

Commenced Publication in 1973

Founding and Former Series Editors:

Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

Editorial Board

David Hutchison

Lancaster University, UK

Takeo Kanade

Carnegie Mellon University, Pittsburgh, PA, USA

Josef Kittler

University of Surrey, Guildford, UK

Jon M. Kleinberg

Cornell University, Ithaca, NY, USA

Friedemann Mattern

ETH Zurich, Switzerland

John C. Mitchell

Stanford University, CA, USA

Moni Naor

Weizmann Institute of Science, Rehovot, Israel

Oscar Nierstrasz

University of Bern, Switzerland

C. Pandu Rangan

Indian Institute of Technology, Madras, India

Bernhard Steffen

University of Dortmund, Germany

Madhu Sudan

Massachusetts Institute of Technology, MA, USA

Demetri Terzopoulos

New York University, NY, USA

Doug Tygar

University of California, Berkeley, CA, USA

Moshe Y. Vardi

Rice University, Houston, TX, USA

Gerhard Weikum

Max-Planck Institute of Computer Science, Saarbruecken, Germany

Roland Traunmüller (Ed.)

Electronic Government

Third International Conference, EGOV 2004
Zaragoza, Spain, August 30 - September 3, 2004
Proceedings

Volume Editor

Roland Traunmüller

University of Linz, Institute of Informatics in Business and Government

Altenbergerstr. 69, 4040 Linz, Austria,

E-mail: traunm@ifs.uni-linz.ac.at

Library of Congress Control Number: 2004110540

CR Subject Classification (1998): K.4, K.6.5, K.5, K.3, C.2, H.5, H.4

ISSN 0302-9743

ISBN 3-540-22916-7 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

Springer is a part of Springer Science+Business Media

springeronline.com

© Springer-Verlag Berlin Heidelberg 2004

Printed in Germany

Typesetting: Camera-ready by author, data conversion by Olgun Computergrafik

Printed on acid-free paper SPIN: 11312444 06/3142 5 4 3 2 1 0

Preface

The EGOV conference series intends to assess the state of the art in e-Government and to provide guidance for research and development in this fast-moving field. Thus EGOV 2004 in Zaragoza built on the achievements of the previous EGOV conferences in Aix-en-Provence and Prague. This year the interest increased once more; thus the EGOV conference series has become a reunion for professionals from all over the globe.

EGOV 2004 brought some changes in the outline and structure of the conference: i.e., centralizing the reviewing process through the support of an ensemble of Area Chairs, and incorporating a workshop aimed at regional developments. Defining areas has extended the coverage of topics: examples are strategies and policies, public-private partnerships, change management, interoperability and semantic standards, G2G cooperation, public information, teaching and empowering staff, and voting. Several issues already well covered in last year's conference have preserved their topicality: governance and democracy, research methods, services and processes, knowledge management, security and identity management, legal issues. An annual conference bears a message as well: *"e-Government: the Challenges Ahead"*. This issue is treated as an introduction statement by the editor.

Rich was the set of themes covered in several streams. The following list of issues covered by the 3rd EGOV Conference gives an illustration:

- Frameworks and guidelines for e-Government and e-Governance
- e-Government policies, strategies and implementation
- Methods and tools for e-Government research
- e-Democracy and e-Voting
- One-stop government, electronic service delivery, mobile services
- International and regional projects, case studies and best practice
- Sustaining administrative processes, G2G cooperation
- Identity management and security: provisions and instruments, citizen cards, digital signatures
- Knowledge management, public information, GIS (geographical information systems)
- Interoperability and standards, semantic standardization
- Change management and new organizational arrangements: public-private partnerships, virtual teams
- Legal, societal and cultural aspects of e-Government
- International dimensions: cooperation, comparisons, networks
- Teaching e-Government

Networking is crucial, and thus to EGOV 2004 additional events were adjoined and in some way interlinked: the annual conference of "LEFIS" (Legal Framework for the Information Society), a workshop "Observatory on Interoperable e-Government Services", and a workshop "Metadata for Accessibility".

