

# Profiles of Knowledge Representation and Reasoning for Legal Information Retrieval and Compliance Checking

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## Abstract

Machine readable, actionable rules represent a precondition for developing advanced information services in the legal domain endowed with automatic reasoning facilities. In this talk we present an approach for legal knowledge representation and reasoning within a Semantic Web framework. It is based on the distinction between provisions and norms and it is able to provide reasoning facilities (like Hohfeldian reasoning) for advanced legal information retrieval and legal compliance checking for deontic norms. It is also shown how the approach can handle norm defeasibility. Such methodology is implemented with decidable fragments of OWL 2, while legal reasoning is implemented through available decidable reasoners.

## Keywords

Semantic Web, Decidable Legal, Reasoning, Legal Information Retrieval, Legal Compliance

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