healthcare information systems and management, technology implementation management, electronic commerce, human-computer interaction, and knowledge management. Hu has published papers in *Journal of Management Information Systems*; *Decision Sciences*; *Communications of the ACM*; *IEEE Transactions on Systems, Man and Cybernetics*; *IEEE Transactions on Information Technology in Biomedicine*; *IEEE Transactions on Engineering Management*; *IEEE Intelligent Systems*; *IEEE Software*; *Journal of the American Society for Information Science and Technology*; *Decision Support Systems*; *Social Science Computer Review*; *European Journal of Information Systems*; *Information and Management*, *Journal of Electronic Commerce Research*; and *Journal of Telemedicine and Telecare*.



Vandana P. Janeja is currently in the last semester of her Ph.D. work in Management with Information Technology at Rutgers University. She is a research associate at the Center for Information Management, Integration and Connectivity (CIMIC), Rutgers University. In general, her research interests include Knowledge Discovery and Data Mining. Primarily her work has focused on anomaly detection in heterogeneous datasets.



Dr. Jim Johnston is currently the Clerk to the Public Petitions Committee in the Scottish Parliament having previously been the Clerk to the Communities Committee and Clerk to the Equal Opportunities Committee. He is also Chair of the parliamentary staff e-democracy working group. He has worked in the Scottish Parliament since March 1999. Previously he completed his doctorate on post-war British politics at the University of Birmingham. His published work includes a joint authored book, *Post-war British Politics in Perspective*.



Alan F. Karr is Director of the National Institute of Statistical Sciences (NISS), a position he has held since 2000. He is also Professor of Statistics & Operations Research and Biostatistics at the University of North Carolina at Chapel Hill (since 1993), as well as Associate Director of the Statistical and Applied Mathematical Sciences Institute (SAMSI). Before coming to North Carolina, he was Professor of Mathematical Sciences and Associate Dean of the School of Engineering at Johns Hopkins, where he also chaired both the mathematical sciences and computer science departments. His research activities are cross-disciplinary collaborations involving statistics and such other fields as data confidentiality, data integration, data quality, software engineering, information technology, education statistics, transportation, materials science and E-commerce. He is the author of 3 books and more than 100 scientific papers. Karr is a Fellow of the American Statistical Association and the Institute of Mathematical Statistics, a member of the Board of Governors of the Interface Foundation of North America, an elected member of the International Statistical Institute, and served as a member of the Army Science Board from 1990 to 1996.



Siddharth Kaza is a doctoral student and research associate of the Artificial Intelligence Lab in the Department of Management Information Systems at the University of Arizona. He earned his M.S. in Computer Science from Central Michigan University and his B.Sc. in Mathematical Sciences from University of Delhi. His research interests include data mining, information integration and social network analysis.

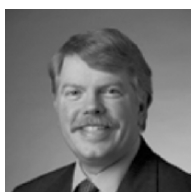


Dr. Christine Leitner is Head of the Center for European Public Administration at the Danube University Krems, Austria, where she is responsible for research programmes on public administration and ICT. She hosts expert meetings and conducts lectures at European and international conferences in the field. She is the course director of an executive MPA programme (with a focus on eGovernment and change management). From 1997 she was Senior Lecturer at the European Institute of Public Administration (NL) where she set up the eGovernment team and headed the eEurope Awards Project Management Secretariat from 2002-2006. She was a member of the EPAN eGovernment working group from 2002 until 2006, and has been invited as expert in EU programmes and the Speyer Quality Award for eGovernment. She is a Visiting Lecturer at the European Public Affairs Programme,

University of Maastricht and the Programme on Public Administration and Citizenship, University of Roma III. She joined the Ministry of Economic Affairs in Vienna in 1992, where she headed the EU co-ordination unit. In 1995, she was seconded to the European Commission where she worked on ICT standardisation policies. She is author of various publications in the field of eGovernment.



