

# Contents

|                                                                                                                                                   |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Introduction .....</b>                                                                                                                         | <b>1</b>  |
| Alessandro D'Atri and Domenico Sacca                                                                                                              |           |
| <b>Part I E-Services in Public and Private Sectors</b>                                                                                            |           |
| <b>Information Technology, Marketing and Organizational Factor<br/>in Corporate e-banking: A Qualitative Research .....</b>                       | <b>7</b>  |
| Daniela Pettinao                                                                                                                                  |           |
| <b>The Role of Customer Involvement in Library E-services .....</b>                                                                               | <b>15</b> |
| Ada Scupola and Hanne Westh Nicolajsen                                                                                                            |           |
| <b>Technology as a Tool of Transformation: e-Cities<br/>and the Rule of Law .....</b>                                                             | <b>23</b> |
| John M. Eger and Andrea Maggipinto                                                                                                                |           |
| <b>User Realities and the Future of e-government Services .....</b>                                                                               | <b>31</b> |
| Konstadinos Kutsikos and Gerasimos Kontos                                                                                                         |           |
| <b>The Use of Web Services for Inclusive Decision Process:<br/>Towards the Enhancement of e-Democracy .....</b>                                   | <b>39</b> |
| Francesca Cabiddu                                                                                                                                 |           |
| <b>The Challenges of e-government Evaluation .....</b>                                                                                            | <b>49</b> |
| Maddalena Sorrentino                                                                                                                              |           |
| <b>Integration of Different Organizations and Stakeholders<br/>in E-services Design and Implementation: the Case<br/>of the Spider Card .....</b> | <b>57</b> |
| Maria Chiara Di Guardo and Ione Zuccarello                                                                                                        |           |

|                                                                                                                                                                          |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| <b>B2G Electronic Invoicing as Enforced High Impact<br/>Service: Open Issues</b> .....                                                                                   | 65  |
| Pietro Luca Agostini and Raffaella Naggi                                                                                                                                 |     |
| <b>Network Outcome as Trigger for the Evolution of a Design<br/>Network: Coordination Processes Between Actors<br/>and Objects</b> .....                                 | 73  |
| Francesco Bolici and Francesco Virili                                                                                                                                    |     |
| <b>Governance and Organizational Aspects of an Experimental<br/>Groupware in the Italian Public Administration to Support<br/>Multi-Institutional Partnerships</b> ..... | 81  |
| Nunzio Casalino and Mauro Draoli                                                                                                                                         |     |
| <b>Business Process Modelling Within the Cycle of Continuous<br/>Improvement</b> .....                                                                                   | 91  |
| Linda Pacicco, Aurelio Ravarini, and Federico Pigni                                                                                                                      |     |
| <b>Information Extraction from Multimedia Documents<br/>for e-Government Applications</b> .....                                                                          | 101 |
| F. Amato, A. Mazzeo, V. Moscato, and A. Picariello                                                                                                                       |     |
| <b>Part II Governance, Metrics and Economics of IT</b>                                                                                                                   |     |
| <b>Operations Strategy of Small Software Firms Using Open<br/>Source Software</b> .....                                                                                  | 111 |
| Bernhard Glatt, Alberto Sillitti, and Giancarlo Succi                                                                                                                    |     |
| <b>IT Value in Public Administrations: A Model Proposal<br/>for e-Procurement</b> .....                                                                                  | 121 |
| Alessio Maria Braccini and Tommaso Federici                                                                                                                              |     |
| <b>Value Assessment of Enterprise Content Management<br/>Systems: A Process-Oriented Approach</b> .....                                                                  | 131 |
| J. vom Brocke, A. Simons, C. Sonnenberg, P.L. Agostini, and A. Zardini                                                                                                   |     |
| <b>A Maintenance Metric Model for Open Source Governance</b> .....                                                                                                       | 139 |
| Pasquale Ardimento, Giovanni Bruno, Danilo Caivano, and Marta Cimitile                                                                                                   |     |
| <b>Key Performance Indicators to Relate Knowledge<br/>Governance with Knowledge Process</b> .....                                                                        | 147 |
| P. Ardimento, M.T. Baldassarre, M. Cimitile, and G. Mastelloni                                                                                                           |     |

