UTRC’s 2014 Transport-Tech Summit: Second Annual Symposium Held at New York Institute of Technology (NYIT)

Big Data and Innovative Solutions for Safe, Efficient and Sustainable Mobility

By Matthew W. Daus, Esq.

I was proud to help conceive, organize and chair the second annual Transport-Tech Summit, hosted by the U.S. Department of Transportation’s University Transportation Research Center (UTRC) for Region 2 (New York, New Jersey and Puerto Rico). As a proud member of the UTRC for almost 5 years now, our center is housed at The City College, of the City University of New York, overseeing a consortium of 17 universities with transportation programs. The UTRC has consistently served as the regional center for almost 25 years, and last year received a 5 year commitment for more than $25 million from the U.S. DOT’s Office of the Assistant Secretary for Research and Technology (OST-R), the NY State Department of Transportation (NYSDOT) and the NY Metropolitan Transportation Council (NYMTC).

Technology continues to rapidly evolve and change all of our lives, including how we travel from place to place. Ground transportation and public transit
technology advances are bringing our “transportation and mobility network” closer together. Transportation modes and sub-modes are now able to share data and work together more closely and seamlessly than ever before. That trend is going to continue, not cease or diminish. “Big data” is not just about collecting, managing, storing and analyzing large data sets, its about how you use it to bring about positive change, which is the focus and mission of our Transport-Tech Summit. The goal of the symposium was to discuss technology, not in a modal vacuum, but in terms of three basic overall goals that apply to all modes - working together - for the ultimate benefit of passengers and pedestrians: (1) **Efficiency** (making transportation more efficient in theory will increase usage of appropriate modes and ultimately save passengers money due to competition and enhanced connectivity); (2) **Safety and security** (e.g., the use of black box related technology and resultant data to reduce vehicle crashes, such as is being done now with NYC Mayor de Blasio’s Vision Zero initiatives); and (3) **Sustainability and accessibility** (ensuring that the efficiency gains of enhanced technology and data collection/analysis benefit the environment, and achieve equity among passengers, including the disabled and economically disadvantaged).

This multi-modal symposium brought together members of the academic community (including students, researchers and professors), private industry (including government vendors, ground transportation providers and technology companies) and government officials (such as transportation departments, taxi and limousine regulators and mass transit agency representatives). This summit also uniquely married all of the component parts of our transportation network where technology plays a major connective role, including: (1) the **vehicle**; (2) **passengers**; and (3) **infrastructure**. The vehicle itself - whether the on-board diagnostics (OBD) system of the car’s computer or use of vehicle black boxes to capture G-Force and other data - is a major consideration for policy-making and future transportation advancements. Passengers are addicted to their smartphones, expect and demand quick and sustainable options, and technology has and will continue to assist them even more in making sound inter-modal connections and modal choices, while reducing travel time and saving money. Finally, technology and data collection and use will not be limited to just the users and vehicles of transportation to realize increased efficiency, safety and sustainability, but also will involve interactions with infrastructure (e.g., traffic light signal timing to allow bus rapid transit to operate more efficiently, and communications between vehicles and other vehicles (V2V), passengers (V2P) and infrastructure (V2I) to avoid collisions).

The summit began with introductory remarks by **Hon. Council Member Ydanis Rodriguez, Chair of the New York City Council’s Transportation Committee**. Councilman Rodriguez, himself a former livery cab driver and a graduate of The City College of New York (the home of UTRC), spoke of his “progressive transportation agenda” and the role data will play in both his legislative activity and oversight responsibilities. Council Member Rodriguez is responsible for helping pass legislation implementing “Vision Zero” and “Cooper’s Law” - pro-public safety initiatives for for-hire and other vehicles where data
collection plays a major role in the success of such initiatives and law enforcement. Also, the Chairman spoke of the important role data will play in his committee’s oversight of important transportation agencies such as the Metropolitan Transportation Authority, the NYC Department of Transportation (DOT) and the NYC Taxi and Limousine Commission. To view the video of this speech, please see the following link: http://vimeo.com/114064775

The work of the day then began with a plenary session moderated by Dr. Robert “Buz” Paaswell on “Vehicle Technology – Safety & Sustainability” that included presentations on environmental/alternative fuel technology and electric vehicles, as well as autonomous vehicle technology. Then, upon unveiling several academic posters and papers for display, the first series of breakouts were held all involved the use of data for improving transportation. UTRC Director Dr. Camille Kamga moderated a session on Traffic & Transit Management, that included real-time bus and traffic ridership data, traffic flow and congestion data. I moderated a breakout session on the use of Taxicab Data Analysis & Modelling, including the relationship between the bike share program and taxicab ridership. The remaining morning breakout session was moderated by Dr. Sabihah Wadoo of NYIT and included presentations on Big Transportation Data (moderated by Professor Hongmian Gong), Security & Privacy (moderated by Professor Sarah Kaufman from NYU), and Transportation Simulation (by City College Assistant Professor Mahdieh Allahviranloo).