Alan M. MacEachren (Ph.D. University of Kansas, 1979) is 2004-2007 E. Willard and Ruby S. Miller Professor of Geography and Director of the GeoVISTA Center (www.GeoVISTA.psu.edu) at Pennsylvania State University. He also directs the new North-East Regional Visualization & Analytics Center. MacEachren's research foci include: geovisualization, geocollaboration, interfaces to geospatial information technologies, human spatial cognition as it relates to use of those technologies, human-centered systems, and user-centered design. He served as chair of the International Cartographic Association Commission on Visualization and Virtual Environments (1999-2005) and was named honorary fellow of that organization in 2005. He has been a member of the National Research Council Computer Science and Telecommunications Board Committee on the Intersections Between Geospatial Information and Information Technology (2001-2002) and of the National Visualization and Analytics Center R&D Agenda panel (2004-2005). MacEachren is author of *How Maps Work: Representation, Visualization and Design*, Guilford Press, 1995 and *Some Truth with Maps*, Association of American Geographers, 1994 and is co-editor of several additional books (including *Exploring Geovisualization*, Elsevier, 2005) and journal special issues (including a theme issue of *IEEE Computer Graphics and Applications* on Geovisualization, July/Aug, 2006 and a forthcoming special issue of the *International Journal of Geographical Information Science* on Visual analytics & spatial decision support).



Dr. David Maier is Maseeh Professor of Emerging Technologies at Portland State University. He is the author of books on relational databases, logic programming and object-oriented databases, as well as papers in database theory, object-oriented technology and scientific databases. He received the Presidential Young Investigator Award from the National Science Foundation in 1984 and was awarded the 1997 SIGMOD Innovations Award for his contributions in objects and databases. He is also an ACM Fellow. He holds a B.A. in Mathematics and Computer Science from the University of Oregon (Honors College, 1974) and a Ph.D. in Electrical Engineering and Computer Science from Princeton University (1978).



Xiaoning Mao Xiaoling Mao is a Ph.D. candidate in the Antai College of Economics and Management at Shanghai Jiaotong University. He received his BS and MS from Shanghai Jiaotong University. He also serves as a network planning engineer in China Telecom. His current research interests include citizen demand- and service-driven E-government theory and practice. Contact him at philipmao@online.sh.cn.



Andréa Matsunaga received her BS degree in Electrical Engineering from the Polytechnic School of the University of São Paulo (Brazil), in 1998, her MS degree in Electrical Engineering from the Electronic Systems Department (PSI) of the Polytechnic School of the University of São Paulo (Brazil), in 2001; and is currently a graduate student at the Department of Electrical and Computer Engineering of the University of Florida, working with Dr. Fortes. Her research interests are in the areas of distributed computing, information management, computer architecture and distributed shared-memory systems.



Wayne L. Myers is professor of forest biometrics and director of the Office for Remote Sensing and Spatial Information Resources at Penn State University. He holds Bachelor of Science, Master of Forestry and Ph.D. degrees from the University of Michigan. Research specialties are remote sensing, geographic information systems, multi-variate analysis and landscape ecology. He has an extensive international experience in quantitative analysis of natural resources, particularly in Asia.



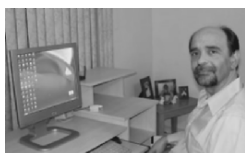
Enrico Nardelli is full professor of Computer Science at University of Roma “Tor Vergata”. His research focuses on algorithms and data structures, data models, and tools and environments for inter-organizational information systems. He has been a consultant to the Italian Public Administration on security and certification issues in e-Government services, through the NESTOR Laboratory of University of Roma “Tor Vergata”. He has authored more than 100 refereed papers in the fields of interest, published in the most reputed international scientific journals and conference proceedings. He is also President of the Italian Association of University Professors in Computer Science.



