

# Developing Ontology-Driven Conceptual Data Models

Haya El-Ghalayini  
Petra University  
Amman, Jordan  
962-6-57155552  
hghalayini@uop.edu.jo

Mohammed Odeh  
University of the West of England  
Bristol, UK  
44-117-344-3700  
Mohammed.Odeh@uwe.ac.uk

Richard McClatchey  
University of the West of England  
Bristol, UK  
44- 117-328-3176  
Richard.McClatchey@uwe.ac.uk

## ABSTRACT

The use of formal ontologies during the process of information modeling is gaining acceptance. Since a given domain ontology captures a formal and explicit representation of the consensual knowledge within a domain, deriving *ontology-driven conceptual data models* can participate in developing better conceptual data models for understanding the problem domain. This paper demonstrates an approach to derive a conceptual data model from domain ontology. The main result is a formal framework that explains mapping rules between domain ontology and a conceptual data model.

## Categories and Subject Descriptors

D.2.1 [Requirements/Specifications], Elicitation method. Methodologies.