Several persons worked to form the conference and to prepare the program and the proceedings. The significance of the work of the Area Chairs is to be acknowledged; special recognition has to go to them as well as to the members of the Program Committee and some additional referees. The work of Gabriela Wagner, the scientific event manager in charge of the DEXA organization, deserves acknowledgment. In particular I thank Vera Himmelbauer, the coordinator for the program and of the proceedings of EGOV 2004; the editor expresses high appreciation for her extraordinary engagement.

Linz, August 2004

Roland Traunmüller

Program Committee

Program Chair

Roland Traunmüller, University of Linz, Austria

Area Chairs

Governance	Ann Macintosh
Methods and Tools for e-Government Research	Ake Grönlund
e-Government Policies and Strategies	Antonio Alabau, Hermann Hill
e-Democracy and e-Voting	Peter Mambrey, Alexander Prosser
Public Private Partnership	Kim Anderson, Hans Scholl
Risk Management	Ahti Saarenpää, Witold Staniszki
Empowering the Regions	Jeremy Milard, Markus Lassnig
Change Management	Mahmood Awan, Luiz Joia, Monika Palmirani
Services and Processes	Margrit Falck, Ronald Leenes, Eric Moe
Designing Web Services	Maddalena Sorrentino, Dieter Spahn, Francesco Virili
G2G Collaboration and Virtual Teams	Euripides Loukis, Reinhard Riedl
Interoperability, Standards	Maria Wimmer, Ralf Klischewski
Trust and Security	Thomas Menzel, Peter Reichstädter
Legal Aspects	Fernando Galindo, Rimantas Petrauskas
Knowledge Management	Tom Gordon, Tom van Engers
GIS, Public Information	Mário Leitão, Georg Aichholzer
Cross-border e-Government	José A.B. Fortes, Themis Tambouris
International Dimension (Cooperation, Comparisons)	Christine Leitner, Gerald Quirchmayr, Claudio Menezes
Teaching e-Government	Fernando Galindo, Michel Klein, Peter Parycek
Focusing Regional Developments	Roland Traunmüller
Process Management	Witold Stanizki

Program Committee Members

Georg Aichholzer, Austrian Academy of Science, Austria
Antonio Alabau, Chairman of the Academic Board e-Forum Association, Spain
Kim Viborg Andersen, Copenhagen Business School, Denmark
Mahwood A. Awan, Dubai University College, Dubai
Trevor Bench-Capon, University of Liverpool, United Kingdom
Jean-Loup Chappelet, IDHEAP Lausanne, Switzerland
Wichian Chutimaskul, King Mongkut's University of Technology Thonburi, Thailand
Noshir Contractor, University of Illinois at Urbana-Champaign, United States
Ahmed M. Darwish, Arab Republic of Egypt, e-Government Program Director, Egypt
Margrit Falck, University of Applied Sciences for Public Administration and Legal Affairs
Academy for Administration and Judicature, Berlin, Germany
Herbert Fiedler, Universität Bonn, Germany
José A.B. Fortes, University of Florida, United States
Fernando Galindo, Universidad de Zaragoza, Spain
Michael Gisler, Federal Office for Informatics and Telecommunication (BIT), Switzerland
Thomas F. Gordon, Fraunhofer Institute for Open Communications Systems (FOKUS), Germany
Dimitris Gouscos, eGovernment Laboratory, University of Athens, Greece
Stefanos Gritzalis, University of the Aegean, Greece
Åke Grönlund, Örebro University, Sweden
Ray Hackney, Manchester Business School, United Kingdom
Francois Heinderyckx, Université Libre de Bruxelles, Belgium
Hermann Hill, German University of Administrative Sciences, Germany
Gareth Hughes, ERISA – European Regional Information Society Association, Belgium
Luiz Antonio Joia, Public and Business Administration – Getulio Vargas Foundation, Brazil
Bernhard Karning, Austrian Federal Ministry of National Defense, Austria
Peter Kawalek, Manchester Business School, United Kingdom
Michel Klein, HEC Graduate School of Management, France
Sayeed Klewitz-Hommelsen, Academy Bonn-Rhein-Sieg, Germany
Ralf Klischewski, University of Hamburg, Germany
Herbert Kubicek, Universität Bremen, Germany
Markus Lassnig, Salzburg Research Institute, Austria
Ronald Leenes, Tilburg University, The Netherlands
Mário Jorge Leitão, INESC Porto, Portugal
Christine Leitner, European Institute of Public Administration, The Netherlands
Klaus Lenk, Universität Oldenburg, Germany
Euripides Loukis, University of the Aegean, Greece
Ann Macintosh, University of Napier, United Kingdom
Peter Mambrey, Fraunhofer Institute for Applied Information Technology (FIT), Germany

