

# INTERDATANET: A WEB OF DATA FOUNDATION FOR THE SEMANTIC WEB VISION

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## ABSTRACT

The semantic evolution of the Web appears to be technically feasible but still not yet within our grasp. Web Science is concerned with providing hypotheses to explain this gap as well as with defining innovative paths to explore.

From a technical point of view one crucial issue for the takeoff of the Semantic Web has been identified in the problem of data exposure. This issue is strictly intertwined with the concrete need of **addressable open and shared ontological concepts** as well as with their **grounding in physical data resources**.

So far, some researchers have started to argue that properly facing such problems would first require an intermediary step from the current Web of Documents towards a Web of Data. In the Web of Data documents are broken down into simpler information units to be addressed with sufficient granularity as to allow their effective processing, integration and, ultimately, interoperability.

In this context, InterDataNet (IDN) is a project within the Web of Data which can improve the Semantic Web.

The IDN project aims to define an architectural solution to data interoperability through a layered middleware architecture that grounds the Web of Data. IDN sustains global addressability of concepts and resources as well as basic collaborative oriented services for distributed and heterogeneous semantic data management.

IDN infrastructural solution can boost Tim Berners Lee's Semantic Web vision by providing a way of achieving the collaborative creation of shared information (Web of Data) and conceptualization (Semantic Web).

## KEYWORDS

Data Interoperability, Web of Data, Semantic Web, addressability, collaboration