

The nexus of AVs, bikes, and pedestrians: similar problems, similar solutions

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Autonomous Vehicles

- Fully Autonomous Vehicles are not here, and likely will not be here for sometime¹
 - No Universal Regulations
 - Technological Constraints
 - No Safety Approval Metrics
- We need to start planning now
- Some low level technologies are fairly mature

Source: 1. VTPI, Hertfordshire Police



People who Cycle and Walk

- A vehicle is a vehicle, regardless of techno spin
- In the US fatalities are on the rise¹
 - Collisions up 32%
 - 18% of total traffic fatalities
- High concentration in urban area

Source: Pedbike Info

We have a problem

- How do we better allocate space in the transportation network that improves the efficiency and safety for all modal users?
- Standardized Regulations
- Better Infrastructure

Predictability

Regulation

- Can standardize rules across accessible regions
 - EU- Vienna Convention on Road Traffic
 - US- No Federal Policy, variation between states
- Root laws in vulnerability
- Safety should be paramount
- Liability is an ongoing debate

Infrastructure

- Like regulations, ubiquity hastens development
 - Lane markings, signage, signals
- Use separated infrastructure
 - Markings
 - Safety Barrier
 - Predictability

Comparing Infrastructure



- Benefits in the present
- Clear delineation
- Conflict diminishment

Source: bicycledutch.wordpress.com

Conclusion

- AVs will eventually come
- Plan and act now
- Transportation is not a zero sum game

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