

Talk Announcement

Title

Social Semantic Web Knowledge Representation and Inferencing in WellnessRules

Speaker

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Date, Time

Thursday, 6th October 2011, 14:30-15:30

Place

CSD-AUTH Meeting Room (Αίθουσα Συνεδριάσεων, ημιόροφος)

Abstract

Knowledge on the Semantic Web is mainly represented as ontologies (e.g., classes defined via subclassing or properties) and rules (e.g., implications between properties). Data, mostly as facts (e.g., classifications or properties applied to instances). This allows inferences that make implicit facts explicit. Knowledge (and data) can be distributed across the Web using an Enterprise Service Bus such as Mule. Inferences can then often be kept local to Semantic Web knowledge modules, improving both inference efficiency and knowledge maintainability. We describe the Social Semantic Web case study WellnessRules, where ontology-structured rules (including facts) about wellness opportunities are created by participants in rule languages such as Prolog and N3, and translated for interchange within a wellness community using RuleML/XML. The wellness rules are centered around participants, as profiles, encoding knowledge about their activities, nutrition, etc. conditional on the season, the time-of-day, the weather, etc. This distributed knowledge base extends fact-only FOAF profiles with a vocabulary and rules about wellness group networking. The communication between participants is organized through the Mule-based Rule Responder system, permitting translator-based reuse of wellness profiles and their distributed querying across rule engines.

More Info: <http://ruleml.org/WellnessRules>

Bio

Dr. Harold Boley is adjunct professor at the Faculty of Computer Science, University of New Brunswick, and leader of the Semantic Web Laboratory at the National Research Council Canada, Institute for Information Technology. His specification of Web rules through RuleML has found broad uptake. It has been combined with OWL to SWRL and become the main input to the W3C Recommendation RIF. His work on Rule Responder has enabled deployed distributed applications for the Social Semantic Web.