Approach to leverage Websites to APIs through Semantics

by

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Abstract

This manuscript describes a methodology designed and implemented to realise the recommendation of vocabularies based on the content of a given website. The goal of the proposed approach is to generate vocabularies by reusing existing schemas. The automatic recommendation helps to leverage websites to self-described web entities in the Web of Data; understandable by both humans and machines. In this direction, the implemented approach is wrapped within a broader methodology of turning a website in a machine understandable node by using technologies that have been developed in the scope of the Semantic Web vision. Transforming a website to a machine-understandable entity is the first step required by the websites side in order to narrow the gap with web agents and enable the structured content consumption without the need of implementing an Application Programming Interface (API) that would provide read-write functionality. The motivation of the thesis stems from the fact that the data provided via an API is already presented on the corresponding website in most of the cases.

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