Reimagining Regulations for a Changing Mobility Landscape

2:00-2:45pm ET

Speakers: Stephen Goldsmith

Moderator: Brianne Eby

NEXT WEBINAR
Toward Universal Access
Thursday, November 19
4:00pm ET
The Changing Mobility Landscape: New Approaches to Curbs and Sidewalks

Professor Stephen Goldsmith, Harvard Kennedy School
Eno Center for Transportation Webinar
November 17, 2020
1. Curb and sidewalk as an asset-competing uses
2. Emphasis on equity
3. Digital platforms—personal, commercial and public
4. New forms of mobility: Ubers, scooters, first-mile, last-mile, shared vehicles
5. New mobility management offices
6. Delivery—Amazon and Grubhub
7. Dramatic drops in city revenue
What is the Value Add the New Mobility Brings?

- **Environmental**: An opportunity to both decrease car dependency and improve efficiency

- **Public Health**: Connected mobility can produce contactless payments

- **Revenue**: Manage for fair pricing that produces more revenue

- **Customer Centric Design**: More and easier payment options

- **Equitable**: Ensure transit that are equitably distributed and that curb priced fairly.
Public Health: Contactless Government
Eliminate Unnecessary Points of Contact

HIGH CONTAMINATION LEVELS OF EVERYDAY OBJECTS IN MAJOR U.S. CITIES

KIMBERLY-CLARK PROFESSIONAL® conducted contamination testing on everyday objects people commonly come in contact with in six cities across the U.S.: Atlanta, Chicago, Dallas, Los Angeles, Miami and Philadelphia.

Under careful supervision of trained hygienists, a total of seven objects in each city were swabbed. Using a Hygiene ATP Meter, a device commonly used to monitor sanitary conditions, hygienists swabbed the objects to measure levels of Adenosine Triphosphate.

Everyday objects with an ATP reading of 300 or higher are considered to have a high risk for illness transmission. In all, more than 350 separate swabs were taken and analyzed. The findings show that people encounter armies of contaminates while just getting to work every day, reinforcing the importance of proper hand and surface hygiene as critical to a healthy workplace.

% OF CONTAMINATED OBJECTS (OBJECTS WITH ATP READINGS HIGHER THAN 300)

- Gas Pump Handles: 71%
- Mailbox Handles: 68%
- Escalator Rails: 43%
- ATM Buttons: 41%
- Parking Meters/Kiosks: 40%
- Cross Walk Buttons: 35%
- Vending Machine Buttons: 35%
Use Analytics to Better Price the Curb
Thinning Meters for Better Results: Austin, TX

It was a no brainer for us to say ‘Let’s get rid of our single space meters, adjust and remove unneeded pay stations and go to a more contactless parking system’ and in some areas go to mobile pay only so we’re not having to add infrastructure”

- Joseph Al-Hajeri, Mobility Services Supervisor, City of Austin

• Revenue increases with usage:

  Mobile payments tend to be 25-100% higher than those made at the meter. Big cities can see as much as $1M per 10% increase in utilization.

  Unlike at meters, mobile app users can load pre-funded balances (the same way Starbucks’ app works). These balances reduce credit card fees by as much as 70% vs. paying at the meter.

• Expenses decrease—efficient use of resources
• Contagious contacts decrease
• Data allows for more equitable pricing increases with app usage.
Pricing

Nudging through pricing
Event pricing
Lowered pricing
More app usage
More efficient enforcement
Regulate for an Open System
Cities engage a third party to build and manage a common dynamic platform for the city that allows it to coordinate multiple parties. This platform should help officials assemble information, quickly integrate new technologies, and manage their curbs and sidewalks in real-time on their own terms.
Platform Options

- Parking Management
- Micro-mobility Management
- LPR Enforcement
- Digital Permits

