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一种XML的模型论语义

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Abstract

The problem that XML formally governs syntax only but not semantics has been recognized as a serious barrier for XML-Based data integration and the extension of current Web to the semantic Web. To address this problem, the XML Semantics Definition Language (XSDL) is proposed to explicitly express the XML author's intended meaning and a model-theoretic semantics for XML. In this way, the XML becomes a sub-language of RDF (resource description framework) in expressivity and the XML data can be semantics-preserving transformed to the RDF data. The semantic validity and entailment problem of XML documents are further provided and they are reduced to the knowledge base unsatisfiability problem in description logic language ?????? ??

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摘要

XML只能表示语法而不能表达形式化语义, 这个问题导致XML数据集成以及扩展当前Web到语义Web非常困难. 为了解决该问题, 提出了一种XML语义定义语言XSDL, 让XML文档作者清晰地表达XML文档中的语义信息, 并提出了一种XML的模型论语义. 这样, XML成为一种表达能力比资源描述框架(resource description framework, 简称RDF)稍弱的Web知识表示语言, 且XML数据可以保留语义转换到RDF数据. 此外, 还提出了XML文档

的语义有效性和XML文档的推理问题, 并把它们规约到描述逻辑语言????????的知识库不可满足性问题.

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