

study these areas in more depth.

## **8.1 Principles**

The study of the Semantic Web is not only a study in applications or technologies; it also provides a set of general principles that are useful in designing systems even when they do not use Semantic Web approaches. We revisit them again here:

### **8.1.1 Provide a Path from Lightweight to Heavyweight Technology**

Developers and users need simple entry points into technology but also the ability to add more complexity as their needs grow. This notion of a transition path has been successfully applied in the Semantic Web. For example, one can start off with a simple data model in RDF and transition to the richer and more powerful language of OWL. Even in OWL one has a range of choices, from simple rule versions that enable fast inference to the complex descriptions of OWL2 Full.

### **8.1.2 Standards Save Time**

The web and likewise the Semantic Web are facilitated by standards. These standards mean that consumers of information do not have to worry about adapting to every new producer of information. Likewise, producers know that they are giving consumers what they want. There is no need to reinvent syntaxes or models. In the Semantic Web, standards make possible the reuse of information. If I want information about Amsterdam in my application, I no longer have to collect it myself but can build my application on top of all the information available in Wikipedia (in its RDF representation, DBPedia). This ability to reuse saves time in the development and integration of applications. The Semantic Web community is continuing to learn the benefits of standards. Increasingly, there is a move to not only standardize formats and technologies