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Avalanche - Putting the spirit of the web back into semantic web querying

Basca, C ; Bernstein, A

Abstract: Traditionally Semantic Web applications either included a web crawler or relied on external services to gain access to the Web of Data. Recent efforts, have enabled applications to query the entire Semantic Web for up-to-date results. Such approaches are based on either centralized indexing of semantically annotated meta data or link traversal and URI dereferencing as in the case of Linked Open Data. They pose a number of limiting assumptions, thus breaking the openness principle of the Web. In this demo we present a novel technique called Avalanche, designed to allow a data surfer to query the Semantic Web transparently. The technique makes no prior assumptions about data distribution. Specifically, Avalanche can perform “live” queries over the Web of Data. First, it gets on-line statistical information about the data distribution, as well as bandwidth availability. Then, it plans and executes the query in a distributed manner trying to quickly provide first answers.

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