Dr. Marianne Lykke Nielsen is Associate Professor at the Royal School of Library and Information Science, Denmark. She also consults for several Danish companies and organizations concerning design and evaluation of KOS. Her principal teaching areas are metadata, indexing, and knowledge organization systems (KOS). And her present research activities concentrate on design, construction methodologies, and use of thesauri and taxonomies in digital libraries and other retrieval systems. She received her PhD from Åbo Akademi University, Department of Information Studies, Finland in 2002. She received a MS in Library and Information Science in 1992 and a first degree in Librarianship in 1983 from the Royal School of Library and Information Science, Denmark. From 1983 and 1994 she worked as information specialist in private and national organizations: FAO (Chile), CPEIP (Chile), APV Pasilac (Denmark), and Aalborg Business College (Denmark), with responsibilities in the area of information retrieval and design of information retrieval systems and domain-specific, in-house thesauri.



Richard G. Niemi is Don Alonzo Watson Professor of Political Science at the University of Rochester, where has taught for 40 years. He has served as Department Chair, Associate Dean for Graduate Studies, and Interim Dean. He earned his Ph.D. from the University of Michigan in 1967. He is co-author or co-editor of *Institutional Change in American Politics: The Case of Term Limits* (University of Michigan Press, forthcoming), *Vital Statistics on American Politics, 2005-2006* (CQ Press, 2005), and other books. He has published more than 100 articles on a variety of subjects, including voting, U.S. ballots, and public opinion.



Mario Núñez is a Professor of Psychology and Associate Dean of Assessment and Learning Technologies at the University of Puerto Rico-Mayagüez. He obtained his Ph.D. from Harvard University in 1997. His current research interests include distance learning, implications of internet technologies for learning and teaching effectiveness.



Gertraud Orthofer studied from 2000 to 2004 Computer Science at the Johannes Kepler University of Linz, Austria. Since October 2004 she is a research assistant at the Institute of Informatics in Business and Government (University Linz). She is a PhD student and her research interests are in the field of eGovernment, Knowledge Management, Business Processes, Portal Development, and Semantic Modelling.



John Paczkowski is the Director of the Office of Emergency Management (OEM), where he is responsible for oversight of all enterprise-wide security and emergency readiness programs for the Authority's aviation, transit, tunnel and bridge, and maritime cargo facilities. He holds a BS in Industrial Engineering and MS in Management Engineering from the New Jersey Institute of Technology, along with an MA in Organizational Psychology from Columbia University. He is currently attending the Naval Postgraduate School pursuing advanced studies in Homeland Defense and Security. A graduate of the Marine Corps Command and Staff College, his military awards include the Legion of Merit Medal and three Naval Commendation Medals. John has supervised comprehensive security assessments of all PA facilities, implemented new security and emergency management practices, prepared WMD consequence management plans for the Authority's aviation, port, transit and highway businesses, and has spearheaded several national Homeland Security incubation projects with various DHS agencies. These include a comprehensive Risk and Needs Assessment program, a WMD Countermeasures Test Bed program, a Regional Radiological Detection and Interdiction pilot project, and a Regional Information Sharing and Collaboration effort. In September of 2005 he led a Port Authority emergency management team that assisted the City of New Orleans in reestablishing incident command. In 2005, John retired as a Colonel with 33 years of active and reserve time in the US Marine Corps. He was the initiator for the Marine Corps Emergency Preparedness Liaison Program, part of a joint-service effort to coordinate DoD support to civil authorities during national emergencies. His last assignment was with the National Guard Bureau as Chief of the Civil Support Division where his staff coordinated employment of National Guard forces during several natural disasters and Homeland Security contingencies.



Aabhas V. Paliwal is currently in the last semester of his Ph.D. work in Management with Information Technology at Rutgers University. He is a research associate at the Center for Information Management, Integration and Connectivity (CIMIC), Rutgers University. In general, his research interests include Business Services, E-commerce, Service Oriented Architecture and Semantic Web. Primarily his work has focused on semantic based discovery and orchestration of web services.



