Reasoning with Contexts in Description Logics

Szymon Klarman

The contextuality of knowledge is a well-known epistemological phenomenon, of a notorious reputation in the field of symbolic AI. In short, it is the problem of the general inability of determining the meaning of a piece of information, or verifying its validity, without assuming the context in which this information has been stated, and thereby, in which it should be interpreted. As it turns out, this phenomenon lies also at the heart of numerous knowledge representation problems encountered in the practice and theory of the Semantic Web, and as such it is the core subject of the presented thesis. It is addressed here from a logician's viewpoint, or more specifically, from the perspective of the Description Logic-based knowledge representation paradigm.

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