



2014 AM 1 Breakout Session Recap

AM 1: Big Data Hits the Road: The Ups and Downs of Modern Mobility

Moderator:

Boris Karsch, Vice President, Strategy and Business Development, Cubic Transportation Systems, Inc.

Panelists (in order of their presentation):

- Leo Carroll, Vice President, Parsons
- Lan-Chi Lam, Director of Communications, Web & Mobile, Los Angeles County Metropolitan Transportation Authority
- James Dreisbach-Towle, Principal Technology Program Manager, San Diego Association of Governments (SANDAG)
- Steve Finnegan, Manager of Government Affairs & Public Policy, Automobile Club of Southern California and Board Member, Mobility 21

Summary

This session provided an eye-opening preview of the challenges, opportunities, benefits and potential pitfalls given the proliferation of data originating from us (we are now data points) and our vehicles (they are now data points). The session also addressed what that data means for consumers, public agencies and business regarding transparency (what data is being collected), choice (who has permission to collect, access, disseminate and for what purposes) and the security of data collected (can anyone know my location, my vehicle's location? and how my vehicle is operating?). The Big Data panelists specifically explored the rapidly expanding amount of data in terms of vehicle emissions data and technology, real time travel route recommendations, the consumer demand for transportation apps on par with Apple\Google Play apps; and the broader policy questions over the legal, privacy, security and practical uses of data collection, access and control. The audience learned that current vehicle emissions data and technology can now remotely monitor our vehicles emissions, direct us to visit an inspection station, monitor emissions improvements and current research is looking at using laser technology to measure emissions while driving. Our vehicle location and our mode

choices allow for predictive analytics via the use of micro-simulation models to provide the ability to recommend alternative travel routes in real time. Today's transportation agencies are faced with patrons that demand useful transportation apps on par with Apple and Google Play apps they experience on a daily basis. The overlapping and underlying thread amongst the emissions data, vehicle data, our travel choices and use of the internet, the broader policy questions over the legal, privacy, security and practical uses of data collection, access and control reveal that while the air will be cleaner and we will get to our destination quicker and more reliably – this means someone is going to need to know a lot about us and our vehicle so there are still many unknowns as to how to handle all of this big data.

Takeaway

It is important for the California emission testing industry to monitor the technological advancements in remote sensing and high emitter identification.

The technological advancements in remote sensing (already in use in some states) and high emitter identification can lessen the need to visit an emission test station and provide for increased ability to measure reductions in air pollution towards the benefit of our public health and well-being.

LA Metro's analytic metrics of its website illustrates that the public wants their electronic devices to utilize the latest and greatest technology/apps that they already experience everyday via Apple and Google Play (for free) when they connect with their transportation agency.

Currently, technology and computer software along with interagency cooperation allow for the use of micro-simulation that can predict traffic out 1-hour that provides the window of time to determine how to recommend real time alternatives through changeable message signs and mobile application users.

Today, twenty percent of cars are connected cars (a car with internet access). In six years, ninety-percent of cars will be connected cars, so the importance addressing the policy questions on consumer rights, data access, and data control will continue to grow. In 2018 all cars will be required to be connected.

The public wants to see the latest and greatest technology/apps that they experience everyday (for free) on their electronic devices available (for free) when they connect with their transportation agency.

Addressing the policy questions on consumer rights, data access, data control, safety and security will continue to heighten in light of the universe of connected cars growing from twenty percent to ninety percent by 2020.