

EFFECTIVENESS OF RIDER COMMUNICATION TECHNIQUES

EXAMPLES OF THE USE OF TECHNOLOGY

Responding agencies reported many innovative programs to maintain and attract riders, and nearly two-thirds of the agencies reported programs and/or goals that use technology, such as DMSs at stops and stations, and information provided by means of various media (see Table 6). For example, Bay Area Rapid Transit (BART) provides a “QuickPlanner” for the Apple iPod that includes schedules, station information, and a system map. A majority of the agencies mention their website as an integral part of their rider communication programs.

The following paragraphs describe several of the ridership initiatives that include technology.

- At the Ann Arbor (Michigan) Transportation Authority (AATA) there are three innovative uses of technology:
 - Maps and timetables on the website are in a format to be downloaded to PDAs.
 - Real-time bus arrival information is currently at a limited number of stops—this is proposed for expansion.
 - Real-time schedule adherence information is being considered for deployment on the website within the next 2 years.
- For the Capital Area Transportation Authority (CATA) (State College, Pennsylvania), additional technology, such as electronic signs, will be integrated into its system.
- At the Charlotte Area (North Carolina) Transit System (CATS), there is a plan to add web-based trip planning and downloadable schedules, an IVR system with route and stop information, and web-based real-time information.
- The Southern California Regional Rail Authority (SCRRA) (Los Angeles) will be adding DMSs at stations.
- At Pace Suburban Bus (Arlington Heights, Illinois), e-mail and wireless subscription services are planned for 2006, along with real-time arrival and departure information.
- The Orange County (California) Transportation Authority (OCTA) plans to add IVR capability for paratransit users.
- The Montgomery (Alabama) Area Transit System (MATS) will add a kiosk, and is planning for the deployment of an AVL system in FY 2007 for fixed-route vehicles.
- The Greater Bridgeport (Connecticut) Transit Authority (GBTA) will be implementing an AVL system in 2006–2007.
- The T (Fort Worth Transportation Authority, Texas) is evaluating an e-mail notification system for rider alerts.
- TriMet already has technology in place as part of its rider communication program. One can plan a trip at trimet.org using an online trip planner, and can access Transit Tracker (its real-time information system) on the Internet (see Figure 12), and by land or mobile phone using IVR technology.

For those agencies that currently do not have technology, there are many technologies that are under consideration for deployment for rider communication. Seventeen agencies are considering the deployment of electronic signs at stops and stations, 14 e-mail or pager alerts, 13 the Internet as a means to communication, and 12 kiosks. Eleven agencies are considering the deployment of mobile telephone applications, 9 the deployment of IVR and wireless devices, and 8 public address systems and on-board electronic signs.

Other programs that involve the use of technology include:

- PAT’s website.
- TransLink’s (Singapore) Tele-Info (24-h per day information line) and Electronic Guide [called eGuide and available online (34)]. The eGuide shows the route for any rail or bus service, hours of service, headway-based timetable, fares, and bus stop names and numbers.
- South Bend (Indiana) Public Transportation Corporation (TRANSPO’s) website and kiosk.
- SCRRA’s (Los Angeles) DMSs at stations.
- Pace is planning e-mail and wireless subscription services and real-time arrival and departure information for 2006.
- OCTA has IVR available for paratransit users.
- Mountain Metro Transit’s (Colorado Springs, Colorado) website (35).
- Shore Line East (SLE’s) (Newington, Connecticut) website and automated (e-mail) notification of schedule changes and highway construction information.

COMMUNICATIONS EFFECTIVENESS

The survey included five specific questions on how an agency determines the effectiveness of its rider communications. (For the purposes of this synthesis, effectiveness is defined as providing accurate, clear, accessible, understandable, and timely



FIGURE 12 TriMet Transit Tracker access from home page (33).

information, and reaching the intended audience.) First, agencies reported on how they determined or measured if the communication reached the market for which it was intended. Second, they were asked how the communications was determined to be accessible to all individuals. Third, agencies were asked to report how they determine if the communication could be understood by the individuals receiving it. Fourth, agencies were asked how they determine if communications were received in a timely manner (e.g., real-time information received by means of a mobile phone received in a specified time). Finally, agencies reported on how they determine if the communication resulted in the changes that were expected as a result of the communication (e.g., increased ridership).