Manuel de Jesus Mendes, University Campinas, Brazil
 Cláudio Menezes, Unesco, Uruguay
 Thomas Menzel, Austrian Federal Ministry of Education, Science and Culture,
 Austria
 Jeremy Millard, Danish Technological Institute, Denmark
 Carl Erik Moe, Agder University College, School of Management, Norway
 Monica Palmirani, Faculty of Law, University of Bologna, Italy
 Peter Parycek, Danube University Krems, Austria
 Rimantas Petrauskas, Law University of Lithuania, Lithuania
 Sabina Posadziejewski, Canadian Federal Government, Canada
 Reinhard Posch, Federal Chancellor's Office, Austria
 Alexander Prosser, Economics University Vienna, Austria
 Gerald Quirchmayr, Universität Wien, Austria
 Peter Reichstädter, Federal Chancellor's Office/Administrative Department IKT –
 Strategy, Austria
 Reinhard Riedl, University of Zurich, Switzerland
 Ahti Saarenpää, University of Lapland, Finland
 Hans Jochen Scholl, University of Washington, United States
 Erich Schweighofer, Universität Wien, Austria
 Ignace Snellen, Erasmus University of Rotterdam, The Netherlands
 Maddalena Sorrentino, Università degli Studi, Milano, Italy
 Dieter Spahni, Institut für Wirtschaft und Verwaltung (IWV), Switzerland
 Witold Staniszkis, Rodan Systems S.A., Poland
 Makoto Takizawa, Graduate School of Science and Engineering, Tokyo Denki
 University, Japan
 Efthemis Tambouris, Archetypon S.A., Greece
 Roland Traunmüller, University of Linz, Austria
 Volker Tschammer, Fraunhofer Fokus, Germany
 Tom M. van Engers, Belastingdienst, The Netherlands
 Mirko Vintar, University of Ljubljana, Slovenia
 Francesco Virili, University of Cassino, Italy
 Maria Wimmer, University of Linz, Austria

Additional Reviewers

Bartosz Nowicki, Rodan Systems, Poland
 Mariusz Momotko, Rodan Systems, Poland
 Robert Müller-Török, University of Debrecen, Leipzig, BBVL, Germany

Table of Contents

Introduction

e-Government: The Challenges Ahead	1
<i>Roland Traunmüller and Maria Wimmer</i>	

e-Democracy

Electronic Democracy and Power	7
<i>Anders R. Olsson</i>	
Young People and e-Democracy: Creating a Culture of Participation	15
<i>Zoë Masters, Ann Macintosh, and Ella Smith</i>	
The Support for Different Democracy Models by the Use of a Web-Based Discussion Board	23
<i>Øystein Sæbø and Hallgeir Nilsen</i>	
The Framework of e-Democracy Development	27
<i>Wichian Chutimaskul and Suree Funilkul</i>	
Networked ICT to Foster e-Democracy?	31
<i>Peter Mambrey</i>	

