张俊智、包冬意

ABSTRACT

Semantic data modeling is an important communication tool used in the requirements analysis phase of a database-oriented information system development. This research conducted an experimental design to compare two semantic data models: Data Model Patterns by Hay (1996) and Ontology by Wand et al. (1999). The purposes of this research are (1) to compare the theoretical bases of the two data models, (2) to compare the degree of consistency among models provided by the participants, (3) to compare the degree of comprehension of the participants, (4) to make conclusions and provide practical advices for practitioners. Our research results show that Data Model Patterns (Hay 1996) are superior to Ontology (Wand et al. 1999) in both consistency and comprehension dimensions. The future research can include the investigation of the roles of different conceptual models when they are applied to the evaluation of enterprise resource planning (ERP) packages. Data Model Patterns need to be rigorously studied in the future regarding more precise guidelines.

Keywords : Semantic data models, Data Model Patterns, Ontology.


Ridjanovic D., Comparing quality of data representation produced by nonexperts using logical data structures and relational data models, Ph.D. dissertation, Univ. of Minnesota, Minneapolis, 1986.


