1. Record Nr. UNINA9910254851303321 Autore Simari Gerardo I Titolo Ontology-Based Data Access Leveraging Subjective Reports / / by Gerardo I. Simari, Cristian Molinaro, Maria Vanina Martinez, Thomas Lukasiewicz, Livia Predoiu Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-65229-X ISBN Edizione [1st ed. 2017.] 1 online resource (VIII, 77 p. 32 illus., 14 illus. in color.) Descrizione fisica Collana SpringerBriefs in Computer Science, , 2191-5768 Disciplina 006.332 Soggetti Computers Electrical engineering Information Systems and Communication Service Communications Engineering, Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. 1 Ontology-Based Data Access with Datalog+/- -- 2 Models for Nota di contenuto Representing User Preferences -- 3 Subjective Data: Model and Query Answering -- 4 Related Research Lines. This SpringerBrief reviews the knowledge engineering problem of Sommario/riassunto engineering objectivity in top-k query answering; essentially, answers must be computed taking into account the user's preferences and a collection of (subjective) reports provided by other users. Most assume each report can be seen as a set of scores for a list of features, its author's preferences among the features, as well as other information is discussed in this brief. These pieces of information for every report are then combined, along with the querying user's preferences and their trust in each report, to rank the query results. Everyday examples of this setup are the online reviews that can be found in sites like Amazon, Trip Advisor, and Yelp, among many others. Throughout this knowledge engineering effort the authors adopt the Datalog+/- family

of ontology languages as the underlying knowledge representation and reasoning formalism, and investigate several alternative ways in which rankings can be derived, along with algorithms for top-k (atomic) query answering under these rankings. This SpringerBrief also

investigate assumptions under which our algorithms run in polynomial time in the data complexity. Since this SpringerBrief contains a gentle introduction to the main building blocks (OBDA, Datalog+/-, and reasoning with preferences), it should be of value to students, researchers, and practitioners who are interested in the general problem of incorporating user preferences into related formalisms and tools. Practitioners also interested in using Ontology-based Data Access to leverage information contained in reviews of products and services for a better customer experience will be interested in this brief and researchers working in the areas of Ontological Languages, Semantic Web, Data Provenance, and Reasoning with Preferences.