Interoperability

Analysis of the Interoperability Frameworks in e-Government Initiatives	36
<i>Luis Guijarro</i>	
An Overview of DC-Based e-Government Metadata Standards and Initiatives	40
<i>Efthimios Tambouris and Konstantinos Tarabanis</i>	
Enterprise Architecture for e-Government	48
<i>Beryl Bellman and Felix Rausch</i>	
Information Integration or Process Integration? How to Achieve Interoperability in Administration	57
<i>Ralf Klischewski</i>	
Security Requirements Engineering for e-Government Applications: Analysis of Current Frameworks	66
<i>Christos Kalloniatis, Evangelia Kavakli, and Stefanos Gritzalis</i>	

Semantic Lexicons for Accessing Legal Information	72
<i>Maria-Teresa Sagri and Daniela Tiscornia</i>	
Impact of e-Government Interoperability in Local Governments	82
<i>Norbert Benamou, Alain Busson, and Alain Keravel</i>	

Process Management

e-Government Intermediation	88
<i>Aljosa Pasic, Anne-Marie Sassen, and Alicia Garcia</i>	
Comprehensive Process Management in Public Administrations – A Case Study .	93
<i>Silke Palkovits and Andreas Rapp</i>	
Government Support for Energy Saving Projects	97
<i>Michel R. Klein</i>	

Technical Issues

Reducing the Integration of Public Administration Databases to Approximate Tree Matching	102
<i>Nikolaus Augsten, Michael Böhlen, and Johann Gamper</i>	
Software Acquisition Based on Business Models	108
<i>Peter Regner, Thomas Wiesinger, Josef Küng, and Roland Wagner</i>	
Customer Support for Job Learning on Demand	112
<i>Margit Scholl and Sabine Schröter</i>	

e-Voting

Levels of Difficulty in Introducing e-Voting	116
<i>Alexandros Xenakis and Ann Macintosh</i>	
Implementation of Quorum-Based Decisions in an Election Committee	122
<i>Alexander Prosser, Robert Kofler, Robert Krimmer, and Martin Karl Unger</i>	

Services, Processes, General Assistance

Translating Customer-Focused Strategic Issues into Operational Processes Through CRM – A Public Sector Approach	128
<i>Luciano Batista and Peter Kawalek</i>	
Impact Analysis of Two World Custom Organization Technical Instruments – Customs Data Model and Unique Consignment Reference – On Customs Operations and Performance: Survey at 18 Customs Administrations	134
<i>Juha Hintsa and Dietmar Jost</i>	

Electronic Public Service Delivery: Exploring the Use of Focus Groups for Ex Ante Program Evaluation	138
<i>Eugène Loos</i>	

An e-Government Interface for the Director-General – Or: How to Support Decision Makers with an Electronic Chief Secretary?	144
<i>Erich Schweighofer</i>	

Empowering the Regions

Presentation Strategy of Data Analysis and Knowledge for Web-Based Decision Support in Sustainable Urban Development	150
<i>Marija Burinskiene and Vitalija Rudzkiene</i>	

What Have We Learned from the TANGO Arena for Regional Cooperation Around e-Government in Southern Sweden?	156
<i>Sara Eriksén, Annelie Ekelin, Pirjo Elovaara, Yvonne Dittrich, Christina Hansson, and Jeff Winter</i>	

The Diffusion of e-Services in Danish Municipalities	164
<i>Helle Zinner Henriksen</i>	

Economies of Scale in e-Government: Time for Evidence	172
<i>Enrico Ferro, Marco Cantanmessa, and Emilio Paolucci</i>	

Methods and Tools

State of the Art in e-Gov Research – A Survey	178
<i>Åke Grönlund</i>	

A Social Shaping Perspective on an e-Governmental System(ic) Failure	186
<i>Elisabeth Davenport and Keith Horton</i>	

Rules, Norms, and Individual Preferences for Action: An Institutional Framework to Understand the Dynamics of e-Government Evolution	194
<i>Ignacio J. Martinez-Moyano and J. Ramon Gil-Garcia</i>	

Reduction of the Administrative Burden: An e-Government Perspective	200
<i>Rex Arendsen and Tom M. van Engers</i>	

