



*Transportation Technology:*  
**Impacts to  
Managed Lanes**

*Mike Davis*

# Change is Coming Happening

“Doubt kills more dreams  
than failure ever will.”

- Suzy Kassem  
Writer







# Areas of Change

**Smart Cities** (\$400B – 2020)

**Connected Vehicles** (\$57B – 2020)

**Delivery Services** (\$31B – 2021)

**Autonomous Vehicles** (\$80B – 2030)

Hyperloop

Artificial  
Intelligence

5G

Machine  
Learning

# Change Happens Quickly



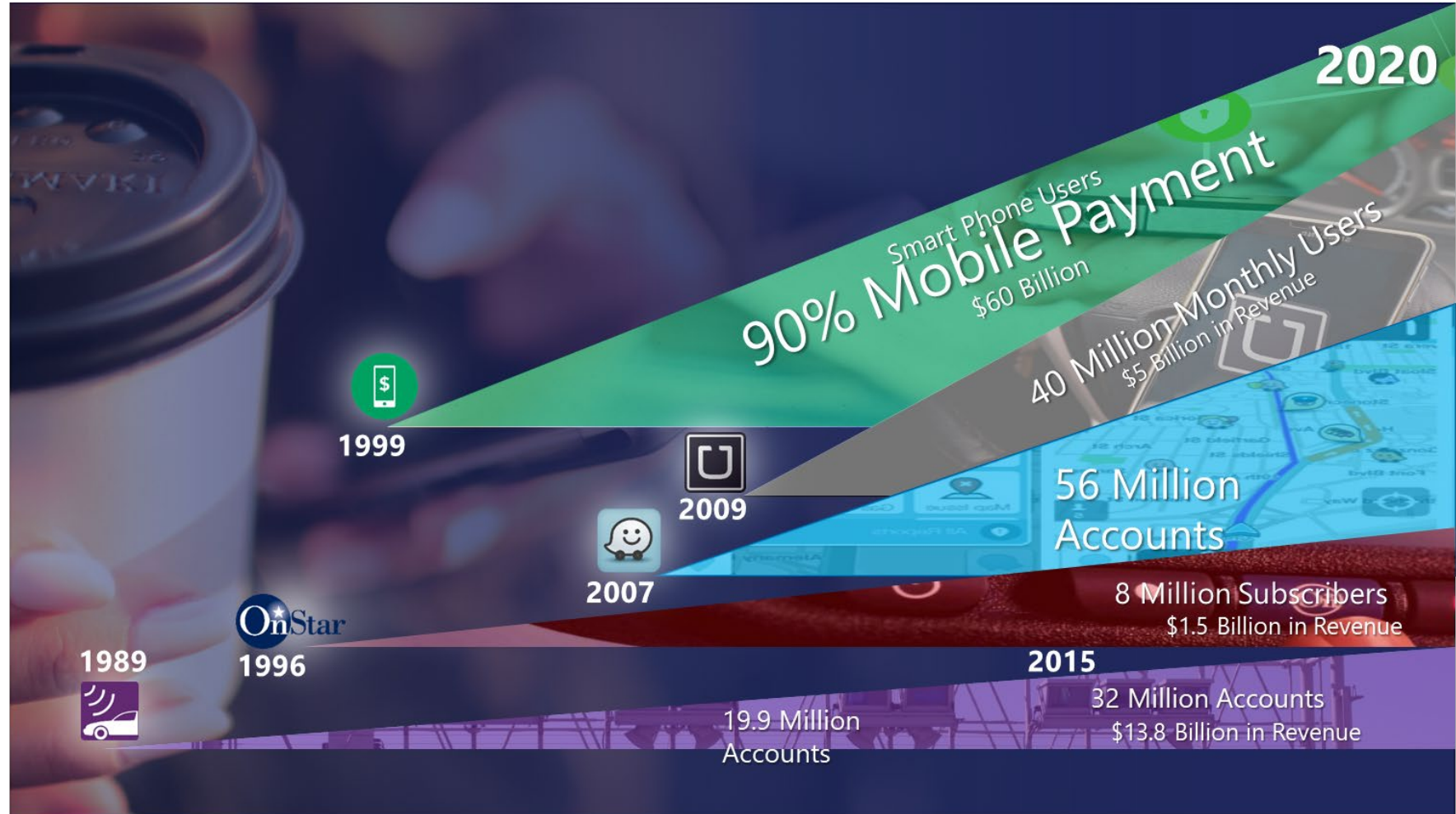
Children  
never  
driving

**50**  
YEARS

60% of  
households  
to adopt to  
electricity

**10**  
YEARS

Adoption to  
cellphones



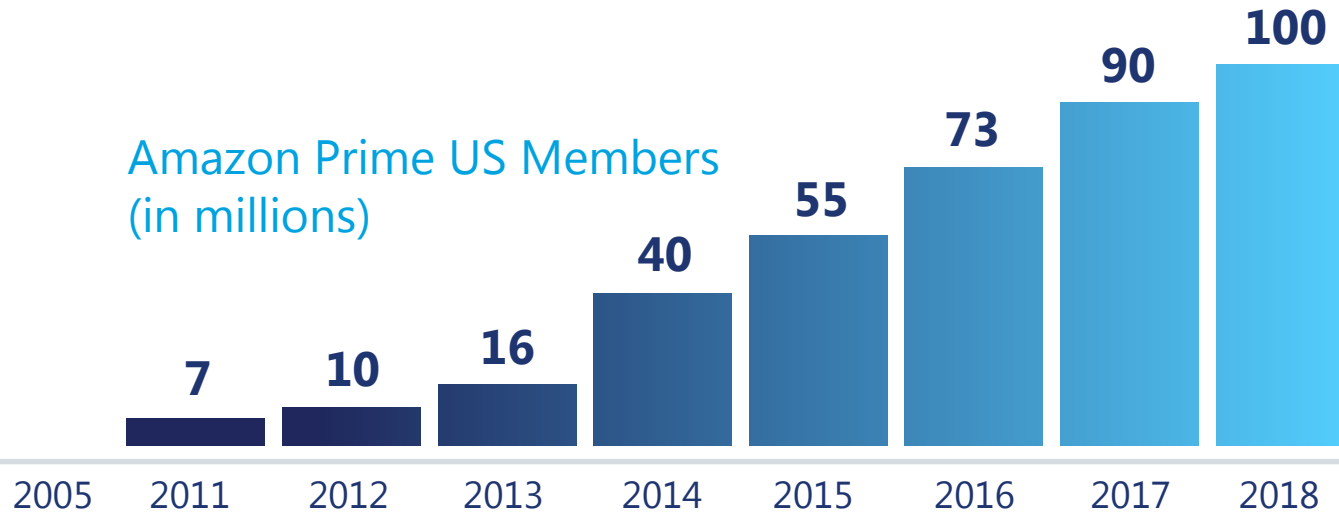


# Value

**1/3**  
US Population

## Amazon Prime Adding Value

Amazon Prime US Members  
(in millions)



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# Adoption

- » When the **Tipping Point** will occur
- » How **Fast** segments of the market will adopt the technology
- » Theoretical maximum **Level** of adoption





# Transportation Infrastructure

- » FHWA Cooperative Automation Research Mobility Applications (CARMA) Program
  - Moving from Cooperative platform to Automation
- » Managed Lanes as a First Take
  - Speed Harmonization
    - *Reduce friction from speed changes*
  - Cooperative Adaptive Cruise Control
    - *More capacity within the lanes*
  - Cooperative Merging
    - *Reduces friction at merging locations*
  - Truck Platooning
    - *Freight movement efficiency*





# Historical Spin-Off Industries



# Our Spin-Off – Big Data





# Big Data Opportunities

- » Entertainment and media
  - Smart glass - visual media & online gaming
  - Location-based marketing/advertising



- » Travel behavior modifications



*Thank You!*

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