### Metadata Management System

#### Summary / Zusammenfassung
Companies use Data Warehouses not only for strategic decisions based on analysis of big amounts of historical data, but also for operational purposes of not just-in-time business processes. Helsana Versicherungen AG is the biggest Swiss insurance company and is developing a new leading edge Data Warehouse to be able to flexibly deliver enterprise wide information to all of its departments. The metadata management system offers information about what data are in the Data Warehouse, like relational data models, their sources and technical metadata like load information. Additionally the MDMS also shows the data flow from the data sources to the databases within the Data Warehouse.

Our research approach is to allow data lineage analysis and data flow planning of Helsana information systems by linking this basic framework with the high-level enterprise wide information model and the business process description repository. To achieve this, we have to combine structured information (e.g. data models) and unstructured information (e.g. business term descriptions) and to merge them in ontologies using semantic web technologies especially RDF (Ressource Description Framework), RDFS (RDF Schema) and OWL (Web Ontology Language). To give users access to the data via ontologies, we also implement the necessary interfaces which range from a standard web-front end to state-of-the-art web services.

The research questions we address relate to the use of ontologies and semantic annotations in an operational software development environment. One of the main questions is how to integrate various sources of organizational knowledge and make this information accessible to users. The possible data will include data models, data warehouse processing rules and logs, as well as user annotations and technical documents. We will investigate to what extent the available data operators (drill-down, drill-up, match, traverse) satisfy current user requirements, and combine those with operations based on semantic descriptions. The new ontology-based operations will be evaluated in the operational context, with the aim to support the process of business planning.

#### Publications / Publikationen


Weitere Informationen unter www.ifi.uzh.ch/dbtg/Staff/Jossen/

#### Keywords / Suchbegriffe
data base, ontology, meta data, knowledge management

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