After the luncheon, I was pleased to introduce our Keynote Speaker, Dr. Amen Ra Mashariki, the newly appointed Chief Analytics Officer, who leads the Mayor’s Office of Data Analytics (MODA). A graduate of Brooklyn Tech, and a computer scientist and engineer, Dr. Mashariki previously served as Chief Technology Officer at the U.S. Office of Personnel and Management. MODA’s mission is to serve as NYC’s civic intelligence center, allowing the aggregation and analysis of big data across city agencies, to increase the efficiency of service delivery and enhance government transparency. MODA’s role includes building a citywide data platform to facilitate data sharing, oversee citywide data projects and implementing the City's Open Data Law. Dr. Mashariki spoke of his experience, perspective and plans for MODA, which include internal government “Hack-A-Thons” or what is known as “Data-Palooza.” That is an exercise by which government agencies share data and brainstorm as to how such data can be used to improve agency coordination and service delivery, among other items – but it does not involve actual “computer hacking” or anything so nefarious. As President Reagan once said in a different context, I encouraged Dr. Mashariki and Mayor de Blasio to “Tear Down Those Data Walls” that separate government agencies, private industry and the academic community, for the betterment of the public. The fact that public information under the Freedom of Information Act takes so long for government agencies to deliver to researchers, and at such a high cost, is an impediment to service delivery and, particularly in the transportation field, to passenger efficiency
and customer service. Dr. Mashariki advised that he would look into how more open data platforms can be developed in order to allow Silicon Alley in NYC to grow by the development of apps using government data in the private sector, as well as to fuel research and promote government transparency. To view the Keynote Speech, click here [http://vimeo.com/114130662](http://vimeo.com/114130662). For media coverage of the keynote speech, please see [http://www.capitalnewyork.com/article/city-hall/2014/11/8557154/transit-event-new-city-analytics-head-stresses-sharing](http://www.capitalnewyork.com/article/city-hall/2014/11/8557154/transit-event-new-city-analytics-head-stresses-sharing).

Last, but not least, a very lively and informative panel discussion closed the day’s events on the topic of **For-Hire Ground Transportation Smartphone and Ridesharing Applications**. I served as moderator of this plenary session, which included panelists Avik Kabessa, CEO of Carmel Car Service, Daniel Ramot, CEO of Via, and Ron Srebro, CEO of Get Taxi. The panelists, after explaining their apps, business models and data collection and usage, each answered difficult questions about the role of government in obtaining private transportation data and the concept of one universal smartphone app selected by the government to be used for all taxicabs and for-hire vehicles. The panel also prognosticated on the future of this rapidly evolving disruption movement, using smartphones to pre-arrange ground transportation, the NYC Taxicab Passenger Enhancement Program (T-PEP – credit cards, GPS, etc), transportation aggregator services (like Expedia for travel) and the relationship to other modes of transportation, such as paratransit and service delivery.

The UTRC would like to thank all of the individuals and businesses that helped make this second annual symposium such a success: the NYC Mayor’s Office; NYIT Engineering and Computing Sciences School Dean Dr. Nada Marie Anid; UTRC Director Camille Kamga and UTRC Director Emeritus Robert “Buz” Paaswell; the staff of UTRC, including Nadia Aslam, Penny Eickemeyer, Andriy Blagay, Tierra Fisher, Nathalie Martinez, Sabiheh Faghih, Oti Boateng and Mahdieh Allahviranloo; Transport-Tech Committee Members, co-Chair Professor Hongmian Gong from Hunter College and Dr. Marta Panero, Director of Strategic Partnerships at NYIT; and of course our sponsors, the Black Car Fund, Via, Get Taxi, UTRC, NYIT, the International Association of Transportation Regulators (IATR), Windels Marx, and Pango. Our sincerest thanks go to all of the presenters who shared their research with the audience at this very well attended summit.

To view a more complete set of videos, speeches and presentations from the 2014 Summit, please visit the UTRC’s link at [https://vimeo.com/album/3167102](https://vimeo.com/album/3167102) We are all looking forward to another exciting Transport-Tech Summit in 2015!