THE ATTRI WAY FORWARD
Accessible Transportation Technologies Research Initiative (ATTRI)

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VISION
The U.S. Department of Transportation’s ATTRI seeks to remove barriers to transportation by leveraging advanced technology to enable people to travel independently, anytime of the day to any destination, regardless of their individual abilities.

MISSION
To transform the mobility of travelers with disabilities by providing the capability to reliably, safely, and independently plan and execute their travel by leveraging principles of universal design and inclusive information and communication technology. ATTRI identifies, collaborates, coordinates, develops, and implements transformative solutions in advancing accessible transportation and independent mobility.

THE CHALLENGE

Persons with Disabilities
- 56.7 million; 19% US population
- Unemployment Rate – 13.2%; Income: $38,400 ($61,000)
- Poverty: 24.7% (9.0%)

Veterans with Disabilities
- 21.4 million Americans are Veterans
- 2.6 million deployed in 2012, 45% of eligible Veterans file claims for disability

Older Adults
- 43.1 million age 65+ in 2012 or 1/7 people
- 28% live alone
- Expected to reach 72.1 million by 2030

THE COMPLETE TRIP

After his doctor’s appointment, Andy decides to take a spontaneous trip to meet a friend at a coffee shop in an unfamiliar part of town. Using ATTRI’s pre-trip concierge, wayfinding and navigation, robotics and automation, and safe intersection crossing applications, Andy can travel with confidence throughout his trip.

1. Plan and Book a Trip
Andy uses a pre-trip concierge application to plan and book his trip from the doctor’s office to the coffee shop.

2. Travel to Transit Station
An automated shuttle (rideshare service) is dispatched to take Andy to the transit station based on his booked trip. Once there, an assistive robot helps Andy to his bus platform.

3. Ride the Bus
While on the bus, Andy receives direction on when to pull the Stop Request cord from his wayfinding and navigation application. After he departs the bus, the application provides Andy with turn-by-turn walking directions to the coffee shop.

4. Cross the Street
As Andy approaches an intersection, his safe intersection crossing application communicates with the traffic signal to ensure sufficient time for him to safely cross the street, and notifies him when it is safe to begin crossing. The application also communicates with nearby cars to notify them of Andy’s presence in the intersection.

5. Arrival at Destination
Andy safely arrives at his destination, while the pre-trip concierge application plans his return trip home.

THE SOLUTION

Disability Needs
- Vision
- Mobility
- Hearing
- Cognition
- Foundational Consideration

Technology Areas
- Wayfinding and Navigation
- Pre-Trip Concierge and Visualization
- Safe Intersection Crossing
- Robotics and Automation

PROGRAM TRAJECTORY

Phase 1: Exploratory Research & Partnership Development
Phase 2: Application Selection and Prototyping
Phase 3: Integrated Demonstrations and Pilots

PARTNERING TO ENSURE ACCESSIBLE TRANSPORTATION FOR ALL

Partnerships and collaboration are critical to ATTRI’s success. ATTRI wants to leverage the best knowledge, insight, and understanding of the needs and possible solutions to the challenges of accessibility in mobility.

Get involved now to help shape the future of innovative and accessible transportation and enhanced mobility for all.

https://www.its.dot.gov/attri/

Image Source: USDOT