|                                                                                  |            |
|----------------------------------------------------------------------------------|------------|
| <b>Measuring Data Quality When Applying Data Swapping and Perturbation .....</b> | <b>157</b> |
| G. Canfora and C.A. Visaggio                                                     |            |

|                                                            |            |
|------------------------------------------------------------|------------|
| <b>Virtual Enterprise Transactions: A Cost Model .....</b> | <b>165</b> |
| A. D'Atri and A. Motro                                     |            |

### **Part III Information and Knowledge Management**

|                                                                                                      |            |
|------------------------------------------------------------------------------------------------------|------------|
| <b>Effective Storage of Semantic Web Data .....</b>                                                  | <b>177</b> |
| Roberto De Virgilio, Pierluigi Del Nostro, Giorgio Gianforme, Stefano Paolozzi, and Riccardo Torlone |            |

|                                                                           |            |
|---------------------------------------------------------------------------|------------|
| <b>A Reference Architecture for Semantic Knowledge Coordination .....</b> | <b>185</b> |
| S. Castano, A. Ferrara, and S. Montanelli                                 |            |

|                                                               |            |
|---------------------------------------------------------------|------------|
| <b>Service-Based Networked Collaboration .....</b>            | <b>195</b> |
| Devis Bianchini, Valeria De Antonellis, and Michele Melchiori |            |

|                                                                      |            |
|----------------------------------------------------------------------|------------|
| <b>How to Exploit Data Mining Without Becoming Aware of it .....</b> | <b>203</b> |
| N. Ciarabella, and A. Albano                                         |            |

|                                                                                                  |            |
|--------------------------------------------------------------------------------------------------|------------|
| <b>A Methodological Approach to Enable Cooperative Process Design Through Web Services .....</b> | <b>211</b> |
| D. Bianchini, C. Cappiello, V. De Antonellis, and B. Pernici                                     |            |

|                                                                                                             |            |
|-------------------------------------------------------------------------------------------------------------|------------|
| <b>Toward an Effective and Efficient Query Processing in the NeP4B Project .....</b>                        | <b>219</b> |
| C. Gennaro, F. Mandreoli, R. Martoglia, M. Mordacchini, S. Orlando, W. Penzo, S. Sassatelli, and P. Tiberio |            |

|                                                               |            |
|---------------------------------------------------------------|------------|
| <b>A Feature Ranking Component for GIS Architecture .....</b> | <b>227</b> |
| A. Gemelli, C. Diamantini, and D. Potena                      |            |

### **Part IV IS Development and Design Methodologies**

|                                                                      |            |
|----------------------------------------------------------------------|------------|
| <b>Managing Security Projects: Proposition of a Cost Model .....</b> | <b>237</b> |
| M. Sadok                                                             |            |

|                                                                                  |            |
|----------------------------------------------------------------------------------|------------|
| <b>Concern-Oriented and Ontology-Based Analysis of Information Systems .....</b> | <b>245</b> |
| C. Bogdan and L.D. Serbanati                                                     |            |

|                                                                                                    |            |
|----------------------------------------------------------------------------------------------------|------------|
| <b>The LUMIR Project: Developing the GP's Network Pilot Program in the Basilicata Region .....</b> | <b>255</b> |
| M. Contenti, G. Mercurio, F.L. Ricci, and L.D. Serbanati                                           |            |

