

# Contents

## Service Exploration Theories and Processes

Decision-Making in Smart Service Systems: A Viable Systems Approach Contribution to Service Science Advances . . . . .	3
<i>Francesco Polese, Aurelio Tommasetti, Massimiliano Vesci, Luca Carrubbo, and Orlando Troisi</i>	
On a Qualitative Game Theoretic Approach of Teacher-Student Interaction in a Public Higher Education Service System . . . . .	15
<i>Virginia Ecaterina Oltean, Theodor Borangiu, and Monica Drăgoicea</i>	
Service-Dominant Strategic Sourcing: Value Creation Versus Cost Saving . . .	30
<i>Laleh Rafati and Geert Poels</i>	
New Service's Expectation Positioning by Applying Cumulative Prospect Theory. . . . .	45
<i>Soe-Tsyur Daphne Yuan and Hsi-Yun Wang</i>	
Enabling Service Business Models Through Service Processes . . . . .	60
<i>Nikhil Zope, Anand Kumar, and Doji Lokku</i>	

## Modelling Service Requirements and Management of Business Processes

Experience from a Modelling and Simulation Perspective in Smart Transport Information Service Design . . . . .	75
<i>Monica Drăgoicea, Denisa Constantinescu, and João Falcão e Cunha</i>	
Process Modeling as Key Technique for Embedding the Practices of Business Process Management in Organization . . . . .	89
<i>Elena Fleacă, Bogdan Fleacă, and Sanda Maiduc</i>	
Towards a Flexible Solution in Knowledge-Based Service Organizations: Capability as a Service . . . . .	100
<i>Hasan Koç, Kurt Sandkuhl, and Michael Fellmann</i>	
A Three-Dimensional Approach for a Quality-Based Alignment Between Requirements and Architecture . . . . .	112
<i>Carlos E. Salgado, Ricardo J. Machado, and Rita S.P. Maciel</i>	

**Value Co-creation Through Knowledge Management and User-Centric Services**

Framing Meaningful Experiences Toward a Service Science-Based Tourism Experience Design . . . . . 129  
*Jesús Alcoba, Susan Mostajo, Rowell Paras, Grace Cella Mejia, and Romano Angelico Ebron*

Personal Service Eco-Environment (PSE<sup>2</sup>): A User-Centric Services Computing Paradigm . . . . . 141  
*Zhongjie Wang, Dianhui Chu, and Xiaofei Xu*

Using User-Generated Content to Explore Hotel Service Quality Dimensions . . . . . 155  
*Vera L. Miguéis and Henriqueta Nóvoa*

How Service Innovation Contributes to Co-Create Value in Service Networks . . . . . 170  
*Maria Vincenza Ciasullo, Francesco Polese, Orlando Troisi, and Luca Carrubbo*

**Service Design Methodologies and Patterns**

Needmining: Towards Analytical Support for Service Design . . . . . 187  
*Niklas Kuehl*

An Efficient Procedure to Determine the Initial Basic Feasible Solution of Time Minimization Transportation Problem . . . . . 201  
*Aminur Rahman Khan, Adrian Vilcu, Md. Sharif Uddin, and Cristiana Istrate*

The Possible Evolution of the Co-operative Form in a Digitized World: An Effective Contribution to the Shared Governance of Digitization? . . . . . 213  
*Paolo Depaoli and Stefano Za*

A Service-Value Approach to Mobile Application Valuation . . . . . 221  
*Maurizio Cavallari and Roberto Moro Visconti*

**Service Innovation and Strategy**

The Assessment of Municipal Services: Environmental Efficiency of Buildings Construction. . . . . 237  
*Isabel M. Horta, Ana S. Camanho, Teresa G. Dias, and Samuel Niza*

“Agile Adoption” in IT Companies - Building a Change Capability by Qualitative Description of Agile Implementation in Different Companies . . . . . 251  
*Barbora Moravcová and Filip Legény*

Technology for Soccer Sport: The Human Side in the Technical Part . . . . . 263  
*Luisa Varriale and Domenico Tafuri*

