Special Issue

Knowledge Representation and Ontology-Based Data Management

Message from the Guest Editors

Knowledge representation and reasoning (KRR) is a fundamental branch of artificial intelligence that is instrumental in developing innovative solutions in computer science, leading to tangible benefits from both a theoretical and a practical perspective. In particular, KRR techniques are successfully exploited in data management applications. In this context, the ontology-based data management (OBDM) paradigm is a notable example of such usage, where a logic-based ontology provides a rich conceptual description of the domain of the data, linked through declarative mapping assertions to existing data sources. The distinguishing feature of this paradigm is that system users specify their information needs directly on the high-level domain representation provided by the ontology, without having to know the technical structure of the underlying data sources.   In this Special Issue, we aim to collect innovative research papers on KRR and its application, with a particular focus on the OBDM paradigm. We invite original work on both the theoretical and foundational aspects of KRR and OBDM, as well as papers reporting examples of their real-world applications.

Guest Editors

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Deadline for manuscript submissions

closed (15 November 2025)

MDPI

About the Journal

Message from the Editor-in-Chief

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