## **Part V IS Theory and Research Methodologies**

|                                                                                                                  |            |
|------------------------------------------------------------------------------------------------------------------|------------|
| <b>Epistemology of Information Systems: Time for Something New? Positivism, Interpretivism, and Beyond .....</b> | <b>267</b> |
| F. Ricciardi                                                                                                     |            |

|                                                                                                                                           |            |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Don Ihde's 'Soft' Technological Determinism and Capabilities for IS Organizational Learning. The Case of a Competence Center .....</b> | <b>277</b> |
| Paolo Depaoli                                                                                                                             |            |

|                                                                                                                                                                                                         |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Simulations, Case Studies and Role Playing: From Cognitive Technologies to the Creation of New Learning Environments. The Experimental Proposals by Telematic University Guglielmo Marconi .....</b> | <b>285</b> |
| Guia Venturoli                                                                                                                                                                                          |            |

## **Part VI Legal and Ethical Aspects of IS**

|                                                                         |            |
|-------------------------------------------------------------------------|------------|
| <b>Ethics Among Peers: From Napster to Peppermint, and Beyond .....</b> | <b>297</b> |
| U. Pagallo                                                              |            |

|                                                                  |            |
|------------------------------------------------------------------|------------|
| <b>The Epistemology and Ethics of Internet Information .....</b> | <b>305</b> |
| E.H. Spence                                                      |            |

|                                                                                                                 |            |
|-----------------------------------------------------------------------------------------------------------------|------------|
| <b>Electronic Medical Diary (EMD): Ethical Analysis in a HTA Process .....</b>                                  | <b>313</b> |
| D. Sacchini, P. Refolo, A. Viridis, M. Casini, E. Traisci, V. Daloiso, M. Pennacchini, and I. Carrasco De Paula |            |

|                                                                                  |            |
|----------------------------------------------------------------------------------|------------|
| <b>Legal Issues in the Transition to Electronic Records in Health Care .....</b> | <b>321</b> |
| D. Walsh, K. Passerini, U. Varshney, and J. Fjermestad                           |            |

|                                                                                                             |            |
|-------------------------------------------------------------------------------------------------------------|------------|
| <b>Ethics in the Design and Use of "Best Practice" Incorporated in Enterprise Information Systems .....</b> | <b>327</b> |
| C.M. Bull and A.E. Adam                                                                                     |            |

|                                                                                                              |     |
|--------------------------------------------------------------------------------------------------------------|-----|
| <b>The Protection of Minors in ICT Networks: The Liability of the Internet Providers</b> .....               | 335 |
| G. Finocchiaro, E. Pelino, A. Ricci, and A. Spangaro                                                         |     |
| <b>Supporting Access to Online Legal Information: Semantic Strategies</b> .....                              | 343 |
| M.A. Biasiotti and G. Peruginelli                                                                            |     |
| <br><b>Part VII New Themes and Frontiers in IS Studies</b>                                                   |     |
| <b>Crisis! What Crisis?</b> .....                                                                            | 353 |
| P.M. Bednar and C. Welch                                                                                     |     |
| <b>Digital Forensic Investigations: A New Frontier for Informing Systems</b> .....                           | 361 |
| P.M. Bednar and V. Katos                                                                                     |     |
| <b>Heterogeneous Information Model Unification as a Pre-requisite to Resource Schema Mapping</b> .....       | 373 |
| L.A. Kalinichenko and S.A. Stupnikov                                                                         |     |
| <b>Agent Technologies in the Future Internet</b> .....                                                       | 381 |
| K. Fischer, I. Zinnikus, and E. León-Soto                                                                    |     |
| <b>Compliance Management is Becoming a Major Issue in IS Design</b> .....                                    | 391 |
| R. Bonazzi, L. Hussami, and Y. Pigneur                                                                       |     |
| <b>The MISE Project: A First Experience in Mediation Information System Engineering</b> .....                | 399 |
| F. Bénaben and H. Pingaud                                                                                    |     |
| <b>Business Process Driven Solutions for Innovative Enterprise Information Systems</b> .....                 | 407 |
| F. Taglino and M. Lezoche                                                                                    |     |
| <b>Semantics in the Age of the Data Deluge</b> .....                                                         | 415 |
| G. Vetere                                                                                                    |     |
| <br><b>Part VIII Organizational Change and Impact of IT</b>                                                  |     |
| <b>Managing IS Services with Something in Between Outsourcing and Insourcing: Buffer Organizations</b> ..... | 425 |
| J. Bulchand-Gidumal and L. Mola                                                                              |     |