Theresa A. Pardo is Deputy Director of the Center for Technology in Government located at the University at Albany, State University of New York. Dr. Pardo is a member of the faculty of Public Administration and Policy as well as Informatics at the University. She has written articles, research reports, book chapters and case studies focusing on IT innovation in the public sector, inter-organizational information integration, trust and knowledge sharing, preservation of government digital records, multi-method research and XML as a content management technology. Dr. Pardo is one of the developers of the highly ranked Government Information Strategy and Management curriculum at Albany. This program focuses on the policy, management and technology dimensions of information and technology use in the design and delivery of government programs. She is also an investigator in a number of ongoing funded research projects including two U.S. National Science Foundation funded projects – the first, on behalf of the U.S. Library of Congress, is focused on building capability for the preservation of government information in digital form, and the second is focused on the development of models of the social and technical processes of interorganizational information integration. Her most recent grant funded effort is in serving as a co-chair for an international digital government working group focused on transnational and multi-jurisdictional information integration. Dr. Pardo is conference co-chair for the 2007 International Digital Government Research Conference and mini-track co-chair for Emerging Topics in Electronic Government for the 2007 Hawaiian International Conference on System Sciences. Dr. Pardo holds a Ph.D. in Information Science from the Rockefeller College of Public Affairs and Policy at the University at Albany, State University of New York.



G.P. Patil. For everyone, Professor Patil is GP. He is Distinguished Professor of Mathematical and Environmental Statistics in the Department of Statistics at the Pennsylvania State University, and is a former Visiting Professor of Biostatistics at Harvard University in the Harvard School of Public Health. He has a Ph.D. in Mathematics, D.Sc. in Statistics, one Honorary Degree in Biological Sciences, and another in Letters. GP is a Fellow of American Statistical Association, Fellow of American Association of Advancement of Science, Fellow of Institute of Mathematical Statistics, Elected Member of the International Statistical Institute, Founder Fellow of the National Institute of Ecology and the Society for Medical Statistics in India. GP has been a founder of Statistical Ecology Section of International Association for Ecology and Ecological Society of America, a founder of Statistics and Environment Section of American Statistical Association, and a founder of the International Society for Risk Analysis. He is founding editor-in-chief of the international journal, *Environmental and Ecological Statistics* and founding director of the Penn State Center for Statistical Ecology and Environmental Statistics. He has published thirty volumes and three hundred research papers. GP has received several distinguished awards which include: Distinguished Statistical Ecologist Award of the International Association for Ecology, Distinguished Achievement Medal for Statistics and the Environment of the American Statistical Association, Distinguished Twentieth Century Service Award for Statistical Ecology and Environmental Statistics of the Ninth Lukacs Symposium, Best Paper Award of the American Fisheries Society, and lately, the Best Paper Award of the American Water Resources Association, among others. Currently, GP is principal investigator of a multi-year NSF grant for surveillance geoinformatics for hotspot detection and prioritization across geographic regions and networks for digital government in the 21st Century. The project has a dual disciplinary and cross-disciplinary thrust. You are invited.



Dr. Shashi Phoha's research interests are in computational sciences that enable dependable distributed automation of multiple interacting devices over ad hoc and long haul networks. She has held senior technical and management positions in academia, government, and industry. During 2004 and 2005, she was the Director of a premier national laboratory, the Information Technology Laboratory (ITL) of the National Institute of Standards and Technology (NIST), which conducts research in Mathematical and Computational Sciences, Computer Security, Software, Advanced Networking, Information Access, and Statistical Engineering. Since 1991, she has

been a Professor of Electrical and Computer Engineering at the Pennsylvania State University and the Director of the Division of Information Sciences and Technology at its Applied Research Laboratory. Prior to that, she was the Director of C4I and Systems Analysis Division of the Computer Sciences Corporation where she led the development of the Global Transportation Network for DoD. She worked in Command, Control, Communications and Intelligence Systems at ITT and at the MITRE Corporation. She was awarded the 2004 Technical Achievement Award by the IEEE Computer Society. She has authored over 200 research papers, three books, and has two patents in her name. She has held leadership positions in many national and international organizations and given over a dozen invited keynote addresses at conferences and symposia. She was the Guest Editor of Special Issues of IEEE Transactions (TMC) on Mission-oriented Sensor Networks, an associate editor of the IEEE Transactions on Systems, Man, and Cybernetics for five years and is editor of the International Journal of Distributed Sensor Networks. She received her M.S. in Operations Research from Cornell University (1973) and Ph.D. from Michigan State University (1976).