G2G Collaboration

An Unsuccessful G2G Endeavor in Brazil	207
<i>Luiz Antonio Joia</i>	

An International Trade Negotiation Framework for e-Government	211
<i>Sheng Zhang, Fillia Makedon, James Ford, Calliope Sudborough, Lin Ai, Sarantos Kapidakis, Vangelis Karkaletsis, and Euripides Loukis</i>	
A Web-Based System for Supporting Structured Collaboration in the Public Sector	218
<i>Nikos Karacapilidis, Euripides Loukis, and Stavros Dimopoulos</i>	
Supporting Inter-administration Cooperation: The EU-PUBLI.com Approach . . .	226
<i>Mariangela Contenti, Alessandro Termini, Massimo Mecella, and Roberto Baldoni</i>	
Digital Building Permit Application: A Feasibility Study for a Shared Services Solution in the Netherlands	234
<i>Marcel Hoogwout and Robbin te Velde</i>	
G2G Collaboration to Support the Deployment of e-Voting in the UK: A Discussion Paper	240
<i>Alexandros Xenakis and Ann Macintosh</i>	
How to Modernize the People Registration Process. Experiences in the Leading e-Government Project in Germany	246
<i>Ullrich Bartels and Frank Steimke</i>	
Reliable Peer-to-Peer Access for Italian Citizens to Digital Government Services on the Internet	250
<i>Franco Arcieri, Fabio Fioravanti, Enrico Nardelli, and Maurizio Talamo</i>	
The Challenge of Inter-administration e-Government	256
<i>Gerhard Lutz and Gamal Moukabary</i>	
Applying MDA Concepts in an e-Government Platform	260
<i>Adriana Maria C.M. Figueiredo, Manuel de Jesus Mendes, Aqueo Kamada, José Renato Borelli, Marcos Antonio Rodrigues, Luciano L. Damasceno, José Gonzaga Souza, and Neil Paiva Tizzo</i>	

Change and Risk Management

e-Governance: Some Performance and Quality Assurance Aspects	266
<i>Nicolae Costake</i>	
FRAMES Towards Risk Modelling in e-Government Services: A UK Perspective	270
<i>Adrianos Evangelidis, Ann Macintosh, and Elisabeth Davenport</i>	
Public e-Procurement – Determinants of Attitudes Towards Adoption	278
<i>Carl Erik Moe</i>	

e-Governance

e-Government as an Enabler of Public Management Reform:

The Case of Switzerland	283
<i>Jean-Loup Chappelet</i>	

Digital Divides Revisited: Towards a Model for Analysis	289
<i>Annika Andersson</i>	

An Integrated Framework for Analyzing Domestic and International Digital Divides	293
<i>Chien-Chih Yu and Hsing-I Wang</i>	

Content Analysis of a Local Government Initiated Discussion Forum	300
<i>Lasse Berntzen</i>	

Explaining Successes and Failures of e-Government Implementation with Micropolitics	308
<i>Angela Dovifat, Doreen Kubisch, Martin Brüggemeier, Klaus Lenk, and Christoph Reichard</i>	

PARMENIDES: Facilitating Democratic Debate	313
<i>Katie Atkinson, Trevor Bench-Capon, and Peter McBurney</i>	

e-Government in Australia: A Citizen's Perspective	317
<i>Hernan Riquelme and Passarat Buranasantikul</i>	

ID-Management and Security

Towards a Privacy Audit Programmes Comparison Framework	328
<i>Kabouraki Konstantina, Gritzalis Stefanos, and Moulinos Konstantinos</i>	

Trust in e-Government Cooperation	332
<i>Noor Huijboom and Marcel Hoogwout</i>	

Securing e-Government	336
<i>Sonja Hof and Peter Reichstädter</i>	

Trust and Security. Digital Citizen Cards in Poland	342
<i>Bogusław Banaszak and Katarzyna Rodziewicz</i>	

