MOBILITY AS A SERVICE (MAAS): WILL IT WORK IN THE U.S.?

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Track 1, Session 2 – Technology and New Developments that Increase Transportation Options and Sustainability
Monday, November 19, 2018, 3:05–4:30pm
PRESENTATION OUTLINE

- Definitions
- Los Angeles County Metropolitan Transportation Authority
- Greater Dayton Regional Transit Authority
- Tompkins County, NY
- Where is the US in the MaaS Topology?
- Balancing Customer Needs, City Goals & Private Sector Opportunities
**DEFINITIONS**

- **MaaS**
  Integration of various forms of transport services into a single mobility service accessible on demand.

- **New mobility services**
  Ride hailing, ride sharing, car sharing, bike sharing, microtransit, etc. – **Not MaaS**

- **Transportation Demand Management**
  Service offerings and incentives to get commuters out of single-occupant vehicles. – **Not MaaS**

- **Mobility Management**
  Provide viable alternatives for non-drivers. – **Not MaaS**

- **Mobility on Demand**
  Multimodal, integrated, automated, accessible, and connected transportation system in which personalized mobility is a key feature. – **Not MaaS**

Urban Example: Los Angeles County Metropolitan Transportation Authority MaaS Based on Transit Access Pass (TAP)

- Account-based system that integrates with legacy system
- One-stop central payment for Bike Share, Microtransit, Fare Subsidy Programs, Parking, Electric Vehicle Car Sharing, more
- Open Integration Platform
- Cross-Program Discounts
- Account loading choices
- Easily configurable discounts that incentivize transit
- Cash loading offers access to the unbanked

Rural/Small Urban Example: Tompkins County, NY MaaS

GREATER DAYTON (OH) REGIONAL TRANSIT AUTHORITY

Service Overview
- Montgomery and western Greene counties
- Fixed route, demand response and first/last mile services
- 300 vehicles; 29 routes; 3,000 stops
- 5 transit centers, RTA Connect transfer points, PnR lots
- 9 million annual passengers
- Planned service expansion to 9+ counties

Goals
- Seamless Regional Mobility Ecosystem
- Equitable Access
- Open Data
- Integrated Payment
- “All mobility providers will collaborate with us delivering one unified mobility network via Dayton MaaS platform”

RTA MAAS FRAMEWORK

Data Provider/Exchange
(TransLoc, Trapeze, Clever Devices, City of Dayton, Link Bikeshare, Others)

MaaS Provider
(Dayton RTA + TransLoc)

Service Providers
(Dayton RTA and partners)

Customer

MAAS TOPOLOGY: US MARKET

Level 0: No Integration: Single, separate services

Level 1: Integration of Information: Multimodal trip planner, price info

Level 2: Integration of booking & payment: Single trip – find, book and pay

Level 3: Integration of the service offer: Bundling/subscription, contracts, etc.

Level 4: Integration of policy: Governance & PP-cooperation

Source: Jana Sochor, Hans Arby and MariAnne Karlsson, "The topology of Mobility as a Service: A tool for understanding effects on business and society, user behavior, and technical requirements," Paper No. EU-SP1013, 2017 ITS World Congress, Montreal
Travelers: Mobility Choices

1. Travelers choose mobility services

2. Private Sector provides technology

3. The City or Region tries to attain specific goals and objectives
THANK YOU!

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Benefits and Challenges of Autonomous Technology: The Consumer Perspective

Amy Parmenter
Manager, Public and Govt Affairs
AAA Greater Hartford
Overview

01 Safety Impact
02 Public Opinion
03 Consumer Confusion
04 AAA Engagement
Safety Impact

94% of crashes INVOLVE HUMAN ERROR
Public Opinion: What Impact Will AVs Have on Roadway Crashes?

- 26%: Fewer Crashes
- More Crashes
- No Impact or Unsure
AAA found that 3 out of 4 U.S. drivers report feeling “AFRAID” to ride in a self-driving vehicle.

Half of U.S. drivers would feel “less safe” sharing the road with a self-driving vehicle.
The majority (59%) of U.S. drivers want advanced driver assistance technology in their next vehicle.

- Adaptive Cruise Control
- Automatic Emergency Braking
- Lane Departure Warning/Lane Keep Assist
- Self-Parking Technology
Consumer Confusion

Auto Pilot

Pilot Assist

Driver Pilot
AAA Activity in AV

AAA Clubs are participating in many state AV Task Forces

AAA Clubs are engaged with our lawmakers

Member/Consumer Education

ADAS Testing

AAA Foundation for Traffic Safety Research
Thank You
**Mobility stack**

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**Public Interest** refers to Social & Environmental Benefits conferred
Headwind: Annual Vehicle Miles Traveled

- Trillions of Miles

Federal Highway Administration (2016)
New Technologies

New Mindsets

Santa Monica selects Bird and Lime after all for its electric scooter pilot program

L.A. NOW  LOCAL
By LAURA NEWBERRY  AUG 30, 2018 | 7:15 PM
Using Tailwind to Combat Headwind: Partnerships

Employers
- amazon
- UCSF
- Catalent

Public Sector
- SANDAG
- OCTA
- METROPOLITAN TRANSPORTATION COMMISSION

Proprietary + Confidential
19+

local partnerships
to date
Spectrum of partnership

Endorsement

Co-Promotion

Joint Carpool Plan

511 SF raising Carpool awareness via their communication channels

OCTA’s Dump The Pump 2018 (bus wrap example)

