Table of Contents

Foreword ............................................................................................................................................. xvi

Preface ................................................................................................................................................ xvii

Acknowledgment .............................................................................................................................. xxvi

Section I
Content Management and Knowledge Management

Chapter I
A Conceptual Framework for Data Mining and Knowledge Management ........................................ 1
   Shamsul I. Chowdhury, Roosevelt University, USA

Chapter II
A Framework for Knowledge Management in E-Government ............................................................ 16
   Kostas Metaxiotis, National Technical University of Athens, Greece

Chapter III
E-Government Knowledge Management (KM) and Data Mining Challenges:
Past, Present, and Future .................................................................................................................... 28
   LuAnn Bean, Florida Institute of Technology, USA
   Deborah S. Carstens, Florida Institute of Technology, USA
   Judith Barlow, Florida Institute of Technology, USA

Chapter IV
Knowledge Management Portals for Empowering Citizens and Societies ....................................... 42
   Hakikur Rahman, SDNF, Bangladesh
Section II
Universal Access to Social Services

Chapter V
Better Knowledge for Better Health Services: Discovering Guideline Compliance
Stefano De Luca, Evodevo s.r.l., Italy
Enrico Memo, Ca’ Foscari University, Italy

Chapter VI
Governance in European Hospitals: Analysing Governance Practices Using Data Mining and Information Visualisation
Kristof Eeckloo, Centre for Health Services and Nursing Research, Belgium
Luc Delesie, Centre for Health Services and Nursing Research, Belgium
Arthur Vleugels, Centre for Health Services and Nursing Research, Belgium

Chapter VII
A Data Mining Approach to Advance Knowledge in Public Government: Profiling Households
Paola Annoni, University of Milan, Italy
Pieralda Ferrari, University of Milan, Italy
Silvia Salini, University of Milan, Italy

Chapter VIII
Electronic Payment Systems in Developing Countries for Improved Governance System
Hakikur Rahman, SDNF, Bangladesh

Section III
Security, Safety, and Trust

Chapter IX
Data Mining as Part of Intelligence-Led Policing in the Finnish Police
Arla Juntunen, University of Helsinki, Finland

Chapter X
Current Issues and Future Analysis in Text Mining for Information Security Applications
Shuting Xu, Virginia State University, USA
Xin Luo, Virginia State University, USA

Chapter XI
Data Mining in Aviation Safety Data Analysis
Reima Suomi, Turku School of Economics, Finland
Olli Sjöblom, Turku School of Economics, Finland
Section IV
E-Governance and Artificial Intelligence

Chapter XII
Applying Dynamic Causal Mining in E-Government Modeling ......................................................... 200
Yi Wang, Nottingham Trent University, UK

Chapter XIII
Ontology-Based Management of e-Government Knowledge ............................................................... 221
Yannis Charalabidis, National Technical University of Athens, Greece
Kostas Metaxiotis, National Technical University of Athens, Greece

Chapter XIV
Data Mining in Decision Support for Bioenergy Production ................................................................. 235
Nasser Ayoub, Tokyo Institute of Technology, Japan and Helwan University, Egypt
Yuji Naka, Tokyo Institute of Technology, Japan

Section V
Virtual Communities and Cases

Chapter XV
Virtual Assistants for E-Government Interaction .................................................................................. 255
Rodrigo Sandoval-Almazán, Autonomous University of the State of Mexico, Mexico
Mario Arturo Gutiérrez Alonso, Tecnológico de Monterrey Campus Morelia, Mexico

Chapter XVI
Abdul Raufu Ambali, University Technology MARA (UiTM), Malaysia

Chapter XVII
Digitization Initiatives and Knowledge Management: Institutionalization of E-Governance in Teaching, Learning and Research in East African Universities ...................................... 288
A. M. Chailla, Sokoine University of Agriculture, Tanzania
F. W. Dulle, Sokoine University of Agriculture, Tanzania
A. W. Malekani, Sokoine University of Agriculture, Tanzania

Chapter XVIII
Data Mining in Public Administration .................................................................................................... 302
John Wang, Montclair State University, USA
Xiaohua Hu, Drexel University, USA
Dan Zhu, Iowa State University, USA