



Revisiting the semantic web

The semantic web has been around for a long time and, even though we don't see it used a lot the uses of semantic web technologies are important for the web.

Let's start by defining the term so we have a common understanding.

The Semantic Web is a vision about an extension of the existing World Wide Web, which provides software programs with machine-interpretable metadata of the published information and data. In other words, we add further data descriptors to otherwise existing content and data on the Web. As a result, computers are able to make meaningful interpretations similar to the way humans process information to achieve their goals.

From: [What Is the Semantic Web?](#)

The semantic web has it's own set of tools and technologies. We'll try to group them by function and link to specifications or resources where possible.

- **Linked Data:** To make the Web of Data a reality from the web as we know it, it is important to have the huge amount of data on the Web available in a standard format, reachable and manageable by Semantic Web tools. Furthermore, not only does the Semantic Web need access to data, but relationships among data should be made available, too, to create a Web of Data (as opposed to a sheer collection of datasets). This collection of interrelated datasets on the Web can also be referred to as Linked Data (from [What is Linked Data?](#)).
- **Vocabularies:** On the Semantic Web, vocabularies define the concepts and relationships (or "terms") used to describe and represent an area of concern. Vocabularies classify the terms that a particular application can use, characterize possible relationships, and define possible constraints on using those terms (from [What is a Vocabulary?](#)).

Links and resources

- Semantic web and web 3.0
 - [The Dark Side of the Semantic Web](#)
 - [Embracing “Web 3.0”](#)
 - [Web 3.0: The Third Generation Web is Coming](#)
- RDF
 - http://en.wikipedia.org/wiki/Resource_Description_Framework
 - <https://www.w3.org/TR/2014/NOTE-rdf11-primer-20140624/>
 - <https://www.w3.org/TR/2014/REC-rdf11-concepts-20140225/>
- Web Ontology Language
 - https://en.wikipedia.org/wiki/Web_Ontology_Language
 - <https://www.w3.org/TR/owl2-overview/>
- SPARQL
 - [SPARQL](#) — Wikipedia
 - [SPARQL 1.1](#) — W3C
 - <https://ruben.verborgh.org/blog/2014/08/22/writing-a-sparql-parser-in-javascript/>
 - [SPARQL.js](#)
- Apache Jena
 - [Main Site](#)>
 - [Apache Jena Fuseki](#)
 - [Apache Jena - Examples](#)