

Abstract: TMDR-Based Semantic Agent System for Distributed Data Integration

Kyedong Jung¹, Chigon Hwang¹, Byungkook Jeon², Youngkeun Choi¹
¹*Department of Computer Science and Engineering, Kwang-woon University*
447-1 Wolgye-dong, Nowon-gu, Seoul, 139-701, Korea
{gdchung, duck1052, ygchoi}@kw.ac.kr
²*Department. of IT, Gangnung-Wonju Nat'l University*
150 Namwon-ro, Wonju-city, Gwanwon-Prov., 220-711, Korea
jeonbk@gwnu.ac.kr

Abstract

This study proposes a Topic Maps Metadata Registry to solve the problem of the heterogeneity of distributed data on a network and integrate data in an efficient way. A Topic Maps Metadata Registry is an integrated knowledge repository proposed to solve problems arising among schema and data using Topic Maps considering the association of data. Topic Maps can connect one topic to another via association so as to have access to all knowledge information related to the theme represented by the one topic. This is an advantage applicable to schema of distributed data and instances. In this study, we provided the global schema to integrate distributed data and proposed a Topic Maps Metadata Registry to solve the heterogeneity of information from individual local data. We also proposed a semantic agent system to operate it. Semantic agents collect information generated from local sources, and on the basis of this knowledge it converts and coordinates queries.

Acknowledgement

This study was supported by Kwangwoon University