Service Operations Decisions in Hybrid Organizations: Towards a Research  
 Agenda . . . . . 277  
*Liliana Ávila and Marlene Amorim*

Automated Business Process Management . . . . . 287  
*Carlos Mendes, Nuno Silva, Marcelo Silva, and Miguel Mira da Silva*

A Service-Oriented Living Lab for Continuous Performance Improvement  
 in SMEs . . . . . 299  
*Thang Le Dinh, Manh Chien Vu, Thuong-Cang Phan,  
 and Serge Théophile Nomo*

**IT-Based Service Engineering**

Digital Service Platform for Networked Enterprises Collaboration: A Case  
 Study of the NEMESYS Project . . . . . 313  
*Francesco Bellini, Fabrizio D'Ascenzo, Iana Dulaskaia,  
 and Marco Savastano*

How Can ITIL and Agile Project Management Coexist?: An Adaptation  
 of the ITIL V.3 Life Cycle in Order to Integrate SCRUM . . . . . 327  
*Bertrand Verlaine, Ivan Jureta, and Stéphane Faulkner*

SStream: An Infrastructure for Streaming Multimedia Content Efficiently  
 and Securely in a Heterogeneous Environment . . . . . 343  
*Claudiu Olteanu, Mihai Bucicoiu, and Marius Popa*

Integration of Hazard Management Services . . . . . 355  
*Anca Daniela Ionita, Cristina-Teodora Eftimie, Grace Lewis,  
 and Marin Litoiu*

**Servitization in Sustainable Manufacturing: Models and Information Technologies**

Service Oriented Mechanisms for Smart Resource Allocation in Private  
 Manufacturing Clouds . . . . . 367  
*Octavian Morariu, Theodor Borangiu, Cristina Morariu,  
 and Silviu Răileanu*

Modeling a Manager's Work as a Service Activity . . . . . 384  
*Yuval Cohen, Shai Rozenes, and Maurizio Faccio*

Servicizing as a Tool for Increasing the Sustainability of Product Life Cycles . . . . . 392  
*Adi Wolfson and Dorith Tavor*

Service Architecture for CSP Based Planning for Holonic Manufacturing Execution Systems . . . . . 403  
*Gabriela Varvara*

**Product-Service Systems**

Designing Product Service Systems in the Context of Social Internet of Things . . . . . 419  
*Pazanee Carpanen, Lia Patricio, and Bernardo Ribeiro*

An Event-Driven Service-Oriented Architecture for Performing Actions on Business Organization Items . . . . . 432  
*Vasilica-Georgiana Puiu and Adrian Alexandrescu*

Improving After-Sales Services Using Mobile Agents in a Service-Oriented Architecture . . . . . 444  
*Adrian Alexandrescu, Cristian Nicolae Buțincu, and Mitică Craus*

Designing and Configuring the Value Creation Network for Servitization. . . . . 457  
*Barbara Resta, Paolo Gaiardelli, Sergio Cavalieri, and Stefano Dotti*

**Business Software Services and Data-Driven Service Design**

Generic Data Synchronization Algorithm in Distributed Systems . . . . . 473  
*Dragoș Dumitrescu and Mihai Carabaș*

Data-driven Approach to New Service Concept Design . . . . . 485  
*Min-Jun Kim, Chie-Hyeon Lim, Chang-Ho Lee, Kwang-Jae Kim, Seunghwan Choi, and Yongsung Park*

Queuing-Based Processing Platform for Service Delivery in Big Data Environments . . . . . 497  
*Florin Stancu, Dan Popa, Loredana-Marsilia Groza, and Florin Pop*

A Service-Oriented Framework for Big Data-Driven Knowledge Management Systems . . . . . 509  
*Thang Le Dinh, Thuong-Cang Phan, Trung Bui, and Manh Chien Vu*

Towards a Platform for Prototyping IoT Health Monitoring Services . . . . . 522  
*Mădălina Zamfir, Vladimir Florian, Alexandru Stanciu, Gabriel Neagu, Ștefan Preda, and Gheorghe Militaru*

