

Smart traffic analytics in the semantic web with STAR-CITY: Scenarios, system and lessons learned in Dublin City

Reference:

F. Lecue, S. Tallevi-Diotallevi, J. Hayes, R. Tucker, V. Bicer, M. Sbodio, P. Tommasi, "Smart traffic analytics in the semantic web with STAR-CITY: Scenarios, system and lessons learned in Dublin City (available online)", *Journal of Web Semantics - Web Semantics: Science, Services and Agents on the World Wide Web*, vol. NN, pp. NN-NN, 2014

Abstract:

This paper gives a high-level presentation of STAR-CITY, a system supporting semantic traffic analytics and reasoning for city. STAR-CITY, which integrates (human and machine-based) sensor data using variety of formats, velocities and volumes, has been designed to provide insight on historical and real-time traffic conditions, all supporting efficient urban planning. Our system demonstrates how the severity of road traffic congestion can be smoothly analysed, diagnosed, explored and predicted using semantic web technologies. Our prototype of semantics-aware traffic analytics and reasoning, illustrated and experimented in Dublin Ireland, but also tested in Bologna Italy, Miami USA and Rio Brazil works and scales efficiently with real, historical together with live and heterogeneous stream data. This paper highlights the lessons learned from deploying and using a system in Dublin City based on Semantic Web technologies.