Rideshare week
Military Base Promotion
Carpool Incentive Pilot
Van Pool Pilot
50+ Employer outreach
thank you jreutershan@waze.com
New Mobility on Two Wheels: How the fast pace of technology has redefined the way we move

Angela Johnson-Rodriguez
Transportation for Massachusetts
11.19.18
New mobility in Massachusetts
The state of dockless
The role of advocacy: Who belongs in the new mobility movement?
Advocates are often the front line for residents and communities. Partnerships are key. We move to quickly disseminate information about new modes, before misinformation spreads. Increasingly, we’ve become multi-modal in our efforts. We ask the hard questions.
NOT JUST TECH BROS: E-SCOOTER FANS ARE SURPRISINGLY DIVERSE

The Racist Dog Whistles in Complaints About Dockless Bike-Share

The invasion of the scooter bros: A new tribe whizzes past the haters on Washington sidewalks.

Study: Dockless Mobility More Popular with People of Color in D.C.

How Silicon Valley’s Scooter Craze Made Me Realize That I Don’t Know Anything
What is future of these modes?
Ford buys e-scooter company Spin for $100 million

Car companies rush to embrace scooters and bikes

Chinese bike-sharing pioneer Ofo denies filing for bankruptcy

Ofo Bikes Officially Shut Down Operations in Mass.

Opinion | Bird Scooters is a fad waiting to end

Portland Transportation Bureau Retracts Tweet Calling Electric Scooters “Toys” for “Tech Bros”
Thank you
Helping Communities With Smart Mobility

With Subsidy-Free, multimodal transportation
Lime is revolutionizing urban mobility with smart, multimodal transportation solutions that are free to cities.

With cutting edge IoT technology and no stations, we can scale a flexible fleet to serve the entire community using data to maximize potential program ridership. We cover all of the costs of equipment, operations and rider outreach.
Limitations of Traditional Station-Based Mobility Sharing

**Expensive** capital investment and costly to maintain, translating to overly expensive rides for users

**Inconvenient** docking stations don’t get riders to their final destinations, forcing them to look for docking stations and suppressing ridership

**Poor coverage** and high costs mean there aren’t enough bikes to effectively serve the public or be available to all sectors of the community
Columbia City is one of Seattle’s most ethnically & economically diverse neighborhoods.

Within days of launch, 20-30% of LimeBikes were in areas Pronto never served - including Columbia City - at no taxpayer cost.
What sets Lime apart

- **No funding required** to operate and expand our service
- **American company** that’s **well-funded** by top Bay Area investment firms means we’re a stable, long-term provider
- **Complements** city mobility objectives
- **Equitable mobility option** for low- and moderate- income riders
- **Advanced dock-free technology** allows our fleet to be widely available to the community
- **Simple, more affordable pricing** makes smart urban mobility more universally accessible

It’s Easy to Locate, Unlock, Ride and Pay

New technology allows us to create a **seamless smart mobility** experience

1. Find available rides on our live GPS map
2. Unlock with QR code or plate number
3. Lock the back wheel (for bikes) or in-app (for scooters) to end the ride
4. Easily & safely track & pay for each ride

Lime Bike
Smart Pedal Bikes

Our specially designed bikes are CPSC and ISO certified and safe and comfortable to ride.

1. Solar Panel charges battery supply
2. Smart IoT Technology 3G/GPS-enabled, mobile app-synced smart lock
3. Safety-Tested Wider tires, drum brakes, bright color, lights and frame load tested with 880 lbs and CPSC/ISO certified
4. Maintenance-Free Airless tires and durable parts to withstand elements and frequent use
5. Easy to Ride Lighter frame for easier use
Why go electric?
Lime-E senses the torque being put on the pedals and adds just the right boost to help you get where you’re going quickly and effortlessly.
No strain. No sweat. Just a simple, cost effective way to turn the last mile into the last several miles even over the hilliest urban terrain.

MAX RANGE:
62 miles

MAX SPEED:
14.8 MPH

PRICE FOR USERS:
$1 basic unlocking fee
$0.15/minute to ride
Hop on and ride!
Smaller and more agile than a bike, Lime-S electric scooters are a convenient new mobility option that let you zip around the city pedal-free. They require minimal parking space and are incredibly fun to ride!

MAX RANGE: 37 miles
MAX SPEED: 14.8 MPH
PRICE FOR USERS: $1 unlocking fee, $0.15/minute to ride
Community members can earn money charging Lime scooters!

1) Juicers sign up through our app
2) Every evening, Juicers reserve scooters for charging
3) Juicers retrieve scooters and charge them overnight
4) Juicers return scooters to designated locations in the morning - and get $$!
Our Approach to Smart Parking

- Educate riders on legal parking regulations
- In-app instructions on how & where to park
- Geo-fence existing legal parking areas in our app
- Reward riders for parking properly
- Partner with cities to develop more bike- and scooter-friendly parking
- Our operations team will respond to parking concerns
We use data to make urban mobility smarter

- Free of docking stations, the optimal smart mobility program can be designed based on usage and actual rider demand data
- We share our data with cities for smarter mobility planning
- We support existing public transit, with 27% of our rides starting and finishing near transit stops
Lime-T
Discussion