Integrating Knowledge Representation and Reasoning in Machine Learning

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Message from the Guest Editors

This Special Issue collects research work combining the strength of machine learning and knowledge-based systems. Because of their complementary strengths and weaknesses, there is an ongoing demand to integrate knowledge engineering and machine learning for complex scenarios.

Knowledge engineering and knowledge-based systems, which make expert knowledge explicit and accessible, are often based on logic and can explain their conclusions. These systems typically require a higher initial effort during development than systems that use machine learning approaches. Machine learning allows building applications where knowledge cannot be made explicit. Symbolic machine learning and ontology learning approaches are promising for reducing the effort of knowledge engineering.

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Message from the Editor-in-Chief

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