**Web Service Design and Service-Oriented Agents**

A Freight Brokering System Architecture Based on Web Services and Agents. . . . . 537  
*Florin Leon and Costin Bădică*

Automated Identification and Prioritization of Business Risks in e-service Networks . . . . . 547  
*Dan Ionita, Roel J. Wieringa, and Jaap Gordijn*

The Sharing Economy Revolution and Peer-to-peer Online Platforms. The Case of Airbnb. . . . . 561  
*Linda Meleo, Alberto Romolini, and Marco De Marco*

**IoT and Mobile Apps. for Public Transport Service Management**

Dynamic Service Capacity and Demand Matching in a Holonic Public Transport System . . . . . 573  
*Theodor Borangiu, Silviu Răileanu, Iulia Voinescu, and Octavian Morariu*

Specifying Modernization into Service-Oriented SaaS System in a Case of Public Transport Document Generator . . . . . 590  
*Muhammad Ghufon Mahfudhi and Teresa Galvão Dias*

Improving the Service Level of Bus Transportation Systems: Evaluation and Optimization of Bus Schedules’ Robustness . . . . . 604  
*Joana Hora, Teresa Galvão Dias, and Ana Camanho*

Mobile Communication Solutions for the Services in the Internet of Things . . . 619  
*Sorin Zamfir, Titus Balan, Florin Sandu, and Cosmin Costache*

**E-Health Services and Medical Data Interoperability**

Improving the Introduction of Electronic Health Record: Lessons from European and North American Countries . . . . . 635  
*Sabrina Bonomi, Nabil Georges Badr, Alessandro Zardini, and Cecilia Rossignoli*

Health Care Co-production: Co-creation of Value in Flexible Boundary Spheres . . . . . 649  
*Maddalena Sorrentino, Marco De Marco, and Cecilia Rossignoli*

Work-Related Stress in Health Care Services: A Quantitative Study in Italy. . . . 660  
*Luisa Varriale, Paola Briganti, Gloria Guillot, and Maria Ferrara*

New Technologies for Sustainable Health Care . . . . .	674
<i>Mauro Romanelli</i>	
Interoperability of Medical Data Through e-Health Service in Romania . . . . .	683
<i>Elena Madalina Rac-Albu, Vlad Ciobanu, Marius Rac-Albu, and Nirvana Popescu</i>	
Implementing the Patient Clinical Observation Sheet as a Service in Hospitals . . . . .	693
<i>Florin Anton and Silvia Anton</i>	
<b>Service and IT-Oriented Learning and Education Systems</b>	
Innovation for Sustainable Development by Educating the Local Community. The Case of an Italian Project of Food Waste Prevention. . . . .	705
<i>Sabrina Bonomi, Sara Moggi, and Francesca Ricciardi</i>	
The Assessment of Performance of Educational Services: The Case of Portuguese Secondary Schools . . . . .	717
<i>Maria C.A.S. Portela and Ana S. Camanho</i>	
Examining Cloud Computing Adoption Intention in Higher Education: Exploratory Study . . . . .	732
<i>Gheorghe Militaru, Anca Alexandra Purcărea, Olivia Doina Negoită, and Andrei Niculescu</i>	
Service Science Textbooks: Opportunities of an Interdisciplinary Approach. . . . .	742
<i>Johannes Kunze von Bischoffshausen, Peter Hottum, and Ronny Schüritz</i>	
Research and Education in Service Science Management and Engineering: The Case of the Italian Service Management Forum . . . . .	750
<i>Sergio Cavalieri, Mario Rapaccini, Giuditta Pezzotta, and Nicola Saccani</i>	
<b>Author Index</b> . . . . .	761



<http://www.springer.com/978-3-319-32688-7>

Exploring Services Science

7th International Conference, IESS 2016, Bucharest,

Romania, May 25-27, 2016, Proceedings

Borangiu, T.; Dragoicea, M.; Nóvoa, H. (Eds.)

2016, XVI, 762 p. 195 illus., Softcover

ISBN: 978-3-319-32688-7