

A Logic-Based Approach to Data Integration

J. Grant³, & J. Minker^{1,2}

jgrant@towson.edu, minker@cs.umd.edu

¹Department of Computer Science

²and Institute for Advanced Computer Studies

University of Maryland at College Park

College Park, Maryland, U.S.A.

³Department of Computer and Information Sciences and

Department of Mathematics

Towson University

Towson, Maryland, U.S.A.

Abstract

An important aspect of data integration involves answering queries using various resources rather than by accessing database relations. The process of transforming a query from the database relations to the resources is often referred to as query folding or answering queries using views, where the views are the resources. We present a uniform approach that includes as special cases much of the previous work on this subject. Our approach is logic-based using resolution. We deal with integrity constraints, negation, and recursion also within this framework.