

# Autonomous Vehicles and Urban Futures

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# Technology and Urban Futures

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Until recently, most attention on autonomous vehicles has focused on the technology and vehicle performance/safety

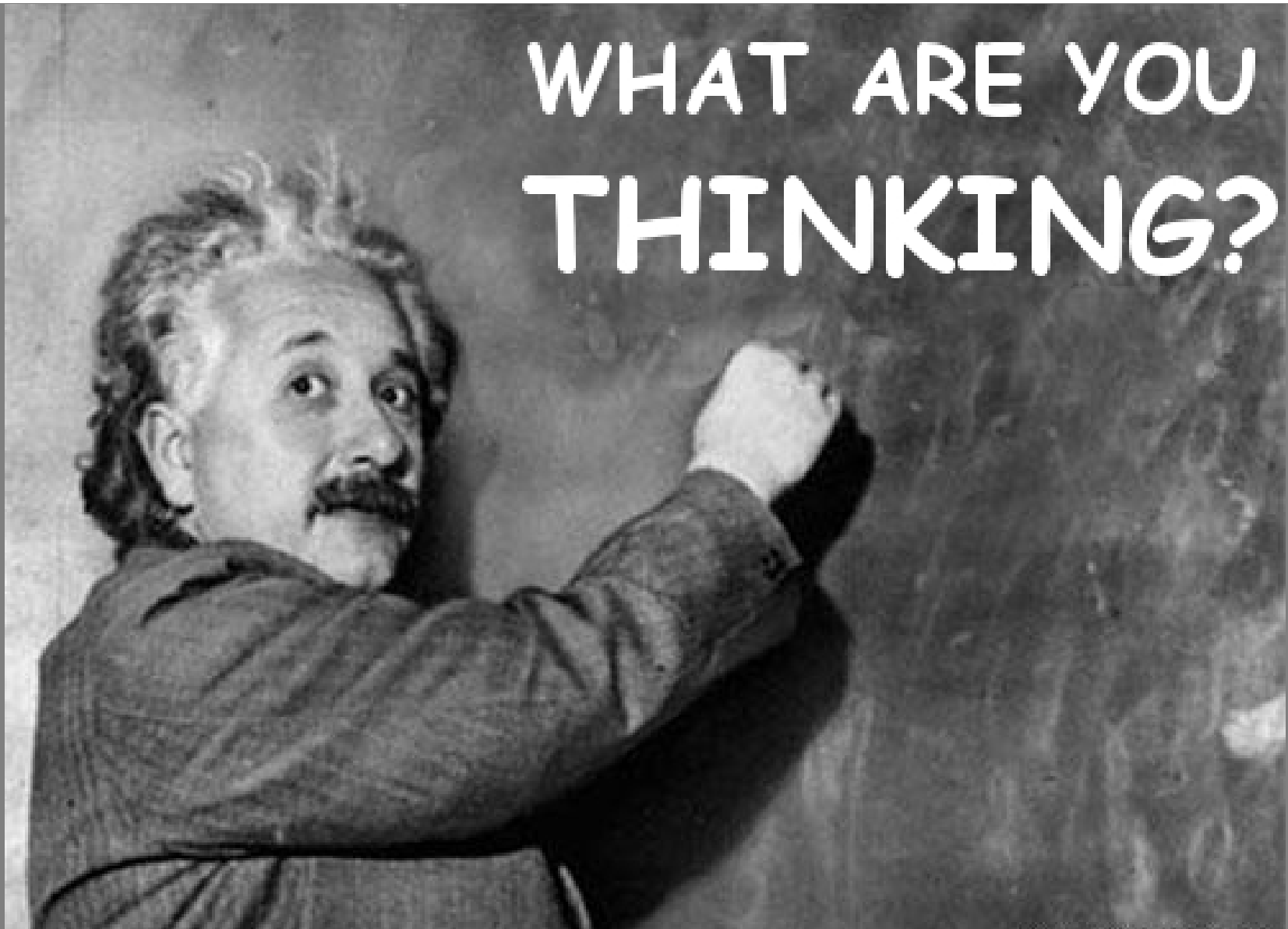
BUT, once introduced an even greater challenge will be how communities and cities engage with new technology

Autonomous vehicles are a disruptive technology

This means that decisions must be made now about the future of mobility and cities

- How will the public perceive autonomous vehicles?
- How will use of AVs affect mobility and the built environment?
- What decisions will communities make to influence AV use?

WHAT ARE YOU  
THINKING?



chaos  
terrible  
ridiculous

do not trust  
don't like them

waste of money  
junk

scary robots

impractical

crazy

boring  
confusion

crashing

**Cool**  
**amazing**  
**pizza delivery**  
**interesting**  
**self-parking** **innovation**  
**good thing**  
**future environment**  
**comfortable**  
**freedom**

don't know

never heard of them

nothing comes to mind

haven't thought about it

I have no idea

# What Does Michigan Think?

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	Self Driving	Autonomous
Concerns	47%	24%
Technology	19%	39%
Benefits	14%	11%
Businesses	7%	3%
Driverless	2%	12%





**disrupt** 

New technology develops faster than we can understand and assess its implications, and plan for its best uses






# Autonomous Vehicles

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## Benefits

- Safety
- Access for many
- Better traffic management and flow
- Environment (fewer miles/shift to electricity)
- New industries

## Costs

- Redesigning cities
  - Employment loss
  - Social exclusion
- 



**I HAVE SEEN  
THE FUTURE**  
GENERAL MOTORS *Futurama*



# Implications for Cities

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Public reactions and expectations, willingness to adopt or accept

Shift from owned vehicles to shared

Road space needed (more trips or fewer?)

Demand for parking/garages, reuse of parking ramps

Need for signage

Residential housing size and design

Tax/payment models for road construction and management

More or less sprawl?





# Dreams and Nightmares

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## Planners' dreams..

- More efficient and sustainable transportation
- Ride sharing, fewer trips
- Opportunity to increase density

## Planners' nightmares...

- More trips and distance travelled
- Challenge to public transit
- Marginalization of some groups
- Missed opportunities

Are decision makers aware of the issues and informed enough to make decisions?

Who educates and informs the public about the new technology?







**TOUGH  
DECISIONS  
AHEAD**

# Contact

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