Announcing the birth of the W3C RDF Stream Processing Community Group

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Abstract

Several initiatives have been proposed in the literature for the production, transmission and continuous querying of RDF data streams. In general, each of them proposes its own model for the representation of RDF streams, its own query language and evaluation semantics, and several implementations of systems that are able to handle RDF data streams, with their own advantages and limitations. The mission of the W3C RDF Stream Processing Community Group (RSP) is to define a common model for producing, transmitting and continuously querying RDF Streams. This includes extensions to both RDF and SPARQL for representing streaming data, as well as their semantics. Moreover this work envisions an ecosystem of streaming and static RDF data sources whose data can be combined through standard models, languages and protocols. Complementary to related work in the area of databases, this Community Group looks at the dynamic properties of graph-based data, i.e., graphs that are produced over time and which may change their shape and data over time. In this talk we will summarize the motivation for the creation of the group, the group's main objectives and the expected outputs.

Short CV. Oscar Corcho is an Associate Professor at Universidad Politécnica de Madrid, and belongs to the Ontology Engineering Group. His research activities are focused on Semantic e-Science and Real World Internet. In this last area, he has worked on the development of the SPARQL-Stream language and morph-streams, an RDF streaming engine that transforms SPARQL-Stream queries into native continuous queries in a number of Data Stream Management Systems, Complex Event Processors and Sensor Network middleware, using the W3C R2RML recommendation. He has also worked in the more general areas of Semantic Web and Linked Data, and Ontological Engineering. Previously, he worked as a Marie Curie research fellow at the University of Manchester, and was a research manager at iSOCO. Oscar has published several books, from which "Ontological Engineering" can be highlighted as it is being used as a reference book in a good number of university lectures worldwide, and more than 100 papers in journals, conferences and workshops. He usually participates in the organisation or in the programme committees of relevant international conferences and workshops.