Policies and Strategies

Innovation Needs in the e-Government Scenario: A Survey	347
<i>Mario A. Bochicchio, Maria Grazia Celentano, and Antonella Longo</i>	

Electronic Government: Scope and Scale of Process Change	355
<i>Hans Jochen Scholl</i>	

Reorganisation of Government Back-Offices for Better Electronic Public Services	363
<i>Jeremy Millard</i>	

e-Government Impacts at the American Grassroots: An Initial Assessment	371
<i>Donald F. Norris</i>	

Geographical Information Systems (GIS)

Towards Flexible Geographic Information Infrastructure for e-Government	377
<i>Jerzy Auksztol and Tomasz Przechlewski</i>	

Spatial Application Integrating Infrastructure	381
<i>Yingwei Luo, Wenjun Wang, Xinpeng Liu, Xiaolin Wang, and Zhuoqun Xu</i>	

Building e-Government Services over Spatial Data Infrastructures	387
<i>Javier Nogueras-Iso, Miguel Ángel Latre-Abadía, Pedro R. Muro-Medrano, and F. Javier Zarazaga-Soria</i>	

Political Aspects of Spatial Data Infrastructures	392
<i>F. Javier Zarazaga-Soria, Javier Nogueras-Iso, Rubén Béjar, and Pedro R. Muro-Medrano</i>	

Fire Service in Korea: Advanced Emergency 119 System Based on GIS Technology	396
<i>In-Hak Joo, Kwang-Soo Kim, and Min-Soo Kim</i>	

M-GIS – Mobile and Interoperable Access to Geographic Information	400
<i>Jorge Cardoso, Artur Rocha, and João Correia Lopes</i>	

Implementing Spatial Analyzer Module into a Distributed GIS-Application	406
<i>Miguel Torres, Serguei Levachkine, Marco Moreno, Rolando Quintero, and G. Guzmán</i>	

Public Discussion of Oporto's Municipal Master Plan: An e-Democracy Service Supported by a Geographical Information System	410
<i>Marco Amaro Oliveira, Alexandre Carvalho, and Luís Bártolo</i>	

Geographic Information and Public Participation in Environmental Decision-Making	414
<i>Henning Sten Hansen</i>	

Using Open Source GIS in e-Government Applications	418
<i>Cláudio de Souza Baptista, Fábio Luiz Leite Jr., Elvis Rodrigues da Silva, and Anselmo C. Paiva</i>	

Legal Aspects

Self-regulation Model for e-Governance Legal Framework	422
<i>Mindaugas Kiškis and Rimantas Petrauskas</i>	
A Review of Current e-Government Initiatives in Spain	428
<i>Luis A. Sabucedo and Luis Anido</i>	
e-Government and Information Society: The First Regional Law in Italy	432
<i>Isabella D'Elia</i>	
The LEFIS Network	436
<i>Fernando Galindo</i>	
Information and Law in the Constitutional State	443
<i>Ahti Saarenpää</i>	

Teaching and Empowering

Master Studies on e-Governance Administration: The First Experience in Lithuania	453
<i>Arunas Augustinaitis and Rimantas Petrauskas</i>	
Educational Programs in e-Government – An Active, Practice- and Design-Oriented Network?	457
<i>Pirjo Elovaara, Sara Eriksén, Annelie Ekelin, Christina Hansson, Monica Nilsson, and Jeff Winter</i>	
Teaching e-Government in Italy	460
<i>Maria Angela Biasiotti and Roberta Nannucci</i>	
Qualification Requirements in e-Government: The Need for Information Systems in Public Administration Education	464
<i>Siegfried Kaiser</i>	
An e-Learning Tool for the Austrian Citizen Card	468
<i>Peter Parycek, Johannes Schneider, and Michael Wagner</i>	

Designing Web Services

Applications and Interfaces for e-Government	472
<i>Thomas Müllner and Dominik Grimm</i>	
Advancing the Government Enterprise Architecture – GEA: The Service Execution Object Model	476
<i>Vassilios Peristeras and Konstantinos Tarabanis</i>	

