Record Nr. UNINA9910484664103321 Advances in Conceptual Modeling: ER 2016 Workshops, AHA, MoBiD, Titolo MORE-BI, MReBA, QMMQ, SCME, and WM2SP, Gifu, Japan, November 14–17, 2016, Proceedings / / edited by Sebastian Link, Juan C. Trujillo Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2016 **ISBN** 3-319-47717-X Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (XXIII, 251 p. 78 illus.) Collana Information Systems and Applications, incl. Internet/Web, and HCI;; 9975 005.74 Disciplina Soggetti Computer simulation Database management Software engineering Application software Business information services Computer Modelling **Database Management** Software Engineering Computer and Information Systems Applications IT in Business Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Intro -- Preface -- ER 2016 Workshop Organization -- Abstracts of Keynotes -- Managing and Exploring GPS Trajectories -- A Capability-Driven Development Approach for Requirements and Business Process Modeling -- Grounding for Ontological Architecture Quality: Metaphysical Choices -- Contents -- Keynotes -- A Capability-Driven Development Approach for Requirements and Business Process Modeling -- Abstract -- 1 Introduction -- 2 Why a CDD-Based Approach? -- 3 The Methodological Approach -- 4 Conclusions --References -- Grounding for Ontological Architecture Quality: Metaphysical Choices -- 1 Introduction -- 2 Information Grounding --

3 First-Third Person Divergence -- 4 Information Grounding

Architectural Framework -- 5 Summary -- Acknowledgements --References -- Conceptual Modelling for Ambient Assistance and Healthy Ageing -- Part2 -- A Model-Driven Engineering Approach for the Well-Being of Ageing People -- 1 Introduction -- 2 Geras Framework -- 3 Running Example -- 4 Related Work -- 5 Conclusion and Future Work -- References -- The Cultural Background and Support for Smart Web Information Systems -- 1 The HOME Approach to Systems -- 1.1 The Janus Head for Web Information System Development -- 1.2 Towards Smart Systems Supporting Users with Their Life Cases -- 1.3 Adaptation of Dynamic or Generic Systems --1.4 The Paper -- 2 Cultures of System Users Matter -- 2.1 National and Regional Cultures of Users -- 2.2 Cultural Varieties and Their Way of System Usage -- 2.3 Cultural Stereotypes for Dynamic or Generic Systems -- 2.4 User Stereotypes -- 3 Support for Cultures -- 3.1 The Six Dimensions of Web Information Systems -- 3.2 Stereotypes as Generic Models -- 3.3 Deploying the Culture Stereotypes for Story Space Development -- 3.4 Deploying the Culture Stereotypes for Content Development. 3.5 Deploying the Culture Stereotypes for Functionality Development --

3.6 Deploying the Culture Stereotypes for Presentation Development --4 Conclusion -- References -- Modelling and Management of Big Data -- Walmart Online Grocery Personalization: Behavioral Insights and Basket Recommendations -- 1 Introduction -- 2 Related Work -- 3 Online Grocery Shopping Behaviors -- 4 Basket Recommendations --4.1 Basket Recommendation Algorithm -- 4.2 Cobought Models -- 5 Performance -- 5.1 Cobought Models -- 5.2 Basket Recommendation Algorithm: Offline Tests -- 5.3 Basket Recommendation Algorithm: Online Tests -- 6 Conclusion -- References -- Searching for Optimal Configurations Within Large-Scale Models: A Cloud Computing Domain -- 1 Introduction -- 2 Context and Case Study -- 2.1 Case Study: Deploying a JEE Application in the Cloud -- 3 A Metamodel for Dimensional Variability Modeling -- 4 Processes for Searching for Optimal Configurations -- 5 Application to the Cloud Computing Case Study -- 6 Related Work -- 7 Discussion -- References -- A Link-Density-Based Algorithm for Finding Communities in Social Networks -- 1 Introduction -- 2 Communities in Social Networks -- 3 Related Work on Label Propagation -- 4 Link-Density-Based Preferential Attachment -- 5 Fuzzy Label Propagation for Detecting Overlapping Communities -- 6 Experimental Evaluation -- 7 Discussion -- 8 Conclusion and Future Work -- References -- Modelling and Reasoning for Business Intelligence -- Accepted Papers -- MORE-BI Organizing Committee -- MORE-BI Steering Committee -- MORE-BI 2015 Program Committee -- Searching for Patterns in Sequential Data: Functionality and Performance Assessment of Commercial and Open-Source Systems -- 1 Introduction -- 2 Related Work -- 3 Experimental Setup -- 4 Experimental Evaluation -- 4.1 n-Elements Pattern Query -- 4.2 At Least n-Elements Pattern Query.

4.3 Variable Selectivities of Pattern Queries -- 5 Conclusions and Future Work -- References -- Analysis of Natural and Technogenic Safety of the Krasnoyarsk Region Based on Data Mining Techniques -- Abstract -- 1 Introduction -- 2 Data Description -- 3 Principal Component Analysis -- 3.1 Contribution of the Data Attributes to the Principal Components -- 3.2 Data Distribution on the Principal Components -- 4 Cluster Analysis -- 4.1 Two-Cluster Structure -- 4.2 Three-Cluster Structure -- 5 Conclusion -- References -- From Design to Visualization of Spatial OLAP Applications: A First Prototyping Methodology -- Abstract -- 1 Introduction -- 2 Related Work -- 3 Motivation -- 4 Framework SOLAP Visualization -- 5 Prototyping

