Brushing-up Description Logics to Cope with Imperfect Data

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Abstract

For logic-based applications where data is not curated, but generated automatically, noisy or erroneous data can clearly be an obstacle for reasoning under classical First-order semantics. In recent years several approaches have been investigated for reasoning in Description Logics that deal with this problem – often by changing the underlying semantics. In this talk I will discuss different reasoning problems using non-standard semantics, such as defeasible or approximative semantics, that can preserve useful logical reasoning even in the presence of imperfect data.