

1. Record Nr.	UNINA9910855366003321
Autore	Araújo João
Titolo	Research Challenges in Information Science : 18th International Conference, RCIS 2024, Guimarães, Portugal, May 14-17, 2024, Proceedings, Part I
Pubbl/distr/stampa	Cham : , : Springer International Publishing AG, , 2024 ©2024
ISBN	3-031-59465-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (441 pages)
Collana	Lecture Notes in Business Information Processing Series ; ; v.513
Altri autori (Persone)	de la VaraJose Luis SantosMaribel Yasmina AssarSaïd
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Organization -- Abstracts of Keynote Talks -- Information Science Research with Large Language Models: Between Science and Fiction -- The Power of Information Systems Shaping the Future of the Automotive Industry -- BPM in the Era of AI and Generative AI: Opportunities and Challenges -- Contents - Part I -- Contents - Part II -- Data and Information Management -- Unified Models and Framework for Querying Distributed Data Across Polystores -- 1 Introduction -- 2 Motivating Example -- 3 Our Proposed Framework -- 3.1 Problem Statement -- 3.2 An Overview of the Framework -- 4 Experiments -- 4.1 Datasets -- 4.2 Developed Framework Modules -- 4.3 Experimental Setup and Protocol -- 4.4 Evaluation of Our Framework Adaptability -- 4.5 Evaluation of Our Framework with Data Volume -- 5 Related Work -- 6 Conclusion -- References -- Enabling Interdisciplinary Research in Open Science: Open Science Data Network -- 1 Introduction -- 2 Related Works -- 3 Open Science and Information Exchange -- 3.1 Formal Notation -- 3.2 Interoperability and Information Exchange -- 3.3 Open Science Information Exchange Quantitative Assessment -- 4 Proposition: The Open Science Data Network -- 4.1 Information Exchange and Interoperability in OSDN -- 4.2 Scalability - Robustness of OSDN -- 5

Experiments -- 5.1 OSDN Network POC -- 5.2 Use Case - An Agronomic Research Project -- 6 Conclusion -- References -- TD-CRETS: Top-Down Chunk Retrieval Based on Entity, Section, and Topic Selection -- 1 Introduction -- 2 Related Work -- 3 Our Proposal -- 3.1 Contexts Preparation -- 3.2 Text Chunk Retrieval -- 4 Results and Discussion -- 4.1 Experimental Setup -- 4.2 Datasets -- 4.3 Metrics -- 4.4 Experiments -- 5 Conclusion -- References -- Conceptual Modelling and Ontologies -- An Ontology-Driven Solution for Capturing Spatial and Temporal Dynamics in Smart Agriculture. 1 Introduction -- 2 State of the Art -- 3 AGROTS Ontology -- 4 Creating the Knowledge Base -- 5 Ontology Evaluation -- 5.1 Validation Step -- 5.2 Verification Step -- 6 System Architecture -- 7 Conclusions and Future Improvements -- References -- A Knowledge Graph-Based Decision Support System for Resilient Supply Chain Networks -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 4 Challenge of Designing Resilient Supply Chain Networks -- 5 Knowledge Graph Schema for Resilient Supply Chain Networks -- 6 Implementation of the Knowledge Graph Schema for RASSA -- 6.1 Instances -- 6.2 Automatic Reasoning for Manufacturing Risk -- 6.3 Automatic Reasoning for Supply Risk -- 6.4 Automatic Reasoning for Total Risk Propagated Per Supply Chain Node -- 6.5 Automatic Reasoning for Value at Risk -- 7 Findings and Discussion -- 8 Conclusion and Outlook -- References -- A Conceptual Model of Digital Immune System to Increase the Resilience of Technology Ecosystems -- 1 Introduction -- 2 Approach -- 3 Background and Requirements Towards Digital Immune System -- 3.1 ISO 22301:2019 -- 3.2 ISO/IEC 27001:2022 -- 3.3 The NIST Cybersecurity Framework -- 3.4 European Union Initiatives -- 4 Challenges of IT Resilience, Business Continuity and Managing Techniques -- 4.1 Challenges of IT Resilience and Business Continuity -- 4.2 The Techniques for Monitoring and Managing the Resilience -- 5 Framework and Evaluation -- 5.1 Framework for the Evaluation of Digital Immune System -- 5.2 Case Study -- 6 Discussion and Conclusion -- References -- Requirements and Architecture -- Dealing with Emotional Requirements for Software Ecosystems: Findings and Lessons Learned in the PHArA-ON Project -- 1 Introduction -- 2 The PHArA-ON Project -- 3 A Process for Engineering Emotional Requirements. 4 Applying the Process for Engineering the Emotional Requirements for the PHArA-ON Ecosystem -- 5 Findings and Lessons Learned -- 6 Related Work -- 7 Conclusions and Future Work -- References -- A Tertiary Study on Quality in Use Evaluation of Smart Environment Applications -- 1 Introduction -- 2 Background -- 3 The Tertiary Study -- 3.1 Planning: Research Protocol -- 3.2 Execution -- 4 Discussion of the Results -- 4.1 RQ1. What Are the Most Common Evaluation Approaches for QinU? -- 4.2 RQ2: What Are the Most Evaluated Types of Systems? -- 4.3 RQ3: Which Quality Characteristics Were the Most Evaluated? -- 5 Threats to Validity -- 6 Final Remarks -- References -- A Reference Architecture for Dry Port Digital Twins: Preliminary Assessment Using ArchiMate -- 1 Introduction -- 2 Methodology -- 3 Literature Review -- 3.1 Digital Twins in Ports -- 3.2 Foundations of Enterprise Architecture -- 3.3 How EA Shapes the Current Advances of Smart Spaces -- 4 Dry Port Digital Twin Architecture -- 4.1 Key Applications -- 4.2 Requirements Identification -- 4.3 Preliminary TO-BE Architecture -- 4.4 Summative Evaluation of the Dry Port Digital Twin Architecture -- 5 Conclusion -- References -- Business Process Management -- Enhancing the Accuracy of Predictors of Activity Sequences of Business Processes -- 1 Introduction -- 2 Related Work