|                                                                                                                                     |            |
|-------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>Do Business Intelligence Systems Enforce Organizational Coordination Mechanisms? .....</b>                                       | <b>433</b> |
| A. Ferrari and C. Rossignoli                                                                                                        |            |
| <b>Socio-Materiality as Lens to Study IT Driven Change .....</b>                                                                    | <b>441</b> |
| A. Carugati, C. Morelli, and A. Giangreco                                                                                           |            |
| <b>Changing Time Orientations in Organizations: A Role for ICT? .....</b>                                                           | <b>451</b> |
| D. Isari and M. De Marco                                                                                                            |            |
| <b>The Mediating Role of Technology-Based Training on Change Management Success. A Research in Progress .....</b>                   | <b>461</b> |
| M. C. Benfatto, C. Del Vecchio, and M.R. Di Renzo                                                                                   |            |
| <b>Measuring RFId Benefits in the Supply Chain .....</b>                                                                            | <b>469</b> |
| E. Ugazio and F. Pigni                                                                                                              |            |
| <b>Actual vs. Planned ERP System Implementation Costs in Slovak and Slovenian Companies .....</b>                                   | <b>477</b> |
| F. Sudzina, A. Pucihar, and G. Lenart                                                                                               |            |
| <br><b>Part IX Human Computer Interaction</b>                                                                                       |            |
| <b>Checking the Consistency, Completeness and Usability of Interactive Visual Applications by Means of SR-Action Grammars .....</b> | <b>487</b> |
| R. Cassino and M. Tucci                                                                                                             |            |
| <b>Mind the Map: The Role of Shared Awareness in Effective User-Centered Design .....</b>                                           | <b>495</b> |
| C. Calefato, R. Montanari, and F. Tesauri                                                                                           |            |
| <b>An Experience About User Involvement for Successful Design .....</b>                                                             | <b>503</b> |
| P. Buono and A.L. Simeone                                                                                                           |            |
| <b>Visualizing Geographic Data on Mobile Interfaces: The Strategic Use of Colors and Color Intensity as Information Clues .....</b> | <b>511</b> |
| L. Paolino, M. Sebillio, G. Tortora, and G. Vitiello                                                                                |            |
| <b>A Peripheral Notification Display for Multiple Alerts: Design Rationale .....</b>                                                | <b>521</b> |
| S. Di Paolo and L. Tarantino                                                                                                        |            |

|                                                                                                 |            |
|-------------------------------------------------------------------------------------------------|------------|
| <b>The On-TIME User Interface .....</b>                                                         | <b>529</b> |
| T. Catarci, R. Giuliano, M. Piva, A. Poggi, F. Terella, and E. Tracanna                         |            |
| <b>Designing Flexible User Interfaces .....</b>                                                 | <b>539</b> |
| Loredana Parasiliti Provenza and Antonio Piccinno                                               |            |
| <b>Interactions with Open Source Software: A Pilot Study<br/>on End Users' Perception .....</b> | <b>549</b> |
| Alessio Maria Braccini, Cecilia Silvestri, and Stefano Za                                       |            |
| <br><b>Part X Strategic Role of IS</b>                                                          |            |
| <b>The Strategic Role of IT: A Case Study of Two Swedish<br/>Retail Companies .....</b>         | <b>559</b> |
| L. Rusu and M. El Mekawy                                                                        |            |
| <b>Patterns of Technochange Management in ERP Multisite<br/>Implementations .....</b>           | <b>569</b> |
| A. Carugati, C. Gibson, and L. Mola                                                             |            |