Modeling e-Government Service Workflows Through Recurring Patterns	483
<i>Giannis Verginadis, Dimitris Gouscos, and Gregoris Mentzas</i>	
Web Services and Value Generation in the Public Sector	489
<i>Maddalena Sorrentino and Francesco Virili</i>	
Electronic Services in a Decentralized State	496
<i>Ronald Leenes and Jörgen Svensson</i>	
e-Government Success Factors	503
<i>Jörg Becker, Björn Niehaves, Lars Algermissen, Patrick Delfmann, and Thorsten Falk</i>	

Public Information

Integration of Pre-existing Heterogeneous Information Sources in a Knowledge Management System	507
<i>Witold Staniszkis, Edyta Kałka, Grzegorz Nittner, Eliza Staniszkis, and Jakub Strychowski</i>	
Encoding of Public Records and Procedures in Electronic Registries	515
<i>Georgia Prokopiadou, Christos Papatheodorou, and Dionysis Moschopoulos</i>	
Registers as Part of Back Office Integration: The Austrian Experience	521
<i>Josef Makolm</i>	
Electronic Access to Public Sector Information: Some Key Issues	525
<i>Georg Aichholzer</i>	
Integration of Public Information at the Regional Level – Challenges and Opportunities	529
<i>Leon Bobrowski, Mariusz Buzun, and Karol Przybszewski</i>	
Demand and Supply of Public Information Online for Business: A Comparison of EU Countries and the US	534
<i>Patrizia Fariselli, Olana Bojic, and Julia Culver-Hopper</i>	

Workshop: Regional Developments in Global Connection

Regional Developments in Global Connection	538
<i>Roland Traunmüller, Wichian Chutimaskul, and Bernhard Karning</i>	
Evolution of Information Systems in Malaysia	543
<i>Azlinah Mohamed and Syed Helmy Syed Abu Bakar</i>	
The Challenge of Providing a Voter Registration System for Millions of Filipinos Living Overseas	547
<i>Jose Luis Lacson and Kanta Matsuura</i>	

e-Government Policies, Strategies and Implementation: e-Government in the Federal Country Belgium	549
<i>Sabine Rotthier</i>	
e-Government: A Strategy for Deploying Social Security Related Electronic Services	552
<i>Christos Halaris and Giannis Verginadis</i>	
The Complex Nature of e-Government Projects: A Case Study of Bhoomi, an Initiative in Karnataka, India	556
<i>Rahul De' and Chiranjib Sen</i>	
The Future of e-Government: Collaboration Across Citizen, Business, and Government	558
<i>Dong-Hoon Yang, Seongcheol Kim, Changi Nam, and In-gul Lee</i>	
Framework for the e-Government Jigsaw Puzzle, a Policy Implementation of Infra-e-Service on National Basis	560
<i>Tibor Denes and Karl-Erik Andersson</i>	
Composition of e-Commerce and Geographic Information Services for Emergency Management	562
<i>José Poveda, Michael Gould, and Carlos Granell</i>	
Initial Experiments on the Effectiveness of Telephone Access to Government Services	564
<i>Laurens Cloete, Etienne Barnard, and Hina Patel</i>	
A Process Support System to Coordinate Societal Decision Processes	566
<i>K. Nadia Papamichail and Ian Robertson</i>	
A Generic Architectural Framework of Municipal Information Systems: A Vision	568
<i>Siniša Nešković</i>	
Trade Unions in e-Democracy	570
<i>Laurence Favier and Joël Mekhantar</i>	
Knowledge and Boundaries in e-Government	573
<i>Francesco Bolici</i>	
Law, Knowledge and Mobility in Local Planning	575
<i>Jeff Winter</i>	
Towards the Idea of a One-Stop-Administration: Experiences from the Reorganisation of the Register of Companies in Luxembourg	577
<i>Fernand Feltz and Patrik Hitzelberger</i>	
Author Index	581