

The Maturing Semantic Web: Lessons in Web-Scale Knowledge Representation

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Abstract. This paper is an extended abstract of the talk given at ICCS'09. Rules have long been considered as an essential component of knowledge-based systems. We focus here on conceptual graph rules and on the semantically equivalent knowledge constructs in logic and databases, namely rules with existential variables and tuple-generating dependencies. The aim of this presentation is to synthesize main decidability, complexity and algorithmic results obtained on this kind of rules. We emphasize the fact that the graph vision of rules has led to new results.