Susan L. Price is a Ph.D. student in computer science at Portland State University. She received an MD from the University of Virginia, Charlottesville, Virginia and practiced anesthesiology prior to receiving an MS in medical informatics at Oregon Health & Science University (OHSU), Portland Oregon. From 1999 to 2002 she was an Assistant Professor of Medical Informatics at OHSU before beginning her computer science graduate studies.



Stephen L. Rathbun is associate professor of biostatistics at the University of Georgia. He holds Bachelor of Science and Master of Science degrees in Biology from Florida State University, and Master of Science and Ph.D. degrees in Statistics from Iowa State University. Research interests include spatial statistics, environmental statistics, event history data, and spatial epidemiology. He is currently involved in building a biostatistics program in the new College of Public Health at the University of Georgia.



Priscilla M. Regan is one of two Program Directors in Science and Society with responsibility for proposals in ethics and values of SET (science, engineering and technology) and in studies of policy, science, engineering and technology. She is on leave from George Mason University where she is a Professor of Government and

Politics. Prior to joining the GMU faculty in 1989, she was a Senior Analyst at the Congressional Office of Technology Assessment. Her research involves analyses of the social and legal implications of new communications and information technologies, with particular attention to their privacy implications. She is also doing research on e-government initiatives, especially how they affect congressional-executive relations. She has a PhD in Government from Cornell University.



Pedro I. Rivera-Vega is a Professor of Computer Science at the University of Puerto Rico Mayaguez. He obtained a Ph.D. in Computer Science from the University of Florida on 1990 and currently conducts research in the areas of Digital Government and Distributed Systems.



Dr. Joachim Schaper completed his Ph.D. in computer science at the Technical University of Karlsruhe working for DEC in the area of computer assisted learning, taking the director position of CEC Karlsruhe in 1997. Since 1999 director of SAP's research group, CEC Karlsruhe as part of SAP AG's corporate research. Joachim held the position as Vice President of Americas from 2003 – 2005 to develop the SAP Research group in Palo Alto. Since 2005 he is Vice President of EMEA for SAP Research in Sophia Antipolis, Pretoria, developing new groups in Darmstadt, Dresden, Belfast and St. Gallen and guiding the strategic technology research in the EMEA region.



Dr. Manuel Rodriguez-Martinez received the Ph.D. degree in Computer Science from the University of Maryland, College Park (2001). He also holds a M.S. degree in Computer Science from the University of Maryland, College Park (1996) and a B.S. degree in Mathematics from the University of Puerto Rico, Rio Piedras. His research interests focus on Database Middleware Systems, Peer-to-Peer Database Architectures, Web-based Information Systems, and applications for Mobile Environments. He serves as Co-Principal Investigator for project "Intelligent Power Routers for Distributed Coordination in Electric Energy Processing Networks", an NSF/ONR funded initiative. He has published papers on prestigious international forums such as ACM SIGMOD, EDBT and IASTED. He has served as reviewer for research papers for several international conferences such as VLDB, ACM SIGMOD and IEEE ICDE. In addition, he has served as panelist for reviewing NSF SBIR proposals. He is a member of the ACM society and the SIGMOD special interest group.



