

# Chapter 1

## The Semantic Web Vision

### 1.1 Introduction

#### 1.1.1 Motivation for the Semantic Web

The general vision of a “semantic web” can be summarized in a single phrase: *to make the web more accessible to computers*. The current web is a web of text and pictures. Such media are very useful for people, but computers play a very limited role on the current web: they index keywords, and they ship information from servers to clients, but that is all. All the intelligent work (selecting, combining, aggregating, etc.) has to be done by the human reader. What if we could make the web richer for machines, so that it would be full of machine readable, machine “understandable” *data*? Such a web would facilitate many things that are impossible on the current web: *Search* would be no longer limited to simply looking for keywords, but could become more semantic, which would include looking for synonyms, being aware of homonyms, and taking into account context and purpose of the search query. Websites could become more *personalized* if personal browsing agents were able to understand the contents of a web page and tailor it to personal interest profiles. *Linking* could become more