

Research Project Title: WAZE Data Reporting (RES2019-11)

Purpose of the Project:

The purpose of the project is to eventually have an automated mechanism that could compile and port WAZE data into TDOT’s traffic data system. To that end, the project will perform a thorough study of archived WAZE data, develop and evaluate use scenarios of WAZE data, and establish a feed mechanism for porting WAZE data into TDOT’s traffic data system.

Scope and Significance

Since joining WAZE Connected Citizen Program (CCP) in 2016, TDOT has gained access to real-time probe-vehicle based travel time data in some 40 routes primarily in the State’s four major metropolitan areas inclining Nashville, Memphis, Knoxville, and Chattanooga. In addition to travel time data, WAZE also logs user input in terms of crashes, abandoned vehicles, congestions, etc. based on the time and location the user entered such information using a cellphone-based app. This project will archive WAZE data in real-time, test the integrity of the data, verify the travel time against other independent data sources, and explore usability and use scenarios of the data. In some cases, new routes will be added to the collection to help achieve TDOT’s operational mission. The data porting/archiving workflow will be automated in the process. In addition, WAZE logged incident cases will be compared against TDOT’s Locate/IM incident cases for the spatiotemporal analysis of accuracy and reliability verifications. With crowd-sourced traffic data becoming increasingly more available, this project will examine the future use of crowd-sourced data for real-time operational scenarios.

Expected Outcomes

- *Benefits: Use of WAZE type of crowd-sourced data can lead to creative solutions for traffic management, traveler information, and roadway planning. Specifically, efficiency in incident response time could be measured and improved.*
- *Implementation: With the collaboration with TDOT’s IT group, real-time data porting and archiving workflow can be automated and linked directly with TDOT’s SWIFT system making future enhancement and use of the data possible.*
- *Innovation: This project will examine WAZE data quality and compatibility with TDOT’s existing RDS data system and with independent sources such as Bluetooth technology.*

Time Period

The time period for the project is from January 17, 2019 through November 30, 2020.

Contact Information

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