Methodology -- 5.1 Background -- 5.2 SOLAP Prototyping Methodology -- 6 Implementation -- 7 Conclusion --Acknowledgement -- References -- Conceptual Modeling in Requirements and Business Analysis -- Part5 -- Workshop Organizers -- Steering Committee -- Table of Contents -- Full Papers -- Bridging User Story Sets with the Use Case Model -- 1 Introduction -- 2 Related Work and Positioning -- 3 Unified-Model of User Stories' Descriptive Concepts -- 4 Running Example -- 5 User Stories Integration Through a Use-Case Diagram -- 5.1 The Role -- 5.2 Hard-Goal, Task and Capability -- 5.3 The Soft-Goal -- 6 Automating the Approach and Round-Tripping Between Views -- 7 Impact on Produced Software: Future Work -- 8 Validity and Threats to the Validity: Future Work -- 9 Conclusion -- References -- A Study on Tangible Participative Enterprise Modelling -- 1 Introduction -- 2 Background -- 3 Research Design -- 3.1 Object of Study (OoS) -- 3.2 Treatment Design -- 3.3 Measurement Design -- 4 Results -- 5 Conclusions and Future Work --References -- Bridging the Requirements Engineering and Business Analysis Toward a Unified Knowledge Framework. Abstract -- 1 Introduction -- 2 Related Works -- 3 Approach -- 4 Perspective-Based Review of BOKs and Literature -- 4.1 Summary of Review -- 4.2 RE (Requirements Engineering) -- 4.3 BA (Business Analysis) -- 4.4 BPM (Business Process Management) -- 4.5 Business Architecture and BAM (Business Architecture Management) -- 5 A Unified Knowledge Framework -- 6 Discussions -- 7 Conclusions --References -- Quality of Models and Models of Quality -- An Exploratory Analysis on the Comprehension of 3D and 4D Ontology-Driven Conceptual Models -- Abstract -- 1 Introduction -- 2 Design of Empirical Comparison -- 3 Results -- 4 Discussion -- 5 Conclusion --Acknowledgements -- References -- Data Quality Problems When Integrating Genomic Information -- 1 Introduction -- 2 Data Quality in Genomics - State of the Art -- 3 Materials and Methods -- 3.1 Data Quality Dimensions -- 3.2 Application to Genomic Databases -- 4 Results -- 4.1 Accuracy -- 4.2 Completeness -- 4.3 Reliability -- 4.4 Consistency -- 4.5 Uniqueness -- 4.6 Currency -- 5 Conclusions --References -- The Design of a Core Value Ontology Using Ontology Patterns -- Abstract -- 1 Introduction -- 2 Methodology -- 3 Building the Core Value Ontology -- 4 Healthcare Use Case Illustration -- 5 Conclusion and Discussion -- References -- Conceptual Modelling Education -- YASQLT - Yet Another SQL Tutor -- Abstract -- 1 Introduction -- 2 Background -- 2.1 The Organization -- 2.2 The Course -- 2.3 The Project Assignment Related to SQL -- 2.4 Problems with Manual Assessment -- 2.5 Project Initiation -- 3 Main Ideas Behind YASQLT -- 4 Overview of Technical Architecture -- 5 Evaluation of Results -- 6 Conclusion -- Acknowledgements -- References --Human Factors in the Adoption of Model-Driven Engineering: An Educator's Perspective -- 1 Introduction -- 2 Related Work -- 3 Introductory MDE Course: Version 1. 4 Introductory MDE Course: Version 2 -- 5 Recommendations and Lessons Learned -- 6 Conclusions -- References -- Learning Pros and Cons of Model-Driven Development in a Practical Teaching Experience -- Abstract -- 1 Introduction -- 2 Related Works -- 3 Teaching Methodology -- 3.1 Design of the Practical Experience -- 4 Results --5 Discussion in the Classroom -- 6 Conclusions -- References --Models and Modelling on Security and Privacy -- Towards Provable Security of Dynamic Source Routing Protocol and Its Applications -- 1 Introduction -- 1.1 Backgrounds -- 1.2 Contributions -- 1.3 Paper Organization -- 2 Related Works -- 3 Definition of Network Configurations -- 3.1 Definition of Ad Hoc Networks -- 3.2 TopologyBased Routing Protocol -- 3.3 Route Discovery -- 3.4 Route
Maintenance -- 4 Dynamic Source Routing Protocol -- 4.1 Routing
Table -- 4.2 Route Discovery -- 4.3 Route Maintenance -- 5
Application to Secure Routing Protocols -- 5.1 Overview of Secure
Routing Protocols -- 5.2 Instantiations of Secure Routing Protocols -- 6
Conclusion -- References -- Tool Demonstrations -- A Tool for
Analyzing Variability Based on Functional Requirements and Testing
Artifacts -- Abstract -- 1 Introduction: Research Background and
Application Context -- 2 Key Technologies and Technical Challenges -3 Novelty and Relations to Pre-existing Work -- 4 Demonstration -- 5
Conclusions -- Appendix: Screenshots from the Supporting Tool -References -- Author Index.

## Sommario/riassunto

This book constitutes the refereed proceedings of seven workshops and a symposium, held at the 35th International Conference on Conceptual Modeling, ER 2016, in Gifu, Japan. The 19 revised full and 3 keynote papers were carefully reviewed and selected out of 52 submissions to the following events: Conceptual Modeling for Ambient Assistance and Healthy Ageing, AHA 2016; Modeling and Management of Big Data, MoBiD 2016; Modeling and Reasoning for Business Intelligence, MORE-BI 2016; Conceptual Modeling in Requirements and Business Analysis, MREBA 2016; Quality of Models and Models of Quality, QMMQ 2016; and the Symposium on Conceptual Modeling Education, SCME 2016; and Models and Modeling on Security and Privacy, WM2SP 2016.