How Cities Can Use Real-Time Information from Mobility Operators to Optimize City Streets

Meeting of the Minds Webinar
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SHARED MOBILITY SERVICES HAVE RAPIDLY EVOLVED IN CITIES
Adoption of new mobility services is accelerating.

**Key factors have led to rapid growth**

1. **GPS**: Smartphone adoption has risen from 35% in 2011 to 77% in 2018.
2. **Traffic**: In many major cities, it is actually faster to bike or scooter trips that are 3 miles or less.
3. **Venture capital**: These companies have raised more money faster than prior mobility service providers.

*Source: The Micro-Mobility Revolution, A Populus Research Report, July 2018*
Cities are now requiring data from private mobility operators to manage progress towards public goals, including:

1. **Safety**: reducing transportation-related injuries and fatalities.
2. **Equitable access**: improving availability and accessibility of transportation services to people of all backgrounds.
3. **Efficiency**: prioritizing efficient use of public space, and reducing transportation energy use/climate impacts.

CITIES ARE LOOKING OUT FOR THE COMMON GOOD

- No data
- Undesired outcomes
- Uninformed policy/plans
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**THE ROLE OF DATA FOR MANAGING MOBILITY SERVICES**
With access to real-time data for new mobility services (primarily dockless shared bikes and scooters today), cities are entering a new era of active mobility management.

**KEY EXAMPLES**
- Vehicle and fleet monitoring
- Incident management
- Data-driven policy (e.g. flexible vehicle caps)
- Data-driven planning
- Pricing to efficiently allocate public space

Populus Mobility Manager ingests data from major mobility operators on behalf of cities
CITIES ARE ADOPTING NEW MOBILITY DATA REQUIREMENTS

COMMONLY REQUESTED DATA POINTS FROM OPERATORS

- Trips
- Vehicles
- Maintenance logs
- Complaints
- Injuries

REQUEST DATA THROUGH INDUSTRY STANDARD APIs

- GBFS (General Bike Feed Specification) is commonly required for public-facing APIs of vehicle locations (for example to third-party apps).
- MDS (Mobility Data Specification), initially introduced by LADOT, is now being used widely to require trip, vehicle status, and route data.

COLLECT SURVEY DATA TO ANSWER KEY QUESTIONS

- Many key policy questions cannot be answered with GPS based locational data alone. They require asking people to respond to a survey.
- Cities should require that operators collect data in a consistent format approved by the city.
We evaluated the average distance to a bike (or scooter) for each street intersection.

In Ward 8 (traditionally underserved), one can access a dockless vehicle within a shorter distance than the pre-existing docked system.

Analysis of utilization rates suggests that dockless is not cannibalizing the existing docked system.
Cities that receive detailed trip data can now harness GPS trace data to plan safer routes for bicycling and scooter infrastructure such as protected lanes and parking areas.

In addition to requiring that operators provide stationary vehicle location data (i.e. parked vehicles), cities need to require trip and route data through a standard such as the Mobility Data Specification (MDS).
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As we look to the future, many cities are exploring strategies for more efficient curbside utilization:

- Allocating parking for car-sharing vehicles with higher trip utilization rates than personally-owned vehicles.
- Creating pick-up/drop-off zones for fleet vehicles.
- Pricing and incentivizing public space for shared fleets, including curbs and sidewalks, for micromobility parking.

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THANK YOU

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