Can Technology Help Improve Mass Transit Use?

There's a significant disconnect between those who support mass transit and those who actually use it -- but transit-related tech is making the mode of transportation more convenient and attractive.

BY JUSTINE BROWN (HTTP://WWW.GOVTECH.COM/AUTHORS/98568844.HTML) / MAY 14, 2015

Chicago is testing its Ventra app, which allows CTA riders to use stored fares on their Ventra cards to buy Metra tickets, work as a train-and-bus tracker and even help plan trips.
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The majority of people living in and around cities overwhelmingly support public transportation systems, according to a September 2014 study by the American Public Transportation Association. But while the study found that 74 percent of people support more mass transit spending, it also revealed that only 5 percent of commuters actually travel by mass transit. In other words, there's a significant disconnect between those who support mass transit and those who actually use it.

But changing circumstances may play a role in helping reshape the way people in the U.S. view the viability of public transit for their daily commutes. A shift in population centers and the use of technology are the two major forces behind the changing viewpoint.

"The latest Census shows greatest growth within cities, and that's good news for transit," said Parker Williams, senior vice president of transportation solutions for Xerox. "Also, vehicle travel is declining. It peaked in 2007, but then declined ever since. At first we thought that was due to the recession. But another key factor is cultural changes within the U.S. population, particularly with the millennials. They are driving less and living more in urbanized areas."

Another major issue affecting transit use are the internal factors that transit managers can control. Those may include expansion of service areas, quality and quantity of services being provided, marketing, facilities, etc. Technology is increasingly playing a role in improving some of those areas. According to the Pew Internet Project, nearly two-thirds of Americans now own a smartphone. Smartphones allow people to do many things they couldn't before when it comes to transit, such as pay for transit fares, find out when a bus arriving, check on parking availability, etc.

"The millennial generation that are now taking over the baby boomers are more inclined to use technology, so they are looking for Wi-Fi access and apps," said Williams. "Fortunately the transit industry is stepping up to deliver."

And transit-related technology is helping people make better choices and making mass transit more convenient and attractive, said Art Guzzetti, vice president of policy for the American Public Transportation Association.

Knowing more through apps can really change the landscape of mass transit, said Marissa Shorenstein, New York state president for AT&T, which recently brought cell services into subway stations in New York, allowing people to stay connected while underground.

"Passengers can now see clearly that mass transit can save them a lot of time. Our research shows that most New Yorkers now use some sort of app when it comes to getting around using mass transit."

Other major cities like Atlanta, Boston, Salt Lake City, Dallas, Denver, Seattle and San Francisco have all recently taken steps to adopt technology to increase ridership, and there is some evidence that it's working.

A recent study of a real-time bus arrival program in New York City found that technology does generate new trips, though mostly for high-traffic routes. Candace Brakewood of the City College of New York and collaborators analyzed ridership patterns following the city's rollout of its Bus Time website. They found a measurable jump in ridership (around 2 percent) that works out to upward of $6.3 million in new revenue over the three-year study period.

Cities are also implementing automated fare collection systems to improve the rider experience.

Chicago, for instance, is currently testing its Ventra app, which allows Chicago Transit Authority (CTA) riders to use stored fares on their Ventra cards to buy Metra commuter rail tickets, work as a train-and-bus tracker and even help plan trips. CTA riders can tap their smartphone to pay for rides, add value to their Ventra accounts and store fares or passes. If it works as anticipated (transit officials are projecting a June launch), it will mark the realization of a 40-year search for a fare card that's good anywhere on Chicago area mass transit.

In other cities, transit authorities are focusing on using technology to help improve transit functions. New Jersey Transit, for example, is developing a new mobile app that is turning smartphones into reporting tools to document incidents as they happen and allow officials to act faster to resolve them.

"To truly improve transit overall, we have to figure out all the app-driven services that make transit more convenient for riders, but also how the technology to make transit service run more smoothly and efficiently," said Guzzetti.

Cities like New York are focusing on improving the rider experience first and foremost.

"In our experience, digital tools are more about improving the product and experience we provide to existing customers," said Aaron Donovan, deputy director for external communications for the New York Metropolitan Transportation

Authority. "It isn't as much about acquiring new customers."

New York recently concluded its third annual transit-focused App Quest competition (http://www.govtech.com/dc/articles/Innovative-Apps-Improve-Commutes-for-Millions-of-New-Yorkers-.html), which uses crowdsourcing and social media functions to pull in the "wisdom of the riding public." While the MTA frequently pushes alerts and service changes out on social media, the information provided by these apps offers key details on various lines that go beyond what the MTA offers. For instance, an app called NYC Metro strips crowdsourcing of subway and bus stops down to basic elements -- Not Running, Normal, Packed and Avoid -- and color codes the stations accordingly, allowing riders to choose the best route given the current circumstances. Another app, called NYC Accessible, provides critical information that disabled riders need to get around -- where the accessible stations are, updates on elevators and escalators that are down. The app also provides a platform for the disabled community to send feedback to the MTA and tips to fellow riders.

No matter what type of app or technology a city employs when it comes to transit, it's all a step in the right direction, according to Guzzetti.

"There aren't many things in life that you can chose that result in significant money savings for your household, but mass transit is one of them," he said. "The more technology can be applied to improve transit from any angle is a good thing."

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