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A Study of Information Integration System based on User Requirements

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Abstract

In the Semantic web which has been developed to utilize data around the world effectively, data are stored as RDF contents, and data are obtained directly and easily by writing query statements. However, it demands knowledge of each RDF contents' vocabularies, which are often defined by various styles, various places, and unknown users. Thus, we should have knowledge about each RDF contents, to create a query statement.

In this research, this issue has been solved by adopting the concept of "View" into the Semantic web. To share a query method, a query is defined as a "View", and through this defined "View" a data access method is provided for this defined "View". That is, by using this approach, data of the Semantic web are available without and knowledge about RDF contents.

This paper describes an application of this approach to a file management supporting system for the research and development of an early diagnosis method of dementia. First, RDF contents are created from files on an information system environment of the research and development of an early diagnosis method of dementia. However, it is difficult to create RDF contents from all file formats around the world. For this reason, an RDF extraction system is developed in consideration of scalability. Second, the concept of "View" is implemented by developing information system. This system manages the templates of query statements as "View", and publishes Web services to perform "View". The Web services combine

request parameters and “View”, and create a query statement. Then, they execute the query statement, and respond the result of the query statement execution. Third, a file management supporting system is developed by using these Web services. In other words, being built without any query statement for RDF contents, this system points out the possibility of reuse of data without creating any query statements in the Semantic web.