

# Contents

## Big and Smart Data

- On Enriching User-Centered Data Integration Schemas in Service Lakes . . . . 3  
*Hiba Alili, Khalid Belhajjame, Daniela Grigori, Rim Drira,  
and Henda Hajjami Ben Ghezala*
- Design Principles for Digital Occupational Health Systems. . . . . 16  
*Maedeh Yassaee*
- Estimating the Quality of Articles in Russian Wikipedia Using the  
Logical-Linguistic Model of Fact Extraction . . . . . 28  
*Nina Khairova, Włodzimierz Lewoniewski, and Krzysztof Węcel*

## Business and Enterprise Modelling

- Automatic Discovery of Object-Centric Behavioral Constraint Models. . . . . 43  
*Guangming Li, Renata Medeiros de Carvalho,  
and Wil M.P. van der Aalst*
- Semi-automated Model-Based Generation of Enterprise  
Architecture Deliverables . . . . . 59  
*Juan Pablo Sáenz, Steve Cárdenas, Mario Sánchez,  
and Jorge Villalobos*
- Towards Automated Process Model Annotation with Activity Taxonomies:  
Use Cases and State of the Art . . . . . 74  
*Michael Fellmann*
- Multi-process Reporting and Analysis for Change Management  
and Performance Reviews . . . . . 91  
*Mario Cortes-Cornax and Adrian Mos*
- On Avoiding Erroneous Synchronization in BPMN Processes. . . . . 106  
*Flavio Corradini, Fabrizio Fornari, Chiara Muzi, Andrea Polini,  
Barbara Re, and Francesco Tiezzi*
- IFTT: Software Application Interfaces Regression Testing . . . . . 120  
*Michał Kowalczewski, Michał Krawczyk, Elżbieta Lewańska,  
and Witold Abramowicz*

**ICT Project Management**

Influence of Task Interdependence on Teamwork Quality and Project Performance . . . . . 135  
*Kondwani F. Kuthyola, Julie Yu-Chih Liu, and Gary Klein*

On the Use of ISO/IEC Standards to Address Data Quality Aspects in Big Data Analytics Cloud Services . . . . . 149  
*Jonathan Roy, Hebatalla Terfas, and Witold Suryn*

Potentials of Digitization in the Tourism Industry – Empirical Results from German Experts . . . . . 165  
*Ralf-Christian Härting, Christopher Reichstein, Nina Härtle, and Jürgen Stiefl*

**Process Management**

How to Make Process Model Matching Work Better? An Analysis of Current Similarity Measures . . . . . 181  
*Fakhra Jabeen, Henrik Leopold, and Hajo A. Reijers*

Semi-automatic Development of Modelling Techniques with Computational Linguistics Methods – A Procedure Model and Its Application . . . . . 194  
*Thorsten Schoormann, Dennis Behrens, Ulrich Heid, and Ralf Knackstedt*

Obstacle-Aware Resource Allocation in Business Processes . . . . . 207  
*Farah Bellaaj, Mohamed Sellami, Sami Bhiri, and Zakaria Maamar*

Ontology-Based Data Access for Extracting Event Logs from Legacy Data: The onprom Tool and Methodology . . . . . 220  
*Diego Calvanese, Tahir Emre Kalayci, Marco Montali, and Stefano Tinella*

Subgroup Discovery in Process Mining . . . . . 237  
*Mohammadreza Fani Sani, Wil van der Aalst, Alfredo Bolt, and Javier García-Algarra*

Business Process Comparison: A Methodology and Case Study . . . . . 253  
*Alifah Syamsiyah, Alfredo Bolt, Long Cheng, Bart F.A. Hompes, R.P. Jagadeesh Chandra Bose, Boudewijn F. van Dongen, and Wil M.P. van der Aalst*

**Smart Infrastructures**

A Smart Energy Platform for the Internet of Things – Motivation, Challenges, and Solution Proposal. . . . . 271  
*Robert Wehlitz, Dan Häberlein, Theo Zschörnig, and Bogdan Franczyk*

Towards a Taxonomy of Constraints in Demand-Side-Management-Methods for a Residential Context . . . . . 283  
*Dennis Behrens, Thorsten Schoormann, and Ralf Knackstedt*

Decomposition of Tasks in Business Process Outsourcing . . . . . 296  
*Kurt Sandkuhl, Alexander Smirnov, and Nikolay Shilov*

**Applications**

Analysis Method for Conceptual Context Modeling Applied in Production Environments . . . . . 313  
*Eva Hoos, Matthias Wieland, and Bernhard Mitschang*

Evaluating Business Domain-Specific e-Collaboration: The Impact of Integrated e-Collaboration on the Coordination of Component Calculations in Product Costing . . . . . 326  
*Diana Lück and Christian Leyh*

Improving Pavement Anomaly Detection Using Backward Feature Elimination . . . . . 341  
*Jun-Lin Lin, Zhi-Qiang Peng, and Robert K. Lai*

**Author Index** . . . . . 351



<http://www.springer.com/978-3-319-59335-7>

Business Information Systems  
20th International Conference, BIS 2017, Poznan,  
Poland, June 28-30, 2017, Proceedings  
Abramowicz, W. (Ed.)  
2017, XIII, 352 p. 114 illus., Softcover  
ISBN: 978-3-319-59335-7