A majority of responding agencies reported that they conduct surveys of riders to determine if the communication reached the market for which it was intended. One agency reported that it conducts surveys of riders every 2 years and of the general public every 2 to 4 years. Others indicated that a survey of riders and nonriders is conducted annually. One agency's survey includes a rating of performance on 40 customer service elements, including the readability of schedules, information access, access to information by means of the telephone, rider alerts, etc. Three agencies reported that they determined if there was a change in ridership owing to specific communications. Several agencies indicated that

they used focus groups; the content of complaints; feedback from rider advisory groups [e.g., Americans with Disabilities Act (ADA) advisory committee]; the agency website; public meetings; and the number of complaints, phone calls, or website hits to determine if the right market was reached with a communication. Two agencies offered that they do not determine if the communication reached the market for which it was intended. One agency noted that they tested the communication on employees, and another mentioned that they receive feedback from bus operators.

Other ways that were noted in determining if the communication reached the intended audience included the following:

- Farebox data surveys;
- Follow-up phone research;
- For rider alerts and schedule changes, customer responses are examined when changes are communicated and after the change to determine how many complain about *not* knowing about the information communicated;
- Examination of the customer relations database of complaints, commendations, and customer contacts;
- Comment cards on all buses and trains, and feedback from field staff;
- Attendance at meetings; and
- Statistics from driver's daily trip reports.

VTA indicated that it measures access to external communications through calls to VTA Customer Service, examining web metrics (e.g., web page hits), and written and electronic customer communications.

On the second element of effectiveness, the agencies' responses to how they determined the communication's accessibility are summarized here. A majority of responding agencies reported that they consult with their agency's disability and/or senior advisory committees to determine if the communications are accessible. Others mentioned offering personal assistance through their mobility planning office and direct contact with those affected by the communication—either face to face or by means of telephone/telecommunications device for the deaf. General rider and community feedback, as well as using surveys, were mentioned by several agencies to determine if the communications are accessible. Complaint analysis is also used by a few agencies. One agency mentioned that they do not determine if the communications are accessible.

Responses to the third component of communications effectiveness, the understandability of communications, can be summarized as follows. The use of surveys and rider feedback accounted for the majority of responses as to how agencies determine if the communications was understandable. Using the number of complaints, and focus and advisory group input were approaches taken by other agencies. Two other responses were notable:

- When doing rider forums (i.e., Public Transit 101), potential rider feedback is obtained.
- “We generally communicate written information to the public in a manner that is generally understood by persons on a fifth-grade level, using plain (nontechnical) Standard English. The operators, however, are trained and socialized to communicate in ways that are befitting of the situation at hand—especially when dealing with elderly, disabled, or non-English speaking patrons.”

Many of the agencies that were surveyed do not have real-time information; however, the responses to the question regarding determining the timeliness of communications yielded the following. Rider feedback through focus groups, citizen advocacy groups, and surveys was used to determine timeliness; however, employee monitoring and feedback were also noted as useful methods. The number and content of complaints, particularly those that could be checked in real time, were also used as approaches to determining timeliness. For a few agencies that do have electronic communication of real-time information, the approaches to determining the timeliness of the information were no different than the approaches used for communication through other media. This is an issue associated with the deployment of real-time information, which was noted in *TCRP Synthesis of Transit*

Practice 48 (12). One agency noted that it does not measure or determine timeliness.

The final factor in communications effectiveness is determining whether the changes that were expected as a result of the communication (e.g., increased ridership) actually occurred. Several quantifiable measures were used by responding agencies, including ridership statistics, volume of calls to customer information, number of complaints, and hits on the website. Several others use surveys and overall service monitoring to ensure that routes are productive and that ridership levels are remaining stable or increasing. However, isolating the reasons for ridership changes owing to changes in communication is a challenge, as noted (12).

Agencies were asked to identify their most effective methods of communication. Although there was a wide variety of responses, they can be summarized as follows. The methods that were considered the most effective were both electronic and nonelectronic. For example, newsletters and other print media were considered the most effective (19 agencies), with a website being the next most effective (13 agencies). On-board signage was considered effective by 11 agencies; one-on-one contact with customers through transit fairs, bus operators, or customer service staff at key locations by 8 agencies; and e-mail and direct mail by 7 agencies. Six agencies considered a customer service call center and signs at bus stops and transit centers as being effective. Five reported that television and radio and news media were effective, two mentioned IVR, and one each favored surveys and external bus advertisements.

The responses to this question indicated that the most effective methods of communication depend on several factors, including the following:

- The subject and content of the information being communicated,
- The demographic characteristics of the customer receiving the information,
- The location of the customer, and
- The demographic characteristics of the service area.

COMMUNICATIONS EFFECT ON RIDERS

One of the questions in the survey was “Did the deployment of [an] electronically available information system result in an increase in ridership?” The majority of responses indicated that it was difficult to determine if there were any changes to ridership based on the effectiveness of communications. Only two agencies reported measurable increases in ridership owing to communications: Pierce Transit reported a 2% to 3% increase, and MATS reported a 10% increase.