1. Record Nr. UNISA996464528303316

Titolo	The semantic web : 18th International Conference, ESWC 2021, Virtual event, June 6-10, 2021, proceedings / / Ruben Verborgh [and seven others] editors
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-77385-X
Descrizione fisica	1 online resource (743 pages)
Collana	Lecture Notes in Computer Science ; ; 12731
Disciplina	025.04
Soggetti	Semantic Web
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Ontologies and Reasoning -- Streaming Partitioning of RDF Graphs for Datalog Reasoning -- 1 Introduction -- 2 Preliminaries -- 3 Related Work -- 4 Motivation and Our Contribution -- 5 The HDRF3 Algorithm -- 5.1 High Degree Replicated First Streaming Partitioning -- 5.2 Adapting the Algorithm to RDF Graphs -- 6 The 2PS3 Algorithm -- 6.1 Two-Phase Streaming -- 6.2 The Algorithm -- 7 Evaluation -- 7.1 Datasets -- 7.2 Test Protocol -- 7.3 Test Results and Discussion -- 8 Conclusion and Future Work -- A Proofs for Sect.5 -- B Proofs for Sect.6 -- References -- Parallelised ABox Reasoning and Query Answering with Expressive Description Logics -- 1 Introduction -- 2 Description Logics and Reasoning Preliminaries -- 3 Caching Individual Derivations -- 4 Query Answering Support -- 5 Implementation and Experiments -- 6 Conclusions -- References -- Analysing Large Inconsistent Knowledge Graphs Using Anti-patterns -- 1 Introduction -- 2 Related Work -- 3 Background -- 4 Defining and Detecting Anti-patterns -- 4.1 Anti-patterns -- 4.2 Approach -- 5 Experiments -- 5.1 Completeness Evaluation -- 5.2 Scalability Evaluation -- 6 KG Inconsistency Analysis -- 6.1 What is the Most Common Size of Anti-patterns? -- 6.2 What are the Most Common Types of Anti-patterns Found in These KGs? -- 6.3 What is the Benefit in Practice of Generalising Justifications into Anti-patterns? -- 7 Conclusion -- References -- Processing SPARQL

Property Path Queries Online with Web Preemption -- 1 Introduction -- 2 Related Works -- 3 Web Preemption and Property Paths -- 4 The Partial Transitive Closure Approach -- 4.1 The PTC Operator -- 4.2 pPTC: A Preemptable PTC Iterator -- 4.3 The PTC-Client -- 5 Experimental Study -- 5.1 Experimental Setup -- 5.2 Experimental Results -- 6 Conclusion -- References.
Ontology-Based Map Data Quality Assurance -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 3.1 Map Data -- 3.2 RDF Graphs -- 3.3 Rules -- 4 Ensuring Map Data Quality -- 4.1 Semantic Enrichment -- 4.2 Violation Detection -- 4.3 Violation Handling -- 5 Evaluation -- 5.1 Violation Detection -- 5.2 Violation Handling -- 6 Conclusion and Future Work -- References -- Knowledge Graphs (Understanding, Creating, and Exploiting) -- Applying Grammar-Based Compression to RDF -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 4 Approaches -- 4.1 Indexing -- 4.2 gRePair Algorithm -- 4.3 k2 Trees -- 4.4 Serialization -- 4.5 Decompression -- 5 Evaluation -- 5.1 Experimental Setup -- 5.2 Datasets -- 5.3 Compression Algorithms -- 5.4 Results -- 6 Conclusion -- References -- HDT Bitmap Triple Indices for Efficient RDF Data Exploration -- 1 Introduction -- 2 Preliminaries -- 2.1 Faceted Navigation -- 2.2 RDF Compression -- 3 Faceted Navigation Indices Based on HDT BT -- 4 Implementation and Evaluation -- 4.1 Data Sets and Index Generation -- 4.2 Performance Benchmark Setup -- 4.3 Experimental Results -- 5 Conclusion -- References -- Programming and Debugging with Semantically Lifted States -- 1 Introduction -- 2 Motivating Example -- 3 Core Language SMOL -- 3.1 Programming Model -- 3.2 Semantic State Access -- 4 Internal Semantic State Access -- 5 Computational Semantic State Access -- 6 Implementation -- 7 Related Work -- 8 Conclusion -- References -- Do Embeddings Actually Capture Knowledge Graph Semantics? -- 1 Introduction -- 2 Related Work -- 3 Analysis of the Semantics of Embeddings -- 3.1 Categorization of Entities -- 3.2 Datasets -- 3.3 Knowledge Graph Embeddings -- 4 Experiments -- 4.1 Non-Embedding Baseline -- 4.2 Evaluation Metrics -- 4.3 Classification Results -- 4.4 Clustering Results -- 5 Discussion -- 6 Conclusion -- References.
A Semantic Framework to Support AI System Accountability and Audit -- 1 Introduction -- 2 Related Work -- 3 Ontology Development Methodology -- 4 Knowledge Capture Requirements -- 5 Modelling System Accountability -- 5.1 The SAO Ontology -- 5.2 The RAInS Ontology -- 5.3 Design Rationale and Alignment to Other Ontologies -- 6 Evaluation -- 7 Conclusions and Future Work -- References -- Semantic Data Management, Querying and Distributed Data -- Comparison Table Generation from Knowledge Bases -- 1 Introduction -- 2 Related Work -- 3 Problem Statement -- 4 Contextual Reference Level of a Feature -- 4.1 Definition -- 4.2 Quality Criteria Analysis -- 5 Versus: A Method for Extracting Interesting Features -- 5.1 Overview -- 5.2 Context Selection -- 5.3 Efficient Evaluation of the Contextual Reference Level -- 6 Experiments -- 6.1 Comparison Feature Benchmark (CFB) -- 6.2 Q1: Quality of the Extracted Features -- 6.3 Q2: Efficiency of the Method -- 7 Conclusion -- References -- Incremental Schema Discovery at Scale for RDF Data -- 1 Introduction -- 2 Problem Statement -- 3 General Approach -- 4 Data Distribution Principle for Neighborhood Computation -- 4.1 Distributing New Entities over Chunks -- 4.2 Assigning Initial Entities to Chunks -- 5 Computing the Neighborhood of the New Entities -- 6 Generating the New Schema -- 6.1 Updating Clusters in Each Chunk -- 6.2 Generating the Final Clusters -- 7 Experimental Evaluations -- 8 Related Work -- 9 Conclusion -- References -- HTTP Extensions for the Management of

