

Why is Rural Safety Important?

- While 19% of Americans live in rural areas, nearly 50% of traffic fatalities occur on rural roads.
- Higher speeds, sharp curves, narrow roads/shoulders and slower vehicles are contributing factors.

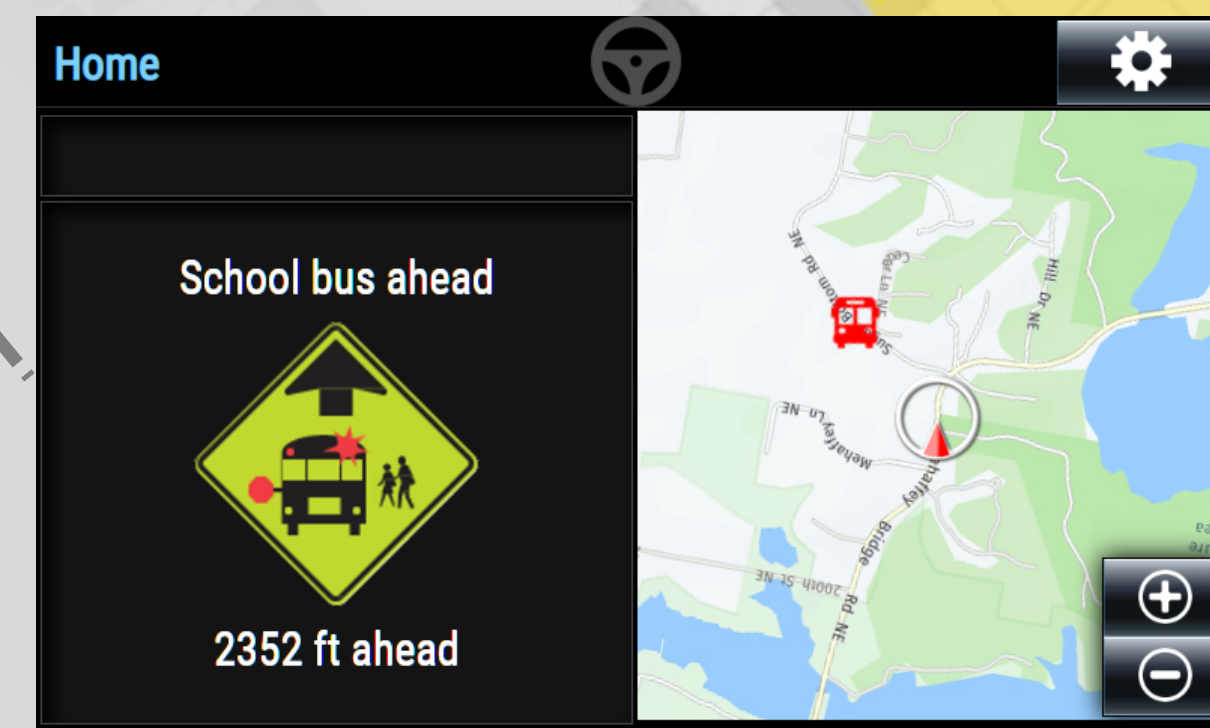
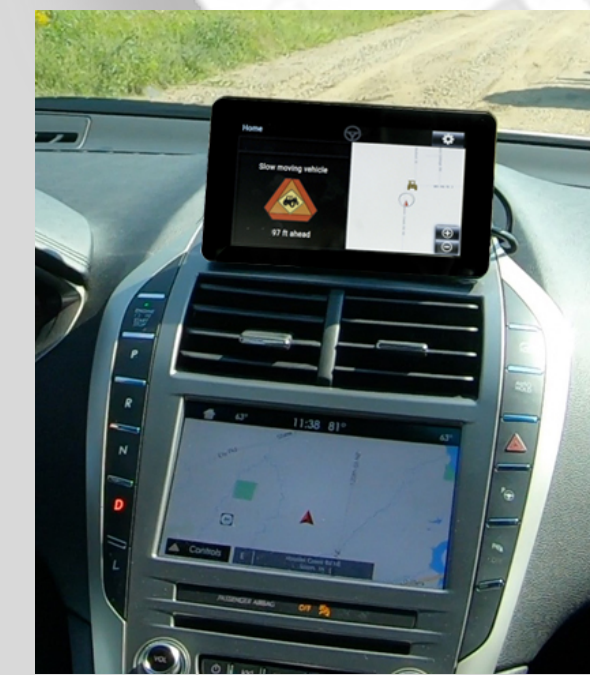
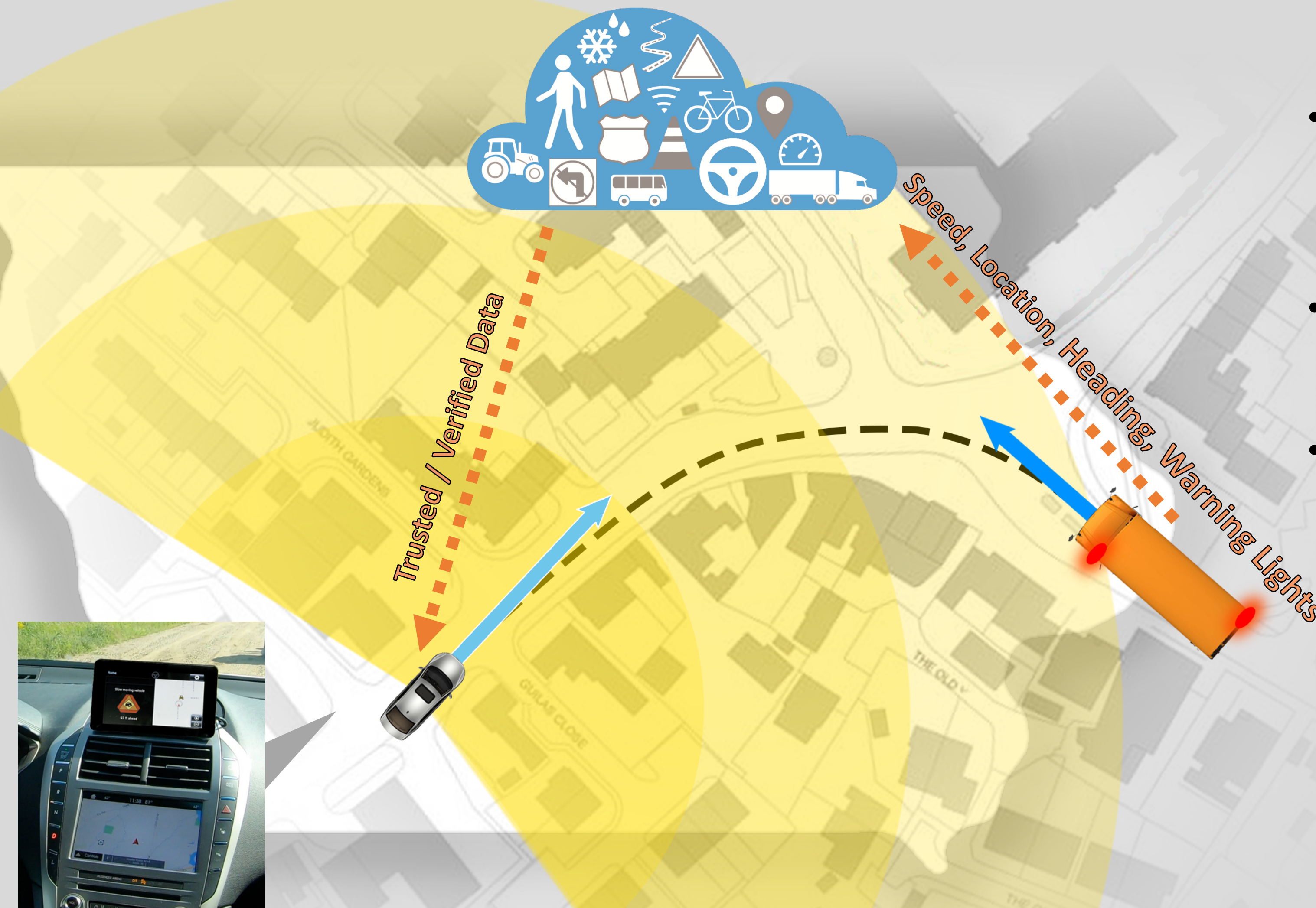


How Can Connected and Automated Technologies Help?

- V2X technologies communicate road hazards
- Alerts can be delivered to drivers or automation to inform decision making

Our Demonstration

- Utilize digital cloud-based infrastructure
- Instrument slow-moving cohort vehicles (school buses and tractors) with transponders
- Display hazard alerts about slow moving vehicles on vehicle infotainment displays



Our Findings

- **Cellular-based V2X** enables detection of slower moving vehicles at farther distances in high speed differential settings.
- Intermediary between vehicles allowed us to verify **trusted data signals**.
- Demonstrations on public roadways require early and regular **communications with stakeholders / local community**.

Link to Demonstration Videos

Tractor Blind Corner



Tractor Merge Onto Roadway



Stopped School Bus



Next Steps/Demos



adsforruralamerica.uiowa.edu

Sponsor/Partners



Special Acknowledgment

