Semantic Acceleration Helping Realize the Semantic Web Vision or "The Practical Web"

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Abstract. The Semantic Web envisions a future where applications (computer programs) can make sense and therefore more productive use of all the information on the web by assigning common "meaning" to the millions of terms and phrases used in billions of documents. AI and knowledge representation must rise to the occasion and work with decentralized representations, imprecision and incompleteness. Standard web-based representations are an essential enabler and we have made good progress in their design. But we still rely on humans to assign semantics and here there is a big leap of faith: The World Wide Web has grown at startling rates because humans are prolific at producing enormous volumes of unstructured information, that is, information without explicit semantics; on the other hand navigating this mass of information has proven to be both possible and profitable to the point that there is a $6 B search advertising industry. It's is not practical to expect the same will automatically happen for semantically enriched content. And yet we need semantics to better leverage the huge value on the web.

The Practical Web is about confronting this challenge. Its about realizing that we will need to automate the assignment of semantics to unstructured content to ultimately realize the vision of the Semantic Web. If well done the results will be synergistic with the motors of web expansion: user value and commercial value.