Highly Dynamic Data Resources -- 1 Introduction -- 2 Related Work -- 3 Optimizing the Memento Protocol -- 3.1 Changing the Datetime Format -- 3.2 Considering Resource Creation -- 3.3 Range Requests for TimeMaps -- 3.4 Ensuring Compatibility with Legacy Systems -- 4 Evaluation -- 4.1 Experiment 1 - Inserting Resource Revisions. 4.2 Experiment 2 - Accessing TimeMaps -- 5 Conclusion -- References -- Expressibility of OWL Axioms with Patterns -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Simple Axioms -- 3.2 OWLAx Axiom Patterns -- 3.3 Axiom Pattern Expressibility -- 3.4 Normalization -- 4 Evaluation -- 4.1 Overall Expressibility -- 4.2 Source Expressibility -- 4.3 Profile Expressibility -- 5 Discussion -- 5.1 Future Work -- 6 Conclusion -- References -- Data Dynamics, Quality, and Trust -- Refining Transitive and Pseudo-Transitive Relations at Web Scale -- 1 Introduction -- 2 Related Work -- 2.1 Knowledge Graph Refinement Methods -- 2.2 General MWFAS Algorithms -- 3 Preliminaries -- 4 Pseudo-Transitive Relations in the LOD Cloud -- 4.1 Dataset -- 4.2 Strongly Connected Components Analysis -- 5 Algorithms -- 5.1 Algorithms for Cycle Resolving -- 5.2 Weights -- 6 Experiments and Evaluation -- 6.1 Implementation and Parameter Settings -- 6.2 Gold Standard -- 6.3 Efficiency Evaluation -- 6.4 Accuracy Evaluation -- 7 Discussion and Future Work -- 7.1 Summary -- 7.2 Discussion -- 7.3 Limitations and Future Work -- References -- Data Reliability and Trustworthiness Through Digital Transmission Contracts -- 1 Introduction -- 2 Design Goals -- 3 Background and Related Work -- 4 ReShare: Reliable Data Sharing Through DTCs -- 4.1 Generation Mechanism -- 4.2 Verification Mechanism -- 4.3 Realization -- 5 Evaluation -- 5.1 Quantitative Evaluation -- 5.2 Qualitative Evaluation -- 6 Conclusion -- References -- Matching, Integration, and Fusion -- Neural Knowledge Base Repairs -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 4 Baseline Approach -- 5 Approach -- 5.1 Bass-RL -- 5.2 Bass -- 6 Experiments -- 6.1 Dataset -- 6.2 Systems -- 6.3 Results -- 6.4 Ablation Study -- 7 Conclusion -- References.
Natural Language Inference over Tables: Enabling Explainable Data Exploration on Data Lakes -- 1 Introduction -- 2 Related Work -- 3 Relational Natural Language Inference (RNLI) -- 3.1 Semantic Evidence Types -- 3.2 Intensional Entailment Computation -- 3.3 Extensional Entailment Computation -- 3.4 Entailment Composition -- 3.5 Transformer-Based RNLI -- 3.6 Intensional Attribute Representations -- 3.7 Supervised NLI Labelling -- 4 Evaluation -- 4.1 Inference Performance -- 4.2 Comparative Analysis -- 4.3 Inference Explanations -- 4.4 Ablation Study -- 5 Conclusions -- References -- NLP and Information Retrieval -- Grounding Dialogue Systems via Knowledge Graph Aware Decoding with Pre-trained Transformers -- 1 Introduction -- 2 Model Description -- 2.1 Query Encoding -- 2.2 Entity Detection -- 2.3 Input Query Encoder -- 2.4 Intermediate Representation -- 2.5 Decoding Process -- 2.6 Sub-Graph Encoding -- 3 Experimental Setup -- 3.1 Datasets -- 3.2 Evaluation Metrics -- 3.3 Model Settings -- 4 Results -- 5 Discussion -- 5.1 Human Evaluation -- 5.2 Ablation Study -- 5.3 Qualitative Analysis -- 5.4 Error Analysis -- 6 Related Work -- 7 Conclusion and Future Work -- References -- WEB-SOBA: Word Embeddings-Based Semi-automatic Ontology Building for Aspect-Based Sentiment Classification -- 1 Introduction -- 2 Related Works -- 2.1 Hybrid Methods -- 2.2 Ontology Building -- 2.3 Word Embeddings -- 3 Data -- 4 Methodology -- 4.1 Word Embeddings -- 4.2 Ontology Framework -- 4.3 Term Selection -- 4.4 Sentiment Term Clustering -- 4.5 Aspect Term Hierarchical Clustering -- 5 Evaluation -- 5.1 Evaluation Procedure -- 5.2 Ontology Building

Results -- 5.3 Evaluation Results -- 6 Conclusion -- References -- Context Transformer with Stacked Pointer Networks for Conversational Question Answering over Knowledge Graphs -- 1 Introduction -- 2 Related Work -- 3 Carton.
3.1 Grammar.