

### [Semantic Web](#) [1]

Submitted by superadmin on Tue, 2012-04-24 20:37

Semantics (from Greek *sēmantikós*) is the study of meaning. It typically focuses on the relation between signifiers, such as words, phrases, signs and symbols, and what they stand for. (Source: <http://en.wikipedia.org/wiki/Semantics> [2])

Semantic Web was coined by Tim Berners-Lee the inventor of WWW, HTTP, URLs, HTML and director of the World Wide Web Consortium (W3C). The Semantic Web is an extension of the World Wide Web through the embedding of additional semantic metadata, using semantic data modeling techniques such as Resource Description Framework (RDF) and OWL Web Ontology Language (OWL). Semantic Web:

- Utilizes common formats of data and combines them together from different sources
- Provides capabilities to record how data are related to real world objects
- Allows humans or machines to start searching one database and move on to an unending set of databases
- Databases are not connected via wires, but by the same concepts.

#### **Semantic Web Example - Purchasing a new computer**

Search criteria are: 17-inch screen, 4 GB of RAM, bonus software and games, lowest available price, new, free shipping or shipping cost less than \$10

With Syntactic Web all you can do is search through different web pages and compare the conditions listed above, or use pages that compare dealers with available prices

With a Semantic Web Agent:

- User enters preferences listed above into computerized agent
- Agent will initiate a complex search through invisible metadata only visible to computers.
- Agent will display the best option, let you place an order, open your credit card payments, and mark the date of arrival

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#### **Links:**

[1] <http://commons.esipfed.org/node/379>

[2] <http://en.wikipedia.org/wiki/Semantics>