Jochen Scholl is an assistant professor in the University of Washington's Information School. He teaches and conducts research on information management, process change, and organizational transformation in government and other organizations. He employs both quantitative computer simulation techniques and qualitative research designs. Jochen has studied the strategies, motives, and focal areas of business and process change in digital government projects as well as the current practices employed in such projects. His special interests include integration, interoperability, organizational transformation, and the strategic choices in mobile technology diffusion in digital government. He is the PI of the NSF-funded Fully Mobile City Government research project (2005 to 2008). Jochen is involved in the organization of the three major conferences on electronic or digital government. He chairs the Electronic Government Track at the Hawaii International Conference on System Sciences (HICSS). He also serves as a member of the organizing committees of dgo2006 and the DEXA/EGOV conferences. He has been engaged in the formation of the Digital Government Society of North America and was elected to the board of officers by public vote. He has also been appointed to serve on the European E-Government Society's board as liaison to the North American Society. Jochen facilitated the worldwide discussion and voting processes on both the Society's Mission Statement and its constitutions. He has also been an active member of the Society's journal committee.



Dr. Anthony Stefanidis is Associate Professor with the Department of Earth Systems and Geoinformation Sciences at George Mason University. Before joining GMU in January 2007, he was Associate Professor with the Department of Spatial Information Science and Engineering and the National Center for Geographic Information and Analysis (NCGIA) at the University of Maine. He holds Ph.D. and M.S. degrees in this field from The Ohio State University (1993 and 1988 respectively), and a Dipl. Eng. Degree from the National Technical University of Athens (1986). His expertise and research activities are focused in the area of digital image processing for geospatial information extraction, video analysis, geosensor networks, spatiotemporal knowledge modeling and management, and digital photogrammetry, and they are supported by grants from various sources including NSF, NASA, BAE Systems, NGA (NIMA), NRO, and others. His past research activities include projects funded by NSF, NASA, the USGS, and the European Union. His teaching activities include courses in digital video analysis, motion imagery analysis, and statistics for information engineering. Dr. Stefanidis has co-edited three books, two on geosensor networks, and

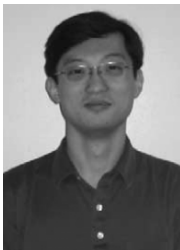
another on image analysis for GIS applications. He has also authored or co-authored numerous articles in journals and fully refereed conference proceedings. His work has been featured in various international professional publications.



Dr. Timothy Tolle is recently retired from the USDA Forest Service where he served as the Pacific Northwest regional ecosystem management officer. There, his work focused on adaptive management, monitoring and evaluation, and collaborative stewardship. He also worked as a Planning Team Leader and was involved with Forest Planning. He received an interdisciplinary Ph.D. in water resources from Oregon State University. He formerly worked as forest hydrologist in Montana and water resource analyst in Oregon for Water Resources Board. And he served as Associate Supervisor for two Conservation Districts: Lincoln Co., Montana and Okanogan Co., Washington.



Michael W. Traugott is Professor of Communication Studies and Political Science and Senior Research Scientist in the Center for Political Studies at the Institute for Social Research at the University of Michigan. His research interests include campaigns and elections, the mass media and their impact on American politics and political communication during campaigns. He primarily examines media coverage of political campaigns and the impact they have on voter behavior, use of the media by political candidates, and the use of political surveys and polls to cover campaigns and elections.



Maurício Tsugawa received his BS degree in Electrical Engineering from the Polytechnic School of the University of São Paulo (Brazil), in 1998, his MS degree in Electrical Engineering from the Electronic Systems Department (PSI) of the Polytechnic School of the University of São Paulo (Brazil), in 2001; and is currently a graduate student at the Department of Electrical and Computer Engineering of the University of Florida, working with Dr. José Fortes. His research interests are in the areas of distributed computing, virtual networking, parallel processing, computer architecture and configurable logic design.



André Valente received a doctorate (PhD) degree from the University of Amsterdam (1995) with a thesis on artificial intelligence and law. He also received a bachelor degree in mechanical-aeronautics engineering (1986) and a master degree in computer science (1990) from the Technological Institute of Aeronautics (ITA, Su Josh dos Campos, Brazil). He published about 30 articles in the field of Artificial Intelligence. Between 1986 and 1991 he has worked for major brazilian corporations, doing applied research and development on the fields of knowledge engineering (particularly knowledge acquisition), systems connectivity and software engineering. Presently, he is a researcher at the Information Sciences Institute of the University of Southern California, where he develops research on the Expect Project (a knowledge acquisition architecture with explanation facilities) and the ARPA-Rome Planning Initiative.



