



## TRANSIT ANALYTICS LAB

# Workshop on the Use of Transit ITS Data for Planning and Management

Wednesday, December 2nd, 2020

Sponsored by the Transit Analytics Lab (TAL), University of Toronto Transportation Research Institute (UTTRI)

The Transit Analytics Lab (TAL) of the University of Toronto brings together transportation and technology researchers from across the University of Toronto, transit systems in the Golden Horseshoe area, and private sector software providers.

Among its objectives are to: foster innovation in transit data-driven tools (analytics) using advanced methods of data science, machine learning, artificial intelligence, simulation and statistics; expose the professional community through knowledge transfer activities to advanced analytics; and establish U of T as a national and international leader in transit data analytics.

Following the success of the TransitData2020.ca International Symposium organized this summer, TAL is hosting a virtual Workshop on the Use of Transit ITS Data for Planning and Management on December 2nd, 2020, which will be aimed more specifically at interested participants in Ontario.

## Program

### 09:00 Introduction to TAL and Recap of TransitData 2020 Symposium

- **Amer Shalaby** – Words of Welcome and introduction to UTTRI's Transit Analytics Lab (TAL) and its activities
- **Brendon Hemily** – TransitData 2020 Recap: Overview of the evolution of the Transit Automated Data Symposia, and themes discussed during this Summer's Symposium

### 10:00 Break

### 10:15 Data Analytics in Response to the Pandemic

This session will provide some perspectives on the use of data to assist planning and operations in response to the pandemic

- Customer Load Dashboard for CTA Transit Riders During the COVID Pandemic (Recorded during the TransitData2020 International Symposium)
- Using Automated Data to Monitor Crowding Levels at the STM  
**Charles Sanvido**, Senior Transportation Solutions Developer, Information and Innovations Technologies, STM (Montreal Transit)

- Real-Time Local Bus Crowding Information for MBTA Riders  
**Logan Nash**, Customer Technology, Massachusetts Bay Transportation Authority (Boston)

## **11:15 Break**

## **11:25 Current Research at TAL**

Three presentations on some of the current research projects at TAL, covering the selected topics of transit operations and reliability, equity and accessibility, and leveraging social media data.

- Transit Data Meets Fairness: Open Data Analytics and Visualization of Fares, Reliability and Access in US Megaregions  
**Willem Klumpenhower**, TAL, UTTRI, University of Toronto
- Tweets for Transit: What and Where Do Riders Tweet?  
**Omar Kabbani**, TAL, UTTRI, University of Toronto
- Activity Purpose & Travel Mode Imputation using Cellphone Traces  
**Gozde Ozonder**, UTTRI, University of Toronto

## **12:15 Lunch Break**

## **1:20 Lunch Activity – Video History of Public Transit in Toronto**

## **1:45 Applications Using Transit ITS Data in the GTHA**

This session will provide some illustrations of how data analytics are already being used by transit systems in the Golden Horseshoe.

- Finding the Signal in the Noise: How Metrolinx uses Automated Data to improve GO Bus Service Planning, Customer Experience and Regional Network Integration  
**Anthony Smith**, Senior Planning Officer, Planning & Development, Metrolinx
- Using Data Analytics to Respond to the COVID-19 Pandemic in Toronto, Ontario  
**Jasmine Eftekhari**, Service Planning Analyst, Research and Analytics, Toronto Transit Commission
- Using Business Intelligence to Guide Service Planning Process  
**Howard (Shen-Hao) Chang**, Principal Planner, Transit Development, Region of Waterloo – Grand River Transit

## **2:45 Break**

## **3:00 An Open Discussion: Transit Analytics Skills and Topics to Support Transit in the Golden Horseshoe?**

The open discussion with participants will ask what skills are transit systems looking for to support their internal data analytics and business intelligence efforts and what are priority topics for transit systems related to data quality assurance, applications, visualization, dashboards, etc.

## **4:30 Looking to the Future**

Wrap-up and next steps

## **4:45 End of Workshop**