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## Ontology-based Semantic Data Integration

An ontology based approach to semi-automatic real  
time data intergration and query from multiple  
heterogeneous sources



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This book embraces several aspects of Data Integration, focusing on semantic heterogeneity. A first step toward solving the problem of semantic heterogeneity is to formally specify the meaning of the terminology used in the integration system and to use that definition to access the integrated information. Ontologies are the most promising technology to achieve this aim. Real Time data translation is obtained through a mapping which contains the necessary instructions about the localisation of the information, the assembling directives and how the final data is presented. Therefore, the quality of mapping reflects accuracy and reliability of the data integration system. This book provides several contributions to research in data integration systems: starting from the architectural point of view, we define a system based on several ontologies that are used to describe the meta-data involved in the different integration steps. A novel formalisation of mapping language, able to deal efficiently with different data semantics is then presented, along with an innovative approach to automatically generate the mapping schema.

- [On the Inhalation of the Vapor of Ether in Surgical Operations : Containing a Description of the Various Stages of Etherization \(1847\)](#)
- [On the Pulse](#)
- [Only the World](#)
- [On Your Mark](#)
- [Online-Marketing Fur Die Erfolgreiche Arztpraxis : Website, Seo, Social Media, Werberecht](#)