

FREIE UNIVERSITÄT BERLIN Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

DISPUTATION

Montag, 13. Januar 2014, 12.15 Uhr

Ort: Seminarraum SR 053, Takustraße 9, 14195 Berlin

Disputation über die Doktorarbeit von

Herrn Markus Luczak-Rösch

Thema der Dissertation:

Usage-dependent maintenance of structured Web data sets

Thema der Disputation:

Realising Evolutionary Dataspaces with Linked Data

Die Arbeit wurde unter der Betreuung von **Prof. Dr. R. Tolksdorf** durchgeführt.

Abstract: Linked Data is based on only four simple principles but a powerful tool when it comes to data management, interoperability and integration. The basic graph structure and the exploitation of HTTP URLs as unique identifiers allows for schemaless data integration by adding edges to the graph. However, Linked Data is self-descriptive and also encompasses schema information encoded and retrievable in the same way as the instance data. Consequently, it is queryable by a complex query language and can be regarded as structured Web data. This has advanced the vision that it is possible one day to query the Web as it was one giant database.

At least at the scale of the Web, but also in most of today's data-centric business applications, it is very hard if not impossible to integrate all data a priori following a classical data warehouse approach. This is an accepted position in research on data management. A promising way out of this dilemma has been proposed with the vision of dataspace, a data management abstraction that helps to derive and maintain relationships between a large number of heterogeneous but interrelated data sources. Given their basic associative structure, it seems that Linked Data and the dataspace idea have a natural synergy.

This presentation is an introduction into Linked Data as a means to realise evolutionary dataspace. I will describe the basic components of dataspace and show how they can be implemented using Linked Data. At the end of the presentation I will talk about the need for methods and tools to manage such dataspace, which leads to the work pursued in the doctoral thesis entitled "Usage-dependent Maintenance of Structured Web Data".

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

Der Vorsitzende der Promotionskommission
Prof. Dr. R. Tolksdorf