RELEVANT RULE DERIVATION FOR SEMANTIC QUERY OPTIMIZATION

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Abstract

Semantic query optimization in database systems has many advantages over the conventional query optimization. The success of semantic query optimization will depend on the set of relevant semantic rules available for semantic query optimizer. The semantic query optimizer utilizes a set of available semantic rules to further explore extra query optimization plans for conventional query optimizer to choose. Semantic rules represent the dynamic database state at an instantaneous time point. Finding such set of relevant semantic rules can be very beneficial to support both semantic and conventional query optimizations. In this paper, we will show how to use inductive logic programming approach to derive relevant rules from the data in a database. Language bias as heuristic is used to reduce the search space as well as the costs in the process of inductive rule derivation. Effectiveness and efficiency of our bias generator algorithm are evaluated and their evaluation results are presented in this paper.