-- 3 Daemon Action Approach -- 4 Experiment Design -- 4.1 Questions -- 4.2 Datasets -- 4.3 Experiment Setup -- 5 Results -- 6 Discussion -- 7 Conclusion and Future Work -- References -- Which Legal Requirements are Relevant to a Business Process? Comparing AI-Driven Methods as Expert Aid -- 1 Motivation -- 2 Approach -- 2.1 Analyzed Aspects -- 2.2 Method Analysis -- 3 Implementation -- 3.1 Expert Analysis -- 3.2 SOTA NLP LIR -- 3.3 GPT-4 -- 4 Evaluation -- 4.1 Results -- 4.2 Comparison -- 5 Discussion -- 5.1 Implications. 5.2 Limitations -- 6 Related Work -- 7 Conclusion -- References -- Conversational Systems for AI-Augmented Business Process Management -- 1 Introduction -- 2 Background on Conversational Systems -- 3 Search Protocol -- 4 Descriptive Process Analytics -- 5 Predictive Process Analytics -- 6 Prescriptive Process Optimization -- 7 Augmented Process Execution -- 8 Related Work -- 9 Threats to Validity and Concluding Remarks -- References -- Data and Process Science -- TimeFlows: Visualizing Process Chronologies from Vast Collections of Heterogeneous Information Objects -- 1 Introduction -- 2 Literature Review -- 3 Research Method -- 3.1 Interviewee Groups -- 3.2 Semi-structured Interviews -- 4 Constructing Process Chronologies -- 4.1 Situationalized Process Chronologies -- 4.2 Identified Relations Used in Document Analysis -- 5 Visualizing TimeFlows -- 5.1 TimeFlows to Visualize Process Chronologies -- 5.2 An Illustrative Example -- 6 Further Research: Challenges -- 7 Conclusion -- References -- Imposing Rules in Process Discovery: An Inductive Mining Approach -- 1 Introduction -- 2 Related Work -- 3 Motivating Examples -- 4 Preliminaries -- 5 Inductive Miner with Rules (IMr) -- 5.1 The Set of Rules -- 5.2 Candidate Cuts Pruning -- 6 Evaluation -- 6.1 Real-Life Event Logs -- 6.2 Case Study UWV -- 7 Open Challenges -- 8 Conclusion -- References -- An Approach for Discovering Data-Driven Object Lifecycle Processes -- 1 Introduction -- 2 Fundamentals -- 3 Proposed Approach -- 4 Object Lifecycle Process Discovery -- 4.1 Discovering Object Behavior on State Level -- 4.2 Discovering Object Behavior on Step Level -- 4.3 Algorithm Selection -- 4.4 Combining State and Step Level -- 5 Evaluation -- 5.1 Scenario 1: Human Resource Management -- 5.2 Scenario 2: E-Learning (Phoodle) -- 5.3 Scenario 3: SAP Procure-to-Pay -- 5.4 Footprint Comparison. 5.5 Threats to Validity -- 6 Related Work -- 7 Summary and Outlook -- References -- Security -- US4Usec: A User Story Model for Usable Security -- 1 Introduction -- 2 Research Method -- 3 Identifying Best Practices for Constructing the US4Usec Model via an SLR -- 4 Deriving Key Requirements for Constructing the US4Usec Model -- 5 Constructing the US4Usec Model -- 6 Evaluating the US4Usec Model -- 7 Threats to Validity -- 8 Conclusion and Future Work -- References -- Do Cialdini's Persuasion Principles Still Influence Trust and Risk-Taking When Social Engineering is Knowingly Possible? -- 1 Introduction -- 2 Methodology -- 2.1 Recruitment and Data Collection -- 2.2 Measures -- 2.3 Data Analysis -- 3 Results -- 3.1 Descriptive Statistics -- 3.2 Impact of Cialdini's Persuasion Principles on App Installation and Trust -- 3.3 Security Attitude Vs. Risk Taking and Trust Under Cialdini's Principles -- 4 Discussion -- 5 Conclusion -- References -- Classifying Healthcare and Social Organizations in Cybersecurity Profiles -- 1 Introduction -- 2 Background -- 2.1 Definitions -- 2.2 Prior Studies -- 2.3 Cybersecurity Measures -- 3 Methodology -- 3.1 Data Collection -- 3.2 Classification Approach for RQ1 -- 3.3 ANOVA Approach for RQ2 -- 4 Results -- 4.1 Classification of Healthcare and Social Organizations (RQ1) -- 4.2 Differences Between the Cybersecurity Profiles (RQ2) -- 5 Discussion -- 5.1 Scientific Contributions -- 5.2 Practical Implications -- 5.3 Research Limitation and Future Research

Directions -- 6 Conclusion -- References -- Sustainability -- A
Reference Architecture for Digital Product Passports at Batch Level to
Support Manufacturing Supply Chains -- 1 Introduction -- 2 Towards
Sustainable Manufacturing Supply Chains -- 3 Component-Based
Digital Product Passport -- 3.1 Architectural Analysis of Manufacturing
Supply Chain.
3.2 DPP Information Model and Requirements.
