A Proposal for Syntactic Data Integration for Math Protocols

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Abstract

The problem of providing connectivity for a collection of applications is largely one of data integration: the communicating parties must agree on the semantics and syntax of the data being exchanged. In earlier papers, it was proposed that dictionaries of definitions for operators, functions, and symbolic constants can effectively address the problem of semantic data integration. In this paper we extend that earlier work to discuss the important issues in data integration at the syntactic level and propose a set of solutions that are both general, supporting a wide range of data objects with typing information, and efficient, supporting fast transmission and parsing.

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