# Retrieving Information from Heterogeneous Freight Data Sources to Answer Natural Language Queries

Navigating through multiple heterogeneous freight data sources to find the ones that are relevant to answering a question can be a challenging task when performed manually. It is highly dependent on the individual's knowledge of all available data sources and the information contained in each one. Multiple factors contribute to freight data heterogeneity, including differences in data element definitions, level of disaggregation, and classification systems. This research work developed a standardized knowledge representation of freight data sources using an ontology that both computer systems and domain experts can understand. A querying algorithm was then used to search through the ontology to determine which freight data sources provided the best answers to the user's query. Issues relating to semantic heterogeneity inherent in freight data elements and gaps in existing freight data sources were also identified using the ontology and querying algorithm.

## Dan Seedah

Dan Seedah is currently serving as the vice president of engineering at Transmetric America Inc where he leads the development of GEOCOUNTS and the GEOCOUNTS File Format. Prior to joining Transmetric, he worked as a research associate at the Center for Transportation Research at The University of Texas at Austin. After completing his undergraduate degree in Civil Engineering at Louisiana State University, Dan worked in the industry for a couple of years prior to attending the University of Texas at Austin to complete his Master of Science and Doctorate degrees. His software development and research work experience includes data integration, multimodal transportation planning, statistical modeling, data mining, data visualization, megaregional planning, natural language processing, and ontology development.

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## EVENT INFO

*Tuesday*
## 02.07.17
5:00 PM–6:00 PM
FREE FOOD & DRINKS!

## SPEAKER

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## RSVP

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