and OWL give publishers of information the possibility to create a minimal lowerbound of facts that readers must believe about published data. Additionally, OWL gives information publishers the possibility to forbid readers of information to believe certain things about the published data (at least as long as everybody intends to stay consistent with the published ontology).

Together, performing such inferences over these logics amounts to imposing both a lower bound and an upper bound on the intended semantics of the published data. By increasingly refining the ontologies, these lower and upper bounds can be moved arbitrarily close together, thereby pinning down ever more precisely the intended semantics of the data, to the extent required by the use cases at hand.

1.1.5 The Web Architecture of the Semantic Web

A key aspect of the traditional web is the fact that its content is distributed, both in location and in ownership: web pages that link to each other often live on different web servers, and these servers are in different physical locations and owned by different parties. A crucial contributor to the growth of the web is the fact that "anybody can say anything about anything,"[4] or more precisely: anybody can refer to anybody's web page without having to negotiate first about permissions or inquire about the right address or identifier to use. A similar mechanism is at work in the Semantic Web (see figure 1.2): a first party can publish a dataset on the web (left side of the diagram), a second party can independently publish a vocabulary of terms (right side of the diagram), and a third party may decide to annotate the object of the first party with a term published by the second party, without asking for permission from either of them, and in fact without either of these two having to even know about it. It is this decoupling that is the essence of the weblike nature of the Semantic Web.

[4] http://www.w3.org/DesignIssues/RDFnot.html.