## Contents

1. **Introduction to Policy-Making in the Digital Age** .......................... 1  
   Marijn Janssen and Maria A. Wimmer

2. **Educating Public Managers and Policy Analysts in an Era of Informatics** ............................... 15  
   Christopher Koliba and Asim Zia

3. **The Quality of Social Simulation: An Example from Research Policy Modelling** ............................... 35  
   Petra Ahrweiler and Nigel Gilbert

4. **Policy Making and Modelling in a Complex World** .............................. 57  
   Wander Jager and Bruce Edmonds

5. **From Building a Model to Adaptive Robust Decision Making Using Systems Modeling** ............................... 75  
   Erik Pruyt

6. **Features and Added Value of Simulation Models Using Different Modelling Approaches Supporting Policy-Making: A Comparative Analysis** ............................... 95  
   Dragana Majstorovic, Maria A. Wimmer, Roy Lay-Yee, Peter Davis and Petra Ahrweiler

7. **A Comparative Analysis of Tools and Technologies for Policy Making** ............................... 125  
   Eleni Kamateri, Eleni Panopoulou, Efthimios Tambouris, Konstantinos Tarabanis, Adegboyega Ojo, Deirdre Lee and David Price

8. **Value Sensitive Design of Complex Product Systems** ............................... 157  
   Andreas Ligtvoet, Geerten van de Kaa, Theo Fens, Cees van Beers, Paulier Herder and Jeroen van den Hoven
9 Stakeholder Engagement in Policy Development: Observations and Lessons from International Experience ......................... 177
Natalie Helbig, Sharon Dawes, Zamira Dzhusupova, Bram Klievink and Catherine Gerald Mkude

10 Values in Computational Models Revalued ................................. 205
Rebecca Moody and Lasse Gerrits

11 The Psychological Drivers of Bureaucracy: Protecting the Societal Goals of an Organization ............................. 221
Tjeerd C. Andringa

12 Active and Passive Crowdsourcing in Government ........ 261
Euripidis Loukis and Yannis Charalabidis

13 Management of Complex Systems: Toward Agent-Based Gaming for Policy .................................................. 291
Wander Jager and Gerben van der Vegt

14 The Role of Microsimulation in the Development of Public Policy ........................ 305
Roy Lay-Yee and Gerry Cotterell

15 Visual Decision Support for Policy Making: Advancing Policy Analysis with Visualization ........................................ 321
Tobias Ruppert, Jens Dambruch, Michel Krämer, Tina Balke, Marco Gavanelli, Stefano Bragaglia, Federico Chesani, Michela Milano and Jörn Kohlhammer

16 Analysis of Five Policy Cases in the Field of Energy Policy .......... 355
Dominik Bär, Maria A. Wimmer, Jozef Glova, Anastasia Papazafeiropoulou and Laurence Brooks

17 Challenges to Policy-Making in Developing Countries and the Roles of Emerging Tools, Methods and Instruments: Experiences from Saint Petersburg ........................................ 379
Dmitrii Trutnev, Lyudmila Vidyasova and Andrei Chugunov

18 Sustainable Urban Development, Governance and Policy: A Comparative Overview of EU Policies and Projects ........ 393
Diego Navarra and Simona Milio

19 eParticipation, Simulation Exercise and Leadership Training in Nigeria: Bridging the Digital Divide ....................... 417
Tanko Ahmed