Tom M. van Engers studied Cognitive Artificial Intelligence at the Utrecht University and received his PhD at the faculty Mathematics and Information Sciences at the Free University in Amsterdam. He has worked at the Ministry of Finance in different functions amongst them as research manager. Van Engers is professor in Legal Knowledge Management and Managing Director of the Leibniz Center for Law at the University of Amsterdam. Furthermore Van Engers is CEO of the Regulatory Knowledge Foundation. Van Engers is coordinator of several international research projects such as E-Power, Trias Telematica, Estrella and SEAL (see for more information the Leibniz Center for Law website, at <http://www.LeibnizCenter.org>).



Bienvenido Vélez-Rivera is an assistant professor in the Department of Electrical and Computer Engineering, University of Puerto Rico, Mayaguez campus. He obtained his Ph.D. in Computer Science from the Massachusetts Institute of Technology (1999), his M.S. in Computer Science from the University of California Berkeley (1988) and his B.A. in Computer Science from Cornell University (1986). During his doctoral work, he designed algorithms for assisting users of information retrieval systems fulfill their information needs effectively. He continues to conduct research in Multi-lingual Information Retrieval Systems as well as in Distributed Computing and Digital Government. Dr. Vélez-Rivera is a member of the ACM and the IEEE Computer Society.



Paul A. Waddell is Professor in the Daniel J. Evans School of Public Affairs and the Department of Urban Design and Planning at the University of Washington, and Director of the Center for Urban Simulation and Policy Analysis. His current research interests are in developing simulation models to support land use, transportation and environmental policy analysis. He received his Ph.D. from the University of Texas at Dallas in 1989.



Mathew Jon Weaver is the Chief Technical Officer for EarthSoft, Inc., a manufacturer of environmental data management software. His research interests include a variety of aspects of database technology, conceptual models, metadata, and digital libraries. His professional activities include membership in the ACM and the IEEE Computer Society, and he is a Microsoft Certified Professional. He received a BS degree in Computer Science from Brigham Young University in 1999 and an MS and PhD degree in Computer Science and Engineering from the OGI School of Science and Technology at Oregon Health and Science University in 2003 and 2005, respectively.



Dr. Angus Whyte is a Senior Research Fellow in the International Teledemocracy Centre at Napier University in Scotland. He joined the Centre in 2000 and has played a leading role in many of its projects with government, industry and civil society partners in Europe. His work has focused on evaluation, combining interests in sociotechnical theory with methodologies drawn from the Information Systems and Computer Supported Cooperative Work fields. Angus gained his doctorate in Information Science from Strathclyde University in 1998, and has worked previously in the software, medical and voluntary sectors.

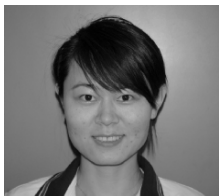


Dr. Radboud G.F. Winkels (1959) is associate professor in Computer Science and Law at the “Leibniz Center for Law (<http://www.lri.jur.uva.nl/>) (LCL) of the Faculty of Law (<http://www.jur.uva.nl/>) of the University of Amsterdam (<http://www.uva.nl/>), the Netherlands. His research deals with Intelligent Learning Environments, and Artificial Intelligence and Law. In 1992 he received his PhD for a thesis entitled “Explorations in Intelligent Tutoring and Help (<http://www.lri.jur.uva.nl/~winkels/bibreferences.html#Winkels-92a>) (IOS Press), that describes the results of five years of R&D, mainly on a shell for building Intelligent Help

Systems (EUROHELP, at <http://www.lri.jur.uva.nl/~winkels/eurohelp.html>), and an Intelligent Coaching System for Physiotherapy (FYSIODISC, at <http://www.lri.jur.uva.nl/~winkels/fysio-eng.html>). In the field of AI and Law his main research interests are legal ontologies, computational models of legal reasoning, intelligent access to legal databases and (standardisation efforts for) the legal semantic web. Since 1998 Winkels is a member of the executive committee of the Dutch Society for Legal Knowledge Systems (JURIX, at <http://www.jurix.nl/>), first as the scientific coordinator and since 2002 as the president. He is also a member of the executive board of the International Association of AI and Law (<http://weblog.iaail.org/>).