Operating System

Payments
All major credit cards.
Put the Customer at the Center

• Integrating Parking into Trip Planning Applications to Reduce Cruising

• Finding Better Ways to Communicate Price and Availability of Parking Spaces
Government’s Data Role
Data As A Facilitator

1. Improve Transit Access and Equity
2. Provide a Platform for Open Multi-Party Data
3. Asset Manage Curbs and Streets
4. Regulate for an Open System
5. Regulate for Enhanced Service
Data Principles and Uses

1. Mobility Data Sharing and Real-Time Analytics:
   - Require data sharing and a single source of truth
   - Be cognizant of data privacy and protection for end users
   - Require compliance with major data and payment platform standards:
     • EU, California,

2. Public Engagement and Business Model Alignment:
   - Consider the needs and concerns of residents: finding an agreed upon solution that requires engaging with the public directly.
   - Data Viz Critical

3. Interoperability:
   Collaborate on APIs and other protocols
### P3s Require Data Protection

**NACTO Data Sharing**

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<td><strong>1. Better Data for Transportation Planning</strong></td>
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<td>- Speed</td>
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<td>- Volume</td>
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<td>- Travel Time</td>
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<td>- Pick-up Location and Time</td>
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<td>- Non-Revenue Vehicle Miles Travelled</td>
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<td><strong>2. Equity in Mobility Options</strong></td>
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<td>- Number, Date, and Time of Unfulfilled Rides</td>
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<td>- Number, Date, and Time of Declined Rides</td>
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<td>- Number, Date, and Time of Cancelled Rides</td>
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<td>- Vehicle Availability by Type</td>
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Examples of Asset Managing Curbs and Streets
Asset Management through Coding the Curb

• Cities need a real time digital inventory of parking rules and a means of constant access.
• LA’s Code the Curb project illustrates feasibility.
• Cities needs a single rate engine that serves all users.
• Dynamic pricing requires rate engine real time information.
San Francisco’s Asset Management

- Lyft announced in August 2019 that it will shift driver pickups off of the busiest blocks of Valencia Street.

- Valencia accounted for 268 bike incidents between 2012 and 2016, making it one of the most accident-prone streets in the city.

- A well-designed platform would enable cities to control negative curbside interaction with a mix of both restrictions and economic incentives.
In cities short on officers, drivers bet against getting a ticket.

For visitor passes: simply log in, apply, and enter designated time.

Enforcement done with License Plate Recognition technology.

System pre-empts separate trips to branch offices and paper permits; Virtual system makes for efficient enforcement.
Asset Management for Easier Disabled Parking

• The benefit of a parking placard should be the ability to find space proximate to your destination, not the ability to park for free.

• Portland instituted pay-to-park disabled parking downtown.

• LA aimed to remove incentives for misused placards, based partly on San Francisco’s disabled-parking review.

• Integrations with disability applications, like iAccess Life, enable residents to pay for parking through an app they are accustomed to.
Managing Shared Active Transportation Systems

Discarded scooters causing roadblocks for disabled.
Challenges at the Curb

Challenge:

Current digital and physical infrastructure cannot handle current challenges
Regulate for Enhanced and Equitable Service
• Unbanked deserve a contactless solution
• Underpricing commercially popular zones is inequitable
• English only apps create unfair results
Using Curb Increased Revenue to Address Access Disparities

Transit Deserts

- Red areas = transit deserts
- Green areas = transit oases
- Tan areas = balanced supply and demand

Source: Urban Information Lab, University of Texas – Austin, CC BY-ND
Dockless Vehicles as the Emerging Use Case

What data can help answer:

• Are scooters equitably deployed?

• Are safety concerns dealt with?

• Where/when do people use scooters and how can this guide investment in infrastructure (e.g. bike lanes and designated parking)?

• Do new services help those communities most in need of better transit options?

• Would usage and place based fees better align the actions of scooter companies with the city's goals?

Source: Jascha Franklin-Hodges
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Q&A Session
What are your questions?