By Mareike Schoop, Aldo de Moor,
and Jan L.G. Dietz

The Pragmatic Web: A Manifesto

The Web has been extremely successful in enabling information sharing among a seemingly unlimited number of people worldwide. The ever-growing amount of documents on the Web, however, results in information overload and often makes it difficult to discover the information that is relevant. The goal of the Semantic Web is to develop the basis for intelligent applications that enable more efficient information use by not just providing a set of linked documents but a collection of knowledge repositories with meaningful content and additional logic structure. Data and rules for reasoning about data and information are systematically described, for example by using the Resource Description Framework (RDF), after which they can be more easily shared and used by people as well as by distributed software agents. The main components for implementing the Semantic Web are ontologies. Ontologies represent concepts and relations between the concepts; these can be hierarchical relations, whole-part relations, or any other meaningful type of linkage between the concepts.

Will it work this way? According to Rob McCool, cofounder of the large-scale RDF project TAP, the answer is negative. "Because it's a complex format and requires users to sacrifice expressivity and pay enormous costs in translation and maintenance, the Semantic Web will never achieve its widespread public adoption." The most problematic assumption is that context-free facts and logical rules would be sufficient [1]. Internet researcher Munindar Singh, well-known for his pioneering work on agent communication, writes: "If there is one lesson to be learned from the long history of databases, it is that it is practically impossible to describe data well enough for it to be used in arbitrary applications" [2]. These warnings echo the insights put forward by Winograd and Flores in 1986 when they criticized the notion of