Chun-Xiao Xing received the BSc degree from the Beijing University of Aeronautic and Astronautics (now BeiHang University) in 1990. He received PhD. degree from Northwestern Polytechnical University in 1999, and finished his postdoctor from the Department of Computer Science and Technology of Tsinghua University in 2001. Now he is professor and director of Web and Software Technology R&D Center of Research Institute of Information Technology, Tsinghua University. He also is director of Digital Government Research Center of Tsinghua University. His research interests include database/data warehouse, software engineering, Web service, distributed multimedia systems, Digital library, and e-Government. He is a member of the IEEE.



Ping Yan is currently pursuing the Ph.D. degree in the Department of Management Information Systems at the Eller College of Management of the University of Arizona. She received the B.S. degree in computer science from the University of Science and Technology of China, Hefei, China, and the M.S. degree in computer science from the University of Hong Kong. Yan's research interests include public health informatics, systems architectures for public health systems, and data mining for health-related applications. She is an active member of the BioPortal project led by Chen and Zeng. Her recent papers examine syndromic surveillance systems.



Ji-Jiang Yang received his BSc and MSc degree from Tsinghua university in 1990 and 1995, and his PhD from National University of Ireland (Galway) in 2004. He is the vice director of Web and Software Research Center of RIIT (Research Institute of Information and Technology), Tsinghua University. He is also an associate professor of Tsinghua University. During working in CIMS/ERC of

Tsinghua university, he had joined or been in charge of different projects funded by the State Hi-Tech program (863 program), NSFC(China), and European Union. His interested research areas are involved in ERP, SCM, Business process collaboration, e-Government related technologies.



Daniel Zeng is an Associate Professor and the Director of the Intelligent Systems and Decisions Laboratory in the Department of Management Information Systems at the University of Arizona's Eller College of Management. He is also an affiliated professor at the Institute of Automation, the Chinese Academy of Sciences. He received his BS in operations research/economics from the University of Science and Technology of China, and his MS and PhD in industrial administration from Carnegie Mellon University. His research interests include software agents and multi-agent systems, spatio-temporal data analysis, security informatics, infectious disease informatics, complex systems analysis, recommender systems, digital economic institutions, and automated negotiation and auction. He has directed a number of National Science Foundation-funded research projects as PI or co-PI. He has co-edited seven books and published more than 80 peer-reviewed articles in Management Information Systems and Computer Science journals, edited books, and conference proceedings. He serves on editorial boards of eight Information Technology-related journals and has co-edited special topic issues for four leading journals. He's also the chair of the INFORMS College on Artificial Intelligence and the Vice President for Technical Activities of the IEEE Intelligent Transportation Systems Society. He is a Senior Member of the IEEE. Contact him at zeng@email.arizona.edu; www.u.arizona.edu/~zeng.



Pengzhu Zhang is Chair Professor in MIS & E-Commerce, Director of Center for Management Information Systems, Antai School of Management, Shanghai Jiaotong University. His articles have appeared in Decision Support Systems, Information Systems Engineering and many journals in Chinese. His research interests include group decision/team support systems, financial management information systems, E-government & E-commerce. He received his Ph.D. in 1993 from the Department of Information and Control Engineering, Xi'an Jiaotong University.



Yong Zhang received his BSc and PhD degrees from the Department of Computer Science and Technology of Tsinghua University in 1997 and 2002 respectively. From 2002 to 2005, he worked as postdoctor at the Unilever Centre for Molecular Informatics, Cambridge University, UK. He is currently working as a faculty of Research Institute of Information Technology in Tsinghua University. His main research interests are in Database, XML, e-Science and GIS.